The Rare "Elephant's Foot" Polypore in Florida

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For some years now I have had a keen interest in *Ganoderma* species. I have collected and sought out many *Ganoderma* samples from Florida, but never had I encountered the mysterious *Tomophagus colossus*. Recently, that all changed …

Situated at the southern end of Lido Key, in Sarasota, Florida, is Ted Sperling Park. This 100-acre park has public beaches, mangrove forests, coastal hammocks, and a woodland trail. During

Unusual Sightings

January of 2015, an ecological restoration project began along the woodland trails. The goal of the restoration project was to remove nuisance trees, such as Brazilian pepper, carrot wood, and most notably, Australian pine (*Casuarina*). Heavy machinery was brought in for removing the trees. Workers chopped down hundreds of mature Australian pines. After chopping down the trees, the tree trunks were shredded into woodchips and left to decay in tall piles along park trails. In September of 2015, I noticed a mushroom fruiting from the top of a chip pile. Judging from the specimen's morphology, I presumed it was a species of *Ganoderma* that I had never found before. I brought the specimen home to examine a section from the fruiting body under a microscope, and then I knew immediately that this was different. It had gigantic basidiospores (up to 18 microns – about 50% larger than basidiospores from other *Ganoderma*). I was convinced this was *Tomophagus colossus*. The fresh specimen was mailed overnight to Robert Blanchette at the University of Minnesota for DNA identification. *Tomophagus colossus* (Fr.) Murrill was confirmed.

It was odd that this mushroom grew from chip piles. *Tomophagus colossus* shows a preference for growing at higher temperatures than *Ganoderma* species. Cultures of *T. colossus* do not survive well under refrigeration. Perhaps the decomposing chip pile environment provided optimum conditions for producing this mushroom.

More on Tomophagus

The Ganodermataceae is a family of wood decay fungi that inhabit and decompose trees. The largest and best known genus of the group is *Ganoderma* with reportedly more than 80 species (Hapuarachchi et al., 2015). In contrast, among the least known is *Tomophagus* which includes the rarely seen *Tomophagus colossus* (formerly known as *Ganoderma colossus*). Until now, *T. colossus* had been reported only once from Florida (in *North American Polypores* by Gilbertson and Ryvarden) as a single collection on *Celtis* (hackberry). The fungus is found in other tropical countries including Mexico, Taiwan, and Vietnam. In Mexico, *T. colossus* is nicknamed "*pata de elefante*," or elephant's foot, because this fungus is often irregularly shaped and resembling an elephant's foot (Guzmán, 2008). In Taiwan, *T. colossus* has been called "Coffin Mushroom" after a giant specimen was collected in a tomb on an old wooden coffin that was entombed one hundred years prior (Wu, 2003).

And what about that name?

In 1905, American mycologist William Murrill delineated the genus *Tomophagus* to accommodate the single species *G. colossus* (then known as *Polyporus colossus*) which had distinctive morphological features that did not fit in with the other species (Murrill, 1905). Historically, however, *Tomophagus* has generally been regarded as a synonym for *Ganoderma* (Furtado, 1965). Nearly a century later, phylogenetic analyses vindicated Murrill's original placement, as it has shown to be a taxonomically distinct appropriate genus (Hong and Jung, 2004).

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