

Swamp eel: Blood-red subterranean dweller is newest fish genus discovered

18 January 2021



Close-up of the head of *Rakthamichthys digressus*, one of the species in the newly described genus. Credit: Senckenberg/Britz

Together with a group of international colleagues, Senckenberg scientist Ralf Britz described a new fish genus. The blind fishes, which are members of the swamp eel family, live in subterranean waters in Southern India and show a red coloration. Moreover, the team assigned three additional species to the new genus. The study was recently published in the scientific journal *Ichthyological Exploration of Freshwaters*.

Swamp eels (Synbranchidae) have an elongated body that lacks pectoral, pelvic, dorsal, anal, and caudal fins. They can be found on all continents except for Antarctica. "A total of 26 [species](#) has been confirmed for this family of bony fishes. A 'hotspot' with six species can be found in the Western Ghats, a [mountain range](#) along the west coast of India," explains Dr. Ralf Britz of the Senckenberg Natural History Collections in Dresden, and he continues, "The specimen we examined was captured in 1998 near a small village in Kerala State and was described as *Monopterus roseni* by two American scientists. It belongs to the local subterranean fish fauna, which currently includes 10 species from five families."

Using computer tomography and genetic methods, the biologist from Dresden, along with researchers from India and the U.S., discovered that *Monopterus roseni* and three other red-colored, subterranean species differed significantly from all of the remaining swamp eel species. "These studies, which have only been possible now, ultimately led to the introduction of a new [genus](#), *Rakthamichthys*, for these four species. The species previously described as *Monopterus roseni* now becomes the type species for this new genus, bearing the updated name *Rakthamichthys roseni*," explains Britz.

The type species is blind, with a length of approximately 17 centimeters, and lives in subterranean, aquiferous laterite layers. "These extremely slender animals show a bright red coloration, which is reflected in the new genus name: *Raktham* means 'blood-red' in the Malayalam language; the suffix *ichthys* is the Greek word for [fish](#)," adds Britz in conclusion.



The blind fishes with a red coloration live in subterranean layers of aquiferous rock. Credit: Senckenberg/Britz

More information: Osteology of '*Monopterus*' *roseni* with the description of *Rakthamichthys*, new genus, and comments on the generic assignment of the Amphipnous Group species (Teleostei: Synbranchiformes). *Ichthyological Exploration of Freshwaters* [DOI: 10.23788/IEF-1163](https://doi.org/10.23788/IEF-1163)

Provided by Senckenberg Research Institute and
Natural History Museum

APA citation: Swamp eel: Blood-red subterranean dweller is newest fish genus discovered (2021, January 18) retrieved 13 April 2021 from <https://phys.org/news/2021-01-swamp-eel-blood-red-subterranean-dweller.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.