Identification of an unknown *Colletotrichum* species found on *Schima mertensiana* in Bonin Islands, Japan

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**Purpose:** The understanding of *Colletotrichum* diversity especially in tropical and subtropical regions plays an important role in more novelties. In this study, an unknown species of *Colletotrichum* isolated from anthracnose symptoms on leaves of *Schima mertensiana* (Siebold and Zucc.) Koidz at Bonin (Ogasawara) Islands, an archipelago of volcanic islands approximately 1000 km from Tokyo, was identified and characterized.

**Methods:** Isolates of the fungus were obtained by single-spore isolation method. Its morphological examination was performed on PDA at 25°C degree after seven days. Molecular phylogenetic trees of *Colletotrichum gloeosporioides* species complex were produced based on ITS, ACT, \(\beta\)-tubulin, CHS-1 and CAL.

**Results:** Our unknown species bare big straight conidia with rounded at the base and apex observed from black acervuli. Based on our phylogenetic analyses, this fungus was clearly distinct from all existed species within *Colletotrichum gloeosporioides* species complex. Our morphological comparison between the fungus and *C. henanense*, which is phylogenetically the closest species, showed that they are distinct from conidial size on PDA (12.5-19.0 \(\times\) 5.0-6.5 \(\mu\)m in our fungus vs 8.0-17.0 \(\times\) 3.0-5.5 \(\mu\)m in *C. henansense)*.

**Conclusions:** We conclude that our fungus is a new species of *Colletotrichum*, and it might be possible that the fungus is endemic because it has been only isolated from *S. mertensiana* in Bonin Islands.