

Don't judge by the looks: Molecular analysis reveals a new species of white toothed shrew

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This image shows the new white-toothed shrew species *Crocidura sapaensis*. Credit: Alexei V. ABRAMOV, Zoological Institute, Russian Academy of Sciences

The white toothed shrew genus *Crocidura* is known as the largest mammal genus, with more than 180 species distributed around the world. A recent genetic analysis of the white toothed shrew fauna of Vietnam revealed the misinterpretations of previous morphological studies of the species, including the description of a new species of these very small mammals. The study was published in the open access journal *ZooKeys*.

Describing new mammal species is an unusual event nowadays when mammal fauna has been by and large already thoroughly studied by [zoologists](#) during the previous centuries. Molecular analysis, however, presents an additional tool for the complex cases of morphological analysis, thus helping scientists to uncover previous mistakes, and even to find previously overlooked separate species.

The new species *Crocidura sapaensis* is a dark-grey and relatively small white toothed shrew, named after the Sa Pa District in Vietnam, where it was collected. During the study, the animals were found dwelling in a variety of the beautiful habitats in the vicinity of Tram Ton Station of Hoang Lien National Park, including mixed evergreen forest, banks of small streams and open grassy glades.

Previously confused with another species featured in this study (*C. wuchihensis*), the new species remained long unrecognized due to the great extent of morphological resemblance between the two. Judging solely by the looks, however, proved to be insufficient for the accurate recognition of species, with molecular analysis now offering scientists an opportunity to look under the surface.



This image shows a typical habitat from the area where *Crocidura sapaensis* was found in Vietnam. Credit: Alexei V. ABRAMOV, Zoological Institute, Russian Academy of Sciences

"Our study concerns three species of *Crocidura* occurring in Vietnam, namely *C. attenuata*, *C. tanakae* and *C. wuchihensis*, and we came across an undescribed fourth species revealed by molecular analysis. While the molecular studies of Vietnamese material confirmed some of the results of the contemporaneous morphological studies, a number of [anomalies](#) were equally revealed, indicating the presence of several morphologically similar but molecularly distinct taxa.", explains Paulina Jenkins, a zoologist at London's Natural History Museum, about the horizons of the molecular analysis.

More information: Jenkins PD, Abramov AV, Bannikova AA, Rozhnov VV (2013) Bones and genes: resolution problems in three Vietnamese species of *Crocidura* (Mammalia, Soricomorpha, Soricidae) and the description of an additional new species. *ZooKeys* 313: 61-79.
[doi: 10.3897/zookeys.313.4823](https://doi.org/10.3897/zookeys.313.4823)

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