

Natural History Snippets

AGARICS and POLYPORES

Mushrooms and Brackets

Title photos and information by Sri Srikumar. Additional material by Malik Fernando

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Sri Srikumar

Trametes versicolor TURKEY TAIL FUNGUS

I have seen this fungus on many occasions when walking through forests. It is seen on hardwood logs, large fallen branches, and on the decaying bases of cut down trees. They attract attention due to their bright colours in varying shades of orange, red and brown, fringed with white along the margins. Often many of them are found clustered together in small groups.

With a thin and leathery texture, it gets its common name due to its resemblance to the tail feathers of a North American wild turkey. What we see attached to rotting logs is the fruiting body of the plant that grows within the log by digesting and feeding on its tissues—in other words, it is a saprophyte. These

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Sri ends his comments by posing the question “Is it a fungus (plural fungi) or a mushroom?” Well, the short answer is that all mushrooms are fungi, but not all fungi are mushrooms. Fungi constitute one of the accepted plant ‘Kingdoms’—‘Animalia’ and ‘Plantae’ being two others. They are lower plants, are non-flowering and do not have chlorophyll. There are about 144,000 species reported, and include the yeasts, rusts, mildews, moulds, and mushrooms (britannica.com).



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plants are a part of the great natural re-cycling process of breaking down and decomposing dead wood, leaves, and manure.

They are not edible and generally not safe to eat even though they have long been used in traditional medicine by virtue of the anti-oxidants and health boosting compounds they possess. They are found all over the world and can be seen in many forests in Sri Lanka. (*Internet sources*)

The plants we are concerned with consist of colourless threads (hyphae) that proliferate underground, in leaf litter, or within live or dead and rotting wood—like in fallen trees, collectively referred to as a *mycelium*. When conditions are right, the mycelium enters a stage of reproduction by producing spores—cells with a protective covering that are capable of dispersion and subsequent development into a new mycelial colony, much like seeds of higher

plants. Mushrooms and brackets are the fruiting bodies within which the spores form - drawing at right.

Agarics and Polypores

Mushrooms and toadstools are collectively called *agarics* (Order Agaricales), the *gilled mushrooms*. The term 'toadstool' refers to poisonous mushrooms in the English language.

Mushrooms are structures that typically consist of a stalk that emerges from the ground, the *stipe*, with an umbrella-shaped cap, the *pileus*; this, however, can vary in shape. Commonly seen are those with a *convex* pileus (Figure 1). Others have a flatter, *umbonate*, pileus (Figure 2); or *infundibuliform* (Figure 3). On the underside of the pileus can be seen thin lamellae, the gills, on which are borne the spores (Figure 2a). (Coomaraswamy, 1979).

Polypores are fungi that produce large, shelf-like fruiting bodies with pits or tubes on the underside, usually on the trunks of trees—living or dead. They are either parasitic or saprophytic. The common name is 'bracket fungi', and the fruiting bodies are termed 'conks'. They are said to be more common in old-growth forests where there are more dead trees and fallen branches, than in managed forests. Srikumar's Turkey Tail is a bracket fungus. (https://en.wikipedia.org/wiki/Polypore).

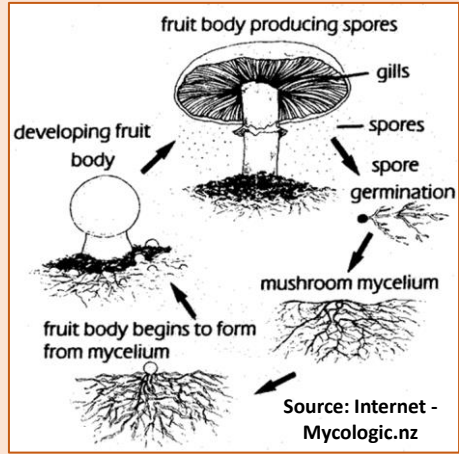


Fig. 1 Pilikuttuwa 2004 - MF



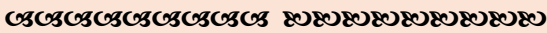
Fig. 2 Waga 2011 - MF



Fig. 2a



Fig. 3 Sinharaja 2007 - MF



How many varieties of mushrooms and bracket fungi have you come across?

