

## 3. Results

### 3.1 FIELD IDENTIFICATION

*O. inaequalis* can be separated from its sister species *O. aereus* with relative ease in the field using a simple 10× magnification hand lens. There are six key characters that in combination provide accurate field identification.

1. The initial assessment should look at the general shape and size of the beetle. *O. inaequalis* is shorter, and broader, with a significantly more prominent elytral shoulder (Fig. 1). This particular character is significant, and in combination with character (2) is often sufficient to identify *O. inaequalis*.
2. The striae on the elytra of *O. inaequalis* are more prominent and deeply impressed. Though difficult to illustrate in a photograph, e.g. Fig. 1, it is obvious on specimens.
3. The antennae of *O. inaequalis* are almost moniliform (bead-like), whereas in *O. aereus* they are more filiform (elongate). This gives *O. aereus* the appearance of much longer antennae. For a comparison between the two species, see Figs 2 and 3.
4. *O. inaequalis* has a row (6-8) of small spines that extend from the outer, anterior tip of the fore-tibia to the base of the antennal cleaning comb (Fig. 5). In coastal Otago *O. aereus* there are significantly fewer fore-tibial spines (Fig. 4). However, this character is quite variable and should not be used on its own to make a positive identification.
5. Both *O. inaequalis* and *O. aereus* have two pairs of setae above the eyes (supraorbital setae), but the number of pairs of setae located transversely across the vertex differs between the two species (*O. inaequalis* 3-4, whereas *O. aereus* normally has 1-2), see Figs 6 and 7 for a comparison.



Figure 1. *Oregus aereus* on the left and *O. inaequalis* on the right.

