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Mysterious Creatures: Creating a Cryptozoological Encyclopedia

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Abstract—Reference books usually begin by defining the boundaries of a field of study, followed by consistent descriptions of specific topics. In a field as diffuse and interdisciplinary as cryptozoology, these tasks are not as simple as they might seem, even for someone who has been following the subject for more than 40 years. In preparing *Mysterious Creatures: A Guide to Cryptozoology* for publication in 2002, I began by asking such basic questions as: What is cryptozoology? What categories of unknown animals do cryptozoologists study? How do they go about evaluating testimony and information resources? In answering these questions, I was able to decide on the content and arrangement of this comprehensive encyclopedia of cryptids.

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When I was a young lad, I wanted to grow up and write reference books. It was not a common goal for many 10-year-old boys, so I did not bother sharing the urge much with others. But my parents did notice my excitement whenever they would bring back a new dictionary or an atlas from the bookstore. As for field guides—especially those pocket-sized Golden Nature Guides put together by Herbert Zim in the 1950s—I would look at those over and over again.

When I discovered cryptozoology at about the same time, I thought how nice it would be to have a Golden Nature Guide for mystery animals (cryptids as they are called)—complete with an artist's conceptions of Nessie and bigfoot, track outlines, habitats, distribution maps, and suggested equipment for a jungle expedition. But Simon & Schuster never came out with one.

So a few years ago when an editor at ABC-CLIO asked me what kind of reference book I would like to write, I already had the germ of an idea. Of course, there are many kinds of crypto reference books that need to be written—

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bibliographies (my 1983 book Monsters is way out of date), a biographical dictionary of cryptozoologists (Loren Coleman wants to write one of those, and he will undoubtedly do a very good job), a glossary of terms (defining everything from the mokele-mbembe to montane forests and dermal ridges), a chronology of cases, an atlas or gazetteer of places where cryptids are seen (perhaps illustrated with postage stamps), a textbook for college-level courses, or an encyclopedia with lengthy state-of-the-art topical essays.

Perhaps even a book of crypto quotations would be appropriate. One classic quote would be from Capt. R. J. Cringle of the Natal Line steamer *Umfuli*, who watched a long-necked creature for 30 minutes off the coast of Western Sahara on December 4, 1893. He told researcher Rupert Gould, "I have been so ridiculed about the thing that I have many times wished that anyone else had seen that sea monster rather than me. I have been told that it was a string of porpoises, that it was an island of seaweed, and I do not know what else besides."

Anyway, I decided on a field guide approach for Mysterious Creatures: *A* Guide to Cryptozoology (ABC-CLIO, 2002). The animals, after all, are central to the science, and despite a few other books that call themselves field guides, nothing offered a serious, comprehensive, or practical package of facts.

But you cannot just sit down and write a reference book like you might write a short story. You need to think carefully about arrangement, scope, and classification. There is the question of evidence. And you need to start out by defining the field.

What Is Cryptozoology?

The late Belgian zoologist Bernard Heuvelmans, who is credited with coining the term cryptozoology, has described it as "a systematized search" for "unknown or undescribed animal forms about which only testimonial and circumstantial evidence is available." That is not a bad start. However, I felt this definition did not place enough emphasis on evaluation and it left out a few categories of cryptids, so I modified it as follows: Cryptozoology is "the examination and evaluation of ethnographic, testimonial, and physical evidence to determine the probable identity of an animal species or variety that is either undescribed by science or that exists at a time or in a locality not recognized by a majority of experts."

If I were a zoologist, I might have stopped there. After all, zoology's goal is to add to the knowledge of world biodiversity. But the crypto literature is filled with anecdotes and folklore about creatures that belong more to mythology and the paranormal than the nuts-and-bolts world of DNA. How on earth should I deal with the Indian legend of the weird-looking Piasa bird (as currently painted on the Mississippi bluffs near Alton, Illinois, or its prior incarnation in 1983 drawn on a metal plate); or bizarre, red-eyed entities like Mothman; or legendary beings like dragons, unicorns, or fairies? I hated to leave them out, since I knew

