



▲ Caddis *Tinodes assimilis* larva from Millcombe Stream (photo: Alan Rowland).

Trichoptera (Caddis flies)

The larva of the cased caddis *Micropterna sequax* occurred in St John's Stream above Brambles living in a vegetation case, where also a pupal case of *Limnophilus vittatus* was found. The caseless caddis larva *Tinodes assimilis* was found in the Millcombe Stream above the confluence (see photo). *Tinodes* larva is small (up to 11mm in length) and has short strong legs and the last abdominal segment has a pair of jointed appendages. This larva lives in a narrow tubular gallery of silk, often covered in debris, which is attached to stones.

Coleoptera (Water Beetles)

Two species were seen in Brambles Pond in March: the adult Dytiscid, *Hydroporus* sp., and a Dytiscid larva as yet unidentified.

Conclusions

The freshwater invertebrates in 2023 appear to have recovered well from the severe drought of 2022 when many of the ponds and streams dried up. Many species survive dry conditions by burrowing into the sediments or aestivating amongst the roots of aquatic plants. It is likely that the UK will face more droughts in the future due to climate change, and aquatic animals will have to adapt or become extinct.

Alan Rowland would like to thank Dr Ian Wallace who confirmed the identification of the Caddis species Tinodes assimilis.

TERRESTRIAL INVERTEBRATES

Alan Rowland

Unless otherwise stated, all sections were compiled by Alan Rowland. The majority of these records have been extracted from the LFS Logbook stored in the Marisco Tavern where those visiting Lundy have shared their findings. Some sightings were not used as the recorder left neither name nor contact information to enable us to verify them. These records are supplemented by observations submitted to iRecord by other visitors to Lundy. Additional records have been sent to me directly by those who left their properties on their last day and made observations but did not return to the Tavern to record them. Not all records can be verified without descriptions or photographs. However, some photographed species have been shared with national or regional experts who have verified or determined them.



▲ A Silverfish *Lepisma saccharina* found in the Dairy in May (photo: Alan Rowland).

Thysanura (Silverfish)

A single **Silverfish** (*Lepisma saccharina*) was reported by Alan and Sandra Rowland when they were staying in the Dairy on 31st May.

Mollusca (Slugs and Snails)

2023 was a good year for records of slugs and snails. The larger species were most obvious, but diligent searching for other species is made more difficult by their quite small size. Eight species of terrestrial snails have been recorded.

Brown-lipped (*Cepaea nemoralis*) and

White-lipped (*C. hortensis*) Snails

were recorded between March and September in Millcombe, St John's Valley, around Rocket Pole, the Village, Upper East Side Path and the Castle area with up to 12 Brown-lipped snails being seen in Millcombe by Alan and Sandra Rowland and Mandy Dee. The other large species, the **Garden Snail** (*Cornu aspersum*) was recorded from March to September in Millcombe and around Hanmers by the same people with up to six in Millcombe.

A single *Balea heydeni* was recorded in the walls of the Nook in May. A **Glass Snail** (*Vitrina pellucida*) was seen on 21st March at Government House. This was last reported in 2011. The walls around Millcombe House were good hunting grounds



▲ Brown-lipped Snail *Cepaea nemoralis* in St. John's Valley, September (photo: Mandy Dee).



▲ White-lipped Snail *Cepaea hortensis* on Castle Hill, September (photo: Mandy Dee).

in May with 11 **Hairy Snails** (*Trochulus hispidus*), a **Heath Snail** (*Helicella itala*) – both new for Lundy -and up to 24 **Two-toothed Door Snails** (*Clausilia bidentata*) being recorded there by Alan and Sandra Rowland on 13th May, and a single specimen by Richard Bashford on 12th February. Mandy Dee recorded another in St Helen's Copse on 18th September. Whilst there, Mandy also recorded a **Rounded Snail** (*Discus rotundatus*) not recorded since 1983. Two **Wrinkled Snails** (*Candidula intersepta*) were found in the barrack block ruins near the Old Hospital on 4th June by Alan and Sandra Rowland. This species is previously unreported on Lundy.



▲ *Hairy Snail Trochulus hispidus on the walls behind Government House, May (photo: Alan Rowland).*



▲ *Balea heydeni on the wall of The Nook, May (photo: Alan Rowland).*



▲ *Two-toothed Door Snail Clausilia bidentata St.Helen's Copse, September (photo: Mandy Dee).*



▲ *Glass Snail Vitrina pellucida near Government House, March (photo: Alan Rowland).*



▲ *Rounded Snail Discus rotundatus St.Helen's Copse, September (photo: Mandy Dee).*



▲ *Wrinkled Snail Candidula intersepta Old Hospital, June (photo: Alan Rowland).*

Two records of **Tree Slugs** (*Lehmannia marginata*) were made; the first by Tim Jones on 21st June at Lametor, the second by Paul Dean on 4th September at Hanmers.

Records of freshwater molluscs can be found in the Freshwater Invertebrates section of the report.

▼ *Tree Slug Lehmannia marginata near Hanmers, September (photo: Paul Dean).*



Arachnida (Spiders, Harvestmen, Mites and Ticks)

Compiled by Mark West

Mites

Starting with some of the smallest arachnids, a species new to the Lundy list was found by David Botcherby, who photographed Gorse Spider Mites and an area of Gorse covered by their webs near Rocket Pole in September. A follow-up literature search uncovered an academic paper - *The impact of the Gorse Spider Mite, Tetranychus lintearius, on the growth and development of Gorse, Ulex europaeus* (Davies, Ireson, Allen, 2006), which examined their possible use with other biological agents to control European Gorse in Tasmania.

The potential for damage to Gorse on Lundy and possible effects on other species prompted further investigation with members of the British Arachnological Society. Feedback was received not only from the UK but also from Holland, France, and the Channel Islands. The general view was that sporadic outbreaks occur locally, with sightings reported on the North Cornwall coast, Dartmoor, and East Devon, as well as further afield, including Hounslow Heath, the cliffs of Jersey, and an area on the Brittany coast with a remarkably similar shape to Lundy. The reasons for the outbreaks are unclear, but unfavourable weather conditions or a locally impoverished ecosystem, e.g., poor soil conditions were suggested as factors. Reassuringly, the consensus was that while the mites might be detrimental, they are not very effective as a means of Gorse control in the UK, so we are not going to suddenly see Lundy denuded, although it could be worth keeping a watch for any lasting effects.

