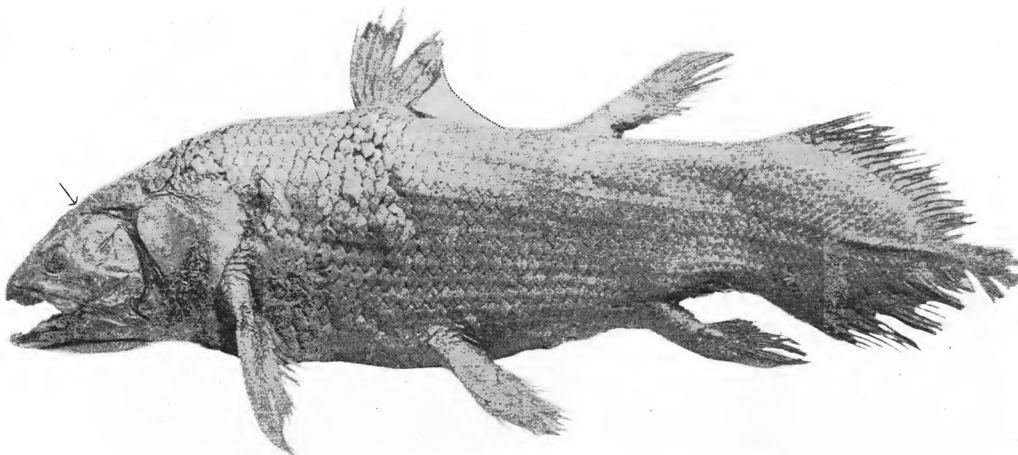


Order COELACANTHIFORMES

Coelacanths

Family **LATIMERIIDAE**

Berg 1940



Latimeria chalumnae, holotype. Small arrow shows position of spiracle. From: Smith, J. L. B. 1939. A living fish of Mesozoic type. *Nature* (London) v. 143: 455-456.

Latimeria

Smith 1939

-*ia* (L. suffix), belonging to: Marjorie Courtenay-Latimer (1907–2004), Curator, East London Museum, who discovered this species in a fisherman's catch and mailed a sketch to Smith, who identified it as a living coelacanth, formerly known only from Mesozoic fossils

***Latimeria chalumnae* Smith 1939** of the Chalumna River, just off its mouth in the Indian Ocean, west of East London, Cape Colony, South Africa, type locality

***Latimeria menadoensis* Pouyaud, Wirjoatmodjo, Rachmatika, Tjakrawidjaja, Hadiaty & Hadie 1999** -*ensis*, Latin suffix denoting place: Menado (actually spelled Manado) Tua Island, Indonesia, type locality [in a case of scientific piracy, the authors rushed into print the description of the second coelacanth, denying the right to marine biologists Mark and Arnaz Erdmann, who discovered the species and were seeking more specimens for study; see essay below]

***Latimeria menadoensis*: a case of taxonomic piracy**

In September 1997, marine biologist Mark Erdmann and his fiancée Arnaz Mehta were touring a Sulawesi fish market when Arnaz spotted an unusual fish draped over a cart. Mark immediately recognized it as a coelacanth, although it was far out of range (~1000 miles) from the famous coelacanth, *Latimeria chalumnae*, discovered off the east coast of South Africa in 1938. Mark took photographs but, lacking a freezer, did not procure the specimen.

Suspecting that there was an Indonesian population of coelacanths, Mark secured funding from the National Geographic Society to search for another specimen. He found one a year later, barely alive after being caught in a gill net. Mark and Arnaz photographed the fish, took tissue samples and stored them in liquid nitrogen, then, after it died, took it to the Zoological Museum in Bogor, just south of Jakarta, where it could be properly examined and preserved. Mark announced his discovery in the 24 September 1998 issue of *Nature*, but was not yet sure on whether the Indonesian specimen represented a new species. More study was needed.

Meanwhile, Laurent Pouyaud, a French scientist specializing in catfishes in Jakarta, teamed up with five local Indonesian scientists and announced that Erdmann's specimen was indeed a different species and went ahead and named it *Latimeria menadoensis*. Erdmann was barely mentioned in the description, just a citation to his *Nature* article, buried in the references.

"We can only imagine Mark Erdmann's anger," wrote Peter Forey in *Coelacanth: Portrait of a Living Fossil* (2009, Forrest Text, Ceredigion, UK). After all, Mark had spent well over a year searching for his specimen. Upon finding it, he had it carefully preserved it for future study — only to find that others had walked in and helped themselves to name his treasure. This is scientific piracy writ large. In scientific circles this is definitely bad behavior. Those who make discoveries have, at least, the initial right to study and to have their name attached. But that's only part of the story.

continued on next page

Shortly after Erdmann announced his discovery, a cryptozoology website announced that a French scientist had discovered the Indonesian coelacanth three years earlier, in 1995. A lobster fisheries consultant named George Serre allegedly discovered the fish trapped in a lobster pot. According to Serre, he photographed the specimen and sent it to the



Indonesian Coelacanth as shown on a 2000 Indonesia stamp.

Indonesian Fishery Institution in Jakarta. But the specimen never got there and somehow Serre's photographs were lost. But when Erdmann's article appeared, Serre suddenly relocated his photographs and the lost specimen was allegedly "rediscovered" as well — by none other than Laurent Pouyard, the same scientist who denied Erdmann the chance to name the coelacanth he and his fiancée had discovered.

In 2000, Pouyard, Serre and French shark taxonomist Bernard Séret wrote a letter to *Nature* claiming to be the first to have discovered the Indonesian coelacanth, and submitted one of Serre's photographs as proof. But a sharp-eyed editor at *Nature* noticed that the specimen in Serre's photo (allegedly from 1995) was identical in color pattern and angle to the photo submitted by Erdmann in 1998. Sure enough, Serre's photo was a fake. Someone had manipulated Erdmann's photo, removing the image of the fish and inserting it into a photo of a grouper and a snapper on a fishmonger's slab.

The editors of *Nature* then did something totally cool: they published their own article exposing the fraud!

Lots of finger-pointing ensued after that. Pouyard and Séret claimed innocence, saying that Serre had tried to fool them. Serre claimed that someone else (who had since died) took the photo. Pouyard's employer launched an investigation and, according to Peter Forey, offered "severe reprimands" for his behavior.

Even the American Society of Ichthyologists and Herpetologists got into the act, issuing a stinging (and tongue-in-cheek) resolution:

WHEREAS through a dubious demonstration of ethics by scientists from the land of Jean LaFitte and editors of otherwise respected journals, this piscine treasure was described by someone other than Erdmann and his colleagues, and

WHEREAS, there is a long history of the recognition of the original discoverer of living coelacanths in the scientific nomenclature for the new organism,

[THEREFORE] BE IT FURTHER RESOLVED THAT the assembled societies suggest an immediate redescription of the new coelacanth to redress the evil done to nomenclatural standards, and

BE IT FURTHER RESOLVED that to maintain the historical precedent established for *Latimeria chalumnae*, the name be changed to *Latimeria arnazerdmanni*.

Of course, the name cannot be changed. But it would be nice to honor Erdmann's fiancée (now wife) for bringing the fish to his attention, and to commemorate the fact that the discoveries of both populations of living coelacanths were made by women.