

# Paleontologists in denial for 50 years. Again.

## Aquatic human speciation

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**Hair and skin and fat and sweat are not fossilized. For that reason, palaeoanthropologists, the palaeontologists who study ape fossils and write textbooks on human evolution, do not allow these things in their discussions. It's like the sport of basketball, where ropes and gloves and grease and water are not allowed in the game. If they were allowed, the sport would be so different that today's highly skilled basketball stars could no longer play.**

A seemingly outlandish hypothesis of human evolution, based on things that cannot be fossilized, was proposed by Sir Alister Hardy in *New Scientist* in 1960, and promoted by Desmond Morris in *The Naked Ape* in 1967. Bestselling author Elaine Morgan then developed it into a substantial theory, and it has gained much scientific support over the years. To summarize my current version of this theory: humans lost their fur and evolved their other remarkable features during a dramatic speciation event, when a small group of chimps were forced to adopt a seafood diet, and lived more like hippos than like normal apes.



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A ready source of information on the history and scientific evidence behind this “aquatic ape theory” is the website <http://aquatic-human-ancestor.org>. The theory has been flatly rejected by palaeontologists. In one leading textbook, *Principles of Human Evolution*, by Lewin and Foley, the idea of evolution from aquatic apes is mentioned together with the idea of evolution from ancient astronauts. The authors plainly state: “Most textbooks on human evolution — this one included — simply ignore the aquatic ape model.” The avoidance and ridicule of this theory by palaeontologists has kept many scientists from knowing about it or openly endorsing it.

Paleontologists have denied and ridiculed an important theory before. That one was about continental evolution, not human evolution. From soon after its proposal in 1912, palaeontologists led the denial and ridicule of the theory of "continental drift." They were adamant that Wegener's fossil interpretations were rubbish, and they could not support any theory of continental drift. It was not until geophysicists, using tools such as palaeomagnetism, hijacked the game in the 1960s, that

the palaeontologists finally had to yield, and the geological revolution that is now called plate tectonics could begin.

I want to discuss this science-history lesson a bit more, because it gives insight into why we can try ignoring the current paradigm of human evolution. Scientists are only human; sometimes they make mistakes. And scientific institutions, such as universities and science publishers, are like other institutions: they want to ignore or downplay mistakes and protect their reputations.

I got interested in this topic as I taught Introductory Geology to university students year after year. It seemed that Alfred Wegener's evidence for continental drift in 1912 was so strong that it was a scandal for science to have denied it. For example, it was known that the coastlines matched on both sides of the Atlantic Ocean, and the mid-Atlantic ridge matched as well. It was known that these continents must have been more connected in earlier geologic times, because plant and animal fossils on both sides of the Atlantic were identical. It was known that during these earlier times, glaciers covered the continents that are now near the equator, whereas the continents that are now at high latitudes were experiencing tropical conditions. Only the theory of continental drift could explain these things. How could it have been rejected and not taken seriously?

Scandals are often associated with coverups. With this in mind, I went looking for coverups, and found them. I discovered that it was one of the world's leading palaeontologists who led the campaign against continental drift. His name was Charles Schuchert. He was professor of palaeontology at Yale University and the Peabody Museum of Natural History. He was author of the world's leading textbooks of geology and palaeontology, and editor of the prestigious *American Journal of Science*. He was President of the Paleontological Society (1910), and President of the Geological Society of America (1922) He was the world's authority on palaeogeography — the interpretation of lands and oceans in ancient times based mainly on fossils.

Schuchert blasted Wegener's model in scientific papers and meetings, and belittled it in his textbooks. He kept the mantle convection-mechanism of plate tectonics from being published in his journal. His colleagues accepted his judgment. His motivation for rejecting it was this: if continents had earlier been in other places, his masterful palaeogeography of fixed continents with postulated land bridges would be mostly discredited. He realized that Wegener's moving continents resolved important palaeogeographical problems, but his own textbook explanations and the palaeo oceans and continents that he had invented seemed more important. He and his coauthors chose to adjust their textbooks to dodge evidence for the theory of continental drift for 40 years. They wanted to protect his reputation. So too did George Gaylord Simpson, another leading palaeontologist. Rather than explain the details of this history here, I refer you to my book, which is available for free open access at <http://krilldrift.com>

Now we can get back to human fossils and the aquatic ape theory. Fossils are not rare, but mammalian fossils are rare indeed. Geological conditions are almost never suitable for mammalian fossilization. Fossils of primates — monkeys and apes — are among the rarest. There are a few hundred thousand chimpanzees living in Africa today, and chimps have been living there for several million years. But only one fossil from a chimp has ever been found: three teeth, described in *Nature* in 2005.

Paleontologists, and especially mammalian palaeontologists, are experts in speculation. They need to be. Sometimes only a single tooth of a new, unknown species is discovered. Paleontologists will

then invent a new Latin name for the species, and draw the entire animal. They need to speculate in such ways, in order to make their fossil interpretations interesting. They also need to ignore or discredit the speculations of other palaeontologists that seem to contradict their own.

There are 634 species of living primates, including 260 species of monkeys and 25 species of apes. Very few of them have any representation in the fossil record. We can be sure that over the past several million years there were hundreds of species of apes that are now extinct and have not left fossils. Most of the ape fossils that have been found are only fragments, and are not clearly related to each other. But they still provide opportunities for palaeontologists to play their academic games. They discuss such things as possible brain size, posture, bipedalism, and habitat. They use the opportunity of a few fragments to draw the ape that they envision and want to promote.