Other mites reported were an *Anystis* sp. found in a bait box on Beach Road by Stuart Cossey in March and Red Velvet Mites (*Trombididae*) seen on rocks at the Landing Bay, around the North Light and on my dessert plate in the Tavern in June!



▲ Webs formed by the Gorse Spider Mite *Tetranychus lintearius* on Gorse bushes near Rocket Pole, September (photo: David Botcherby).



▲ A group of Gorse Spider Mites in their web on Gorse near Rocket Pole (photo: David Botcherby).

Harvestmen

On to Harvestmen, long-legged arachnids that, unlike true spiders, have a single fused body and no waist. Mandy Dee found a *Leiobunum rotundum* in Millcombe in May and a Common Harvestman (*Paroligolophus agrestis*) at the Ugly in November.

Spiders

Neil Barnes found a fast-moving Sac Spider, possibly *Clubiona terrestris*, on the Quarries path in the July rain and a Toothed Weaver, *Textrix denticulata* in Old Light Cottage in October.



▲ Wolf Spider *Pardosa* sp. with one leg missing, carrying an egg sac, June (photo: Mark West).



▲ Tube web of *Segestria* sp., complete with trip wires, June (photo: Mark West).



▲ Toothed Weaver *Textrix denticulata* in wall behind St Helen's Church, June (photo: Mark West).



▲ Sac Spider *Clubiona* sp., Quarries Path, July (photo: Neil Barnes).



▲ Cave Spider *Meta menardi* in the Beach Road cave, June (photo: Mark West).



▲ Egg sac of the Cave Spider in the Beach Road cave, June (photo: Mark West).



▲ Comb-footed Cellar Spider *Nesticid* sp. in the Beach Road cave, June (photo: Mark West).

Family	Species		Where	When	
Funnelweb spider	<i>Agelenidae</i>	<i>Tegenaria/Eratigena sp.</i>	House Spider	Timekeeper's Hut	Jun-23
Funnelweb spider	<i>Agelenidae</i>	<i>Tegenaria/Eratigena sp.</i>	House Spider	Old Light Cottage	Oct-23
Funnelweb spider	<i>Agelenidae</i>	<i>Textrix denticulata</i>	Toothed Weaver	Dry stone wall behind Church	Jun-23
Funnelweb spider	<i>Agelenidae</i>	<i>Textrix denticulata</i>	Toothed Weaver	Old Light Cottage	Oct-23
Orbweb spider	<i>Araneidae</i>	<i>Araneus diadematus</i>	Garden Spider	North Light	Jun-23
Orbweb spider	<i>Araneidae</i>	<i>Araneus diadematus</i>	Garden Spider	Earthquake	Jun-23
Orbweb spider	<i>Araneidae</i>	<i>Zygiella x-notata</i>	Missing Sector Orb Weaver	North Light (many)	Jun-23
Sac spider	<i>Clubionidae</i>	<i>Clubiona sp. possibly terrestris</i>		Quarries path	Jul-23
Wolf spider	<i>Lycosidae</i>	<i>Pardosa nigriceps</i>		West side path ½ way to ¼ wall	Jun-23
Wolf spider	<i>Lycosidae</i>	<i>Pardosa sp.</i>		Lower East Side Path	Jun-23
Wolf spider	<i>Lycosidae</i>	<i>Pardosa sp. probably pullata</i>		Lower East Side Path	Jun-23
Comb-footed cellar spider	<i>Nesticidae</i>	<i>Nesticid sp.</i>		Beach Road cave	Jun-23
Cellar spider	<i>Pholcidae</i>	<i>Pholcus phalangioides</i>	Daddy Long-legs Spider	Dairy (6)	May-23
Cellar spider	<i>Pholcidae</i>	<i>Pholcus phalangioides</i>	Daddy Long-legs Spider	Vestry (3)	Jun-23
Jumping spider	<i>Salticidae</i>	<i>Salticus scenicus</i>	Zebra Spider	Dry stone wall behind Church	Jun-23
Tubeweb spider	<i>Segestriidae</i>	<i>Segestria sp. possibly senoculata</i>	Snake's-back Tubeweb Spider	North of quarries (web only)	Jun-23
Long-jawed orbweb spider	<i>Tetragnathidae</i>	<i>Meta menardi</i>	Cave Spider	Beach Road cave	Jun-23
Long-jawed orbweb spider	<i>Tetragnathidae</i>	<i>Metellina merianae</i>		Beach Road cave	Jun-23
Tangle-web spider	<i>Theridiidae</i>	<i>Theridion melanurum or mystaceum</i>		Below ¾ wall east side	Jun-23

Other spiders photographed or entered into the logbook are listed in the table including the Cave Spider *Meta menardi*, found with several egg sacs in the cave near the jetty end of Beach Road in June (many thanks to Andrew Cleave for the tip). A Long-jawed Orbweb Spider, *Metellina merianae* and, excitingly, a Comb-footed Cellar Spider (*Nesticid sp.*) were also found in the cave at the same time. There are only two *Nesticid* species in the UK. While indistinguishable without a microscope, either would be a good find; one particularly so. The more likely *Nesticus cellulanus* is relatively widespread but not on the list of spiders previously seen on Lundy, and *Kryptonesticus eremita* is extremely rare and (so far) only found on Flat Holm island, not too far away up the Bristol Channel.

The table (left) lists the spider records for 2023, 19 in total. Other than the *Nesticid* all have been recorded before. The current Lundy list of all Arachnids (156 spp.) can be found on the LFS Website. Spider identification can be challenging, and for some genera, for example, the *Pardosa* Wolf Spiders, confirmation of many of the species is not possible without microscopic examination. Needless to say, good photographs of body and leg conformation, showing shape, colouration, and size, are helpful, as are macro shots showing the eye arrangement if the spider stays still for long enough! *Please keep entering records in the logbook and sending in photographs.*

Isopoda (Woodlice)

Species were very sparsely recorded this year, with only four Pill Woodlouse (*Armadillidium vulgare*) being recorded by Alan and Sandra Rowland, who found two outside and one inside the Dairy on 1st June. Rob Skinner also recorded one on 5th May at Quarter Wall.

Myriapoda (Centipedes and Millipedes)

Pill Millipedes (*Glomeris marginata*) were recorded between 29th April and 16th September in Millcombe and St John's Valleys by Dave Jones, Bee Cox and Mandy Dee who all recorded single sightings.



