



Title: “Pine Pollen in Puddle”

Short Description: Pine pollen swirls on a puddle

Photographer: Tim Heath

Where and when: On the way to Mapoutahi Pa, Pūrākaunui, September, 2021

Sustainability: Patterns and textures in nature

There are probably more than a million pollen grains in this puddle. The profusion of nature and energy committed to reproduction is astounding. Pollination in the case of pines is wind dispersed – it’s a bit of a blunt strategy to get your genes into the next generation – cast off millions of grains and hope that some blow onto a flower. Other plants use a direct and targeted approach to cross-pollinate their flowers. Colours, scent, rewards of nectar are all ways that flowers compete for the attention of insects, lizards, birds, and even bats to transfer pollen.

Pollination is a crucial “ecosystem service” that underpins much plant reproduction and keeps ecological communities regenerating. Honey bees and four species of bumblebee have been introduced into New Zealand to help out now that new plants predominate in some habitats, and the native pollinators have been eliminated in other habitats. Beekeeping is a way of turning a profit from providing an essential ecosystem service and we need

to find more of these win:win strategies for economic and ecological sustainability.

Photographer's notes: iPhone 6+

Exposure: 1/125s, f/2.2, 4.15 mm, ISO 32

Digital specs: 2,448 x 2,448 (6MP)

Key words: Pollen, pollination, pines, ecosystem services, wind, bees, Tim Heath, Aotearoa, New Zealand, Ecosystems Photography, Sustainability.

Price: \$100 donation. Visit www.ecosystemsphotography/sales for details & to order, or to get a quote if you want a high-quality print.

Donation: The price includes a \$100 donation to a sustainability organisation or project of your choice, or otherwise for the *Orokonui Ecosanctuary* <https://orokonui.nz/>

We recommend that the donation goes to the *Orokonui Ecosanctuary* because they are working hard to restore the bird, reptile and insect life at the reserve near to Purakaunui where this photograph was taken. Scores of volunteers contribute and the sanctuary is a hub for education as well as eco-tourism. Predator control at Orokonui will trigger spillover of the animals into Pūrākaunui to reinstate some of the original ecosystem services that used to sustain the ecological communities at Pūrākaunui.

Image Ref: TH#008 (please use this reference in all orders and correspondence).

Tim Heath

9 December 2021