

CRYPTO

Crypto: Hidden or Secret, from the Greek kruptos meaning hidden

Dracontology

Special Number I:

*Being an Examination of
Unknown Aquatic Animals*



Steller's Sea Cow

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Dedication and Introduction:

The year 2001 has shown itself to be a year of remembrance. We have lost some influential people in the area of Cryptozoology, predominantly among them Bernard Heuvelmans and Rene Dahinden. These men showed us what hard work and dedication to an ideal could bring. They were heroes to money despite their idiosyncrasies.

Beyond the well known, many of us have known others new and old in the field of Cryptozoology that have passed this year. Even potential future researchers, passed before their first birthday.

Amongst this all there came the attacks in the United States on September 11, 2001. Attacks of terrorism that sent ripples across the world and affected not only Americans, but the globe. Thousands died in these attacks in New York, Washington, D.C. and Pennsylvania, and more afterwards during rescue efforts. We are now in battle in a foreign country, to counteract the influence of terrorism, and who knows how many more lives will be lost.

Yet, among these losses in the world, research has continued. People still shared information, and others still kept it locked tightly away. We may be stunned and grieve for a while, but in the end we are human and pull ourselves up to start another day, and to finish what we begin.

We debate among ourselves and the world outside of Cryptozoology, we debate to understand and to make others understand us. And that is what is before us here. A tool of understanding and sharing what is learned despite our losses, despite our grief, it is the endeavor to continue and push forward into the unknown that each day brings.

For their willingness to push onward, this publication is dedicated to the following three:

- 1) **All the contributors who have offered their work within these pages. Your unselfish allowance for these pieces, some of which have never been seen in print before.**
- 2) **For all those who have passed this year. Bernard Heuvelmans, Rene Dahinden, the victims and their families of the September 11, 2001 attacks, the youth that died too young and our friends we cannot name.**
- 3) **The editor wished to also dedicate this publication to his wife, Angel Heinselman, who allowed him the time and gave the patience needed to allow for its conclusion. And to Cheyenne Autumn Heinselman, the editor's baby girl, watching your first year of life has meant the world and you've resurrected a spark long thought lost.**



Craig Heinselman (Editor)
Francestown, New Hampshire
November 15, 2001

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While primarily involved with Bigfoot research, I am interested in all facets of Cryptozoology. I have always been fascinated by the existence of unknown lake/sea creatures. I don't personally have a theory on what these animals might be, but I think it would be extremely cool if they were prehistoric relics.

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One of my purposes in life is that once I will catch Nessie, Champ, Morag or another, perhaps less famous, lake inhabitant at his or her tail. And finally protect it from big game hunters and other fools who want to harm these undoubtedly fascinating animals.

Lake Monsters

An Excerpt from "*Mysterious America the Revised Edition*"
(Paraview Press, New York, 2001)

By Loren Coleman (© 2001)

Technology will soon catch up with North America's Lake Monsters. Dennis Jay Hall of Vermont's Champ Quest is ready to follow the lead of sonar-sonic scientists who are currently tracking various watery European cryptids. During 2000, exciting new sonic surveys have revealed that the Loch Ness monsters may be a distant relative of the walrus, according to Official Loch Ness Monster Fan Club director Gary Campbell and other European lake monster researchers and sonar-sonic technical scientists. They found that a series of unidentifiable sounds in the loch fell into a frequency (747-751Hz) matched only by the walrus, the elephant seal, and the killer whale. The sounds were analyzed by marine laboratories and the Swedish intelligence agency, known as FOA65.

The sounds were described like a pig grunting or a person snoring. They were recorded by highly sensitive hydrophones lowered to a depth of 65 feet in two spots where sightings have been reported. The Swedish team, which carried out the research in March on Loch Ness's western side, said the sounds were similar to those found in Swedish and Norwegian lakes also rumored to be populated by water monsters.

"Most of the noises we picked up in the loch we can identify as eels, pike, or trout, but this noise was a sort of grunting, very like sounds we recorded in [Norway's] Lake Seljordsvatnet, although shorter and sharper," noted the Swedish team. "Let's say these sounds were from Nessie - she could be a relative, a sub-species."

Meanwhile, also at Loch Ness during the summer of 2000, pleasure cruise boss Ron MacKenzie fitted a trawler sonar to his pleasure boat, the Royal Scot. He felt the \$10,000 machine for hunting shoals of fish would be a monster hit with Nessie hunting searchers. Tourists can watch the screen aboard the Royal Scot. MacKenzie said he tested a more basic system and "got two strange readings of large soft objects," which was reported by the *Scottish Daily Record* on August 18th.

Later during the summer, other researchers were busy in Ireland at Sraheens Loch, and then on to south Norway where they set a trap for a lake monster.

"This is the first sea serpent trap of its kind in the world," the Swedish group told the media. The team, comprised of seven Swedes, three Norwegians, a Canadian, and a Belgian, plan to lower the 18-foot-long tube-shaped trap, comprising a metal frame with nylon netting, into Seljord Lake. It will contain live whitefish for bait to catch an elusive beast known locally as "Selma." With two biologists at the University of Oslo, on standby to fly in by helicopter and take tests if the trap worked, the group hoped to take a DNA sample, document the serpent, and then release it into the lake.

In 1999, I traveled with my sons Malcolm and Caleb to Loch Ness. I was happy to speak at the first cryptozoology symposium ever to be held there and to meet some colleagues like Gary Campbell, Robert Rines, Henry Bauer, Gordon Rutter, and others. The lake is grand, the people are generous, and the Scottish air is clear. It is the epicenter of cryptozoology, and we in America have much to learn from Loch Ness.

But as I have been telling people for years, we do not have to cross the Atlantic to uncover "*Loch Ness monsters*." We have plenty of our own in North America.

Canada has several native monsters, the most famous of which is Okanagan Lake's "*Ogopogo*" in British Columbia. The same province lays claim to "*Caddy*"² in Caddboro Bay, as well as an unnamed creature lurking in the depths of Cowichan Lake north of Victoria. Ontario has "*Hapyxelor*" in Muskrat Lake, and Manitoba "*Manipogo*" at the northern tip of Lake Manitoba. The monster of New Brunswick's Lake Utopia is still being seen regularly. During July of 1982, Sherman Hatt told of sighting the creature, which he said was "like a submarine coming out of the water with spray on both sides. It was about ten feet long and put me in mind of the back of a whale."

The United States has a long tradition of lake monster legends that stretches back to the folklore of its first residents, the Native Americans. One of these tales, related by David Cusick in a pamphlet, "*History of the Six (Indian) Nations*," published in 1828, was collected from the Oneida branch of the Tuscaroras. The legend tells how long ago a great reptile, the "Mosqueto," rose from Lake Onondaga (near Syracuse in upstate New York) and slew a number of people. The Indians also said that "2200 years before the time of Columbus" a great horned serpent appeared on Lake Ontario and killed onlookers with its overpowering stench.

A strikingly similar beast figures in legends of the Indians of Nebraska, who told the first white settlers that a monster lived in Alkali Lake near Hay Springs. The accounts seem to have some truth in them, if we are to credit the testimony of one J. A. Johnson, who is quoted in the July 24, 1923, *Omaha World-Herald*:

"I saw the monster myself while with two friends last fall. I could name 40 other people who have also seen the brute.

We had camped a short distance from the lake on the night before and all three of us arose early to be ready for duck flight. We started to walk around the lake close to the shore, in order to jump any birds, when suddenly, coming around a slight raise in the ground we came upon this animal, nearly three-fourths out of the shallow water near the shore. We were less than 20 yards from him.

The animal was probably 40 feet long, including the tail and the head, when raised in alarm as when he saw us. In general appearance, the animal was not unlike an alligator, except that the head was stubbier, and there seemed to be a projection like a horn between the eyes and nostrils. The animal was built much more heavily throughout than an alligator. Its color seemed a dull gray or brown.

There was a very distinctive and somewhat unpleasant odor notice-able for several moments after the beast had vanished into the water. We stood for several minutes after the animal had gone, hardly knowing what to do or say, when we noticed several hundred feet out from the shore a considerable commotion in the water.

Sure enough the animal came to the surface, floated there for a moment and then lashed the water with its tail, suddenly dived, and we saw no more of him."

Another of America's long-lived monsters belongs to Lake Champlain in the Champlain Valley of Quebec, New York, and Vermont. The first white man to see it was the lake's namesake, explorer Samuel de Champlain, who in July 1609 observed a serpent-like creature about 20 feet long, as thick as a barrel, and with a head shaped like a horse's. Today, many sense this may have only been a sturgeon. Down through the years, however, folks have reported "*Champ*" animals (as they are called) that seem nothing like a big fish. The work of such people as Joseph Zarzynski and Dennis Jay Hall suggests that Champ requires serious consideration.

So seriously, in fact, that the animals ought to be protected. During the summer of 1982, the Lake Champlain Monster was the focus of resolutions passed by the Vermont House and the New York Senate protecting the lake monsters “from any willful act resulting in death, injury or harassment.”

That something exists in Lake Champlain, I, at least, am not prepared to dispute. But one of the oddest aspects of the whole affair is not the identity of the animals, but the baffling query raised by Marjorie L. Porter in *Vermont Life* magazine: “If the unknown creature is a huge aquatic mammal or a reptile, the question remains: how could it survive when the lake is locked solid with ice?” as it is almost every winter. (More on Champ can be found in Chapter 11 of *Mysterious America: The Revised Edition*.)

Alaska’s Iliamna Lake, 80 miles long, hosts a number of monsters of various sizes, all described as possessing broad, blunt heads; long, tapered bodies; and vertical tails. Witnesses usually state that the monsters’ color is similar to that of “dull aluminum.”

These things, whatever they are, have been around for quite a while. The Aleut Indians have been familiar with them for many years and display a healthy respect for the creatures. This “*respect*” sometimes has escalated into downright fear. Earlier in the century, according to Aleut testimony, a monster upended one of their boats and swallowed up a crewman. For some considerable time afterwards the Indians conscientiously skirted that section of the lake.

Since then several fishermen have hooked the beasts with extremely heavy tackle, and bush pilots flying over the lake have seen them at, or just beneath, the surface of the lake’s clear waters. No one has yet been able to formulate a satisfactory explanation for these beasts, though some theorists have speculated they may be beluga whales, which have entered the lake from the sea via the deep Kvichak River. Long time residents of the Iliamna region scoff at this notion, however, pointing out that beluga whales, common enough sights in the area, have paper-white backs, tapered heads and horizontal tails.

At one period in the last century Lake Michigan also claimed a mysterious watery inhabitant. In its August 7, 1867, issue the *Chicago Tribune* went so far as to assert, “That Lake Michigan is inhabited by a vast monster, part fish and part serpent, no longer admits of doubt.”

The *Tribune* reported that not long before crews of the tug George W. Wood and the propeller boat Sky Lark had seen the creature lashing through the waves off Evanston. They said the thing was between 40 and 50 feet long, with a neck as thick as a human being’s and a body as thick as a barrel. On the morning of August 6th, fisherman Joseph Muhike encountered the same, or a similar, animal on the lake a mile and a half from the Hyde Park section of Chicago.

During the summer of 1879 another monster appeared in Illinois, this time in Stump Pond in DuQuoin. One night a man named Paquette had been fishing on the lake when something rushed through the water creating enough disturbance to rock his boat. Unnerved, Paquette headed for shore, vowing not to venture out on the water again during the late hours. A year later, in July 1880, two miners reportedly saw a 12-foot “*serpent*,” its body the thickness of a telegraph pole and dark green in color, heading their way from one-eighth of a mile out. They chose not to avail themselves of the opportunity for a closer look.

Reports of a monster in Stump Pond continued until 1968 when the body of water was partially drained and its fish cleared out with electric stunners. The largest fish weighed 30 pounds apiece; impressive as fish go, but certainly not big enough to be mistaken for anything else.

Needless to say no monster showed up; but still witnesses stuck to their stories. One of them, 66-year-old Allyn Dunmyer, had a frightening experience several years before. "I was in my boat fishing for bass when it happened," he said.

"Something came up from the bottom, struck the boat underneath so hard I nearly tipped over."

Dunmyer had seen the monster - or monsters - before. "I think there are more than one of the critters in the pond," he told a reporter. "I've seen them so near the surface that their back fins were sticking out of the water."

One man, wading in the pond's shallows, stumbled onto something sleeping underneath the algae which covered part of the water. He thought it looked like a large alligator.

The monsters that supposedly inhabit Lake Waterton in Montana are called "*Oogle-Boogles*" by local people, though no one knows just how that name got started. Flathead Lake in the same state boasts similar beasts, which have been described variously as between 5 and 60 feet in length. This is not the only inconsistency in the reports - there are enough inconsistencies to give any conscientious researcher a severe headache. But then consistency is not a virtue found in most monster lore. That does not have to mean, however, that therefore monsters do not exist. The vast majority of witnesses are obviously sincere and stand to gain little, aside from ridicule, for coming forth with their stories.

While some monsters, as we have seen, are long-time residents of certain lakes and rivers, others appear only once or twice and disappear. The creature observed in Michigan's Paint River in 1922 was apparently a one-timer. In the words of a lady who saw it:

"I was walking down the hill toward the river to visit a girlfriend who lived at the bottom of the hill. A Mrs. Johnson was walking up the hill and we met on the knoll about halfway, which was very near the river. We got a very good look at this animal - both saw it at the same time, and stood stunned, speechless, watching it till it went out of sight. Mrs. Johnson, as if to check on her sense, asked me in Swedish: "Did you see what I saw?" I assured her that I did. She went on ejaculating in Swedish, very excited, saying: "It had a head bigger than a pail." She then made me walk up the hill to our house, and I had to verify everything she said to my mother.

"My report? Yes, it did have a head much bigger than any pail I knew of; the head stood straight above the water; the body was dark color; the body did not move like that of a snake, but in an undulating motion. We could see humps sticking out of the water, and I recall counting six of them. How long? This is difficult to recall. It was swimming north up the river between two bridges. This distance could be the length of a city block, and this monster must have been nearly half of that bridge, but we followed its wake on up the river."

The monster of Big Chapman's Lake, near Warsaw, Indiana, evidently was also a one-timer. On August 16, 1934, H. W. Scott was fishing from a boat when the head of something rose from the water not far away. The head was two feet across, Scott reported, and it had large cow-like eyes." That unfortunately is the extent of the description given in an *Indianapolis News* account of the sighting. The same source lists two other witnesses who allegedly saw the creature about the same time: Scott's wife and a Mrs. George Barnwell.

Another one-timer, a black fish about six or eight feet long with no visible appendages, rammed a fisherman's boat and dented its fiberglass body one day in the summer of 1970. Ronald J. Haller was floating down the Missouri River between Fort Benton and Lewistown, Montana, when the collision occurred. Haller swung his boat around and followed the fish upstream with a movie camera.

To the best of my knowledge Haller's film has never been released, but the witness and his lawyer are known to have shown it to wildlife authorities, who so far have not identified the creature.

The monsters of inland America cannot be disposed of easily. (See Appendix IV of *Mysterious America: The Revised Edition* to see the extent of the accounts.) Have zeuglodon and plesiosaurs survived hundreds of millions of years in our lakes and rivers?

Are long-necked unknown seals part of the mix? Are some just folklore, phantoms, and archtypes of another plane? As in the case of black panthers, common sense and our knowledge of the workings of the natural order unequivocally dictate that these things cannot be — yet they are. In a sense they are the watery flying saucers of the natural order. They share with panthers, Bigfoot, and other related biological but anomalistic phenomena a kind of nebulousness, appearing from time to time within our vision but seemingly forever beyond our reach.

Lake Monster Latitudes

Is there an underlying pattern to Lake Monster reports from North America and elsewhere in the world?

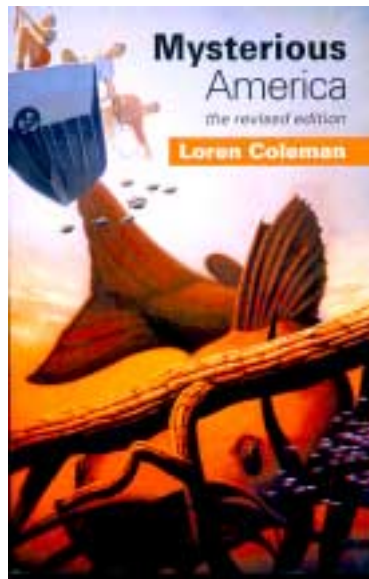
The great Fortean zoologist, Ivan T. Sanderson commented on this topic in his book "*Things*" (Pyramid Books, 1967):

"From what has been said thus far, don't think for a moment that freshwater monsters are confined to our northern latitudes. There are numerous other 'horrors' reported from our south central states and from Florida, and from all around the tropics. Then again, they also crop up in the cold temperate regions of the Southern Hemisphere. But here is a funny thing. When you come to plot the scores of lakes and rivers in which 'monsters' have been reported in the northern belt, which encircles the Arctic polar area, you will note that all of them fall within the vegetational belt known as that of the Boreal Forests, or in southward extensions of this which enter the U.S. due to high altitude such as the Adirondacks, Montana, and Idaho."

Bernard Heuvelmans, in his book *In the Wake of the Sea-Serpents* (first French edition, 1965; English edition, 1968), further commented on this interesting correlation. In Chapter 14, "*Disentangled and Classified at Last*," he details his observations on the "*Geographic Distribution*" of his various types of Sea-Serpents. "A careful study of this type of animal, which is found in many steep-shored lakes in cold temperate regions in both Northern and Southern Hemispheres, show that its sight is rather poor," writes Heuvelmans on page 559. His footnote to that sentence notes that his careful study is a treatment "Which will appear in a separate book on 'monsters' of lochs, lakes, marshes and rivers - freshwater unknown animals." (Unfortunately, Heuvelmans never got around to writing this book.)

French Cryptozoologist Michel Raynal has pointed out that in private correspondence Heuvelmans routinely acknowledges Sanderson for various theories throughout this Sea-Serpent book. Raynal and I see many examples (e.g. breathing tubes and humps) throughout, but regarding these observations and thus the theories associated with the study of Lake Monster distribution, Heuvelmans was first.

Certainly, Bernard Heuvelmans formalized his thoughts on the whole matter of how such cryptids as Champ and other Lake Monsters fit in when he wrote in *Cryptozoology* (1986): “Attention must be drawn to the fact that all these long-necked animals [so-called ‘Lake Monsters’] have been reported from stretches of freshwater located around isothermic lines 10 [degrees] C; that is, between 0 [degrees] C and 20 [degrees] C (i.e., 50 [degrees] F, between 32 [degrees] F and 67 [degrees] F) in both Northern and Southern hemispheres. One could hardly wish for better circumstantial evidence of their existence.”



Cover Art from the *Mysterious America: The Revised Edition*

Loren Coleman is perhaps one of the best known Cryptozoologists alive today. His research has spanned four decades and covered not only North America, but also the world. Loren is a regular contributor to *FATE* magazine as well as authoring articles for numerous other publications such as *The Anomalist*, *Strange Magazine*, *Fortean Times*, *The Info Journal*, *CRYPTO* and the *North American BioFortean Review*. He is widely respected for his evaluations on the subject and for various sociological and psychological evaluations of incidents.

Loren has co-authored or solo-authored a wide range of books as well on the subject of Fortean phenomenon and Cryptozoology. Most recently *Mysterious America: The Revised Edition*, *Cryptozoology A to Z* (with Jerome Clark), and *The Field Guide to Bigfoot, Yeti and Other Mystery Primates Worldwide* (with Patrick Huyghe). His most recent book is scheduled for publication by Paraview press in January 2002 and is entitled *Mothman and Other Curious Encounters*.

To find out more about Loren go to his website at www.lorencoleman.com or write to him at cryptozoology@lorencoleman.com or P.O. Box 360, Portland, Maine 04112.

The San Francisco Sea Serpent

By Bill and Bob Clark (© 2001)

Scientists who believe in the possibility of the existence of sea serpents think the proof will surface one day and that it will not be a fellow scientist or researcher who discovers it, but rather some ordinary citizen whose personal existence brings them to the area by chance.

Born twin brothers, Bill was born 10 minutes before Bob on December 12, 1946. We grew up in Bethpage, New York with most of our youth centered around playing baseball and being boy scouts. In 1959 we became the second set of twins in the United States to obtain the rank of Eagle Scout. In 1961 our family moved to Northport, New York where, in 1964, we graduated high school and attended the University of Georgia. Bill studied Environmental Engineering while Bob received a Bachelor of Science in Mathematics. In 1972 Bob moved to San Francisco where Bill and his wife were living. Together, we built up a small metal casting business. On February 5, 1985 our lives were changed forever, when we witnessed a Sea Serpent in the San Francisco Bay.

The Sightings and Photographs

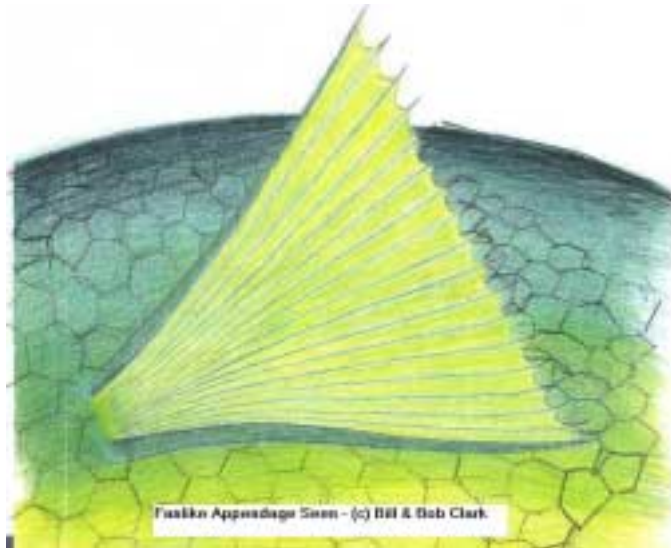
February 5, 1985:

From the start this particular morning was different. The day before had been beautiful with no wind and temperatures around 70 degrees. The fifth was just as gorgeous, with a clear sky, calm water, and high tide. We had never seen the San Francisco Bay so calm. It was like looking at a mirror. Anything sticking above the surface of the water was easily seen. As a result, around 7:45 AM, we noticed a group of sea lions about 150 yards in front of us. While watching them, we thought we saw another sea lion come around Stone Tower point and approach the group. When it got within a few yards a long, black, tubular object telescoped about ten feet straight out of the water and lunged forward almost falling on top of the sea lions. They immediately began swimming away, leaping in and out of the water as they fled toward shore.

The creature churned the water as it swam behind them moving so fast it was a blur, but we could see three or four vertical undulations moving down the length of the animal. Suddenly, it went underwater. Meanwhile the sea lions were coming closer and closer to where we were parked along the Marina Green only yards from the bay. They came so close that Bob was able to make eye contact with one and see the fear of death in its eyes as it leaped out of the water. The creature followed close behind stirring up the water as it made a final attempt to procure a meal.

Now only 25 yards away, an arch of the animal was exposed, which looked like half a truck tire. It appeared black and slimy, yet at the same time it glistened in the early sunlight. The creature was swimming slightly below the surface almost parallel to the shore. The water was very clear allowing the outline of the serpent's head to be observable. A short flat snout, eyebrow ridges and lots of neck could be seen. It must have been 30 feet of neck because we both thought a big snake had just swam by. We were expecting to see the end of the snake but instead of getting smaller it began to get much larger. What we watched wasn't a big snake but something even more unbelievable.

There was a loud crash and with a spray of water the creature seemed to stop dead in its tracks (later at low tide the next day we realized that a ledge with large rocks on it extended 20 yards into the bay at the location where the creature crashed). Instantaneously, a long black neck popped up, twisted backwards away from shore, then splashed as it hit the surface of the water and disappeared. The serpent twisted clockwise like a corkscrew and exposed its midsection above water, giving us an excellent view of the underbelly, which was creamy white with a tint of yellow. It resembled an alligator's belly with a soft leathery look but was divided into many sections several feet wide. The midsection was about 20 feet long, black on top, and slowly changed from a mossy green to a grassy green



and ultimately to a yellow-green as it approached the underbelly. It had hexagonal scales that fit next to each other rather than overlapping. The largest scales appeared at the widest part of the midsection where the underbelly and side of the creature met, gradually reducing in size as they approached the top, front and end of the midsection. The largest scales were bigger than a silver dollar and the smallest were the size of a dime. There was a distinct line where the texture of the skin changed from the scales into the smooth, leathery underbelly.

While it continued twisting, another section six to nine feet long arched upwards three feet above the water. The arch twisted away from us exposing a fan-like appendage that was attached to its side at the waterline. It looked like a flag flapping in the wind. It was triangular in shape with a serrated outer edge. Mossy green ribbing ran out from a single point attached to the side of the animal like the spokes in a wheel. A paper thin green membrane stretched between each rib which extended farther than the membrane,



creating a serrated edge. The appendage was equilateral with each side almost two feet in length reminding us of a "dragon's wing." Bob concentrated on counting the number of ribs but stopped when he got to six since there were too many. Bill looked at the rest of the animal and saw two appendages, one at the beginning and one at the end of the midsection. They looked like stabilizer fins as opposed to flippers for propulsion. Slowly the body sank beneath the water onto the rocks below. Under the surface of the water we could see the upper section of the neck. Four tightly folded coils were formed directly behind the head.

The creature moved its neck with a whipping motion and the four coils traveled backwards in a packet, dissipating upon reaching the midsection. Instantly, it created another packet of four coils behind the head and again these were whipped backwards toward the midsection. This was repeated several times until the creature began to pull itself into deeper

water. It was like watching a freight train pull out of a station, each section had to wait for the section in front of it to move.

The outline of the head could be seen as it sat underwater but no details were observable except a snake-like head with large jowls. When it began to swim North toward the middle of the bay we thought we saw a ridge line along the top of the rear section. However, we never saw the tail. As it swam away at a leisurely pace, several arches could be seen undulating above the water. A few seconds later it slipped beneath the water. Since we never saw the rear end of the animal it is hard to estimate the total length but it had to be at least sixty feet and probably closer to a hundred feet.

We reported the sighting to the Coast Guard and then went back to work. Friends doubted what we had seen and jibbed us about it, nevertheless we returned to the area the next day at low tide. We hoped to find a scale or other piece of the animal that might have been scraped off when it crashed. Unfortunately, we could find nothing. Over the following days separate accounts were written and then notarized. Later the *San Francisco Examiner* was contacted and on February 20, 1985 an article ran in the paper on page three by Dexter Waugh.

February 28, 1985:

Our second sighting occurred east of Stone Tower Point at approximately 9 a.m. at a distance of around 400 yards from shore. It was the same area but a little further out from where the sea lions were attacked during the first sighting. Bob saw the head sticking three feet out of the water looking toward Alcatraz Island. He watched a single arch roll backwards along 15 - 20 feet of the neck and then disappear underwater. He showed Bill where to look and the head and another arch were still in the same location. The arch rolled backwards again and disappeared. Then the head turned to our left and went underwater.

March 1, 1985:

After the second sighting we moved to the parking lot next to the St. Francis Yacht Club. We were closer to the point and approximately 100 yards farther into the bay where we could get an unobstructed view. Our third sighting occurred 50 yards west of the second sighting. Bob saw it for only a few seconds. The neck was about 5 feet out of the water. About an hour later, 100 yards offshore, we saw something swimming barely below the surface heading west creating a "V" shaped wake behind it. It swam several hundred yards parallel to the shore but went underwater when a boat approached. The creature was about 200 - 300 yards from shore when the head appeared, and 50 - 100 yards away from shore as it left its wake.

December 22, 1986:

It was 8 AM on a foggy, misty morning when we had our next sighting. The water was calm. Bob was looking at a buoy 50 yards from shore and 75 yards west of where we were parked. On its right side, he saw what appeared to be two floating telephone poles bobbing in the water. He half jokingly told Bill the serpent was back and pointed to the buoy. When we looked, the two logs had disappeared. In front of the buoy, about a foot above the water, we saw the head looking directly at us. It started to swim very slowly in our direction and

without warning the head and neck raised five feet out of the water like a periscope. The head had a flat snout with two black, oval nostrils as large as a man's fist. As it continued to swim toward us Bob grabbed the camera out of the glove compartment and handed it to Bill. When he looked back it was gone. It then reappeared 50 yards in front of us.

Bill attempted to take a picture while Bob looked through the 7x35 binoculars. He saw the shape of a long necked archaic marine reptile swim by with its slender neck arching gracefully like a swan's. Bill jumped out and ran down the beach road trying to get a picture of it. As Bill ran the creature surfaced 150 yards away and lifted its neck several feet above the water. Before the creature submerged he took a picture. It resurfaced 100 yards away and once again he took a picture before it submerged. Bill continued to run and after 25 yards the creature reappeared again only 50 yards away. He stopped and snapped a third picture as the creature swam slowly with its head slightly above the surface of the water and a single arch undulating westward. Bill continued along the beach to its end, then down some rocks to the water's edge to where the creature was now 25 yards away with its head still above the water. The creature submerged after another picture was taken.

We decided to have prints made immediately but half the film was unexposed so we walked around the area taking pictures of anything. We went to a one-hour film developer and asked him to develop every photo regardless of how bad they were. After the hour we returned to get the pictures. When Bill opened the envelope all four photographs of the creature were missing. We ran back to the store and asked the developer about it. He said he didn't develop them because there was nothing on them. Holding back our anger, we told him to make prints anyway. When we finally got the prints, although overexposed, the creature could be seen in all of them. Because of the rain, fog and time of day, we felt lucky to get anything on film.

- Picture 1: The animal is offshore with some rocks in the foreground. It was hard to see but it looked like at least ten feet of the neck was above the water. #12 on negative.
- Picture 2: Four black spots are above the water. It looked like several arches and part of the upper neck sticking out of the water. #13 on negative.
- Picture 3: The head and an arch slightly above the water. #14 on negative.
- Picture 4: Two black spots, it looked like the head and a portion of neck behind it. #15 on negative.

December 23, 1986:

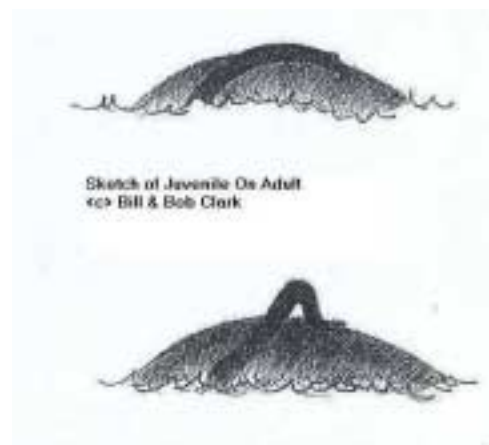
Bob was working in the workshop so Bill went alone to the same location to look some more. Since it was raining he thought he was wasting his time. He was looking at Alcatraz island and when he turned his head back toward the buoy, he saw a tall, black, tubular object sticking five feet out of the water. He recognized the head and large neck portion of the creature next to the left side of the buoy. Keeping an eye on it he reached for the camera but, before he could take a picture, it lunged forward and dove underwater.

January 24, 1987:

Bill was looking at the Golden Gate bridge, around 8 A.M., when he noticed something a few hundred yards away approaching the buoy. As it got closer we saw the head above water and several arches breaking the surface behind it. Bill grabbed the camera and ran

toward the buoy and started taking pictures. The creature quickly swam up to the buoy. Bob grabbed the binoculars, while Bill continued to take pictures. We stood there watching until it slipped under the water again. It surfaced a little east of the buoy, submerged, then resurfaced 35 yards in front of us. An arch of the neck could be seen as it slowly rolled 15 feet backwards which gave it the impression of almost standing still. After a little while it sank beneath the water. Unexpectedly, two sea lions appeared where the arch had been. One was average size and the other was a pup, brownish in color with a big red splotch on its right rear side. The sea lions dove underwater and neither they nor the creature was seen again. Bill had taken a whole roll of film so we left to get it developed. Unfortunately, water had gotten on the lens of the camera, as it had been raining, and all the photographs were ruined.

February 25, 1987:



Our next sighting occurred in the same area as January 24, 1987. Once again it was hanging out near the same buoy. It was only a short time and not very far out of the water. At first we weren't sure if it was the creature but Bill took two photographs anyway. Half an hour later Bill saw something pop up in front of us about 35 yards away. Bob got out the binoculars and saw two objects intertwined. One looked like a black hose. It was twisted around the second object which was an arch of the creature. Bob saw the first object create an undulation in its body and pull itself across the arch. Then everything went underwater.

Fifteen minutes later, only 20 yards away, a small black head stuck a foot or two straight out of the water and stared at us. After angling its head slightly, the mouth opened and it began to "growl." Actually, it was more like a growl and hiss at the same time. We got the distinct impression it was warning us not to mess with it. Bill took a picture through the car window, then got out and leaned on the roof and took two more pictures before it sank straight down like a rock. The intertwined creatures must have been an adult and a juvenile creature that we happened to observe.

- Picture 1: Nothing appears next to the buoy. #1 on negative.
- Picture 2: Nothing appears next to the buoy. #2 on negative.
- Picture 3: A long, thin, black object is in the bottom right corner. #3 on negative.
- Picture 4: Only the buoy is visible. #4 on negative.
- Picture 5: An object appearing to be a diving bird is seen next to the buoy.. In 1996 upon reexamination the object in this 5th picture appears to be a head and neck about 5 feet out of the water. #5 on negative.

March 1, 1987:

Several hundred yards east of where we were parked Bob spotted two arches moving in unison on the surface of the water.

The Scientific Community Reacts

The first contact we had with the scientific community was biologist John E. McCosker, expert on the great white shark and head of the Steinhart Aquarium in San Francisco. We received a letter from him on February 15, 1985 in which he said:

"I read your accounts of the 5 February sighting in the San Francisco Bay with some interest. From what you described and drew I am still baffled. I don't know of any creature that would fit your description."

On February 21, 1985 we called Joseph Zarzynski, founder of the *Lake Champlain Phenomena Investigation (LCPI)* and author of *Champ: Beyond the Legend*. He invited us to write a brief account of our sighting for his newsletter. He also recommended contacting Dr. Bernard Heuvelmans, Richard Greenwell and Gary Mangiacopra. We sent Dr. Heuvelmans and Greenwell our notarized accounts.

On August 8, 1985 we received a letter from Dr. Bernard Heuvelmans in which he states:

"...Your report, and your brother's report, are not only the best I have seen in many years about sea serpents as far as detail and precision are concerned, but also the most intriguing. Your sea serpent does not fit at all within any of the categories I have been able to distinguish. However, it looks very much like some of the fabulous sea-monsters from ancient reports which I have always thought to be the product of either hoaxes or delirious imagination. All the same I am perfectly convinced you and your brother are quite honest and sincere, and you reported with a wealth of unambiguous details what you saw, or let us say with more scientific vigor, what you think you saw."

We hurriedly wrote replies to Dr. Heuvelmans answering questions on specific details he asked about in his letter. During the same time we received a letter from Gary Mangiacopra going over concerns about disclosure, picture techniques and the lack of reports in the area from his newspaper research. Another letter on March 26, 1986 from Richard Greenwell, included a report from Forrest Wood a marine biologist and board member of the *International Society of Cryptozoology*. Greenwell had forwarded our information to Wood for evaluation. Wood's review *Sighting by Robert and William Clark, February 5, 1985 - Comments*, went through the zoological possibility of the animal and in part says:

"...What are we to make of this? The reports of the sighting come from twin brothers (former Eagle Scouts, according to one newspaper article), who say they were sitting in their car drinking coffee at 7:45 in the morning and looking over San Francisco Bay. Their accounts, which were sworn to before a notary public, were obviously typed independently; they are lengthy, detailed, and congruent, although differing somewhat in information included. The brothers also provided a dozen or so drawings, some quite detailed."

The idea they made up a story, individually typed accounts several pages long, prepared numerous drawings, and went to the trouble of having their reports notarized, all in order to perpetrate a hoax and gain publicity, strains credibility. They sound intelligent enough to know people who report 'sea serpents' are not likely to be believed. The fact their reported

sighting occurred well inside San Francisco Bay could only contribute to skepticism. If they wanted to see their names in the papers, they could have accomplished that with far less trouble.

On the other hand, the creature they describe cannot be assigned to any known class of animal; it is a chimera.

Taking the descriptions on face value, we can identify it as a vertebrate, but beyond that its features become contradictory. No known fish or aquatic reptile swims with vertical flexions of the body... Cetaceans, sirenians and true seals do flex their bodies in the vertical plane, but these flexions are modest and they are quite incapable of forming humps, or 'coils,' such as those described.

The scales, slimy appearance, and pairs of rayed fins could belong only to a bony, ray-finned fish (except I'm not aware of any fish in which the fins are attached to the body along one edge). With the exception of seahorses and some of their relatives, no fish has what could be called a neck. In all cases, cervical vertebrae are lacking; neck movement is impossible.

In any case, the described creature cannot be assigned to any class of vertebrate. On the basis of zoology, including paleontology and phylogenetic principles. It is an impossibility."

In a letter from Gary Mangiacopra of April 23, 1986, a similar sentiment as to classification is delivered:

"...I have tried to compare this 60 foot animal with other cases I have found... and what you saw is not descriptive of what was being reported along our coast...

I have to admit at present I am at loss to even hazard a guess as to its zoological classification. I get the immediate impression of this being some type of fish or eel, but the manner by which it was able to undulate its body when swimming indicates a mammal."

On August 16, 1986 a similar letter arrived from Dr. Bernard Heuvelmans as well:

"...I really do not know what to make of your most interesting and intriguing sighting, which is strikingly well detailed, and I am quite sure you are both sincere and reliable. But what you describe just does not make any sense, zoologically speaking..., so you most probably saw an unknown fish, but fish, owing to the anatomy of their vertebrae and of the muscles attached to them, cannot possibly undulate in a vertical plane.

So, unless you have seen an animal belonging to a totally unknown class of vertebrates... which is unlikely but not impossible, it looks as if your imagination has grossly distorted what you saw. Since I take it you will never admit the latter, quite legitimately indeed, we are left with the former explanation. But in this case it is the first and only time such an animal has been observed, and it is difficult to make a case from a single observation..."

After we had taken the first photographs of the creature on December 22, 1986, we sent more letters off to Gary Mangiacopra, Dr. Bernard Heuvelmans and the *International Society of Cryptozoology*, keeping them informed of the situation. Gary Mangiacopra replied to us January 16, 1987 regarding preservation of the images and how to get them examined:

"...First: PROTECT THE NEGATIVES FROM ANY POSSIBLE DAMAGE.

...Second: DO NOT CUT THE NEGATIVES APART!... This will establish the sequence when the photographs were taken and that they were on one roll of film and not from several others...

Third: I have written to the following three persons informing them of photographic information that may show an unknown marine animal... J. Richard Greenwell... Dr. Roy P. Mackal... Dr. Paul LeBlond...

For the present, I suggest you remain low-key until something can be started on the photographs, and keeping an eye on the bay would be a good idea."

Dr. Bernard Heuvelmans wrote back to us on March 11, 1987:

"...I understand why you are reluctant to let the negatives of your photos out of your hands. Just have large prints... made from them and send them for proper analysis to me and Paul H. LeBlond and Forrest G. Wood...

I think it would not be wise for the time being to apply to anybody else from the ISC..."

On May 6, 1987, Dr. Paul H. LeBlond wrote back to us:

"I received the photos from Richard Greenwell earlier this week. I have looked at them with the strongest lens available to me at home (a Baush and Lomb 'Rectangular Reader' which come with my compact Oxford dictionary.) What I see is as illustrated:

#12 a tilted fuzzy smudge. #15 a shorter one with a line of darker color. Some indication this line is discontinuous on left. #14 two smudges... In no case can I distinguish any detail in any of the objects protruding from the surface. That's test #1. I will take the photos to the University & look for a 'really' strong lens.

I am now examining the photos under a dissecting microscope (binocular stereo) Reichert Nr. 222 323; magnification 10x, 40x, 100x. I started with the lower magnification & then increased.

#12. The object's contrast appears very faint with respect to the background. At 40X, it is almost indistinguishable from the background. No additional features visible.

#13. Same loss of contrast. Only soft fuzzy patches at 40x.

#15. Same as #13.

#14. Two fuzzy patches.

I regret to say I can not see the detail which you suggest in your letter of March 18th. Maybe the negative shows the detail, but the prints certainly do not."

Much time went by and the years were tough, with Bob getting his leg broken in a mugging, the October 1989 San Francisco earthquake and business being very slow. Eventually we quit the hunt for the serpent. In 1996 Bill found an article by Jon Ferry of Vancouver, British Columbia. The article dealt with Dr. Ed Bousfield and Dr. Paul LeBlond's work on Cadborosaurus. We contacted Dr. Bousfield shortly thereafter in order to obtain a copy of his and Dr. LeBlond's book on Cadborosaurus and to tell him of our pictures and events. He replied on February 9, 1996:

... Your illustration is remarkably detailed and well executed. However, if your observations are accurate in detail, the animal you observed differs significantly from the 'classical'

image of Cadborosaurus we deduced from available evidence in our waters. Some of our large (adult) animals are similar in colour to your depiction, but none have shown body scales nor two pairs of fan-like fins (flippers). They apparently migrate, however, from the continental slope feeding grounds in winter, to the warmer shallow inshore 'Gulf' waters during the summer, possibly in connection with their reproductive cycle... A host of possible explanations for the differences occur to us including differential allometric growth of body parts, with age, marked sexual dimorphism in later life stages, two entirely different species being represented, or a combination of all three..."

Later after seeing our pictures and commentary on them, Dr. Bousfield replied in a February 20, 1996 letter (received late May 1996):

"... As discussed, I was not able to interpret your photos satisfactorily, even with your helpful commentary. Although something is present, and almost certainly not a drift log or inanimate object, the objects in the photos themselves are essentially unidentifiable to the untrained eye, and not sufficiently clear for publication purposes."

The Photographic Enhancement

During the summer of 1996 while reading a local newspaper Bob saw an announcement about a new museum opening soon in San Francisco called the *UFO, Bigfoot and Loch Ness Monster Museum*. After getting all our papers and photos together, we went to see if the museum was interested in having a little section devoted to the San Francisco sea serpent. When we arrived, it was in the process of being opened. The door was ajar so we went in and met the curator, Eric Beckjord. The museum had a funky, amateurish atmosphere because he was constantly putting up new displays and moving things around. He was very curious about the photographs and wanted to go to the photo lab and have enlargements made.

We enlarged one of the first photographs, number 14 on the negative, and Erik started looking through a magnifying glass at everything except the creature. He began talking about how this was a very strange photo because it showed a face from another dimension in it. He was more interested in finding hidden faces than looking at the creature so we ended the discussion. We wanted to get the photos in the museum therefore we didn't press the issue. Erik agreed to devote a section of one wall to the sightings and we were happy about that. Bob told him he would be willing to come in once a week on a regular basis to talk about the sightings. However, when Bob came in, rather than being an invited guest speaker, he found himself an assistant curator. By now we knew we weren't going to get much help from Erik other than the use of the museum to promote our story. Anyhow, Bob was hoping he might meet someone who could computer enhance the photos.

After working several months in the museum meeting all sorts of people, one Tuesday Bob met John Morgan III from Michigan. John said he could computer enhance the pictures for free, but he had to work it into his college course, so it might take as long as six months. He agreed the last photo should be enhanced first since it was the best. We made it clear we wanted him to include the buoy and not to outline the creature when he enhanced the photo. He thought a book or movie could be made from the story and was excited about preparing a manuscript, which he could approach publishing companies with. If he got a cash advance it could be used to finish the book and research. We thought it was fine if he

wanted to work on a manuscript but our main priority was for him to enhance the photographs.

For six months we waited for the results. Eventually, it came and inside was a four page explanation of the process he used along with the enhanced photo. Not only did it show the head and neck clearly, but also parts of the animal that were underwater and parts not visible to the human eye. However, we were disappointed because the neck and head were outlined on the final enhancement and the buoy was cropped out of the photo. We called and complimented him on a job well done but asked if he could do another print with the buoy included and without outlining the creature. He said he was busy with his classes so it would take a while. We sent Dr. Ed Bousfield a copy of the enhanced picture the next day.