Some of these extinct apes liked walking on two legs, some liked using simple tools, some had slightly larger brains than others. These features do not prove that they are ancestors of humans. But if they are considered our ancestors, and not our ape cousins, the palaeoprimatologists who play with these fossil fragments may be considered palaeoanthropologists, which is what they dearly want to be. Some of their fossil apes have been given the names *Australopithecus*, *Homo habilis*, *Homo erectus*, and Lucy.

Humans and chimpanzees seem very different, but genetically they are so similar that they could be thought of as different breeds of the same species, like domestic dogs and the grey wolf. They could surely produce a hybrid offspring, a *humanzee*. It is generally agreed that this would be unethical, and it borders on unethical even to mention the possibility. It is certainly not mentioned in textbooks on human evolution, but you can read about it at <https://wikipedia.org/wiki/Humanzee>.

Think about what this genetic similarity implies: some extreme selection pressures must have caused humans to evolve their extreme physical characteristics. The ancestor of humans must have resembled a chimp, just like the ancestor of dogs resembled the grey wolf. In the case of dog breeds, it was humans who provided the extreme selection pressures that led to their evolution. According to the aquatic ape theory, it was the extreme selection pressures of a marine diet and a semi-aqueous lifestyle that led to the evolution of humans.



When did speciation of humans from their chimp-like ancestor take place? We can speculate. Apes are not likely to be preserved as fossils, but some apes, with skilled hands that could use tools, would be an exception. Such apes might leave telltale signs that we could find, such as tools, tool-marks on other stones, or artistic decorations. They might even bury their dead. For these reasons, the human fossils known as *Homo sapiens* and *Homo neanderthalensis* are relatively abundant, with the oldest being something like 200,000 years old. This is about the same as estimates based on genetic modeling of currently living humans. From genetic analyses, the common ancestors of all living humans seem to have lived about 200,000 years ago. They are often referred to as “Mitochondrial Eve” and “Y-chromosomal Adam.” Paleoanthropologists seem to accept this as some sort of bottleneck in the evolution of humans. I think we can use it as the approximate date of the speciation event that separates us from the chimpanzees.



Evolution across much of the African continent, over a period of perhaps 10 million years.



Evolution on a single unknown island, over a period of perhaps 10 thousand years.

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Now I will speculate about the scenario that I call aquatic human speciation. Everyone in this game prefers his own speculations. Other versions of this scenario will be different, and will surely soon be better.

It began on a single unlucky day, perhaps a Friday the 13th, when a single pregnant female chimp or small group of individuals were washed out to sea and became isolated on an island. It may well have been Bioko, the large island about 30 kilometers off the west coast of Africa, near the habitats of modern chimps. These unfortunate chimps dared not try to leave the island. Chimps are easily isolated by a stretch of water. There are currently two species of chimp living in western central Africa, that have apparently been separated by the Congo River for thousands of years. *Pan troglodytes*, the common chimpanzee, keeps to the north of the river, and *Pan paniscus*, the bonobo, keeps to the south.

The shallow marine waters provided a rich source of bottom dwelling shellfish and the chimps thrived. But plucking up food required wading in the water. Chimps are not fond of wading, but when they do so, they stand as upright as possible, to keep their faces above water. Evolution favored offspring that were born with bones that allowed more upright posture. They could wade in deeper water. Evolution occurred quickly, because the mutation rate was exceptionally high, as the gene pool was quite small among the few individuals that made up the isolated group.

Wading in water gave the chimps balance and support, and with experience their successors took to bipedal walking and running while on land. There were no large predators on the island, so even early attempts to walk and run on land were not fatal, as they would have been on the mainland. Bioko is unusual in that it has no leopards or large predators.

The high mutation rate led to many unusual offspring, and those with favorable characteristics had greater chances of surviving and producing offspring. The selection pressures of this semi-aquatic diet and habitat can neatly explain nearly all the differences between modern humans and chimps. Here is a list of human features, and how they presumably came about.

*different features with brief explanations, here is a preliminary list:*

*brain size increase from marine fatty acids marine DHA and marine DHA,  
nakedness/fur loss as seen in other marine mammals,  
external noses that shed water,  
poor sense of smell,  
subcutaneous blubber for insulation,  
profuse sweating and peeing saltwater,  
newborn vernix,  
fat buoyant babies,  
baby swimming reflex,  
baby diving reflex,  
heavy bones,  
long head hair,  
adult diving reflexes,  
ear wax,  
long vaginal canal for protection from waterborn infection, long thick penis,  
breath control from diving giving speech ability,  
dexterous fingers and use of tools to pluck and clean crabs  
still more, this list is only preliminary.....*

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***Write more on why no fossils of the transition will ever be found, and where one should look: Boiko!***

*Bioko is an island, about 2000 km<sup>2</sup> (ca. 25x80 km) without large predators. It was an island 200,000 years ago, but about 180000 years ago the sea level dropped by about 100 meter, emerging the west African coastal plain, and Bioko became connected to the mainland. Humans walked off the island. Since that time, there have been no semi-aquatic humans. Any hold-outs who might have preferred to remain semi-aquatic were at great disadvantages in any violent disputes with those standing on shore, and they quickly became extinct.*