

# In appreciation of driftwood



Driftwood is an underrated resource within dune environments.

We have briefly touched on the value of driftwood as a source of food for invertebrates (see invertebrates article in this edition). However, the value of driftwood within the dune ecosystem goes far beyond that. In 1997 Geoff Walls produced a DOC report on the ecological values and conservation management of driftwood, which is easy and interesting reading (see page 20).

## How driftwood is formed

Driftwood is not quite the same as regular wood. Driftwood spends time in salt water, which penetrates deep into the wood and absorbs moisture, making it harder and dryer than normal wood. It typically forms during storms with a combination of high rainfall and wind, causing trees to fall into rivers, be carried out to sea, and then pushed back onto the shore by storm surges and high tides. Driftwood is periodically deposited (and sometimes retrieved) by the sea, thus if driftwood is collected from a beach, it might not be replaced for several years.

## Driftwood and plants

Driftwood, like spinifex and pīngao, provides partial stabilisation of sand dunes, reducing wind erosion and allowing plants to gain purchase. The driftwood may also create a small wind barrier (or microclimate), which can allow seeds and seedlings to stay damp and



This skink is sheltering out of the wind behind driftwood, where various seeds have been blown.

protected from wind erosion. Driftwood may even carry seeds from the forest to the coast, which may germinate if it is hardy enough.

## Driftwood and animals

As already described, driftwood is valuable habitat for invertebrates, which are a vital part of a healthy ecosystem. Of course, the driftwood is also shelter for the invertebrates, many of which would not survive in the harsh dune environment without it. Driftwood is also used by larger animals, including shore birds and lizards. Lizards hunt the invertebrates within the driftwood, as well as using the driftwood for shelter too. Shore birds such as variable oystercatchers and dotterel sometimes nest next to driftwood, which may protect the eggs from sand burial and make them less obvious to predators.



Native Raukawa geckos were once common on the coast, but have declined due to habitat loss and predation.



Nest of a variable oystercatcher next to pine driftwood.

## The changing landscape

Geoff Walls writes that there was a peak in the amount of driftwood on beaches during and immediately after New Zealand's main deforestation period, when large tracts of forest were destroyed to make way for farmland. Now that these forests are a distant memory, how will this affect the driftwood supply? It's likely that bank stabilisation and reduced numbers of trees along watercourses will result in a drop in the amount of fresh driftwood being deposited on beaches. Also the type of driftwood will change, with an increase in the amount of pine and other exotic woods. Driftwood formed from these trees might have different qualities than native, and so might impact the ecology of the dune ecosystem. One thing remains certain; removing driftwood from beaches has a negative impact on the dune ecosystem and should be avoided when possible.