The discovery of the woodlouse Trachelipus rathkii during 2020 in the Vale of Evesham and surrounding area.

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Trachelipus rathkii (01) favours soils with impeded drainage and is a characteristic woodlouse of riverside meadows (Gregory 2009). Its main distribution is south east England up to Northamptonshire with a cluster of records around the Worcestershire/Gloucestershire border (Whitehead 1988). In addition the British Myriapod and Isopod Group Website reports that this species has been recently discovered near the coast in Yorkshire.


1. Trachelipus rathkii 01.05.20 Littleton Pastures. G. Farmer.

This is a relatively large woodlouse, similar in size to and easily confused with two common species, Porcellio scaber (especially the orange/brown form) (02) and Oniscus asellus (03).

02. Porcellio scaber orange/brown form 02.05.20. G. Farmer.

03. Oniscus asellus 02.05.20. G. Farmer.

It is separated from these two species by having two antennal flagellum segments and five pairs of conspicuous pleopodal lungs.

During the winter 2019/2020 there were exceptionally long periods of flooding along the Avon leaving large amounts of debris (logs and other timber, cut grass and crop stems as well as the obligatory plastic waste) along hedges, banks and fences in many areas. It was whilst removing debris from meadows that I noticed large numbers of woodlice (ten species recorded) along with other invertebrates. At Mike's Meadow near Fladbury I noticed what initially looked like patterned Porcellio scaber so I took a couple for closer inspection. These keyed out to be either P. scaber or Trachelipus rathkii (T. rathkei in Hopkin 1991), a species which I was unfamiliar with. I was somewhat confused by the description of T. rathkii in the key as having the "posterior margin of the first segment of pereon strongly curved". I could not see this feature but the lungs and antennae confirmed the identification as $T$. rathkii. With this 'new' species in my sights I started looking harder as I cleared debris and found this handsome woodlouse at several other sites. Were they there all along and overlooked or are they spreading along the Avon and surrounding area?

## Identification

## Separating Trachelipus rathkii from the common confusion

 species.From my few observations, Trachelipus rathkii moves quite swiftly but not as speedy as Philoscia muscorum and is less likely to clamp down as Oniscus asellus does. They are often coloured with an orange mottling on grey similar to the orange/brown form of $P$. scaber.
The key characters:
Trachelipus rathkii - (04) Surface Rough, less tuberculate than $P$. scaber. Lungs Five (06). Flagellum of antennae Two.
Porcellio scaber - (05) Surface Rough, heavily tuberculate. Lungs Two (08). Flagellum of antennae Two.
Oniscus asellus - Surface Shiny. Lungs None (07). Flagellum of antennae Three.

04. Trachelipus rathkii 01.05.20 Littleton Pastures. G. Farmer

05. Porcellio scaber is heavily tuberculate 'rough'. G. Farmer.

06. Trachelipus rathkii has five pairs of lungs. G. Farmer.


07 left. Oniscus asellus has no visible lungs. 08 right Porcellio scaber has two pairs of visible lungs. G. Farmer

The new sites where T. rathkii were found in spring 2020.
Mike's Meadow - Fladbury - SO99382 45498
Species-rich floodplain hay meadow.
Found under large diameter timber lying on cut crop-stems. Along with Porcellio scaber, Oniscus asellus, Philoscia muscorum, Armadillidium vulgare, Armadillidium depressum, Trichoniscus pusillus agg. and Haplophthalmus danicus.

Mill Bank Meadows - Fladbury - SO99434 45681
Species-poor floodplain grassland. Under flood debris adjacent to spring-fed ditch. Along with Porcellio scaber, Oniscus asellus, Trichoniscus pusillus ag., Androniscus dentiger and Haplophthalmus danicus.

Haines Meadows - Wick - SO96803 47037
Floodplain grassland adjacent to river Avon. Deep flood debris, mixture of cut grass, crop-stems and woody debris. Also found, Oniscus asellus, Philoscia muscorum and Androniscus dentiger.

Littleton Pastures - Middle Littleton - SP08098 46630
Floodplain grassland adjacent to Littleton Brook. Small amount of woody debris and brick rubble. Also present were Porcellio scaber and Armadillidium vulgare.

Hipton Hill orchards - Lenchwick - SP03129 48415
Gravel car parking area. Under wooden board on gravel. The least likely of the sites but Hipton Hill had water running across the surface all winter. Gregory (2009) notes that T. rathkii is also found in synanthropic sites in floodplains and further afield. Found with Oniscus asellus and Trichoniscus pusillus agg.

## Acknowldgement

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## References

Gregory, S. 2009. Woodlice and Waterlice (Isopoda: Oniscidea \& Asellota) in Britain and Ireland. FSC Publications, Shrewsbury. Hopkin, S. 1991. A Key to the Woodlice of Britain and Ireland. Field Studies 7:599-650. Field Studies Council, Shrewsbury. Whitehead, P.F., 1988. New sites for Trachelipus rathkei in England. Isopoda 2:41-44. British Myriapod and Isopod Group (BMIG) website. Available at http://www.bmig.org.uk/home [Accessed 19.08.2020]

## Images

1. Trachelipus rathkii 01.05.20 Littleton Pastures. G. Farmer. 02. Porcellio scaber orange/brown form 02.05.20. G. Farmer.
2. Oniscus asellus 02.05.20. G. Farmer.
3. Trachelipus rathkii 01.05.20 Littleton Pastures. G. Farmer.
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