

MONITORING ENVIRONMENTAL HEALTH

In New Zealand Using Lichen Bioindicators

Field Guide to employ lichens of the *Sticta filix* guild (Lobariaceae) to assess the conservation status of forest ecosystems



Sticta lacera



Sticta menziesii



underside

thallus small, dissected
underside pale to medium
cyphellae small to medium, irregular



underside

thallus large, sinuous
underside medium to dark
cyphellae small to medium, regular



Sticta filix



Sticta latifrons



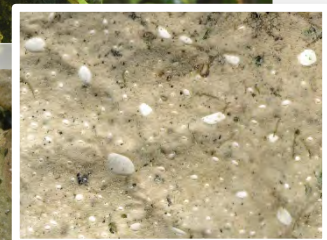
underside

thallus large, dissected
underside pale to dark, veined
cyphellae small, regular



underside

thallus large, truncate
underside pale to medium
cyphellae small to large, irregular



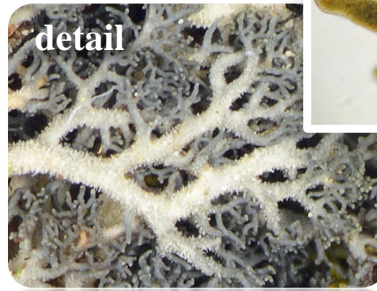
Well-conserved forest

Partially degraded remnants

Lichens in the *Sticta filix* guild are characterized by developing two types of thalli in the same species: one with green algae which is distinctly stalked and conspicuous, and one with cyanobacteria which is dendroid and small. The two forms can grow together or separate.



Sticta latifrons



detail



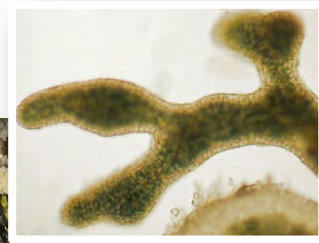
thallus small, branches cylindrical, hairy
branching off obliquely, not inflated
hairs short, very dense



Sticta menziesii



detail



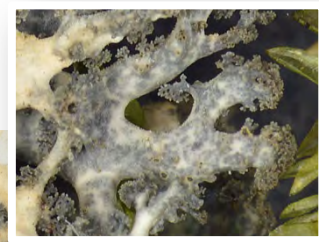
thallus small, branches cylindrical, hairy
branching off perpendicularly, slightly inflated
hairs short, very dense



Sticta dendroides



detail



thallus small, to medium, branches flattened, glabrous