DISTRIBUTION OF FRESHWATER ISOPODA IN BRITAIN AND IRELAND

Paul T. Harding

CEH Monks Wood, Abbots Ripton, Huntingdon PE28 2LS, UK

INTRODUCTION

The British Myriapod and Isopod Group (BMIG) is concerned mainly with terrestrial taxa: millipedes, centipedes and woodlice. It is easy to forget that the recording scheme which includes woodlice is in fact intended to cover 'non-marine isopods', and includes four species of freshwater isopod (water hoglice). This paper provides a brief summary of progress with recording these four species.

NOMENCLATURE AND IDENTIFICATION

For simplicity, we follow Gledhill *et al.* (1993) in retaining the genus *Asellus* for all four species although *Asellus* is now considered by many authors to include several distinct genera. Three species are native: *Asellus aquaticus* (L.), *Asellus cavaticus* Schiödte and *Asellus meridianus* Racovitza. The fourth species, *Asellus communis* Say, was apparently introduced from North America and is currently known from only one site in Northumberland. Several species described from Britain as new to science by W.E. Collinge have been shown to be synonymous with *A. aquaticus* or *A. meridianus*, or with the woodlouse *Androniscus dentiger* Verhoeff (see Moon & Harding 1981).

The species are not difficult to identify and excellent illustrated keys are included in Gledhill *et al.* (1993). However, the occurrence of one introduced species (*A. communis*) suggests that it is possible that other species (even other genera) of freshwater isopod have been introduced, or may be in the future. Because of the number of other freshwater organisms that have been introduced to Britain and Ireland, recorders should always be careful to check even apparently common species.

DATA AND MAPS

In common with other collated BMIG datasets, data for *Asellus* are currently managed on behalf of BMIG by the Biological Records Centre at CEH Monks Wood. Moon and Harding (1981) reviewed the existing data for all species of *Asellus* in Britain and Ireland, including original records from W.D. (Bill) Williams (see Obituary, pp 2). The data for *A. cavaticus* were updated for two subsequent publications: Harding (1989) and Proudlove *et al.* (2003). A small number of records of *A. aquaticus* and *A. meridianus* have been added to the database since 1981 (H.R. Arnold pers.comm.).

The overall coverage of records has not changed significantly since 1981, due mainly to a lack of recording. Few BMIG members record in freshwater and therefore are not equipped to sample waterbodies. The National Biodiversity Network is promoting increased collaboration between separate freshwater recording initiatives to collate data, and if appropriate to identify specimens. It is hoped that BMIG will be able to increase existing knowledge of the distribution of all species of *Asellus* in Britain and Ireland through targeting a little of our own our own recording and working with others interested in freshwater macro-invertebrates.

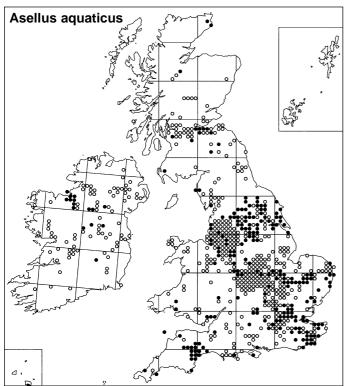
Figures 1, 2 and 3

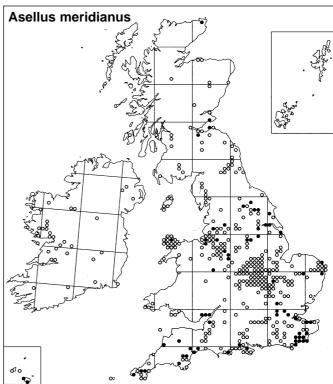
The distribution maps separate records on the year 1980:

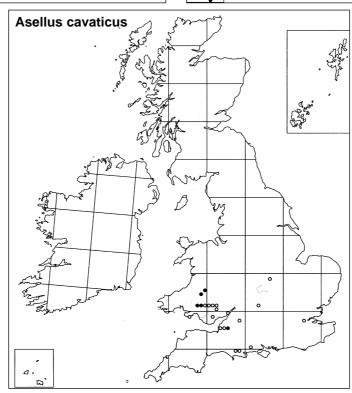
Circle = Records before 1980

Dot = Records from 1980 to present.

A. communis is not mapped; it occurred at Bolam Lake (NGR NZ080818).







WHY BOTHER, OR THE 'SO WHAT?' FACTOR

Proponents of studies based around the distribution of uncharismatic or common species often encounter active or implied criticism; the question "So what?". The following highlights issues which deserve investigation, even for these species.

- The status of *A. cavaticus* should be monitored together with the very small number of other obligate subterranean taxa in Britain (see Proudlove *et al.* 2004).
- The status of *A. communis* in Britain should be assessed in the context of being a potentially invasive species.
- The range and status of *A. aquaticus* and *A. meridianus* should be re-examined in relation to their potential as competitor species.

ACKNOWLEDGEMENTS

I am very grateful to Henry Arnold at BRC for updating the data and providing the maps.

REFERENCES

Gledhill, T. Sutcliffe, D.W. & Williams, W.D. (1993) British freshwater Crustacea Malacostraca: a key with ecological notes. (Scientific Publication No. 52). Freshwater Biological Association, Ambleside.

Harding, P.T. (1989) The occurrence of Asellidae in the British Isles. Part 1: Asellus cavaticus. Isopoda, 3: 5-7.

Moon, H.P. & Harding, P.T. (1981) *A preliminary review of the occurrence of Asellus (Crustacea: Isopoda) in the British Isles*. Biological Records Centre, Abbots Ripton.

Proudlove, G.S., Wood, P.J., Harding, P.T., Horne, D.J., Gledhill, T. & Knight, L.R.F.D. (2003) A review of the status and distribution of the subterranean aquatic Crustacea of Britain and Ireland. *Cave and Karst Science*, **30**: 53-74.