

THE SPIDERS OF LUNDY ISLAND

By

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Reprinted from the Proceedings of the Zoological Society of London 235-244,
(1929).

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(Received November 12, 1928: Read April 9, 1929.)

Lundy lies at the mouth of the Bristol Channel, and is 12 miles from Hartland, which is the nearest point on the mainland, 20 miles from Instow, and 25 from Ilfracombe. The island is irregular in shape, but, broadly, it might be described as a rectangle measuring 3 miles in length and half a mile in breadth. There are lofty and precipitous cliffs all round the island, and the top consists of an undulating plateau rising well over 400 feet above sea level. For the most part the island is composed of granite, but in the south-east corner other formations, notably slates, are found. It is in this corner that Rat Island, which is only separated from the main island at high tide, is situated.

Prevalent winds are from the west, and the east side is therefore relatively sheltered. The soil is very shallow up the northern half of the island, and on this account but few plants can secure sufficient nourishment or protection from wind and sun. On the eastern slopes bracken grows in profusion. The farm-buildings, cottages and hotel are all situated in the southern quarter. Here some crops are grown, and in the valley known as Millcombe a few pines, oaks, sycamores and ash have been introduced.

The summer temperature averages from 7° to 10° less, and the winter the same amount more, than the temperature on the adjacent mainland*. The rainfall is somewhat less, but mists are rather frequent.

I paid a visit to Lundy in the summer of 1928, and stayed from July 16th to 22nd. About five days were devoted mainly to collecting spiders. The week preceding my arrival had been extremely hot, and the heat-wave continued throughout my stay. Spiders did not seem to be very numerous, and in some instances the heat was probably responsible for this; stone- and root-living species had been forced to take refuge from the blazing sun deeper in the soil than usual. Nevertheless the collection of 75 Arachnids, comprising 69 Spiders, 3 Harvest Spiders and 3 Pseudoscorpions, is thought to be a fairly representative one, although further research, especially up the southern end, would undoubtedly result in additional species being added to the list.

* I have made use of information contained in L. R. W. Loyd's book 'Lundy, its History and Natural History', Longmans, 1925, in the description of the island contained in the present paper.

No previous records of spiders have been published*, but I am indebted to Mr. C. Elton, who paid a visit to the island in 1927, for a list of 10 species captured by him and identified by Dr. A. R. Jackson, who has also been kind enough to examine the greater part of my collection. Some of the spiders, and notably the following ones, are rare species:

Atypus affinis Eich. (Tube-builder related to foreign Trapdoor Spiders.)
Lathys stigmatisata Meng. (Second recorded occurrence in Great Britain.)
Segestria bavarica L. K. (The Greater Wall Spider.)
Gnaphosa leporina L. K.
Metopobactrus prominulus Camb.
Acartauchenius scurrilous Camb. (Cornwall and New Forest.)
Meta menardi Latr. (A cave and cellar spider.)

Ælurillus v-insignitus is an Attid spider, usually associated with clearings and open spaces in pine-woods and heaths. It was interesting to find it, therefore, in great abundance on the western cliff-face of the main island and of Rat island, leaping about on the scorching bare rock.

It always interests me to find instances of spiders poaching on one another's territory or living side by side in apparent tranquillity, in view of their predaceous inclinations, and I have recorded some of my observations in an earlier paper**. From Lundy I can record the following instances:

- (1) Two webs of half-grown *Epeira diademata* adjoining, the web of one being spun within the stay-lines of the other.
- (2) An *Amaurobius ferox* web terminating and merging into that of a *Tegengria derhamii*.
- (3) Two half-grown specimens of *Linyphia triangularis* in the same web.
- (4) A male and a female *Epeira diademata* sitting side by side, with their bodies touching, in a small crevice in a bank.
- (5) A female *Theridion ovatum* sitting in the irregular strands, which are always built above the sheet-web of *Linyphia triangularis*, eating a beetle which it had presumably poached from the *Linyphia*.

The webs of certain Theridions sometimes adjoin one another. At Winnington, Cheshire, I have seen the struggles of a fly, caught in the web of a *Theridion pictum*, attract the attention of its neighbours. Sometimes, if the fly is a big one, the owner's attention is too much occupied with it to drive away the intruders immediately, and there may be two or more spiders all flinging viscid silk over the struggling insect until it is quietened, when a battle ensues for its possession. The indignant owner usually prevails after what is often a prolonged combat, but on one occasion it returned victorious only to find that a third party had made off with the booty! On another occasion a *Theridion ovatum*, which is a somewhat larger species, intruded, and ultimately succeeded in taking away the insect caught in the *T. pictum* web.

