

FRESHWATER SPECIES OF LUNDY

Kevin Rowley – national recorder for the Aquatic Heteroptera (water bugs) Recording Scheme for Britain and Ireland

As I was verifying and communicating about Lundy Water Bug and Beetle sightings with Alan Rowland it started to fuel my interest. It peaked when he found the Saucer Bug (*Ilyocoris cimicoides*) on Lundy for the first time and I wrote a piece on the news in www.aquaticbugs.com, speculating how it travelled so far from the mainland. This got me thinking that with the current climate there are many species that are making dramatic changes in their distribution at the moment, and maybe I could find other new species on Lundy.

I had read a few wildlife accounts of Lundy and many people I knew had been there birding in the past, so I booked up a three-day trip from 15 to 17 April 2025, staying in the Castle Keep. When I mentioned it to a walking friend of mine, Dave Gleave, he already had it on his bucket list, so we teamed up for a visit.



▲ Dave after our bumpy crossing (photo: Kevin Rowley)

In preparation, I looked at all the data sets of what had been found before and thoroughly read 'The Streams, Ponds and Wells of Lundy' (Rowland, 2023) to formulate an approach. On day 1 I would travel to the far end of the island and dip any water bodies in the far third. The second day would be long and the focus would be on the south and centre of the island, especially Pondsburry and the third day would be any remaining areas.

The changeable weather was most evident on day 1 as we managed to get on the island just as a Force 7 was coming in. The crew of MS Oldenburg were handing out sick bags (at least to those that were looking green, including me!). Dave was a bit more of a sea dog but still pleased to be off the boat.

With feet on dry land, although the weather was worsening we were not deterred and walked the length of the Island sampling as we went. However it had been dry so a lot of the streams were new and water inverts were hard to find.

The first pond we sampled was Quarterwall Pond, which looked like a natural pond in the moorland over granite, but is a test pit dug by the Lundy Granite company in 1863 (Rowland 2023). This had a Community Conservation Index (CCI; Chadd and Extence, 2014) of 10.29, indicating Fairly High Conservation value. I found six species including *Proasellus meridianus* (Water Slater) that shreds the leaf litter, *Sigara lateralis* and *Callicorixa praeusta* (Waterboatmen) that like little or no vegetation, and the enigmatic Screech Beetle (*Hygrobia hermannii*) so named because of the sound it emits if you hold it too tight.

▼ Table 1 Quarterwall Pond

Species	Common Name	Habitat	Comments
<i>Asellus meridianus</i>	Water Slater		Common
<i>Callicorixa praeusta</i>	Lesser Water Boatman		Common
<i>Hygrobia hermanni</i>	Screech Beetle	Still water usually over mud in ponds and ditches	Common
<i>Noterus clavicornis</i>	Diving water beetle	Lowland grassy ponds	Common
<i>Notonecta viridis</i>	Greater Water Boatman		Common
<i>Sigara distincta</i>	Lesser Water Boatman		Common
<i>Sigara lateralis</i>	Lesser Water Boatman		Common

The rest of the day I dipped in many North End seasonal rock pools, grassy pools, temporary water and streams and only found *Hydroporus pubescens*, a water beetle that is associated with grassy habitats. I expect with all the current and recent water the populations were dispersed and hadn't started to settle yet. It was a relief to get back to the Marisco Tavern to dry off and in time for Warden Joe's Wildlife talk.

Day 2 started early and I had a busy day ahead with my sights on seven ponds to allow a focused search on Day 3.

Kistvaen Pond (Rocket Pools)

This had a good amount of water that merged the smaller ponds into just one. There was also older aquatic vegetation and mosses around the edge and I managed to find *Hydroporus pubescens* again, *Agabus nebulosus* – a water beetle – and *Callicorixa praeusta*, a water boatman that travels easily and colonises quickly. *Agabus montanus*, a water beetle that likes shallow, seasonal acidic water, was the first sighting on Lundy.



▲ Kistvaen Pond (photo: Kevin Rowley)

▼ Table 2 Kistvaen Pond (Rocket Pole Ponds)

Species	Common Name	Habitat	Comments
<i>Agabus montanus</i>	Diving Water Beetle	In ditches, ponds and peaty pools, usually on heaths	New record
<i>Agabus nebulosus</i>	Diving Water Beetle	In ditches, lakes, silt ponds and pools, often in new or ephemeral sites	Last seen 1998
<i>Asellus meridianus</i>	Water Slater		Common
<i>Callicorixa praeusta</i>	Lesser Water Boatman		Common
<i>Hydroporus gyllenhalli</i>	Diving Water Beetle	Small acidic water bodies	Common
<i>Hydroporus pubescens</i>	Diving Water Beetle	All kinds of temporary water and often in permanent acid waters	Common