A few days later Dr. Bousfield called us and was thrilled with the enhancement. However, he was also disappointed the neck and head was outlined and the buoy was cropped out of the picture. Several more months went by but nothing was heard from John so we called to see what was happening. He said he would be sending a package shortly and a week later it came. Instead of being the improved enhancements of the last photo or enhancements of the other photos, it was a copy of the manuscript he wanted to approach publishing companies with. By this time it had been a year since he agreed to work on the enhancements and we were anxious about getting the rest done. The manuscript was excellent aside from some misspellings and minor mistakes in the story line but without the other enhancements we were not ready to approach anybody with it.

Bob called John and told him we got the manuscript. He asked if we had sent it to Dr. Bousfield yet. Bob explained we didn't want to send it until the spelling errors and mistakes were corrected. Out of the blue, John began screaming that Bob should be telling him what a great job he did. He also said if we wanted the last enhancement redone we would have to pay \$200 and if we wanted the other photos enhanced it would cost \$500 for each. We wrote a letter giving the corrections to his manuscript and stating if we didn't hear from him by October 1, 1998 we would assume he no longer wanted to work with us. We asked him to send our papers and photos back if that was the case. We never heard from John again.

Other Witnesses?

During these years we had heard or read about other witnesses to possibly the same animal we had seen.

On November 3, 1983 an article by Steve Rubenstein appeared in the *San Francisco Chronicle*. The story dealt with the witnessing of a serpentine creature by five members of a construction crew as they repaired a stretch of Highway 1. The animal was described in the article as:

"... The body came out of the water first... There were three bends, like humps and they rose straight up... the serpent turned around, lowered its head beneath the waves and swam out to sea. As it swam it gradually lowered its humps below the surface until it was no longer visible... It looked like a long eel..."

This encounter took place just north of San Francisco Bay on Stinson Beach, at a distance of 1/4 of a mile away and 100 yards from shore on October 31, 1983. Birds and dozens of sea lions were reported to be following it. The same day in the *San Francisco Examiner*

an article by Jim Wood and John Todd dealt with a possible explanation for the Stinson Beach creature in the article. Bill Rohrs, aquatic biologist at the Steinhart Aquarium explains that the creature was most likely a group of porpoises feeding and jumping in line.



On August 30, 1976, Methodist minister and artist Tom D'Onofrio while riding his horse on Agate beach saw an enormous black shape as a wave crested. The creature played in the water exposing its underbelly. Then it disappeared, but the face of the animal was ingrained in Tom's mind. Tom, who was under commission by Grace Slick and Paul Kanter of *Jefferson Airplane*, used the sighting for inspiration to finish a table in the shape of a dragon. Tom reportedly saw the animal again on two other occasions. Tom repeated the incident in an article from the Coastal Post on November 7, 1983:

"...On August 30, 1976 at 12 noon I experience the most overwhelming event in my life. I was working on a carved dragon to use as a base for a table and couldn't complete the head. I felt compelled to go down to Agate Beach where I met a friend, Dick Borgstrom.

'Suddenly, 150 feet from shore, gamboling in an incoming wave, was this huge dragon, possibly 60 feet long and 15 feet wide.'

'The serpent seemed to be playing in the waves, threshing its tail. We were so overpowered by the sight, we were rooted to the spot for about 10 minutes...'

In an article from the *Point Reyes Light* of November 14, 1983, again in conjunction with the report by the construction crew, more reports are listed. One was from a Portland radio station that had received a call two days before the Stinson Beach report and another was of a report from Pacifica, California two days after the sighting.



Marlene Martin, a safety inspector for the Department of Transportation, later told us that the Stinson Beach incident actually had seven witnesses, she being one of them. She reported seeing a "V" shaped wake as it swam up to the beach 250 feet below them. At that point it was completely underwater. Then it made a U turn and headed toward the Farallones. As it swam away from the beach she saw three humps followed by part of a fourth. When it was a quarter of a mile away it raised its neck 15 feet out of the water and started swishing about. It held its head up shaking water all over and opened its mouth exposing many large teeth. She remembered its eyes appeared to be a very dark red, not only the pupil,

but the whole eye. She also told of a strange phone call she received in late 1991 or early 1992 from someone who claimed to be well known and work for the government. He wanted to remain anonymous for fear of losing his job, but explained when he, his wife and some friends were boating off Pacifica they forgot some food on shore. While going back to get it

he saw the creature. We met Marlene on April 12, 2001 for the first time and spent the day with her. She shared more observations as to the creatures details and allowed us to tape a three hour interview with her that we later sent to Gary Mangiacopra and Dr. Ed Bousfield.

A Hoax or Reality?

It has to be a hoax is the reaction we expect from the public. That is why we tried to get the scientific community to examine our story and photos before we went public. Nevertheless, if it is a hoax what would have to be done?

It would be more believable if we said we were on shore or in a boat and had a distant sighting. Instead, we claim to have been parked in a car and had a close sighting. That sounds unbelievable.

It would be difficult to commit a hoax by claiming a close encounter by two witnesses. It is easier for two people to tell similar stories about a distant sighting, but a close sighting where both witnesses have to match the different details in each other's story is almost impossible to do. It would create too many opportunities for exposure.

The actual description of the creature is easier to hoax if no new details are described which haven't been seen in other sightings. We have given details which no one has ever claimed to have seen. Hoaxers would not have to go into so much unknown detail to get their story believed.

Hoaxers would pick a location, which would be more believable such as in the middle of the ocean, but in this case the location is inside the Golden Gate where it is more likely to be disbelieved.

The camera is also an important part of the hoax. We used a 110 instamatic which has an extremely small negative, making it difficult to produce a fake. Assuming they were tampered with the different images of the creature would have to be put on the negatives. The fact that the first four pictures were in the middle of the film pack makes it even harder to produce a fake.

Both of us claim during the first sighting we were able to observe the whole animal except for the tail. Wouldn't hoaxers say they saw the whole animal?

In addition, at least seven other people claim to have seen this animal close up and through binoculars. Are they all co-conspirators in a hoax?

Or did we actually see a creature unknown to science? A sea serpent!!!

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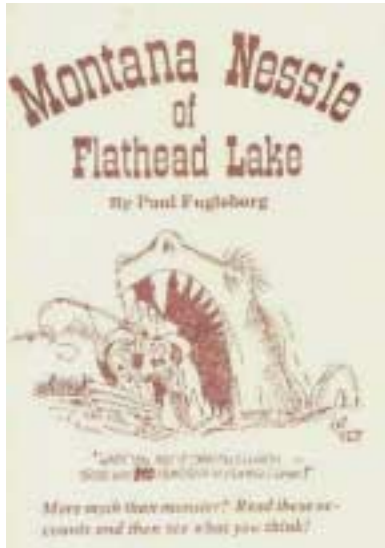
Bill and Bob Clark are twin brothers born in 1946. They have had an interest in the unusual for most of their lives, but the witnessing of a Sea Serpent in the San Francisco Bay was to be a life altering experience. Since their sighting the brothers have been in contact with researchers across the world in order to understand and share what they saw with the scientific world and general populace. If anyone can help them computer enhance and analyze their photographs or wants more information contact the Clarks at:

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Montana Nessie?

The Creature from Flathead Lake, Montana

By Paul Fugleberg (© 2001)



Scotland's elusive Loch Ness monster may be more famous, but western Montana's Flathead Lake has its own mysterious "Nessie" which has baffled many residents and visitors for more than a century.

When I was *Flathead Courier* editor, author Dorothy M. Johnson, then secretary of the *Montana Press Association*, admonished me not to treat sightings lightly in newspaper and magazine articles. In a November 5, 1962, letter, she wrote that she had grown up in Whitefish and advised,

"I don't think the monster should be done with tongue-in-cheek. You have eye-witness accounts by people who were scared and didn't think it was funny. I remember hearing about something in Flathead Lake more than forty years ago, so I don't give the Polson Chamber of Commerce credit for dreaming it up..."

In addition to local observers, witnesses come from many parts of the United States and some from foreign countries. Sightings have been reported by doctors, teachers, merchants, lawyers, school kids, housewives, retired people, boat captains, mill workers, laborers, farmers, ranchers, law officers, a former *State Fish and Game Department* chairman, industrial executives and more.

Incidents have occurred in most months of the year, in all parts of the lake, singly and in groups. Reports often come in bunches or days and week apart. Then years may pass without a glimpse of a "Nessie." About the only pattern that can be established is the frequency of July and August sightings. Those are the months of heaviest lake use - fishing, boating, water skiing, and lakeshore motoring.

What is the author's theory? I haven't seen a Montana "Nessie" yet, but conversation with acquaintances, whose sincerity and veracity is unquestionable, convinces me that they have seen something unusual and unexpected, something that startled them.

Consider the experience of the H.W. Black family on Sunday, July 10, 1949. They had gone to Chatwood's Narrows Resort, about six miles north of Polson, in the Blacks' 14 foot boat propelled by a small outboard motor. Aboard were Buck, his wife Mary, and their children, Judy, Laird, Fred and a friend, Mark Rolfson.

The trip was more than a simple joy ride. They were going to tow back another small boat. The family reached their destination without incident and about 3:30 p.m., began the

return trip to Polson with Judy riding alone in the towed boat. The two boats had barely left the Narrows when Mary screamed. Buck's first reaction was that someone had fallen overboard.

He turned quickly and saw Mary, mouth agape and eyes wide, pointing to the east. Then Buck saw what all the commotion was about - some 150 feet away, a large fish was swimming on the surface and making an abrupt turn. Approximately six feet of its back was showing, the head was submerged. The boaters watched for a good half-minute, speechless. Black said, *"The fish swam in a southeasterly direction, rolling out a wake six to eight inches high as it gradually submerged."*

Buck and Mary differed on whether or not a dorsal fin was visible. She thought there was, but he didn't remember seeing one. Buck told a reporter from the *Flathead Courier*, Polson's weekly newspaper, *"I am convinced the monster is a huge sturgeon, and is at least 10 to 12 feet long."*

To this day, Buck - a former member and chairman of the *Montana Fish and Game Commission* - hasn't changed his mind. Neither has Mary!

A "Nessie" of another shape - with a head like a snake and a tail like an eel - was observed by Major George Cote (US Army - Retired) and his son, Neal. Twice. In 1985 and 1987.

The November-December 1991 edition of *Montana Outdoors* magazine, published by the Montana Department of Fish, Wildlife and Parks, printed an article by John Fraley in which he cited a February 8, 1990 letter by Cote. The letter is on file in the DFWP office in Kalispell.

The Cotes' first sighting was May 25, 1985, as they trolled for Mackinaw trout in Yellow Bay.

"... we saw a large object surfacing and diving off the north point of the bay. At first we thought it might be one or more SCUBA divers. We approached the thing slowly... As we got closer, we could see that it was chasing large squawfish in the shallows. At one point it raised its head out of the water and appeared to be looking at us.

When we got within 60 meters of it, we realized that it was nothing we'd ever seen. The thing was big: as long as a telephone pole and twice as large in diameter. The skin of the creature was smooth and coal black; it had the perfect head of a serpent. There were 4-6 humps sticking out of the water. It moved away from us slowly, then took off like a streak through the water. It stopped about 400 meters out from the bay, looked back, and dove under the waves.

I asked Neal if he believed what he just saw and he said, 'No, and no one else will believe us either.' So we didn't say anything until years later."

The second sighting was on July 1, 1987, this time near Lakeside on the west shore of Flathead Lake. Fraley, regional public information officer for the DFWP, wrote:

"The creature changed course twice and they estimated its speed at nearly 100 knots. From 400 meters, they had a perfect view of the creature's head, tail and body as it swam toward Caroline Point."

Superfish or super-whatever sightings are nothing new in Flathead Lake. At least 70 incidents have been recorded by the press since 1889 when Captain James Kerr of the small lake steamer, the U.S. Grant, thought he saw an approaching boat. As it came closer, it appeared to be a whale-shaped object - scary enough that a passenger fired off a rifle shot at the odd critter before it disappeared.

Granted, there have been so-called sightings attributed to hyperactive imaginations, playful pranks, natural phenomena such as wave action, shadows and lighting effects, and a number involving wildlife - bear, horses, deer, elk, dogs, a dead monkey, a loose circus seal, and even an escaped buffalo.

Is it a Sturgeon?

In the 1950's, organized attempts were made to catch the superfish when Big Fish Unlimited offered significant cash awards. Only one to land a big enough fish for the prize was C. Leslie Griffith, who was reported to have caught the 7 foot, 6 inch, 181 pound, 1 ounce, white sturgeon that now adorns the wall of the *Polson-Flathead Historical Museum*.

Press reports told of Griffith hooking onto the giant sturgeon near Cromwell Island, off the west shore, about 9 p.m., May 28, 1955. Five hours later and several miles downlake, Griffith boated the huge fish and started back up the lake to Dayton.

Skeptics claimed that while the fish may have been pulled from the lake, it didn't necessarily originate there. They theorize it may have been brought in from elsewhere in a tank truck - perhaps from the Snake River in Idaho.

On the other hand, sworn court testimony stated the fish was caught in Flathead Lake. A dispute over ownership of the sturgeon and distribution of monetary proceeds from showing it arose between Griffith and *Big Fish Unlimited, Inc.* The case went all the way to the State Supreme Court which upheld a district court finding that ownership was retained by *Big Fish Unlimited, Inc.* but that Griffith was entitled to a share of the display proceeds.

In August 1964, Mrs. Oliver McAlear of Polson, Mrs. Goldie M. Bishop of Kansas and P.J. Sears of Palouse, Washington, reported seeing a 6 to 7 foot long sturgeon about 50 feet away as it swam near the shore in the Narrows. In that same month Neal Thornton, in an affidavit to *Big Fish Unlimited, Inc.*, stated that he saw 50 sturgeon in shallow water at the Narrows. Thornton said they were 12-15 feet long.

Bill Nohejl, while ice fishing in 10-12 feet of water on Mud Bay on February 8, 1962, was surprised to see a 4 to 5 foot long fish inspect his baited hook. He thought it was a sturgeon as he could see feelers sticking out from the snout. After six or seven minutes, it leisurely swam away.

The *Hungry Horse News* of Columbia Falls reported on August 11, 1972, that Tom Morrow and Jim Marshall, both of Kalispell, were floating on the Flathead River when they spotted a dead, approximately 4 foot sturgeon along the banks on the 3rd of August. The sturgeon appeared to have been snagged in the mouth and was estimated to weight about 20 pounds.

Around 8:30 a.m. on August 26, 1974, Larry and Nona Mahugh of Polson and their friend Chi, a Thai college student, were fishing off Angel Point on the west shore. For about eight minutes the trio watched a large fish as it swam as close as 30 feet from the shore. They were amazed at its speed. During this time a large number of smaller fish swam around the Mahugh boat. Chi estimated the fish was about 12 feet long.

Yet, another sturgeon-type sighting occurred Tuesday morning, August 20, 1983. Across the glassy, calm surface of Flathead Lake, a boatload of six Montanans were headed for the open lake from Yellow Bay State Park when they sighted a Nessie ahead of them.

Wire service, daily and weekly newspaper reports gave descriptions by Don Knight of Missoula and his friends of what happened.

Knight said:

"When we got about 30 yards from it, it started moving and came out of the water. Then you could see it perfectly. I'm not exaggerating. We couldn't believe what we were seeing. That was the biggest freshwater fish I've ever seen. It was 25-30 feet long. Its fin was about two feet out of the water and it was cutting the water like a shark.

... But that was no monster. Just a big, big fish... I think it was a sturgeon... because you could see the ridges and humps on its back and its scales."

Or is it Something Else?

Then there are animal-like descriptions of Nessies. On July 5, 1970, Neil DeGolier, Sr., of Polson, his son, Neil, Jr., and Don Jonason of Anacortes, Washington, encountered what the elder DeGolier told the *Flathead Courier* was a "lizard colored" thing that seemed to have the head of an "African rhino... without a snout or ears." The men were fishing near the Narrows about 5:30 p.m., south of Bull Island, when they noticed a "boil" on the calm surface about 200 feet from their boat. Investigating, they noted what appeared to be the head of some type of aquatic object. It submerged, swam away a short distance, re-surface, watched the boat for a couple minutes, and then submerged and disappeared. DeGolier said it must have been at least ten feet long.

About 5:30 p.m., July 31, 1982, Mrs. Olsen and her sister, Gladys Owen of Seeley Lake, were surprised when they looked out at the lake from the Olsens' west shore home, four miles from Polson. There, in calm water about 100 yards off shore, was some kind of swimming creature. It was about 20 feet long, dark brown or black, with two humps showing as it cruised along at a fairly brisk pace. Mrs. Olsen said the head was "oval shaped and larger than a football." Her husband, Dr. W.L. Olsen, saw it only briefly. He thought it might have been a couple otters at play. His wife disagreed, saying the movement of all parts was too well coordinated.

The sighting was the second *Nessie* experience for the Olsens. About seven years earlier, a family friend - a 23-year-old college girl from Indiana - was sailing in the Olsens' sailboat in the bay in front of their home. Suddenly, the girls brought the boat to the dock and came to the house, pale and shaken. A while later she told them that as she sailed, a long, brown, snake-like thing had come up alongside and then swam under the sailboat.

George and Elna Darrow of Bigfork were watching sailboats from their west shore home

in the evening of July 1985. Suddenly they saw *“two, then three, loops in the water, 100 yards offshore, moving parallel to shoreline.”* It was described in a report to the Montana Department of Fish, Wildlife and Parks in 1991 as snakelike, about 8-10 feet between the loops.

Kay Grice of Somers recalled an incident during the summer of 1969 or 1970. She and her sister, niece and a girl friend were in a boat off Arrowhead Island near Somers when they noticed a series of “V’s” in the water. They followed the trail in their boat. The pattern would continue for a while, then smooth out, then start in again. They looked behind the boat and saw a “Nessie” had *“raised up behind them about 50 to 100 feet.”* They could see its head and neck - *“a long neck like Loch Ness”* illustrations. They left the area as fast as they could. She said, *“I never believed earlier reports of the monster until I saw it for myself.”* Her friend has refused to swim in the lake ever since.

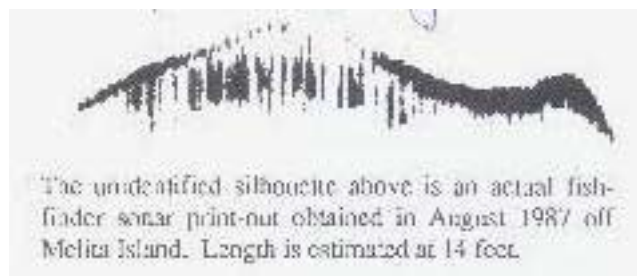
In calm waters of Skeeko Bay off the north side of Wild Horse Island, Rich Gaffney of Oswego, Illinois, who said he’d *“been a cop for nearly 20 years,”* and his wife and three children, 9, 13 and 15, all witnessed a “Nessie” as it surface about 50 yards away amid an apparent school of bait-sized fish on July 29, 1993. It swam past their boat perhaps a hundred yards away but was easy to follow visually because of its wake. Gaffney described it as shiny with a bowling ball-sized head, shiny humps, about 15 to 20 feet long. His first impression was that it appeared to be a couple seals that were swimming.

Sightings favor fish over serpent-like objects by nearly three-to-one although during the past 20 years, serpentine sightings have outscored fish about two-to-one.

Only the recovery of one of these mysterious creatures or a carcass, or incontrovertible photographic evidence will finally settle the matter of whether or not *Montana Nessie* is more monster than myth.

In the August 21, 1947 issue of the *Flathead Courier*, a columnist wrote:

“Killed, it’s gone. Alive, it’s a darn good topic of conversation and a superlative tourist attraction. Chances are, it’s been in the lake for a good many years, and if it hasn’t done any harm in the past, it’s a cinch it won’t do any harm in the future. So, for once, let’s stifle our human impulse to destroy anything we don’t understand.”



Paul Fugleberg is a resident of Polson, Montana where he was editor of the weekly *Flathead Courier* from 1959 to 1980. He was editor/publisher/co-owner of the paper from 1963-1980 when he sold it and has been freelancing since.

His 1992 book *Montana Nessie of Flathead Lake* (Treasure State Publishing, Polson 1992) chronicles some of history of the lake's "Nessies" and coupled with three other books on local Montana history (*Flathead Lake Steamboat Days*, *Buffalo Saver* and *Schnitzmeyer: Homestead Era Photographer*), also from Treasure State Publishing, acts as a humorous and brief introduction to the area's history. A fourth book is *Proud Heritage: An Illustrated History of Lake County, the Lower Flathead, Mission and Jocko Valleys* (Donning Publishers, Virginia Beach, 1997).

Both *Steamboats* and *Buffalo Savers* are out of print. Copies of *Montana Nessie* and *Schnitzmeyer* can be obtained for \$4.00 each postpaid; and *Proud Heritage* for \$39.00 postpaid, from Treasure State Publishing, P.O. Box 1352, Polson, MT, 59860-1352. Also, a *Flathead Lake Nessie Log* chronicling sighting reports of Montana's Nessie from 1889-2000 is available for \$5.00 postpaid.

If you have any stories to report of Montana's Nessie, please contact Fugleberg at the address above or (406) 883-2253 or e-mail: fugletsp@digisys.net .



Artwork by Shawn Peters (© 2000)

The Professor Sharpe Sea-Serpent Photograph: A Preliminary Report of Its Historical Background

By Dr. Dwight G. Smith and Gary S. Mangiacopra (© 2001)

“You furnish the pictures and I’ll furnish the war.”

Famous 1898 telegram reply sent by William Randolph Hearst (1863 - 14 August 1951), 19th and 20th century American newspaper czar, to his newspaper artist Frederic Remington (1861-1909) in Havana, Cuba, at the beginning of the Spanish-American War.

Among the hundreds, if not thousands, of numerous oral reports of sightings of sea-serpents, the occurrence of a photograph being taken which recorded what was observed and testified to, by the eyewitnesses themselves, are almost nonexistent in the nearly two-centuries-old field of marine Cryptozoology.

Yet, ironically, a photograph taken nearly a century ago of an alleged sea-serpent prior to 1908, was published — not once — but at least three times over a course of three-and-a-half decades. It was literally seen by tens-of-millions of Hearst newspaper readers — and totally forgotten for more than half-a-century by the cryptozoological community.

The rediscovery of this “lost” sea-serpent photograph occurred in early September 1980, while author Mangiacopra was a biology graduate student at Bloomsburg University in Pennsylvania. While scanning the university’s newspaper microfilm collection, a Sunday supplement two-page article on the background of the history of the sea-serpent was located.

Entitled, *To Catch a Sea Serpent*¹, (2 August 1908), this generalized article on the background of sea monsters requoted familiar case history of previous sightings; such as the 1848 *H.M.S. Daedalus* incident under the command of Captain McQuhae; the 1905 yacht *Valhalla* encounter reported to the Zoological Society of London by Messrs. E.B. Meade Waldo and M.J. Nicholl; and of the several encounters of the French Navy with sea-serpents on the Indo-Chinese station. The article itself was prompted into print because of a Norwegian, Captain Carl Olsen, of the town of Christiania. Captain Olsen was then currently in the town of Copenhagen, after receiving financial backing to fit out a steamer with three miles of heavy steel cable and a powerful windlass to try and catch a sea-serpent.

This article was illustrated with several photographs and drawings of sea monsters: One photo was of a giant 40-foot long squid; another photo was of a skull of a prehistoric reptile against the size of a skull of a man; a photograph of a museum mounted 60-foot-long zeuglodon fossil with the caption: (*supposedly extinct, but perhaps still alive in the ocean depths*); a photo of the drawing of the 1848 *Daedalus* sea-serpent; and a front and side view

of a long neck sea-serpent as proposed, though unaccredited in the article, to pioneering sea-serpent investigator, Dr. Antoon C. Oudemans.

The Sunday August newspaper article on the history of sea monsters was merely to amuse and interest the readers of the Californian *San Francisco Examiner*, and as such, would be considered unremarkable among the vast literature of other Sunday sea-serpent stories. Except, at the top of the two-page article, under the large caption title, *To Catch the Sea Serpent*, a panorama photograph that traverses both newspaper pages showed a two-humped marine creature. To the left of the panorama photo was the caption: *"The first photograph of a Sea Serpent, taken by Prof. Sharpe from the steam yacht Emerald as the monster rushed past at 20 miles an hour, and..."*

In the text of the article, only a few more slender fragments of data were given concerning the background of the Sharpe photograph. In fact, just a single published paragraph was given and read as such:

"Professor Sharpe's remarkable photograph, taken from the deck of the steam yacht Emerald, is the first and only record of the camera to prove the existence of the sea serpent. Professor Sharpe records that the sea serpent traveled at a speed of approximately twenty miles an hour."

This is the total facts pertaining to this photograph's history.

Conditions Under Which the 1908 Photograph Was Recopied

The 1908 series of photographs which accompany this article were re-photographed from 35 mm microfilm projected on a microfilm printer copier machine. The still camera used was an Exakta RTL 1000 with a 50 mm lens using an attachment of 1 and 2 power magnifying 49 mm lens. Film used was 35 mm Kodak black and white print film with an ASA of 400. Available light source was from the microfilm printer back screen.

These photographs were not recopied under the best of circumstances, which accounts for some of the loss of detail which may have been available with the original photographs used in the 1908 newspaper article.

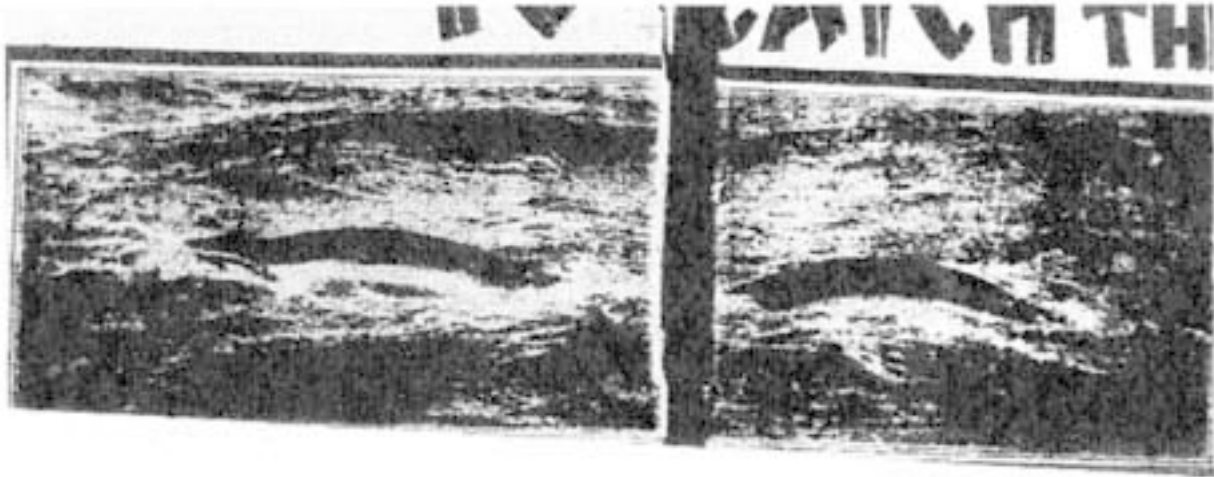
A 1981 inquiry to the then existing *San Francisco Examiner* (the author is uncertain if this newspaper has recently ceased publication) as to whether they still has retention of the original negative or photograph of this sea-serpent photograph in their archive files was made. No reply was received. Prior inquiries to other newspaper archives on past photographs that they had published years, or decades ago, usually revealed that no negative or photographs were saved for future usage. A problem that is all too common practice to today's "*bottom-line mentality*" newspaper chains.

Analysis of the 1908 Photographs

Photograph #1:

This shows the photograph as it was originally published in its entirety in the *San Francisco Examiner*. This single panorama photograph, the division of this into two portions was due

to the original newspaper being bound and photographed for microfilming. It shows two portions of a cylinder shape, elongated object braking the surface of the water in an arch. Foam or spray of water appears at the right ends of each arch. To the foremost left a triangular shaped object is discernable.



Picture 1: Original Panorama 1908 Photograph as Published by the *San Francisco Examiner*

Photograph #2:

A close-up showing the left portion of the photograph in its entirety.



Picture 2: Close-Up of Left Portion of Photograph

Photograph #3:

Close-up of the left portion of the Sharpe photograph; this cropped shot was the limit to get the maximum detail as was projected on the microfilm print copier.

The dorsal view of the arch is of a dark color with the underside a very light color. The underside of this arch seems to be above the surface of the water, but this may be a false impression due to the original circumstances under which this photograph was taken.

The dark triangular shape which is to the foremost left of the arch could be the top of the animal's head or fin. No other features are discernable.



Picture 3: Close-Up of Left Portion of Photograph Showing Triangular-Shape Head (?)

Photograph #4:

A close up showing the right portion of the photograph in its entirety.

The dorsal view of the arch is also a dark/black coloration with a lighter, whitish underside. Foam can be seen at both the front and rear end of this right arch. No other features are discernible.



Picture 4: Close-Up of Right Portion of 1908 Photograph

Negatives of these series of photographs were sent to Professor W.H. Lehn, of the University of Manitoba. In addition, a set was also sent to Dr. George R. Zug at the Smithsonian Institute in Washington, D.C.

Professor Lehn, who had researched and published several papers on the aspect of atmospheric refraction^{2,3} for possible explanations of sightings of lake monsters, circa 1980, commented at that time:

“These negatives... do not seem to indicate any effect that I can explain. They appear to be taken at close range, with the camera pointed downward at a significant angle. These facts generally rule out any influence of atmospheric refraction. Thus the photographs fall outside my “jurisdiction”, and I can offer no help in identifying them.”⁴

Dr. Zug’s comments at the same time were similar:

“The Prof. Sharpe photograph tells me nothing. I suspect that it is as likely fake as not. If real, no head is visible, for the triangular “end” on the left appears more like a fin than anything else. Also note the object along the bottom of this triangular end, the object appears like a piece of rope.”⁵

Twice Resurrected from the Newspaper Morgue

In 1908, Professor Sharpe’s sea-serpent photograph was seen, conservatively by tens-of-thousands of *San Francisco Examiner* readers. If not in several millions as the *Examiner* was one of a series of newspapers then in the possession of the Hearst newspaper chain. Yet, it failed to make any impact among the contemporary researchers of sea-monsters of that time.

But this 1908 photograph was given a second chance 25 years later. During these years, the Hearst newspaper chain began a Sunday weekly magazine that was included in all of its Sunday published newspapers, called *The American Weekly*. This Sunday magazine at best could be vaguely described as the equivalent of today’s *National Enquirer*, due to its rather sensational articles of the news topics of the day. Yet, for the most part, *The American Weekly* articles did contain information that was rather factual and accurate ... and in many instances, the only reports that have survived the passage of time.

On 31 December 1933, *The American Weekly* carried a one page article on the then current outbreaks of reports of lake and sea monsters world-wide. That past year, reports originating from the west coast of the United States and especially British Columbia of the several sightings of sea-monsters, locally nick-name “*Caddy*” were making the Depression era newspaper columns. The news of these sea-serpents reports were further helped by the reported sightings from Scotland of the *Loch Ness Monster*.

Entitled, *The Big, Bad Sea-Serpent Seen Again?*⁶, the article featured the resurrection of Sharpe’s 1908 sea-serpent photo (Photograph #5) for a record nationwide appearance. The panorama photograph was more tightly cropped upper and lower, and surprisingly showed more of the extreme right of the photograph than it did in 1908. Revealing what looks to be the beginning of a third arch, or hump, of the animal in question. There was no

date given of when the Sharpe photograph was taken — it was simply captioned as a sea-serpent photograph taken by Sharpe from the *Emerald*. There was no other reference to this case in the article.



Picture 5: Second Appearance of Sharpe Photograph in the 31 December 1933 edition of *American Weekly*

The third and last time that the Sharpe sea-serpent photograph was utilized by the Hearst Corporation was eleven years later, during World War II. Again, the 1944 *American Weekly* in its Sunday 1 October 1944 issue, resurrected the Sharpe sea-serpent photograph as the lead-in photograph (photograph #6) for their article, *What Color Is Idaho's New Sea Serpent?*⁷. This article deals with Payette Lake of Idaho, wherein during the summer of 1944 sightings of a lake monster in this five mile long lake made national news. Breaking the reading public's constant banter of the war news that was dominant in the newspaper columns every day. News of an old-time sea-serpent — even in a freshwater lake — was refreshing and amusing to a war weary public.



Picture 6: 1 October 1944 Printing of Sharpe Picture in the *American Weekly*

The 1944 reprint of the 1908 photograph was very tightly cropped, both upper and lower and left to right. The only new bit of information pertaining to this photograph was the first and second initials accredited to Sharpe, Professor B.A. Sharpe. In 1908 and 1933 these initials were never accredited to Sharpe, and may give a clue as to who Sharpe actually was (if he ever existed at all!).

Summary of a Century Old Investigation

After the passage of more than nine decades, the readers are left with precious little clues as to the support of the validity of this claimed 1908 sea-serpent photograph allegedly taken from a yacht at sea by Professor Sharpe. Looking at the few bits of data we are forced to draw these conclusions:

It can be stated that a slender, elongated object was photographed in water; but to its positive identification of being an actual living aquatic animal, either known or unknown to science, cannot be ascertained due to the lack of desperately needed information to validate its verification.

As authors of this manuscript, we completely agree with Dr. George Zug in his opinion that the Sharpe photograph is, and should be, considered a fake.

The necessary information which would have supported the *Emerald* incident is totally lacking and to which we list as follows:

- 1) No precise location is given as to where the steam yacht *Emerald* was when the photograph was taken: or even which ocean, the Atlantic, the Pacific, or even in the other seas of the world. We assume the photograph was taken in a location of the Pacific, probably the west coast, as this photo was first published in a San Francisco, California newspaper.
- 2) What was the size or physical features of the *Emerald* sea-serpent? None was ever given. Was it larger or smaller than the *Emerald* yacht?
- 3) What time of the day was the picture taken? How long was the sea-serpent observed? What was its behavior during its observation by those on board the yacht?
- 4) On what date was this photograph taken? The earliest publication of the photograph was in August on 1908. Was it taken that year or years earlier? Was it ever previously published before this earliest established date?
- 5) The most important fact of all: Who is this Professor B.A. Sharpe? Was he an American or someone of another nationality? Research inquiries on early 20th century editions of the *American Men of Science* did not have any listings for any individuals named Sharpe.

Final Conclusion

As authors of this paper, we are left with a balancing act of what to consider on this century old sea-serpent photograph? Is it a genuine, overlooked cryptid photograph that was seen on three occasions and by *tens-of-millions* of readers who did not realize its significance? And whose existence was not even suspected by present day marine Cryptozoologists. Or was it simply an elaborate photographic hoax, done by those in the employ of the William Randolph Hearst's newspaper chain to simply sell newspapers?

Even if this must be ultimately proclaimed as nothing more than a fake sea-serpent photograph, it does have the distinction to which it must be accredited with. That we have established its historical lineage as being the oldest known existing photograph taken of a proclaimed sea-serpent!!

Thus in print we present these findings and analysis in the hope that other investigators may possess other information regarding either this photograph, Professor B.A. Sharpe, or the yacht *Emerald*. This way evidence may be brought to light to refute its now present claim of a hoax photograph.

Acknowledgments

We wish to thank the following for their comments:

Professor W.H. Lehn, Department of Electrical Engineering, University of Manitoba, Winnipeg, Manitoba, Canada.

Dr. George R. Zug, Chairman, Department of Vertebrate Zoology, National Museum of Natural History, Smithsonian Institute, Washington, D.C.

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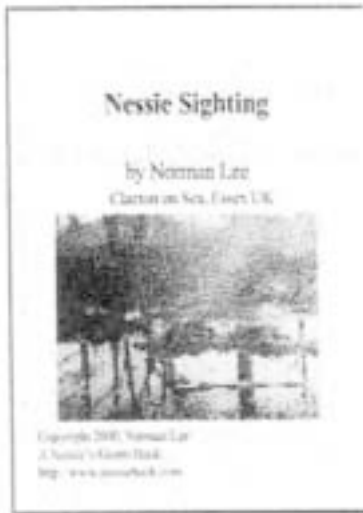
Gary Mangiacopra, of Milford, Connecticut, has done exhaustive research since the 1970's into marine and fresh water Cryptozoology. He holds a masters degree in biology, and used this research as part of his master's thesis entitled *Theoretical Population Estimates of the Large Aquatic Animals in Selected Freshwater Lakes of North America*. Recently Mangiacopra appeared on the *History Channel* as part of a documentary on unknown aquatic animals.

Dr. Dwight Smith, of Southern Connecticut State University in New Haven, Connecticut, is a biology professor and has published over 200 scientific papers. He holds a doctorate in zoology.

Together these men have authored and co-authored numerous articles on Cryptozoology that have appeared in such publications as *CRYPTO*, *The Cryptozoology Review*, *The Anomalist*, *Of Sea and Shore* and *Strange Magazine*. The article herein originally was written for *Pursuit* in the 1980's, it was never published and appears here as an expanded version.

Nessie's Grotto

By Lois Wickstrom (© 2001)



I run <http://www.lochness-monster.com> so I get mail from people who say they've seen Nessie. I'm a fan, and a noted soft-touch.

When Norman Lee, an 80 year-old man in Clacton on Sea, Essex, UK, had his neighbor write me about his 1970 sighting, I published an e-book of his story, including a copy of the photo he took of the clay model he made of what she looks like. In his sighting, she was furry. There's something truly endearing about a furry Nessie. I suppose that's why there are so many plush Nessie dolls for sale. I'm even including a furry Nessie in my next e-book in my children's Nessie series that I write with Jean Lorrh.

The world has changed since 1970. Now you don't have to go to Loch Ness to look for Nessie. There's the web cam. People send me pictures. Some of them are obviously seals. Some might just be blurs (especially the under water ones.) But Robert Young, a software programmer and song-writer from Germany, sent me a set of photos he took over a 40 minute web cam sighting. There's definitely something there. Oh- for a zoom lens on that web cam!!!

I went through the whole collection of web cam shots and picked nine that told the story, and posted them at <http://www.simegen.com/writers/nessie/webcam.htm>. Robert immediately emailed me that I'd left off his favorite one. So, back to the HTML coding — I added the tenth photo. All was well for a day. Then Robert suggested I interview him for Nessie's Grotto Newsletter. I should have thought of that myself. So, I did the interview. He answered via email (the speed of all this is remarkable.) And I sent the interview out to the newsletter list. It turned out that ten of the subscribers now had null email addresses. But over a hundred people received the information.

Then Robert sent me a photo of himself — a BIG one (not autographed) via email — "*to save you the embarrassment of asking.*" Okay — so he wanted a picture of himself on the same page as his Nessie snaps. Can't blame him. Again, I should have thought of that. I resized it, took it to the Adobe gif shrinker site to speed up the loading time, and added it to the webpage.

But while all this was happening, I was in the middle of trying to do an interview with Tony Harmsworth (the interview is presented at the end of this article). I was under the misapprehension that he owned Loch Ness 2000 and I wanted more information about the nematodes research and the Rosetta Project. After a great deal of back and forth email, Tony informed me that Adrian Shine owns the Loch Ness 2000 Center and he had forwarded my questions to him. So far no replies. Originally, I was going to write about the nematodes and the Rosetta Project for this newsletter.

I'd taken Tony's tour when I was at Loch Ness this summer. I didn't see Nessie. But I was impressed with Tony's humor and skeptical attitude. And, he still seemed believe that there's something or several somethings big living in the Loch. So, I went through Tony's website to come up with questions I knew he could answer in an entertaining fashion for my newsletter. So, that's where my brain was focused when possibly a REAL Nessie sighting was happening.

I felt like I was on overload like when I watch a group of children at the park, and each one is calling, "Look at me!" My brain simply doesn't multi-task as well as I'd like. Then again it doesn't crash as often as my computer, either. Still, it's surreal to think that I was putting a potentially real Nessie sighting on a side burner, while focusing on a newsletter interview that had no deadline.

Then Robert, who snapped the Nessie photos, took issue with my statement on the webpage with his photos that the two permanent objects in the water beside the moving one were "probably buoys." He wanted me to change that to read "obviously buoys." He said, *"I see these other two buoys every day so I did not want to sound silly."*

I don't mind sounding silly. I run the lochness-monster.com website, after all. There are limits to what I will do for people — even people who send me pictures of Nessie. So, I wrote him back:

"My college education is in biology with a chemistry background. Unless I have personally checked those bumps and ascertained that they are buoys, or someone I trust has done so, I can only say that they appear to be buoys. Being a member of the cryptozoology community, you quickly learn that there are folks out there who will insist that those are not buoys at all — they are alien listening devices or government spy cameras or a hoax planted there just to fool webcam viewers, or possibly they are a clever Nessie lure. Why take them on with a claim that I can't prove?"

And he wrote back:

*"Hi Lois,
OK, OK, I give in :)"*

When a Nessie sighting feels like an interruption in my planned agenda, I know I've become more of a Nessie junkie than a sane curious person. It's all fun. I think that's what counts.

An interview with Tony Harmsworth by Lois Wickstrom. Tony Harmsworth, for those who do not know of him, has had an interest in Loch Ness and her mysteries since the 1970's. He runs the website <http://www.loch-ness.org/> and it is there that a fuller biography of this man can be found by clicking on the *Webmaster* link.

Lois Wickstrom: You've made exhaustive studies of Loch Ness Monster sightings and determined that many of them are either mistakes or hoaxes. What got you started on these investigations?

Tony Harmsworth: The Loch Ness Project instigated doubts in my mind about the flipper pictures in 1981 and this changed my views considerably. On the older pictures, however, I had already done some of my own work, but most of the credit to the exposure of pictures must go to Adrian Shine and Ricky Gardiner of the Project.

Lois Wickstrom: Still with all the sightings you've discredited, you present your own sightings. Does this mean you are a believer?

Tony Harmsworth: Yes, seeing something yourself does affect your objectivity. Also, I believe that some sightings are genuine, but when people see plesiosaurs climbing up beaches and multi-humped sea-serpent type sightings I do get very frustrated. The former are obviously hoaxes and the latter boat wakes being misinterpreted by people unfamiliar with such phenomena. The single hump or upturned-boat sightings are the ones which impress me.

Lois Wickstrom: Dick Raynor has said he thinks Nessie might be a grey seal. Do you think that's likely? <http://www.lochnessinvestigation.org/Seals.html>

Tony Harmsworth: Dick has a great deal of experience. I think what I saw was bigger than a seal as we measured it at four feet long at the surface. A seal would be only half of this normally. It is a possibility though.

Lois Wickstrom: Your own Monster Candidates section seems to favour the sturgeon. Why?

Tony Harmsworth : The monster cannot be an air breather because of the huge surface area which is under fairly regular observation. Neither can it be a creature with a high metabolic rate as there would be insufficient food. This rules out the mammals and reptiles. Amphibians cannot tolerate salt water so could not have entered the loch (the only way in is from the sea). Invertebrates have the same problem. Arguments that something evolved specially here are invalid because of the short period since the ice age finished. This leaves only large fish and there are not many of those to choose from. The sturgeon is just one, but a likely one.