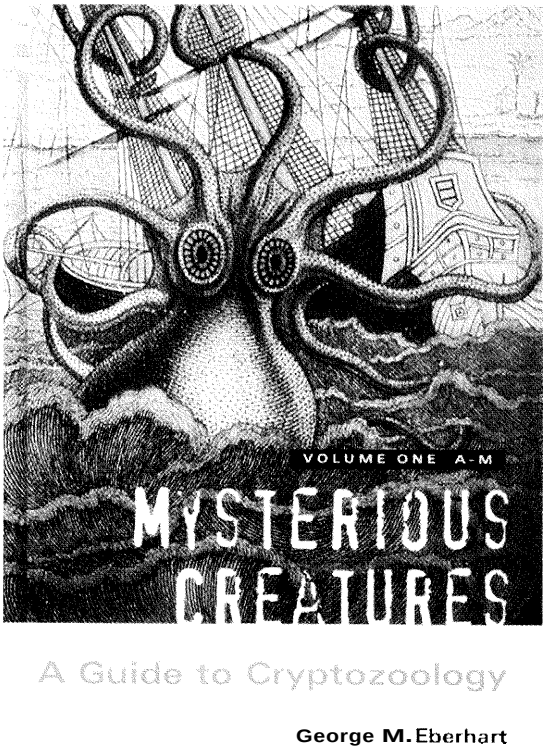

Fig. 1. *The* two-volume *Mysterious Creatures A Guide to Cryptozoology,* by George *M*. Ebcrhart. published in December 3002 by ABC-CLIO.

that high-school students or undergrads might need reliable information about them, too.

So into the book they went. I think it is equally important to show how known animals can pose as cryptids or how people's belief systems and expectations can color their observations of the natural world. Solving historical puzzles also seems relevant to cryptozoology. Just what animals were responsible for medieval basilisk lore? Could the giant short-faced bear (Latin name *Arctodus simus*) have survived somewhat later than is currently supposed and thus be responsible for Indian legends of the stiff-legged bear?

Categories of Mystery Animals

Let us take a look at what I consider to be the 10 categories of mystery animal. Some of them might overlap a little. but all the 1,085 cryptids I have described in my book fit into at least one of these groups.

1. *Distribution anomalies.* These are well-known animal species found in areas where they were not previously known (such as the British big cat,

Fig. 2. In 1934, Arthur Grant saw Nessie while he was riding his motorcycle on the road alongside Loch Ness. Credit: Bill Rebsamen.

one of which was photographed in Surrey in 1966) or where they formerly existed (such as the Eastern puma, which is definitely returning to its earlier range east of the Mississippi River).

2. *Undescribed, unusual, or outsized variations of known species.* This would include the giant anaconda of the Amazon (specimens exceeding the accepted length of 30 feet, such as the 105-foot giant reportedly killed in 1932 by the Brazilian Boundary Commission); or the spotted lion (a variety said to exist in the mountains of East Africa, including a pair shot by Michael Trent in the 1930s).
3. *Survivals of recently extinct species.* In this category we find the ivory-billed woodpecker (presumed extinct in the U.S. by the 1960s, although an alleged sighting in 1999 of a pair in the Pearl River Wildlife Management Area in Louisiana prompted an expedition in 2002 that unfortunately failed to find anything); the dodo (extinct in Mauritius since at least 1690, although there were some vague reports in the 1930s and 1990s); and Steller's sea cow (a sirenian presumed extinct by 1768, although, again, there have been reports of its persistence along the Siberian coast as recently as 1976).
4. *Survivals of species known only from the fossil record into modern times.* Here we find the mokele-mbembe of the Congo (an aquatic creature that some think could be a surviving sauropod dinosaur, which supposedly died off 65 million years ago); and the kaptar of the Caucasus Mountains,

