

Two new species of mushroom documented in the Iberian Peninsula

February 26 2013



This shows *Hydnium vesterholtii*. Credit: UPV/EHU

In collaboration with the Royal Botanic Gardens of Madrid and the Slovenian Forestry Institute, researchers in the Basque Country have documented two new species of *Hydnium*, commonly known as ox tongue mushrooms, as part of their study published in the '*Mycologia*' journal. This genus is known because many of its fungi are edible.

Spanish researchers have headed the discovery of two mushroom species belonging to the *Hydnum* [genus](#), a type of [fungus](#) commonly used in cooking.

"During our study we discovered two new species: *Hydnum ovoideisporum* and *Hydnum vesterholtii*, which belong to a genus commonly known as 'ox tongue'. Although many of this species' mushrooms are consumed in many parts of the world, paradoxically there have been few recent serious studies that attempt to clarify what species exist and the differences between them," as explained to SINC by Ibai Olariaga Ibarguren, lead researcher of the study conducted from the University of the Basque Country.

According to the experts, differentiating this genus is a very complicated task since there is much resemblance between species and they have rather similar microscopic characteristics. "This is one of the reasons why many authors of studies have believed that there are few *Hydnum* species with different variables," outlines the scientist.

Nonetheless, the scarcity of molecular studies carried out on these [fungi](#) indicates that their [genetic diversity](#) is very high. Olariaga himself has been performing a review of this genus in the [Iberian Peninsula](#) for years. One day he discovered that there were two species that were distinguishable from the rest because of their specific ecology and the fact that they had ovoid basidiospores, instead of the blastospores in the majority of species.

"The molecular study that our work provides confirmed that the species detected at the time using classical morphology-based taxonomy belonged to two genetically different [lineages](#)," highlights the researcher.



This shows *Hydnum ovoideisporum*. Credit: UPV/EHU

Recognising collected species

Since they cannot be cultivated, species belonging to the *Hydnum* genus are collected from natural ecosystems in large quantities. They are not poisonous, which is one of the reasons why great emphasis has not been placed on differentiating them.

Nonetheless, very little is known about how widespread they are, their ecology and whether those being collected are an endangered species or under threat of extinction or, on the contrary, a very common species.

"This type of study allows us to delve deeper into these aspects and gain precise information that can be interesting from an applied point of view, since it is necessary to know for example if one or a few species

produce certain secondary metabolites or molecules of industrial interest," explains Olariaga.

It is probable that the collectors have consumed these two new species since *Hydnum* mushrooms are phylogenetically related to *Cantharellus* (chanterelles) and *Clavulina* (coral fungi) and they all have edible species. "It would be highly unlikely that these two species documented were not actually edible."

More information: Ibai Olariaga, Tine Grebenc, Isabel Salcedo, María P. Martín. "Two new species of *Hydnum* with ovoid basidiospores: *H. ovoideisporum* and *H. Vesterholtii*" *Mycologia*, 104(6):1443-55, December 2012. [doi:10.3852/11-378](https://doi.org/10.3852/11-378)

Provided by Spanish Foundation for Science and Technology (FECYT)

Citation: Two new species of mushroom documented in the Iberian Peninsula (2013, February 26) retrieved 26 April 2024 from <https://phys.org/news/2013-02-species-mushroom-documented-iberian-peninsula.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.