

Fungi

of the Illawarra



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Hundreds, possibly thousands of fungus species inhabit the Illawarra region – from the coastal headlands, to grassy plains, to rainforest, to heathlands, to your own backyard. Each contributes to the health and resilience of these ecosystems.

Fungi obtain food in different ways, sometimes referred to as trophic modes. Many are recyclers (saprotrophs), breaking down organic material and releasing nutrients, while others form mutually beneficial relationships (mycorrhizas) with most plants. One of the most well-known unions or symbioses is that of lichens, formed between an alga and a fungus. Others are parasitic, deriving nutrition from a living host. All types of fungi play a vital role in ecosystem function.

The trophic mode for each species featured in this guide is indicated by the letters: **S**=saprotrophic; **M**=mycorrhizal; **P**=parasitic; **Y**=symbiotic.

Fungi colonise a great range of substrates from soil to leaf litter, living and dead trees, and herbivore scats. The growing and feeding part of the fungus organism is referred to as a mycelium. Under particular conditions, the mycelium produces reproductive structures called sporophores, such as the familiar mushrooms and puffballs. This guide illustrates a selection of some more readily recognisable species.

edible & poisonous fungi

Foraging for edible fungi is a popular pastime but be aware that deadly poisonous species exist in Australia that have caused fatalities. In the event of a suspected poisoning call the Poisons Information Centre Hotline: **13 11 26** (all states and territories).

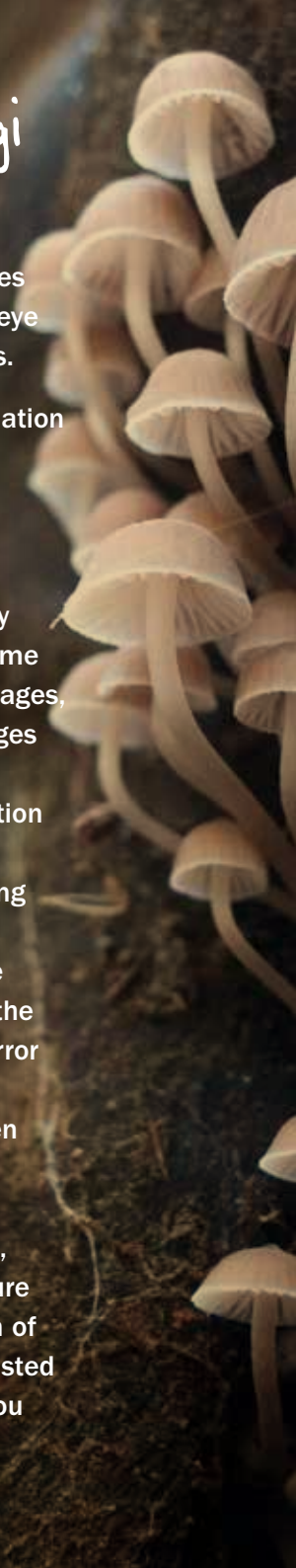
identifying fungi

Many fungi can be identified using field characteristics, that is, features of sporophores that are visible to the naked eye or with a x10 magnifying lens.

Other species require examination of microscopic structures or DNA sequencing for accurate identification.

When identifying a fungus, try and find specimens of the same species at different growth stages, so you can observe the changes that occur as the specimen develops. Also note the variation in colour and shape that can result from exposure to varying weather conditions. This will give you a sense of the range of variation that occurs with the species. Also, take a little mirror with you so you can observe the underside of the specimen without needing to pick it.

As well as the visual features, also note the odour and texture of your specimen. A selection of field guides and websites is listed on the back cover to assist you further with identifications.



major fungus morphogroups

Fungi appear in many different forms and these can be categorised in arbitrary groups called morphogroups. The most well-known are the agarics – mushrooms that usually have an umbrella-like form and lamellae (thin radiating plates also called gills) beneath the pileus (cap). Other familiar morphogroups include puffballs, jellies, corals, clubs, discs and polypores. Fungi in this guide are arranged alphabetically within morphogroups.

making spore prints

The colour of fungus spores is an important identification feature. You can observe the spore colour by cutting off the pileus and placing it lamellae side down on a piece of paper for several hours.

