

A REPORT ON THE WOODLICE OF CORNWALL

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INTRODUCTION

Since December 1982 the author has been engaged in the study of terrestrial isopods in the county of Cornwall. During this time I have recorded 15 species from the county. At the end of 1983 I produced a "Report on the Non-marine Isopoda of Cornwall" based solely on my own records. This present article is an update of that report incorporating all of my records to date.

The maps accompanying this article show the distribution of each species in tetrads in Cornwall (2 x 2 km squares) and represent the author's records only (Fig. 3). Records of other species which I have not been able to find to date are given in Harding & Sutton (1985).

1. Ligia oceanica (Fig. 4)

As you might expect in a county virtually surrounded by the sea, Ligia oceanica is a common creature of the Cornish coast where rocky conditions exist. Although it can sometimes be found well up on the splash zone, Ligia oceanica is not found away from the sea shore or estuary. The species is very rarely found in stretches of sandy coastline. Most specimens are predominantly grey/green and black in colour. The largest specimen I have found was 3 cm in length (Poltesco, SW 72- 15-).

2. Androniscus dentiger (Fig. 5)

This woodlouse is very easy to identify, despite its small size (up to 6 mm long), with the aid of the colour plate in Sutton (1980). It is rose red in colour with a double yellow median stripe along the perion, and spine-bearing tubercles. Closer examination will reveal that the eyes are composed of a single ocellus. Although Androniscus dentiger does not appear to be all that common in Cornwall, it is not too difficult to find if searched for specifically. Damp leaf litter around the base of buildings and other man-made structures are favoured places, as are the underside of stones embedded in the splash zone of the seashore.

3. Haplophthalmus mengei (Fig. 6)

A recent addition to the Cornish fauna, I have recorded Haplophthalmus mengei from four sites between November 1983 and

November 1986 (Kynance Cove, SW 685 133; St. Michael's Mount, SW 51- 29-; Hayle Towans, SW554 387; Pencalenick, SW 855 453). In the first three instances, the species was found under stones in the splash zone of the sea shore at an altitude of 10 m or less. At Pencalenick, a small estate on the banks of the Tresillian River (tidal at this point), Haplophthalmus mengei was found at the base of an old brick wall. Up to 3 mm in length, Haplophthalmus mengei is white in colour with numerous ridges on its body. In Cornwall it has been found in association with Androniscus dentiger, Trichoniscus pygmaeus and Trichoniscoides saeroeensis.

4. Miktoniscus patiencei (Fig. 7)

Miktoniscus patiencei is a small (up to 4 mm) white woodlouse with a dark central 'stripe' (the gut contents) and a very tuberculate head and body. The profile of the pereion and pleon is stepped. Each eye is composed of a single ocellus. This species had previously been found at two sites in Cornwall, Lantivet Bay (SX 166 518) by Paul Harding and Ogo-dour Cove (SW 667 159) by Adrian Rundle. My only record for Miktoniscus patiencei is from Gew-graze (SW 676 143) only 1.5 km from Ogo-dour Cove. At Gew-graze, the species was found under stones embedded in the earth and vegetation along the edge of a small stream. The stream entered the splash zone of the sea shore at this point, about 10 m above sea level. In addition to Miktoniscus patiencei, Trichoniscoides saeroeensis and Trichoniscus pygmaeus were found in the same microsite. My identification was confirmed by Dr. P.G. Oliver.

5. Trichoniscoides saeroeensis (Fig. 8)

This species, not previously recorded in the south-west, is amongst the smallest of the British woodlice. Up to 3 mm in length, usually smaller, it is easy to overlook. The mildly tuberculate body surface is predominantly white with a pink/orange pigment on the pleon as well as a fairly firm central line of the same colour on the pereion. Perhaps the most striking feature of Trichoniscoides saeroeensis is its eyes, each of which is composed of a single pink/orange ocellus. So far I have recorded Trichoniscoides saeroeensis from seven sites in Cornwall, all of them on the coast. On every occasion the specimens were found in the splash zone of the sea shore, usually below the 20 m mark under stones in damp, but not wet, soil. Where small streams reach the cliff edge, or where a cliff is slumping, often prove to be good sites for recording this species. In its own microsite, I have found Trichoniscoides saeroeensis to be dominant in numbers when found with Trichoniscus pusillus, Trichoniscus pygmaeus, Platyarthrus hoffmannseggii, Haplophthalmus mengei, Androniscus dentiger and Miktoniscus patiencei.