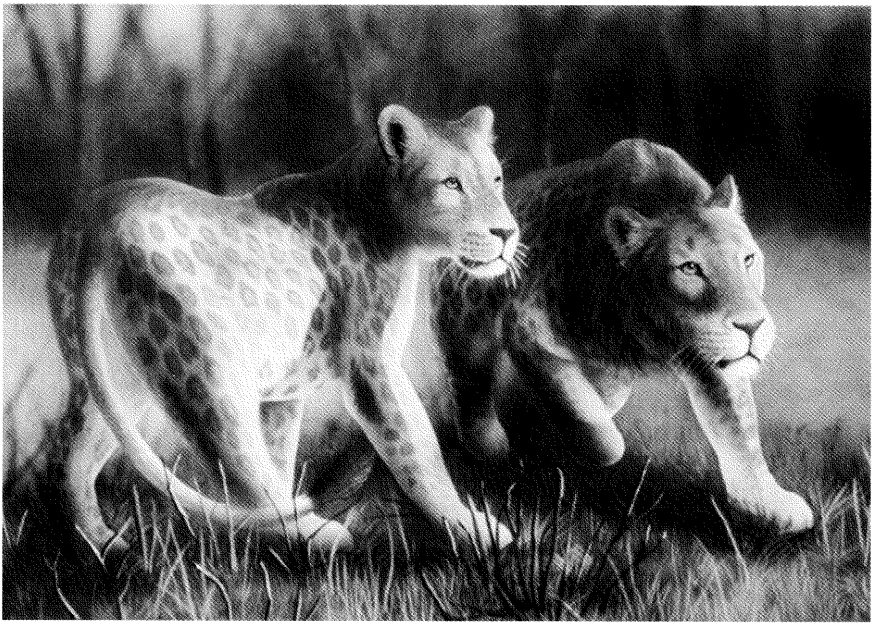

Fig. 3. Spotted lions shot by Michael Trent in the 1930s in the Aberdare Range, Kenya. Credit: Hill Rebsamen.

a possible Neanderthal survival (one specimen was allegedly examined by Lt. Col. Vazghen Sergeyevich Karapetian of the Soviet Army Medical Corps in Dagestan in December 1941).

5. What I call *Lingerings, or survivals of species known from the fossil record much later into historical times than currently thought.* This would include the woolly mammoth, which was present on the Russian plains and in Western Europe until about 12,000 years ago (although old Siberian and Mongolian traditions seem to refer to a living animal); the sivathere of Kish (a bronze chariot ring found in Iraq that dates from about 2,800 B.C. and seems to show an ox-sized fossil giraffid known as a sivathere that is thought to have persisted in Eurasia until the late Pleistocene, which ended 5,000 years earlier than the Sumerian kingdom); and the musk ox of Noyon Uul (silver playues found in Hun burial tombs in Mongolia dating frotn the 1st century B.C.—the only problem is that musk oxen, though they survive in North America, are thought to have died out in Euracia by the end of the Pleistocene).
6. *Animals not known from the fossil record but related to known species.* In this group are the Andean wolf (an unrecognized wolf species from Argentina, known from one pelt and one skull); and Beebe's manta (an undescribed species of manta ray with distinct white bands that has been seen on three occasions in the Pacific, the first time by naturalist