* H. St. J. K. Donisthorpe records one species in his book 'The Guests of British Ants', 1927, *Acartauchenius scurrilous*. In the nests of the ant *Tetramorium caespitum*.

** "Notes on the Habits of Insects and Spiders in Brazil", Ent. Soc. Lond., Feb. 1925, p. 496.

The generally accepted derivation of the name Lundy is from the Norwegian and Icelandic words "Lunde" (a Puffin) and "ey" (an island). Puffins breed on Lundy in countless numbers, their main colonies being on the north-eastern and north-western slopes, where they are associated with Razorbills and other birds. These Puffin-slopes do not, for some reason, support either a very large flora or arthropod fauna. On the north-eastern slope Sea Pink, a species of soft light-green grass, Sorrel, Campion, and *Cochlearia* were the only plants noticed, and at the roots of these the only spider I could find, and that in considerable abundance, was *Leptyphantes zimmermannii*. This species was also predominant on the north-western slopes, but there, in addition, one or two other species were found - *Leptyphantes tenuis*, *L. ericæus*, *Drassodes lapidosus*, *Trochosa terricola*, and *Lycosa pullata*. I also shook the following species from dry clumps of Sea Pink taken from the cliff face:

Oonops pulcher, in abundance.
Harpactes hombergii.
Centromerus concinnus.
Ideoroncus cambridgii (Pseudoscorpion).

Among the rocks *Segestria senoculata*, *Textrix denticulata*, *Epeira diademata*, *E. umbratica*, and *Meta merianæ* were found.

Is the lack of variety on these bird-slopes, both of plants and Arthropods, due to some unpleasant chemical characteristic of Puffin excreta? In the Scilly Islands sea-birds breed in millions, but the little island of Annet is simply covered with birds in the breeding-season, and the ground is riddled with Puffin-burrows. Brindley* carried out a statistical investigation of Earwigs on the different islands, and found that whereas they occurred in vast numbers on all the other islands he visited, on Annet they were apparently entirely absent. I can confirm their abundance on thirteen islands in the Scilly group, whilst on Annet prolonged search resulted in my finding only five specimens. In Lundy Earwigs are fairly plentiful in some parts of the island, but none were found on the north-eastern Puffin-slope, and only one or two on the north-western slope.

The northern plateau is a bare wind-swept area with very little depth of soil. Here dwarf heather grows, and throughout my visit the soil was parched and fissured by the hot sun. Spiders were scarce amongst the heather but the following species were collected:

Oxyptila atomaria (several).
Xysticus erraticus.
Agræca sp. (imm.).
Leptyphantes ericæus.
Peponocranium ludicrum.
Ceratinella brevipes.
Lycosa pullata.

* H. H. Brindley, "The Proportions of the Sexes of *Forficula auricularia* in the Scilly Islands", Proc. Camb. Phil. Soc. Vol. xvii, 1914, p. 326.

Lycosa nigriceps.
Tarentula pulverulenta (imm.).
Lathys stigmatisata.
Ero sp. (cocoon).

The ruins of a building, called on the map John O'Groat's House, stand on the top of the island near the northern end. Under stones which formed part of this ruin the following species were found:

Drassodes lapidosus
Gnaphosa leporina.
Segestria senoculata.
Textrix denticulata.
Trochosa terricola.

There are only one or two little streams on the island, and around these *Juncus* and other marsh-plants grow. *Philodromus cespiticollis* was collected from Willow, *Tetragnatha extensa* from *Juncus*, and the following species from amongst the marsh-plants:

Leptyphantes ericæus.
Leptyphantes zimmermanni.
Bathyphantes gracilis.
Bathyphantes pullatus.
Pachygnatha degeerii.
Pirata piratica.
Lycosa pullata.
Lycosa nigriceps.

Several caves exist on the island, but the majority are sea-caves into which the water flows at high tide. Two artificial caves, each some 30 to 40 feet in depth, were explored for spiders. The first, situated just beneath Benjamin's Chair, only yielded *Amaurobius ferox* and *Tegenaria derhamii*. The second, which is known as Benson's Cave, is just below Marisco Castle. It is known to be at least 180 years old, as it was used by Thomas Benson, a lessee of the island in 1750, as the hiding-place for the cargo of a boat which he caused to be scuttled. Here the following species were found:

<i>Amaurobius ferox</i> .	Most plentiful
<i>Tegenaria derhamii</i> .	near the
<i>Meta merianæ</i> .	entrance.