▲ Pill Woodlouse *Armadillidium vulgare* The Dairy, June (photo: Alan Rowland).

A False Flat-backed Millipede (*Nanogona polydesmoides*) was seen by Mandy Dee in St Helen's Copse on 18th September. This is only the third record for Lundy and the first sighting since 2013, when our resident expert, Keith Lugg, moved to his new home in Mid Yell on the Shetlands. Although superficially looking like a Flat-backed Millipede, the common name gives it away. Having up to 30 segments, as opposed to around 20 in *Polydesmus* sp., is what separates them.

▼ False Flat-backed Millipede *Nanogona polydesmoides* St.Helen's Copse, September (photo: Mandy Dee).



Hemiptera/Heteroptera (True Bugs)

There were seven sightings of **Gorse Shieldbug** (*Piezodorus lituratus*) between 23rd March and 5th July all either on the Upper East Side Path between Millcombe and along the field edges where Gorse grows. In all, 23 individuals were recorded, which included five instars on the last date. All records were by Alan and Sandra Rowland.



▲ Gorse Shieldbug *Piezodorus lituratus* instar on Gorse in Millcombe, September (photo: Alan Rowland).

Coleoptera (Beetles)

All the usual large and easily identified beetles were reported this year. In total 22 different species were recorded. *Chrysolina banksii* was recorded for the third time by Roger and Matt White – this could be a gradual colonisation.

Carabidae (Ground Beetles)

A **Green Tiger Beetle** (*Cicindela campestris*) was recorded only once, on 21st May by Tim Dave, Tim Jones, Ella Berry and Joe Parker at the North End. A **Bronze Carabid Beetle**, (*Carabus nemoralis*) was recorded on 16th May by Alan and Sandra Rowland in the Tavern. **Three Black Cock Beetles** (*Pterostichus madigus*) were recorded by Alan and Sandra Rowland at the Old Hospital on 19th May.



▲ Bronze Carabid Beetle *Carabus nemoralis* found in the Tavern, May (photo: Alan Rowland).

Silphidae (Carrion beetles)

Neil Barnes found a beetle larva on the Upper East Side Path on 21st July, which on examination proved to be another sighting of a Carrion Beetle larva (*Silpha tristis*).



▲ Black Cock Beetle *Pterostichus madigus* Old Hospital, May (photo: Alan Rowland).

Staphylinidae (Rove beetles)

Single sightings of Devil's Coach Horse (*Ocyopus olens*) were made three times, Mandy and Chris Dee saw one on 14th April near Hanmers, and Karen Cole and Alan Henshaw saw one there



▲ Devil's Coach Horse *Ocyopus olens* Lower East Side Path, November (photo: John Hedger).



▲ Larva of the Carrion Beetle *Silpha tristis* Upper East Side Path, July (photo: Neil Barnes).



▲ *Earth-boring Dung Beetle* *Geotrupes stercorosus* Upper East Side Path, June (photo: Alan Rowland).



▲ *Rosechafer* *Cetonia aurata* (photo: Alan Rowland).



▲ *Lined Click Beetle* *Agriotes lineatus* on Gorse at Rocket Pole, May (photo: Alan Rowland).

on 12th November. John Hedger reported one on the Lower East Side Path on 6th November. The final sighting was by Trudy Shees at the Earthquake on 14th December. C Laine queried a distinctive beetle above the Battery on 16th April. It was *Staphylinius erythropterus*, frequently confused with *S. caesareus* which does not occur on Lundy.

Geotrupidae (Dor beetles)

Four species of our usual Dor beetles were recorded again this year. **Minotaur Beetles** (*Typhaeus typhoeus*) were seen early in the year on 24th March by an anonymous recorder, on 14th April by Mandy and Chris Dee at the Old Light, on the 3rd May by Duncan Greenhill at the Battery, and lastly on 15th May a female was recorded at Jenny's Cove by Alan and Sandra Rowland. Unidentified formally, but probably the common **Woodland Dor Beetle**, (*Anaplopterus stercorarius*) featured in 12 records of 19 individuals between April and October. It was found all over the island by many visitors. The **Earth-boring Dung beetle** (*Geotrupes stercorosus*) was only seen twice. Alan and Sandra Rowland saw two on the 25th and one on the 29th of June, all on the Upper East Side Path. Finally, Rob Skinner recorded *Geotrupes spiniger* on 3rd May in the Camping Field.

Scarabaeidae (Scarab beetles)

The most common and easily seen of all our beetles, **Rosechafer** (*Cetonia aurata*), featured in 25 records of 60 individuals all over the island between May and August. Recorders were Tim Davis, Tim Jones, Ella Barry and Joe Parker, Alan and Sandra Rowland, Jane and Nick Taylor, Sally Wadsworth, Carol Lee and Rebecca and Richard Taylor.

Two sightings of **Cockchafer** (*Melolontha melolontha*) were made by Tim Davis and Tim Jones. This species has never before been recorded on Lundy, but they saw one on 23rd May at the North End and another on 25th May at Pondsbury. This is an exciting new species but until we have photographic evidence, it will have to be a probable sighting.

Elateridae (Click Beetles)

A beetle new to Lundy, the **Lined Click Beetle** (*Agriotes lineatus*) was found by Alan and Sandra Rowland on Gorse near Rocket Pole Pond on 21st May 2023.

Cantharidae (Soldier beetles)

Common Red Soldier Beetle (*Rhagonycha fulva*) was prolific this year along the Upper East Side Path where it was recorded on six occasions by Sandra and Alan Rowland. Eight individuals on 25th June, 13 on 26th, 20 on 29th, 24 on 1st June, 56 on the 2nd and 9 on the 5th. A total of 213 individuals were recorded.

Tenebrionidae (Darkling beetles)

Single sightings of **Sulphur Beetles** (*Ctenopus sulphureus*) were made on 24th June at Government House and 1st July on the Upper East Side Path by Alan and Sandra Rowland. One other was recorded in the same location by crypticww on the 8th July.

Meloidae (Blister beetles)

A **Black Oil Beetle** (*Meloe proscarabaeus*) was recorded by A Powell Chandler on the Beach Road on 23rd February and two unattributed Oil beetles (*Meloe* sp) by Shaun Barnes on Montagu Steps on 10th April and at the Castle by Ann and Tony Taylor on 17th April. The South End of the island in early Spring is the place and time to look for this large beetle.