On a recent visit to Galkadawala Forest Lodge near Habarana that abounds with lianas and trees, including dead branches and leaf litter, I was able to see five varieties (Figures 4 to 8), all in the small area of the property. None were picked for detailed examination, and none have been identified.



Fig. 4



Fig. 4a



Fig. 5a



Fig. 5

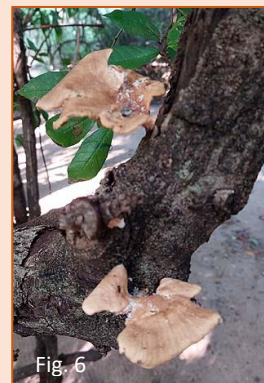


Fig. 6

Figure 4: growing on a dead stump, all emerging from the two cut ends. The largest (4a) was about 17 cm in diameter.

Figures 5 & 5a: growing on a living tree were smaller but a beautiful deep purple colour with cream margins.

Figure 6: growing on a living tree, irregularly shaped, attached by a small stalk.



Fig. 7



Fig. 8

Figure 7: growing on a living tree, a number of stacked conks.

Figure 8: a flower-like solitary conk in a deep maroon colour with white margin.

Unusual mushroom forms



Fig. 9

Waga, 2011 - MF

Photographed at Waga (Figure 9) is an unusual ‘mushroom’ that agrees with the images and descriptions in the Internet of ‘morels’—a group of edible fungi prized by western gastronomy. Placed atop the column is a cap composed of a network of ridges with pits, giving a honeycomb appearance. The edible *Morchella esculenta* usually has a dark coloured cap; yellow-coloured ones have been given other names, but the classification is uncertain and under review.

The genus *Morchella* is a sac fungus in the order Pezizales (division Ascomycota). Sac fungi include morels, truffles (also much valued in gastronomy), brewers’ and bakers’ yeasts and others. The distinguishing feature is the ‘sac’ in which the spores form. Some of these—like the false morels—are poisonous. In North America including Canada, Europe, China, Kashmir.

(<https://en.wikipedia.org/wiki/Morchella>)



Fig-10 - Sri Srikumar



Fig. 10a

Srikumar photographed the Stinkhorn (Figures 10 & 10a) at Diyasaru Uyana, Thalawatugoda, Sri Lanka and shared it on his Facebook account on 17 March 2023. He informs us that the stinkhorn is a horn or phallus-shaped fungus that emerges from an egg-shaped base. The pitted, bell-shaped cap is covered with olive-brown slime and has an offensive smell that attracts insects. The spores are mixed with the slime that coats the insects as they crawl over the stinkhorn, and then fly away to disperse the spores at another site.

It is placed in the family Phallaceae within the order Phallales. They are edible, with a worldwide distribution, especially prevalent in tropical regions.

Source: wildlifetrusts.org/wildlife-explorer/fungi/stinkhorn-fungus

Coomaraswamy U., 1979. *A Handbook to the Agarics of Sri Lanka*. MAB-UNESCO Publication No. 5. National Science Council. Sri Lanka. 122 p.

Karunaratna, S.C., Mortimer, P.E., Jianchu Xu, Hyde, K.D., 2017. *Overview of research of mushrooms in Sri Lanka*, Revista Fitotecnica Mexicana, 40 (4): 399-403.

Mongabay, <https://news.mongabay.com/2023/05/sri-lanka-researchers-amp-up-mushroom-studies-and-find-new-species/>

How many species of fungi are there in Sri Lanka?

Dr. Samantha Karunaratna and his associates from the Chinese Academy of Sciences writing in 2017 says that only a little more than 2000 are presently known but estimates that there may be up to 25,000 species in the Island. Commercially cultivable mushrooms were introduced into the country in 1985, and now both endemic and non-native mushrooms are cultivated.

The number of known species is increasing, with more Sri Lanka researchers, and interested naturalists, joining the hunt. A number of species new to Sri Lanka have been identified recently. For a fascinating account of these discoveries, and about the key players, read Malaka Rodrigo’s article in Mongabay of 23rd May 2023.