- Lois Wickstrom: What with the 1933 Hugh Gray photo in the Inquirer section and the 1955 MacNab photo by Urquhart Castle, you also seem to have amazing luck in uncovering clues.
- Tony Harmsworth: I am a commentator. The uncovering was done by others. The MacNab picture by Professor Mackal and the Hugh Gray picture by an unknown person I met.
- Lois Wickstrom: Your approach to Nessie seems very similar to that of historical naturalists. Do you have training as a naturalist, or other question-asking field?
- Tony Harmsworth: I have no formal qualification, but a very inquiring and analytical mind with an IQ of 158.
- Lois Wickstrom: You have hobnobbed with scientists like Harold "Doc" Edgerton, inventor of the strobe. Has this kind of company influenced your approach to Nessie research?
- Tony Harmsworth: Yes. It suckered me into believing some of the hogwash on Loch Ness promoted by the Academy of Applied Science. Fortunately Harold Edgerton had no hand in any of that and distanced himself from the Rines pictures. He provided Dr Rines with equipment, but little more.
- Lois Wickstrom: You give tours of Loch Ness that are designed to show visitors places where Nessie has been seen. How do tourists respond (in general) to your skeptical approach?
- Tony Harmsworth: Not quite correct. The tour is to introduce people to the natural history, heritage and history of the area using Nessie as the background to that theme. As part of this I do present a sceptical viewpoint and this is well received. I can count on one hand the number of people who have been unhappy with my presentations over the past twelve months and they are always given the opportunity to comment in my visitors' book or email me.
- Lois Wickstrom: Robert Young, a visitor to Nessie's Grotto recently sent me some webcam snaps. <http://www.simegen.com/writers/nessie/webcam.htm> What do you think he saw?
- Tony Harmsworth: Sadly something ordinary. The WebCams really are a total waste of time and only introduce spurious pseudo-evidence to cloud the issue.

- Lois Wickstrom: What do you look for in a photo or film — to help you tell if it is genuine?
- Tony Harmsworth: An animal looks like an animal. No more, no less. If the object is really spectacular then I start to look for signs of tampering.
- Lois Wickstrom: It's obvious that you love the Loch Ness area, and that you want folks to share your love — for the real thing. Would you summarize why you've chosen to be a tour guide for the mystery hunters?
- Tony Harmsworth: I like to meet people and find that the true story of Loch Ness is so well received that it makes it enjoyable for me too. I have other businesses so this is not always my main income. What I would really like to do is take a hi-tec lecture tour I have developed on a tour of the States and Canada, but I have had difficulty obtaining an honest partner to set up the venues and marketing on the other side of the pond.
- Lois Wickstrom: On your website <http://www.loch-ness.org/> you've announced a Contest that will start soon — the winner will receive a copy of the award-winning game Nessie Hunt. When will the contest begin?
- Tony Harmsworth: The contest ran into a couple of snags whereby a hacker could easily manipulate the results. We are working around this and should have something up and running in 2002.



Lois Wickstrom has had an obsession with Nessie for many years and runs the *Nessie's Grotto* website with Jean Lorrach at www.lochness-monster.com. She has authored several children's books including *Nessie and the Living Stone* with Jean Lorrach (order from <http://www.crossroadspub.com/Nessie.htm>) as well as *Ladybugs for Loretta*, *Live with Kerzelle*, *Oliver, A Story About Adoption* and others. To see some of Lois's work go to <http://www.simegen.com/writers/lois/ladybugs.htm>.

The Case for the Surreal Seal

By Robert Cornes (© 2001)



First things first. In the undertaking of this article I have deliberately avoided churning out the same witness accounts, which Heuvelmans and others have used to support the theory of a Long Necked Seal.

I am sure the reader will be familiar them. However for those who wish to view the relevant accounts that which I am referring to, along with other information and references, may I recommend my rather poorly maintained website, <http://www.cornes1.fsnet.co.uk>

The reader may remember that Heuvelmans ended up with two types of unknown pinniped species; however this article will only concentrate on the *idea* behind a pinniped species that has evolved a long neck.

Heuvelmans modern day reappraisal of Ouedeman's Long Necked Seal has never really been that fashionable, even within cryptozoological circles. Lacking the prehistoric glitz associated with animals such as the Plesiosaur the notion has surfaced occasionally only to submerge again into the back of peoples minds. Apart from Heuvelmans and Costello little further research has been undertaken into whether such a creature could ever be zoologically feasible.

This is a shame as some of the most detailed reports of so called '*Sea Serpents*' have described mammalian and typically pinniped characteristics. These have included descriptions of ears, fur and whiskers, a warm blooded hint perhaps. Although admittedly rare, these types of accounts seem to be genuine in their nature as instead of describing the sort of details one would expect to find in some relict marine saurian, as popularised at the time, they describe striking mammalian attributes.

So have the witnesses of these particular sightings been mistaken in their observations, can they not identify a reptile when they see one, or are they simply lying and if so, to what purpose? If they are not lying and they are not mistaken, could it really be possible that they have witnessed an animal that common sense debunks, a seal that has somehow evolved into a mammalian Plesiosaur?

Apart from the lack of fossil evidence for such a creature, the most common argument against this idea seems to take the form of the following;

"A seal with a long neck, being a pinniped would be a highly social animal dependant on land for long periods, of time. This would make it easy to identify and therefore imply that if it existed, it would have been discovered by now."

This all appears to make very good sense; however, there is a fault in this apparent logic, and one that always seems to be overlooked.

It is a generalization and does not take into account the many different aspects of pinniped behavior, traits and the adaptive lifestyles of individual species. True, everyone is familiar with the large interactive hordes of California sea lions or Elephant seals, as popularized by many natural history documentaries and yes, these pinnipeds are fairly conspicuous in their habits as well as being abundant.

Conversely though, little is known of the social or reproductive behavior of the rather formidable Antarctic living Leopard seal, a true monster if ever there was one, despite the fact that it is nearly as abundant. Part of the reason for this is that Leopard seals are by their nature aggressive loners and are rarely seen interacting in large groups.

In stark contrast the Mediterranean Monk seal, an animal that is actually termed a living fossil due to various anatomical features that are not found in other pinniped species, is now endangered and may only number approximately 500 individual animals. Its rather unfortunate cousin, The Caribbean Monk seal actually seems to have become entirely extinct in the last 50 years or so.

The decline of the last two species has mainly been due to past exploitation from which numbers have never recovered and although it seems clear that Heuvelmans' seal, if it does in fact exist, has never been exploited commercially it may be just as rare or nomadic. What is more the Mediterranean Monk seal has developed a uniquely reclusive lifestyle among the pinnipeds, making sightings scarce.

Although not exhaustive in their examples, hopefully the reader may begin to appreciate that not all pinniped species follow the same generalized lifestyle and this in turn may give some insight into how Heuvelmans' seal could exist and still remain unknown at present.

Why would it not be possible for a rare seal, with a long neck, and one that is not recognized for what it is or was having been stigmatized for hundreds of years as a 'Sea Serpent', to be living undiscovered in some remote part of the world?

Whatever the reality, I ask the reader to keep an open mind, just for a few pages as I attempt to update and maybe add to Heuvelmans idea.



Heuvelmans' Seal

Nomenclature

Named after the pioneering Belgian zoologist Dr Bernard Heuvelmans, who originally proposed the existence of such an animal in response to sightings of large unknown aquatic mammals, apparently displaying pinniped characteristics.

Description



Heuvelmans' seal appears to be big, at least as big as the largest recorded Elephant seal (up to 6.9m). This rather surreal looking pinniped is characterized by its long, flexible neck and relatively small, disproportionate head. The head, which may alter depending on sex and age, has been described as both reptilian and mammalian usually out of proportion to the rest of the body.

The neck is muscular, always conspicuous and always distinguishable separating it from presently known pinniped species. The length of the neck which is striking may be exaggerated at various times depending on stance (a good example of this can be seen in film footage of sea lions swimming and moving about on land, it can be surprising just how long their necks may look).

Among pinnipeds the male of the species is generally larger than the female and usually has a greater body mass especially in the region of the neck and shoulders, so the length of the neck may differ between the sexes, for instance in the female it may be shorter, or less apparent.

Ears have sometimes been reported and indeed the *otariidae* or Fur seals and Sea lions do possess small 'horn' like *pinnae* which may not be fully obvious. Some reports mention a 'mane' possibly only present in the male of the species, somewhat akin to the mane found in male fur seals. Both the male and female appear to be covered in brown fur possibly reaching to a lighter color on the underside of the body or neck.

NOTE

Heuvelmans came up with the idea that such a creature may have evolved two small snorkels thereby reducing the need for such an animal to surface fully, to breathe. This is a novel idea and although I am inclined to think it unlikely, mention should be made of the male Elephant seal which possesses an inflatable proboscis and the male Hooded seal which can actually inflate a red membranous sack from its nostril, surreal indeed. However in both cases such appendages are used in territorial and sexual display.

No pups have so far been described.

Distribution



Heuvelmans geographical analysis of accounts seemed to suggest a cosmopolitan species of pinniped, something that is presently unknown.

The most convincing accounts appear to originate in the Northern hemisphere which is a good starting point (!) and judging from the different areas of the accounts, it is probably more likely that such a species if it exists would be found in the northern temperate regions, widely distributed in small family groups possibly favoring areas of rugged, isolated coastline.

There have been several tantalizing reports from the Southern hemisphere which seem to allude to similar creatures and although pinnipeds are remarkable travelers it could be possible that like the Elephant seal, a southern species may exist.

Abundance

It is of course impossible to speculate on the numbers of animals in such a species if it exists. Heuvelmans, at the time he was writing, thought that such a species may be on the rise. However in the last fifty years or so sightings of the once familiar long necked Sea Serpent seem to have dwindled.

When you consider that today mankind has much more access to once poorly traversed areas and in greater numbers, then it is not unreasonable to suggest that either people are still seeing such animals and not reporting them, or that the species has become much rarer.

If it seems logical to conclude the latter then we can perhaps make some comparisons with another rare, but known species of pinniped, the Mediterranean Monk seal. The Mediterranean Monk seal which may only number approximately 500 animals at present, has adopted a reclusive existence utilizing remote underwater caves for much of its life, for giving birth and rearing young, which tends to make it elusive. At one time widespread it is now confined to small groups along the African and Spanish coasts where it is only rarely glimpsed, usually by local fishermen or lucky divers.

Diet

The dietary habits of a long necked pinniped can only be guessed at. The normal pinniped diet usually consists of krill, squid and fast moving fish for which a flexible neck offers versatile, movement. The Plesiosaur presumably found its long neck beneficial to pluck fish from the waters in a similar manner.

The Leopard seal which has a remarkably sinuous neck, (that it apparently uses it in predation by coiling it back and striking at its prey like a snake), and some fur seals regularly take avian prey to supplement their diet. Therefore the diet of Heuvelmans' seal may not be dependent on one food source and it is known that marine mammal species such as seals tend to specialize in different food sources if they are in direct competition with each other for survival.

An interesting possibility is that at one time Heuvelmans' seal may have traveled inland to take advantage of migratory, spawning fish, (incidentally accounting for the widespread folkloric aspects of mythical water creatures, particularly in the Northern hemisphere).

In comparison with the open sea, rivers and lakes would have offered a much smaller feeding environment where the use of a long neck may have allowed more successful predation while at the same time possibly allowing the seal to conserve energy.

Natural History



The reproductive cycle of pinnipeds varies greatly. Copulation may occur on land or in the sea, but birthing is always reliant on land. The Mediterranean monk seal exploits remote inaccessible underwater caves as a safe environment to give birth and rear young, reducing its exposure to unwanted attention and protecting its existence.

Similar use of ice caves is made by the Harp seal for both birth and weaning, while Fur seals, Sea lions and the Grey seals of the British Isles all make use of caved environments for periods of their life.

Pinnipeds, especially the Walrus, Fur seals and Sea lions have a long maternal weaning duration for which land is essential, however in the Hooded seal, a *phocid*, this may be as little as four days.

The possibility of aquatic birth is a possibility, although admittedly unlikely as no presently known species of pinniped has overcome the need to give birth on land. However, a recent marine mammal species, the Sea otter, can give birth on land or in the water and has eclipsed the pinnipeds having evolved in a much smaller time period. So theoretically, if Heuvelmans' seal was a relatively new species this could always be a possibility.

Classification

Heuvelmans categorized his seal as an *otariid*, belonging to the Fur seals and Sea lions, seemingly based on several sightings where he thought such a creature had been seen on land which seemed to indicate a method of movement similar to the Fur Seals and Sea lions. Even if such sightings are factual though there are other factors which need to be taken into account making it impossible to accurately ascertain the family that Heuvelmans' seal might belong to at the present time.

Heuvelmans' Seal as *Phocid*

The *phocids*, or true seals, are the most advanced of the pinnipeds, gradually evolving away from land based reliance, so if Heuvelmans' seal has evolved an advanced aquatic existence then it would be within this family that we would expect to find it. However, the presence of ears is not a *phocid* trait (although Grey seals may develop ear *pinnae*) and *phocids* cannot use their hind limbs for locomotion on land.

Heuvelmans' Seal as *Otariid*

The *otariids*, or Fur seals and Sea lions, do possess ears and are able to use their hind flippers on land. They also possess very flexible necks and show a greater degree of sexual dimorphism. However the *otariids* are more reliant on land than the *phocids* and are generally smaller.

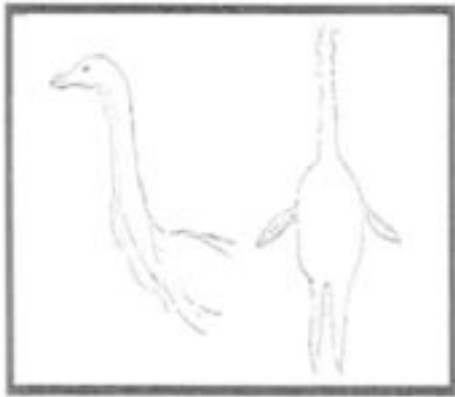
Heuvelmans' Seal as *Odobenid*

The *Odobenids*, or Walrus, share both *phocid* and *otariid* traits and have also evolved a unique individual feature, their tusks. Like the *phocids* they lack ears but like the *otariids* they are able to use their hind limbs on land. Interestingly fossil Walrus do not appear to have possessed tusks, indicating that this is only a recently evolved adaptation and therefore may offer a similarity to the evolution of a long neck.

Heuvelmans' Seal as a New Family Order

It could be speculated that Heuvelmans' seal may in fact belong to a new family, possibly mirroring the *odobenids*, however although this enables a separate evolutionary history, presently known fossil evidence does not support it.

Conservation Status



Although it does not appear that Heuvelmans' seal has ever been commercially exploited, it is possible that its rarity relates to a long term decline probably relating to environmental factors.

If at one time the species was more widespread and took advantage of inland foraging, this may have declined with the spread of civilization and utilization of waterways by man.

As a result of this the species may have been forced to rely more heavily on an ocean going existence placing it in direct competition with other pinnipeds and marine mammals.

Conclusion?

Everyone has their opinion on what a Sea Serpent should or should not be and it is always easy to provide arguments for a particular belief especially when there is little doubt that there are still many aquatic animals to be discovered.

Heuvelmans knew this, and although in hindsight his analysis and categorization of unknowns may have been slightly faulted, he at least kept an open mind to include all possibilities.

Now I am not for one moment suggesting that all long necked sea serpents are or have been an undiscovered species of pinniped but there do appear to be some accounts which taken at face value describe just such a creature.

So instead of a Plesiosaur becoming warm blooded (possible), sprouting ears, fur and turning into a mammal along the way, would it not also be just as appropriate to consider that a seal may have simply evolved a long neck?

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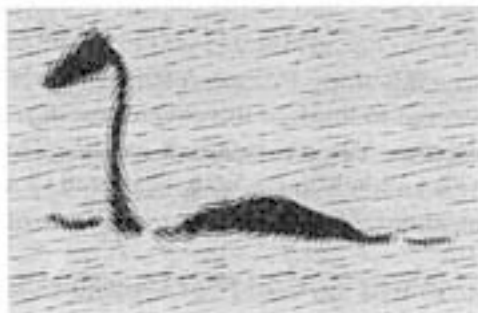
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1995.

(p33-44)

Paul H. LeBlond, Edward L. Blousfield

Robert Cornes is a 32 year old Charge Nurse with a long term interest in Cryptozoology and weirdness of all sorts. He currently resides in Essex, England with his wife and hopes one day to be able to further his research into Heuvelmans idea and possibly set out in search of the Surreal Seal. The images used throughout this article have been created by Cornes as well.



The Man Called “X” vs. The Sea-Serpent!

Marine Cryptozoology During the Cold War and the Golden Age of Radio

By Dr. Dwight G. Smith and Gary S. Mangiacopra (© 2001)

*“Wherever there is a mystery, intrigue,
romance, in all the strange and dangerous
places of the world, there you will find...*

The Man Called “X”!

Thus began the signature introduction to the globetrotting secret agent radio series, *The Man Called “X”*. This adventure series had an intermediate run of nearly eight years, playing on all of the major radio networks of the time, *ABC*, *CBS* and *NBC*. From its first show on 10 July 1944 to its last on May 20 1952, this was one of several radio programs that were produced during the Golden Age of Radio, whose theme centered on international adventures of American secret agents against agents of other countries.

Sponsored by *Lockheed Aircraft Corporation*, the first program in July of 1944 was the mid-summer replacement for the Lux Radio Theatre it contained patriotic programs in the fight against the Axis spies and fifth columnists. Switching later to *ABC* and then to *NBC*, the last program during its war-time series run was 4 September 1945. Revived in 1946 as a summer replacement for the *Bob Hope Show*, it was still nearly a year before it had a steady one-and-a-half year (3 April 1947 - 26 September 1948) radio run on *CBS*. Sponsored at first by *General Motors* and then later by *Frigidaire*. Two years would pass before the program would get revived again, for its final, and steady, run on *NBC* from 13 October 1950 to 20 May 1952.¹

During these post-World War II years, the program themes had shifted to reflect the beginning of the Cold War mentality with the Russians, who were now engaged in attempted political domination of the world. Fighting these new potential enemies was a semi-mysterious agent engaged in the fight, whose code name was *The Man Called “X”*, but who also went by the prosaic name of Ken Thurston.

Each week the radio shows audience listened as Ken Thurston was given an assignment to a trouble spot in the far reaching places of the world. Ironically Thurston was portrayed by the British actor Herbert Marshall, best remembered for being the head of a spy ring in England in Alfred Hitchcock’s 1940 suspense film, *Foreign Correspondent*.

Accompanying Thurston on his adventures was his comical side-kick, Pagan Zeldschmidt. Zeldschmidt was a tag-along European friend who was more of a financial mercenary and who always seemed to think of the adventures as a means to replenish his continuously depleted cash reserves. Yet, Zeldschmidt came to Thurston’s rescue many times using his various shady business contacts and widely scattered family members. Together, the pair fought against treason, smuggling, assassinations, black-market contraband, sabotage... and sea serpents!!!

On Sunday night at 10:30 P.M. on the 12th of September 1948, the last month of the shows *CBS* run, the basis for the show was a sea-serpent.

Thurston requests from his enigmatic boss, *Chief*, at *The Bureau*, for a leave of absence to look into a Kangaroo Bay, Australia newspaper report of a sea-serpent after receiving a letter from his engineer friend, Clark Kerby. In Australia, Kerby was experimenting in producing fresh water from sea water in an inexpensive manner, but might be forced to stop because of “*some unbelievable fantasy...*”

After the Chief states, “*Ken, those fairy tales about sea monsters have popped up every year since I can remember.*” Thurston heads to the airport to board a plane for Australia. There he is met by Zeldschmidt who heard of the trip from a Miss Brooks at *The Bureau*. Although Thurston initially does not want Zeldschmidt along, he does change his mind though after Zeldschmidt hands him a movie camera to take some movie film of the sea-serpent. That way Thurston could tell if the sea-serpent was real or fake.

Thurston and Zeldschmidt board the plane, and arrive in Australia. While waiting for transportation from Kerby, the pair is almost run down by a Margaret Williams in her car. Graciously Ms. Williams offers to drive them to Kangaroo Bay. She is surprised to hear that they came to see Clark Kerby, a “*fool dreaming to turn sea into fresh water.*” Ms. Williams also passes on that Kerby drowned in the bay the night before!

Arriving at Kerby’s laboratory, Thurston sends Zeldschmidt down to the cove with the movie camera to so some test shots of the area — just in case the sea-serpent should appear. Knocking at the laboratory door, Thurston is greeted by George Uwellen, an associate of Kerby, and who is wielding a gun! Uwellen informs Thurston that he has no intention of being murdered like Kerby was. Uwellen continues to explain that Kerby went down to the bay for a swim, he was a strong swimmer and did one dive — and never came up. Kerby’s body was not recovered.

Asking for further details, Thurston learns that a Lee Williams was financing the laboratory experiments. It turns out that Williams is the rich uncle of Margaret Williams, whom Thurston and Zeldschmidt had met earlier. She is also his only heir. Furthermore, Ms. Williams wants her uncle declared incompetent because she feels he is spending money that is rightfully hers. As her uncle is elderly and not keen of mind, and also as he is the only one to see the sea-monster, this would be the only proof she needs in court.

Thurston and Uwellen’s discussion is interrupted by a pounding on the door and cries of help from the neighbor, Captain Malquest, who has suffered a head wound. Malquest is uncertain who attacked him, but thinks that it was the laboratory’s sponsor, Lee Williams. Thurston helps Malquest to his cottage on the cove, and learns that Malquest has an oyster bed that he farms.

Zeldschmidt finds Thurston shortly, and informs him that a “*crazy man*” is stalling continuously out at the ocean looking for the sea-monster. They find Mr. Williams there, and learn he is desperately trying to prove that he was not crazy and did see a sea-monster in the bay. Asking what it looked like, Williams indicated that it was over a hundred feet long, undulating like a snake, had a ferocious head with horns and was seen 50 yards off shore at dusk. Zeldschmidt notices a log washed ashore, upon closer examination it turns out to be the gored body of Clark Kerby, apparently killed by the sea-monster!

Back at the laboratory that night, Thurston and Uwellen discuss the events, but are interrupted by a happy Margaret Williams. She had heard the news of the attack on Captain Malquest and informs the two men that the police are searching for her uncle to place him into custody. Whereby, she gains control over his estate and plans to shut down the laboratory

as it was wasting money she could use to travel to Paris, London and New York. Any potential benefits of the laboratory's research were none of her concern.

Visiting with Captain Malquest, Thurston informs him of the pending arrest of Lee Williams because of the attack on him, and that nothing further can be done. Thurston sees many mother-of-pearl carvings by the captain at his cottage, including a sea-serpent carved the day before based on Lee Williams' description. It turns out that a sea-serpent, as described by Williams, did not kill Clark Kerby, as an autopsy revealed that he was killed by a blow to the head and the gouge marks were superficial only. Kerby was indeed murdered!

Early the next morning Thurston and Zeldschmidt revisit the site of Kerby's fateful swim. Thurston dives into the water to explore the site and suddenly a battle ensues under the water. Thurston surfaces and explains something had come out of the grass bed and gave him a bump on the head. It is requested that everyone should meet at the laboratory that night, where Thurston will show the worst monster ever!

That night all appear, including Lee Williams, whom Thurston had been hiding at the laboratory. A movie projector is set up to show a few feet of film that would explain everything that was happening in the bay. On the film a huge snake is seen swimming out to sea — a sea-monster. However, it was identified as a group of sea cows, a bull manatee leading his heard of eight females swimming in single file that looked like one immense sea-serpent.

But what of Kirby's death and the attack on Thurston in the cove? Thurston, explained it was a kind of monster that walked on two legs, that killed to preserve a secret. The secret — a pearl. A vast pearl bed in Kangaroo Bay! Captain Malquest was the killer!

Pulling a gun on the others, Malquest proves his guilt. He is however taken into custody after Thurston subdues him. Thurston explains that it was Malquest's handiwork on the carvings and the underwater diving rig needed to farm such an oyster bed that gave him away.

As the adventure comes to a close, Zeldschmidt asks, "*There was no sea monster after all, no?*"

Ken Thurston in the end moralizes the situation, "*No sea-monster ever conceived by the brain of man, can be as frightening and monstrous as a man whose soul is possessed by greed.*"

The Players:

Ken Thurston	-	Herbert Marshall
Pagan Zeldschmidt	-	Leon Belasco
George Uwellen	-	Gerald Mohr
Announcer	-	Wendall Niles
Director	-	Dean Angleback
Music	-	Johnny Greene
Writers	-	Maurice Zim and Sydney Marshall

References:

¹ Goldin, J. David, *The Golden Age of Radio*, Yesterday Press, Sandy Hook (Connecticut), 1998

For those who wish to order an audio cassette copy of the *Man Called X* sea serpent radio program, order the catalogue from Carl Froelich, Jr., 2 Heritage Farm Drive, New Freedom, Pennsylvania (USA) 17349. Mr. Froelich has a mail order business of dozens of old time radio programs.

The Man Called X series is listed as catalogue number A-200, and has six (1/2 hour shows) on two audio cassettes from August - September 1948.

Loch Ness - The Tip of the Iceberg

By Paul Harrison (© 2001)

Author Dedication:

For my two supportive children, Paula and Mark Harrison

The mere mention of the phrase 'Sea Serpent' or 'Lake Monster' almost instinctively conjures images in ones mind of the incumbents of a remote Highland of Scotland Loch where some form of prehistoric reptile (otherwise known as the *Loch Ness Monster*) resides making an occasional appearance to the unsuspecting tourist but never to academic researchers and investigators. To the unwary, Loch Ness is almost like some surreal real life fairy tale, tiny hamlets surrounding a huge expanse of water, exhibitions, tourist shops, whisky and the occasional 'Monster Hunter/Researcher' running around in search of the creature(s). To the tourist, a huge farce is played out as the so called so called 'experts' expound their own personal theories, almost demanding to be elevated to the position of world's number one and sole expert on the matter.

Away from the tourists, these same 'experts' (they are indeed the only one's who class themselves as such) appear to be hell bent on destroying not only the opinions of others but also on succinct character assassination. The reality with Loch Ness research is that it is a complete and utter mess, sighting reports (old and new) held by some and other valuable information is selfishly withheld by those who choose to keep it from the public domain, as these folks absurdly believe that their personalities are bigger than the tradition itself of the Loch Ness Monster. Virtually everything that can be postulated about the Loch Ness creature(s) has been printed in countless books, magazine articles and newspaper columns, therefore I do not intend to dwell on the subject, other than to say until serious and sensible cohesion can be brought to bear on research matters then the real search for the truth will never progress.

Instead, I want to look at two other, equally as compelling case histories of 'Sea Serpent' sightings from around the British Isles which have not received the notoriety that perhaps they deserved. It is not for me to neither suggest nor force my opinions to the reader of possible solutions for such incidents; rather, for the reader to make their own judgment and form their own opinion once the evidence has been offered. Undoubtedly many strange and as yet unidentified creatures do reside in the seas and oceans of the world and all I or any other Dracontologist would ask is that reader maintains an open mind when surveying such information.

The following is a report published in the *Daily Express* newspaper (p5) dated 14 September 1903 by one of the Glengrant's crew.

SEA SERPENT CALL — Morning visit to a Scotch Trawler. North Sea Adventure.

“About four bells in the early morning watch, last Tuesday all hands were on deck to try a hand at the draught nets. As far as we could tell the steamer was about 80-100 miles off shore.

All of a sudden we heard a roaring sound, like the warning note of a cyclone which was followed by a tremendous agitation in the water. The cook put his head out of the galley and shouted “Whales boys! Look out for your nets!”

Then to our horror an enormous monster with a head like a chinese dragon rose up from the waves alongside the ship. For a moment or so the serpent rested his chin reflectively on the truck of the mainmast while the stern of the ship sank down under the enormous strain.

We stood on the deck forward gazing up at him in a dazed manner unable to move. Suddenly the monster started to slide down again into the sea. As he did so the open cabin skylight attracted his attention, and he thrust his head down to see what was below. The captain and the mate were just about to have their morning coffee when the awful looking head swung across the table.

Both of the men are strict teetotalers and knew this was no vision. They dropped their coffee mugs and fled on deck. The poor steward, however, was pinned up in the corner and was unable to move.

Slowly the serpent looked round the cabin scorched the steward’s whiskers and the paintwork with his fiery breath, and then withdrew back into the water. One of my shipmates hit his body with a belaying pin, and it sounded as if an iron tank had been struck.

No sooner had the Glengrant righted herself than she began to rise up by the stern high into the air as if lifted by some giant head. The waves foamed like a cauldron. As the vessel went down by the bows the seas swept her deck and flooded the engine room, forecastle and galley. We all thought our passage to Davy Jones’ locker were booked.

The propellor revolved at a fearful pace. This lasted a few seconds, then distinct bumps were felt amidships and the stern gradually sank down again.

We saw the serpent away on the port side at the rate of 5 knots an hour. Then he made a sudden track and bore down on us again, as if he was resolved to crush the ship to pulp. As he came up alongside one of our fishermen aimed a gun at his head and fired and the serpent suddenly dived and disappeared.

He was twice as long as our ship (almost 200 feet) with whiskers that stood out like topsail yards, great green eyes, an immense mane and a huge cavernous mouth, with great tusks.”

In a later report which appeared in the *Grimsby Observer* — Thursday 17 September 1903 (incident occurred Tuesday 8 September 1903) the creature was described as having a long sinuous body, a head like a sea horse with a long mane or fin down the back.

A fisherman’s yarn? Perhaps so, we can never now be certain, but quite why the Captain and an entire crew of a fishing boat should want to concoct such an incredible tale is beyond my comprehension, to speak of such ill perils at sea would cast serious doubts in

ship owners minds as to the sincerity of the Captain and his crew. However, on this occasion the incident as such it was, had not been served exclusively upon the *Glengrant*. A few days earlier the fishing boat *Rosa* from Montrose encountered a virtually identical beast in the waters to the south-east of Montrose, Scotland.

Investigations made at the time by journalists seem to have discouraged the fact that the crew of either fishing vessel had any knowledge of each other nor of any particular incident relating to the respective vessels. An incredible tale it is, perhaps slightly embellished by the press and the witness, it is most certainly one of the few reports on record of a 'sea serpent' causing physical harm/injury to crew members (scorching the stewards whiskers). Yet something certainly appears to have been encountered by the totally independent crews of two fishing boats off the coast of Scotland, something which defies all logic and understanding.

In 1966 a number of individual sightings of a creature later to be referred to as The 'Skegness Thing' by the local media were reported to *The Skegness Standard* newspaper. Skegness being on the East coast of England and is a well known and visited seaside resort. It all began with a readers letter which appeared on 6 November 1966 edition, which was received from Mr. R.W. Midgeley of Boston, Lincolnshire. Midgeley wrote of an encounter which he had during the summer of 1937 or 1938, which had continued to puzzle him:

"One summer, when on holiday at Trusthorpe, Lincolnshire, I was walking along the sea wall when, probably no more than 400 yards from the water's edge, I saw what I can only describe as a sea monster. No head was visible, but I saw quite clearly what appeared to be four or five half links of a partly submerged, huge snake-like body. It disappeared after about five minutes. I am quite certain I had not witnessed a school of porpoises, dolphins or the like."

Mr. Midgeley seems positive that what he saw was a solid living creature, yet provides no further supportive evidence of this fact. Could, in fact, the 'half links' to which Mr. Midgeley refers, have been the remnants of a passing boat wake, which does give the appearance of 'humps' moving through the water?

The letter prompted sea serpent open season, as further sea serpents sightings occurred down the Lincolnshire coast, *The Skegness Standard* continued to report all such incidents, in this instance a letter published in the edition for 19 October 1966, from Mr. George Ashton, a 49 year old from Sheffield, and his wife May, who were on holiday at Chapel St Leonard's near Skegness, on 16 October 1966. The Ashton's were walking by the sea when they saw a sea serpent less than one hundred yards away offshore:

"It had a head like a serpent and six or seven pointed humps trailing behind. When I have been out at sea, I have seen seals and sea snakes swimming about and what I saw was neither of these. At first I thought it was a log but it was travelling at about 8 mph and going parallel with the shore. We watched it for some time, coming from the direction of Chapel Point, until it disappeared out of sight towards Ingoldmells. I just didn't believe in these things and tried to convince myself it was a flight of birds just above the water. I even thought of a miniature submarine but after watching it for some time I knew it couldn't be."

The Ashton's later told local people that they would never be dissuaded from the argument that what they saw was not a flock of birds, submarine, torpedo or any other similar thing. It was something extremely large, a living creature of the sort which neither had ever before seen.

With a head being visible, followed by a number of humps, there can be no doubting that Mr. and Mrs. Ashton genuinely saw an unusual creature which defies accepted knowledge of any species known to inhabit the area.

Shortly after the outbreak of 'monster fever' of 1966, the newsroom of *The Skegness Standard* received a curious telephone call from two Sheffield schoolboys who were holidaying at nearby Ingoldmells, a resort next to Skegness. One of the boys, 13 year old Denis Simpson, told a reporter that '*two black coloured snake things*' had been seen in the sea off Butlins Camp.

"We saw the things fly through the air and drop into the water. They wriggled for a while, then sank. It looked as if they came from a red and white boat out there. They were long black snakes wriggling in the water."

The most baffling piece of this report is that the witnesses believed that the two creatures seemed to come from a boat, and had flown through the air before dropping into the water. This begs the question as to whether these were cast off eels from a fishing boat? However, more questions remain unanswered, such as how either of the boys saw the creatures wriggling in a constantly moving sea, from a land to shore distance where a fishing boat would operate.

Sunday 14 August 1960, an object was seen in the sea opposite the Derbyshire Miners Welfare Holiday Centre. Len Booth was the first to see the creature:

"I was looking out to sea watching two small yachts tackling the rough sea. I thought it was a whale and called John Dutton, we both watched it for about half an hour. It was not going very fast and kept heading in a northerly direction, but swerved out to sea and back to within about half a mile of the shore as we watched. It was black or dark coloured."

The creature repeatedly submerged and surfaced all the time they had it in view. No tail or head was seen. Further sightings continued to emerge. Mrs. Joan Betts, Councillor J.D. Williamson, and Rosina Stubbs, all local people, were looking at the Derbyshire Miners Welfare Holiday Centre boat, which was about half a mile out to sea when they saw something strange. Joan Betts stated:

"I saw it twice on either Monday 15 August or Tuesday 16 August, I cannot recall. The first time was mid-morning and I saw a long black thing hurtling along but not disturbing the water. I called Rosina to look, and we both watched it for a few seconds before it was lost to view behind camp buildings. It was travelling south to north and was long, dark and curved."

The sighting aroused a good deal of attention as casual visitors flocked to the area in the hope of viewing the 'Skegness Thing'. Most were, of course, disappointed.

Later in 1966, came news of a further sighting off the Skegness and Lincolnshire coastline, this time from a local man, John Hayes. He wrote to *The Skegness Standard* informing them of an incident which had occurred at the beginning of the summer season 1966.

Hayes had been cycling along the front of the Derbyshire Miners Welfare Holiday Centre at Winthorpe. It was a clear moonlit night. Suddenly he heard a loud crack that seemed to emanate from the sea, he stopped and looked out. There, in the water, he could see a huge dark shape moving at about 20 mph and approximately five hundred yards from shore.

Skegness had in fact received other reports of strange and mysterious creatures off its coast. As a further report from *The Skegness Standard*, Wednesday 10 August 1960 reveals:

"On Sunday 7 August 1960, five witnesses saw something in the water off Gibraltar Point, Skegness, between four and five in the afternoon. The weather was good and the sea reasonably calm. One witness, Ray Handsley, a Wainfleet butcher said; "When I saw it, I had no idea what it could be. It was difficult to judge how far out it was, maybe a mile or two, but it looked as though it was travelling along the edge of the deep water. It was just a long black line on the surface about nine or ten feet long. It was travelling a dead straight course towards Skegness. It's hard to say what speed it was doing, but it was very fast. I'd say about forty or fifty miles an hour. The thing looked perfectly flat. The curious thing was there was no wake after it". His wife, Ruth Handsley claimed that whatever it was, it was curved. "At first I thought it was a whale. It was very long - about twelve feet and it was going very fast. I can't say that I've ever seen anything like it before."

Whatever the identity of the 'Skegness Thing' it seems to have disappeared from the area after 1966 with no further confirmed sightings occurring in the subsequent years that followed. Skeptics may well observe that no doubt much improvement to the local commerce via the tourist industry occurred as a result of the sightings, perhaps so, but can we truly deny that something did lurk in the waters off Skegness, or was it yet another case of mistaken identity/mass hallucination/hysteria?

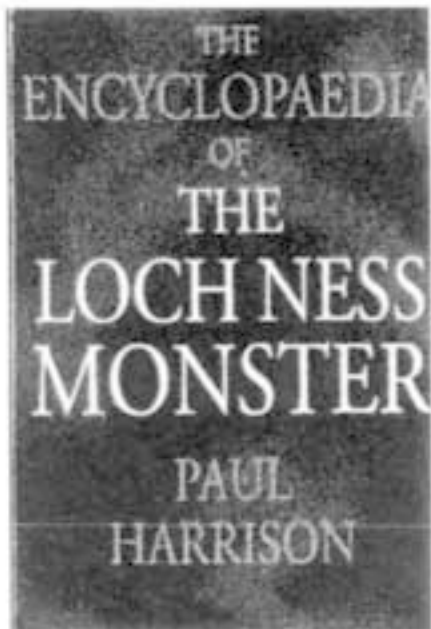
In an effort to try to establish some pattern between post 1933 sightings of sea serpents and lake monsters around the British Isles I have examined newspaper reports relating to the Loch Ness Monster to see if sightings elsewhere coincide with well reported incidents at Loch Ness, thus intimating 'copycat' reports and sea/lake monster hysteria. No pattern can be adequately deduced from this, many reports, such as those of the 'Skegness Thing' seem to have no relevance to anything occurring in the news at Loch Ness or elsewhere in the world, it would seem that the majority are independent incidents peculiar to each geographical district and Loch Ness is most definitely not a bench mark for alternative sighting reports or incidents.

It may well be that known zoological species lay at the root of all such sightings, with eye-witnesses misinterpreting events and observations due to distance, shock or just plain ignorance.

I am of the opinion that 'sea serpents' (an inadequate and inaccurate title which somewhat belittles the study) are very much more a likely reality due to the volume and vast expanse of unknown water which mankind will never truly be able to wholly explore. New species, or denizens of the deep as we like to term them, are continually discovered by research vessels and submersibles around the globe. Science believes thousands more new species will be discovered in the depths, basing this fact upon the well established Coelacanth discovery no one can truly be certain that hitherto undiscovered giant species do not exist in our oceans and seas.

As for 'lake monsters' such as those believed to inhabit Loch Ness, perhaps the real monsters are of the human kind, whatever it is or they are that inhabit Loch Ness, they are not as mysterious as the personal politics involved in research there. Seals, boat wakes, eels, standing waves, floating logs, or just plain old hoaxes, Loch Ness will continue to be the epi-centre of Dracontology and Cryptozoological matters, a great shame it could not set the ideal academic study and research example. Loch Ness is indeed the tip of the Dracontology iceberg, but its also drifting towards oblivion, a Cryptozoological subject which may be cynically dismissed by new researchers as 'untouchable'.

Other material used comes from; SEA & LAKE MONSTERS OF THE BRITISH ISLES, By Paul Harrison - Robert Hale Ltd 2001.



Paul Harrison is the President of the *Loch Ness Monster Research Society* and has been involved with Loch Ness and other Dracontology research for over 10 years. He is the author of over 12 books dealing with a myriad of subjects. Of interest to Cryptozoology readers is his 1999 book *The Encyclopedia of the Loch Ness Monster* (Robert Hale, London) and the forthcoming book *Sea and Lake Monsters of the British Isles* (Robert Hale, London). He has spoken around the world on the subject of lake and sea creatures as well.

Harrison is always interested in reports of unknown aquatic animals from around the world. He can be contacted at Nessearch@aol.com.

Caddy - an Update

Paul H. LeBlond (© 2001)

Cadborosaurus (Caddy for short) is the name given to the large marine animal reported from coastal waters of the northeast Pacific Ocean, from California to Alaska. Caddy received its name in a competition organized in the fall of 1933 by Archie Wills, editor of the *Victoria Daily Times*, who took a keen interest in local sightings and publicized them in his newspaper. Some Caddy sightings were described by Heuvelmans (1968) and by LeBlond and Sibert (1973). A comprehensive overview of observations and speculations about Caddy has been published by LeBlond and Bousfield (1995). This article presents a short review of the evidence for Caddy and of the theories put forward to explain it.

The evidence for Caddy consists first of all of eye-witness reports: hundreds of people have reported a large animal (5-10 m long), typically with a long neck (1-2 m) rising above the water surface, a large horse or camel-like head, prominent eyes, glimpses of a sizable body and perhaps flippers. The animal swims very rapidly, undulating in a vertical plane and often presenting snake-like hoops at the water surface. There is great variability in the descriptions of color (black, brown, green...), head appendages (ears, horns...) and other minor features (e.g. dorsal serrations). The animal has been seen feeding on herring, salmon and sea-birds. Rarely, two or even three Caddies have been seen together.

Eye-witness reports are often disregarded by zoologists as mere anecdotal information. It is however of the nature of Cryptozoology that hard evidence - a carcass, for example - is rarely available and one is perforce reduced to interpret what people say they have seen. Such accounts must be treated with great care. In my view, the only eye-witness reports of interest are those where there is:

- 1- no doubt whatsoever in the observer's mind that the object seen was an animal (not a wave, or a branch or some other piece of flotsam); and
- 2- no doubt either that the animal seen was definitely not a known creature (not a family of sea-lions, otters, whales...).

Over 150 sightings satisfying these requirements have been catalogued by LeBlond and Bousfield (1995); they are concentrated in southern British Columbia and range from 1881 to 1995. More recent sightings have been reported from time to time in the newsletter of the *B.C. Scientific Cryptozoology Club* (<http://www.ultranet.ca/bcsccl/>). A recently discovered report from 1791 by a crew member of American fur-trader Robert Gray (Howay, 1990, p. 249) extends documented sightings over the entire historical period since European contact on the northwest coast.

If Caddy is a real animal and not just some misguided fantasy imagined by recently arrived foreigners, there ought to be traces of its presence in the folklore and the artifacts of indigenous people. And so there are: the sea-serpent Sisiutl figures prominently in Kwakiutl art and legends; the Nuchanult of western Vancouver Island called it Hiyitl'iik. A spear thrower (atlatl) dated 300 A.D. (+/- 100 years) shows a Caddy-like animal (Fig. 2) also seen on numerous undated (but probably more recent) petroglyphs seen along the coast.

More tantalizing and closer to standard zoological evidence is the carcass found at the Naden Harbour whaling station in 1937. The 3 m long creature, with a camel-like head, traces of flippers and a well developed paddling tail was thought at the time to be a juvenile Caddy. It was found undigested (and thus presumably very recently swallowed) in the stomach of a sperm whale. The carcass was not preserved, but there remain photographs, authenticated by a surviving witness of the event, Mr Jim Wakelen, of Victoria, B.C. who was an assistant to his father, the station's blacksmith, at the time. A comment made by the then director of the B.C. Museum, Mr. Francis Kermode, to the effect that the Naden carcass was only the foetus of a blue whale led Heuvelmans and others to dismiss it.

A more careful analysis which takes into account Kermode's qualifications as a zoologist (minimal), the views of the surviving witness, Jim Wakelen, as well as the recollections of a prominent zoologist (Dr. Ian McTaggart-Cowan) then (in 1937) working at the B.C. Museum (cf. LeBlond and Bousfield, 1995) suggests that Kermode's comment was inappropriate and that the Naden carcass is indeed a valuable piece of evidence. Other carcasses have occasionally been found in the area, but they have all sooner or later been identified as belonging to known animals, usually basking sharks.

Another piece of evidence, much less directly related to Caddy, is the small creature caught and sketched by W. Hagelund (1987). The small animal, caught in a hand net in the coastal waters east of Vancouver Island, reminded him in some way of the story he had heard about the Naden carcass and he thought of it as a "baby-Caddy." Hagelund took pity on the small struggling creature and released it. Others have also recently claimed to have seen such a small animal which they could not identify. No qualified zoologist has ever held one.

What is one to think of all this? There seem to be enough consistency in eye-witness reports and supporting ethnological evidence to suggest the presence of an unknown animal: a cryptid.

Mainly on the basis of their vertical flexure and the presence of a mane, Heuvelmans (1968) included Caddy sightings in his "Merhorse" and "Long-necked" sea-serpent categories: basically modified sea-mammals related to pinnipeds. LeBlond and Sibert (1973) saw slightly different characteristics in the sightings they collected but came to similar general conclusions.

