

Responding to uncertainty

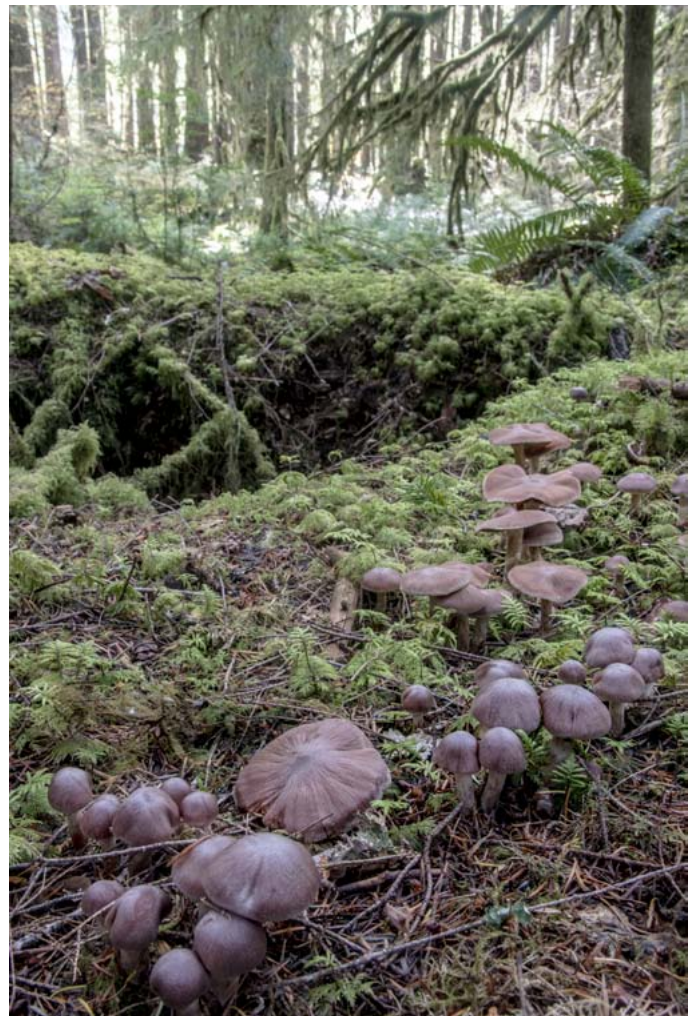
Words and images by Alison Pouliot

Living on the driest inhabited continent on Earth, rainfall is a blessed luxury. Crawling through the wet temperate rainforests of the USA in search of fungi recently was an extraordinary experience. Thanks to an invitation by University of Washington mycologist Steve Trudell and a grant from the Stuntz Foundation, I was fortunate to partake in a month-long mycological expedition of the majestic forests of the Pacific Northwest and work alongside some inspirational scientists and conservationists. Experiencing different environments and observing how people practice conservation elsewhere opened up new insights and opportunities to reflect on our own conservation practices – in particular, how we respond to uncertainty.

Forests of fungi

The USA is well recognised for its long history of conservation, inspired by writers, artists and naturalists such as John Burroughs, Ralph Waldo Emerson, John Muir, Gifford Pinchot and Henry David Thoreau. As the vast American wilderness was opened up and exploited in the late nineteenth century, the conservation movement grew, as did the notion of preserving ‘wilderness’ areas. National parks were established, beginning with Yellowstone National Park in 1872 and Yosemite in 1890.

Today, Americans seem to have a complex and contradictory relationship with nature. The notion of wilderness has played a curious and conflicted role in American culture. Historically, ‘conquering wilderness’ was pivotal to the colonial narratives of progress and forests were fervently felled, rivers dammed and wildlife hunted to extinction. Others took pride in the extraordinary beauty



The astonishing fungal biomass of Northern Hemisphere forests.

and spectacular scenery, but conservation and preservation came at immense social cost, with nostalgia for wilderness deeply entangled within American nationalism today.

Australia and the USA share many things in common including a staggering megadiversity of fungi. Both countries are two of only 18 nations that harbour the majority of the Earth’s species, many being endemic. The mountains of the Cascade Range of western North America are famous for their conifers including western red cedar, fir, spruce, pine and hemlock, as well as evergreens such as oak, maple and alder. Conifers have evolved a suite of clever adaptations to allow them to survive environmental and climatic extremes and nutrient-limited soils. Their slow growth rates and sheer size buffers them (to some extent) against environmental stress and some individual trees represent the largest and longest-lived examples of their genera. Wandering over carpets of moss beneath towering trees adorned with bryophytes,



The striking *Cortinarius violaceus*.

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A tapestry of lichens, mosses and birdsnest fungi on the forest floor.

fungi manifested at every turn. While many genera were common to Australia there were all sorts of new exciting species I'd not previously encountered. The sheer biomass of fungi found in the American (and European) forests is very different to that of Australian ecosystems. The 'biomass of *Homo sapiens*' in the USA who are interested in fungi was also astonishing. Australia, the USA and the UK were all traditionally regarded as myco-phobic (fungus-fearing), however, the USA and the UK are probably a couple of decades ahead of us in terms of public interest in and knowledge of fungi. That said, it is exciting to witness the tremendous groundswell of interest in fungi in Australia in recent years.

Uncertain times

I arrived in the USA during the Californian fires, only to return home to the devastating fires here in Australia.

The fires are a reminder that the Australian climate and landscape are complex, uncertain and resist prediction – each made more extreme by climate change. The failure of the Australian government to effectively respond, govern, and orchestrate different levels of government, agencies, NGOs and others into collective action saw the Australian people take this on themselves. As always in a crisis, the adaptability and assertiveness of Australians is a reminder that collaboration is our most valuable response in times of uncertainty.

I am constantly inspired by the Australians I work with from

farmers to foresters to conservationists. I admire their flexibility and openness to innovation and new ideas, as well as their willingness to embrace change – that is, their response-ability. The conservation movement urges us to take greater responsibility for our actions. 'Responsibility' is sometimes misinterpreted in the context of blame and culpability, or power and control. However, a more positive take on the word revives our response-ability, that is, our ability to respond. We live in the most highly variable and unpredictable climate in the world. We live in an ancient landscape that has shifted and shaped through time and is unforgiving. It is the challenge of uncertainty that drives creative thinking, fuels response-ability and action. Australians' resilience and response-ability could be our greatest contribution to climate change action within Australia and beyond. ■

Fungus Forays, Workshops & Other Events

Fungi are gradually working their way into our consciousness, both within ecology as well as the arts and literature. This newfound awareness is inspiring, not just their conservation but also imaginative representations of their being. Over the last two decades, ecologist and environmental photographer Alison Pouliot has been accompanying people through the bush to explore the so-called forgotten kingdom.

A range of fungus-themed events from forays to films to fungus festivals is on offer again this autumn. The full program is available at www.alisonpouliot.com