Coccinellidae (Ladybirds)

Neil Barnes found a **Hieroglyphic Ladybird** (*Coccinella hieroglyphica*) around Pondsbury on the 21st June. Ladybirds are poorly reported on Lundy. The last record of this species was on the BENHS trip in 2014.

Chrysomelidae (Seed and Leaf beetles)

The third record of *Chrysolina banksii* was made by Roger and Matt Whiter on 18th Jun in the Village area. This is a common species on the mainland and seems to be colonising Lundy. The **Heather Beetle** (*Lochmaea suturalis*) was recorded in Millcombe by Alan and Sandra Rowland on 13th May and they also recorded a **Willow Leaf Beetle** (*L. caprea*) on the same day. The minute **Lundy Cabbage Weevil** (*Psylliodes luridipennis*) ever present on Lundy Cabbage but not often reported was recorded by Samuel Gray on 4th September and the **Lundy Cabbage Leaf Weevil** (*Ceutorhynchus contractus* var. *pallipes*) by Alan and Sandra Rowland in Millcombe on 15th May.



▲ *Sulphur Beetle* *Ctenopus sulphureus* Upper East Side Path, June (photo: Alan Rowland).



▲ *Hieroglyphic Ladybird* *Coccinella hieroglyphica* near Pondsbury, June (photo: Neil Barnes).



▲ *Willow Leaf Beetle* *Lochmaea caprea* Millcombe, May (photo: Alan Rowland).



▲ Greenbottle Fly *Lucilia sericata* Rocket Pole September (photo: Mandy Dee).



▲ Semaphore Flies *Poecilobathus nobilitatus* Millcombe Pond, June (photo: Tim Jones).

Diptera (True Flies)

Sam Bosanquet

As usual, there was little Diptera recording on Lundy in 2023, with just 23 records of 13 species. Most records were of Hoverflies (Syrphidae; six common species) and *Tachina grossa* (Tachinidae; four records). Notable species for the island in 2023 were: *Lucilia sericata* (Calliphoridae): photographed at Rocket Pole on 15/9 by Mandy Dee, representing the first confirmed record of this common Greenbottle from the island since 1997; *Rondaniola bursaria* (Cecidomyiidae): galls photographed on Ground-ivy by the Lower East Side Path on 19/8 (SB) representing the first Lundy record and one of very few in south-west England judging by the NBN. Tim Jones photographed a group of Semaphore Flies (*Poecilobathus nobilitatus*) signalling with their wings on the surface of Millcombe Pond in June. The island Diptera total now stands at 484 species.

Thanks to the following observers who recorded Diptera on Lundy in 2023: Sam Bosanquet, Mandy Dee, Tim Jones, Alan Rowland.



▲ Hornet *Vespa crabro* Montagu Steps, October (photo: Neil Barnes).

Hymenoptera (Bees, Wasps & Ants)

Sam Bosanquet

Just five records of Bees, Wasps, and Ants were made on the island in 2023: two of bumblebees, two of Heather Bee *Colletes succinctus*, and one of a Hornet *Vespa crabro*. The Hornet was basking in the autumn sunshine on a granite rock near Montagu Steps on 21/10 (NB) and is one of very few Lundy records. The island Hymenoptera total remains at 255 species.

The following observers recorded Hymenoptera on Lundy in 2023: Neil Barnes, Sam Bosanquet, and Alan Rowland.

Odonata (Dragonflies and Damselflies)

Nine species of Odonata comprising the usual two damselfly species and seven dragonfly species were recorded over the year. Records of Odonata nymphs can be found in the Freshwater Invertebrates section.

Dragonflies

Single Common Darters (*Sympetrum striolatum*) were again seen at both Pondsbury and Quarter Wall Pond by Darin Dowding and Elinor Kerson, respectively, in July and August. Seventeen sightings of Emperor Dragonflies (*Anax imperator*), mainly single specimens of both sexes, were noted from the Castle through to Pondsbury. Emperor dragonflies have been recorded with increasing frequency over the last few years with a first record of ovipositing at



▲ Common Darter *Sympetrum striolatum*, July (photo: Neil Barnes).



▲ Black-tailed Skimmer *Orthetrum cancellatum* Pondsbury, June (photo: Tim Jones).



▲ Four-spotted Chaser *Libellula quadrimaculata* Pondsbury May (photo: Tim Jones)

Rocket Pole Pond in 2018. This was repeated in 2021 at Quarterwall Pond confirming attempted breeding. However, the exciting sighting this year of a nymph in Pondsbury by Alan Rowland confirms successful breeding. Whether nymphs will survive the depredations of the birds that use Pondsbury is another matter which will be resolved in one or two years when exuvia may be found in the spring.

Black-tailed Skimmer (*Orthetrum cancellatum*) was again present, and Tim Davis and Tim Jones counted five individuals at Pondsbury on 17th June. An unidentified duo of Hawker sp. were seen by Steve Wing, Carol Baillie and Richard Campey at Pondsbury on 18th May. Tim Smith identified a Southern Hawker (*Aeshna cyanea*) at Quarry Pond on 11th June. Two sightings of Vagrant Emperor (*Anax ephippiger*) were made by Tim Davis and Tim Jones on 25th May at Pondsbury when they saw two and again in 19th October by James Diamond. There are only two previous sightings of the species in 2015 and again in 2020. Tim Smith identified a Southern Hawker (*Aeshna cyanea*) at Quarry Pond on 11th June. Two sightings of Vagrant Emperor (*Anax ephippiger*) were made by Tim Davis and Tim Jones on 25th May at Pondsbury when they saw two, repeated on 19th October by James Diamond. There are only two previous sightings of the species in 2015 and again in 2020. Tim Davis and Tim Jones reported and photographed a Four-spotted Chaser (*Libellula quadrimaculata*) on 26th May at Pondsbury. When last reported in 1963 and 1964, there was a mass emergence at Pondsbury, this is the first record since then.

Damselflies

Four sightings totalling 14 individuals of Common Blue (*Enallagma cyathigerum*) and eight totalling 30 individuals of Blue-tailed (*Ischnura elegans*) Damselflies were made at Pondsbury, Quarter Wall, Quarry and Rocket Pole Ponds by Alan and Sandra Rowland, Tim Davis and Tim Jones, Rebecca and Richard Taylor and Tim Smith between May and August.



▲ Blue-tailed Damselfly *Ischnura elegans* Pondsbury, June (photo: Tim Jones).

