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POSTER

Paedomorphosis-driven speciation in brackish-water living nudibranch molluscs

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Paedomorphosis is underestimated as one of the main drivers for speciation in marine invertebrates. Here we present examples of this process in brackish-water living species of nudibranch molluscs. Molecular and morphological data indicate that speciation among aeolidacean nudibranchs in brackish water environments was triggered by paedomorphic evolution at least two times independently. There are only a few known species of nudibranchs and other opisthobranchs living in brackish water environment, and here we present the first described nudibranch species to be strictly brackish water living. To date, this new genus and species of the family Cuthonidae has only been found in a very restricted area in the Idefjord, bordering Sweden and Norway. The present discoveries have transdisciplinary implications to several biological fields, including integration of molecular and morphological data with phylogenetic and ecological processes and contributes to the understanding of the evolutionary patterns and classification of the whole group Nudibranchia.

Keywords: Nudibranchia, Mollusca, Speciation, Paedomorphosis, Brackish water

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