

Ceratiidae

Sea devils

[Krøyer's deep sea angler fish](#),
Ceratias holboelli

Scientific classification

[Edit this classification](#)

Domain: [Eukaryota](#)
Kingdom: [Animalia](#)
Phylum: [Chordata](#)
Class: [Actinopterygii](#)
Order: [Lophiiformes](#)
Suborder: [Ceratioidei](#)
Family: [Ceratiidae](#)
[T. N. Gill](#), 1861

Genera

[Ceratias](#)
[Cryptopsaras](#)

[Krøyer's deep sea angler fish](#), female with a parasitic male, preparation at the [Saint Petersburg Zoology Museum](#)

Sea devils are deep-sea [anglerfish](#) of the [family Ceratiidae](#).^{[1][2]} They are among the most widespread of the anglerfish, found in all oceans from the tropics to the [Antarctic](#).^{[1][3]}

The females are large: females of the largest species, [Krøyer's deep sea angler fish](#), *Ceratias holboelli*, reach 1.2 metres (3.9 ft) in length. Males, on the other hand, are [dwarfed](#), only 14 centimetres (5.5 in) maximum. When these fish were first studied, the males were mistaken for [parasites](#). Females usually have more than one male attached to them, which is a good example of [polyandry](#).

At birth, tiny male ceratiids already have extremely well-developed [olfactory organs](#) that detect scents in the water.^[4] The male lives solely to find and mate with a female. They are significantly smaller than a female angler fish, and may have trouble finding food in the deep sea. Furthermore, the growth of the [gut](#) may stop in some species, preventing them from feeding at all.^[4] This means the male must find a female quickly to prevent death. The sensitive olfactory organs help the male detect the [pheromones](#) from female anglerfish.

When the male finds a female, he bites into her skin, and releases an [enzyme](#). The enzyme digests the skin of his mouth and her body, fusing the

pair down to the blood-vessel level.^[4] The male then slowly wastes away, first losing his digestive organs, then his brain, heart, and eyes, and ends as nothing more than a pair of [gonads](#).^[5] The gonads release [sperm](#) in response to [hormones](#) in the female's bloodstream. This extreme [sexual dimorphism](#) makes sure that, when the female is ready to spawn, she has a mate right there.^[6] Multiple males can be incorporated into a single female.^[7]

Ceratiids are the only animals known to become [chimaeras](#)^[8] as a normal part of their [life-cycle](#).

Genera and species

[[change](#) | [change source](#)]

- [Ceratias](#) Krøyer, 1845
 - [Ceratias holboelli](#) Krøyer 1845 (Krøyer's deep sea angler fish)
 - [Ceratias tentaculatus](#) Norman, 1930 (southern seadevil)
 - [Ceratias uranoscopus](#) J. Murray, 1877 (stargazing seadevil)
- [Cryptopsaras](#) Gill, 1883
 - [Cryptopsaras couesii](#) Gill, 1883 (Triplewart seadevil)

Related pages

[[change](#) | [change source](#)]

- [Krøyer's deep sea angler fish](#)
- [Lasiognathus ampirhamphus](#)

References

[[change](#) | [change source](#)]

- ↑ 1.0 1.1 [Froese, Rainer and Daniel Pauly \(eds\) 2006. "Ceratiidae" in FishBase](#)
- ↑ The name comes from the [Greek](#) *keras*, "horn", referring to the [bioluminescent](#) lure that projects from the fishes' forehead.
- ↑ "Anglerfish". National Geographic. Retrieved 7 February 2016.
- ↑ 4.0 4.1 4.2 Gould, Stephen Jay (1983) [1983]. "1". *Hens' teeth and horses' toes*. New York: W.W. Norton. p. 30. [ISBN 0393017168](#). "ceratioid males develop gigantic nostrils...relative to body size, some ceratioids have larger nasal organs than any other vertebrate"
- ↑ "Anglerfish, *Lophius piscatorius*". 10 September 2010.
- ↑ Theodore W. Pietsch (1975). "Precocious sexual parasitism in the deep sea ceratioid anglerfish, *Cryptopsaras couesi* Gill". *Nature*. **256** (5512): 38–40. [Bibcode:1975Natur.256...38P](#). [doi:10.1038/256038a0](#). [S2CID 4226567](#). [Archived](#) from the original on 28 August 2008. Retrieved 31 July 2008.

7. [↑](#) Theodore W. Pietsch. "[Ceratiidae](#)". Tree of Life. Retrieved 3 April 2006.
8. [↑](#) A chimaera is an animal formed out of two fertilised eggs. A [mosaic](#) has genetically different cells derived from **one** fertilised egg or [zygote](#).

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