Trichoptera (Caddisflies)

There were no reports of moth trap intruders this year, but two possible records of adult caddis were made during the year. Elinor Kersman found a large specimen at Brambles on 22nd August but it wasn't identified. A micro caddis (wing length 4-5mm) was taken from the vegetation around Quarry Pond on 28th June by Alan Rowland during routine sampling. This specimen was sent for determination by the country's species expert who identified it as *Beraea maurus*. Thanks are expressed to Stuart Croft for his expert identification.

Further records of caddis larvae can be found in the Freshwater Invertebrates section.

► An adult *Beraea maurus* (micro caddis fly) Quarry Pond, June (photo: Alan Rowland).



▲ Common Blue Damselfly *Enallagma cyathigerum* Pondsbury July (photo: Alan Rowland).





▲ Speckled Bush Cricket *Leptophyes punctatissima* near Little St. Johns July (photo: Alan Rowland).

Orthoptera (Bush Crickets, Grasshoppers, and their allies)

Malcom Lee

Bush Crickets and Grasshoppers

I can rarely visit Lundy in the summer, but in 2022 & 2023, I was able to get over for a few short visits between July and September. This enabled detailed monitoring of the orthoptera of the island, using a bat detector to pick up their distinctive calls, the majority of which have output in the ultrasound range. Bat detectors have been used for recording grasshoppers and bush crickets for around 20 years (Lee 2004) and have several advantages. As we get over 50, our ability to hear high-frequency sounds naturally diminishes, so a bat detector with its volume control is a real boon. It also has a range of 15 metres or more, so you can hear their calls before they detect your presence and dive into the foliage. It can also be pointed down steep slopes where plain common sense would tell you not to venture. Each species has a different call so the type of grasshopper or bush-cricket can be recorded even if they are not actually seen. The Speckled Bush-cricket *Leptophyes punctatissima*, which occurs on Lundy, is

well camouflaged among the brambles on which it primarily lives, so is not often spotted by casual observers. Its distinctive 'tick' as males briefly flick their wing cases against each other, together with the fainter response from an interested female, comes over very loud on the bat detector and calls can be heard into November.

Methodology

Bush crickets were checked with the bat detector by stopping every 50 metres or so with the frequency set to around 40kHz. Panning speed means it takes about 10 seconds to do a 180-degree sweep. Grasshoppers were detected by walking just alongside the main paths, as far as possible, and extending the search into suitable adjoining areas to see if any were disturbed. The summer of 2022 was one of the hottest and driest on record, and grasshopper species whose life cycle would normally extend well into September were disappearing quickly, which affected numbers when I visited in early September 2022. There

was only desiccated grass around by late summer, and for grass-eating species, this would have had a knock-on effect on numbers emerging to begin the 2023 generation.

Speckled Bush-cricket (*Leptophyes punctatissima*)

The survey confirmed this is the only bush-cricket species present on Lundy. The Speckled Bush-cricket has an extensive colony all over the eastern slopes, from the harbour right up to above Gannets Combe. It was not detected anywhere on the western side or on the top of the island west of the main track to the north end. On the lower east side path, insects were heard calling on the slopes both above and below the path. From the harbour up to the Quarries, every stop detected their calls. On the upper east side path going up to Quarter Wall Cottages, none were heard after leaving Millcombe valley. North of the Quarries numbers decreased, with the most northerly insect detected being just above Gannets Rock. On the day I checked above Three-Quarter Wall, the weather closed in past Gannet's Rock, and it began to drizzle. This causes males to stop calling, so they may be present right up to the north end. A specific survey for this species in the earliest years of the Lundy Field Society (LFS Fourth Annual Report) found a similar east-side distribution up to Gannets Rock but noted its absence from the dense Rhododendron thickets then present.

The only significant section of path not surveyed was the lower east side path above The Quarries to just below Brazen Ward, which will have to wait for another year, but there is no reason to doubt its presence there. A check of plants within the village confirmed its absence there, with the closest heard calling being those on the brambles as you go through the Blue Gate to Government House. Although the bat detector must have picked up many hundreds of calling insects, one was never actually seen during my survey. Their green speckled body is very cryptic amongst the foliage, and they typically call from deep inside a bramble patch, so searching for the actual insect without gloves can be a painful business, and not necessary for the

purposes of this survey. The photo was taken by Alan Rowland on 2nd July 2023 of a male near Little St Johns.

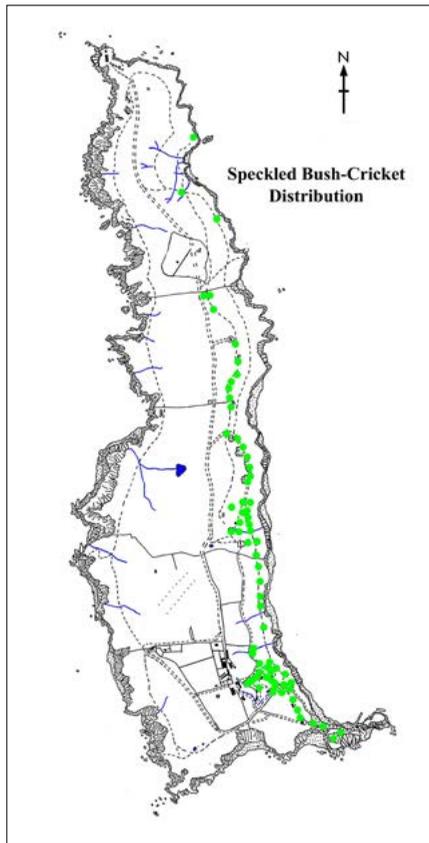
How did the Speckled Bush Cricket get to Lundy? This species is flightless and generally sluggish in its movement, so populations have little ability to spread. It is surprising that it is found on many offshore islands around the southern half of the UK, which may suggest a natural distribution. Marshall and Haes (1988) speculated that they could have been transported to those islands as eggs on ornamental trees and shrubs, but confirmed they had no evidence and suggested such isolated populations merited further study. At the beginning of the 21st century, evidence for transport with plant material imported onto islands came in the form of a recently discovered population on St Marys, Isles of Scilly. This island group has been well studied for its flora and fauna, certainly since the era of Victorian naturalists, yet the first ever record for this distinctive species was in 1991 when a singleton was spotted near the Garrison on St Marys. In 2000, a small colony was found there, and checking with a bat detector in 2002 and 2003 established there was an extensive population right across the Garrison and eastwards to Hugh Town, especially near tipped garden rubbish. The fact that it is not present on any other of the islands also weighs against this being a long-established but overlooked natural population (Haes 2004). Perhaps the presence of this delightful bush cricket on Lundy is a legacy of the Reverend William Hudson Heaven's plantings.