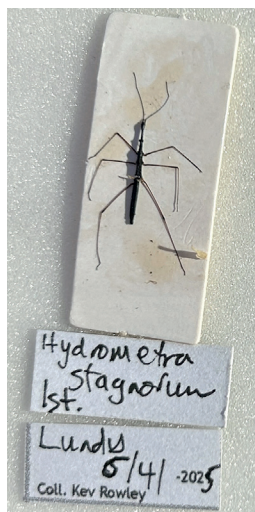
▲ Rocket Pole Pond (photo: Kevin Rowley)

Rocket Pond 2

This was a steep sided small quarry that is heavily populated by large Mirror Carp, hence no invertebrates. I only found *Asellus meridianus* which I expect will have been shredding some of the vegetation litter.

South West Field Pond

This was a stream that ran through the fields and had been dammed just before the cliffs. There was plenty of vegetation and it had water in but it appeared to be recent water and nothing was found here.



Pondsbury

The best location by far was Pondsbury. The water levels here were well up and much of the vegetation around the edges had recently flooded. However by walking out and dipping a bit further, especially in the sedges and reed mats, it was still productive – I found 16 species. Of these the Dumbbell Spider (*Argyronecta aquatica*) had not been seen on the island for 25 years and another six species were new for the island, including *Hebrus ruficeps*, *Cercyon ustulatus*, *Chaetarthria seminulum/simillima*, *Copelatus haemorrhoidalis*, *Paracymus scutellaris* and *Hydrometra stagnorum* (all Water Bugs and Beetles).

Hydrometra stagnorum or Water Measurer is a really dainty water bug with a long head and eyes part way along. It walks on still water around the marginal reed edges. In England and Wales it is fairly common but this was the first time it had been seen on Lundy. Winged versions of the bug can find the right weather patterns and fly from the mainland. If they find the habitat to their liking they can form new colonies.

◀ *Hydrometra stagnorum* (photo: Kevin Rowley)



▲ Pondsburry (photo: Kevin Rowley)

Using Chadd and Extence's CCI I calculated a score of 24.94 which indicates sites supporting several rarities including species of national importance or at least one extreme rarity (e.g. taxa included in the British Red Data Books) and/or a community of very high taxon richness. This score indicates **Very high conservation value** (potentially of national significance and may merit statutory protection).

There were four species that significantly impacted this score: *Cercyon ustulatus*, found in muddy banks of streams and ponds amongst litter; *Helocares punctatus*, found on moist peat in wet heath, in bogs and in acid pools; *Paracymus scutellaris*, found in shallow seepage over peat, often amongst mosses; and a female *Chaetarthria seminulum/simillima*, found among moss in rafts of vegetation and in habitats with more exposed mineral substrata.

▼ Table 3 Pondsburry

Species	Common Name	Habitat	Comments
<i>Argyronecta aquatica</i>	Diving Bell Spider		Last seen 1993
<i>Asellus meridianus</i>	Water Slater		Common
<i>Cercyon ustulatus</i>	Crawling Water Beetle	Wet plant litter in marshes	New record
<i>Chaetarthria seminulum/simillima</i>	Crawling Water Beetle	Moss and mud in fens and bogs	New record
<i>Copelatus haemorrhoidalis</i>	Piles Beetle	Richly vegetated lowland ponds and ditches with mosses	New record
<i>Hebrus ruficeps</i>	Sphagnum Bug	Wet and partly submerged moss, especially Sphagnum.	New record
<i>Helocares punctatus</i> (Nationally scarce)	Crawling Water Beetle	Peat and Sphagnum pools	Common
<i>Hesperocorixa linnei</i>	Lesser Water Boatman	In well vegetated ponds and lakes	First 2024
<i>Hydrometra stagnorum</i>	Water Measurer	Reedy margins of water bodies	New record
<i>Hydroporus pubescens</i>	Diving Water Beetle	All kinds of temporary water and often in permanent acid waters	Common
<i>Noterus clavicornis</i>	Diving Water Beetle	Lowland grassy ponds	Common
<i>Notonecta viridis</i>	Greater Water Boatman		Common
<i>Paracymus scutellaris</i>	Crawling Water Beetle	Sphagnum bogs and in pools and flushes on acid moorland	New record
<i>Polycelis niger</i>	Flatworm		Common
<i>Sigara distincta</i>	Lesser Water Boatman		Common
<i>Sigara lateralis</i>	Lesser Water Boatman		Common



▲ Quarry Pond (photo: Kevin Rowley)

Quarry Pond

We visited Quarry Pond on Day 3. This was steep sided but with a shallow margin that was well vegetated, and I had high hopes. However, I only found four species that indicated a mid successional water body. It was only the next day when I returned and could see all the Golden Orfe *Leuciscus idus* that I realised they must be predated and keeping the invertebrates down.

