Title: ‘Family dynamics’

Description: Hare’s foot inkcap (*Coprinopsis lagopus*)

Photographer’s name: Noelle Bennett

Where and when: Waikawa. Marlborough, July 2021.

Sustainability: Fungi are an important part of our ecosystems, because they break down decaying plant matter and animal waste. What’s more, without fungi, we would not have soil to grow food. Trees together with the majority of plants are connected through vast networks of mycelia, the thread-like structures of underground fungi. Not only do the fungi exist in symbiosis with them, bringing the trees nutrients and water and receiving sugars in return, but they enable the trees to share nutrients amongst one another and to exchange messages. This allows the foliage of a forest to function as a single gigantic super-organism powerful enough to moderate the temperature beneath its canopy.

For many of us, mushrooms are probably the most familiar type of fungi, but not all fungi produce mushrooms. Of the estimated 5 million species of fungi, only about 14,000 mushroom-producing species have been described. But the mushroom is not the whole story. What we see above ground is actually just the reproductive structure of the fungus. The rest of the fungus is typically below ground, or inside decaying wood, where it forms a much larger network, called a mycelium. Millions of smaller, interconnected cells called hyphae, make up this network. If you have ever picked a mushroom and noticed a white fluffy material around its base, you have actually seen part of the mycelium. Scientists refer to mushrooms as ‘fruiting bodies’, and they usually each contain millions of spores. Spores are transported by wind, water or animal activity to new locations, where they form a new mycelial network and produce more fruiting bodies.

There are a few theories as to why *Coprinopsis lagopus* is known as the "hare's foot inkcap". One of my favourites is that it gets its name because, in the same way that a hare doesn't stay around for long if you startle it, the fruiting bodies of this species don't stay around for very long. This mushroom lasts for only a few hours. As you can see in the image, when it ages over those few hours, the gills curl upwards so that the cap sheds its spores. And then the mushroom disappears. If you go back the following day, there will be no sign of it.

Photographer's notes: One of the best places to find hare's foot inkcap is after rainfall in untreated wood chips that are often used as mulch on gardens. Get a good look or photograph before it disappears!

Photo specs: This image is a composite but is produced from one single image which has been used multiple times with differing effects applied to each iteration. Technical specs: The image was taken using a Panasonic DC-G9 camera and a Panasonic Leica DG Macro-Elmarit 45mm f/2.8 macro lens. Exposure details - 1/160 sec at f8 with an ISO of 200 and a focal length of 45mm (90mm full frame equivalent).

Digital specs: 7707 x 6254 pixels (48.20MP) @ 300dpi

Key words: fungi, fungus, mushroom, *Coprinopsis lagopus*, *Coprinopsis*, saprobe, mycelium, hyphae, Waikawa, Marlborough, Noelle Bennett, Ecosystems Photography, sustainability.

Price: $200 (incl. GST) for use of the digital image. Visit www.ecosystemsphotography/sales for details & to order, or to get a quote if you would like a high-quality print.

Donation: The price includes a $100 donation to a sustainability organisation or project of your choice, or otherwise to the *Marlborough Branch of the Royal Forest & Bird Protection Society* https://www.forestandbird.org.nz/branches/marlborough.

We recommend that the donation goes to *the Marlborough Branch of the Royal Forest & Bird Protection Society* to support their work on environmental monitoring, advocacy and education. Regional offices keep their eyes and ears tuned for local issues and combine with other branches to support a vigorous and effective national body based in Wellington – a good example of thinking nationally and acting locally.

Image ref: NB#017 (please use this reference in all orders and correspondence).

Noelle Bennett
24 December 2021