Field Grasshopper (*Chorthippus brunneus*)

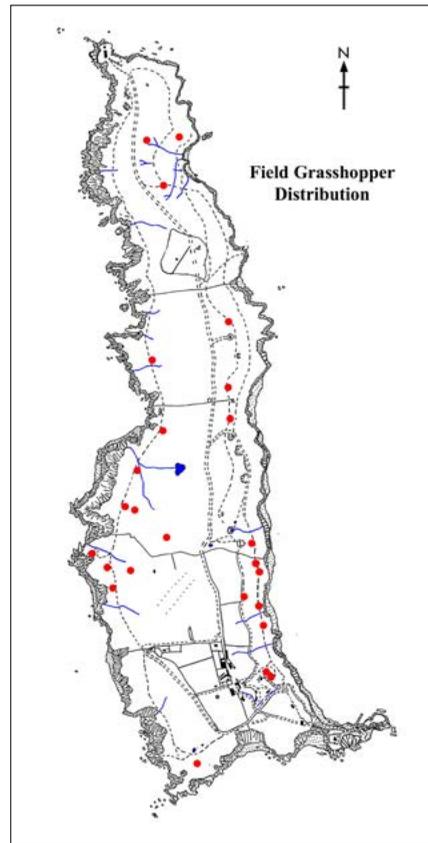
This was the only grasshopper species found during the survey and is most likely the only one now present on the island. It favours a warmer microclimate having some bare earth and rock, so it is primarily found in two areas of Lundy: along the western clifftops from just south of the Battery up to Three Quarter Wall and along the lower east side path where there are sheltered open spots. The Rhododendron clearance on the eastern slopes will have created much more

habitat for this species, but these steep slopes were not inspected. There were also a few Field Grasshoppers found around Gannets Combe and the area just south of Rocket Pole Pond. The damper grassland on the top of the island would not be suitable for the Field Grasshopper, and the two singletons located in thicker grass on Ackland's Moor and Pondsby Field were probably just strays. I did not find this species abundant anywhere on the island, although the very hot summers undoubtedly reduced numbers. This is supported by Steve Banner finding large numbers by Quarter Wall cottages

in August 2021, but none were seen by me in September 2022, and just one late instar nymph in August 2023. A total of some 20km of island paths were walked, some more than once, yet Grasshoppers were observed in just 25 locations. Outside of my survey, Alan and Sandra Rowland noted them on the upper east side path on 2nd July 2023, Michael Williams found one further up the east side path on the north side of Halfway Wall, and Tim Davis recorded the uncommon green variety along the lower east side path on 15th October 2023.



▲ Distribution of the Speckled Bush Cricket *Leptophyes punctatissima* on Lundy, summer 2023.



▲ Distribution of the Field Grasshopper *Chorthippus brunneus* on Lundy, summer 2023.



▲ Field Grasshopper *Chorthippus brunneus* (photo: Malcom Lee).



▲ Meadow Grasshopper *Chorthippus parallelus* (photo: Malcom Lee).



▲ Mottled Grasshopper *Myrmeleotettix maculatus* (photo: Malcom Lee).

Mottled Grasshopper
(*Myrmeleotettix maculatus*)

This smaller grasshopper (typically 12mm length) has rarely been recorded on Lundy, the most recent being over 25 years ago when Dr Roger Key reported them on 2nd August 1997, with the note 'A welcome return - the first record of the mottled grasshopper on Lundy for over 40 years'. The location was given as simply 'Millcombe'. It is not clear if Roger Key thought this 40-year absence was for want of looking or whether it had somehow just turned up, which would be most unusual for a sedentary species. It may not have been his own record, so the possibility of misidentification cannot be ruled out. The Mottled Grasshopper will be found in the warmest parts of any habitat, and in Millcombe valley, the area around Hangman's Hill has many patches of short turf interspersed with bare earth and rock and would be the area in which it would most likely be found. This is one of the earliest grasshoppers to go over, and in the hot summer of 2022, it was not too surprising to find nothing at that location in early September. This species comes over well on the bat detector, with a call rising in volume before abruptly stopping, so would have been heard were it present and calling. The search in early August 2023 also failed to see or hear this species in almost perfect weather, so I conclude that this species is most likely lost to the Lundy fauna.

Meadow Grasshopper
(*Chorthippus parallelus*)

There have been some reports of this species in the last few years, but no historic records. I am sure these were simple misidentifications. Grasshoppers are not the easiest to identify in a brief second or two before they plunge into the foliage, so the three images below may assist. It is the head and the segment immediately behind it, known as the pronotum, which are the key features to check (arrowed in all three photographs). The sides to the pronotum are indented in the Field Grasshopper, whereas the sides of the pronotum in the Meadow Grasshopper are almost parallel (hence *C. parallelus*). The Mottled Grasshopper is a smaller species, with deeply indented sides to the pronotum. Males also have clubbed antennae (arrowed) which are bent at the tip, with females having thickened tips.

Great Green Bush-Cricket
(*Tettigonia viridissima*)

This species does not breed on Lundy, and the single record is a vagrant transported to the island on the Oldenburg on 18th August 2018. This was seen by Alan and Sandra Rowland on the boat, who noted that it subsequently flew off while the Oldenburg was tied up at the jetty. It is not uncommon around Bideford and probably flew on board there, or as it sailed along the river.



▲ Common Earwig *Forficula dentata* (photo: Neil Barnes).

Other Orthoptera species

Lesser Cockroach

Capraiellus (=Ectobius) panzeri

This is a small (6mm long) species intermittently seen on Lundy. The last record was in 2020 when one landed on Dean Jones at Aztec Bay by Three-Quarter Wall, the previous record being in 1983. Alan Rowland drew my attention to a wartime report by G D Hale Carpenter who visited the island in September 1942. He reported finding a female with ootheca (egg case) under a block of stone among very short scanty grass and other vegetation on the bare northern granite plateau. It is always an elusive species. Only males have wings and fly readily. The alert females spend their lives amongst litter beneath low vegetation like gorse and heather and will quickly disappear if disturbed. During my survey I checked beneath dozens of heather clumps alongside the path at the north end and around Gannets Combe, all with negative results. Whilst adults are elusive, the less cautious nymphs can often be seen feeding on pollen of Thrift, Cinquefoils, or Buttercups etc in early summer. This is the best time to detect the presence of the Lesser Cockroach.