In a much more systematic effort, Bousfield and LeBlond (1995) combined eye-witness reports, the Naden Carcass and the "baby-Caddy" in a scientific description which emphasized somewhat more reptilian features. They came to the conclusion that *Cadborosaurus willsi* (after Archie Wills) was of all the possible resemblances, "least unlike a plesiosaur."

Bauer and Russell (1993-96) argued that this scientific description was inappropriate as it linked together three different sets of observations of possibly three different animals (the adult, as observed by eye-witnesses; the juvenile Naden carcass; the baby caught by Hagelund). They also argued against the plesiosaur connection on a number of anatomical points. The subtlety of the doubly restrictive (“least unlike”) conclusion was however lost on them: they entitled their criticism: “*A living plesiosaur?*” and contrasted observed features of Caddy with those of long extinct fossils. If Caddy is related in any way to a plesiosaur, it should not be expected to be very close to its remote relatives.

The general view is now that there is probably some unidentified marine animal which we call Caddy. Even Bauer and Russell (1993-96) admit as much. The question is thus not: Does Caddy exist?, but rather: What is it?

What Next? Clearly, more information is needed. Through publicity and its membership, the *B.C. Scientific Cryptozoology Club* (<http://www.ultranet.ca/bcsccl/>) keeps a watching ear for Caddy sightings, interviewing witnesses as soon as possible after the events. In a more pro-active vein, the *CaddyScan Program*, led by Ed Bousfield and Jason Walton (http://members.home.net/megaserpent/CaddyScan_Online.html) is an attempt to gather more solid evidence. By placing monitoring cameras, linked to automatic motion detection software, at places where Caddy has made past appearances, CaddyScan hopes to catch it in the act, reaching beyond the testimonies of eye-witnesses to obtain examinable visual observations. Two cameras have been in place for over a year on the shores of the Saanich Peninsula, north of Victoria. A second line of research focuses on the “baby-Caddy” creature. A fisherman from Saltspring Island has reported having seen such an animal in his crab trap in the past year. Posters bearing Hagelund’s sketch and promise of a reward have been distributed to marinas, fishing harbors, and wharves in southern B.C. waters. Catching a specimen would probably settle the issue of the relationship between it and the adult “mega-serpents.” Linking the two may have been a bold and arguable step, but it is at least subject to scientific falsification (i.e. the right observation may suffice to prove it wrong).

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Figures:

Fig. 1 Caddy, as seen by David Miller and Alfred Webb in 1959 off Discovery Island, B.C.

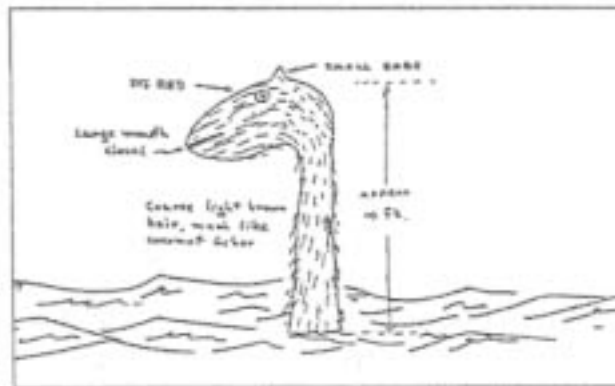


Fig. 2 The Skagit River atl'at'l (spear thrower) preserved in the University of British Columbia's Museum of Anthropology and dated to 300 A.D. (+/- 100 years).



Fig. 3 The Naden Harbour carcass, found in 1937 in the stomach of a sperm whale.

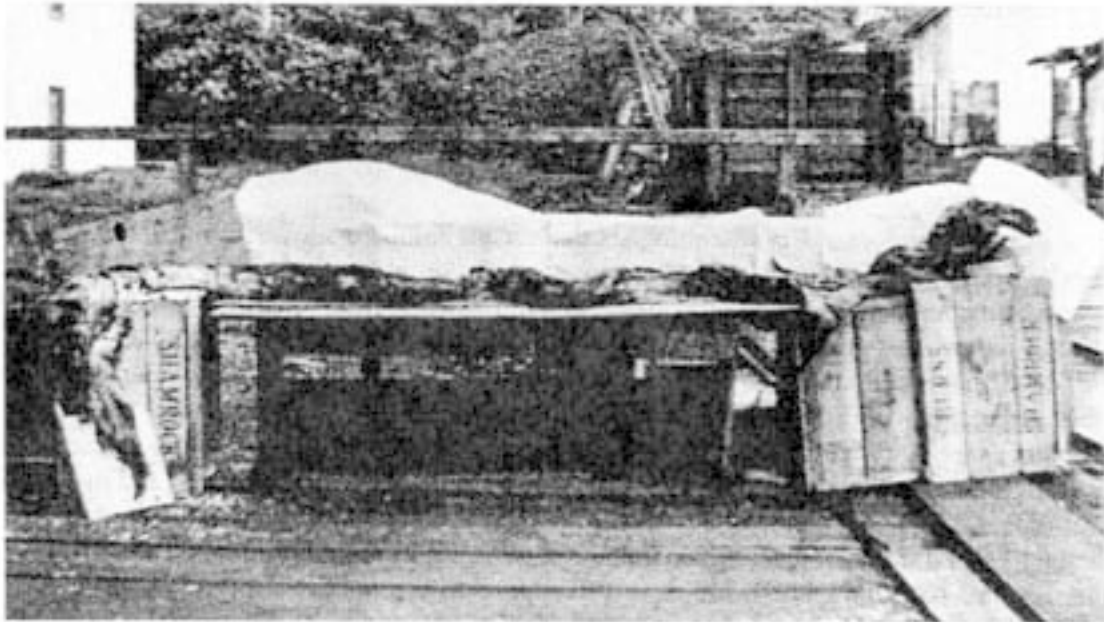
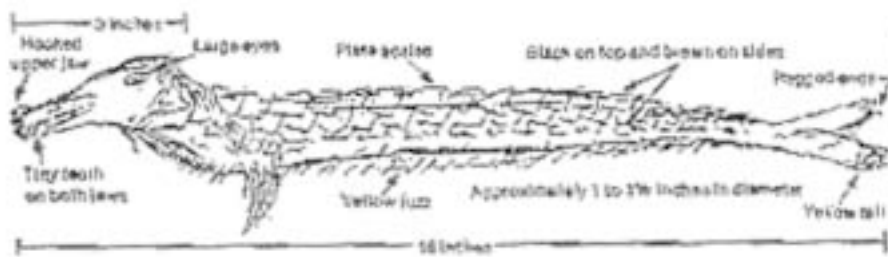


Fig. 4 Hagelund's "baby Caddy."



Dr. Paul H. LeBlond is a retired oceanographer at the University of British Columbia in Vancouver. Dr. LeBlond has conducted extensive research on oceanic waves as well as the sustainability of the oceans biodiversity. Dr. LeBlond is best known in Cryptozoology for his work involving reported unknown aquatic animals in the Pacific Ocean, in particular the research surrounding *Caddy*. He has also performed work on other unknown aquatic animals from around the world, including Lake Champlain, Loch Ness and Okanagan Lake.

In 1995 he co-authored the book *Cadborosaurus Survivor from the Deep* (Horsdal & Schubart, Victoria) with Dr. Edward L. Bousfield. Also in 1995 he co-authored, again with Dr. Bousfield, a more formal scientific description of *Cadborosaurus willsi* in the journal *Amphipacifica* (Volume I, Supplement I). He has also had a large involvement with the British Columbia Scientific Cryptozoology Club and was involved with its creation in 1989.

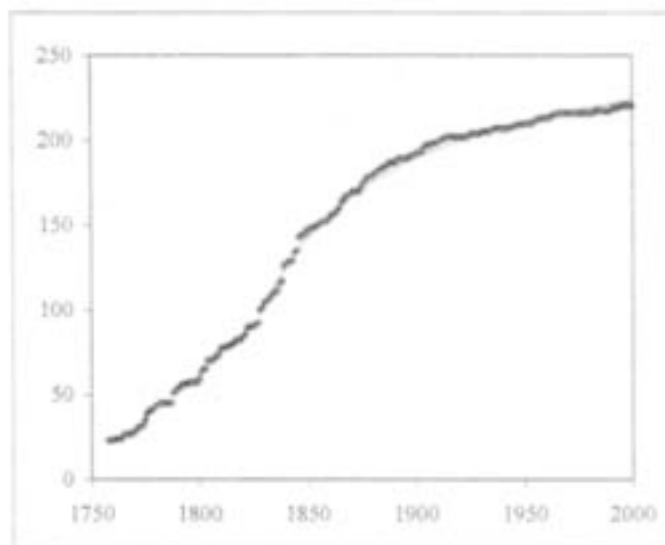
Dr. LeBlond would be grateful for any information on unknown aquatic animals from around the world. His e-mail is leblond@gulfislands.com or you can reach him by mail at S42, C7, RR#2; Galiano Island, BC, V0N 1P0 Canada.

Predicting Pelagic Peculiarities: Some Thoughts on Future Discoveries in the Open Seas

By Dr. Charles Paxton (© 2001)

It is axiomatic amongst Cryptozoologists that recent animal discoveries mean the inventory of life cannot be considered to be even close to completion. Not only are there new beetles and nematode worms being described, but in aquatic environments ever so slightly larger things like whales (1995, 1991), big sharks (1983) and large stingrays (1990 & 1982).

All of the latter animals were greater than two metres long, so it is simply incorrect to argue that all large marine animals have been described. However the recent discovery and description of large marine animals allows more than the opportunity saying “Gee, whizz there are still unknown large marine animals.” We can, given a few assumptions (and more than a few caveats) actually estimate the rate of description and number of undescribed animals. In 1998, I did this for large open water marine animals greater than two meters in length in the main part of the body. I looked at the cumulative number of species described from 1830 - 1995. From this curve (an earlier version of Figure One), I calculated the rate of species description in 1995 and the estimated number of large marine animals awaiting description by science. Time has moved on and there is now five years more data. Furthermore I can now address several issues that may be of interest to Cryptozoologists that I could not discuss in my earlier paper.



**Figure One. Points - species of large open water marine animals described to date.
Solid line - model number of species described to date.**

Modern zoological nomenclature starts officially in 1758 with the 10th edition of Linnaeus' *Systema Naturae*. That isn't to say that species description did not occur prior to 1758, it did and not just in the nine earlier editions of Linnaeus either. Nor was binomial nomenclature an innovation of Linnaeus, binomial Latin based names were in wide if not general use. However, the decision to recognise 1758 as standard for zoological nomenclature (it is 1753 for plants) has allowed some measure of stability and has allowed names to be used universally. Hence a cumulative species description curve for large open water marine animals must start in 1758.

Now it seems a wholly reasonable assumption that easy to find or prominent marine animals are found first (big oil filled whales, sharks with the taste for human blood, big sluggish female sturgeons filled with eggs) and that finding new animals becomes progressively more difficult, as all but the most enigmatic and elusive animals are left to describe. Under such conditions the total number of species known through time will show an increase (Fig. One, from about 1835) and trace an ever-flattening curve. However, it is readily seen that the species description curve from 1758 does not do this. There appears to be a bit of a lag before a high point of discovery in the middle of the nineteenth century. The reasons for this are unclear. I suppose that initial interest in classification perhaps settled on terrestrial animals rather than big and awkward to store large marine animals. A series of wars and revolutions from the latter half of the 18th Century to 1815 may also have prevented opportunities for marine taxonomy. It would be interesting to look at description curves for different types of taxa (i.e. large marine animals verses birds or insects for example) to see if there are any consistent patterns.

However from the 1830s, there is a succession of monographs each describing a number of new species like Grey's work on cetaceans (1846) and various volumes of Cuvier & Valenciennes' *Historie Naturelle des Poissons* notably the work on sharks by Valenciennes published in 1839. Thereafter there is a slow decline in new species discoveries reflected in the ever flattening species description curve. There is some debate in statistical circles as to the exact shape of this curve but it seems a reasonable assumption to say at infinity all species will be discovered (discounting the evolution of new ones)! One fairly easy class of curves to fit are called rectangular hyperbolas. The curves are specified by two numbers, one of which is the same as the number at which the curve will level off at infinity, so by estimating the curve you can determine the total number of species that will be discovered. There are methods of fitting different sorts of curve that are probably better but this is one of the simplest. This sort of curve assumes an ever-decreasing rate of species description. This is not the case for the period 1758-1830 or so. Therefore it had to be started from a year of high descriptions. My original choice of 1830 is probably a little too early, a little later would be better but for comparison I will stay with my original choice.

My database of large open water animals that grow to 2 m plus in length now contains 220 species of these 119 were described between 1830 and 2000. This compares to 217 species in my 1998 analysis. The new three species were not described in the period 1995 - 2000, they were omissions on my part. A revised fit of data from 1830 to 2000 inclusive, gives a revised estimate of the maximum number of species of 271 (the predicted number (170) plus the 101 described up to 1830). As a total of 220 are described now this leaves 51 awaiting discovery (a slight change from my original estimate of 47. Also a bit of algebra tells us that the current annual rate of description is about one every five years. But how good is this estimate?

Under most conditions statisticians like to put error bars or confidence intervals on their estimates as a way of indicating the precision of the predictions. Unfortunately for this simple method, no such generally accepted method for estimating errors has been devised and so as to prevent a spurious belief in the precision of the results I am reluctant to give any error bars. This state of affairs is unsatisfactory and I am currently working on a method around it and a way of improving the fit of the model to the data. However it seems a pretty safe bet that the real figure for unknown, open water marine species is unlikely to be in the hundreds.

There are a number of other problems with this analysis. It assumes that sampling effort (i.e. the work involved in finding new species) for the period 1830 - 2000 has been constant. This is not the case. Of course "sampling effort" is impossible to determine but to my mind with ever more marine biology research vessels and more laboratories and more humans on the earth to report strange corpses stranded on beaches, the chances are that overall "effort" has increased. In which case the results here are an overestimate. Some Cryptozoologists may argue the opposite, that most modern ocean going craft are noisy and they are restricted to a limited number of sea-lanes. Thus vast tracts of the ocean surface are never seen. I suspect this argument may be correct in part but it will reflect fewer *sightings* of unknown animals rather than discoveries which tend to rely on stranding or accidental netting.

Discovery of course is distinct from description and there can be a considerable gap between the two. The megamouth shark was discovered in 1976 but not described until 1983. The specimens that lead to the description of the beaked whale *Mesoplodon peruvianus* were first uncovered in 1976 but description did not occur until 1991. The discovery and description of *Mesoplodon peruvianus* demonstrates how complex a discovery can be and how rare the classic Cryptozoological discovery sequence may be (i.e. eyewitnesses see unknown animal, (crypto)zoologists investigate, finally a body is secured and described, eyewitnesses and (crypto)zoologists are vindicated). Unidentified *M. peruvianus* were seen prior to its description and possibly its discovery! Possible unidentified *M. peruvianus* were also seen *after* its description!

The first inkling of a new species came in 1976, when James Mead, an American zoologist came across some skeletal remains in Peru. Nine years later, some fisherman caught a female calf off Peru, the skeleton of which was purchased by the Peruvian zoologist Julio Reyes. Over the next four years, more specimens turned up but were normally incomplete by the time the zoologist managed to secure them. In 1991 *Mesoplodon peruvianus* was formally described but no one really knew what the healthy alive animal actually looked like. Meanwhile since the 1980s, zoologists had been reporting an unknown *Mesoplodon* whale in the eastern Tropical Pacific, a beast that came to be called *Mesoplodon Species A*. Most of these sightings were north of the major Peruvian stranding zone of *M. peruvianus* so at first no link was made. Still by 2001, 65 sightings had been made and the evidence linking *Species A* and *peruvianus* was becoming more compelling. *Species A* is a small *Mesoplodon* as is *peruvianus* and both have a short beak. However the jury is still out until a clearly identifiable male of *Species A* with its distinctive chevron patterns can be dissected and shown to have the skeletal structure of *peruvianus*. The story is further complicated the existence in the eastern tropical Pacific of an unidentified *Species B* (known from the field), the described *M. bahamondi* (not really known from the field) and further species currently under description (therefore not known anywhere). It is possible that a specimen of *Species A* was washed up in Peru as long ago as 1955 but alas this was not preserved. Interestingly

not one of the researchers involved in this complicated tale has to my knowledge ever described themselves as a Cryptozoologist. The above series of events also illustrates another point that may intrigue Cryptozoologists, given the lag between discovery and description, it is a reasonable assumption that the material leading to the description of the next two giant open water species is already in hand. We know this is the case for the one species whose description is currently under review but I wonder what else is resting unnamed and unrecognized in a museum somewhere?

Anticipating future discoveries depends on using the past to extrapolate to the future. This may not always be a good idea. Each morning for the last 33 years, I have woken up alive but it would be incorrect for me to therefore infer I am going to live forever. This is what philosophers call the problem of induction, originally discussed by Hume in the eighteenth century. The merits of induction have been argued by philosophers throughout the 20th century and here is not the place to enter that debate, suffice it to say induction works for me (and everyone else) as an every day tool most of the time so I will use it here. Strict rejection of induction leads to a position where nothing whatever can be ever predicted from experience. In 1998, I said that one species would be described once every 5.3 years. The last large open water marine animal was described in 1995, if a new species is described in 2002 it will be only a few months late!

The method has another problem; it would break down if the way in which species are recognized radically changed e.g. increasingly morphological “single” species are found, upon investigation by molecular geneticists, to be species complexes. If this were the case for large marine animals we may see many more species suddenly described in the next few years. Of course these would not be cryptids, the term commonly used by Cryptozoologists, but they would be new species.

So what are the animals on the list of large open water marine animals and what are those awaiting discovery (and description)? Unsurprisingly whales and sharks dominate the list. But upon second thought this is actually quite strange. Why should the largest marine animals be mammals or cartilaginous fish? The mammals are well represented both as big sieve feeders like the baleen whales and apex predators like killer whales and elephant seals. There must be something very good about being a mammal in the sea that offsets the costs associated with returning to the surface to breathe and in the case of the seals, walruses and sea lions returning to land to breed. Presumably the advantages are those associated with a warm-blooded metabolism and there is evidence that mammals have to be big in water to maintain heat balance.

Why many of the biggest fish are sharks is another interesting problem. There are over 30,000 species of bony fish, about twenty times the amounts of cartilaginous fish. Yet only 55 are large open water sea dwellers compared to 60 large sharks and rays. Comparison of the largest bony fish with their cartilaginous neighbors provides a clue as to why this should be. Whilst there are a great number of exceptions, many of the largest bony fish are similar to sharks. Tuna fish, like the great oceanic sharks, are streamline, lack a swim bladder and may have partial warm-bloodedness. They also ventilate primarily by letting water flow straight over their gills by the force of their movement, with little if any pumping action, the primary mode of ventilation in open water sharks. If bony fish are becoming shark like, it would seem (to cut a long convoluted story short) that shark design is better at existing at large sizes in open water than bony fish design. I suspect this is because the major bony fish advantage, the swim bladder, is unwieldy at a large size and the advantage it confers,

weightlessness with attendant maneuverability, is lost at a large size. But not all open water fish are sleek and streamlined as we typically associate with open water. There are a number of frankly odd shaped fish that have an uncharacteristic lifestyle in the open waters of the world. These include the oarfish of the genus *Regalecus* which possibly spend most of the time vertical in the water and the sunfish (family: *Molidae*) huge plankton feeders with a ridiculously small mouths (three large species known).

There are several large fish of the benthos which do not get into my list such as the wobbegongs, sawfish and guitarfish but there are some essentially sea bed dwelling fish that have for reasons unknown, been reliably caught in open water. This includes such fish as *Lophius piscatorius*, the European coastal anglerfish and the Atlantic halibut (*Hippoglossus hippoglossus*). Both halibut and *Lophius* are normally thought of as ambush predators for they are both well camouflaged when on the seabed. It must sometimes pay to snack higher up in the water column.

Invertebrate animals are massively underrepresented on this list and this presumably reflects the effectiveness of the internal skeleton of vertebrate animals. Indeed using the main part of body rule (somewhat loosely) only four squid (assuming conservatively *Architeuthis* is one species), one urochordate the colonial *Pyrostremma* and one Cnidarian (jellyfish) get in. The longest animal in the world by my reckoning *Cyanea capillata*, the Lion's Mane jellyfish is in my list on the basis of its manubrium (head) diameter of 2 m rather than the very long trailing tentacles otherwise I would have to include a large number of insubstantial jellyish things with trailing tentacles.

One problem in considering these species is the size criteria. I used length of the main part of the body rather than weight, as weights tend to be transient; sometimes fish swallow a lot of water or have a big meal for example. But how big do species grow? This is difficult. With my original data set I used accepted authorities as my source of size data, i.e. well respected accounts of particular groups of animals or regions such as, *Smith's Sea Fishes or Fishes of the North Eastern Atlantic & Mediterranean*. Sometimes these tomes did not include references to actual specimens. On further reflection it seems clear that a lot of rounding up (and even exaggeration) occurs so I am now collecting records of actual specimens. This may mean my list becomes dramatically shorter. For example detailed investigation of the largest known specimens of *Lophius piscatorius* seems to suggest that the 2 m maximum quoted for this species may be a rounding error and that no specimen greater than 180 cm has actually been found. Of course species can also increase in size but in the five years I have been collecting data this has only happened once.

Why is it worth considering these big species? All of them potentially could be seen underwater or perhaps breaking surface and therefore could be taken by a naïve observer as unknown species of the depths. Also it is useful for aquatic Cryptozoologists to be aware of the vast range of open water marine animals. If an unknown animal is going to be invoked, as an explanation of a given sighting of a cryptid *all* alternative and more probable explanations (i.e. of known species) should be rejected. In any given case the chances of all possible alternative animal explanations being eliminated is highly unlikely. There must be exceptionally good grounds for thinking that the observer has the background to recognize an unknown species in a given area. In my opinion there are very few such witnesses and very, very few such encounters. Consider a loose, not very statistically precise example: imagine a "monster" spied from shore on the eastern coast of Scotland say on the cliff top walk less than a mile from where I type this. First consider all possible inanimate objects the witness might have seen then

consider all the small commonplace animals the witness might have seen then, finally, consider some total of large *known* marine animals the witness might have seen. By my reckoning in the North Sea (not normally considered that species diverse) this could include as many as 40 different species of large (greater than 2 m) fish, marine mammal or invertebrate. Most are rare visitors but a rare visitor is more likely than an unknown species. Is the witness aware of all the different species he or she might have seen? Could he or she recognize them and categorically reject them as the object seen? The answer is almost certainly no.

Whilst eyewitnesses very seldom see unknown large marine animals this does not mean they are not there and using induction we can make inferences from what we have found to what we may find. In the future I intend to look at large benthic animals as well as perform regional and by taxa analyses to determine what and where new animals are likely to be found. Suffice it to say at this stage, provisional analysis suggests that all other things being equal, new large species are likely to be fish, mammals and invertebrates. New large fish are slightly more likely to be cartilaginous rather than bony. Sea serpents, if they exist, are unlikely to be some kind of invertebrate animal or a reptile. These inferences are based solely on the description rates in the past nevertheless they back up what makes sense in terms of anatomy and physiology.

Thus even something as seemingly useless as the date of description can, if analysed with some (but not much as yet) vigour, provide useful information. I hope I have convinced the reader that even the unknown can be investigated in a scientifically quantitative way. There are many other Cryptozoological questions that could also be examined quantitatively. One current project of mine involves, in collaboration with some psychologists, testing the accuracy of eyewitness testimonial over water. We hope to understand exactly what biases can occur and hence the value that can be attached to claims of sightings of unknown animals. But that is an article for another day.

References for Further Reading

For technical details of the model fitted the reader is referred to Paxton (1998).

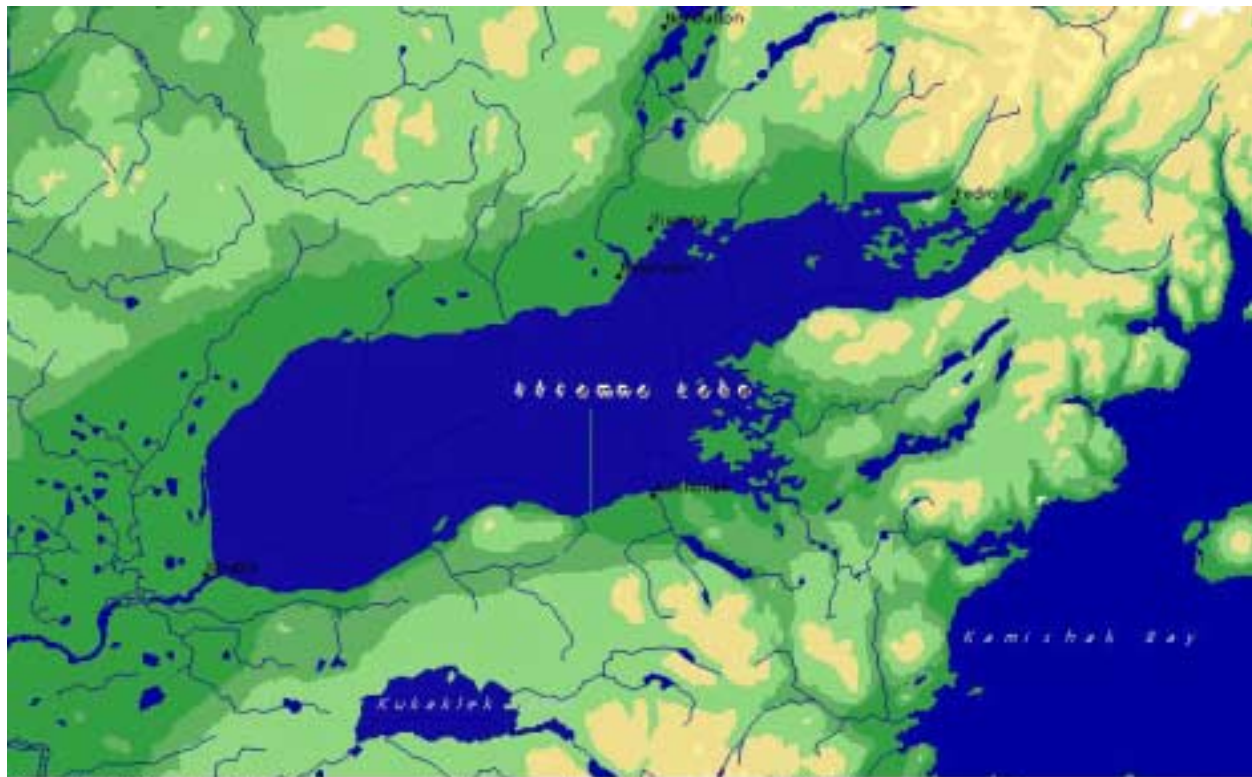
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WHAT LIES BENEATH LAKE ILIAMNA?

By Matt Bille (© 2001)

Alaska is a land of countless lakes, many of them impressively large. The largest of all is Lake Iliamna, which Ivan Sanderson described as “*not a lake at all but really an inland sea.*” Some 80 miles long and with a surface area over a thousand square miles, Iliamna is approximately the size of the state of Connecticut. This makes it the second-largest fresh-water lake (after Lake Michigan) lying entirely within the United States. Iliamna has a mean depth of 144 feet and is over 900 feet deep in some areas. The lake is connected to Bristol Bay, 60 miles southwest, by the Kvichak River, through which such marine mammals as harbor seals and belugas can travel. Iliamna even has a resident population of harbor seals, along with a very successful sport-fishing industry.



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The most intriguing thing about Lake Iliamna, however, is the possibility it houses huge unknown animals. These are totally unlike the oft-reported “lake monsters,” with their small heads and long necks. Instead, the animals alleged to live in Iliamna look like gigantic fish.

Reports of something odd in Iliamna go back to the Aleut and other indigenous tribes, although no one knows how far back in time these stories began. The Aleuts did not hunt the lake’s creatures, and believed them to be dangerous to men fishing in small boats. Some early white settlers and visitors reportedly saw the things, too, but the stories about

Iliamna did not gain wide circulation until the 1940s, when pilots began spotting monsters from the air. The flyers' descriptions generally matched the native tales. The lake's mystery inhabitants were most often described as long, relatively slender animals, like fish or whales, up to 30 feet in length.

In 1988, bush pilot and fishing guide "Babe" Alsworth (commonly misspelled Aylesworth) recounted his 1942 sighting in an interview with Cryptozoologist Loren Coleman. Alsworth saw several animals, each well over 10 feet long, in a shallow part of the lake. He said they had fishlike tails and elongated bodies. He described the color as "*dull aluminum*." Larry Rost, a survey pilot for the U.S. government, saw a lone creature of the same type while crossing the lake at low altitude in 1945. Rost thought the animal was over 20 feet long.

There have been at least three attempts to find or catch Iliamna's mystery inhabitants. In the 1950s, sportsman Gil Paust and three companions (one a fisherman named Bill Hammersly, who had been in the plane with Alsworth in 1942 and shared his amazing sighting), tried to fish for the creatures. According to Paust, something grabbed the moose meat used as bait and snapped the steel cable it was hooked to. In 1959, oilman and Cryptozoology enthusiast Tom Slick hired Alsworth to conduct an aerial search of the lake, but nothing was sighted. An expedition in 1966 also apparently met with no success, as no results were announced.

In 1979, the Anchorage *Daily News* offered \$100,000 for tangible evidence of the Iliamna creatures. The reward brought both serious and non-serious researchers (one man reportedly played classical music to lure the animals up). Apparently, there has never been a well-financed expedition with sophisticated sonar and photographic gear.

According to a 1988 article in *Alaska* magazine, a noteworthy (but unnamed) witness was a state wildlife biologist. In 1963, this official was reportedly flying over the lake alone when he spotted a creature which appeared to be 25 to 30 feet long. In the ten minutes it was under observation, the thing never came up for air. Other flying witnesses mentioned in media accounts include a geologist who flew over the lake with two companions in 1960, reportedly spotting four 10-foot fish, and air taxi pilot Tim LaPorte in 1977.

In LaPorte's case, the veteran pilot and air-service owner was near Pedro Bay, at the northeast end of the lake. He was flying just a few hundred feet above a flat calm surface. LaPorte and his two passengers, one a visiting Michigan fish and game official, saw an animal lying still, its back just breaking the surface. As the plane came closer, the creature made a "big arching splash" and dove straight down. LaPorte remembers watching a large vertical tail moving as the animal sounded. Comparing the object to an 18-foot boat often observed from the same altitude, LaPorte and his companions estimated the thing was 12 to 14 feet long. LaPorte described the object as either dark gray or dark brown. LaPorte had been a passenger in a different aircraft in 1968 when the other two individuals in the plane had a very similar sighting. (LaPorte, who was in the left seat, could not see the animal from his side.)

Modern sightings have occurred mostly near the villages of Iliamna and Pedro Bay. It was off the latter town in 1988 that several witnesses, three in a boat and others on shore, reported one of the creatures. In this case, it was described as black. One witness thought she could see a fin on the back, with a white stripe along it.

Lake Iliamna is still an isolated body of water, its shores largely unpopulated. The

largest village, Kakhonak, counts only 200 permanent residents. The lake cannot be reached overland. Summer visitors must come by boat or fly in to a single airstrip. If there are unusual creatures in the lake, it's hardly surprising that a long time can pass between good sightings.

A common theory about the Lake Iliamna creatures (sometimes called "*Illies*") is that they are gigantic sturgeon. These could be either an outsized population of a known type or an unknown species. Sturgeon — huge fish with armorlike scutes covering their backs and a heritage going back before the dinosaurs — match most descriptions from Iliamna fairly well. A witness named Louise Wassillie, who watched a creature from her fishing boat in 1989, said specifically, *"It's only a fish. It was about 20 feet long and had a long snout. Probably a sturgeon."*

Biologist Pat Poe of the Fisheries Research Institute (FRI) at the University of Washington, who has studied the salmon populations in Iliamna and neighboring Lake Clark, once commented, *"I'm sure there's a big fish. I think the lakes have a lot of interesting secrets. We don't know much about other resident fish in the lake."* Warner Lew, currently the senior biologist with the FRI's Alaska Salmon Program, agrees the lake seems a suitable habitat for large sturgeon. Lew reports several witnesses have told him of sighting giant fish, but he has yet to see any fish larger than a four-foot Northern pike in his 24 years of research visits to the lake.

The white sturgeon (*Acipenser transmontanus*) is the largest known fresh-water fish in North America. The record claim for a white sturgeon, caught in Canada's Fraser River in 1912, was 20 feet in length and 1,800 pounds. A fish of 1,500 pounds was reported caught in 1928 in the Snake River in the northwestern United States. An 11-foot specimen weighing 900 pounds was found dead on the shore of Seattle's Lake Washington in 1987.

Sturgeon expert Don Larson, curator of the Sturgeon Page Website, reports that sturgeons over 10 feet long are often caught in the Fraser and Columbia Rivers. Larson comments, *"Most biologists I've talked to say that white sturgeon over 20 feet and 1800 pounds is highly probable."*

White sturgeons are not known from Iliamna, but have been found in other Alaskan lakes and in coastal waters as far north as Cook Inlet. There is a single record of a catch in Bristol Bay, which puts a migration to Iliamna within the bounds of possibility. It's also plausible that white sturgeon became trapped in the lake thousands of years ago, when the last glaciers receded, and have developed in isolation.

Sturgeons are bottom-feeders and would rarely be seen near the surface, which fits the Iliamna phenomenon. The appearance of white sturgeon — gray to gray-brown in color, with huge heads and long cylindrical bodies — match most Iliamna reports. (No one is certain how the species got the name "white sturgeon," although some genuinely white specimens have been reported from salt water.)

It may be a distinct sturgeon population has developed, distinguished from the known white sturgeon mainly by unusual size. Whether this hypothetical type is different enough to be a new species is unknown. There is plenty of food in Iliamna, where averages of 20 million sockeye salmon return to the lake from the sea every year. There is also plenty of room. Iliamna has 15 times the volume of Loch Ness. At the same time, it must be admitted there is no physical or film evidence for unknown creatures of any kind.

A landlocked population of fish becoming larger than their relatives which are anadromous (dividing their lives between fresh and salt water) would be unusual. In most cases where a species has become split between freshwater and anadromous populations, as with salmon, the freshwater variety becomes smaller. However, this rule may not be valid for Lake Iliamna, with its huge size and bountiful food supply.

So what is lurking in Lake Iliamna? Sturgeons? Monsters? Tall tales? Or something completely different? Whatever is going on constitutes one of the most intriguing lake monster mysteries in the world. If I had to pick one "monster" lake to bet on as the home of a real creature of prodigious size, it is Iliamna, rather than the better-known candidates in Canada and Scotland, where I would put my money.

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The Sea Serpent of Lake Memphrémagog

By Jacques Boisvert (© 2001)

Lake Memphrémagog, an international lake located in Canada and the United States, 70 miles east of Montreal, straddles the United States border. The white man has been living around the lake for only two centuries. Before this, the area was favored by the Natives due to the abundance of game and fish.



The early pioneers who settled along the shores of Lake Memphrémagog were far from entertaining any thoughts that they would hear about a sea serpent in Lake Memphrémagog.

Ralph Merry is acknowledged as the first pioneer to settle in Magog (Outlet) in 1798. His son, bearing the same name, wrote in his journal dated 1816, kept at the Stanstead Historical Society, that he met eight persons who related having experienced four sightings of the sea serpent of Lake Memphrémagog. He added: *"I heard (sic) it said that Indians would not go into this lake because there were great serpents or aligators (sic) in it."* After a great deal of research, Merry's narration may be one of the oldest known in the world of Cryptozoology (science of hidden animals).

In their treatise on Geography published in 1871, The Christian Schools Brothers mentioned on page 28, concerning the animals of Québec, *"There are no rattlers; one has seen aspics, but they are extremely rare. One must not forget the large serpent named Anaconda, and which shows itself free at lake Memphrémagog."* Our ancestors learned this in school, in those days, an order of teaching brothers who published books used by pupils was taken seriously. That is to say that the tradition of an underwater monster in Lake Memphrémagog has known continuity for almost 200 years.

Around 1980, I started my interest in the history of the lake, intrigued by discoveries made during underwater dives. I commenced to accumulate data which brought me to found that same year *"la société d'histoire du lac Memphrémagog."* Later on I found documents relating to sightings of a creature in the lake [in French we use "apparitions" a word suggested by l'Office de la langue française du Québec]. One of the earliest sighting dated in 1847 which appeared in the Stanstead Journal and of which an extract follows: *"I am not aware if this is generally known that there exists in Lake Memphrémagog strange animals such as grant sea serpents or alligators etc..."*

A French author, Michel Muerger, ethnologist of l'Institut Métapsychique Internationale de Paris with Claude Gagnon, BSC, of l'Université du Québec of Montréal, wrote in 1982 a book entitled *Les monstres des lacs du Québec*, since translated in English under the title *Lake Monster Traditions* (Fortean Tomes, England, 1988). I had supplied Mr. Muerger with all the documentation that I had in my possession and it was used in an entire chapter of the book.

During the years of 1850, 1853, 1855, 1866, 1871, 1877, 1879, 1892, many newspapers reported sightings of a creature in Lake Memphrémagog.

On the 22nd of June 1987, I wrote to Mrs. John Webster, who was a witness to such an incident in 1935, and here is part of her reply:

“Dr. Claussen was having a fire on the beach. It was snowing at the time, it was in October. Dr. Claussen came up to the cottage all excited and said : “I want you to come down and see if you two see what I do. As Mrs Claussen and I got down to the beach it (alligator type monster) was disappearing into the lake..... It left very large tracks. Fifty years is a long time ago.”

This statement is very convincing is it not?

A precious find is the book *Uriah Jewett and the Sea Serpent of lake Memphrémagog* published in 1917, in Newport, Vermont. This book is very scarce although the content is very sketchy concerning sightings. Nevertheless Uriah Jewett remains a real person and legendary in the annals of our lake history.

In 1983, after having completed about 1000 underwater dives I still had not found traces of the sea serpent. I then decided to write an article on the subject on the 18th of August for the *Newport Daily Express*, under the title *Lake Memphrémagog’s Anacondo, a myth, a legend or a reality?* The aim was to obtain an answer or some information. The answer was not long in waiting and I received a letter from Mrs. Barbara Malloy of Newport, and here is an excerpt:

“After reading your article on Magog’s mystery serpent in the Newport Daily Express, I just had to write to you, relating our own phenomenal experience the day before. I, along with my two daughters.....and she writes the description of her sighting.....Should we believe there is a mystery serpent in lake Memphrémagog.....?”

I was most skeptical, but I answered her letter immediately including a map of the lake asking her to indicate the exact location, a drawing of the creature, and all the possible descriptions of what she had seen. The answer was not long in waiting again, together with all the pertinent data required. I telephoned her, and we set a rendezvous. After having discussed the incident for a long time, I found her most convincing.

During that time, I pursued my research and I was in contact with a monk at the Benedictine Abbey of St-Benoît-du-Lac. I knew that the science that deals with the study of hidden animals was named Cryptozoology but I wanted to find a word that would identify the science dealing with strange lake dwelling creatures that could live in our lakes. My friend, a Benedictine Friar and a linguist, found the word :”*dracontologie*,” which was officially accepted by *l’Office de la langue française du Québec* on December 3rd 1984. We did have the English toponym (Dracontology) accepted one year later by the *American Heritage Dictionary*. Starting in 1986, with a colleague in the United States, Mrs. Barbara Malloy from Newport, Vermont, we officially established *la société internationale de dracontologie du lac Memphrémagog*.

As our creature did not have a name, we had to find one; all the names of known monsters had English names: Kelpie, Nessie, Tessie, Caddie, Champ etc.... I thought of

“Memphré” which would become the first aquatic creature with a French name. These events took place during the time when the Canadian and American governments were negotiating the Free Trade Deal and here in Québec, more than one person worried over losing their French identity over this treaty which became in effect on January 1st 1989.

Mrs. Malloy and I visited the representatives of the City of Newport, Vermont, where we submitted an international cordial accord to be accepted by the Cities of Magog and Newport, which was signed on June 19, 1986 during an international press conference held in Magog under the flags of Canada, United States, Québec and Vermont.

At that time, our society had recorded 46 sightings, involving about 92 persons. Nine witnesses were present at the conference and available to journalists to confirm having seen strange things in the lake, possibly “Memphré.” Since that time our creature has been a happy subject for some, mysterious for others and certainly a curiosity for all news media. Our society has worked very hard and to this day we count 182 sightings. We have always been frank in our writings and in our declarations. Those who have accused us of promoting a hoax had to suffer a retreat.

During the first year of our society the Legislative Assembly of Vermont passed a law (#J.H.R. 19) on March 17, 1987, and adopted unanimously, for the protection of “Memphré.”

A similar request was presented to the government of Québec. We have had numerous meetings with the senior civil servants involved, but up to this day there has been no action. We still hope that the government will treat our work in a more serious fashion.

William Owen, author of a book entitled the *Loch Ness Monster*, in 1984 divides his readers into groups: firm believers, those who won’t believe until they are bitten by a monster and those who retain an open mind. Quite often I have been asked if I believed in the phenomenon of “Memphré”? I rather class myself with those who have an open mind since my philosophy is thus: “*I am for everything and against nothing.*” It is not because I have not seen that it does not exist.

Totaling over 6000 scuba dives in the past 21 years, I have yet to encounter this intriguing and elusive friend, who knows? Maybe this year which coincides with our 15th anniversary will lead to an encounter?

In contrast, my American colleague Mrs. Malloy, has a different concept, the following is an excerpt from an article written by Peter Scowen and published in *The Stanstead Journal*, dated June 8th 1988.

“She wants positive proof of what she saw from Shattuck Hill that August evening in 1983. She goes back there in the morning, sometimes with a mug of coffee, a pair of binoculars and a camera in hopes she can put all doubts to rest. It would be nice if we were the first to scientifically document the existence of this animal. One hundred and fifty years have gone by and we’re still at square one. Am I going to my grave like Uriah Jewett did? she asks. I don’t want to die without documenting it, or one hundred years from now people still be saying it’s just a legend.”

Times change, and the openness of mind of people makes things easier for us, they cheerfully relate to us what they have seen. It is true that our society as received and

extraordinary coverage from the media such as: “Dossiers Mystères,” “On the road again,” “On a pas tout vu,” “On aura tout vu,” “Les Tannants,” twice with “Reflet d’un pays,” “Channell 5, Boston,” “Les routes du Québec,” “WCAX TV,” and many other documentaries on this strange subject.

As an example, here is a resume of the sightings for the year 1995. Our society has registered five sightings and each one involved at least two persons. I cannot doubt the credibility of the witnesses. An abbreviated version of their declarations follows:

1995 May 4, 1 sighting, 2 persons. Greg Ducan, publisher of the Stanstead Journal with Peter Ellis saw (see above mentioned document). The sighting lasted 45 seconds to 1 minute. They were at the pier situated at Harvey Bay. This sighting was recorded on May 23, 1995 on a radio-cassette #000 @ 165 by the undersigned. Greg related his experience in his newspaper; “I saw Memphré, I am not kidding.” 1995- May 21, 1 sighting, 2 persons, Alain Marillac et Jocelyne Beaulé from Montreal saw a bizarre creature at Magog Public Beach measuring from 20 to 30 feet in length.

We have their declaration on a radio cassette plus drawings. The description is different since they were not at the same place when it appeared.

1995- July 19 1 sighting 2 persons. Melissa Hathaway and her stepmother Mona Hathaway saw at Prouty beach, Newport, in a few feet of water a snake like creature. They saw the eyes. The sighting lasted five minutes. 1995- July 25, 1 sighting involving 5 persons. Jean-Noël Fortin with 4 other persons saw a three humped object for a 2 minute period in Long Bay. They observed the creature for 2 minutes and where only at 150 feet. It left a pool of air bubbles after diving back into the lake. 1995 August 4, 1 sighting, 2 persons, Alain Marillac et Jocelyne Beaulé, same persons as mentioned in document 160- They saw a creature and recorded on a video at the same place as before.