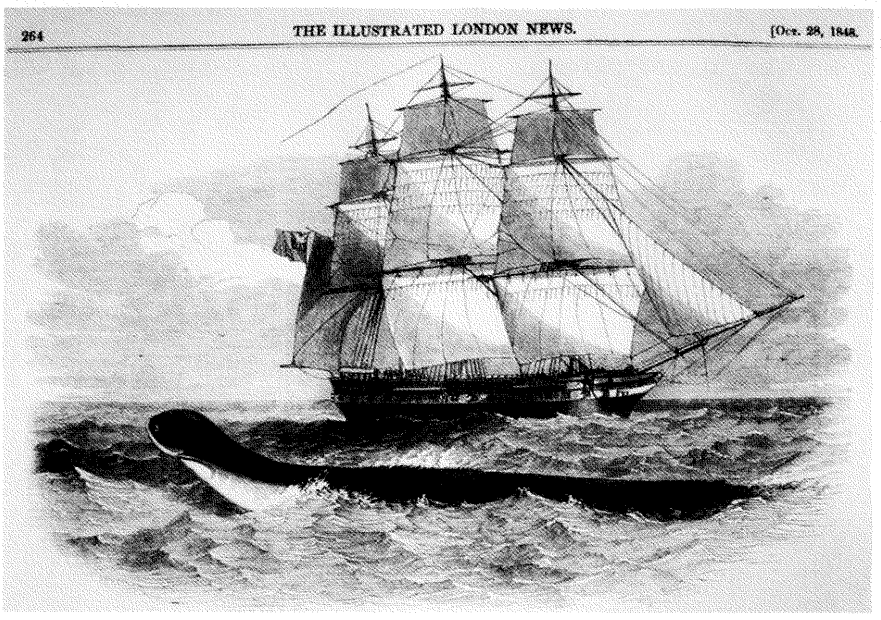

Fig. 4. The sea monster observed *hy* Captain Peter M'Quhae and the crew of *HMS Daedalus* on August *6, 1848. From* the *Illustrated London News*

William Beebe in the Galápagos Islands in 1923 when it collided with his vessel).

7. *Animals not known from the fossil record nor related to any known species.* These are the most mysterious of cryptids because we have no evolutionary blueprint for them. Here we find the North American bigfoot (despite the fact that some researchers think that bigfoot is a surviving *Gigantopithecus*, we know this huge Pleistocene ape only from a few jaw fragments and isolated teeth and have no idea what it looked like in life); and sea monsters, of which there are probably several types (although some sightings are reminiscent of plesiosaurs or archaic whales known as basilosaurids, there are really no close correlations). Captain Peter M'Quhae and the crew of HMS *Daedalus* saw one of these animals in the South Atlantic on August 6, 1848.
8. *Mythical animals with a zoological basis,* such as the griffin (which seems to be based on the fossil remains of ceratopsian dinosaurs, especially *Protoceratops*, a Late Cretaceous herbivore that averaged 7–8 feet in length and whose bones are commonly found in the desert along caravan routes in China and Mongolia. The griffin was first described around 675 B.C. as an animal known to Scythian nomads who traded with the Greeks and traveled as far east as the Altai Mountains of China). Also, the unicorn, which, while mythical, has its origins in several

different real animals—the Indian rhinoceros, the Arabian oryx, the Persian wild ass, the aurochs, the narwhal, East African cattle, and possibly even a surviving Pleistocene antelope *(Procamptoceras)* that lived in Europe 1 million years ago.

9. *Seemingly paranormal or supernatural entities with some animal-like characteristics.* Here we have paranormal black dogs (one old pamphlet describes the appearance of a spectral canine that appeared inside a church in Suffolk in 1577 during a violent thunderstorm); the dreaded Mothman of Point Pleasant, West Virginia, in 1966 (which may have involved both barn owls and UFOs); and maybe even the Little People (fairies, brownies, pixies, and leprechauns of European folklore, all of which have complex origins, but could involve folk memories of a race of small-statured people). In any case, it is important to keep these European tales in mind when investigating reports of small hominids in Africa and Asia; indigenous peoples often blend myth and zoological reality interchangeably.
10. *Known hoaxes or probable misidentifications* that sometimes crop up in the literature. There is the Coleman frog (a definitely manufactured artifact on display in a museum in Fredericton, New Brunswick); and the famous jackalope, a cross between a jackrabbit and an antelope, as seen in many spoof postcards. We all know that jackalopes are not real, right? But wait, Bavarian hunters of the 16th century knew about a hare with horns. And there really are bunnies with horns in the U.S.—more precisely, antler-like growths caused by the Shope papillomavirus transmitted by the rabbit tick. The tumors are irregular in shape and can appear on the face, neck, and all over the body, as can be seen in one specimen caught near Topeka, Kansas and on display at the University of Kansas. So even hoaxes can be based on real zoological specimens.

What Cryptozoology Excludes

By now you are probably thinking that I will include practically everything under cryptozoology. No, there are six exceptions:

1. *Insignificance.* Cryptids must be big, weird, dangerous, or significant to humans in some way. The Zeus beetle discovered a few years ago in Australia has a unique reproductive strategy (the smaller male has sex for up to a week and feeds off tasty secretions on the female's back the whole time). This new animal is of interest to zoologists, but since the female is only 2 millimeters long, it was not noticed by, or much less significant to, the local human population.
2. *Lack of controversy.* Someone needs to observe a mystery animal and someone else needs to discredit the sighting. Cryptozoologists function as interventionists between witnesses and skeptical scientists. If it were not

for that conflict, we would not have to step in and say "wait a minute, these folks might be right."