6. Trichoniscus pusillus (Fig. 9)

This species has clearly been under-recorded in Cornwall

(see Harding & Sutton 1985). However, I have found it to be very common in almost any damp location, right down to the splash zone of the seashore. In long periods of dry weather the species becomes difficult to find as it is very prone to desiccation. Often it is the only species, with Oniscus asellus, that can be found in the barren mass of rhododendrons that pass as a "Cornish Estate". Trichoniscus pusillus is shiny in appearance and purple/brown in colour, being up to 5 mm in length. Each eye is composed of three ocelli which, although touching in adults, are widely spaced in juveniles.

7. Trichoniscus pygmaeus (Fig. 10)

Trichoniscus pygmaeus is another species which appears to have been under-recorded in Cornwall. Its very small size (2 mm in length) means that it is easily overlooked. In addition to this, care must be taken not to confuse this species with juvenile Trichoniscus pusillus whose lack of pigment give them the appearance of Trichoniscus pygmaeus. Unlike juvenile Trichoniscus pusillus however, the three ocelli in each eye of Trichoniscus pygmaeus are closely set, usually touching. Trichoniscus pygmaeus can be found almost everywhere where the soil is not too dry. In the splash zone of the seashore I have found it in the same microsites as Trichoniscoides saeroeensis, Haplophthalmus mengei and Androniscus dentiger.

8. Oniscus asellus (Fig. 11)

This species is the most commonly seen woodlouse in Cornwall and can easily be told apart from its Porcellio look-alikes by its glossy body surface, the absence of pleopodal lungs and the three sections of the flagellum of the antenna compared with the two sections of a Porcellio. Up to 16 mm in length, in colour Oniscus asellus looks similar to the plate of Porcellio spinicornis in Sutton (1980) and the two may be confused at a casual glance. Oniscus asellus is the large species you would be most likely to encounter in a wood, or leaf litter therein. It can be found anywhere under stones, rotting wood etc., although it does not have the tolerance of sand dunes shown by its close relative Philoscia muscorum.

9. Philoscia muscorum (Fig. 12)

Up to 11 mm in length, Philoscia muscorum, one of the County's commonest species, can be found in three colour forms, the usual brown, a very attractive red and occasionally, a yellow form. All three forms have a dark median stripe and care must be taken when separating this species from another common woodlouse of our county Porcellionides cingendus. Porcellionides cingendus can also have a median stripe of sorts and is often found with Philoscia muscorum. However Philoscia muscorum has three sections to the flagellum of the antenna and no pleopodal lungs whereas Porcellionides cingendus has two sections to the flagellum and two pairs of pleopodal lungs. For a woodlouse with no pleopodal lungs, Philoscia muscorum copes remarkably well

with the dry conditions of coastal sand dunes where it is often prolific. It can even be found inside a house. At times, a species very rapid in movement.

10. Platyarthrus hoffmannseggi (Fig. 13)

Platyarthrus hoffmannseggi is a common isopod of the Cornish coast, almost always in the company of ants and usually in ant nests. It can be found inland, although it tends to be absent from the tracts of land in the county spoiled by tin mining (acid conditions), even though suitable ant nests seem to be present. The presence of Platyarthrus hoffmannseggi may not be immediately apparent at first as individuals may not be at the surface of the ant nest at the time. However, careful scrutiny of the galleries of the nest will often be rewarded with the site of the blind lodger scurrying along with its frenzied hosts. The species is white in colour, oval in shape, is blind and reaches a length of 2 to 3 mm. It is interesting to note that Platyarthrus hoffmannseggi does not appear to suffer from desiccation as do many of its woodlouse brethren of a similar size, being plentiful during dry spells.

