Fungi: wood mushrooms 1

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Observations of local fungi could feature wild yeasts, moulds, or the mushrooms and puff balls that grow in parks and lawns in the wet season, but we have chosen to begin with wood mushrooms, the fruiting bodies of fungi that infect trees and tree roots and erupt after the tree dies, converting lignin to sugars and returning wood to soil.

Eight common species of wood mushroom that we find on stumps less than 100 m from the house: wet season, Pathumthani, Thailand.

Most city folks have no names for these. They do and have opinions about their edibility but these mushrooms are largely ignored, which is perhaps the safest option. Occasional poisoning deaths of country people who regularly collect wild mushrooms are reported each year in Thailand. Definitive identification is a job for a local expert. We report observations with identifications that are tentative.

Note: the 400^{+} resident or visiting birds in Thailand are listed in a single small handbook with names, photographs and descriptions: there are no others. Insects are more difficult to identify but the web is gradually providing answers. Fungi are more obscure. Many species look similar and many identifications are a work-in-progress.

Polyporaceae (Shelf or Bracket fungi)

Tamates vesicolour

Also known as *Polyporous vesicolour* this shelf fungus is found on recently dead hardwood: tree stumps and fallen logs world-wide. Colours vary from region to region. Our local variety is banded in dull orange and white. The undersides (below) are whitish and covered with pores 2-4 per mm.

Vesicolour (*Turkey Tail mushrooms*) grow in extensive tired fans that make attractive forest displays. They are used in Chinese medicine under the name *yun zhi*.

Under side at right.

Gandorama lingzhi

Lingzhi is a polypore mushroom that hardens as it ages. Fruiting bodies emerge from dead or dying wood as brackets on tree stumps and as more conventional mushrooms from underground roots.

Lingzhi (three weeks old) growing from the subsurface root of a still living tree. The upper surface, initially dull and creamy in colour, is turning to the polished reddish brown of older specimens. Lingzhi is well known in China. It has been dried and used for thousands of years to make a bitter medicinal tea. A local Thai farmer in Raying is growing these mushrooms and marketing the tea.

The underside of the mushroom is covered with tiny pores from which spores are shed.

The spores are oval, brown, and a thousandth of a mm in length.

Ganderama australae

A large hard shelf fungus found on the roots and stumps of dead trees.

White with a soft slightly sticky textured top and a similar underside with a musty smell when young. *Australae* attracts one particular species of fly that can be found on it for the first two weeks. As it ages the upper surface becomes dry and turns brown, blending with the surroundings (lower image above).

The white mushroom is not toxic but is to hard to eat.

Flies (1.5 - 2.0 mm) on the upper surface of the white fresh mushrooms in the image above.

Lentinus

Lentinus sp. 1

This *Lentinus* species is soft and rubbery in texture for several days after emergence. They dry in the sun and harden (see below).

Lentinus crinitus appears to be a closely related species. The image at right showing dry hard *crinitus* was taken in Chiangmai.

Mature hard examples of *crinitus* have a different but similar appearance to the species found here.

The hard dry mushrooms rehydrate in heavy continuous rain and become soft and rubbery again.

After six weeks of appearing to be dead in the tropical sun on the stump, these mushrooms have re-hydrated over night. They are soft and rubbery again and now have thiner split edges.

The dry hard Lentinus mushrooms were left in the house for a month. They softened in the humid Bangkok air and are now crumbling and partially eaten by 1.0 mm beetles and 0.2 mm mites.

A fresh Lingzhi mushroom left exposed in the same place, is dry, hard, in good condition, and has not been eaten by small critters.

Lentinus sp 2

The inset above, taken last year, shows dry three-week old examples on a stump.

The main image shows fresh soft mushrooms of the same species erupting in the same place on the same stump one year later.

The lower image shows the underside of the recent fresh mushrooms after they dried and become hard over three weeks.

Lentinus species 3

A beautiful mushroom growing on the same stump as the species above. We are not experts. On no account should our speculations about edibility be acted upon. Even village people who have collected and eaten forest mushrooms in the same locality all of their lives become ill and occasionally die from eating a species they have not encountered before. This, and the one above, resemble *rosea*, which is listed in the reference below as being edible. They are perhaps likely to be similar but that is *not* a recommendation.

A recent pdf: available on the web for download, lists 50 or so species of mostly edible mushrooms from southern China and Thailand. Economic necessity is driving research in this area.

https://humidtropics.cgiar.org/wp-content/uploads/downloads/2014/04/Final_Mushroom-Field-Manual_Mar-2014_for-WEB.pdf

A split gill mushroom

The variety of mushrooms in nature appears to be endless. One estimate has it that there may possibly be 1.5 million living fungal species with less than one tenth of these having been identified.

The display above was growing near our gate on the stump of a recently felled Tamarind tree.

It has smaller components *Schizophyllum commune (*the split gill mushroom cultivated as a food crop) and has more colour, but otherwise it is similar in appearance and appears to be related.

One of the eight thumbnails in the introduction above remains unaccounted for. This is a work in progress. Having ventured this far into a new area we will pay more attention and collect more images.

Watch this space.