

Cryptic worms encountered outside Sweden

June 14 2010



This is the invading Polychaetes *Axiokebuita*. Credit: Photographs: Arne Nygren & Fredrik Pleijel

Polychaete worms have populated the oceans for millions of years. Today they are the focus of study on cryptic species, which shows that apparently identical animals may be entirely different species. Researchers at the University of Gothenburg, Sweden, have now found new worm species in the Kattegat and Skagerrak.

Polychaetes belong to a group of segmented [worms](#) that display enormous diversity. It turns out that there may be significantly more of these worms than researchers had imagined. Many of the worm [species](#) have been identified morphologically, that is to say on the basis of their appearance. New molecular techniques show that many worms that have been assumed to belong to the same family are not as closely related as had been thought.

Cryptic species

The research scientist Jenny Eklöf at the Department of Zoology works

in the rapidly advancing field of research which studies what are known as cryptic species, that is to say animals that are identical in appearance but genetically entirely different. The focus once more is on polychaetes, where Eklöf and her colleagues show that the Scandinavian species *Paranaitis wahlbergi* is in fact two separate species. The researchers have named the new species, which has been encountered off Sweden, Norway and Scotland, *Paranaitis katoi*.



The new-found, cryptical Polychaetes *Paranaitis katoi*. Credit: Photographs: Arne Nygren & Fredrik Pleijel

Singles species in fact two

The researchers have also found in the group of worms *Notophyllum foliosum* that what has been regarded as a single species is in fact two. The two species live in the same geographical area but are found at different depths: below and above the 100-metre limit. The new species is found in deep water and has been given the name *Notophyllum crypticum*.

Eklöf has also found a polychaete not previously encountered in

European waters: Axiokebutia, a genus that usually lives in the Antarctic and also in eastern Canada.

Provided by University of Gothenburg

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