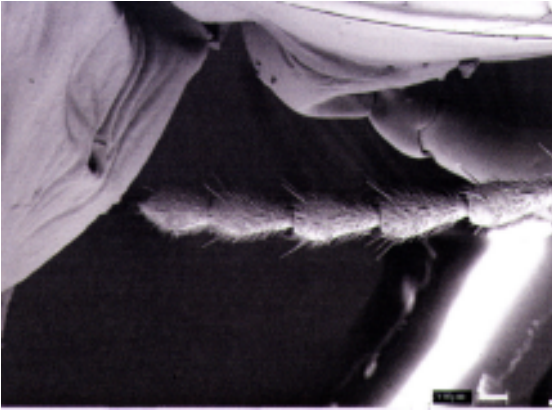


Figure 2. *O. aereus* antennae

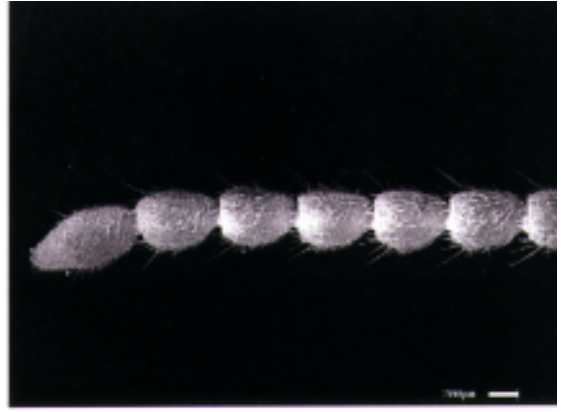


Figure 3. *O. inaequalis* antennae

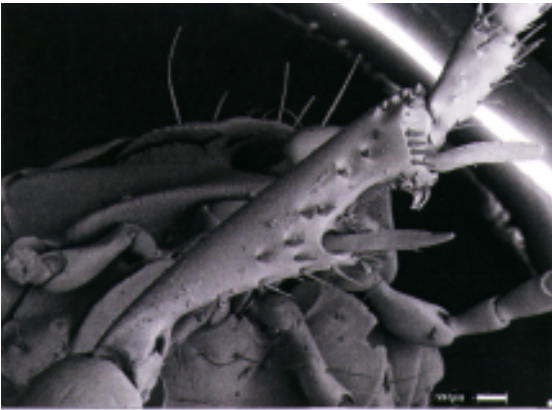


Figure 4. *O. aereus* fore-tibia

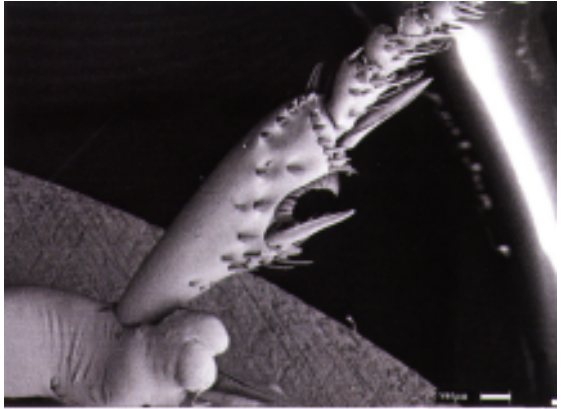


Figure 5. *O. inaequalis* fore-tibia

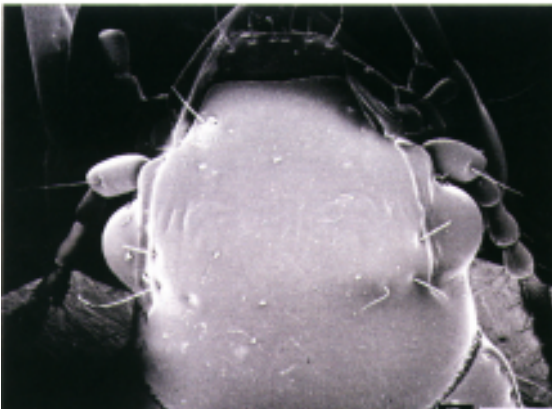


Figure 6. *O. aereus*, supraorbital setae

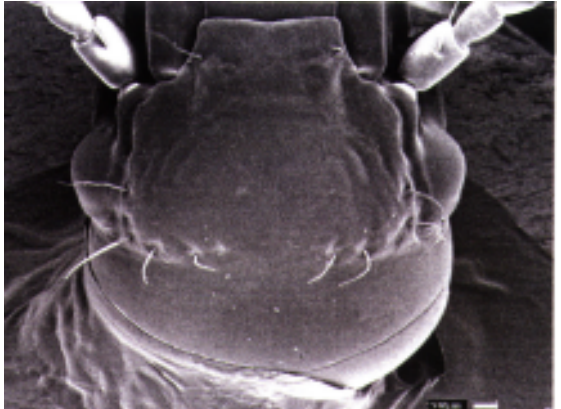


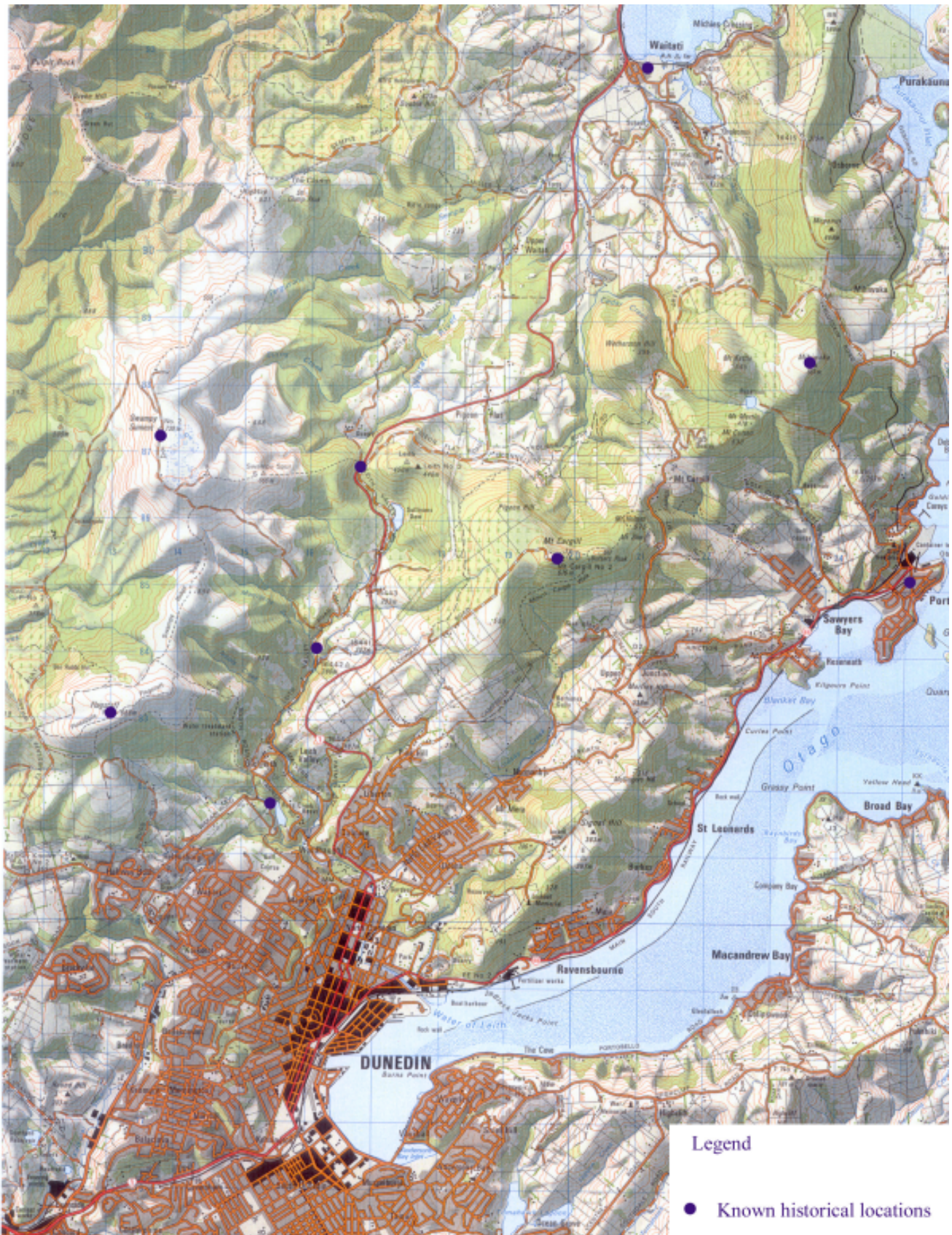
Figure 7. *O. inaequalis*, supraorbital setae

6. The tarsal segments of the fore-tibia in *O. inaequalis* are noticeably shorter than in *O. aereus* (see Figs 4 and 5 for a comparison). A similar difference is also present in the tarsal segments of the hind-tibia, see Fig. 1.

### 3.2 HISTORIC AND CURRENT DISTRIBUTION

The historical distribution of *O. inaequalis* (Appendix 2), is based on the personal examination of specimens known and available from national and international collections (a total of 56 individuals, Appendix 1). A similar inventory by Jamieson (1999) included a number of specimens that on re-

## Appendix 2. Past distribution, *Oregus inaequalis*



## Appendix 3. Current distribution, *Oregus inaequalis*