We have a letter dated September 1st confirming it and the video was shown on the Canal D (*Mystères du Monde*) on October 27, 1995. The last sighting reported was on August 2, 2001- where two persons heard a big noise, looked in front of their boat to see something with humps coming towards their boat. It plunged into the lake 5 feet from their boat. As of this day we have 230 sightings in our archives.

Our research concerns specially three types of creatures. First the sea serpent with humps, then the sea horse, last the alligator type. The sightings most often observed in the lake are definitely the sea serpent with humps.

A study made by Bernard Heuvelmans (founder of Cryptozoology) and part of which was published in *The World Atlas of Mysteries* in 1978 by Francis Hitchings, states that the major sightings in the world were made on the Eastern coast of the United States. The sightings most often made were those of the sea serpent with humps. The largest number consists of sea serpent with humps, in second place the sea horse. One must not forget that Lake Memphrémagog is indirectly connected to the Atlantic Ocean through the rivers Magog, St. Francis, and St. Lawrence.

Our society works equally for the protection of the environment and hopes that

“Memphré” become an important spokesperson on the subject. He could even be an informer if he had to. As Brian Britt of *CFCF-TV* was saying in a report on the 19th of June 1986, as he was scrutinizing the lake from the Promenade Memphrémagog: *“I am watching in case I would see my friend “Memphré,” even if I don’t see him it’s a lot more fun to talk about him than to see him.”*

The late Doctor Bernard Heuvelmans was so kind as to give to me an inscribed copy of his book *“Le grand serpent de mer”* The inscription reads, *“To my dear colleague dracontologist, Jacques Boisvert, this treaty on underwater Dracontology, with all my congratulations.”* (signed) Dr Bernard Heuvelmans.

Dracontology is a branch of Cryptozoology. I hope that “Memphré” will try to show himself for the 15th anniversary of the founding of “La société internationale de dracontologie du Lac Memphrémagog.” (S.I.D.L.M.)

You who read these lines do not hesitate to communicate with us if ever you were fortunate to see the gentle creature of Lake Memphrémagog.



*The Serpent e're now in the depths did roam
Under Owl's Head to his cavernous home
After digesting this horrible meal
His snakeful majesty did out again reel,
Next to appear to Uncle Ri Jewett
In one of his visions that made him a poet.*

An extract from the poem *The Sea Serpent Legend* as written by Norman Bingham from the recited memory of Mrs. Mary Moore. Text appears as it did in William B. Bullock's *Beautiful Waters* (Bullock, Newport, 1926)

Jacques Boisvert is the President and founder of *la société internationale de dracontologie du lac Memphrémagog* and *la société d'histoire du lac Memphrémagog*. He is an avid scuba diver and has spent countless time beneath the water of Lake Memphremagog looking into the lake's history and natural enigma. Boisvert, a Crypto-Dracontologist, can be reached by e-mail at memphre@globetrotter.net, by phone at 819-843-9936 or by mail at 525 Verchères, Magog, J1X 3K8, Canada. The society's website is at www.memphre.com.

Cryptocetology And Mathematics: How Many Ceteans Remain To Be Discovered?

By Michel Raynal (© 2001)

(Based on a presentation by Michel Raynal at the third European meeting of
Cryptozoology, which took place in Rome in March 1999)

79 species of cetaceans are known to science today, recognized as valid by all cetologists. This order of mammals only contains large-sized animals, or even some true giants: the blue whale (*Balaenoptera musculus*), which may reach 30 m (100 feet) in length. These animals being thus conspicuous by their size, one could believe that all the species of this zoological group are already known ó but it is not the case. The immensity of the oceans, the speed of many cetaceans, the rarity of some, the discretion of the others (they do not all have the conspicuous blow of the whalebone whales), and even the intelligence of these animals, have obviously preserved them for a long time, and certainly are still preserving the anonymity of some of them.

79 Known Species...

This is a complete list of the 79 cetaceans known at the end of the twentieth century (fortunately, this article did not concern rodents or chiropteres, which constitute the big legions of mammalian species...), with the name of the describer and the date of description. This list was made from the data by Honacki, Kinman and Koepl, *Mammal species of the world* (1982), completed by the most recent works by Reyes, Mead and Van Waerebeek (1991), and by de Reyes, Van Waerebeek, Cardenas and Yanez (1995). So, everybody will be able to control the reality of my claims.

Scientific name	Vernacular (French) name	Author	Date
<i>Balaena mysticetus</i>	baleine franche du Groënland	Linnaeus	1758
<i>Eubalaena glacialis</i>	baleine franche de Biscaye	Müller	1776
<i>Eubalaena australis</i>	baleine franche australe	Desmoulins	1822
<i>Caperea marginata</i>	baleine pygmée	Gray	1846
<i>Balaenoptera musculus</i>	rorqual bleu	Linnaeus	1758
<i>Balaenoptera physalus</i>	rorqual commun	Linnaeus	1758
<i>Balaenoptera borealis</i>	rorqual de Rudolph	Lesson	1828
<i>Balaenoptera edeni</i>	rorqual de Bryde	Anderson	1878
<i>Balaenoptera acutorostrata</i>	petit rorqual	Lacépède	1804
<i>Megaptera novaeangliae</i>	mégaptère	Borowski	1781

<i>Eschrichtius robustus</i>	baleine grise de Californie	Lilljeborg	1861
<i>Physeter macrocephalus</i>	cachalot	Linnaeus	1758
<i>Kogia breviceps</i>	cachalot pygmée	de Blainville	1838
<i>Kogia simus</i>	cachalot nain	Owen	1866
<i>Monodon monoceros</i>	narval	Linnaeus	1758
<i>Delphinapterus leucas</i>	bélouga	Pallas	1776
<i>Berardius bairdi</i>	bérardie de Baird	Stejneger	1883
<i>Berardius arnuxii</i>	bérardie d'Arnoux	Stejneger	1883
<i>Hyperoodon ampullatus</i>	hyperoodon arctique	Forster	1770
<i>Hyperoodon planifrons</i>	hyperoodon antarctique	Flower	1882
<i>Ziphius cavirostris</i>	baleine à bec de Cuvier	Cuvier	1823
<i>Tasmacetus shepherdi</i>	tasmacète de Shepherd	Oliver	1937
<i>Mesoplodon densirostris</i>	baleine à bec de Blainville	de Blainville	1817
<i>Mesoplodon bidens</i>	baleine à bec de Sowerby	Sowerby	1804
<i>Mesoplodon europaeus</i>	baleine à bec de Gervais	Gervais	1855
<i>Mesoplodon layardii</i>	baleine à bec de Layard	Gray	1865
<i>Mesoplodon mirus</i>	baleine à bec de True	True	1913
<i>Mesoplodon grayi</i>	baleine à bec de Gray	von Haast	1876
<i>Mesoplodon bowdoini</i>	baleine à bec d'Andrews	Andrews	1908
<i>Indopacetus pacificus</i>	baleine à bec de Longman	Longman	1926
<i>Mesoplodon hectori</i>	baleine à bec d'Hector	Gray	1871
<i>Mesoplodon ginkgodens</i>	baleine à bec du Japon	Nishiwaki et Kamiya	1958
<i>Mesoplodon stejnegeri</i>	baleine à bec de Stejneger	True	1885
<i>Mesoplodon carlhubbsi</i>	baleine à bec de Hubbs	Moore	1963
<i>Mesoplodon peruvianus</i>	baleine à bec du Pérou	Reyes <i>et al.</i>	1991
<i>Mesoplodon bahamondi</i>	baleine à bec de Juan Fernandez	Reyes <i>et al.</i>	1995
<i>Orcaella brevirostris</i>	orcelle de l'Irrawadi	Gray	1866
<i>Peponocephala electra</i>	dauphin d'Electre	Gray	1846
<i>Feresa attenuata</i>	orque naine	Gray	1874
<i>Pseudorca crassidens</i>	pseudorque	Owen	1846
<i>Orcinus orca</i>	orque	Linnaeus	1758
<i>Globicephala melaena</i>	globicéphale noir	Traill	1809
<i>Globicephala macrorhynchus</i>	globicéphale tropical	Gray	1846
<i>Steno bredanensis</i>	sténo	Lesson	1828
<i>Sotalia fluviatilis</i>	sotalie ou <i>tucuxi</i>	Gervais	1853
<i>Sousa chinensis</i>	dauphin à bosse du Pacifique	Osbeck	1765
<i>Sousa teuszii</i>	dauphin à bosse de l'Atlantique	Kukenthal	1892
<i>Lagenorhynchus albirostris</i>	lagénorhynque à bec blanc	Gray	1846
<i>Lagenorhynchus acutus</i>	lagénorhynque à flancs blancs de l'Atlantique	Gray	1828
<i>Lagenorhynchus obscurus</i>	lagénorhynque obscur	Gray	1828
<i>Lagenorhynchus obliquidens</i>	lagénorhynque à flancs blancs du Pacifique	Gill	1865

<i>Lagenorhynchus cruciger</i>	lagénorhynque sablier	Quoy et Gaimard	1824
<i>Lagenorhynchus australis</i>	lagénorhynque à menton noir	Peale	1848
<i>Lagenodelphis hosei</i>	dauphin de Fraser	Fraser	1956
<i>Delphinus delphis</i>	dauphin commun	Linnaeus	1758
<i>Tursiops truncatus</i>	grand dauphin	Montagu	1821
<i>Grampus griseus</i>	dauphin de Risso	Cuvier	1812
<i>Stenella attenuata</i>	dauphin tacheté pantropical	Gray	1846
<i>Stenella frontalis</i>	dauphin tacheté de l'Atlantique	Cuvier	1829
<i>Stenella coeruleoalba</i>	dauphin bleu et blanc	Meyen	1833
<i>Stenella longirostris</i>	dauphin à long bec	Gray	1828
<i>Stenella clymene</i>	dauphin clymène	Gray	1850
<i>Lissodelphis peronii</i>	Lissodelphis austral	Lacépède	1804
<i>Lissodelphis borealis</i>	Lissodelphis boréal	Peale	1848
<i>Cephalorhynchus heavisidii</i>	céphalorhynque du Cap	Gray	1828
<i>Cephalorhynchus hectori</i>	céphalorhynque à front blanc	van Beneden	1881
<i>Cephalorhynchus eutropia</i>	céphalorhynque noir	Gray	1846
<i>Cephalorhynchus commersonii</i>	dauphin de Commerson	Lacépède	1804
<i>Phocoena phocoena</i>	marsouin commun	Linnaeus	1758
<i>Phocoena spinipinnis</i>	marsouin de Burmeister	Burmeister	1865
<i>Phocoena sinus</i>	marsouin de Californie ou <i>vaquita</i> ou <i>cochito</i>	Norris et McFarland	1958
<i>Phocoena dioptrica</i>	marsouin à lunettes	Lahille	1912
<i>Phocoenoides dalli</i>	marsouin de Dall	True	1885
<i>Neophocaena phocaenoides</i>	marsouin de Cuvier	Cuvier	1829
<i>Platanista minor</i>	plataniste ou <i>susu</i> de l'Indus	Owen	1853
<i>Platanista gangetica</i>	plataniste ou <i>susu</i> du Gange	Roxburgh	1801
<i>Inia geoffrensis</i>	dauphin de l'Amazone ou <i>boutu</i>	de Blainville	1817
<i>Lipotes vexillifer</i>	dauphin de Chine ou <i>baiji</i>	Miller	1918
<i>Pontoporia blainvillei</i>	franciscain ou dauphin de la Plata	Gervais et d'Orbigny	1844

I have then sorted out the data of this table in the chronological order of the descriptions (thanks to Microsoft Excel) and I have made a curve of the enrichment of the inventory of cetaceans, from Linnaeus ("the father of modern systematics") in 1758, to nowadays (figure 1). Of course, the curve is showing a more or less regular increase of the number of known cetaceans.

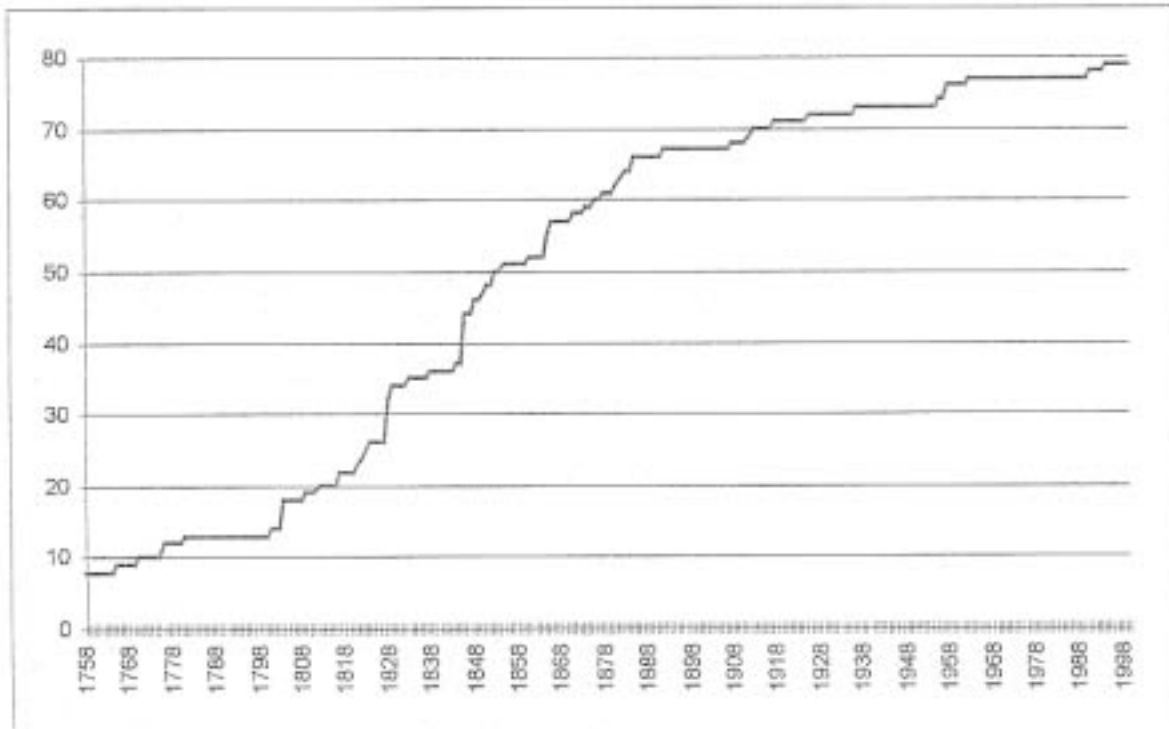


Figure 1 : cumulative inventory of cetaceans from 1758 to nowadays.

However, regrouping the descriptions per decades is much more striking than the previous curve, as the good and bad periods of descriptions are appearing quite clearly (figure 2).

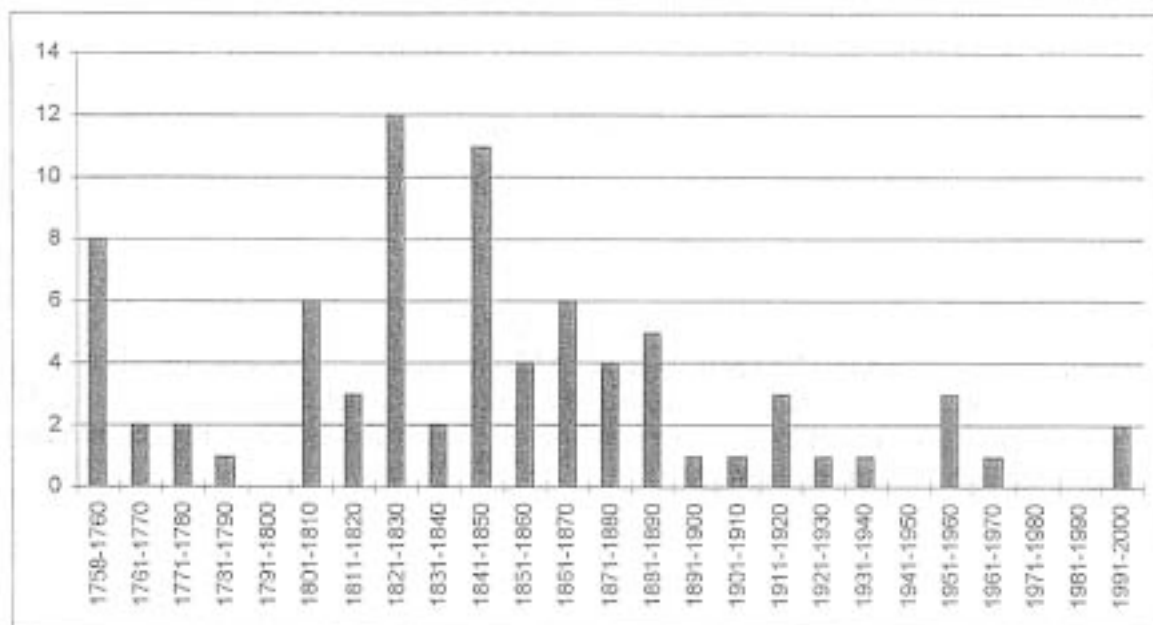


Figure 2 : descriptions of cetaceans per decades, from 1758 to nowadays.

It clearly appears that the best times for cetology were the first half of the nineteenth century, with 34 new species, then the second half of the same century, with 20 new species.

Although the speed of discovery dramatically decreased at the beginning of the twentieth century, no less than 12 species of cetaceans, of which 11 are marine species have been described since 1901.

Remarkably, the discovery of new cetaceans is remaining almost constant during the twentieth century, as 6 of these 12 new species have been described in the first part of the century, and again 6 in the second part, that is to say about one new species each 8 years (figure 2).

The two last known cetaceans are beaked whales, which were discovered in the 1990s:

- a new species of beaked whale described in 1991 as *Mesoplodon peruvianus* from specimens found stranded on the coast of Peru or caught in the nets of trawlers (Reyes, Mead and Van Waerebeek 1991).

- and another beaked whale of the Juan Fernandez archipelago, off the coast of Chile, described in 1995 as *Mesoplodon bahamondi* (Reyes, Van Waerebeek, Cardenas and Yanez 1995).

It should be emphasized that four of these twelve new cetaceans discovered in the twentieth century, represented a new genus (*Lipotes*, *Indopacetus*, *Tasmacetus* and *Lagenodelphis*).

Mysticetes (whalebone whales) represent only 11 species of the 79 (almost 14 %), whereas *odontocetes* (toothed whales) are the majority of the group with 68 species (more than 86 %). All the cetaceans described since the beginning of the twentieth century are *odontocetes*: the last of the *mysticetes*, the Bryde's whale (*Balaenoptera edeni*) was described in 1878, more than 120 years ago. And 7 new species of the 12 described in the twentieth century (about 58 %) are beaked whales of the genus *Mesoplodon*.

... and 15 Remaining to be Discovered?

All this data shows that cetaceans remain to be discovered, and are in fact discovered nowadays at a rhythm of about one new species each eight years, thus providing a theoretical basis to justify a cryptozoological search. The enrichment of the cetological inventory is following almost perfectly a hyperbola for the last 150 years (figure 3). Paxton (1998) has demonstrated that such a curve can be approached with an excellent accuracy with the mathematic formula:

$$S_{(n)} = \frac{S_{\max} \cdot n}{B + n}$$

Where **n** is the number of years since 1849 (taken as the origin),

S(n) is the number of cetaceans described from 1849 (when 46 species were already known) to the year **n**,

S_{max} and **B** are two constants which can be calculated with the method of the lesser squares (respectively **S_{max}** = 47.6 and **B** = 70.1).

We thus have:

$$S_{(n)} = \frac{47.6 * n}{70.1 + n}$$

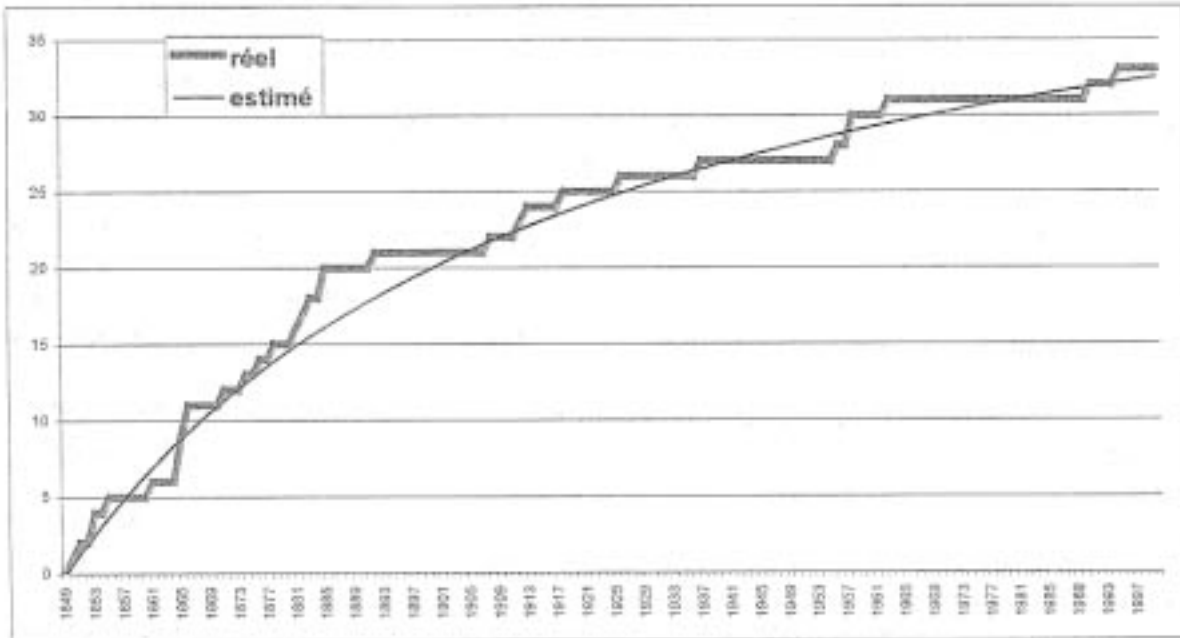


Figure 3 : theoretical approximate on the last 150 years.

The total number of species of cetaceans can be estimated with the asymptote to this curve, i.e. the limit value when n (the number of years since 1849) tends towards the infinite. It is given by $S_{\max} = 47.6$ species, or in round figures 48 species. In other words, there might be a total of 94 living species, to be added to the 46 already known in 1849, allowing through extrapolation a hope for discovering of $94 - 79 = 15$ cetaceans still unknown to science (figure 3).

Paxton (1998) estimated that 47 large-sized marine animals (more than 2 m long), remain to be discovered, by using this mathematical method. Cetaceans would thus account for almost one third of these large animals to be discovered.

It also appears that it is statistically rather unlikely that many *mysticetes* remain to be discovered, as the last one was described more than 120 years ago, and because they only represent 14 % of the cetaceans. On the other hand, we can presume that the species to come are more likely to be *odontocetes*, of which beaked whales should represent an important part. Now, it is precisely what can be said from a cryptozoological analysis of the reports on unknown cetaceans, which have been sighted but are yet uncaught.

Judging from my files, there would be indeed two whalebone whales still unknown to science, and about ten forms of *odontocetes* awaiting discovery. Following is a brief survey of some of the most documented of these mystery cetaceans.

The High-finned Cachalot and the Scrag Whale

A large cetacean known as the “high-finned cachalot,” looking like the common sperm whale (*Physeter macrocephalus*), but with a very high dorsal fin, was once observed off Scotland and the Shetland Islands. It was first described by Sir Robert Sibbald (the “father of cetology”) who compared the dorsal fin of this species with a “mizen mast.” It could not be a killer whale at all, because of its size, about 15 m (50 feet) long and of its teeth, only present in the lower jaw (Sibbald 1692). Karl Linnaeus (the father of modern systematics) named it *Physeter tursio* (“the sperm whale dolphin”) in the tenth edition of his *Systema Naturae* (Linnaeus 1758).

On both sides of the North Atlantic, a whalebone whale with no dorsal fin, has been observed (and even hunted by whalers) until the seventeenth or the eighteenth century. Known as the scrag whale to American whalers, because of the humps on its back, it is much similar to the California Gray whale (*Eschrichtius gibbosus*).

In 1937, in an article on fossil remains of the Atlantic form of this whale (sometimes called *Eschrichtius robustus*) for the Dutch zoological journal *Temminckia*, Van Deinse et Junge proposed the survival up to historical times of this cetacean, considered to have become extinct for thousands of years, in order to explain the reports on the scrag whale. This bold claim was verified in 1984 with radiocarbon dating of a sub-fossil jaw of this Atlantic Gray whale: discovered in 1977 at Southampton (New York State), it was only 275 years old (Mead et al. 1984) — a brilliant victory of Cryptozoology alas unknown to most Cryptozoologists.

Two-finned Cetaceans

Cetaceans with two dorsal fins have been reported from the Antiquity: two such terracotta dolphins (figure 4), about 10 cm (4 inches) long, of the third century B.C., from Apulia (southern Italia), could even be bought recently on an Internet site, for no less than 3,500 US dollars...

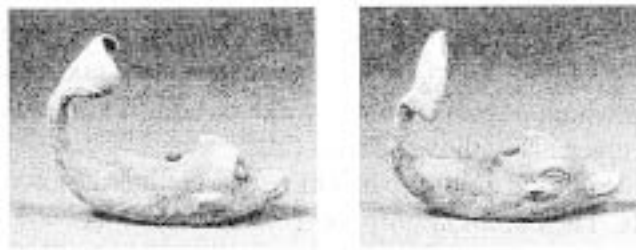


Figure 4 : terracota dolphins with two dorsal fins.

Two distinct forms of double-finned cetaceans seem to exist. A whole school of the first one was sighted by Jean-René Constant Quoy and Joseph Paul Gaimard (1824), two French naturalists, aboard the *Physicienne* and the *Uranie*:

“In the month of October 1819, in going from Sandwich Islands [Hawaii] to New South Wales [Australia], we saw, by 5°28' N. latitude, many dolphins, performing in troops, round

the vessel, their rapid evolutions : every one on board was as surprised as we were, to see on their front a horn or a fin bent backwards, the same as that on their backs. The volume of the animal was about double that of the common porpoise, and the upper part of its body, to the dorsal fin, was spotted black and white.

“We did our best to observe these dolphins all the time they accompanied us : but although they often passed almost touching the prow of our vessel, with the highest part of their back out of the water, their heads were so submerged, that neither M. Arago nor we could notice whether their snout was short or elongated : their habits themselves could not assist us on this point, because they never sprang above the waters, unlike other species. From their very peculiar conformation, we have named them rhinoceros dolphins (*Delphinus rhinoceros*).”

Quoy and Gaimard made a drawing of these “rhinoceros dolphins” (figure 5). It should be stressed that the first dorsal fin or “horn” is located not on the front, as the two naturalists say, but rather behind the head, judging from their drawing.

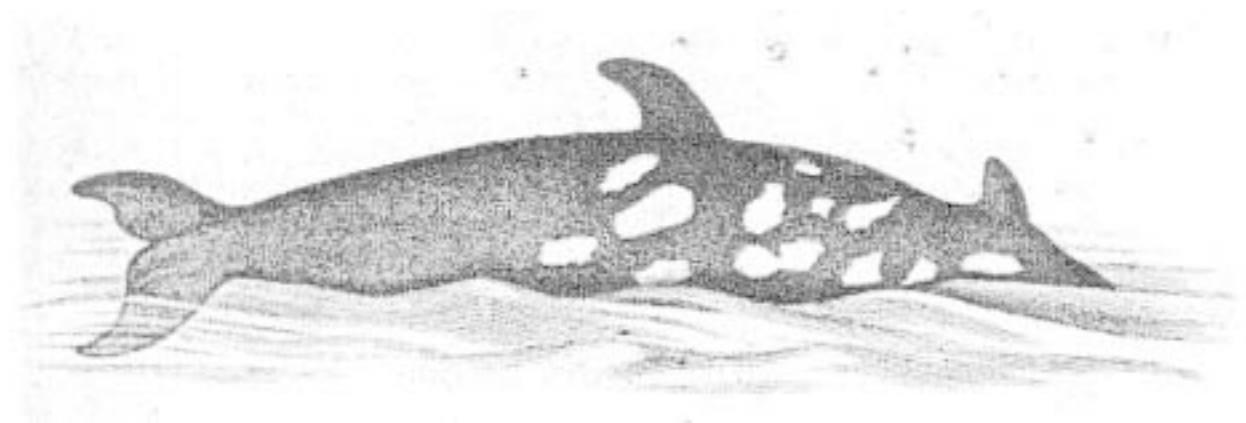


Figure 5 : the “rhinoceros dolphin,” after Quoy and Gaimard (1824).

No cetacean with two dorsal fins is known to exist, but it is not that unlikely. The dorsal fin of the cetaceans (when they have one) is only made with connective tissue (unlike that of fishes which possess a skeleton) and it takes a part in the stabilization of the animal: a careened head like in the sperm whale (*Physeter catodon*), or several humps on the back like in the humpback (*Megaptera novae-angliae*) are other solutions for the same biomechanical problem. So, there exist cetaceans with no dorsal fin, some which have one, other ones which possess a dorsal ridge of humps containing connective tissue; therefore, why not cetaceans with two dorsal fins?

The word “volume” is ambiguous: Quoy and Gaimard of course allude to the length of the animals. The common porpoise (*Phocoena phocoena*) is about 1.20 to 1.80 m (4 to 6 feet) long; the cetaceans observed by the French naturalists were thus about 3 m (10 feet) long. But were they really dolphins? Nothing allows us to assert it, but they were certainly *odontocetes* (toothed whales):

- on the one hand, Quoy and Gaimard speak of “many dolphins” swimming “in troops”: now, among cetaceans, *odontocetes* (and specially *delphinidae*) are generally more gregarious than *mysticetes* (whalebone whales).

- on the other hand, the small size of these mysterious cetaceans is rather in favour of *odontocetes*: *mysticetes* are generally very large, even the largest *odontocetes*, and above all the sperm whale (*Physeter catodon*) are larger than the smallest *mysticetes*. In any case, the smallest known whalebone whale is the pygmy right whale (*Caperea marginata*), which is about 6 m (20 feet) long, that is to say twice longer than Quoy's and Gaimard's "rhinoceros dolphins."

From 1865 to 1868, Italian naturalist Enrico Hillyer Giglioli made a scientific expedition round the world aboard the *Magenta*, a ship with sails and steam power. Between Callao (Peru) and Valparaiso (Chile), in the S.E. Pacific with winds being favourable, the captain of the *Magenta* stopped the steam engines in order to keep the coal for the soft water distiller. This propitious circumstance allowed Enrico Giglioli to observe carefully, on 04 September 1867, by 28° 34' South latitude and 88° 10' West longitude, a two-finned *balaenoptere*, which the calm of the boat was likely not to threaten. Giglioli heard a noise, followed by a spout of condensed vapour which he almost "felt," as it left a wet print on the flank of the *Magenta*, almost at the place he was standing:

"In the same time, the grey greenish back of a large cetacean appeared, which, very remarkable a thing, showed two dorsal fins, well developed, erect, triangular, and separated by a large, apparently smooth space. [...] It remained about a quarter of an hour on the side of the Magenta, so that I could estimate exactly enough its length, which should not exceed much, I think, 18 metres [60 feet], from the tip of the muzzle to the extremity of the tail. The distance between the two dorsal fin was about 2 metres [6.6 feet]. Its head was not wider than its body, and it became gradually slender to the anterior extremity, but its muzzle was relatively large and blunt; its lower jaw was slightly longer. The top of its head was convex and careened, the nostrils were apparently in a depression. The general outline of the body, seen from above, was elongated; the caudal region, behind the second dorsal fin, was very narrow and careened before to disappear in the flukes of the tail, which were of discrete dimensions and of the common shape. The colour of the whole upper part was grey greenish, darker on the hind parts and the flippers; its skin had a velvet appearance."

Giglioli had not seen the first spout of the animal:

"It is a deep long noise, similar with that produced by a column of air in a big copper tube; it lasts 8 or 10 seconds. The animal continued to "blow" as long as it was almost motionless on the surface, about each two minutes, but with much less noise and with no visible spout."

The captain tried to use a gun, but it could not be sufficiently lowered towards the animal, which was too near from the boat. Then a cannot was lowered on the opposite side of the *Magenta*, while the animal began to swim away:

"All the lower parts, from the throat to the root of the tail, under the insertion line of the pectoral fins, were greyish white, which seemed to be a darker shade of the upper parts. I did not see the slightest mark of these gular ridges, which are so typical of balaenopteres; its eye were small and seemed to send an intelligent look while I was observing it with my glass; the whalebones were blackish and only partly visible; the left pectoral fin, which appeared at one moment out of the water, was falcate and rather long."

Giglioli could still observe the animal from the cannot for a while, before it swam away and dived. The Italian naturalist made a very accurate drawing of the *Magenta* whale (figure 6), and he proposed to name it *Amphiptera pacifica*, “the one from the Pacific with a fin on each side” (Giglioli 1870, 1874 and 1875). This report from a serious and competent naturalist should be accepted without the slightest reservation.

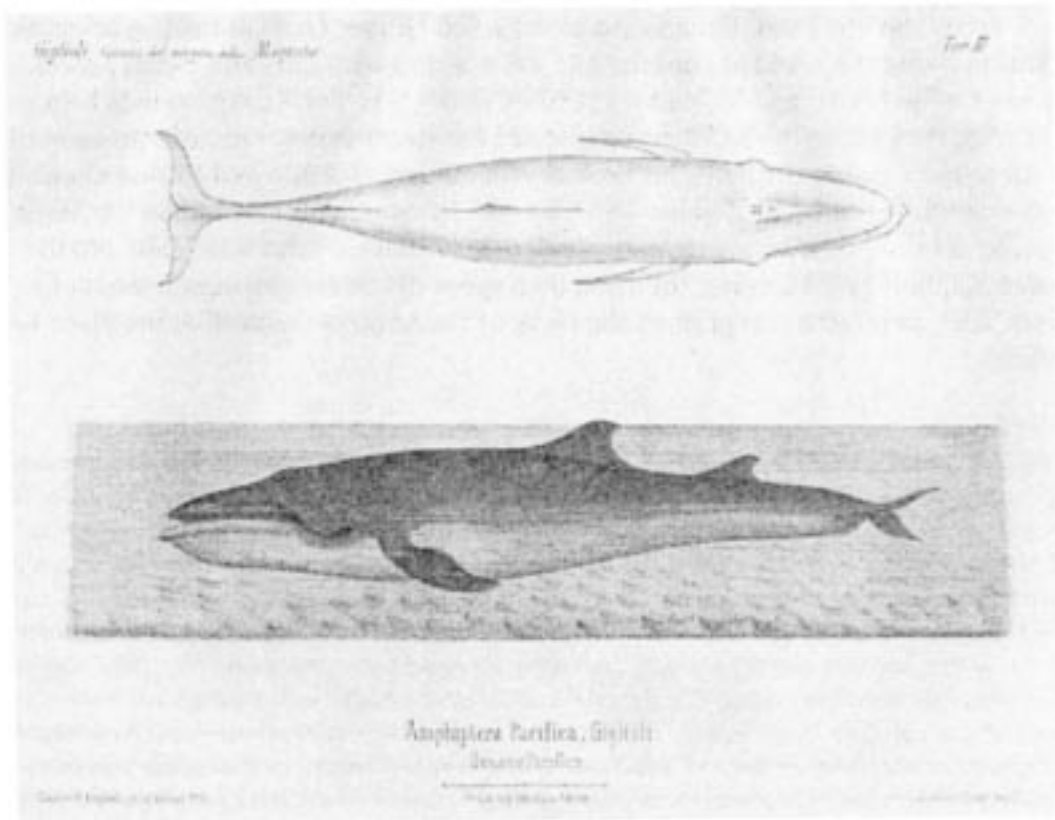


Figure 6 : The *Magenta* whale (*Amphiptera pacifica*), after Giglioli (1874).

Cetologist Van Beneden suggested that it might have been a teratological whale, like a five-footed sheep, but Giglioli’s whale differs from all known *balaenopteres* by so many features, particularly the lack of gular and ventral ridges, that it is obviously a distinct species.

Unidentified beaked whales

Several forms of unidentified beaked whales have been reported. On November 22 and 23, 1844, British naturalist Philip Henri Gosse observed for several hours, in the north Atlantic, a troop of such cetaceans, as related in his books *A naturalist sojourn in Jamaica* (1851) and *The romance of natural history* (1860):

“They frequently protruded their heads from the surface ; and then, presently, the huge round back, with a small dorsal fin behind, was seen. [...] The muzzle was lengthened into a snout, but, as well as I could judge from many exposures, it tapered gradually without a furrow, and resembled that of Delphinorhynchus [Mesoplodon]. As nearly as I could estimate from a position aloft, by comparison with the ship, their length was about thirty

feet [9 m], or perhaps not quite so much. The body was elongated black above, white beneath ; the swimming paws appeared white, even on their upper surface, but surrounded by dark colour on the body.”

More recently, the existence of still unknown ziphiids in the eastern tropical Pacific, was reported in a journal of cetology, *Marine Mammal Science* in October 1987 (Pitman, Aguayo and Urban 1987). Two distinct colour morphs of an unknown beaked whale had been observed and even photographed by cetologists (figure 7): one with a striking black and white pattern and large scars on the back, more than 5 m long ; the other one brown and smaller. These two morphs, often sighted together, could be the male (for the “chevron whale”) and the female.

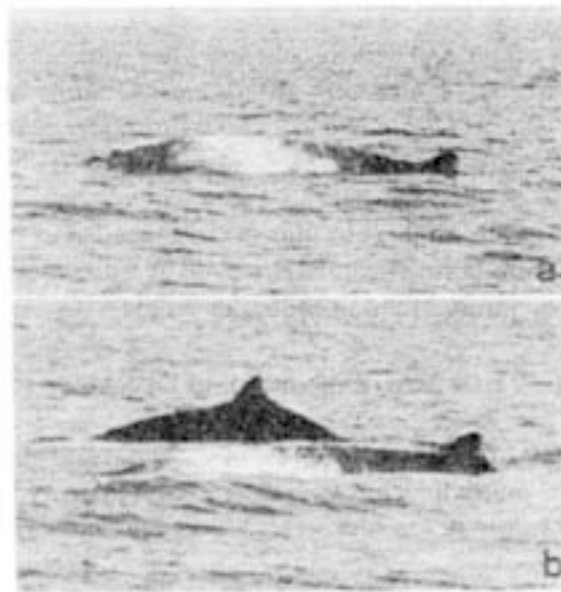


Figure 7: unidentified *Mesoplodon* in the Eastern Tropical Pacific, after Pitman et al. (1987)

When they described the new *Mesoplodon peruvianus* in 1991, Reyes and his co-writers suggested that this cetacean, the shortest of all beaked whales, and the unidentified beaked whale, might be one and the same species (Reyes, Mead and Van Waerebeek 1991).

Further data, gathered by Pitman and Lynn (2001), bring new support to this hypothesis, based on 65 sightings at sea, and photographs taken from a helicopter in November 1999, allowing to calculate accurately the size of the animal, indeed compatible with that of *Mesoplodon peruvianus*. They remark that *M. peruvianus* is known, so far, by adult females or juvenile specimens, explaining that the typical chevron pattern has not yet been observed.

The Antarctic High-finned Whale

A high-finned cetacean, differing from the killer whale (*Orcinus orca*), has been observed in Antarctic waters by several explorers and biologists:

- James Clark Ross (1847) :

“A great number of whales of two different kinds were seen, the larger kind having an extremely long, erect back fin.”

- Robert McCormick (1884) :

“We passed a whole line of large whales, whose remarkably long, pointed, back fins bristled above the surface of the water.”

- Dr. Edward Wilson (1907), of the *Discovery* expedition in the Antarctic Ocean, in January and February 1902 (figure 8) :

“They were all of them wholly black above, but had some white about the mouth or chin. In length they were from 20 to 30 feet [6 to 9 m]. But the most striking characteristic about them was the disproportionate height of the dorsal fin, which was erect, pointed, and sabre-shaped, and stood, so far as we were able to judge, from three to four feet [0.90 to 1.20 m] high.”

It could not be a killer whale (*Orcinus orca*), because of the striking piebald pattern of this large dolphin, quite conspicuous even at a distance. Also, the head of this unknown cetacean is less pointed than in the killer whale.

- D. G. Lillie, of the *Terra Nova* expedition, in December 1910 and February 1911 :

“They were about 30 feet in length, and the majority of them had long, pointed dorsal fins, as figured by Wilson. [...] The only points in which these whales appeared to differ from the killer were in the uniform black colour of the back, and in the height of the dorsal fin.”

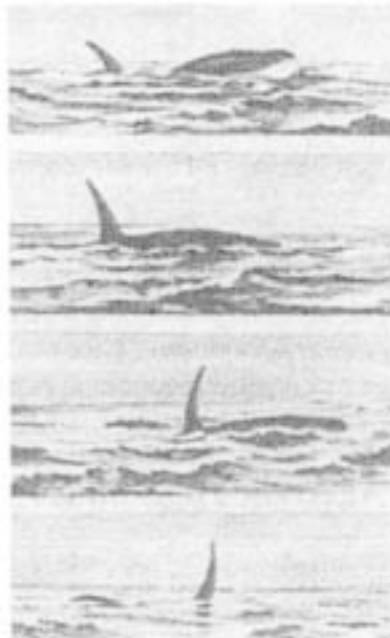


Figure 8: the high-finned whale, after Wilson (19xx).

It has been suggested by Clarke, Aguayo and Basulto del Campo (1978), that an unknown high-finned whale, about 6 m long, with a bluntly rounded head and without any sign of beak, observed and photographed off the coast of Chile in 1964 (figure 9), might belong to the same species:

*“We can only conclude that these whales seen off Chile in 1964 may be a new species, possibly of the genus *Pseudorca* or *Grampus*. [...] The animal agrees well with the “undescribed whale” reported and figured by Wilson.”*

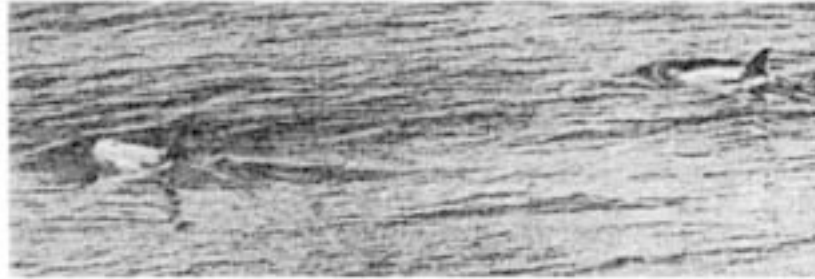


Figure 9: high-finned whales off Chile in 1964, after Clarke et al. (1978).

In fact, the photograph shows the classical “saddle”, a white patch in front of the dorsal fin, which is typical in the killer whale (*Orcinus orca*). But the case for the high-finned whale remains unsolved.

A Southern Unicorn

The existence of a narwhal-like cetacean in the southern hemisphere has been reported by several authors. Dutch explorer Willem Cornelisz Schouten, of the expedition by Jacob Le Maire, on the *Eendracht* and the *Hoom*, discovered the famous Cape Horn, in South America. In October 1615, in the Atlantic ocean, an accident occurred, which he relates in his travel journal (1619):

“On October 5, we were at 4^h 17 mn, at midday there was a great noise in the front of the boat, so that the master [...] thought that a sailor was fallen in the sea, and he saw that the sea was full of blood, but he did not know what happened ; but we found later that a great sea monster had hit the boat with its horn with huge strength: because when we arrived at the river of Porto Désiré, and that our boat was on the shore to be cleaned and caulked, we found in the prow about 7 feet [2.10 m] under the water a horn of the shape and size of the tip of an elephant tooth, about one foot [30 cm] in length [...].”