<i>Centromerus prudens</i> .	Both plentiful, sitting upside down in their
<i>Leptyphantes zimmermannii</i> .	little sheet webs built across small cavities
	in the floor and walls.

<i>Chthonius rayii</i> .	Pseudoscorpions. Under stones
<i>Chthonius tetrachelatus</i> .	inside the cave.

In the valley of Millcombe a house bearing the same name is built. This is inhabited by the owner of Lundy (Mr. Harman) when he visits the island. In the cellars I found the large cave and cellar spider, *Meta menardi* (both sexes), to be abundant.

The southern corner of Lundy supports much the greater variety of Arthropod fauna, and at the end of my visit I felt I had not given that quarter as much attention as it deserved. Rat Island, which is separated from the main island at high tide, seemed to have a high proportion of the total number of species found on the main island, and *Atypus affinis* was found there alone. The tubes were built amongst the tough grass on the north-eastern slopes of the island.

There is not such a variety of habitats on Lundy as on the Scilly Islands*, and such a relatively large part of its area is taken up with the dwarfed heather and turf that it is scarcely surprising to find fewer species there. Perhaps the most striking difference is the apparent rarity on Lundy of two of Scilly's most common species – *Drassodes lapidosus* and *Dysdera crocota*. I am not really convinced that these species are rare on Lundy, although I only found five or six *Drassodes* and some remnants and two immature specimens of *Dysdera*. The soil was dried up and cracked with the heat, and the stones were hot through and through. This would probably make life impossible for them in their usual position under stones. Neither *Tegenaria atrica* nor the Harvest Spider (*Phalangium opilio*), both of which are so common on the Scilly Islands, appears to be present on Lundy. I did see in outbuildings webs of some species of *Tegenaria* larger than *T. derhamii*, but this did not appear to be common.

Lundy, on the other hand, can at the present time boast of 19 species which have not yet been found in the Scilly Islands*.

Order 1. ARANEÆ (Spiders).

Fam. 1. ATYPIDÆ.

ATYPUS AFFINUS Eich.

I found a colony amongst the tough grass on the north-eastern slopes of Rat Island.

Fam. 2. DYSDERIDÆ.

SEGESTRIA BAVARICA C. L. K.

A few specimens from the wall of Marisco Castle.

SEGESTRIA SENOCULATA Linn.

Common under stones, in rock-crevices, amongst dry herbage, etc.

* For the purposes of comparison, *vide* W. S. Bristowe: "The Spiders of the Scilly Islands", P. Z. S. pt. II. p. 149, 1929; "The Spider Fauna of the Western Islands of Scotland", The Scottish Naturalist, May, June, July, August 1927; "A Contribution to the Knowledge of the Spiders of the Channel Islands", P. Z. S. pt. II. p. 181

HARPACTES HOMBERGII Scop.

Quite common under stones or amongst dry vegetation in various parts of the island, including Rat Island. Mr. Elton also found this species on Rat Island, 28.8.27.

DYSDERA CROCOTA C. L. K.

The heat had, I think, driven this species to take refuge deeper in the ground than usual. I found traces of them under stones, but they appeared to be most common on Rat Island, where I caught some immature specimens and found several carapaces. Mr. Elton also found this species on Rat Island, 28.8.27, and Mr. Wade (*sic*) has recently sent me an adult female.

Fam. 3. OONOPIDÆ.

OONOPS PULCHER Templ.

Under stones. In abundance amongst dead and dry Sea-Pink roots on north-western slopes.

Fam. 4. GNAPHOSIDÆ.

GNAPHOSA LEPORINA L. K. (= *G. angelica*)

One female in exposed position up north end of the island under a stone.

DRASSODES LAPIDOSUS Walck.

This species was not found at all commonly, but its empty cells under stones indicated that it really was quite common. The heat-wave had probably driven them to take refuge deeper in the soil, as I noticed that many of the stones I turned over were hot throughout, and therefore did not afford much protection. I found them in greater numbers on Rat Island. Some of the females had eggs. Mr. Elton found this species on Rat Island, 28.8.27.

ZELOTES LATREILLII Sim.

A female, with about 15 yellow eggs contained in a flat, pinkish, papery cocoon, under a stone near Marisco Castle. One other immature specimen, probably belonging to the same species, was also found.

Fam. 5. CLUBIONIDÆ.

AGRÆCA sp.

Amongst heather. Several immature specimens were collected.

CLUBIONA LUTESCENS Westr.

A female was found under a stone enclosed in a silken cell with 60 yellow eggs, near Millcombe.