3. *Erratics.* The out-of-place alligator, boa constrictor, or kangaroo that turns up in an odd spot, undoubtedly through human agency, is not a zoological mystery. One gator turned up in a creek near Stilwell, Kansas, in 1979. Now, if someone discovers a new species of alligator that lives only in sewers, that is a different matter.
4. *Bizarre humans.* No vampires or zombies need apply, since these creatures seem to be reanimated dead members of our own species. Perhaps this makes them a cryptophysiological puzzle, or even a problem in cryptothanatology.
5. *Angels or demons.* Whatever these are, they do not seem to operate on DNA. The paranormal or supernatural is admitted only if it has an animal shape (like a werewolf sighting, which might involve a real dog or wolf, or a mystery canid).
6. *Aliens.* Let us save these entities for future exo-cryptozoologists—unless, of course, they arrived some time ago and thus classify as residents.

That gives you an idea of what cryptozoology is. In my book, I also wanted to provide guidance for people who might want to learn more about the field, so let us take a moment and look at what cryptozoologists do.

Cryptozoologists: A Job Description

Ultimately, our job is to strip away the myth, the misidentification, and the mystery from reports of animals falling into the categories I have just outlined. When confronted with a new sighting, the investigator's first task is to see what local fauna might account for it. Often the report comes from a tourist who, for example, is not aware that lake sturgeons are still found in Lake Champlain, or that spiny-tailed iguanas have been introduced in south Florida.

Second, we evaluate the accuracy and validity of the eyewitness testimony.

Third, we explore the likelihood of a hoax.

Fourth, if a coherent body of evidence accumulates to indicate that a real animal not native to the area is involved, we determine whether any living animals fitting the description were introduced or have lived there all along unnoticed by compilers of field guides.

The final step is to come up with a reasonable conjecture about what class, order, or genus the mystery animal belongs to, based on known living and fossil taxa. Even if nothing in the record matches, a case could be made for an evolved version of a known fossil animal. What plesiosaurs looked like 65 million years ago can serve only as a basic guide to what they might have evolved into had they survived the Cretaceous extinction.

Cryptozoologists are sometimes accused of never wanting to solve a mystery, perhaps because of the glamour and romance of the unknown. However, mystery mongering is much more frequently found in treatments by the media. Most of

us would rather have one fewer yeti or Jersey devil to worry about, whether it winds up in a museum or in a long list of animals that never were.

Mysteries are both a bother and a challenge to cryptozoologists. They are a bother because we wonder what some journalist or observer got wrong about an animal that really exists. After all, we can tolerate only so many "head like a goat, body like a lion" stories. And mysteries are a challenge because we feel compelled to find out what animal—known, unknown, or supposedly extinct—could stimulate a sighting. The triumph of a solution outweighs the uncertainty of an incomplete puzzle.

Reliability of Evidence

Just as with UFOs and psychic phenomena, many factors can affect the reliability of a report by a North American or European observer. Here are 15 factors, courtesy of colleague and cryptozoologist Jack Rabbit:

1. *Memory slippage.* A sighting made 10 years ago tends to be less accurate than a fresh one a day or a week old.
2. *Length of observation.* Witnesses recall more details more accurately the longer the duration of their sighting.
3. *Local conditions.* The closer the witness is to a mystery animal, the better the weather, the fewer obstructions, the better the light—accuracy improves.
4. *Fear and stress.* The more threatening the encounter, the fewer details are remembered. Witnesses whose fight-flight response is triggered by an unexpected big-cat encounter are likely to exaggerate anatomical details.
5. *Expectancy.* If you already know what the Loch Ness monster is supposed to look like, the more likely your report is going to conform to the standard model.
6. *Witness need.* Some observers, like cryptozoologists themselves, have an ax to grind. Reports from both established skeptics and believers must be treated with greater scrutiny than those from nonspecialists.
7. *Confabulation.* Witnesses often fabricate false memories from a variety of sources. They are not consciously lying, but they are subconsciously allocating data from other experiences—folktales, dreams, similar events, interviewer assumptions—to an event that may be less than the sum of its parts.
8. *Filling in the gaps.* "I saw a big black object, apparently moving in the water" can change into "I saw a big black animal in the water" in an observer's memory. After a while, witnesses can develop imaginary elaborations about fins, eyes, or a mane.
9. *Conformity.* Witnesses feel a greater degree of certainty if they hear that others have reported similar details. If three witnesses think they have seen a bigfoot, and a fourth is pretty sure they have all seen a bear, the

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loner over time is likely to be persuaded by his companions that his perceptions are wrong.