Augustin de Beaulieu, a merchant from Normandy (France), had another adventure with two of these animals. His observation occurred on February 03, 1620, on board of *L'Espérance*, in the Atlantic ocean, off Africa, by 31° South latitude:

“It might have been twice the length of a porpoise and I would estimate this one to be about ten feet [3 m] long, without its beak. [...] The color seemed to be dark blue [...]. It had a high fin on its back like that of a shark, which sometimes came out of the water like a shark. Its head looked like that of a porpoise, but it was longer and instead of a snout, had this horn or beak, which could be one foot and a half to two feet [45 to 60 cm] long, as big as a boy's wrist and very sharp.”

According to De Beaulieu, captain du Val, from Dieppe, felt a shock on its boat while sailing from Brazil to the Cape of Good Hope. He then found in the wood a broken tusk, about five inches (13 cm) long and 1.5 inch (4 cm) in diameter:

“[...] a piece of a horn looking like the tooth of a marine horse, but different as it was quite straight, but almost of the same ivory and of a light color. It might have been.”

It cannot be the sword fish, because of the mention of the tooth of a “marine horse,” which alludes to the narwhal (*Monodon monoceros*), and the ivory confirms that we are dealing with a cetacean.

Another observation, by the crew of the *Balaena* after hunting a seal, took place on December 17, 1892, in the Bransfield Strait, in the Antarctic Ocean, and W. G. Burn Murdoch briefly mentions this incident in his book *From Edinburgh to the Antarctic* (1894) :

“Just after killing the seal there was a shout amongst the men forward, “A Uni ! A Uni !” — the whalers’ term for a Narwhale. Several men said they saw their horns.”

Could a cetacean, filling the same ecological niche as the narwhal of the boreal seas, be living in tropical seas or in the Southern hemisphere? It is by no means impossible. In the recent years, palaeontological discoveries revealed the past existence of extraordinary cases of convergency. In 1993, Christian de Muizon, palaeontologist at the *Muséum National d’Histoire Naturelle* in Paris, working for the *Institut Français d’Etudes Andines*, described a fossil cetacean from Pliocene deposits in Peru (about 5 million years old): its mouth had two asymmetric tusks, which should give to this animal a head like that of the walrus (*Odobenus*), and it certainly had the same ecological niche. De Muizon named it *Odobenocetops peruvianus*, or the walrus-cetacean of Peru.

More significant, Ewan Fordyce discovered in 1997 in the Miocene of New-Zealand (about 23 millions years), the remains of a kind of dolphin with a true tusk about 30 cm (one foot). It was probably 5 to 6 m (about 20 feet) long. The present survival of this dolphin, or more probably of a related cetacean of this type, would explain the reports on this “Southern Unicorn.”

Conclusion

Although summarized, this analysis of some unidentified cetaceans is quite consistent with the mathematical data seen above. Most observers are reliable people, often zoologists, naturalists, and even cetologists, whose claims are sometimes supported by photographic evidence. Hopefully, an extensive research in Cryptocetology should help to catch these mystery whales and dolphins.

Special Thanks:

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Michel Raynal is a well respected French researcher. He has amassed a fluent dialogue with some of the most predominant researchers in the world and maintained a high level of integrity in the research across a myriad of topics. He has delved into the mysteries of Hominology, Dracontology as well as general Cryptozoology in over 30 articles on the subject that have appeared in publications around the world. His work can be found in publications such as *The Anomalist*, *Of Sea and Shore*, *Cryptozoology*, *CRYPTO*, *Animals & Men*, *INFO Journal*, *BIPEDIA*, and *Aquatic Mammals*.

Michel operates the website entitled *Institut Virtuel de Cryptozoologie (Virtual Institute of Cryptozoology)* at www.cryptozoo.org (English at www.perso.wanadoo.fr/cryptozoo/welcome.htm).

The Problems With Photographic Evidence

By Gary Campbell (© 2001)

“All I need is a good picture of the Loch Ness Monster and I can retire on the proceeds” is the commonly held view of the 250,000+ visitors looking for the famous Scottish ‘monster’ each year. But how true is this — can it be that a photograph of Nessie would indeed bring on premature retirement due to its value. This I think leads us to a more fundamental question — for it to be worth enough money to retire on, such a snap must have value, and if it has value, what is that value and to whom is it valuable?

I would like to look at two sets of photographs, both of which purport to be the Loch Ness Monster. I hope by looking at them I will be able to demonstrate that photographic evidence by itself has little or no value when it comes to proving the existence of such creatures in Loch Ness. I use Loch Ness as an example as it is the area with which I am most familiar, but I would propose that the same could be said of any similar cryptid world-wide.



Surgeon's Image, Artistic Rendering By Craig Heinselman, (© 2001)

In 1934, RK Wilson, a London doctor, took what is probably the most famous Nessie picture of all time. It is commonly known as the “Surgeon’s Photo” and as we all are no doubt aware, shows a head and neck rising out of the waters of Loch Ness. It is probably the enduring image that most of the world has of Nessie and indeed even forms part of the logo of the now sceptical Loch Ness 2000 Centre. He also took a much less well known second photo a few seconds later.

The first photo has been subject of intense debate for many years and has even had an entire book written about it, entitled *Nessie, The Surgeon's Photograph Exposed!* (1999). The book, published by Alastair Boyd and David Martin concludes that the photo was a fake which was created with the assistance of one Christian Spurling using a model submarine and some plastic wood. The crux of the argument is based on a deathbed confession by Mr. Spurling to the authors.

I feel however that the whole book, and many preceding arguments, overlook a more fundamental point - it is not even clear that either photo was taken at Loch Ness, far less that they are of some living creature. If this is the case, it may not even be that the water we are looking at is the loch itself or, as one London commentator said, Hyde Park boating pond. The belief that the photos are of Loch Ness and are also of a creature such as that described by Dr. Wilson is entirely based on the credibility of the witness. It is the fact that a man of the stature of a Harley Street surgeon took these photos that have made them for so long such apparently unequivocal evidence - in other words, a doctor would not lie.

This is the problem with photographic evidence. With the advent of the camera came the advent of the fake, or false, image. With images of an unknown creature being by definition quite easy to fake, the value of any photo must surely solely rely on the credibility of the photographer.

This situation again arose earlier this year when James Gray, a local man living by Loch Ness, took what are without doubt the clearest ever photos of anything purporting to be Nessie. He took a series of five snaps at close range of what appears to be a large snake like object rising quickly from the water. At first glance they appear to be the best Nessie pictures ever taken at Loch Ness.

But then the inevitable questions of doubt arose. Mr. Gray, whilst being a local resident, is also a semi-retired tabloid photographer who once took the first pictures of Prince Charles and the then Lady Diana Spencer together.

The argument therefore was put forward that he must know the potential sales value of very clear Nessie pictures and also that he would have the knowledge and skills to fake such pictures easily. In addition, it doesn't help his case when the man who was in the boat with him says he didn't see anything at all.

So once again it is purely down to the credibility of the witness. Unfortunately for Mr. Gray and any others who take pictures of Nessie, it is not possible to compare them to actual images of what Nessie is really like. Therefore it is down to an argument between the doubters and the photographer himself and the public can only really decide who is telling the truth by taking a the view that one story is more likely than the other.

So back to the original question — what value can pictures purporting to be of creatures such as Nessie be to the world of Cryptozoological research. I think that the answer is that by themselves, very little. At best they promote debate as they inevitably end up in the media but at worst they incite ridicule, especially when once 'definitive' images are announced by the photographer to be a clever hoax.

I do think however that it is correct to continue to publish such photos because over time, similar pictures may be taken that when compared may provide a more reasoned argument as to what may actually live in the loch. Unfortunately however, due to the credibility problem I think it is unlikely that they will provide definitive evidence of the existence of such creatures.

Finally, returning to the initial question of monetary value, will it be possible to retire if you get the next good picture of Nessie. Unfortunately not, I think. In my experience, the average price paid for Nessie pictures by the media ranges from £100 to £500 (\$150 - \$750US). I was told by a newspaper approached by Mr. Gray that he would be getting enough '*to buy a good car, but not a BMW*' - so it appears that even professional photos are not worth enough to retire on!

Gary Campbell is the President of the *Official Loch Ness Monster Fan Club*. He has a prominent media presence in the affairs of Scotland's famous aquatic beastie, *Nessie*, and has been interviewed countless times since the fan club began in 1996. Gary is respected by many, criticized by others, but in the end he has a presence that lends itself to evaluating the evidence and sharing information with others.

A PRELIMINARY EVALUATION OF A STUDY OF THE MORPHOLOGY, BEHAVIOR, AUTOECOLOGY, AND HABITAT OF LARGE, UNIDENTIFIED MARINE ANIMALS, BASED ON RECORDED FIELD OBSERVATIONS

By Bruce A. Champagne (© 2001)

Editor's Note: Some graphs pertaining to this paper have been omitted to benefit all levels of readership. If you are interested in viewing the additional graphs, please feel free to contact Bruce Champagne.

INTRODUCTION

This paper is an introduction and presentation of a methodology and resultant data set obtained from an examination of multiple observations of large, unknown marine animals. It should be noted that this data is preliminary in nature, and has not yet been subject to statistical evaluation, and criticism. It is hoped the final research will become an extension of the previous work of other researchers, and possibly establish a more uniform and rigorous approach to cryptozoological research. A long history of research into the existence of large, marine animals was examined, and included the following:

Olaus Magnus (1539) published a map of Scandinavia complete with illustrations of native animals to the north, including three distinctive types of "Sea Worms."

Francis Leguat (1693) became an authority on sea serpents after his collection of what was probably a sixty pound eel off the coast of Mauritius.

Mongitore (1742) published a treatise, *Della Sicilia ricerata nelle cose piu' memorablii*, on the sea monsters of the Mediterranean Sea.

Pontopiddan (1751) published hundreds of observations and concluded that there were separate types of large, unknown animals often described as sea serpents (Heuvelmans, 1965). The first type, probably based on a dugong, was a mermaid-type of animal. The second type was the "Kraken" (a gigantic cephalopod), which he probably described after carcass strandings of *Archeteuthis dux*, the giant squid. The third type was identified as the Sea Worm.

Pelamis megophias was the scientific description ascribed to one of three species identified by Rafinesque (1817). *Megophias* was believed to have been the largest species of sea snake. A second species, *Octipos bicolor* (1816) was described after what Heuvelmans (1965) believed was an incorrect identification of a moribund *Archeteuthis*. A third type was described as *Pelamis monstrosus* (1805) after an observation off the coast of Newfoundland.

In 1817, the frequency of observations of the "Cape Ann Sea Serpent" on the eastern seaboard of North America, motivated the scientifically oriented Linnaean Society of New England to collect affidavits and further investigate the animal. A small specimen was

collected, and identified as *Scoliophis atlanticus*, only to be later correctly identified as *Coluber constrictor*, the Common Black Snake.

Oudemans (1892) described a single species of long-necked, long-tail pinniped, and excluded any observations if they conflicted with his type species.

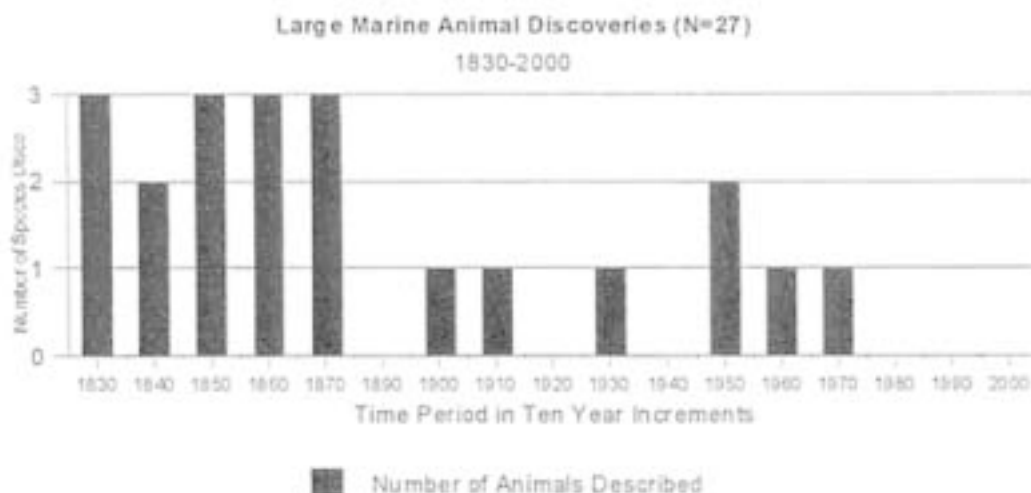
Heuvelmans (1965) identified what he believed were eight different types of aquatic animals, based on 587 observations. Heuvelmans described the “Merhorse,” “Many-Humped,” “Many-Finned,” “Super Otter,” “Super Eel,” “Marine Saurian,” “Father of All Turtles,” and the “Yellow Belly.”

LeBlond and Bousfield (1995) described *Cadborosaurus willisi*, an animal observed off the coast of the Pacific Northwest of North America..

Mangiacopra (1992, 2000) submitted that zoologists should evaluate the environments of proposed, undescribed animals, to accurately propose the appropriate zoological class. Kojo (1993) also stated that no viable results could be obtained without an understanding of the behavioral patterns of the animals.

Paxton (1998) suggested a cumulative species description curve from 1830 to 1995, for large (in excess of two meters in length in the major axis of the body), open water fauna. Paxton claims his curve has yet to reach an asymptote, and suggests a maximum of 47 species yet to be described. Cetaceans are thought to comprise the majority of the undescribed animals. Extrapolating, approximately one species per 5.3 years should be discovered and formally described.

An analysis of this time period reveals that cetaceans make up the majority of the described species with 19. Also included are the giant squid (*Archeteuthis dux*, 1857), and the Megamouth Shark (*Megachasma pelagios*, 1976). The Coelacanth (*Latimeria chalumnae*, 1938) was not included as the fishes’ major axis is, on average, slightly less than two meters in length.



More accurately, an average of one species per 7.9 (not Paxton’s suggested 5.3 years) years was described during the period of 1830-1995, with the Megamouth Shark being the last recorded.

It is unlikely that there are no more animals in the earth's oceans awaiting formal description. Personal communications with naturalists at the Bodega Marine Laboratory, at Bodega Bay, California, have included observations of a large (in excess of 6 meters in length), carcharinid shark, and a peculiar "Box Head" lamnid shark in the tropical South Pacific Ocean. Additionally, a photograph of an animal carcass (Observation #383) recovered from the stomach of a Sperm Whale (*Physeter macrocephalus*) appears to have been an animal yet to be formally identified. Further communications with submariners in the Monterey Trench of central California; have also yielded observations of large, unknown sharks. Additionally, large, unidentified, beached carcasses contain tissues (cephalopod, elasmobranch, etc) that have not been identified with certainty.

Large, terrestrial animals continue to be located and described with relative frequency. Even during this current period (1976 to present), when no marine animals have been formally identified, terrestrial animals continue to be described. The Kouprey (*Bos sauveli*), a large Cambodian ox, was rediscovered in 1982. A Pleistocene fossil species, the Chacoan Peccary or Tagua (*Catagonus wagneri*) was formally discovered and described in 1975, just prior to this current period. In Southeast Asia, the Spindlehorn (*Pseudoryx nghentinhensis*) was described in 1992.

It may be scientifically arrogant and naive to believe that man has described all of the large animals in the world's oceans. Human beings have an easier access to terrestrial species as opposed to those living in a pelagic environment. If man continues to locate previously unknown, large, land animals in areas adjacent to populated areas, why should one think that such a vast, three-dimensional environment like the world's oceans, not conceal other unknown animals.

The scientific community must usually collect a type specimen to initiate formal description and acceptance. For marine animals, this would be a daunting task considering the animals in question may be quite large, agile, and occupy a physically, unrestrictive environment. The majority of marine observations are chance occurrences—not a reliable method to rely upon when attempting to describe elusive and/or difficult to observe animals. By preparing and proposing a natural history, developed from rigorously analyzed data of the possible species, the odds of contacting, and subsequently collecting (whether an entire specimen or a tissue sample), a previously unknown species may be increased.

The Coelacanth, known previously only from the fossil record, is an example of extending the scope of research from legend and local observations. The Coelacanth is found in deep water, where man has little contact, and limited influence. The natives of the Comoros Islands often caught the Coelacanth, and knew the locations and depths to fish for the elusive species. By concentrating her efforts and resources in areas likely to produce a specimen, based on observations, Majorie C. Latimer was eventually successful in collecting a type specimen and completing a formal description.

LeBlond (1995) suggested two paths of research for the continued study, and hopeful documentation of an unknown animal thought to frequent the waters of North America's Pacific Northwest. The first method is to continue to record observations, thus enlarging the current body of information available about the animal. LeBlond also suggested experimental

research as a second means of describing the animal. He suggests that “discovery by design [experimentation]” could be more productive and preferable to “discovery by chance using exploration.” Further, LeBlond indicates the costs involved with marine research can be prohibitive, and as such, it would be more prudent to conduct designed experimentation, rather than rely upon a chance collection as a means of discovery.

If designed study and experimentation are used as a means of discovery, the researcher’s funds and resources may be more productively utilized and extended. Experimentation also allows the researcher to be physically prepared (equipment, etc) to observe, record, collect, and classify the animal. Certainly, information obtained during continued, regular, observations would be important and helpful, but that information would be moot without the actual collection of the animal. Science requires a type specimen.

This work will organize data from multiple sources into a single data set. After the data is sorted and evaluated, it will document and substantiate the theories presented in this text. As such, this work will become an extension of the previous work of others, and will hopefully aid in the collection of specimens for formal description.

At the conclusion of the research, the data will confirm that there are separate and distinct species of unidentified animals that frequent different areas of the earth’s oceans and seas. It can be predicted that the animals can only be observed in the same environments during prescribed time periods and seasons, demonstrating consistent behaviors. The data will allow the researcher to conduct systematic inquiries, contact, and possibly collect the animals, as opposed the relying upon the random observations and contacts.

METHODOLOGY

Data was collected, analyzed and gathered from multiple sources. Personal communications, texts, journal articles, field reports, television/news accounts, newspapers, and the Internet, were utilized as sources for observations.

Observations were entered onto a spreadsheet for organization, reference, and later analysis. Information and elements of each observation were recorded in a number of areas.

The observation was assigned a number that designated the location of the observation. The number assigned reflected the observation’s location in, and to, a particular ocean or sea. These zonations and/or boundaries had been predetermined along latitudinal and longitudinal demarcations.

An observation then received a reference number. The reference number is unique to that observation. It includes the assigned observation number, but also includes letter abbreviations indicating particular elements of the observation. The reference number includes the following description(s) if appropriate to the observation: a designation for an actual observation of an organism (as opposed to a wave phenomenon, or water disturbance), a behavior of note exhibited by the animal, an act of predation observed or implied by the observer, a designation of an observation of a carcass or moribund animal, an observation where the locomotion of the animal is described, an observation by a qualified person (life scientist, familiar with local fauna, etc.), vocalizations emitted by an observed animal, an observation of a juvenile animal (as judged by a substantial size

difference when in the presence of another animal, or when compared to the average size of a similar animal), an observation of multiple animals during the same observation, the observer(s)' initial response (interest, fear, etc.), a physical characteristic of note observed on the animal, aggression displayed by the observed animal (either to other animals or the observer), an observation recorded before, or soon after, a natural event (earthquake, flood, storm, etc.), an observation directly related to a recent event (natural or man-made), an observation recorded in a location of note, and a designation of a capture and/or photograph of an observed animal.

The entry also displays the source of the observation. The date, time of day (24 hour clock), and season (if the date is incomplete), were also entered into the spreadsheet. A rating was assigned and recorded for each observation. That rating reflected the quality and accuracy, as determined by the elements of the observation being rated for credibility with predetermined criteria (see Quality Control of Data). The duration, or length of the observation, in addition to the distance at which the animal was observed, was recorded. This also includes longitude/latitude coordinates. Physical characteristics of the water from the location of the observation were recorded, including the depth, salinity, surface temperature, water temperature, typical wave and tidal conditions and characteristics, and the predominant current, if applicable. Additionally, atmospheric pressure, sea floor morphology, relation to earthquake frequency depth ranges, submarine heat flow, submarine sediment distribution, predominant winds, average wind speeds, mean annual rainfall, water column movement, typical thunderstorm activity, marine biogeographic area, phytoplankton production in the area, zooplankton production in the area, benthic biomass production in the area, as provided by existing literature (Couper, 1983), the weather conditions at the time of the observation, and the weather conditions three days prior, and three days subsequent, to the observation were noted on the spreadsheet.

The number of observers, their activity at the time of the observation, and their immediate reaction to the observation were also noted. The numbers of individual animals in an observation are also recorded, in addition to the numerical value assigned to the general type of animal observed. An observation may be classified with at least one of the following designations/descriptions derived from Heuvelmans' (1965) list (simplified for brief observations) of unidentified aquatic animals; long neck observed, eel-like or serpent-like body observed, multiple hump(s) observed above the surface, unidentified type observed, and "other" type observed. The physical dimensions of the animal were recorded, in addition to the animal's activity when initially observed, and the animal's response to the observed.

Where possible, behaviors, descriptions, and locations were assigned numerical values to aid in the sorting process.

When the complete data set was recorded (1247 observations), it was sorted by a numerical, credibility rating. Repetition was also checked to ensure that no single observation was included in the data set more than once. The observations were sorted by credibility rating (≥ 5), with observations under the credibility rating discarded from the final analysis.

The sorted data set was then graphed (bar, etc.) for each of the aforementioned categories and compared to current theory, by referencing the data to existing literature (LeBlond, Kojo, Mangiacopra, etc.). Patterns and behavioral trends were then established for each type of animal, and subsequently, patterns specific to a particular geography.

Comparisons of the different animal forms, behavior, and habitat will be made between similar locations and common traits/elements by utilizing an ordination analysis. Canonical Correspondence Analysis (CCA) has been selected as the best suited method for evaluating the expected associations between the species and environmental variables.

After a preliminary evaluation is completed, and a natural history is developed for the animal(s) identified, it may prove helpful to compare the animal(s) to known species to aid in a more complete and correct proposal. A selected extant species, or where more appropriate, a species from the fossil record will be examined and compared to increase the accuracy of the proposed natural histories. Comparison with an extinct species may be necessary to address the theories of other researchers (Mackal, 1988) maintaining that the animals may be relict organisms.

QUALITY CONTROL OF DATA

Because observations may be old, second or third hand accounts, of questionable authenticity, or case of mistaken identification, etc., a rating scale was developed to evaluate, and therefore judge the credibility and usefulness of each observation. It should be noted that no evaluation process would be error free when reviewing all observations. In addition to unforeseen complications, undoubtedly, some observations are complete fabrications. Also, the observer may have been sincere in relating the observation, but mistook a type of wave phenomenon, or known species or object for the unidentified animal. Often, false identification may be the result of distance (too great for accuracy, detail, or proper identification), lighting, emotion (fear, etc.), duration of the observation (too short for a detailed observation; Andrews, 1935), and/or lack of any qualification (education, experience, etc.), to objectively and accurately evaluate and articulate what was observed.

Each observation was reviewed and awarded points for each element met from a credibility rating list. A maximum of eleven points could be awarded for each observation.

One point was awarded for an observation that was reviewed by a competent investigator and found to be credible. The investigator was experienced and impartial in such observations, and was experienced, and/or educated in a life science discipline.

A point was awarded for an observation made by a qualified observer. An observer is considered qualified by being formally educated in a life science, experienced through occupation (commercial fisherman, etc.), or with above average observational skills.

If the observer provided a detailed account or physical description of the animal, location, animal's activity, or elements of the account (date, duration, weather conditions, etc.), the observation was awarded one point. Descriptions such as "a big, snake-like thing" or "it looked like an upturned boat" were not considered detailed.

An observer with a known reputation for veracity, or with an occupational or societal position that may suffer, or be lost, if the observer was linked to a fabrication, was also taken into account. Consequently, the observation was awarded one point for the observer(s)' credibility.

If an observation was documented as witnessed by more than one individual, it was awarded one point. It was assumed that if more than one observer witnessed the event, the opportunity for exaggeration or fabrication would have been diminished.

Through personal experience with brief observations (and later verified by video) of similar sized animals (*Carcharodon carcharias*, *Zalophis californianus*, *Mirounga angustirostris*, *Ematopias jubata*, *Phoca vitulina*, *Orcinus orca*, *Baleanoptera muscles*, *Eshrichtius robustus*, etc.), made at a distance on the surface, it is apparent that there is a maximum distance that an observer can provide a valuable, accurate narrative with the naked eye. Personal experience has shown that the average maximum, effective observational distance with the naked eye, would be approximately 62 meters. An observation made at, or under this distance was awarded one point.

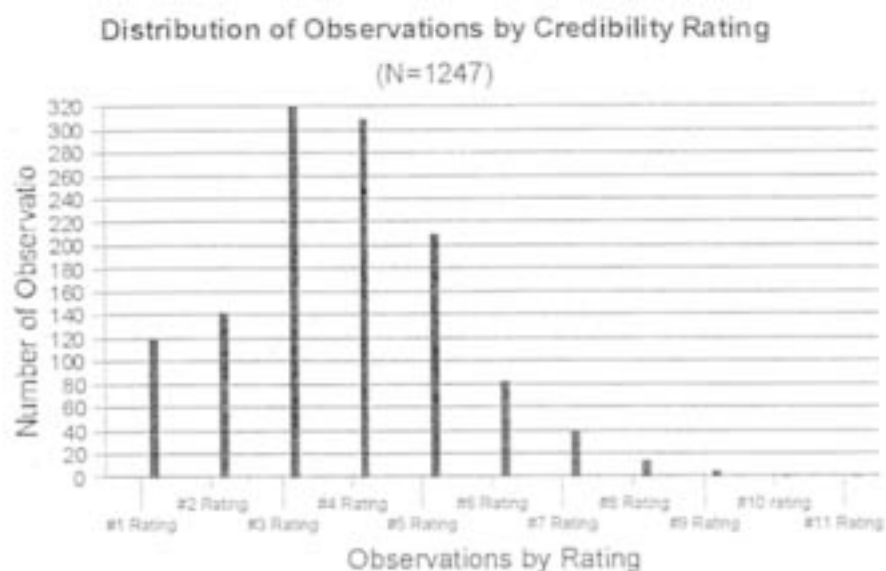
The longer the observation, the more accurate and detailed an observation could be expected. The likelihood of misidentification is also reduced. An observation of 60 seconds or more was awarded one point.

If an observation included tangible, physical evidence (carcass, tissue samples, etc.), it was awarded two points.

A photograph, film, video, or sonar reading, helped substantiate some observations. As a result, an observation that was documented by photographic evidence and/or sonar reading was allowed one point.

Corroborating evidence (changed landscape, prints, damage to involved objects, etc.), further substantiated an observation. Observations with such evidence were awarded one point.

A value of five points was decided as the minimum standard for an observation to be included in the final data set. By using this benchmark, it was assumed that an observation would have, more than likely, occurred. All observations received one point. By design, the majority of observations fell under the tolerance of five points, and were filtered out of the final data set.



RESULTS

After the sort by credibility rating, 351 credible observations remained. Long-Necked Animals comprised 30 observations. 92 observations were obtained for Eel-Like Animals. Multiple-Humped Animals accounted for 51 observations, while Unidentified Animals contributed 99 observations and Unknown Animals remained with 79 observations.

LONG-NECKED ANIMALS

Long-Necked Animals comprised the fewest observations (30) of any animal type. These observations are typified by a “periscope” behavior where the neck and head are extended above the surface, with no body, or a maximum of one hump observed. When reviewing the descriptions provided by the observers, it is apparent that some of the Long-Necked Animal observations are probably animals of the Multiple-Humped or Eel-Like variety, which may, at times, exhibit this “spyhopping” behavior.

The earliest, recorded observations of Long Necked Animals, were in the decade of the 1810-1820. There was an approximately 30 year span where there were no Long Necked Animal observations. Following two observations in proximity to 1850, there were no observations for approximately 25 years. Approximately 15 years passed before the next cluster of observations were made. Observations continued sporadically until the last recorded observation in the decade of the 1980's. Most observations of Long Necked Animals were recorded from 1890 to 1950. No observations were recorded in the decade of 1990 to the present time.

Physical descriptions of Long-Necked Animal coloration is typically described as possessing shiny, scaleless skin. The most common coloration descriptions are black, dark brown, gray, and a dull yellow color. A small number (3) of the animals displayed faint stripes or spots on the dorsum. Most of the observations where the dorsum coloration is observed and described, a lighter ventral coloration is also described. Two observations mentioned fibrous, seaweed-like hair. Dorsal serrations are also observed, but these animals also fit the description of the Multiple-Humped Animal type.

The head of the Long-Necked Animal is described most commonly as resembling a giraffe, horse, or camel. Other descriptions include that of a cow's, greyhound's (dog), and two observations described the head as that of a snake's. Five of the observations mentioned knob-like horns or ears on the top of the head. The head's width is usually 20-30% of the width of the visible body, or the same diameter as the neck. The mouth is typically described as subterminal in relation to the head, with jaws similar to a horse's, and the eyes are described as being large in proportion to the head, laterally positioned, often green or red in color, shielded by heavy brow ridges.

The neck is described most commonly as between nine to eighteen inches in diameter, and described as “mast-like” in appearance, and held anywhere from six to twenty feet above the surface at a vertical, or near vertical, angle.

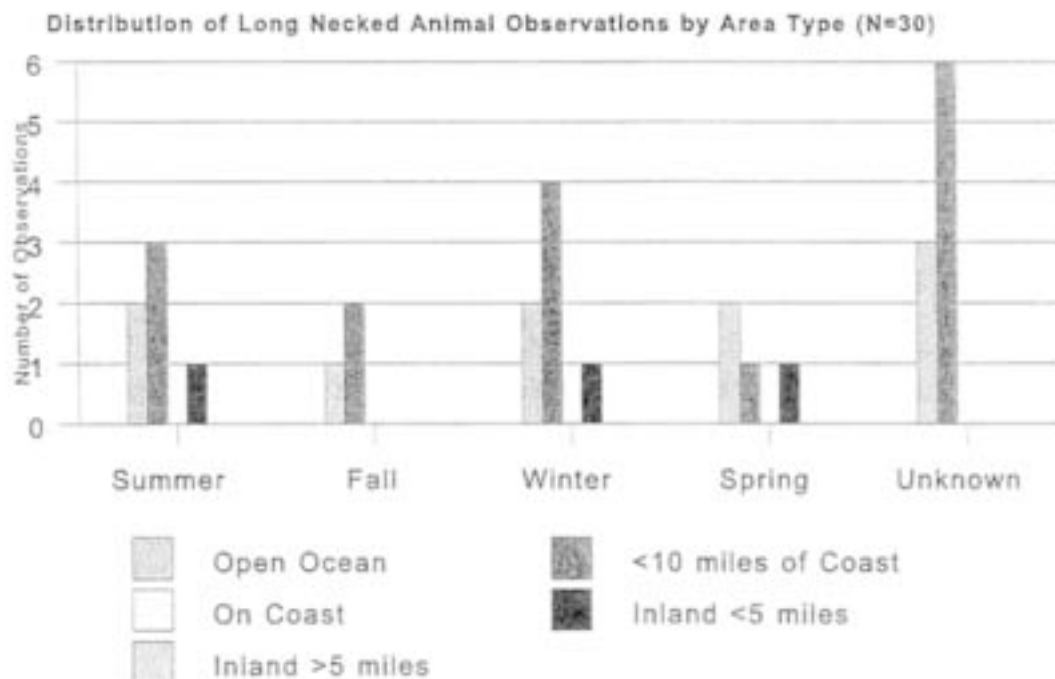
One observation mentioned four, translucent fins (observation #437). If observations which also match that of the Multiple-Humped type are discounted, the tail is described as

like that of an eel's (continuous dorsal/caudal fin), without vertical or horizontal caudal lobes.

There were twelve observations that described the length of Long-Necked Animals. The longer specimens also fit the Multiple-Humped Animal criteria. The animals of questionable type were sixty feet or more in length. Those animals that fit only the Long-Neck Animal criteria were between twelve and forty feet in length. It can be noted that if an animal exceeded forty feet in length, it also had characteristics of Eel-Like or Multiple-Humped Animals.

There were two observations Long Necked Animal where multiple animals were observed. In both cases, each observation was of two individuals. At least one of the observations (observation #437), also fits the physical description criteria of Multiple Humped Animals. In observation #437, one of the animals was 100' in length, with a smaller animal "entwined" around the larger. These animals were observed entering the shallows of near-shore water. The second observation (#628) was of an approximately 30-35' animal, with a second animal 4-5' shorter than the first. The animals were observed swimming at the surface, in the open ocean.

Observations made when the time of year was not recorded, were between the latitudes of 20 and 70 degrees of latitude. Observations of Long Necked Animals were even in distribution throughout all seasons of the year, with the exception of winter. Preliminarily, it appears Long Necked Animals begin to move farther into the northern latitudes after spending the winter months in proximity to the warmer waters surrounding the equator.



After evaluating the area types of Long Necked Animal observations, it is observed that Long Necked Animals are more commonly observed over the continental shelves and slopes of the continents, and occasionally, pelagically, in the open ocean. Rarely, were Long Necked

Animals observed in coastal waters. One observation was recorded on the coast, and three observations were made in adjoining waterways less than 5 miles inland. It should be noted, that these inland observations involved animals that include characteristics found in Multiple Humped Animal observations.

Long Necked Animal observations are conspicuously absent during the dark, and early morning hours. Within proximity of the coast, and inland less than 5 miles, observations were made between 00:00 and 01:00 hours. Observations then become more frequent after 07:00 hours. The majority of observations are recorded after 12:00 hours, and ending before 19:00 hours.

Open ocean observations are recorded between the hours 09:00 and 15:30 hours. Observations within 10 miles of the coast are primarily between the hours of 07:00 and 18:30, predominantly between 13:00 and 18:30 hours. These observations would be expected, as the majority of human effort (commercial and recreational movements) would be likely to occur during these time periods and in this area type. Curiously, coastal observations are not recorded, but inland observations are. It is possible that Long Necked Animals come to the shore or inland waterways during the early morning hours, avoiding the areas and times human beings are usually onshore and/or in proximate areas. Observational effort is also thought to influence the distribution of inland observations. Those observations were recorded between 10:00 and 17:00 hours.

The absence of morning, and night time observations are likely the result of observational effort. This aspect will be addressed statistically in a separate, concluding paper.

Long Necked Animals are observed in waters of varying salinity. Of the recorded observations, one took place in an area of more than 37% salinity. Three observations occurred in an area of 36-37% salinity. Eight observations were recorded from areas of 35-36% salinity. Ten observations were from areas of 34-35% salinity. Three observations were from areas of approximately 34.5% salinity. One observation was from an area 33-34% salinity. Two recorded observations were from areas of less than 33% salinity.

It appears that Long Necked Animals have a preference for a moderate salinity of between 34-36%. This preferences can prove useful when analyzing subsequent observations, especially when the observations contain components belonging to multiple animal types. It is not likely that Long Necked Animals will be observed in adjoining freshwater waterways, or waters of a high salinity. It may be that the lower salinities occasionally present along coastlines (river confluences, etc) make the waters adjacent to shorelines less preferable than those of open water.

The salinity of the areas of Long Necked Animal inland observations is unknown at the time of the observations. Interestingly, two of the inland observations (#16, #348) involved Long Necked Animals with projections on the head. The third observation (#324) involved an animal with characteristics in common to a Multiple Humped Animal.

There were no Long Necked Animal observations in areas with a surface temperature of less than 5 degrees Celsius. Seven observations were recorded in areas with a surface temperature 5-10 degrees Celsius. Twelve, Long Necked Animal observations were recorded from areas with a surface temperature of 10-20 degrees Celsius. Ten observations were recorded from areas with a surface temperature greater than 20 degrees Celsius.

Six Long Necked Animal observations occurred in waters with a temperature of less than 10 degrees Celsius. Nine observations were recorded in areas with a water temperature between 10-15 degrees Celsius. Areas with a water temperature between 15-20 degrees Celsius were recorded in two observations. Two observations were recorded in areas of 20-25 degree Celsius temperatures. Seven observations had temperatures between 25-30 degrees Celsius.

Long Necked Animal observations were recorded almost exclusively over the continental margin, comprised of the continental shelf, slope, and rise. One observation was recorded over an abyssal plain, and two observations were recorded proximate to an abyssal hill and/or rough sea floor.

Deep sea sediments are classified as either pelagic or terrigenous (Couper, 1983). Pelagic sediments occur away from land in deep waters. Terrigenous sediments occur in proximity to estuaries of large rivers.

Long Necked Animal observations were more frequently recorded over terrigenous sediments. Ten observations were recorded over glacial terrigenous sediments, and nine observations were recorded proximate terrigenous sediments. Seven observations were recorded adjacent to calcareous sediments. Two observations were made over pelagic clay, and no observations were made proximate to siliceous sediments.

Commonly, it is thought from earlier observations, that "sea serpents" are observed when the weather is clear, calm, and sunny. Less than half (3) of Long Necked Animal observations took place when the sea was described as calm. One observation was made during seas of 3-6 feet. Two observations were made in 6-9 foot seas, and with one observation recorded during high seas and storm conditions.

The areas of Long Necked Animal observations were also analyzed for the location's food production capability, in an attempt to theorize possible feeding strategies of the large unidentified marine animals.

Phytoplanktons are microscopic free floating algae, and the foundation of fertile areas (Couper, pp 70). Factors affecting phytoplankton production are major estuaries, and surface waters. Phytoplankton production is measured in milligrams of carbon per square meter per day.

Five Long Necked Animal observations were made in areas of greater than 500 mgC/m²/d. Nineteen observations were recorded in areas with a phytoplankton production of between 250-500 mgC/m²/d. Four observations were recorded in areas of between 100-150 mgC/m²/d. One observation was made in an area of less than 100 mgC/m²/d.

Zooplankton contains representatives of all the main animal groups. Zooplankton is diverse in nature, often occupying four to five trophic levels. At times, representatives may display diurnal migration, usually moving towards the surface during the night. Zooplankton abundance is measured in milligrams per cubic meter in the upper 100m of the ocean.

Biological communities, closely associated with the sea floor, from the intertidal zone to the bottom of the deepest ocean trenches, are collectively referred to as the benthos. The benthos could be comprised of rock outcrops, or sea beds consisting of various grades of sand and/or gravel. On the abyssal floor, generally the animals are no more than one to two millimeters long. Larger animals are usually immobile filter feeders, or slow-moving

detritus eaters. Benthic biomass is computed by grams per square meter.

Two Long Necked Animal observations were recorded in areas of between .01-1.0 g/m². Six observations were made in areas of 1.0-10 g/m². The most observations, fifteen, were recorded in areas of 10-50 g/m². Six observations were recorded in areas of 50-300 g/m². No observations were recorded for areas of less than 0.1 g/m², or greater than 300 g/m².

EEL-LIKE ANIMALS

This description was originally applied to observations in which the observer described the animal as “snake-like.” Initially, this general designation seemed to apply to an animal with a blunt head, and rigid body. It later became apparent, that some of the ninety-two, Eel-like Animal observations also included observations that could also be designated as belonging to the Multiple Humped Animal type.

Eel-like Animals were described as “snake-like” or “serpent-like” in the majority of descriptions. The head was often described as large, blunt, and resembling a snake, turtle, or eel. Other descriptions of the head, included characteristics of a horse, giraffe, pig, seahorse, walrus, dinosaur, or described the head as spear-like. At times, the head was described as scaly, and in seven observations, observers described a horn or protuberances on the head. Eight observations recorded descriptions of a mane. Nineteen observations included descriptions of dorsal serrations, scutes, or fins.

The eyes of the Eel-like Animal are described as small, but exhibiting a “frightful” appearance. Occasionally, the eyes are described as large. But, additional descriptions also place the animal in the Multiple Humped Animal type. The eyes are alternately described as green, blue, or red. The tongue is described as a spear or spike. The mouth is described as large, and the teeth sharp, numerous, sometimes in three rows, and “bendable.”

The coloration described in Eel-like Animals, is described as darkly shaded (black, dark brown, dark green, dark blue) on the dorsum, transitioning to a lighter coloration (gray, yellow, white) on the ventrum. Some Eel-like Animals are described as having faint spots and stripes. The length of Eel-like Animals has been described anywhere from 10-300 feet. Twenty observations were recorded of Eel-like Animals exceeding 100 feet in length. These longer animals may have been multiple animals swimming end to end, or an animal with a wake. These longer animals also met the descriptive criteria for Multiple Humped Animals. On average, Eel-like Animals were between 20-80 feet in length.

There are two observations that describe multiple Eel-like Animals together. One observation (#648) recorded two animals of an unknown length. The bodies were flattened, with dorsal serrations. Visible exhalations were also visible. Three animals were reported in the second observation (#730). These animals were approximately 10 feet in length, with yellow and black bands. The 12-14 inch diameter bodies were somewhat flattened, with four fins. The first animal was joined by to similar animals of a darker coloration.

Eel-like Animal body lengths range from 10-300 feet. Most of the observations of animals 100 feet or more also fit the physical descriptions of Multiple Humped Animals. Eel-like Animals are more frequently observed in the 20-70 foot range.

Eel-like Animals are observed in the summer from the equator through 65 degrees of latitude. The summer observations appear to be more common between 30-45 degrees of latitude. During the winter, Eel-like animals are recorded between 30-50 degrees of latitude. In spring, the animals are recorded between 5-45 degrees. For fall, or autumn, Eel-like Animals are recorded from 3-60 degrees of latitude, but more frequently between 30-45 degrees.

Eel-like Animal observations are recorded in every season. Observations are more frequent during the summer, as what might be expected with increased observational effort. The animals are observed more frequently when they are within 10 miles of the coast. Secondly, eight Eel-like Animal observations were recorded in the open ocean. Eel-like Animals were also recorded on the coast. Observations were made in inland waterways. These inland observations included animals also conforming to the Multiple Humped Animal type.

In the fall, Eel-like Animals are observed infrequently in the open ocean and within 10 miles of the coast. Eel-like Animals are also observed in the winter. In the open ocean, the Eel-like Animals were observed on six occasions, and five times within 10 miles of the coast. One observation was made on the coast.

There was an even distribution of Open Ocean and observations within 10 miles of the coast, during the spring. There was also one recorded observation inland, less than 5 miles.

When Eel-like Animals are observed in the open ocean, the observations are most frequently after 11:00 hours. Between 11:00 and 19:00 hours, there were nine observations, with the majority recorded between 15:00 and 17:30 hours. There was one observation recorded between 00:00 and 01:00, and two observations around 06:00 hours.

In the area from the coast to 10 miles out to sea, Eel-like Animal observations are recorded between 01:00 hours and 20:00 hours. One observation was recorded at 01:00 hours, but the majority of observations were between 06:00 and 17:00 hours.

On the coast, Eel-like Animals observations are made between 05:00 and 17:00 hours. Three of the six observations were between the hours of 16:00 and 17:00 hours.

One inland observation (less than 5 miles inland) was made at 03:00 hours.

Observations that examine the distribution of recorded observations by time, will be evaluated in relation to observational effort.

There were no Eel-like Animal observations in waters where the salinity was greater than 37%. Eight observations were recorded in areas where the salinity was between 36-37%. Seventeen observations were recorded in areas with salinity between 35-36%. Ten observations were made in areas of between 34-35%. Three observations were made in areas with a salinity of 33-34%. In areas of less than 33%, forty observations were recorded.

Eel-like Animal observations have not been recorded in Arctic or Antarctic ($<5^{\circ}\text{C}$) waters. There are forty-three observations recorded in boreal ($5-10^{\circ}\text{C}$) waters. Twenty, Eel-like Animal observations were made in water with a temperature of between $10-20^{\circ}\text{C}$.

Twenty-five observations were recorded in tropical waters where the surface temperatures are in excess of 20 ° C.

