

Taxonomic reexamination of *Auricularia* specimens deposited in the National Museum of Nature and Science, Japan

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Purpose: The genus *Auricularia* is a group of jelly fungi in Agaricomycotina, Basidiomycota. *Auricularia* species are significant wood decomposers in forest ecosystems and are important bioresources as cultivated mushrooms especially in Asia. The classification of *Auricularia* spp. has traditionally been based on morphological criteria, but in recent years the species taxonomy has been revised to reflect their phylogenetic relationships. Consequently, a taxonomic reexamination of Asian *Auricularia* species is necessary. In this study, we aimed to taxonomically review the Japanese *Auricularia* specimens deposited in the National Museum of Nature and Science, Japan.

Methods: Three specimens of *Auricularia* spp. (TNS-F 433, TNS-F 427, and TNS-F 51392) identified in previous studies were selected from the herbarium of the National Museum of Nature and Science. For morphological observations, the dried specimens were kept in humid conditions overnight. Pieces were cut out from the center of basidiocarps and observed under a biological microscope.

Results and Conclusions: The specimens TNS-F 427, TNS-F 433, and TNS-F 51392 were morphologically similar to *Auricularia minutissima*, *A. thailandica*, and *A. villosula*, but these specimens could not be identified to the species level. The lengths of basidiospores and abhymenial hairs of the TNS specimens were shorter than those of *A. auricula-judae* collected in Europe, suggesting that there is no *A. auricula-judae* s. str. among these specimens. These results support the hypothesis that *A. auricula-judae* s. str. is distributed only in Europe. The results of this study suggest that further taxonomical reexamination is needed for Japanese *Auricularia* specimens.