10. *Reluctance to admit ignorance or failure to recall.* Some witnesses will invent details to avoid saying "I don't know." This is why leading questions tend to prompt an uncertain witness toward a preferred answer.
11. *Signijicance.* Witnesses tend to remember important details and ignore the trivial. Big teeth and a menacing attitude are remembered more accurately than subtle field markings.
12. *Demographics.* Studies have shown that elderly witnesses and children are generally less reliable than young or middle-aged adults. Female witnesses are more reliable than males except when they are afraid or under stress.
13. *Physical condition.* Some witnesses are near-sighted or colorblind; others may be experiencing lack of sleep, hunger, or fatigue.
14. *Training.* Trained observers (birders, hunters, native guides) have more knowledge of local fauna than do soccer moms and NASCAR dads.
15. *Biased interviewing.* Leading questions, nonverbal cues, offering photos for comparison ("Did it look like this picture of a stegosaurus?")—all these can warp an observer's recollection.

That is quite a lot to take into consideration, and we are talking only about Western observers so far. But there are five other factors to consider when, as is often the case in cryptozoology, sightings by non-Western or indigenous peoples are involved:

1. *The language harrier.* A description by an indigenous observer is only as good as his command of English, your command of his language, or your interpreter's command of both.
2. *Alternative taxonomies.* Other cultures often group animals by the way in which they are used (deer and alligators are similar because they both produce leather), the time of day when they are active (bats and owls are similar because they are both nocturnal), or where they live (parrots and monkeys both live in trees).
3. *Overconfidence.* There is an assumption by outdoorsmen of any culture that if they have never seen animal X after Y number of years in the woods, then it must be extraordinary. But indigenous people often do not have access to flashlights (allowing them to see common nocturnal animals), television, or the Internet (preventing them from realizing that some animals are common only 50 miles away).
4. *Blurring of reality with myth.* Skepticism is often discouraged among indigenous peoples. Belief in monsters, never actually seen but frequently mentioned, can influence observations.
5. *Different attitude towards sensory data.* Westerners are encouraged to presume that their senses are fallible. But for indigenous people who rely

heavily on keen eyesight or acute hearing to secure food and avoid danger, seeing is believing.

The Journalist's Six Questions

I have reviewed here a formidable number of factors to consider in evaluating cryptozoological evidence. Now to wind this up, as a journalist, I can recommend using the six journalistic questions to evaluate any report of a mystery animal:

Who reported the sighting? Are they trained observers or knowledgeable about the local fauna?

What was actually seen? Are there enough details for you to be certain that it could not have been a known animal?

Where was the sighting located? Can you find the location on a map? One invaluable tool is Microsoft's Encarta Atlas, which is updated annually. It has historical as well as current place names (Istanbul, not Constantinople) and can pinpoint latitude/longitude, country subdivisions, and physical place names as well as political names.

When did it occur? Is the information specific or vague?

How did the event unfold? Are the behaviors of the observers and the cryptid accounted for and credible?

Why did the sighting get reported? Did the witness contact a newspaper, local authorities, a scientific organization, or a cryptozoologist?

Finally, determine whether the information you found is consistent with what you have located in other sources. If it is not, do not automatically assume that the new material is wrong; it may well be that the older sources are in error.

Those are some of the questions and problems I had to address when I began to compile *Mysterious Creatures.* Although some regard writing this kind of book a chore, I consider it just as challenging as tracking Eurasian wildmen, or trying to get a video of Nessie. When you set out to write your own reference books—as I am sure you all are now inspired to do—I think you will be surprised how satisfying it can be. And please do not forget to send me review copies.

Acknowledgments

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