Eel-like Animal observations have not been recorded in areas where the water temperature is less than 7 ° C. Eight observations were recorded at 7.5 ° C. Sixteen observations were made in waters with a temperature of 10 ° C. Five observations were recorded between 10-15 ° C. Two observations were recorded at 15 ° C. Twenty-four observations were made between 15-20 ° C. Eight observations were made with a water temperature 20 ° C. One observation was made with a temperature between 20-25 ° C. Six observations were recorded at 25 ° C. Eight observations were made in areas where the water temperature was 25-30 ° C.

Seven Eel-like Animal observations were recorded over glacial terrigenous sediments. A majority of observations were recorded proximate to terrigenous sediments. Fourteen observations were recorded over calcareous sediments. One Eel-like Animal observation was made over siliceous sediments. Pelagic clay sediments were the site of four observations.

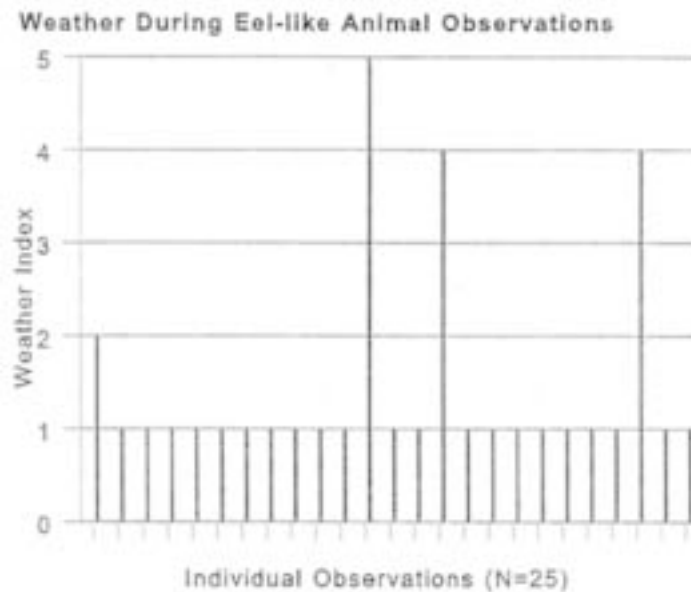
Eel-like Animals are most frequently observed over the continental margin. Three observations were recorded over a major abyssal plain. Two Eel-like Animal observations were recorded over an abyssal hill or rough sea floor. Three observations were recorded over other submarine formations, and a single observation was recorded over a submarine, volcanic ridge. Lastly, two observations were recorded over a mid-ocean ridge.

Eel-like Animals were more frequently observed (45 observations) in areas where the phytoplankton production was in excess of 500 milligrams of carbon per square meter per day. Thirty observations were recorded in areas where the phytoplankton production was 250-500 mgC/m²/d. Four observations were recorded in areas where the phytoplankton production was 150-250 mgC/m²/d. Nine Eel-like observations were made where the phytoplankton production was 100-150 mgC/m²/d., and three observations were recorded in areas of less than 100 mgC/m²/d in phytoplankton production.

Six Eel-like Animal observations were recorded in areas where the zooplankton abundance was in excess of 500 milligrams per cubic meter. Eel-like Animals were recorded on forty-two occasions in areas of 200-500 mg/m³. Thirty-six observations were in areas with 50-200 mg/m³. In areas with less than 50 mg/m³, there were six observations.

In areas where the benthic biomass was in excess of 0.05 grams per square meter, there were no recorded observations of Eel-like Animals. There was one observation in an area with 0.05-0.1 g/m² of benthic biomass. Six observations were recorded at 0.1-1.0 g/m², and twelve observations were recorded in areas with 1.0-10 g/m² in benthic biomass. Twenty-four observations were recorded at an area level of 10-50 g/m² of biomass. Forty-six observations were in areas of 50-300 g/m². There were no observations in areas where the benthic biomass was in excess of 300 g/m².

Eel-like Animal observations were recorded more often when weather conditions allowed calm seas to prevail. One observation was reported when seas were between 0-3'. Two, Eel-like Animal observations were recorded during 6-9' seas. A single observation was recorded during storm conditions (9'+).



Weather Index Key

1 = Calm Seas
 2 = 0-3' Sea
 3 = 3-6' Sea

4 = 6-9' Sea
 5 = 9'+ (Storm Conditions)

MULTIPLE HUMPED ANIMALS

There were 51 observations recorded for Multiple Humped Animals. These animals are categorized by the observation of more than one hump visible above the surface at any one time. The head of the animal may, or may not, have been observed.

The earliest Multiple Humped Animal observation was recorded in the decade of the 1740's. After approximately seventy years, there were six observations from 1810-1820. Two observations were recorded in the 1830's, three observations followed in the period of 1840-1880. There were observations after 1880 to the end of the nineteenth century. There have been twenty-six Multiple Humped Animal observations in the twentieth century.

The head of Multiple Humped Animals are described as resembling a seal, dog, camel, eel, snake, and giraffe. The eyes are described as dark and small, but discernable, in proportion to the head, with the exception of observation #327, in which the eyes were described as "curiously" large. The eyes are described in two observations (#236, #622) as forward facing. Heavy brows are also described over the eyes. Most often (7 observations), the head is described as equine in appearance, and similar in diameter to the neck region. White streaks were observed in the head region of Multiple Humped Animals in three observations (#63, #184). Protuberances or horns were described in observations #246, and #622. The mouth is reported to be sub-terminal in position, with one observation (#10) the mouth is described as "shark-like", and one observation (#236) described the teeth as "fish-like."

A mane, or similar structure, was observed in five observations. When the color of the mane is described, it is reported as the same color as the body, with the exception of a white mane observed on a gray colored animal (#1013). A dorsal crest was observed in twelve observations. The skin is described alternatively smooth and rough in appearance, but not scaly. When the dorsal coloration is reported, it is almost universally described as dark in appearance (black, brown, mahogany, gray, slate, green). Additionally, "dirty" or "patchy" yellow body coloration is reported in two observations (#667, #653). In two observations (#73, #280), a spotted or "camouflaged" dorsal coloration was reported. During three observations (#280, #346, #1066), a lighter, most often white, ventrum was described.

With the exception of observation #767, which also fits the criteria for Long Necked Animals, the body is considered immense, but thin in proportion to the length of the animal.

The tail, or caudal fin, is described as horizontal in orientation with the exception of observation #431. Descriptions included "flat, like a plane's rudder." Additional tail descriptions reported, were "lobster-like (#344)", and "a tail like a shrimp's (#731)." These observations may make possible reference to a crustacean's chitinous, telson and uropods.

The dorsal humps observed during Multiple Humped Animal observations varied in number. There were seven observations of two humps, ten observations of three visible humps, and three observations of four humps. There were three observations of seven to eight humps, and four observations with between ten and thirty humps.

There have been three Multiple Humped Animal observations of individuals with a total body length of less than 20 feet. Sixteen observations were recorded of animals between 20-60 feet in length. Nine observations were made of animals in the 60-100' total body length class. For animals in excess of 100 feet in body length, there were four recorded observations.

There were three observations that included more than one observed animal. In observation #376, a forty foot long animal was observed "cavorting" with an similar animal with a head half the size of the larger animal's. Observation #649 included two Multiple Humped Animals initially observed motionless at the surface. Lastly, observation #667 recorded two animals in a harbor, with one of the animals in excess of 180 feet in length.

Multiple Humped Animal observations are recorded during every season of the year. During the summer, Multiple Humped Animals are observed between 30-60 degrees north or south latitude. One observation was recorded 21 degrees south latitude, and one observation at 71 degrees north latitude.

Fall, or autumn, observations are less frequent. These observations are recorded between 40-50 degrees north or south latitude. One observation was recorded in an area of 20 degrees latitude.

Observations of Multiple Humped Animals during winter months were recorded between 40-50 degrees of north or south latitude. One observation was recorded at 20 degrees of latitude, and a second was recorded between 60-70 degrees of latitude.

Spring observations were recorded 20-50 degrees of north or south latitude. Observations made when the date was unknown, reported observations between 40-65 degrees of north or south latitude, with a last observation recorded at 30 degrees latitude.

When Multiple Humped Animals were observed in the open ocean, they were recorded between the hours of 05:00-13:00 hours. In the area within 10 miles of the coast, observations were recorded between 07:00-20:00 hours. There were two observations of Multiple Humped Animals on the coast. One of the observations was recorded at 08:00 hours, and the second was reported at 18:00 hours. When Multiple Humped Animals were observed less than five miles inland, the observations were between the hours 12:00 and 21:00 hours. The single observation made in excess of five miles inland, was recorded at 07:00 hours. The observations will be evaluated statistically as a function of observational effort, and compared to the literature.

Multiple Humped Animals observations (23) were most frequently observed in boreal areas (5-10°C). Twenty-one observations were recorded warm temperate areas (10-20°C). Five observations were recorded in tropical areas (>20°C).

With the exception of three Multiple Humped Animal observations, all observations were reported over the continental margin. One observation was recorded over an abyssal hill or rough sea floor. Two observations were reported in proximity to a mid-ocean ridge.

Nine Multiple Humped Animal observations were recorded over glacial terrigenous sediments. Thirty-three observations were recorded proximate to terrigenous sediments, with the remaining seven observations recorded over calcareous sediments.

There were twenty-three observations of Multiple Humped Animals in areas with a phytoplankton production in excess of 550 milligrams of Carbon per square meter per day. Twenty-three observations were recorded in areas where the phytoplankton production was between 250-500 mgC/m²/d. Three observations were recorded in areas of 150-250 mgC/m²/d of phytoplankton production. A single observation of a Multiple Humped Animal was recorded in an area of 100-150 mgC/m²/d.

Eleven observations were recorded of Multiple Humped Animals in an area where the zooplankton abundance is in excess of 500 milligrams per cubic meter. Twenty-two observations were made in areas of 200-500 mg/m³. Thirteen observations were recorded in areas of 50-200 mg/m³. For areas with less than 50 mg/m³, there were three observations.

There were no observations of Multiple Humped Animals in areas where the benthic biomass was in excess of 300 grams per square meter. Twenty-three observations were made in areas with a benthic biomass of 50-300 g/m². Seventeen observations were recorded with a benthic biomass of 10-50 g/m². Six observations occurred in areas with a benthic biomass of 1.0-10 g/m². Three observations were reported in areas with a benthic biomass of 0.1-1.0 g/m². There were no Multiple Humped Animal observations in areas with less than 0.1 g/m².

Weather Index Key

1 = Calm Seas

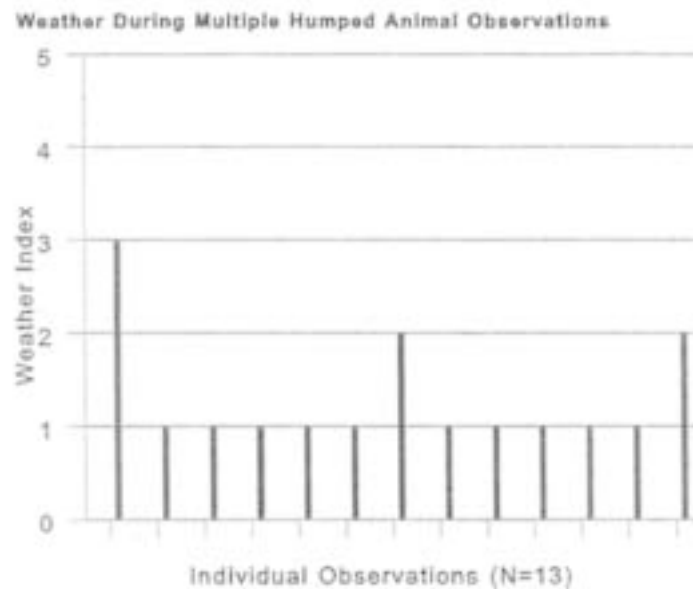
4 = 6-9' Sea

2 = 0-3' Sea

5 = 9'+ Sea (Storm Conditions)

3 = 3-6' Sea

When the weather is recorded in Multiple Humped Animal observations, the weather is likely to be during calm weather and seas. Two observations were recorded during 0-3' seas. A single observation occurred during 3-6' seas.



CONCLUSION

The author is hesitant to draw conclusions on data that has yet to be rigorously and statistically examined. Additionally, the criteria for an unidentified animal's inclusion into a designated animal type (Long Necked, Eel-like, Multiple Humped, etc) must be re-examined, and applied to the recorded observations. Certainly it would be impossible to segregate all potential, unknown animals into such limiting categories. For the purpose in producing a statistically viable data set, it was believed that a label should be affixed to the various animal types. It should be expected, that as this study progresses, the data can and should be streamlined as analyzed information becomes available. Eventually, it is hoped that additional observations of Unidentified and Other Type animals will be obtained in sufficient numbers as to provide a more specific label or designation. From that point, a similar examination may be completed for those animal types.

This study will include a re-evaluation of animal type criteria, and a statistical analysis of the data set. Also included in the final study, will be an animal type comparison to previously suggested types (Heuvelmans, 1986 and Mangiacopra, 1977), a behavioral matrix, an proposed morphology and physiology, behavior, ecology and distribution, population dynamics, and a discussion of areas and animals of note (Cadborosaurus, Chesapeake Bay, Altamaha River, New England seaboard, the United Kingdom, Scandinavia, and the Indo-Pacific). The finished work will be presented to individuals and organizations involved in field research, to use in the confirmation of the theories formulated through this research. Subsequent research may include a comparison of marine animals to similar, unidentified lake animals.

Thoughtful and organized criticisms, comments, and suggestions are welcomed, especially from individuals engaged in scholarly research, or with a scholarly background and/or experience. Correspondence with other researchers, regardless of the animal subject of the research is also welcomed.

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The Dragon

By James R. Harnock (© 2001)

An Original Cryptofiction Story

It wasn't supposed to turn out this way.

This isn't how things should have been, but as he stood at the aft of his new ship, breathing in the rich salty air and watching the dark shapes of the Azores recede into the hazy horizon, Gilman knew he wouldn't be complaining. Far from it, in fact. Fate's fortuitous intervention in Andrew Gilman's life had not only seen him appointed Second Mate aboard this ship — the Mary Celeste — but had also seen he alone among his former shipmates escape criminal charges back in their home port of New York. It was pure luck that while dodging the constabulary, he stumbled upon a meeting of the Mary Celeste's owners, including the ship's Captain, Arthur Spradling, and discovered her second mate had taken ill and would be unable to participate in its cargo run that would commence the following day.

And so, here he found himself, in the winter of 1872, surrounded by the rolling blue-black ocean, right where he'd always wanted to be... albeit on a different vessel and under less than ideal circumstances.

When he had left his home in Denmark at the age of seventeen, he was already an experienced seaman and quickly found work with various New York-based ships. He'd crewed just about every type of vessel imaginable, even briefly lending his skills to a short-handed whaler three years prior and it was his wealth of experience that led to the average-height, average-build Dane's promotion to second mate aboard his last ship, the Stonecutter, and helped convince the owners of the Mary Celeste that he could handle the same job aboard their vessel. In theory, he was the ideal choice for the job — young, capable and easy for the other seamen to get along with, but it was these same traits that the captain and first mate had come to resent over the course of their voyage. Gilman was, at twenty-five, younger than both men, just as skilled if not more so and the rest of the crew — with the exception of Aksel Gundersen, who didn't like anyone — had come to like and respect him a great deal.

"Mister Gilman?"

He immediately tensed slightly, imperceptibly, at the voice. Light, feminine, with a faint British accent.

It was one of many problems Gilman had faced while on board the Mary Celeste — the captain's wife. While he very much enjoyed the woman's company and she his, it was clear that Captain Spradling had taken notice of their increasing familiarity and had gone to great pains to keep Gilman busy with any task he could dream up.

"Mrs. Spradling," he said, forcing a smile and a slight bow. "You're up and about rather early."

"When one sails the high seas, one must keep sailor's hours," she said with a light chuckle.

Though she was almost thirty-three, Sarah Spradling was still a very striking woman. Not exactly beautiful in the classical sense and possessing the look of a woman who has worked very hard for what she had, Gilman nevertheless couldn't help but be attracted to her. He tried repeatedly to convince himself it was just because she was the only woman on board.

Sarah brushed a coal-black ringlet out of her eyes, but the warm breeze promptly blew it back.

"You know as well as anyone, Mr. Gilman, that the early morning and late evening hours are my only moments of peace. A mother's work is seldom done."

"Mothers and sailors," he said. "are the only people on Earth whose work takes up all their waking hours."

There was an awkward silence that followed, the kind that hung in the air like a thick wet blanket hung out to dry, refusing to yield to the breeze. These silences were frequent when Gilman and Sarah spoke — it often seemed as though they said more to each other when they said nothing at all — and it had partly become a defense mechanism of sorts, for on a boat of under a hundred and ten feet, there were few places where even the quietest voices didn't carry to the ears of at least one of the seven crewmen. And it was just as well, as far as Gilman was concerned. He knew just as well as he figured she did that they were already treading on dangerous ground and the constant presence of the crew was keeping them from straying too far into territory where they had no business venturing.

Not that it would be at all bad, he thought.

No, by Christ, he had to stop thinking like that. The captain already disliked him, and Gilman knew that no one would ask any questions if the Mary Celeste arrived in port minus one second mate. God knows it had happened before and God knows it would happen again, he reminded himself, but it was not going to happen to him. Andrew Gilman was planning on commanding a ship of his own within the next few years. He'd already picked out a name, if he was given the opportunity to name her — he'd call her Lucky Bastard, after himself.

He hadn't realized the name had brought a smirk to his face until Sarah questioned him about it.

"Oh," he said, trying to think of a plausible excuse without telling the whole truth. The last thing he needed now was for Sarah to let slip to the captain that his second mate was after his job. "Just enjoying being at sea."

He knew she didn't buy the excuse, but she said nothing and any further conversation was cut short with the appearance of Jochen Butenschon, one of the ship's long-standing seamen.

"Mornin' Gilly, ma'am," said Butenschon in his thickly-accented English. Though he and his brother — also a crew member — spoke fluent English, they both had very thick accents that were part German as their heritage would suggest, but having been at sea for many years, they had also picked up dialect quirks of just about every nationality they encountered. Jochen often insisted that he didn't speak English or German or any other specific language, but that he spoke fluent sailor.

Sarah bid him good morning, then politely excused herself, saying that she needed to check on her daughter Elisabeth.

After watching her go, Butenschon stepped up the gunwale, dropped his pants and began urinating over the side. He broke wind with a loud sigh.

"Ain't nothin' like a good piss 'n fart in the mornin', eh Gilly?," he asked with a hearty laugh.

Of the crew, Lorsenson was the only one Gilman would truly call a friend. He was a big burly fellow, his head shaved to stave off lice and long since having lost most of his teeth to scurvy, but Lorsenson's sense of humour remained as sharp as ever, and his weatherbeaten face was always split by a wide grin.

Gilman stepped up to the gunwale and joined him in relieving himself.

"Gonna be a storm comin' soon," said Butenschon, punctuating his statement with another loud fart.

Looking out at the sky, all Gilman could see was an endless stretch of cloudless blue. There was no sign of any ill weather, no bitter breeze, no choppy whitecaps, but any sailor worth his weight in cow dung knew that the only thing you could ever expect from the ocean was the unexpected. It might be the clearest day you'd ever seen now, but in five minutes you could find yourself in the middle of the worst storm you'd ever seen.

"There's always a storm coming," he said. "Always a storm coming."

"Got that right. My goddamn knees pop and creak more 'n our bloody riggin when 'ere's a storm in the air."

Gilman pulled up his pants and left Butenschon — whom he decided must have the bladder of an ox — and crossed the poop deck to the quarter deck where the captain had just appeared.

"Sir."

"Yes, Gilman?"

The captain was a stocky man who looked far older than his thirty-seven years. His hair was nearly white, and his face deeply lined — some of the crew said it was because he spent so much time frowning. That didn't surprise Gilman in the least.

"Butenschon says there's a storm coming, Sir. Says he can feel it in his knees."

"I see," said Captain Spradling with a grunt. "How scientific of him."

He tilted his head into the light breeze and sniffed several times.

"There is a storm in the air," he said, nodding.

How the captain's method of storm detection was any more scientific than Butenschon's was beyond Gilman, but whether by knee or by nose, it was clear there would be a storm at some point today. Or tomorrow. Or the next day. Or all three. That was the beauty of an open-sea storm, thought Gilman — they could blow over in an hour or they could pound the wrath of Poseidon into your ship for days, as had happened shortly after the Stonecutter had left port those many, many months ago. They had nearly been dashed on coastal shoals more times than he cared to remember, but the Mary Celeste was a larger ship and thus the brigantine was not as bound to the mercy of the winds as the small Stonecutter. Whereas she had been built for speed alone, the Mary Celeste had been built broad and sturdy, born for the long haul, designed to withstand the rigors of trans-Atlantic shipping with her precious cargo intact.

Of course, the Stonecutter's lighter build had seen her captain stick close to shore for fear of losing masts to the brutal oceanic winds and it was this strategy that had exposed the ship to the dangers of shoals, rocks and reefs. The Mary Celeste was in the open sea and while that posed dangers all its own, the risk of cracking her ribs and splitting her open on rocks was slim. It was a small consolation, but a consolation nonetheless.

The morning was quite uneventful — one of the crew swore he had seen the tail of a mermaid, but it had turned out to be the tail of a sperm whale calf and the ship had been diverted slightly to the south to avoid a large pod of the creatures, but there had been no heavy winds, no rain, no storm. In fact, were it not for the minor course change, there would have been little to occupy the crew. *Most* of the crew. Spradling and Doody had beckoned Gilman onto the quarter deck shortly after the morning meal, such as it was, and had ordered him to personally inspect every one of the seventeen hundred barrels of raw alcohol they had been hired to transport to Italy. Apparently the captain, who had probably never had a drink in his entire life, had caught a faint whiff of the stuff and was worried one or more casks were leaking.

That was where Gilman found himself — in the hold, inspecting barrel number nine-hundred and four with the reluctant assistance of the ship's steward and cook, Simon Hobson — when the first sign of inclement weather made itself known. The ship lurched slightly beneath their feet, causing Hobson, the less experienced seamen of the two, to steady himself on one of the barrels.

"What the bloody hell?"

While the shift was hardly the jarring jolt of a collision, it was enough for any half-wit sailor to know that there were problems developing.

"Shift in the wind is all," said Gilman, leaving out the fact that he knew it was a major shift in the wind and one that no doubt heralded the coming of a major storm. "Just a shift in the wind."

"Jesus bloody Christ it is! We hit something!"

Gilman ignored the wild-eyed man. He knew from experience that the jar they felt was not a collision, but he also knew that Hobson was the type who could not be calmed by such a fact — he would continue to believe the worst until you held the truth up in front of his eyes and forced him to look at it.

Pushing his way past the nervous steward, Gilman quickly ordered the man to stay where he was and finish checking the barrels, then made his way onto the poop deck. Immediately, the wind lashed out at him, his pant legs making sharp snapping noises and he had to steady himself for an instant while his body adjusted to the new circumstance.

The sky had changed. No longer was it a wide open welcoming blue, but a foreboding slate grey, filled with jagged black clouds. The warmth of the morning sun had completely vanished, replaced by a chill, biting wind that howled through the Mary Celeste's rigging, pulling the lines taut as the seamen struggled to pull down sails. The rain had not yet begun, but the air was heavy and there were flashes of lighting in the distance — the rain would come and come soon.

"Gilman!", the captain yelled. He could barely be heard over the roaring wind, but he didn't need to be — following the captain's pointing finger, Gilman knew exactly what the man wanted — the chest where they kept spare lengths of rope on deck had not been

lashed down and was sliding all around the deck and the ocean swells began tipping the ship at odd angles. As Gilman grabbed it and shoved it back into place, using one of the ropes from within to fasten it tightly to the deck, he felt another jolt. Unlike the last, this jolt was not the whole ship shifting or tossing, but a great thump that could be felt through the deck timbers.

This time, they *had* hit something.

“What in the bloody blue blazes was that?,” demanded the lanky, horse-faced first mate, Albert Doody, his big droopy moustache making him look something like an emaciated walrus.

“Mister Gundersen!,” bellowed the captain, but Gundersen didn’t hear well at the best of times, so Gilman answered the call himself.

“Captain,” he said. “That was an impact.”

“I realize that, Mister Gilman, but the question is what in God’s name did we hit in the open ocean?”

“A fish?,” suggested Doody. “The natives of the Azores say there are fish in these waters big enough to swallow a small vessel.”

Spradling snorted at his mate’s faith in folklore.

“When was the last time a bloody native knew anything about anything? Bloody fools, the lot of them. Gilman,” he said. “Go and see if whatever it is, is still nearby. Don’t want to ram my ship into it twice, see.”

Gilman nodded and ran to the fore, clambering out onto the bowsprit without hesitation and squinting against the salt spray while examining the deep in front and below. Nothing. There wasn’t a giant fish in sight, nor anything else but miles upon miles of water, everywhere but above. On the bow of the ship, however, there was a deep scrape — a fresh scrape, exposing clean, whitish wood.

“Hell.”

What is it?,” asked Doody. Gilman hadn’t realized the man had followed him, but he wasn’t surprised — Doody often felt the need to check up on the young Dane, even on the most mundane of assignments.

Gilman slid back onto the deck and wiped the sea out of his stinging eyes.

“Don’t know, sir. Whatever it was, it was big — gave ol’ Mary a bugger of a scar,” he said, walking the length of the deck, peering over the side, looking for some sign of whatever it was they had struck. Doody followed closely.

“How bad? Will we take on water?”

“No, God willing,” he beckoned to Holger Butenschon, younger brother of Jochen who always wore a red woollen cap and was better known as ‘Kid’ though he was only two years younger than Gilman. “Kid, check the forward hold for water-”

The rest of his order was drowned out by the shouts of several men, including Jochen Butenschon, who was perched high in the rigging, pointing aft with a mixture of both excitement and fear.

“Jesus bloody wept!,” Jochen yelled hoarsely.

Less than a quarter mile behind the Mary Celeste, the waters of the sea were churning and roiling as if they were in a stew pot and preparing to boil out all over the stove. It was all white foam and spray, and then it stopped. Then there was nothing again but the howl of the wind in the rigging, for no man on deck moved.

"It weren't bigger 'n us," said Jochen, suddenly standing beside the dumbstruck Gilman and Doody. "Not the ship. But it were twice the size of a man, easy."

"What was it?," asked Doody. Though he and Gilman had been standing at the aft rail, Butenschon's higher vantage point gave him the best view of the disturbance.

"Ain't nothin I seen afore," he said, shaking his head as a light rain began to come down. "Not in the water, least ways. Like a snake, almost, but not really."

"Starboard!," someone screamed, and the entire crew, save for the wheelman named Schuler, flocked to the starboard in time to see huge ripples in the ocean swells.

"Those ripples go against the swells," said Doody.

"What does that mean?"

None of the men had noticed Sarah come onto the deck during the excitement, and now tried to cover their uneasiness so as not to alarm her.

"Just unusual, ma'am," Doody said dismissively. "You should stay below, ma'am, what with the storm and... I should say the storm is worsening."

She frowned and looked into Doody's eyes, but he looked away. He had never been a good liar and Sarah knew he was lying to her now — the storm may well be worsening, but there was more to those ripples than he had admitted.

"We should get you below," said Gilman, taking her elbow and leading her towards the stairway.

"What's going on, Andrew?," she asked, putting her hand on his.

"We hit something. We don't know what, but it was big and it was alive and it may still be. Keep walking," he said firmly when Sarah stopped. "And stay below decks."

When she started down the steps, he closed the door behind her and rejoined Doody and Jochen.

"A whale, perhaps?," Doody was asking.

"I know what a whale looks like, sir and it weren't no whale."

"You said it was bigger than a man," said Gilman. "How much bigger?"

"Maybe twice," said Jochen. "Twice as big, twelve foot. Course I dunno if I seen the whole thing." Twelve feet. And how much more below the surface?

Gilman stared down at the choppy surface, the water even darker than the angry sky above, and couldn't help but feel a deep sense of foreboding. What if Jochen had been right and he had not seen the entire length of the creature? The impact and the scrape on the bow would seem to indicate an extremely large creature, far larger than the twelve foot estimate, and with the sea as it was, their visibility would extend a matter of a mere few feet below the surface.

"God willing, we never will see the whole thing," he said.

Doody frowned and appeared about to say something, but he quickly clammed up when the captain approached, one hand clamped on top of his hat against the winds.

"Gentlemen, I'll thank you to get back to work," said Spradling. "A brigantine doesn't sail itself, you know."

"But Sir, what about the... thing."

"It was a whale, Mister Doody, a whale, that's all. I'm afraid we have more pressing matters to deal with than some fish that doesn't know enough to stay out of the way of a ship," he said, waving his free hand at the ever-darkening sky.

He looked at the faces surrounding him, looking for someone to protest, but none were willing. He grunted his satisfaction.

“Where’s Hobson?”

“Below, Sir,” said Gilman.

“Get him up here, we may need the extra hands.”

The rain was coming down heavier now, fat droplets splattering on the deck and on the crew, and the wind had become even more biting and bitter.

“Bloody weather reminds me of England,” muttered Spradling. He hadn’t been to Britain for years — certainly not since Elisabeth was born — but every time he had put into port there it was cold and wet and grey. He promised Sarah they could go back to visit her family in London once this trip was over, but God how he was dreading that voyage. “Gilman.”

The second mate had just returned from the hold with Hobson reluctantly in tow. The steward had made a hot-headed protest about not being a sailor and that it wasn’t his job to haul sail, but Gilman quickly convinced him otherwise as evidenced by the darkening bruise on the younger man’s left cheekbone.

“Sir?”

Spradling ignored the response for a moment, frowning at the mark on Hobson’s face.

“What happened?”

“Slipped, Sir,” Hobson said nervously. “Slipped when we were hit, Sir, banged m’self on one of the barrels, Sir.”

The captain nodded sympathetically and instructed the man to go to Doody for orders. Hobson quickly complied and Spradling, left alone with Gilman, smiled humourlessly.

“Lazy bastard, isn’t he?”

“No, Sir. He was very eager to get on deck and help,” said Gilman with a straight face. “Barely got your orders out, Sir, and he was halfway up.”

“Of course. Next time, Mister Gilman, make sure his eagerness doesn’t leave such a visible mark.”

“That’s entirely in his hands, Captain.”

“Sticking up for fellow crew members is an admirable thing to do, Gilman,” said Spradling, through clenched teeth. “But lying to your captain is not. You’re already walking a very fine line, Mister Gilman — be careful not to stumble. You may find yourself falling overboard.”

“You should know, Sir, that the men are far more loyal to me than they are to you,” he said with an even, diplomatic, even sympathetic tone. As soon as the sentence was out of his mouth, he knew he shouldn’t have said it, but he had already decided that when the Mary Celeste docked in Italy, Andrew Gilman would slip away in the night and the ship would be one man short for the voyage home.

Spradling could feel the anger rising in his throat, the wash of blood creeping up his neck and into his cheeks, and he wanted to grab Gilman by the throat right here. He wanted to strangle the Dane and throw his corpse overboard to feed whatever it was that had swam into his bloody ship. He wanted the second mate off his ship, out of his life and most importantly, away from Sarah. He had heard the rumours about his wife’s relationship with Gilman, rumours about a romantic relationship and even about sexual encounters in the darkness of night. He did not believe that, of course, for his wife slept next to him every night, but the rumours alone made him furious and even he could see the ease with which Sarah and Gilman conversed and the ease with which he could make her smile. And for that, he hated Gilman.

"You have crossed the wrong man, Mister Gilman," said Spradling, his rage barely contained. "I'll see to it that—"

He could not finish the sentence.

With a great crash and the creak and groan of stressed timbers, the ship shook and lurched, sending both men — all the men — to the deck with heavy thuds. The captain's hat was snatched from his head by the winds and taken overboard before he could get over the shock.

The crew picked themselves up slowly and Gilman offered Spradling a hand but was cursed at instead as the captain struggled to his feet alone. Feeling a warmth on his forehead, Gilman touched it only to find a large gash had opened there where his head had struck the rough wooden planks of the poop deck.

"Is everyone all right?," he called out.

One by one, the crew yelled out that they were fine, but Hobson had broken his wrist.

"Bloody Hobson," swore Spradling.

"Captain," said Doody as he hurried over to Spradling, holding his right elbow. He waved off the concern and explained that he'd hit the arm on the deck when he fell, but it was just sore — nothing serious. "Captain, I saw it this time. It was the same beast. It rammed us! I tried to order a turn but it was too fast."

The captain looked out to sea, unsure of what to do.

"Gilman," continued Doody. "Go stitch yourself up — you're no good to us if you bleed to death."

"Yessir."

Stepping below decks, Gilman saw that the second collision between the Mary Celeste and the beast caused even more havoc here than it had above — just about everything that hadn't been nailed down was now scattered on the floor. His boots crunched on a shattered piece of ceramic that may once have been a dinner plate but was now only so many useless shards and he saw a battered old rag doll lying limply in the corner and wondered if the captain's daughter had been hurt in what he could only think of now as a deliberate attack.

He looked around at the mess and began shuffling through it, looking for something, anything, to stitch up the gash in his head. Finding an old scrap of material, he pressed it to the wound to staunch the flow of blood until he found a needle and thread.

"Andrew," said Sarah as she stepped into the room. "You're hurt."

"Just a scratch. Are you and Elisabeth all right?"

"Yes, a little shaken is all."

She forced him to sit down and let her look at his injury and she blanched as the blood seeped in a scarlet line from the deep cut, tracing a path down his face, following the contour of his jaw. As he again pressed the now-blood-soaked scrap to his head, Sarah disappeared into the other room and rummaged through her sewing chest until she found a thin needle and a spool of the fine white thread she often used to reattach the brass buttons her husband had a habit of losing from his best shirts.

She threaded the needle, lit a lantern for light and stood over Gilman. Swallowing heavily, she tried her best to convince herself stitching up a head wound would be as easy as mending torn pants, but as the tip of the needle slid into the flesh and through the other side, dragging the thread behind it with a sort of squishing sound, she had to stop.

"You can do it," Gilman said. "Just stop thinking about it."

"Easy to say," she said, forcing a smile.

Taking a deep breath, she quickly — but clumsily, thanks to the rolling waves beneath the ship — finished stitching him up and tied off the thread. She was still pale and her hands shaking while she used the hem of her skirt to wipe away the excess blood from Gilman's face.

"What's going on, Andrew?," she asked, her voice shaking. He couldn't tell if it was fear of the unknown or the effect of playing nurse that caused it.

"It rammed us."

He began to walk away, but she grabbed his hand and held it as he turned to face her.

"Andrew, I..."

"Just take care of Elisabeth, Sarah. We'll take care of the ship," he said with a confidence he did not feel.

There was more he wanted to say — comfort her, reassure her — but he knew that everything he wanted to say would have been an act. He couldn't reassure himself, let alone the nervous wife of his captain, so he forced himself to turn away and step back onto the weather-beaten deck.

"Man overboard!," was the first sound that reached Gilman's ears as he stepped back into the screaming winds and icy rains. He rushed to the side where a number of the crew had gathered, one with a long stave and one with a rope, but there was no one in the water. All that floated there beside the Mary Celeste was a red woollen cap, slowly soaking up water until it became too heavy and began to sink out of view.

Gilman put a hand on the shoulder of Jochen Butenschon, a gesture that seemed pathetic in the wake of the man losing his young brother and saw tears in the older man's eyes.

"Jochen, I'm sorry," he said. "What happened?"

"He was on the bowsprit," said Doody when Butenschon didn't answer. "A wave came up, plucked him right off."

Losing men to the sea or to disease was common on long hauls like the one the Mary Celeste was engaged in, but losing a shipmate, a friend, combined with the fear generated by the sudden appearance of a belligerent beast from the depths left the crew on edge. Reluctantly, they abandoned their vigil for the body of Holger Butenschon and silently returned to their tasks, all but Jochen and Doody and Gilman, whose minds were reeling to make sense of everything.

Gilman had once helped rescue the surviving crew members of a fishing boat that had broken on a reef in the Caribbean, pulling bloodied men from that red-tinged water even as the sharks circled and snapped at victim and rescuer alike. He had been seventeen, but he had never forgotten the sight of those gaping mouths full of teeth — the sharks had been small ones and he hadn't feared them, but a death like the ones suffered on that day was a sailor's worst nightmare.

"Raise the main sail!," ordered Spradling. While Gilman was having his injuries tended to, the captain and first mate had decided that their best course of action was to put into port, any port, as quickly as possible and were willing to risk damaging their sails in the storm to do so.

As the men scrambled to rig the sail, their work made perilous and difficult by the winds tearing at their bodies and the cold rain battering their already freezing hands, the ship was tossed on a large wave. The ocean was now dotted with whitecaps where there had once only been dark mounded swells and as Gilman stared down into the depths that had become a shipmate's grave, he froze, his eyes wide.

A shadow had appeared. Then it was more. A long, smooth object, half as wide as the Mary Celeste herself. It was no more than two feet below the churning surface and Gilman followed its length with his eyes, seeing a short sail-like fringe along the length of the dull green creature, two long fins — at least, two that he could see, though he assumed there were more — and the head. Just below the surface, the head looked massive, fringed and with what looked like seaweed growing in tufts along the snout and a chill ran down Gilman's spine that had nothing to do with the weather — the beast's huge black eyes were staring at him. They were like the eyes of a shark, he thought, somewhat amused that he could think so clearly, though a shark's eyes were almost lifeless while these eyes seemed to burn with life. They were nothing but black orbs, yet the intensity of the beast's gaze forced Gilman to turn away.

He wanted to call out to the crew, warn them of the danger lying so quietly beside them, but he kept silent — the creature was large enough to swamp the Mary Celeste and he did not want to startle the beast into a sudden thrashing. His eyes searched the deck desperately as he tried to think of something, anything, he could do. His eyes caught Doody, who began to approach.

"Gilman!," yelled the first mate. "Stop standing around like a bloody—"



He trailed off, his eyes wide as dinner plates. The water churned, its crashing thunderous, drowning out all other sounds and Gilman turned to witness the beast rearing up, its size far more immense that he had first thought. Its head and a good portion of its body rising out of the water, the beast proved why it had no apparent fear of the ship. With its tail visibly thrashing on the other side of the ship, near the stern, and its head almost as high as the mast, the beast was nearly twice the length of the one hundred and three foot brigantine. A wave caused by the creature's sudden rising sloshed over the deck and the icy water

rushing past his ankles brought Gilman out of his trance and he staggered backward and fell heavily as his heel squished down on a sodden length of rope left lie on the deck by the nervous crew.

“Dragon!,” screamed Doody, his voice almost entirely snatched away by the wind.

As if in reply, the beast opened its great maw and thrusting its head forward, roared at the ship. Or, more accurately, screamed. Its call was strangely shrill and musical for such a massive creature, starting off very soft and delicate, but reaching an ear-splitting crescendo in a matter of seconds. And as Gilman watched in horror, the beast pulled back sharply, water cascading in sheets off its smooth, glistening skin, and thrust its head forward, ramming the side of the Mary Celeste with a thunderous crack. The crew members cried out as each of them was thrown to the deck and Gilman heard a sickening thud and crunch behind him — Aksel Gundersen, the grumpy old-timer of the crew, had been halfway up the mast and was sent crashing to the deck, and to his death, by the dragon’s charge. His head lay limply at a near-ninety degree angle to his shoulders, his neck broken.

Gilman scrambled to his feet and seeing the creature pull back again, he bellowed for the crew to hold on to something solid, but there was no second charge. Instead, the creature seemed to weave its head back and forth, blinking its intense black eyes repeatedly.

Ramming the hard timbers of the Mary Celeste’s ribs had stunned the animal.

“Captain!,” yelled Gilman. “Orders?”

Spradling was in a daze all his own. A second yell from Gilman went unanswered, and the young second mate had to weave his way up to where the captain stood and shake the man by the shoulders before his presence was even acknowledged.

“I...,” the captain trailed off, gaping in awe at the immense creature a matter of metres from his ship. Gilman glanced back to make sure the beast was still dazed and it was... but so too was Captain Spradling.

“Captain!,” said Gilman. “What are your orders? We need to do something!”

Stunned silence.

“Damn it. All right, men,” Gilman yelled, loud enough to be heard over the wind. “Raise all sails! We’re making a break for it!”

It wouldn’t matter, he thought. It wouldn’t matter if they had as many sails as a Man-O-War — the ship just wasn’t fast enough to get them away from the dragon, as Doody had called it. It would matter to the crew, though. It would give the remaining men something to do, something to concentrate on, some sense of normalcy in a decidedly abnormal situation that would force them to calm down and let their sailors’ instincts take over. There had to be something he could do, something to avert the disaster they all knew was coming and coming quickly.

Gilman didn’t have time to finish his thought. The creature stretched its neck high and screamed its high-pitched call, but did not charge. This time, the ship was rocked from the other side as the beast’s tail arced up over the deck and crashed down, sending splinters — some as much as four feet in length — spraying across the ship. All the sails in the world weren’t going to help them survive this encounter, Gilman thought as he glanced up to see Doody kneeling over yet another fallen shipmate. Approaching the pair, Gilman was shocked to see that the man was mortally wounded, a three-foot length of splintered wood impaling him just below the rib cage, a wet red spot spreading rapidly across his expensive white shirt. It was Captain Spradling.

"Captain!," Doody was saying, desperately trying to keep him conscious. Not that keeping Spradling conscious would help, thought Gilman. Maybe if they were within reach of a hospital or even a ship's surgeon, but out here, in the middle of a storm, the captain was already dead and he told Doody so.

"Damn it, Gilman!," he said. "The man's hurt!"

"The man is dead, Doody! Are you a bloody surgeon? We're in the middle of the Atlantic — no land in sight, no surgeon aboard and some kind of sea serpent trying to swamp our ship — our first priority is to save this vessel."

Doody bowed his head and stood, not because Gilman's words had convinced him, but because the captain had breathed his last shuddering breath, the blood bubbling audibly in his lungs.

"What do we do now?"

"We? I tell Sarah about her husband, you check on the cargo. And to see if we're taking on water."

He followed Gilman below decks and while Doody continued on to the hold, Gilman sat Sarah down and quietly told her what had happened. After allowing her to cry for a few moments, Gilman took her firmly by the shoulders and forced her to focus.

"Listen to me," he said. "You have to get Elisabeth. Bring her here, to this room and stay here."

"Andrew..."

"Later. We'll talk later, but right now, I have a crew to save. Understand?"

Sarah nodded slowly, doing her best to hold in her tears. She couldn't believe what she was hearing — her husband, the father of her children, the man who had supported her was dead. Dead. Killed in an attack by some kind of damned sea serpent that was threatening to sink their ship, and Gilman wanted her to be calm? She would never be calm again until she and her daughter were off this bloody vessel with their feet planted firmly on the ground. Maybe with Gilman beside them?

No, for God's sake, Arthur had just died, how could she even think about something like that? She should never have agreed to take part in this trip.

"Gilman," said Doody as he climbed out of the hold, his pants soaked, a puddle of sea water forming at his feet. "We're taking on water. Badly. Up to my knees already."

Gilman cursed loudly, then quickly apologized for doing so in front of Sarah.

"Abandon ship," he said to Doody. "Go above, get Butenschon and the two of you prepare the boat."

Doody quickly nodded and headed out onto the deck. Gilman turned back to Sarah.

"Get Elisabeth. Pack whatever you can from the stores — food, water, whatever you can carry," he said before leaving her and joining Butenschon and Doody as they removed the small boat from its fixings near the main hatch. Their work was made increasingly difficult by the tossing of the ship on the waves and as the trio lifted the boat free, Gilman glanced over his shoulder and saw the beast give one final shake of its head, then rear back again.

"Quick, boys, quick!," he yelled, and the men braced themselves just in time as the crown of the dragon's skull came crashing through the rail and cracked the jib at a near ninety degree angle. The remaining crewmen — Schuler and the injured Hobson — helped the best they could and the life boat was pushed into the water on the side opposite of the

beast. Butenschon, the strongest of the survivors, scurried down the rope ladder they had tossed out and did his best to hold the boat steady for the rest of the crew.

Sarah was nowhere to be seen.