CLUBIONA RECLUSA Camb.

Not uncommon up the south end. Several females were found in curled stinging-nettle leaves with their bundle of yellow eggs.

CLUBIONA DIVERSA Camb.

One or two specimens from amongst grass near Marisco Castle.

CHIRACANTHIUM CARNIFEX Fabr.

One or two females were found in curled bracken, and other leaves, with their eggs.

Fam. 6. THOMISIDÆ.

XYSTICUS ERRATICUS Bl.

Several immature specimens amongst heather.

XYSTICUS CRISTATUS Clerck.

Some very young spiders may be assignable to this species.

OXYPTILA TRUX Bl.

Amongst heather.

OXYPTILA ATOMARIA Panz.

Several females and a male amongst dwarf heather in a very exposed situation up the north end of the island. One female amongst grass near Marisco Castle, and another amongst heather on Rat Island.

MISUMENA VATIA Clerck.

An immature female was swept in a field near Millcombe.

PHILODROMUS CESPITICOLLIS Walck.

Found amongst willow.

Fam. 7. PHOLCIDÆ.

PHOLCUS PHALANGIODES Fuess.

Very abundant in the hotel.

Fam. 8. THERIDIIDÆ.

THERIDION DENTICULATUM Walck.

In crevices in Mouse Trap Rock and other rock-faces. Some of the females had a blue egg-bag with them.

THERIDION OVATUM Clerck. (= *T. lineatum*).

Quite common up the sheltered south end of the island. Of the 67 I saw, 56 were white and 11 with red stripes.

ROBERTUS LIVIDUS Bl.

One female under a stone up the southern end.

Fam. 9. LINYPHIIDÆ.

LINYPHIA TRIANGULARIS Clerck.

Common amongst gorse up the southern end.

LEPTYPHANTES TENUIS Bl.

Abundant amongst plants.

LEPTYPHANTES ERICÆUS Bl.

Amongst dwarf heather in exposed situations and amongst other plants on the north-western bird-slopes. It was also found amongst *Juncus* in marshy spots and amongst grass on Rat Island.

LEPTYPHANTES ZIMMERMANNII Bertk.

The Puffin-slopes do not appear to support a large fauna or flora, and this spider, which was abundant, was the only species I could find amongst the plants on the N.E. slopes. It was also numerous in Benson's Cave, and one or two were collected from amongst *Juncus* in marshy situations.

LEPTYPHANTES MENGII Kulcz.

Amongst grass near Marisco Castle.

BATHYPHANTES GRACILIS Bl.

Amongst *Juncus* in marshy situations.

BATHYPHANTES PULLATUS Camb.

Amongst *Juncus* in marshy situations.

NERIENE RUBENS Bl.

Amongst *Carex*, 28.8.27. – C. W. Elton.

CERATINELLA BREVIPES Westr.

Amongst dwarf heather in exposed situations.

PEPONOCRANIUM LUDICRUM Camb.

Amongst dwarf heather in exposed situations.

ŒDOTHORAX FUSCUS Bl.

Amongst grass near Marisco Castle.

METOPBACTRUS PROMINULUS Camb.

One female was found amongst the tough grass on the north-eastern slopes of Rat Island, which also harboured the *Atypus* colony.

WIDERIA ANTICA Wid.

Amongst heather.

POCADIONEMIS PUMILA Bl.
Amongst grass near Marisco Castle.

ERIGONE ATRA Bl.
One female in the hotel garden, running in the sun.

CENTROMERUS PRUDENS Camb.
Quite common in Benson's Cave: also found in the cellars of Millcombe. The little fragile webs are spun across depressions and holes in the floor or walls.

CENTROMERUS CONCINNUS Thor.
One female found on north-western slope.

ACARTAUCHENIUS SCURRILUS Camb.
H. St. J. K. Donisthorpe took two specimens in the nest of the Ant, *Tetramorium cæspitum*.

Fam. 10. ARGIOPIDÆ.

EPEIRA DIADEMATA Clerck.
Common everywhere. One of the few species which will live amongst bracken. Mr. Elton says: "rock faces, exposed places, and thrift, 28.8.27."

EPEIRA CUCURBITINA Clerck.
A few females amongst shrubs in the garden of Millcombe.

EPEIRA UMBRATICA Clerck.
Not uncommon. On Constable Rock in cliff-face on way up from landing-stage, Rat Island, etc.

ZILLA X-NOTATA Clerck.
Common on buildings, shrubs, and banks.

