

The new yellow sea snake assumes an unusual ambush posture

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Ambush posture of the new yellow sea snake subspecies *Hydrophis platurus xanthos*. It floats at the sea surface at night in a sinusoidal shape with its head

pointing downwards and mouth agape. Credit: Brooke L. Bessesen

Carrying its petite frame and all-yellow skin, the recently scrutinized sea snake populations from Golfo Dulce, Costa Rica, already seem different enough to be characterized as a new subspecies. However, their most extraordinary trait is only exposed at night when the serpents opportunistically feed on small fish by hanging upside down from the water surface, assuming a peculiar sinusoidal ambush posture.

The new yellow sea snake subspecies (*Hydrophis platurus xanthos*) is described by Brooke Bessesen, Phoenix Zoo, USA, and Dr. Gary Galbreath, Northwestern University and The Field Museum of Natural History, USA, in the open access journal *ZooKeys*.

Unlike its related species, the yellow-bellied sea snake (*Hydrophis platurus*), the yellow sea snake subspecies lives in a significantly more hostile environment - the waters in the gulf are warmer, often turbulent, and the dissolved oxygen in them occasionally drops to extremely low levels. The two snakes' territories are separated by some 22 kilometers.

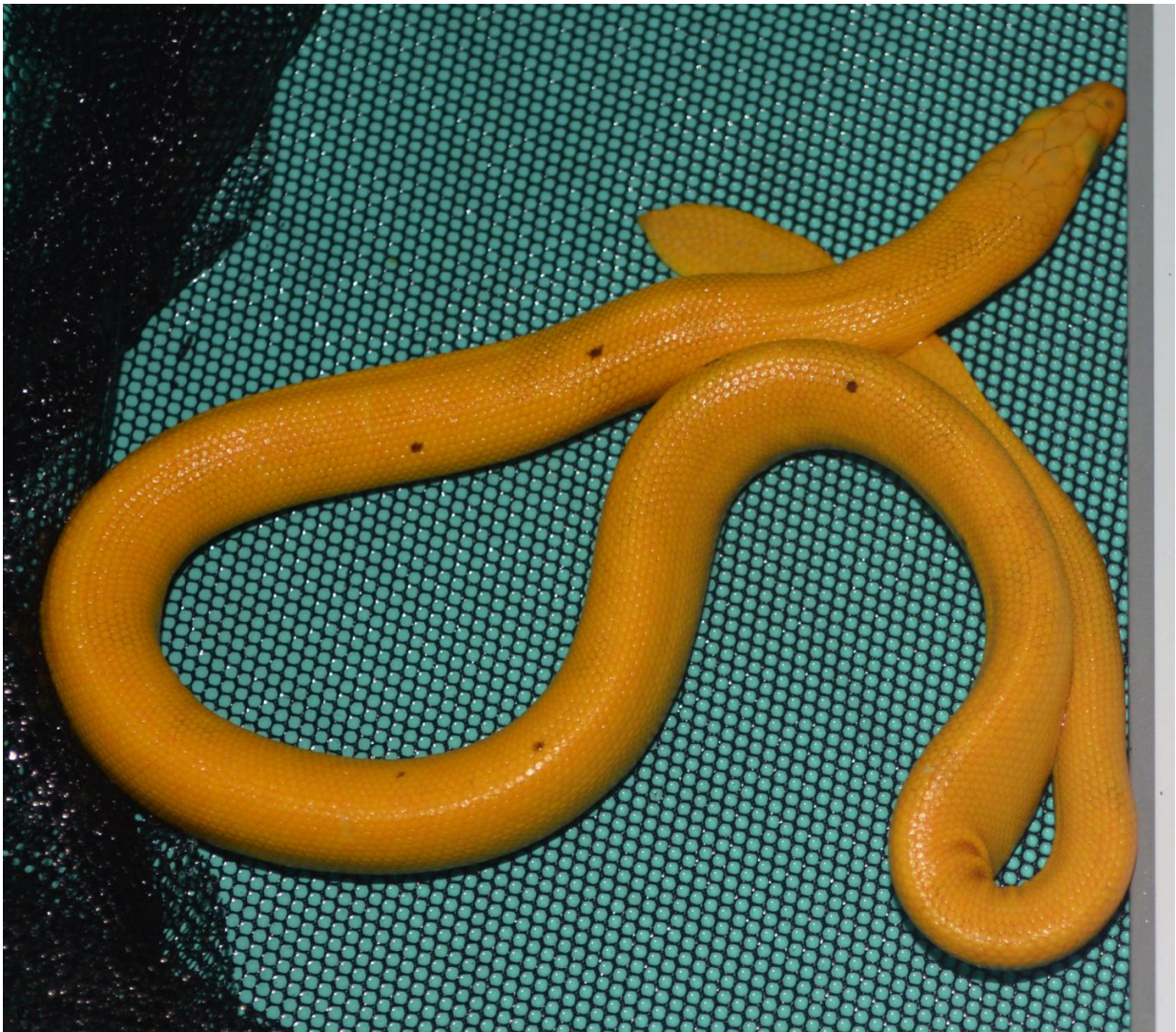
Likely as a result, the new reptile has evolved to hunt at night, while its lighter coloration plays role in thermoregulation.

Given the list of well-defined distinct traits, the new [subspecies](#) could eventually turn out to be a new species instead. As for the moment, however, the authors remain cautious until additional data are available.

More importantly, the scientists call for conservation measures to be applied to the new serpent's habitat. With its very restricted geographic range of about 320 km² located in a currently unprotected area, the yellow sea [snake](#) is at a serious risk of extinction. Collectors have

already been reported to remove specimens from the sea. Additionally, the reptiles are already living at the upper edge of the species' temperature tolerance, which makes them particularly susceptible to climate change.

"Hopefully this globally unique population can continue to offer both scientists and conservation-conscious tourists a worthy subject of observation and study," say the authors.



Although predominantly yellow, the yellow sea snake individuals often possess

black spots along the back. Credit: Brooke L. Bessesen

More information: Brooke L. Bessesen et al, A new subspecies of sea snake, *Hydrophis platurus xanthos*, from Golfo Dulce, Costa Rica, *ZooKeys* (2017). [DOI: 10.3897/zookeys.686.12682](https://doi.org/10.3897/zookeys.686.12682)

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