Spore print from
Oudemansiella
gigaspora.



Fungus substrates

Fungi grow in different substrates including soil, living or dead wood, leaf litter, native animal scats (dung), invertebrates, and other fungi. The type of substrate where each species is usually found is indicated with the following colour codes:

■ soil ■ wood,
■ dung or ■ invertebrate

Fungus names

Each species is represented by a scientific name and a common name. The majority of Australian fungi are yet to be formally named and some are only identified to genus level. Some names also have the qualifier 'group', which means it is part of a complex of species.



Fungimap target species

Fungimap is a hub of information and interaction among fungus experts and enthusiasts and includes a fungus distribution mapping scheme that targets 200 easily recognisable target species. Target species represented in this guide are indicated by an asterisk (*). Further information about identifying and recording species is available at www.fungimap.org.au.



*Agaricus xanthodermus**
yellow stainer
LAMELLAE S



*Amanita muscaria**
fly agaric
LAMELLAE M



Oudemansiella gigaspora
rooting shank
LAMELLAE S



Lactarius deliciosus
saffron milkcap
LAMELLAE S



*Boletellus obscurecoccineus**
rhubarb bolete
PORE M



*Phlebopus marginatus**
giant bolete
PORE M



*Armillaria luteobubalina**
Australian honey fungus
LAMELLAE S, P



*Coprinus comatus**
lawyer's wig
LAMELLAE S



*Macrolepiota clelandii**
parasol mushroom
LAMELLAE S



Mycena interrupta
pixies parasol
LAMELLAE S



Suillus granulatus
slippery jack
PORE M



*Laetiporus portentosus**
white punk
PORE S



*Cruentamyces viscidocruenta**
ruby bonnet
LAMELLAE S



*Gymnopilus junonius**
spectacular rustgill
LAMELLAE S



*Omphalotus nidiformis**
ghost fungus
LAMELLAE S, P



*Psilocybe subaeruginosa**
golden top
LAMELLAE S



Trametes coccinea
scarlet bracket fungus
PORE S, P



Trametes versicolor
rainbow fungus
PORE S



Vascellum pratense
field puffball
PUFFBALL S



Scleroderma cepa
earthball
PUFFBALL M



Hydnum crocoides group
echidna fungus
TOOTH S



Ramaria anziana
orange & salmon pink coral
CORAL M



*Clathrus archeri**
octopus stinkhorn
STINKHORN S



*Ileodictyon gracile**
smooth cage
STINKHORN S



Geastrum triplex
collared earthstar
EARTHSTAR S



Aleuria aurantia
orange peel fungus
CUP S



Ramaria capitata var capitata
pale cauliflower coral
CORAL M



Calocera sinensis group
pretty horn
JELLY S



*Drechmeria gunnii**
dark vegetable caterpillar
CLUB P



Baeyomyces heteromorphus
pink earth lichen
LICHEN Y



*Phaeohelotium baileyianum**
yellow earth button
DISC S



Poronia erici
small dung button
DISC S



*Heterotextus pezizaformis**
golden jelly bells
JELLY S



*Tremella fuciformis**
white brain
JELLY S



*Lichenomphalia chromacea**
yellow navel
LICHEN Y



Flavoparmelia rutidota
LICHEN Y

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selected field guides

Moore S & O'Sullivan P (2016) *A guide to the common fungi of coastal New South Wales*. New South Wales Government - Department of Primary Industries, Orange

Grey P & Grey E (2005) *Fungi Down Under*. Fungimap, Melbourne.

McCann I (2003) *Australian Fungi Illustrated*. Macdown Productions, Vermont.

Fuhrer B (2005) *A Field Guide to Australian Fungi*. Bloomings Books, Melbourne.

Young A (2005) *A Field Guide to the Fungi of Australia*. New South Wales University Press, Sydney.

websites of interest

Fungimap
www.fungimap.org.au

Australian National Botanic Gardens
www.anbg.gov.au/fungi

Atlas of Living Australia www.ala.org.au

The Australasian Mycological Society
www.australasianmycologicalsociety.com

iNaturalist Australia
inaturalist.ala.org.au

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