

ABSTRACT

There have been few studies on the taxonomy and biodiversity of the genus *Lentinus* in Thailand, which is a genus of edible mushrooms. Collections from 17 sites in northern Thailand yielded 110 specimens of *Lentinus* sensu lato belonging to 16 species: *L. similis* Berk. & Br., *L. sajor-caju* (Fr); *L. velutinus* Fr.; *L. tigrinus* (Bull. : Fr.) *L. polychrous* Fr., *L. tuber-regium* (Fr.) Fr., *L. squarrosulus* (Mont.) Singer, *L. polychrous* Lév., *L. stupeus* Klotzsch, *L. swartzii* Berk., *L. zeyheri* Berk. and three new species of *Lentinus* sensu stricto: *L. roseus*, *L. concentricus* and *L. megacystidiatus* and one new record *L. giganteus* Berk. based on phylogenetic analysis of the nrITS sequences. We were able to identify sixteen *Lentinus* species during the first year of the project based on macro- and micro characters, and nr-ITS sequences. In addition we were able to get successful results for growing *Pleurotus giganteus* (syn: *Lentinus giganteus*), *Lentinus connatus* and *Lentinus roseus*. Thirteen *Lentinus* cultures deposited in the MFLU culture collection while seven in BIOTEC culture collection. We are in the process of collecting, identifying, isolating and doing growing experiments for *Lentinus* which will result more new species and new records, and SCI papers.

Key words: biodiversity, edible, nrITS, phylogenetic analysis

