

Ant Specimen Preparation Techniques for Identification

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For short term storage, ants can be placed in 70-75% ethyl alcohol. If ants are to be used in molecular tests, those specimens should be stored in 95% ethyl alcohol.

For detailed study and long-term storage, ants should be point-mounted on insect pins. Pointing allows specimens to be easily manipulated while being examined with a microscope and is essential for viewing fine details such as sculpturing and pilosity. In all cases, ants, even large species, should be placed on points and not directly pinned.

Pinning of specimens:

- Individual points can be either hand-cut from strips of stiff, white, acid-free paper, or punched with a specially designed hand-punch or purchased from Entomological suppliers.
- The glue used to attach ants to the points should be water-soluble to allow for later removal if needed.
- Stainless steel insect pins of size 3 can be used to hold the points.
- Individual ants should be glued to the tip of the point with just enough glue to hold them securely but not so much that the lateral or upper surfaces are obscured.
- Specimens should be mounted upright, horizontal and with the point extending from the ant's right side.
- Place the ant at the very tip of the point with the point covering the first segment of the middle and hind legs nearest the body.
- Try to (very) gently pull the legs downward so that the outer surface of the body can be seen in side view.

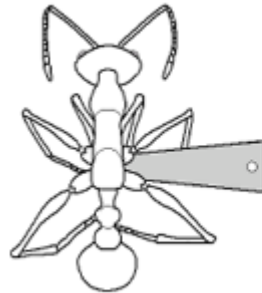


Fig.1: Top view of an ant mounted on a triangular point

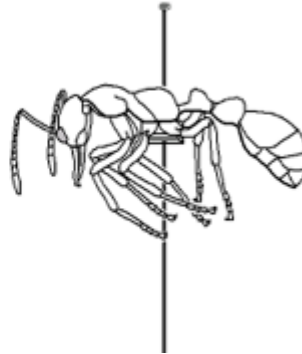


Fig.2: Side view of an ant mounted on a triangular point

(Figures taken from: Shattuck, S.O. 1999. Australian ants: Their biology and identification. Monographs on Invertebrate Taxonomy. p17)

Labelling

Once the specimens are properly mounted, the final step is to add labels. Labels should be the standard type used in entomology 12mm X 8mm.

Label should include as a minimum;

- Location (Country and nearest named place)
- Date
- Collector's name

Additional information which should be included if available includes: the latitude, longitude and elevation of the collection site, a brief description of the habitat.

New Zealand, AK, Mt Eden,
100m SW One Tree Hill
37030'S 144013'E , On apple leaves
21 Mar 2007
S.H. Anthony

Fig.3. Locality label - placed below the ant on the same pin.

FORMICIDAE

Solenopsis invicta

Det. J. Brown 2007

Fig. 4. Determination label – placed below the locality label.

References:

Shattuck, S.O. 1999. Australian Ants: Their biology and identification. Monographs on Invertebrate Taxonomy. Pp 226.

Walker, A.K. & Crosby, T. K., 1988. The preparation and curation of insects. DSIR Information Series 163. Wellington. Pp.91.