Common Earwig

Forficula dentata (formerly *F. auricularia*)

This is a common species, much under-recorded but easily found inside the dead stems of Hogweed on Lundy. Neil Barnes recorded a singleton between Rocket Pole Pond and Benjamin's chair on 21st October 2023.

Identification of Lundy Orthoptera.

For anyone with a bat detector who would like to try it out for recording orthoptera, I have a set of MP3 recordings of all the species found in Cornwall to accompany my 2004 article. If you would like a copy of the article together with recordings to have them handy on your mobile phone, please send your request to my email address (gullrockportgaverne@btinternet.com).

I would also be happy to identify photographs of Orthoptera taken on Lundy.

Thanks to Michael Williams for providing the map of Lundy used in the text.

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Haes, E. C. M., 2004. *Orthopteroid Insects of Cornwall and the Isles of Scilly: an updated provisional atlas. CISFBR Occasional publication No 2 (Speckled Bush-cricket pp24-5).*

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LFS Fourth Annual Report (1950). *Terrestrial and Freshwater Ecology: Interim Notes 2. The Distribution of Leptophyes punctatissima pp.29-30.*

Marshall J. A., and Haes, E. C. M., 1988. *Grasshoppers and Allied Insects of Great Britain and Ireland. Harley Books, Colchester (Field Grasshopper p112 Speckled Bush-cricket p92).*



▲ Painted Lady *Vanessa cardui* Millcombe September (photo: Paul Dean)

BUTTERFLIES

Compiled by Kristin Reed

Nineteen species of butterfly were seen on Lundy in 2023 with only **Gatekeeper** and **Brimstone** absent compared to recordings made in previous years. It was a good year for **Red Admiral** as it was the first butterfly noted on Lundy in March and the last to be recorded in November. An exciting southern migration along the length of the Island of 73 + Red Admirals was seen by D. Price and S. Gray in early September. Another southern migration was seen on the 12th of October with numbers reaching 135+ before the fog came in and stopped play. **Meadow Brown** and **Small Heath** were present in large numbers in June and July with 74 Small Heath recorded on the 22nd of June and Meadow Brown being recorded at 250+ on several

▶ *Clouded Yellow* *Colias croceus* (photo: Shaun Barnes).





▲ Speckled Wood Pararge aegeria Millcombe May (photo: Mandy Yates).



occasions in July. **Grayling** were present this year, with the first sighting on 21st June and the last on the 18th of July, with 13 individuals seen on the 13th of July. **Painted Lady** were present in low numbers throughout, but were regularly recorded from April to October.

Of the scarcer species, individuals of **Clouded Yellow** were first seen on the 25th of May, followed by the next sighting, again of one, on the 11th of September. Two were seen later in the year, between the 8th and 15th October. Other butterflies which are normally scarce on Lundy, **Ringlet**, **Wall-brown**, **Orange-tip**, **Speckled Wood**, and **Comma** were noted but were characteristically infrequent.

◀ Small Copper Lycaena phlaeas Farmyard, May (photo: Mandy Dee).

Moths Lepidoptera

David Rowe

In 2023, 132 species of moths were recorded on Lundy (220 were recorded in 2022), including eight new for the island (seven micro and one macro). The Heath Trap was used on 11 occasions, usually in Millcombe but occasionally at The Old Light. The lower moth counts can be clearly explained by the reduced use of the Heath trap: 95 sessions in 2022 against 11 in 2023.

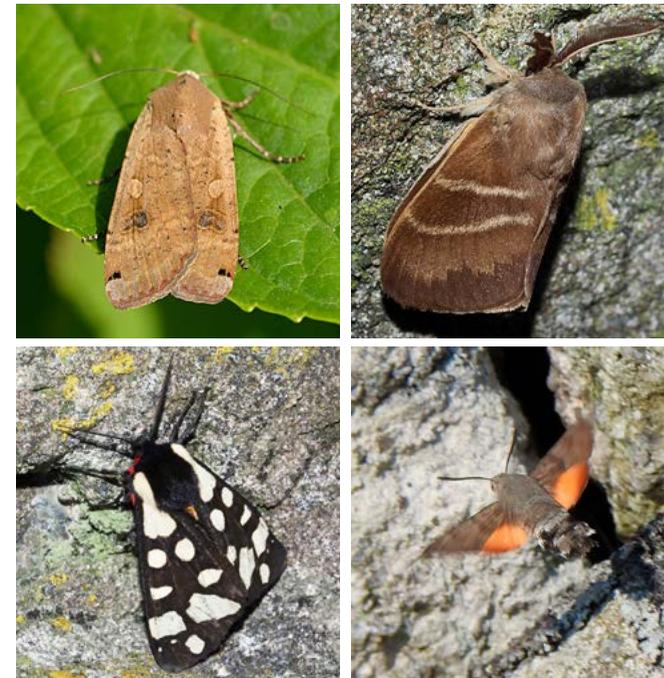
Moths new to Lundy, in checklist order

Micro-moths

Speckled Broom Buff *Agonopterix assimilella*, **Large Pale Masoner** *Blastobasis lacticolella*, **Common Plume** *Emmelina monodactyla*, **Birch Tortix** *Epinotia immundana*, **Heather Knothorn** *Pempelia palumbella*, **Garden Pebble** *Evergestis forficalis*, **Water Veneer** *Acentria ephemerella*, **Meadow Grass** *Crambus lathoniellus* and **Narrow-winged Grey** *Eudonia angustea*. 2023 gave only the second Lundy record of the Micro-moth **Light-brown Apple Moth** *Epiphyas postvittana* the first was in 2022. This moth was first found in 1936 in Cornwall, an adventive, originally from Australia. It is possibly the most widespread and abundant micro-moth in the UK and it has taken 86 years to reach Lundy; this confirms that Lundy is truly an island!

Macro-moths

Dotted Border *Agriopis marginaria*, **Mullein Wave** *Scopula marginepunctata* and **Lunar Yellow Underwing** *Noctua orbona*, which was also a first record for Devon.



◀ Clockwise from top left: Lunar Yellow Underwing *Noctua orbona*, Millcombe (photo: David Rowe). Fox Moth *Macrothylacia rubi* (photo: David Rowe). Cream-spot Tiger *Arctia villica* (photo: David Rowe). Hummingbird Hawkmoth *Macroglossum stellatarum* July (photo: Neil Barnes).