▼ Table 4 Quarterwall Quarry.

Species	Common Name	Habitat	Comments
<i>Asellus meridianus</i>	Water Slater		Common
<i>Cloeon dipterum</i>	Pond Olive Mayfly		Common
<i>Ischnura elegans</i>	Blue-tailed Damselfly		Common
<i>Noterus clavicornis</i>	Water Beetle	Lowland grassy ponds	Common
<i>Notonecta viridis</i>	Greater Water Boatman		Common

Ackland's Moor Pond

This was hidden on the brow of the hill – a steep sided rocky pool with some vegetation on two sides. One side did have a graduated edge where most of the inverts were found.

▼ Table 5 Acland's Moor Pond.

Species	Common Name	Habitat	Comments
<i>Callicorixa praeusta</i>	Lesser Water Boatman		Common
<i>Colymbetes fuscus</i>	Diving Water Boatman	Grassland lowland temp pools	Last seen 2020
<i>Corixa punctata</i>	Lesser Water Boatman		Common
<i>Polycelis niger</i>	Flatworm		Common
<i>Sigara distincta</i>	Lesser Water Boatman		Common
<i>Sigara lateralis</i>	Lesser Water Boatman		Common

Barton Field Pond

There were two ponds behind the cottages, one of which was very shallow and mostly mud with no vegetation. I was going to survey both but it appeared that the geese had taken a liking to one and were defending it. Fortunately the other pond was vacant and I made a quick dash to do a couple of dips. This was a silty pond with grassy margins all the way round, apart from one side, that had reeds grown up.

▼ Table 6 Barton Field Pond.

Species	Common Name	Habitat	Comments
<i>Agabus nebulosus</i>	Diving Water Beetle	In ditches, lakes, silt ponds and pools, often in new or ephemeral sites	Last seen 1999
<i>Corixa punctata</i>	Lesser Water Boatman		Common
<i>Helophorus grandis</i>	Crawling Water Beetle	Breeding in stagnant freshwater amongst grasses	New record
<i>Hydroporus pubescens</i>	Diving Water Beetle	All kinds of temporary water and often in permanent acid waters	Common
<i>Laccobius bipunctatus</i>	Crawling Water Beetle	Muddy shallows on low ground	New record
<i>Sigara lateralis</i>	Lesser Water Boatman		Common

Discussion

It was very noticeable that some of the water beetles and bugs that had been on site previously like *Ochthebius lejolissii*, *Hydroporus longulus*, *Hydroporus discretus* and *Glaenocoris propinqua* didn't appear to be there. This could be down to the time of the year maybe, that there had just been a storm, or maybe the loss of historical farming practices and the recent hot, dry springs and summers. I would have expected some species as I felt as I was in the right habitats. I would like to find them should there be an opportunity to visit again.



▲ Kev on a lunch break (photo: Dave Gleave)

A high percentage of the species I found were new to the island, which is surprising as some of them were distinctive and fairly common on the mainland – such as *Hydrometra stagnorum*, *Copelatus haemorroidales*, *Hydroporus memnonius* or *Hebrus ruficeps* – all of which I am sure would have been identified if found before. Most water bugs and beetles can fly with their hard/leathery wing cases covering over delicate wings. If they get into weather currents it is surprising how far they can travel and if when they land they find suitable habitat and a mate, they can form new colonies. It is becoming more of a trend of some species expanding their range across the UK and with the changing climate they seem to have more of an urgency to move now than they have in the past. It feels great to be documenting some of that.

Acknowledgements

A big thank you to Alan Rowland who advised me on all the locations and current records as well as arranging my permits. Thank you to the staff who were so relaxed and friendly, allowing us to drip dry and recuperate in the Marisco Tavern, and to Warden Joe for including us in his talk which resulted in many people keeping up to date with what we had found. Thank you to Dave Gleave for letting me get on and dip so many locations as well as being great company. We both had some memorable wildlife experiences with Puffins, Ring Ouzels and lambing in such a stunning emotional landscape.

References

aquaticbugs.com

Chadd R and Extence C (2004). *The conservation of freshwater macro-invertebrate population: a community-based classification scheme*. Aquatic Conserv: Mar. Freshw. Ecosyst. 14: 597-624

Rowland, A (2023). *The Streams, Ponds and Wells of Lundy*. Journal of the Lundy Field Society 8: 21-40