Latimeria Spp.

Latimeria is a genus of lobed-fin fishes, members of the Latimeriidae family (Class: Sarcopterygii; Order: Coelacanthiformes) that are found in the Indian and western Pacific Oceans. Since two species of this ancient Triassic Period Class (240 million years ago) still exist, some consider it a "living fossil". Coelacanths (pronounced: see-luh-kanth) are considered the second closest living fish relative to tetrapods (Amemiya et al., 2013), were known as fossils since 1839, and were considered extinct approximately 80 million years ago.

A living specimen was discovered to science in 1938 at East London, South Africa (Smith, 1939). Captain Hendrik Goosen of the trawler *Nerine* kept a strange looking fish he caught offshore between the Chalumna and Ncera Rivers, to show his friend and curator of the local Natural History Museum, Dr. Marjorie Courtenay-Latimer. She shared this finding with her colleague Prof. J. L. B. Smith, who immediately recognized the species as Coelacanth and named it in honor of Dr. Courtenay-Latimer, *Latimeria chalumnae* (Courtenay-Latimer, 1979; Forey, 1988). A second specimen, found on 1952 near the Comoros, was the first of over 200 individuals caught during the following decades near these western Indian Ocean Islands. Arnaz and Mark Erdmann discovered a second species, *Latimeria menadoensis*, on September 18 1997, in the market at Manado Tua, on the Island of Sulawesi, Indonesia (Erdmann, 1998; Holder, 1999).

Latimeria are nocturnal, piscivorous (fish-eating), deep-sea fishes, living in depths of ~ 200 meters. These large fish can grow over two meters in length and weigh about 100 kg. They are ovoviviparous (Smith et al., 1975) and give birth to live pups following an estimated gestation period of 12 to 36 months. Two pregnant females were collected, one carrying five pups and the second carrying 26. Other females caught during earlier stages of gestation had eggs, 8.5-9.0 cm in diameter, in the oviduct. Coelacanths are longed-lived and longevity has been estimated to be between 48 to over 100 years (Froese and Palomares, 2000; Fricke et al., 2011).

Several books, scientific (Musick at al., 1991) and popular science (Thomson, 1991; Forey, 1997; Weinberg, 2008), describe the story of discovering the Coelacanths, the events that followed and discuss ecological and physiological issues of this unique fish.

References

Amemiya, C. T., Alföldi, J., Lee, A. P., Fan, S., Philippe, H., MacCallum, I., Braasch, I., et al., 2013. The African Coelacanth Genome Provides Insights into Tetrapod Evolution. Nature 496 (7445), 311–316.

Courtenay-Latimer, M. 1979. My Story of the First Coelacanth. Occ Pap Calif Acad Sci 134, 6–10.

Erdmann, M. V., Caldwell, R. L., and Kasim Moosa, M. 1998. Indonesian `king of the Sea' Discovered. Nature 395, 335.

Forey, P. L. 1988. Golden Jubilee for the Coelacanth *Latimeria Chalumnae*. Nature 336 (6201), 727–732.

Forey, P. 1997. History of the Coelacanth Fishes. Springer Science & Business Media.

Fricke, H., Hissmann, K., Froese, R., Schauer, J., Plante, R., and Fricke, S. 2011. The Population Biology of the Living Coelacanth Studied over 21 Years. Mar Biol 158 (7), 1511–1522.

Froese, R., and Palomares. M. L. D. 2000. Growth, Natural Mortality, Length–weight Relationship, Maximum Length and Length-at-First-Maturity of the Coelacanth *Latimeria Chalumnae*. Environ Biol Fish 58 (1), 45–52.

Holder, M. T., Erdmann, M. V., Wilcox, T. P., Caldwell, R. L., and Hillis, D. M. 1999. Two Living Species of Coelacanths? P Natl Acad Sci USA 96 (22), 12616–12620.

Musick, J. A., Bruton, M. N., and Balon, E. K. 2012. The Biology of *Latimeria Chalumnae* and Evolution of Coelacanths. Springer Science & Business Media.

Smith, J. L. B. 1939. A Living Fish of Mesozoic Type. Nature 143, 455–456.

Smith, C. L., Rand, C. S., Schaeffer, B., and Atz, J. W. 1975. Latimeria, the Living

Latimeria Ltd. Menachem Begin 49/2, Gedera 7052719, Israel
T.+972-54-4675097 • **F.**+972-72-2449212 • info@latimeria.co.il

Coelacanth, Is Ovoviviparous. Science 190, 1105–1106.

Thomson, K. S. 1991. Living Fossil, the Story of the Coelacanth. New York: W. W. Norton & Company.

Weinberg, S. 2008. A Fish Caught in Time: The Search for the Coelacanth. Paw Prints.