All the new micro-moths were recorded between August 7th and 9th, except **Garden Pebble** seen on June 3rd. The **Common Plume** was recorded at the Old Light and the remainder in Millcombe. The macro-moth, **Dotted Border**, was recorded on April 5th outside the Tavern, the **Mullien Wave** on June 3rd, and **Lunar Yellow Underwing** on June 9th, both at Millcombe.

First and Last Observations

The first active moth to be observed in 2023 was a **Twenty-plume** *Alucita hexadactyla* in the Carpenter's Workshop on February 3rd. The last was a **Dark Arches** *Apamea monoglypha* ovipositing on rocks on 20th October on the East Side between Mouse and Trap and Gannet's Combe. The final record was a hibernating **Humming-bird Hawkmoth** *Macroglossum stellatarum* on the 22nd of November in St Helena's Bell Tower, just preceded on the 20th of November by a **Herald** *Scoliopteryx libatrix* in a cave by the Landing Bay.

Records of Moths as caterpillars (larvae), larval cases and leaf mines

2023 Day Flying Moth Data from LFS Log Book Check List

Moth Species	Recorded on (Days)	First Date	Last Date	Maximum & Date	Total
6 Spot Burnet	9	12 Jun	11 July	8 on July 8	27
5 Spot Burnet	12	12 Jun	13 July	109 on Jul 1	151
Fox (Caterpillar)	41	14 May	7 Nov	23 on 4 Oct	154
Emperor	8	4 May	23 May	4 on May 6	12
Humming Bird Hawk	67	2 April	28 Oct	6 on July 16	119
Silver Y	63	3 May	27 Oct	23 on 4 Oct	143



Caterpillars (larvae)

Although most moths are night flying, many species are recorded as caterpillars, with regular records in 2023 of nine different species. Four macros: **Lacky** *Malacosoma neustria*, **Garden Tiger** *Arctic caja*, **Scarlet Tiger** *Callimorpha dominula*, and **Knot Grass** *Acrionicta rumicis* were not recorded as adults.

This was also the case for a Lundy favourite, the micro-moth **Cornish Snout** *Nothris congressariela*, not seen as an adult in 2023, but the diminutive larvae were, both in February and in late August, found feeding on the food plant **Balm-leaved Figwort** *Scrophularia scorodonia*. The plant itself is uncommon, restricted to coastal habitats in Devon, Cornwall, and the Isles of Scilly. **Balm-leaved Figwort** is a Neophyte, a non-native plant that was introduced to the UK after 1550, probably due to its herbal properties. The moth similarly has a very limited UK range. It begs the question as to whether the moth was introduced along with the plant. **Cornish Snout** larvae were also observed feeding on **Common Figwort** *Scrophularia nodosa*, and may be the first time this moth species has been found on Lundy (observed by Samuel Gray).



◀ Larva of the Pale Tussock *Calliteara pudibunda* Lower East Side September (photo: Mandy Dee).

◀◀ Larva of Ruby Tiger *Phragmatobia fuliginosa* on the door frame of Little St. John's September (photo: Tim Jones).

Larval Cases

The presence of three species of Bagworm micro-moths, **Common Bagworm** *Psyche casta*, **Ramshorn Bagworm** *Luffa lapidella* and **Lichen Case-bearer** *Dahlica lichenella* were detected from their distinctive larval cases. The Lichen Case-bearer on May 23rd (Eamonn O'Donnell) was indeed a special find, not only a first for Lundy but only the second record in Devon since 2010.



▲ Common Bagworm *Psyche casta*, larval case (photo: Alan Rowland).

Leaf Mines:

Evidence of another secretive Lundy micro-moth **Golden Dot** *Stigmella aurella* was seen in the form of leaf mines on Bramble leaves (*Rubus fruticosus*), recorded both in February and August in Millcombe. A variety of insects, such as **Flies** *Diptera*, **Sawflies** *Hymenoptera*, **Beetles** *Coleoptera*, and many micro-moths share this strategy. After eggs are laid on leaves the emerging larvae burrow within the leaves to feed, leaving sinuous trails 'mines' that can be seen through the leaf surface. In the case of **Golden Dot** the mines are unique enough to give a positive identification.



▲ Leaf mines of *Golden Dot* *Stigmella aurella* on Bramble leaf (photo: David Rowe).

Moth Eruptions

Single species of moths occasionally appear in vast numbers. In 2022 hundreds of day-flying **Burnet** *Zygaena* sp. adults and caterpillars were seen near the South Light. This phenomenon was not recorded in 2023. High numbers of **Flounced Rustic** *Luperina testacea* were observed in the light trap at Millcombe, 151 on 2nd September, over 50% of the total catch reported by Samuel Gray. Additionally on May 18th, 40 **Brown Silver-lines** *Petrophora chlorosata*, a day-flying moth that is unusual in that its food plant is **Bracken** *Pteridium aquilinum*, were seen near Tibbets.

Migrants

Seven migrants were recorded in 2023 (11 in 2022): **Diamond Back** *Plutella xylostella*, **Rusty Dot Pearl** *Udea ferrugalis*, **Rush Veneer** *Nomophila noctuella*, **Humming Bird Hawk-moth**, **Vestal** *Rhodometra saccharia*, **Silver Y** *Autographa gamma*, **Dark Sword Grass** *Agrostis ipsilon*.

Terrestrial Invertebrate Reports: Thanks

All the species compilers wish to record their thanks to the submitters of records for making available their observations, in particular: -

Eleanor and Mark Allen, Carol Baillie, Neil Barnes, Shaun Barnes, Richard Bashford, Isobel Bender and Connie Evans, Ella Berry, Maggie Bowden, Richard Campey, A Powell Chandler, Karen Cole and Alan Henshaw, Stuart Cossey, Bee Cox, Tim Davis and Tim Jones, Darrin Dowding, Paul Dean, Chris and Mandy Dee, James Diamond, EM Grover, Peter Heslip, Mike and Helen Jackson, Dave Jones, Elinor Kersman, C Laine, Carol Lee, Joe Parker, Alan and Sandra Rowland, Trudy Shees, Tim Smith, Paul St Pierre, Ann and Tony Taylor, Jane and Nick Taylor, Rebecca and Richard Taylor, Sally Wadsworth, Roger and Matt White, Steve Wing, and all those who wrote their sightings in the log book but omitted to give their names.