"Damn it," said Gilman. "Doody, get everyone down to the boat! Hurry!"

He raced down through the main hatch, banging his shoulder loudly in his haste, and found Sarah still packing things — clothes and toys in one bag, food in another. Elisabeth sat on the floor, too scared to move.

"Sarah, that's enough, we have to go."

"Just a few more things!"

"No more things!"

He grabbed the bag of food and slung it over one shoulder, then scooped up Elisabeth in his arms and nudged Sarah toward the door.

"Go, damn it!"

"But those shirts! They're silk!"

Gilman had the urge to laugh, until the ship was rocked yet again. Instead, he pushed Sarah ahead of him up onto the deck and over to where the boat and the crew waited in relative safety. The seas were rough and the escape boat small, but it was a far better option than staying aboard the Mary Celeste. While preparing the small boat, Doody had assured everyone that the beast would focus on the large ship as its enemy and ignore the rowboat — after all, it was the Mary Celeste that struck the creature in the first place, and it was toward the brigantine that the beast had thus far directed all of its energies. There was logic in it, Gilman had to admit, but some days cold, hard logic was useless. He hoped today would not be one of those days.

Butenschon climbed back up the swaying ladder and took Elisabeth over his shoulder, carrying her safely down to the boat and Gilman dropped each of the packs down for the crew to catch. He took Sarah by the hand and showed her how to climb down the rope ladder, doing his best to hold it steady as she did so, Doody helping her the last few feet until she was seated at the front of the boat, Elisabeth wrapped tightly in her arms.

Taking one last look at the dragon — the beast that had destroyed his ship, killed his crew; the beast that had turned his entire world upside down — Gilman swore colourfully. He spat on the deck and quickly hopped over the side scrambled down the rope ladder, dropping the last four feet into the boat.

With Lorsenson's help, Gilman heaved against the side of the Mary Celeste, giving them some breathing room, and the crewmen began to row with all their might, eager to put as much distance as possible between them and their sea dragon.

He glanced at the sullen faces around him, saw the tentative flicker of hope in their eyes as the space between their small craft and their sea dragon grew ever wider.

Gilman reached over the side and splashed some of the cold seawater on his face. And his blood ran cold.

A large, intense black eye stared back at him.

Historical Note:

The story presented here is based (loosely) on two true stories. The first story is that of the Nantucket whaling ship, the Essex, which was attacked and sunk by a large bull sperm whale roughly two hundred miles off the Pacific coast of South America in 1802. As you may know, the story of the Essex also became the foundation for a story that I readily admit is a far better tale than I have told here — it's a novel by Herman Melville, called Moby Dick.

The second of the true stories from which I drew inspiration is that of the Mary Celeste, a brigantine built in Nova Scotia whose name I left intact for my story. The Mary Celeste, whose original name was "Amazon" until being bought by a New York-based ownership group, was indeed sailing from New York to Genoa, Italy, with a shipment of alcohol. Somewhere East of the Azores, something went wrong for the crew of the Mary Celeste, but no one is quite certain what that was — she was found on December 5, 1872, halfway between the Azores and Portugal, listing badly and with no crew on board. All eight crewmen and two passengers were gone and no sign of them has ever been found.

Those who have heard the story of the Mary Celeste will no doubt have heard that she was found in perfect condition and that many items left behind by the crew indicated a very sudden departure — toys, half-eaten breakfasts, still-steaming mugs of tea — however these reports, while very intriguing, are false. As stated above, when found the Mary Celeste was listing badly and was far from being in pristine condition. Statements made by the crew which discovered the ill-fated brig tell us that not only was the ship in complete disarray, but she had taken on a great deal of water between decks. Aside from these details, the damage sustained to the ship in my story were all caused by an overactive imagination.

All the characters presented here are fictional, though they did have real-world counterparts. The Mary Celeste was captained by Benjamin Briggs who did indeed bring his wife Sarah and young daughter Sophia along for the voyage. Andrew Gilling, a native of Denmark, served as second mate. I should point out that while some elements of the characters are taken from historical accounts (mainly their ranks and nationalities), they are still quite fictionalized — while it was not uncommon for men who ran afoul of the law to escape by crewing ships, there is nothing to suggest that Andrew Gilling, Gilman's real-world counterpart, did so, just as there is nothing to suggest a relationship between him and Sarah Briggs or that he intended to abandon the vessel upon docking in Genoa. Similarly, by all accounts Captain Briggs was a very capable commanding officer who had captained three ships previously and had a very good rapport with his crew — quite unlike our Captain Spradling.

The Mary Celeste did sail again many times after the events fictionalized here, until her last owner intentionally wrecked her in the Caribbean in order to collect the insurance money. Her wreck, lost for almost a century, was discovered early in the year 2000.

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Eyewitness Evidence and the Remains of the Loch Ness Monster

By Dick Raynor (© 2001)

Whether a “sighting” - i.e. observation of an unknown object or disturbance - is recorded or not should be a matter of pure chance. The carrying or use of recording equipment should not influence the occurrence of the event in the vicinity of the observer. The filmed or photographed sightings should therefore represent a true sample of all sightings.

So if 90% of all the photographed sightings could be explained in terms of known events, that would leave 10% available to supporters of proposed “unclassified” phenomena. Similarly, it would be reasonable to suggest that 10% of eye-witness reports could be granted a high level of intrinsic interest to researchers, but which 10% would be another matter!

Unfortunately, it is now possible to point out that ALL the filmed and photographed sightings can now be explained without invoking a monster, and almost invariably the credible explanations have been put forward by people who were NOT there at the time.

This strongly suggests that the events that went unrecorded except by visual observation might also have been amenable to explanation, by other people, in the fullness of time, had they been recorded. The simple common-sense explanation for this is that the people who have the knowledge are rarely also those who make the observation. There are often subtle visual clues in a scene which are not noticed by most people, and without the clues the answer can remain elusive. The old English philosophical concept of Occam’s Razor is particularly useful at Loch Ness. It states, in simple form, that the simplest available explanation is most likely to be correct.

Whether something is unexplained or not in the realm of animal mystery investigation can also depend entirely on whether or not one wishes to explain it. A subject like the Loch Ness monster attracts a wide variety of interested parties - some “needing” to be part of the mystery, some wishing to exploit it, some seeking to solve it, and some drafted in without their consent as witnesses to an unrecognized event.

Any generally acceptable explanation of an unrepeatable “event” such as a Loch Ness “sighting” must be made on a balance of probabilities - is Explanation A more likely than Explanation B and if so has A itself been reliably observed under similar conditions, or at all, anywhere, ever? Then apply Occam’s Razor.

The conditions under which “sightings” occur are usually deficient in one or more respects, either as a result of brevity, distance, ignorance or lighting. Often it requires the application of the experience of others to arrive at a reasonable conclusion as to what might have actually occurred.

It is also necessary to point out that honesty, integrity and reputation have absolutely no connection with an ability to make an accurate observation. Furthermore, many people regard the whole subject as a joke, and the concept of faking pictures and telling porkies is only doing what everyone else does, - joining in the fun. This has bred in me a fairly cautious approach to new material including “what does it really show?” and even “how did he do it?”.

All the “classic” pictures taken at Loch Ness can be explained (if you wish to!) including Wilson, Gray, Stuart, McNab, O’Connor, Dinsdale and on to present day events like Bavister

and Joth. Intriguingly, all except the last three mentioned were probably practical jokes. Once an image is in the headlines it seems churlish to have to point out that it is just a poorly photographed boat, but that is what local reconstructions indicated in both recent cases. Today, monster pictures can sell for \$10k and so we cannot depend on the photographers to come clean at the first challenge in case the tabloid asks for its money back. Indeed, with annual competitions offering \$1500 prizes, we should expect entries of a non-animate origin.

Some of the most remarkable unphotographed sightings - those “eye-witness accounts” and sonar contacts to which “believers” resort - are now explicable due to the recent acknowledgement that seals can and do enter Loch Ness. This has implications for many land, surface and sonar “sightings,” Cruickshank, Milne, Price-Palmer, Birmingham University, Academy of Applied Science, Boyd etc. It also complicates any biomass productivity and plesiosaur calculations by introducing a real but unknown number of top predators for an unknown period each year.

There is no substitute for attentive hours spent on a lake if one wishes to see and understand some of the things that are seen on its surface. In the past five years working as a boat skipper on Loch Ness I have learned more about surface events there than in all the previous thirty years I have been interested in the subject. I am also, as far as I know, the only skipper to routinely carry a camcorder and still camera to record the events for others to see. My biggest failure to date was to not film a group of goats at the base of Horseshoe Scree, which gave me an insight into Torquil MacLeod’s experience in 1960 (1). However, the pictures I have obtained are shown on my web site (2).

My current assessment is that there are credible “everyday” explanations for all the major pieces of “monster evidence” which have been presented to date. I could be proved wrong, and as I am among the relatively small number of active investigators who are “in the field” I could even prove myself wrong (again), but in my opinion convincing evidence for the existence of unclassified animals in Loch Ness is still awaited.

Further information:

(1) <http://www.lochnessinvestigation.org/Goats.html>

(2) <http://www.lochnessinvestigation.org/index.html>

Dick Raynor has been involved with the investigation of the Loch Ness phenomenon and related aquatic mysteries since the 1960’s. It was in 1967 that he joined the Loch Ness Investigation Bureau and in 1971 he became a staff member of LNIB until its end in 1972. He continues researching Loch Ness using the spirit of the investigation bureau

Raynor has a background in electronics, photography, as well as working with aquatic technology such as submersibles and diving equipment. This background has allowed him to do analysis of various films and photographs from the Mansi photograph from Lake Champlain, to the recent James Gray images from Loch Ness. Simply put, Raynor is out to “find out” about the phenomena occurring at Loch Ness, be they of an unknown origin or misidentifications and otherwise dubious identifications.

Much of Raynor’s research is available at his website at <http://www.lochnessinvestigation.org/index.html>.

THE CHESAPEAKE BAY SERPENT

By Michael A. Frizzell (© 2001)

Maryland's Chesapeake Bay, North America's largest estuary, has long been regarded as an important waterway in the eastern United States for both commerce and recreation. Its role in American history, particularly with its use during the Revolutionary and Civil Wars, is unmistakable and well documented. In his renowned book *Chesapeake*ⁱ, James Michener told a story that acquainted many people with this magnificent and historically rich body of water. In deference to Michener, however, there is yet another story about the Chesapeake that should be told. A story which also occupies a small but significant niche in the lore of this tidewater region and features a very strange main character whose conflict has vacillated between the notions of modern science and political provincialism.

For more than two decades newspapers of Maryland and Virginia have been documenting reports of a strange, snake-like animal allegedly seen in the Chesapeake Bay and its larger tributaries. The mysterious beast, appropriately named "Chessie" by the pressⁱⁱ, has been repeatedly described as serpentine, about twenty to forty feet in length, eight to ten inches in diameter, and possessing an elliptical or football-shaped head. Reportedly, the creature is a uniformly dark color--often said to be black, green, or brown--having no fins or bodily appendages.

Paradoxically, Chessie has been credited with two very different forms of locomotion. Some reports have described the animal as moving in the horizontal plane with a side-to-side motion, an ambulation typical of snakes, eels, fish and other marine animals. Far more unusual, however, are the sightings which ascribe the creature as moving in the vertical plane with an undulatory, up-and-down movement. In his classic book, *In the Wake of the Sea Serpents*ⁱⁱⁱ, Dr. Bernard Heuvelmans--Belgian zoologist and premiere authority on Cryptozoology--documented that this vertical plane movement has been a commonly perceived form of propulsion reported in many sea serpent sightings that have accumulated over the last 300 years.

Chessie's disposition, as deemed from most reports, has been described as "passive," sometimes inquisitive, and apparently not hostile. In fact, of the more than fifty sightings that I have accumulated over the years, not one episode can be recalled where the alleged animal's behavior was considered threatening. Unfortunately, Chessie's human observers have not always extended her the same courtesies. Consider, for example, the Chessie sighting as documented in the *Washington Post*^{iv} in which a 55-year-old Falls Church, Virginia man reportedly fired a .22 caliber rifle at several serpent-like animals swimming in an area of the Potomac River adjacent to his property.

During my tenure with the Enigma Project (a Maryland-based association that investigates claims of unexplained phenomena) I have been involved with documenting Chessie's history. A history which now has been documented back to 1963, when an engineer performing helicopter test flights out of Maryland's Aberdeen Proving Grounds saw what appeared to be an enormous eel-like animal while flying over the Bush River (a Chesapeake Bay tributary)^v.

Quite frankly, I must admit that on first hearing of “Nessie Junior” in 1978^{vi}, I was skeptical. Initially feeling that the beast had no basis in fact, it occurred to me that the product of someone’s overactive imagination was now being turned into a poor man’s Loch Ness Monster by the media.

Nevertheless, it was my responsibility to investigate such extraordinary claims. To that extent, I only went as far to collect the occasional newspaper articles mentioning Chessie sightings--while maintaining a skeptical view.

A REEL SEA SERPENT?

My skepticism, which gradually mellowed to ambivalence over the next four years, sharply gravitated toward acceptance by 1982. On May 31 of that year (Memorial Day), Kent Island (Maryland) residents Robert and Karen Frew were entertaining their neighbors, Steve and Charlotte Rosier with a cookout. As the day’s activities were winding down, the four adults relaxed on the Frews’ patio. At about 7:30 PM, Charlotte Rosier spotted a long, dark object floating in the unusually calm waters about one-hundred feet off the bulkhead of the Frews’ bay front property. She quickly brought the curious object to everyone’s attention. With that, they all rushed to the water’s edge for a closer look. Realizing that the object was something strange, Bob Frew raced inside his house, grabbed his portable camcorder, and proceeded to make Chessie’s video debut. They all watched the beast from the bulkhead for several minutes before it submerged and disappeared.

Having lived on the Chesapeake for many years the Frews and the Rosiers had occasionally seen other--identifiable--denizens of the deep in their portion of the bay. Although in past years they had spotted such animals as large sharks, rays, terrapins, and even a whale or two, the creature that Frew was videotaping was something unknown to them all. When reviewed, the footage depicted a huge, snake-like animal moving decidedly north--against the outgoing tide. Although the creature’s exact body movements are not unequivocal when watching the tape, the Frews have insisted that (during the actual sighting) it propelled itself with a peculiar up-and-down motion.

The less-than two minutes of video that Frew shot proved to be revealing and became the catalyst that acquired Chessie her worldwide recognition. Robert Frew quickly contacted, Marty Bass, a local (Baltimore) television newscaster. Bass brought the occasional sightings of Chessie to the attention of his viewers during wrap-ups of the evening news. The television reporter wasted no time in airing the tape on his news program. After hearing about that particular newscast, I contacted Bob Frew and was granted an interview.

Within two weeks of the actual sighting, Robert Lazzara (Enigma Project co-founder) and I, anxious to begin an investigation of the matter, were talking with the Frews and examining their soon-to-be-famous videotape. We were immediately impressed by the credibility of the witnesses and the solidity of their evidence. At the time of the actual sighting, four adults (all well educated, sincere professionals) and several children witnessed Chessie’s video debut. Their individual accounts of the episode were all virtually identical. As Lazzara and I first examined the tape, we both reached the inescapable conclusion that it depicted a living animal, one that had huge, almost unnerving, snake-like proportions.

Robert and Karen Frew were in favor of having their video studied so that some kind of identifying label could be attached to its main character. Lazzara and I could not have agreed more and we made it clear to the Frews that we would seek out the most relevant scientific professionals to scrutinize their evidence.

My personal skepticism was ebbing. I was now compelled to seriously review all the credible reports and witness testimony that suggested the existence of the Chesapeake Bay Beast in prior years. The Frew tape now represented the hardest evidence to date for the presence of a cryptozoological specimen in the Chesapeake.

We were obligated to seek the opinion of a relevant, scientific authority. My first choice was Dr. George Zug, Chairman of the Vertebrate Zoology Department at the Smithsonian's Museum of Natural History in Washington, DC. Zug's association with Dr. Robert Rines' investigations at Loch Ness in the 1970s^{vii}, in addition to his affiliation with the International Society of Cryptozoology pegged him as the likely candidate. Also, remembering that his specialty was herpetology (study of snakes), I felt that he might be especially insightful--given Chessie's particular description. In early June, 1982, I phoned Dr. Zug and proposed the idea of a panel meeting for the purpose of examining the Frew videotape. He was very receptive to the idea. Arrangements were made and the meeting was slated for the following August.

Meanwhile, back on Kent Island, Baltimore newspapers became very curious about the Frew videotape. Consequently, national and international wire services picked up on the Chessie story and the Frews, as well as the Enigma project, became inundated with interviews and offers for television and radio appearances. During the weeks that followed media interest was intense. Fortunately for the Enigma Project, all the exposure Chessie was given prompted many other individuals to report their own sightings of the alleged creature. Sightings that otherwise would have gone unreported had the subject not been given a modicum of respectability by the press.

One such sighting, a very significant one in fact, was made on July 16, 1982 by Clyde Taylor and his daughter, Carol^{viii}. This incident remains distinctive not only due to the circumstances in which it was witnessed but also, to the unique way in which it was documented. At about sunset on the day in question, the Taylors were taking a leisurely stroll along Cloversfield Community Beach, a section of Kent Island only a few miles from where the Frews made their sighting just six weeks earlier. As they neared within 100 yards of the rock jetty that cradles a shallow swimming area of this Chesapeake Bay beach, they spotted a huge serpentine animal near the shore moving in about three feet of water. The beast's entire length (estimated to be about 30 feet) was poised on the surface of the shallow water with its "rugby ball" sized head facing inland. Both witnesses described the animal as looking like a gigantic snake yet were emphatic that it moved itself with a peculiar up-and-down motion, not at all characteristic of a snake. On seeing this fantastic sight, Carol Taylor began running toward the animal to get a better look. As she neared to within an estimated 30 feet of the dark "umber" colored creature, it noticed her approach, apparently became frightened and silently dove out of sight. Carol got the distinct impression that the animal probably would have come ashore, had she not run toward it. At his nearest opportunity, Clyde Taylor, a retired commercial artist, committed what they had witnessed to a remarkable set of renderings.

AISLE SEATS AT A MONSTER MOVIE

On August 20, 1982, about 30 individuals assembled at the Museum of Natural History's Naturalist Center for the purpose of examining the Frew videotape. About half the people in attendance were Dr. Zug's colleagues. The balance consisted of individuals that were selected and invited by the Enigma Project. Among those present were zoologists, marine biologists, fisheries biologists, naturalists, Bill Burton, a Maryland sport fishing authority^{ix}, and of course, the Frews, Rosiers, myself, and Cathryn Pendleton of Ellicott City, Maryland. Mrs. Pendleton had been invited because she felt that she had witnessed (and photographed) Chessie some years ago while vacationing on Maryland's eastern shore (not far from Kent Island). Nonetheless, after examining several color photographs that she had brought, the authorities present reached a consensus of opinion that her photos probably showed a "small marine mammal" (e.g. otter).

For approximately two hours the videotape was played, replayed, slowed down, and freeze-framed while the Frews and Rosiers fielded questions from the audience. At the end of the meeting opinions were understandably guarded. Unfortunately, the scientists reached no conclusions on what the videotape depicted, except that it apparently showed an "animate" object. Though the videotape represented the best evidence yet for an anomalous animal's presence in the Chesapeake, its resolution was just not good enough to result in any identifying labels for Chessie. Despite the conservative shroud that overhung the proceedings at the Smithsonian, Dr. Zug did admit to me (privately) that we "had something very interesting" in the form of the Frew tape. Several days after the meeting the Smithsonian's public relations department issued a statement saying that no opinion was reached on the nature of the object in the videotape. Beyond that, nothing was officially speculated.

NEW AND IMPROVED: THE CHESAPEAKE BAY PHENOMENON

Dr. Zug did advise me that computer image enhancement of the Frew tape might be revealing and suggested that I contact a fellow at the Jet Propulsion Laboratories in Pasadena, California. Although I fully intended to pursue Zug's suggestion, I soon found it that it was apparently pursuing me. Within days of Dr. Zug's technical advice I was phoned by Dr. Andrew Goldfinger, a physicist and senior computer scientist with the Johns Hopkins Applied Physics Laboratory (APL) in Laurel, Maryland. He stunned me by saying that APL would be interested in performing a gratis image enhancement of the Frew tape. Apparently, someone at APL saw a Baltimore newspaper article which mentioned Dr. Zug's suggestion of contacting the Jet Propulsion Laboratory (JPL) for the enhancement work. APL, in an attempt to improve its public image and to avoid being outdone by JPL (a sort of west coast competitor), decided to offer its services for the "hi tech" scrutiny of the tape. Dr. Goldfinger explained that computers were often used to aid, improve, or otherwise modify photographic and video images to bring out greater detail, resolution and other features.

After hearing of APL's offer the Frews immediately turned their videotape over to the scientists. Along with several colleagues at the APL Imaging Laboratory, Dr. Goldfinger digitized a particularly revealing segment of the tape and had the computer highlight and

contrast the “animal’s” form from the surrounding water. The result was very impressive. The basically black and white hardcopy produced by the computer clearly showed an image highlighted with a white halo. That image appeared to be a long, snake-like object that terminated in an elliptical “head.”



The folks at the Applied Physics Laboratory had apparently succeeded in refining the video image of the “Chesapeake Bay Phenomenon” (a term which they coined and felt was more befitting the alleged beast). The next step in APL’s analysis involved enhancing the tapes images using computer generated colors. In preparation for this, the most revealing portions of the videotape were segregated into a number of slide-like segments or frames. It was this part of the enhancement that would have likely yielded more accurate values for the animal’s length, diameter, mode of propulsion and speed. Unfortunately, soon after the color enhancement techniques began, the internal funding that had been allocated for the Frew tape ran out. APL’s work on the videotape was suspended in 1983 pending some outside source of funding—that funding never materialized^x.

JUST WHEN YOU THOUGHT IT WAS SAFE TO GO BACK INTO THE WATER...

Even though we are now citizens of the 21st century, it seems that we still delight at scaring ourselves with ideas of sea monsters. Many of us seem to harbor some foggy notion that nameless behemoths can rise up from dark ocean trenches to challenge our mortality at any time. Are such fears really baseless? Aside from any archetypal images that may dwell within us, more than four decades of science fiction movies have helped to perpetuate these fears of sea monsters and dinosaurs extant. But then, perhaps the fossil record is not our only recourse for pondering such existences. Have strange, “sea monsters” made themselves known to us?

Nature still holds the upper hand when it comes to such surprises. The discovery of a living coelacanth, a large, primitive fish thought to have become extinct 70 million years ago, made a profound statement to science that “Living fossils” do exist. The first specimen was caught in deep waters off the eastern coast of Africa in 1938. More recently, the 15 foot long, three-quarter ton Megamouth shark was discovered. Hitherto unknown to science, the first of these strange creatures was caught near Hawaii in 1976, with several subsequent captures having occurred in recent years off the coast of California. Might there not be other

unlikely creatures, perhaps previously known only through myth or legend, secretly living in the world's oceans?

Occasionally, fate intervenes and legend comes to life. Consider, for example, ancient accounts of giant squid given by Aristotle and Pliny the Elder. Fearsome tales of these tentacled monsters crushing fishing boats or fighting with whales had been told for hundreds of years in Scandinavia and other parts of the world. To the scientific establishment these stories were regarded largely as romantic fancies until the late 19th century when actual specimens were found, some exceeding 20 feet in length. Many documented sightings allege that these beasts attain much greater sizes. In recent years, scientific excursions have been mounted to verify these creatures^{xi}.

"I CAN'T SEE IT, SO I CAN'T VOTE FOR IT..."

The next big development in the Chessie saga came in the fall of 1984. I was contacted by Senator George Della (D-MD) who offered to sponsor a resolution for protection of Chessie in Maryland waters. Senator Della's interest in the phenomenon was prompted by a Baltimore Sunpapers article (August 5, 1984) which solicited sponsors for a possible protective measure. Guided by a resolution that had already been adopted by the New York Assembly to protect "Champ," a creature that allegedly occupies Lake Champlain, Senator Della and I fashioned a measure that would suit the Chesapeake Bay Phenomenon. As summarized from its opening abstract, the Resolution's basic principles were:

For the purpose of recognizing the possible existence of an aquatic animal known as the Chesapeake Bay Phenomenon or "Chessie";...that Chessie should be protected from certain actions of certain persons; encouraging certain scientific inquiry into certain phenomena in the Chesapeake Bay and its tributaries; encouraging certain persons to report sightings and to obtain certain evidence of the existence of Chessie; and generally relating to measures that can be attempted to confirm the existence of Chessie.

On January 28, 1985, Senator Della presented the resolution before the Maryland Senate Committee for Economic and Environmental Affairs. Robert Frew and I were also present to provide the supporting testimony that often serves to aid the passage of a resolution. After getting to the committee room Bob Frew and I discovered that the Chessie measure, curiously listed as Senate Resolution 13, had been placed as the last item on an already too crowded agenda. When the material finally was presented (5 hours later), our proceedings were rushed (by the committee chairman) and the committee members were conspicuously inattentive. In short, they didn't appear to accept the material with the same sincerity or enthusiasm with which it was delivered. Giving the utmost respect to Senator Della's efforts, I got the distinct impression that for most of the committee the measure had only been considered as some slight amusement to brighten up an otherwise dull day.

Even though I made the Senate committee aware that precedents had already been established by other legislatures for the protection for Lake Champlain's "Champ" (New York)^{xii} and the Pacific Northwest's "Bigfoot" (1968 Ordinance-Skamania County, Washington), Senate Resolution 13 was

voted down—7 to 4—on February 6, 1985. While the reasons of most those who voted against the measure were not expressed, an article in the Baltimore Evening Sun (February 7, 1985) quoted committee member Senator Arthur Dorman (D-Prince Georges County, MD) as saying, ***“I can’t see it, so I can’t vote for it”*** Despite Senator Dorman’s parochial attitude, sightings of Chessie have persisted^{xiii}.

SOUTH AMERICAN SWAMP SNAKE SCUTTLEBUTT, ET CETERA

Chessie’s true nature remains unknown. Compelling detailed reports from credible witnesses suggest the possibility of an unknown animal. Another idea that has surfaced over the years is the theory that Chessie may be an anaconda with lineage to the snakes that were kept in the holds of 19th century South American sailing ships. I have heard that Anacondas were used on those vessels to keep rats in check and it is a fact that such ships sailed the Chesapeake many years ago. In support of this interesting notion the Baltimore Evening Sun (August 19, 1978) reported that many years ago, James Dutton a retired Charles County (MD) waterman, saw strange tracks in mud as though “left by a huge reptile that crawled across a field and into Nanjemoy Creek.” As the Enigma Project’s investigation of the Chesapeake Bay beast continued, we managed to locate Dutton for a personal interview in 1988. He told us that as a boy, he heard stories from old watermen who lived deep in the swamps off Nanjemoy Creek, that an enormous snake was occasionally seen slithering through murky waters. The serpent, considered something of a local legend, was actually feared by some of the area’s inhabitants. Dutton recalled the story about one old-timer who allegedly found a slough, presumably from a gigantic snake, which he highly prized and kept mounted on the wall of his shack. When we mentioned the Chessie/anaconda theory to Dutton he did tell us that years ago, some of the old sailing ships had been scuttled in the dank swamps around Nanjemoy Creek.

South America it seems, is the home of some fantastic snake stories. In his masterful work, *On the Track of Unknown Animals*, zoologist Heuvelmans devotes an entire chapter to “The Giant Anaconda and other Inland ‘Sea Serpents’.” He recounts sightings and descriptions of the mammoth constrictors and other snakes of unknown zoological disposition, which may have gone unrecognized by modern science. In the dense, river-cut jungle regions of Brazil, Bolivia, and Peru, natives openly acknowledge these beasts and live in great fear of them. Stories have told of entire manned canoes being pulled under the water and crushed by snakes, 100 feet or more in length, that had been injured or frightened^{xiv}.

Something similar to Chessie—but considerably bigger—was allegedly seen many years ago in waters off New England. During the early 19th century, a strange creature was sporadically sighted near the coastal regions of Massachusetts and Maine^{xv}. Looking much like a Goliath water snake, the enormous beast was said to be “not far from 100 feet” in length and “dark brown, with white under the throat.” Witnessed by many people during the years in question, the “sea serpent” was said to move in a manner much “like that of fresh water snakes.”

When Jan Snead saw a strange animal in the Choptank River (Chesapeake tributary) some years ago, she could only describe it as a gigantic “sea snake.” On that sunny day in late April of 1985, Jan and her husband were sailing the Choptank in their 34-foot cabin cruiser. As she strolled about the deck of the boat, Jan happened to glance out at the water and something caught her eye. In near disbelief, she saw a gigantic snake-like animal swimming

within 50 feet of the boat. Jan described the beast as being about 35 feet long and having greenish-brown skin with some color variation. She screamed for her husband who quickly joined her in watching the amazing spectacle. The two people stood aghast as the strange animal moved along, skimming the surface of the water with a “weaving” side-to-side motion. After throttling up the boat’s engine, Jan and her husband spent 45 minutes following the creature, as it alternately submerged and surfaced, before it finally dove from view^{xvi}.

Relative to the anaconda theory, some cursory research will show that these snakes are tropical animals, equally at home in fresh water as on land. They are powerful constrictors, are light colored or mottled, and have been known to exceed 20 feet in length. However, the question of whether such a tropical reptile could tolerate the Chesapeake’s brackish waters and adapt to the sometimes brutally cold, temperate climate of Maryland and Virginia remains open to debate. Some descriptions of Chessie’s uniformly dark color, enormous length, peculiar mode of propulsion, and “football” shaped head do not match typical descriptions for anacondas. The claims of dark color and great body length shed some doubt on the idea of it being an anaconda with claims of “up-and-down” motility detracting further from the question of its being a snake. In fact, in his excellent text, *In The Wake Of The Sea Serpents*, Dr. Heuvelmans advised, “*that true serpents [snakes] cannot undulate vertically.*”

DEFINING THE UNKNOWN

If the beast of Chesapeake Bay is not a snake, might it not be some sort of fish or eel, or perhaps a type of mammal? Given Chessie’s particular physical description, there are a limited number of fish and eel candidates providing close matches, and virtually no present-day mammals from which to choose.

The oarfish (*Regalecus glesne*) has been proposed as a Chessie candidate by virtue of its long thin physique--known to exceed 20 feet in length. Its body is a glistening silver color surmounted by a bright red dorsal crest, which runs the animal’s length. However, these striking characteristics do not surface in descriptions of Chessie.

Another slippery idea is that of Chessie being an eel. The basic body shape and color is about right but the body length is wrong. The vicious moray eel can reach a length of 10 feet, though nothing comparable to Chessie’s size has ever been verified. According to Robert Winston (pseudonym for a former director of a large metropolitan aquarium), eels don’t surface often. Though there are exceptions, since they have to derive their oxygen from the water, they are rarely seen at the surface unless sick, distressed, or near death^{xvii}. Nevertheless, Heuvelmans (*In the Wake of the Sea Serpents*) lists a number of reports of what he terms “super-eels.” Said to be huge, whale-battling animals, 30 to 100 feet long, they have supposedly been sighted in the Atlantic and Pacific oceans and other areas.

In the way of mammals, Dr. Roy Mackel, a University of Chicago zoologist who’s authored several books on cryptozoology, once suggested that Chessie’s description sounded similar to that of a zeuglodon, a primitive, long-bodied cetacean that supposedly died out many thousands of years ago^{xviii}. Once again, however, a suspected match ends in disparity. Though the zeuglodon was credited with having a cylindrically tapered body length of 45 feet, it was hardly snake-like and reconstructions of it include two small, frontal flippers. Chessie’s body, according to the best available reports, is without appendages.

In a letter he wrote to me after attending the Smithsonian/Frew videotape meeting,

Robert Winston admitted that he could not identify what Chessie was. Nonetheless, he did speculate on what it wasn't. He felt that the object was not likely to be an eel, oarfish, anaconda, or python and could not "think of any known creature that would exhibit this combination of size and shape [serpentine 40 foot length]."

The conclusion to the story of the Chesapeake Bay Serpent cannot be written. Chessie's identity remains unknown. The alleged creature has not been--physically--examined by scientists and therefore cannot be viewed as "real" in the eyes of science. The Chesapeake Bay, however, with its 5,000+ miles of coastline and estimated 18 trillion gallons, is an enormous body of water^{xix}. It has a large, direct connection with the Atlantic Ocean and can therefore allow free passage to any number of sea dwellers, both known and unknown. The oceans of the earth are vast, deep and largely unexplored. Every-so-often the discoveries of new and astounding aquatic lifeforms are announced^{xx}. Very conservatively does Mother Nature dole her secrets; perhaps someday we will discover that the Chesapeake Bay Serpent is one of them.

i Michener, James. *Chesapeake*, Random House: NY, 1978, 865 pp, ISBN# 0394500792.

ii Richmond (VA) Times Dispatch, 1977.

iii Heuvelmans, Bernard. *In the Wake of the Sea Serpents*, Rupert Hart-Davis: London, 1968.

iv Washington Post, "A Potomac Nessie?" August 18, 1978.

v Personal correspondence to The Enigma Project

vi Washington Post, "Nessie Junior," August 18, 1978

vii National Geographic, Vol. 151, No. 6, June 1977, p. 759, William Ellis, *Loch Ness: the lake and the legend*.

viii Original report on file with The Enigma Project.

ix Mr. Burton, a journalist and sport fishing authority, has been following the monster lore of the Chesapeake Bay for decades and has always been a valuable resource to The Enigma Project.

x The (Baltimore, MD) Sun, *APL Enhances 'Chessie' videotape, Still Stumped*, August 5, 1984.

xi Ellis, Richard. *The Search for the Giant Squid*, New York: Penguin Books, 1999. ISBN: 0-14-028676-4

xii Zarzynski, Joseph W. *Champ: Beyond the Legend*, M-Z Information: Wilton, 1988 (revised edition).

xiii The (Baltimore, MD) Evening Sun, *Panel Won't Protect Chessie*, February 7, 1985.

xiv Heuvelmans, Bernard. *On the Track of Unknown Animals*, Rupert Hart-Davis: London, 1958 (English edition).

xv O'Neill, J.P. *The Great New England Sea Serpent: An Account of Unknown Creatures Sighted by Many Respectable Persons Between 1638 and Present Day*, Downeast Books: Maine, 1999.

xvi Report on file with The Enigma Project

xvii Private correspondence on file with The Enigma Project

xviii The ISC Newsletter, Chesapeake Bay Monster Filmed on Videotape, Summer, 1982, Vol. 1, No. 2.

xix The Chesapeake Bay Foundation, Philip Merrill Environmental Center, 6 Herndon Avenue, Annapolis, MD 21403.

xx Stover, D. "Creatures of the Thermal Vents"

http://seawifs.gsfc.nasa.gov/OCEAN_PLANET/HTML/ps_vents.html

Mike Frizzell is co-founder and research director of The Enigma Project, a Maryland-based organization that investigates and documents claims of unexplained phenomena. He has authored a number of articles on such subjects as North Carolina's Brown Mountain Lights, Ice Falls, and Pennsylvania's Ringing Rocks. Mike is a former board member and past vice-president of the *International Fortean Organization (INFO)*. His early interests in cryptozoology were sharply propelled by *Argosy Magazine's* coverage of the Patterson-Gimlin Film in 1968. Mr. Frizzell is employed as an engineering technician with the University of Maryland's Department of Chemical Engineering & Biotechnology. He resides in Reisterstown, Maryland with his wife and two children.

Contributor Books and Related Merchandise

Many of the authors and artists who have presented their work here have books or other merchandise available for purchase. Most books can be obtained through various bookstores, such as Barnes & Nobles and Borders, or through online sites like www.amazon.com. Other books can be obtained through organizations like the *British Columbia Scientific Cryptozoology Club* or directly from the publishers or authors. Below are some of the items available and some sources to obtain them.

Loren Coleman:



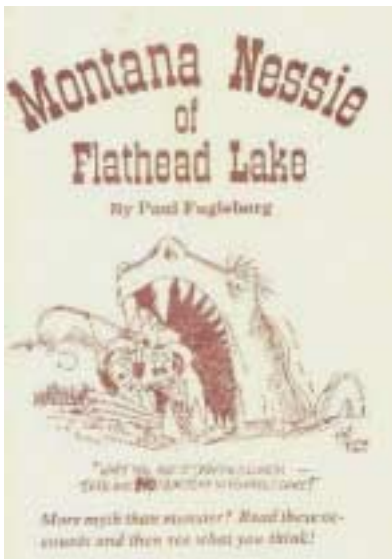
Loren has written many books which include *Mysterious America: The Revised Edition* (Paraview Press, New York, 2001), *Cryptozoology A to Z* with Jerome Clark (Simon & Schuster, Fireside Label, New York, 1999), *The Field Guide to Bigfoot, Yeti, and Other Mystery Primates Worldwide* with Patrick Huyghe (Avon Books, New York, 1999) and *Tom Slick and the Search for the Yeti* (Faber and Faber, Boston, 1989).

Some books can be obtained through these Internet sites: www.amazon.com, <http://www.barnesandnoble.com/>, <http://www.anomalist.com> and <http://strangebookshop.safeshopper.com/>.

Loren's most recent book is due out in January 2002 from Paraview Press and is entitled *Mothman and Other Curious Encounters*.

Some books may be available through the author as well, contact Loren at cryptozoology@lorencoleman.com or visit his website at www.lorencoleman.com.

Paul Fugleberg:



Paul is the author of several books available directly from Treasure State Publishing.

Among these books are: *Montana Nessie of Flathead Lake*, *Schnitzmeyer: Homestead Era Photographer*, and *Proud Heritage: An Illustrated History of Lake County, the Lower Flathead, Mission and Jocko Valleys*. The first two were published by Treasure State Publishing, the third through Donning Publishers of Virginia Beach in 1997).

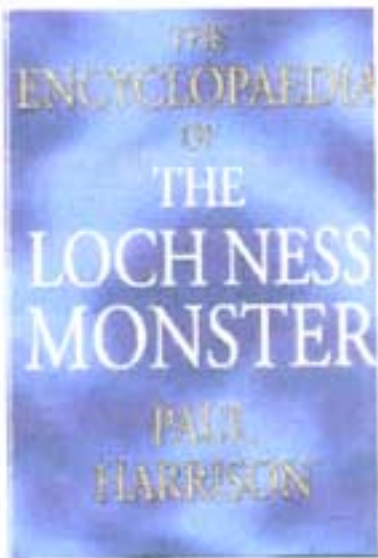
Montana Nessie and *Schnitzmeyer* are available for \$4.00 postpaid and *Proud Heritage* is \$39.00 postpaid. Payment can be sent to Treasure State Publishing, P.O. Box 1352, Polson, MT, 59860-1352 or e-mail Paul at fugketps@digisys.net for more information.

Lois Wickstrom:



Lois is the author of many children's books including *Nessie and the Living Stone* with Jean Lorrain, *Ladybugs for Loretta*, *Live with Kerzelle* and *A Story of Adoption*. Some books can be obtained through www.crossroadspub.com and www.simegen.com/writers/lois/ladybugs.htm. Or write to Lois at cormo@juno.com for more information.

Paul Harrison:



Paul is the author of many books including: *The Encyclopedia of the Loch Ness Monster* (Robert Hale, London, 1999), and *Jack the Ripper: The Mystery Solved* (Robert Hale, London). He has a forthcoming book on marine Cryptozoology coming out soon as well from Robert Hale of London entitled *Sea and Lake Monsters of the British Isles*.

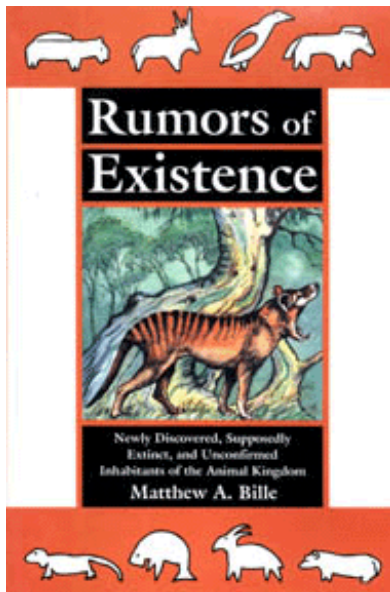
Copies can be obtained through www.amazon.com and it's sister company www.amazon.co.uk.

Dr. Paul LeBlond:



Along with Dr. Edward Bousfield, Paul has authored perhaps the definitive book on Cadborosaurus entitled *Cadborosaurus Survivor from the Deep* (Horsdal & Schubart, Victoria, 1995). A copy can be obtained for \$15.00 by writing to Cadborosaurus Book, C/O Dr Paul H. Leblond, S42, C7, RR2, Galiano Island, British Columbia, V0N 1P0, CANADA or visit the *British Columbia Scientific Cryptozoology Club* site at <http://www.ultranet.ca/bcsccl/> and go to the Books and Merchandise section. www.amazon.com also has this book for purchase.

Matt Bille:



Matt is the author of *Rumors of Existence* (Hancock House, 1995) and has a sequel entitled *Shadows of Existence* coming out soon in 2002. *Rumors of Existence* is available from www.hancockhouse.com as well as www.amazon.com and <http://www.wexclub.com/Crypto/pages/roe.htm>.

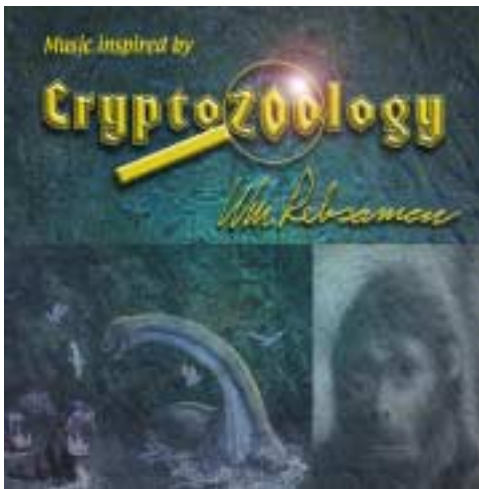
Rumors of Existence covers some of the more obscure Cryptids as well as recent and fascinating new zoological discoveries.

Craig Heinselman and Others:

The editor has *CRYPTO* related merchandise for sale at <http://www.cafepress.com/cp/store/store.aspx?storeid=cheinselman>. This same site has other Cryptozoology related merchandise and it is suggested that the following are looked at <http://www.cafepress.com/cp/store/store.aspx?storeid=texasbigfoot> (Texas Bigfoot Center), <http://www.cafepress.com/cp/store/store.aspx?storeid=caddyscan> (Caddy Scan), <http://www.cafepress.com/cp/store/store.aspx?storeid=caddyscan2> (Caddy Scan) and <http://www.cafepress.com/cp/store/store.aspx?storeid=myriadfour> (British Columbia Scientific Cryptozoology Club).

Past issues of *CRYPTO* including the popular *Hominology Special Number I* from April 2001 are available at Chad Arment's website, for free, at www.herper.com/CZnews.html. While there check out the free newsletter *North American BioFortean Review* at www.herper.com/NABR.html and also Arment Biological Press at <http://www.herper.com/ebooks/index.html> which has some hard to find older Cryptozoology texts and other biological texts, some free and some for a price.

William Rebsamen:



Artist William Rebsamen has been called the *Audubon of Cryptozoology*. His artwork has appeared in various books and publications by authors such as Dr. Karl Shuker, William Gibbons and Loren Coleman. He has recently released a music CD of his own entitled *Music Inspired by Cryptozoology*, which contains 13 tracks of synthesized music as well as spoken word overlays and one vocal song. It brings an auditory experience to the study of Cryptozoology.

You can obtain a copy of this CD through William Rebsamen for \$14.00 (postpaid) in the United States at 2308 Crosshill Road, Ft. Smith, AR 72908 USA. Please contact Bill for international costs for outside the United States by writing to the above address or e-mailing him at cryptodude@aol.com. Visit Bill's website as well at www.rebsamenwildlife.com.