

Protecting
New Zealand's
Tarest
of the rare

# Eriophyoidea incertae sedis

## Of uncertain placement

Photos of this species wanted. Send to info@endangeredspecies.org.nz

## Quickfacts

Nationally Critical conservation status

A leaf mite only known from one tree

Member of an ancient group of animals

Very little is known about this animal

Incertae sedis is Latin for "of uncertain placement" and is a term sometimes used by scientists who have reviewed the taxonomy (naming) or a group of organisms to refer to some of the individuals that they inspected that appear to be different from all the known species, but there is insufficient material (few individuals or samples are too damaged) to confidently place these with a known species, or to create a new species. *Eriophyoidea* incertae sedis is an example of this. *Eriophyoidea* incertae sedis is a small gall mite that creates a pocket in a plant's leaf. It is so far known from only one host tree, a putaputaweta/marbleaf *Carpodetus serratus* tree in a reserve that is very degraded. Many other trees in the neighbourhood have been searched, but with no success. Because it is so rare, the experts have not seen enough animals to decide whether it deserves a species name of its own.

This mite's belongs to the subfamily Eriophyinae of the Eriophyidae mite family, of which there are 60 species known from New Zealand. Mites of the Eriophyidae family are known as gall mites as their feeding on a part of a plant causes a gall to form, or causes other







damage to plant tissue such as leaf russeting, flower damage, or witches brooms. They are microscopic in size (0.1-0.3mm), worm-like, have only 2 pairs of legs, and don't have a respiratory system as they are so small. Their main method of population spread is by wind dispersal. Other mites that are known to infest putaputaweta trees are *Acalitus carpatus, Aculops serrati* and *Lambella cerina*.

#### What next?

It is hard to know what needs to be done to save this mite. First its only host tree should be protected and other putaputaweta planted around it to provide additional hosts for it to move on to. Moving some of these mites, possibly as cut foliage containing galls, to other hosts nearby and further afield could be attempted – if there are sufficient individuals on its single host tree. Planting additional treesis likely to cost only \$500, and moving cut foliage to other host trees is likely to cost \$5,000.

### More information

Webpage: Wikipedia - Eriophyidae. Link

Scientific paper: New Zealand Eriophyoidea (Acari: Prostigmata): an update with descriptions of one new genus and six new species. By X.-F. Xue and Z.-Q. Zhang. Zootaxa, Vol. 1962, pages 1-32, 2008.

Publication: Fauna of New Zealand 4: Eriophyoidea except Eriophyinae (Arachnida: Acari). By DCM Manson. 1984. PDF

Publication: Fauna of New Zealand 5: Eriophyinae (Arachnida: Acari: Eriophyoidea). By DCM Manson. 1984. PDF

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