11. Armadillidium nasatum (Figs. 1, 14)

Harding & Sutton (1985) shows this species as being present throughout the Lizard Peninsula. However, in four years I have only recorded Armadillidium nasatum from one site. I found it to be very common around walls all along the lane from Porthleven (SW 63- 24-) to Loe Bar (SW 64- 24-). It even out-numbered the ubiquitous Armadillidium vulgare which was also present at this cliff-top site. Given this, my failure to find Armadillidium nasatum elsewhere is puzzling. A mature specimen with its very prominent scutellum on the head is very distinctive, although juveniles are less so to the naked eye. Curiously all the living specimens I encountered were well under 10 mm in length whereas the numerous dead specimens were all between 10 and 15 mm in length. The body appeared mottled brown and grey although this can be variable.

12. Armadillidium vulgare (Fig. 15)

The commonest pillbug in Cornwall, often called a "Chiggy Pig", Armadillidium vulgare can be found around most of the Cornish coast, especially in sand dunes where it is the dominant species. However, it can be found inland as well in walls and leaf litter. On one occasion at Gear Sands (SW 77- 55-) I saw what I thought to be an aquatic woodlouse in a pool with very warm water swimming along. When I caught it with my net I found it to be a specimen of Armadillidium vulgare alive and well. It was apparently deliberately in the water for when I put it down near the edge of the water, it submerged itself again! Was it trying to keep cool? Another feature of this species in the dunes is the large number of dead specimens found in the bottom of rabbit scrapes and similar type gulleys. Does the unfortunate individual fall into the scrape only to find it can't get out

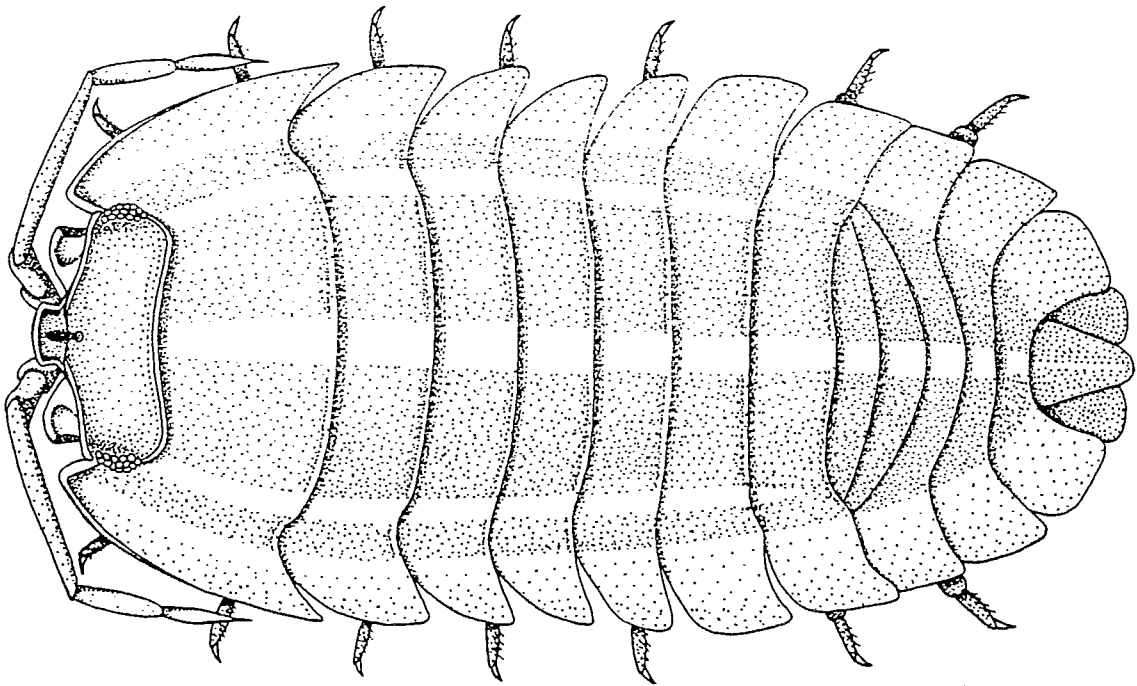


Fig. 1 : Armadillidium nasatum (11 mm).

