

PLATYARTHURUS HOFFMANNSEGGII BRANDT IN ARBOREAL ANT NESTS (ISOPODA, ONISCIDEA, PLATYARTHURIDAE)

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Platyarthrus hoffmannseggii is conventionally regarded as a soil-living woodlouse which is primarily associated with ants and most commonly found in ants' nests. Harding & Sutton (1985) provide habitat data accumulated from the records of the British Isopod Study Group – 54% of the 317 records received were from the ground surface while 34% were from the upper 10cm of the soil (horizon data was not provided for the residue). Some detail of the associated ants is provided but all of these construct soil nests, in many cases beneath surface-lying rock fragments. Until recently this fitted my own experience with *Platyarthrus* precisely.

On 13.ix.2007, while surveying old orchards for the rare beetle *Gnorimus nobilis* (Coleoptera: Scarabaeidae), this woodlouse was found with workers of the yellow meadow ant *Lasius flavus* within wood mould in the base of an old hollow plum tree, *Prunus domesticus*. The woodlouse and ants were at about 1m above the ground surface. The orchard is at Highcross, Minsterworth, West Gloucestershire (SO789172). The occurrence of this typical soil-nesting ant above the ground inside an old tree is very unusual but appears to be a feature of this orchard-growing area, with at least two encounters with this ant during 2006, in Minsterworth and Littledean. However, this is the first time that *Platyarthrus* had been found with the ants. The orchards in this area are also full of brown tree ant *Lasius brunneus* and *Platyarthrus* has been found in their nests by David Scott-Langley (personal communication) in this area during a field meeting of Gloucestershire Invertebrate Group in April 2002, at The Plackets (SO764167) and Denny Hill (SO757167), both in Minsterworth.

These observations appeared enigmatic until Steve Gregory drew my attention to an article on the associations between this woodlouse and the various British ants (Hames, 1987). Amongst his long list of ants which have been found to have *Platyarthrus* associated are *Lasius brunneus* and *Lasius fuliginosus* which both construct their nests within the decayed heartwood in the bases of hollow trees. However, the distribution map of *Platyarthrus* sites associated with *L. brunneus* is problematic as all three records lie beyond the known range of that ant (Alexander & Taylor, 1997), coming from West Cornwall and the East Midlands and so the ants have presumably been misidentified. Only a single occurrence with *L. fuliginosus* is shown, on the Lancashire coast. While this ant is best known nesting in the base of old trees it is occasionally found nesting in other situations, especially in coastal sand dunes - Donisthorpe (1915) comments on finding a colony nesting in a hollow in the sand-dunes at Southport on the Lancashire coast. Thus the Lancashire record is likely to be a coastal sand site rather than a tree nest. It may therefore be that the West Gloucestershire observations are the first for the woodlouse in ant nests within the trunks of living trees.

In conclusion, it seems that the presence of appropriate host ants within its range is more important than the actual habitat that the ants occupy.

ACKNOWLEDGEMENTS

Thanks to Steve Gregory for drawing my attention to the Hames paper. The orchard surveys are part of work being organised by the People's Trust for Endangered Species.

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