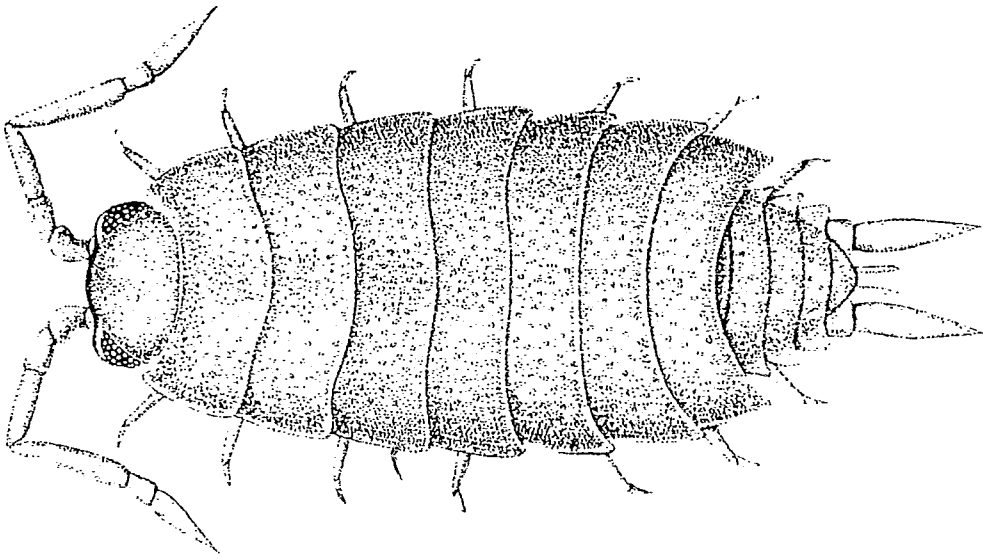


Fig. 2 : Porcellionides cingendus (7 mm)

because the high sides of the prison crumble at any attempt to escape? Armadillidium vulgare can be up to 18 mm long, is very variable in colour, although the variegated form is quite common, as is the slate grey form. A very attractive brick red form can also be found, and all the varieties can have a very shiny body surface. Sometimes found in ant nests.

13. Porcellio scaber (Fig. 16)

Porcellio scaber is one of the most common woodlice in Cornwall. It is usually slate grey in colour but this is variable. Its tuberculate body can be up to 17 mm in length and has a matt appearance. Porcellio scaber is found everywhere from damp woodland to coastal sand dunes and can even be found amongst the rocks of a boulder beach. This is also the species you are most likely to encounter in your home where it does no harm, feeding only on material that is already decaying. In fact Porcellio scaber is the dominant woodlouse in built up areas. The archetypal "Grammer-zow"?

14. Porcellionides cingendus (Figs. 2, 17)

Generally under-recorded, this is a 'Lusitanian' species which is common around the cliff tops of Cornwall. However, this species can be found away from the coast in grass verges, around dung heaps and in leaf litter. It has also proved to be quite common in the built up area of Falmouth. Up to 7 mm in length, its colour is variable but is often mottled brown and yellow. A median line along the pereion, formed by an agglomeration of speckles, is sometimes present. Easily confused with Philoscia muscorum, Porcellionides cingendus is usually slimmer and slower moving than the former species and has a slightly tuberculate body surface.

15. Asellus meridianus (Fig. 18)

I have recorded this species of freshwater isopod on only two occasions, once from the mud of a stagnant pool which had all but dried up, and once from a reservoir. Apart from this, I have found it very difficult to catch the aquatic species.

REFERENCES

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