META MERIANÆ Scop.
Their webs are extremely common in banks, cliff-faces, on houses, amongst shrubs in caves (near the entrance), across Puffin or Rabbit-holes etc. Mr. Elton records it from "rock-faces, 28.8.27." The *celata* variety was found.

META SEGMENTATA Clerck.
Extremely common in similar situations to the last, but not extending to such exposed habitats. Mr. Elton's list includes this species, 28.8.27.

META MENARDI Latr.
Very plentiful in the cellars of Millcombe. Both sexes were present, and a number of their wonderful large, white, balloon-shaped egg-cocoons were suspended from the ceiling.

TETRAGNATHA EXTENSA Linn.

Amongst *Juncus* in marshy places on the island. Both sexes.

PACHYGNATHA DEGEERII Sund.

Not uncommon amongst herbage. Dampish situations are preferred.

Fam. 11. MIMETIDÆ.

ERO FURCATA Vill.

Cocoons of an *Ero* were found amongst heather, and one specimen of the spider itself amongst grass on Rat Island.

Fam. 12. ANGELENIDÆ.

TEGENARIA DERHAMII Scop.

Common in outbuildings, cellars at Millcombe, and in the caves below Benjamin's Chair.

HAHNIA MONTANA Bl.

Amongst grass near Marisco Castle.

TEXTRIX DENTICULATA Oliv.

Common in cracks in rocks, under stones, amongst dry herbage, etc.

Fam. 13. DICTYNIDÆ.

LATHYS STIGMATISATA Menge.

One female amongst heather in an exposed situation up the north end of the island. Only one previously recorded from Great Britain – by Dr. A. R. Jackson, from the Lizard, Cornwall, in 1922 (*vide* Proc. Dorset N. H. & A. F. C. 1924).

Fam. 14. AMAUROBIIDÆ.

AMAUROBIUS FEROX Walck.

Common in banks, cliff-faces, and under stones. I also found it in the cellars of Millcombe and in caves. A fine male from Mr. Gade.

AMAUROBIUS FENESTRALIS Stroem

Immature specimens in a wall in the hotel garden.

Fam. 15. PISAURIDÆ.

PISAURA MIRABILIS Clerck.

Quite common up the southern end, some carrying their egg-bags, but most with nurseries of young. Mr. Elton's list includes this species, 28.8.27.

Fam. 16. LYCOSIDÆ.

LYCOSA NIGRICEPS Thor.

Common in different parts of the island, including exposed situations up the north end. This species and the next were the dominant Lycosids. Mr. Elton found this species amongst *Calluna*, 28.8.27.

LYCOSA PULLATA Clerck.

Common in different parts of the island, including exposed situations up the north end.

LYCOSA MONTICOLA C. L. K.

A few specimens of this species were collected.

TARENTULA PULVERULENTA Clerck.

A few immature specimens of *Tarentulæ*, probably belonging to this species, were collected amongst heather. Mr. Elton also found immature specimens amongst *Calluna*, 28.8.27.

TROCHOSA TERRICOLA Thor.

Not uncommon amongst herbage and under stones. One female with young – several were immature.

PIRATA PIRATICA Clerck.

Not uncommon in the marshy spots. Both sexes were found, and some of the females had egg-bags.

Fam. 17. ATTIDÆ.

SALTICUS SCENICUS Clerck.

On walls.

EUOPHRYS FRONTALIS Walck.

Quite common under stones up the sheltered south end of the island. Several of the females were enclosed in opaque white cells with their eggs.

HELIOPHANUS CUPREUS Walck.

Very common up the damper and more sheltered south end. Several of the females enclosed in opaque white silk cells, with their eggs, under stones. In one about 30 yellow eggs were counted.

ÆLURILLAS V-INSGNITUS Clerck.

I found female and immature specimens in abundance hopping about in the sun on the scorching hot cliff-face on Rat Island and below Benjamin's Cave (*sic*).

Order 2. **PHALANGIDEA** (Harvest Spiders)

LIOBUNUM ROTUNDUM Latr.

A few specimens amongst gorse up the southern end.

? LIOBUNUM BLACKWALLII Meade.

A few immature specimens appear to belong to this species.

? PLATYPUNUS CORNIGER Herm.

A few immature specimens of a third species may be assignable to this species, but this is by no means certain.

Order 3. **CHERNETIDEA** (Pseudoscorpions)

CHTHONIUS RAYII L. K.

One male under a stone in Benson's Cave.

CHTHONIUS TETRACHELATUS Preyss.

One male under a stone in Benson's Cave.

IDEORONCUS CAMBRIDGII L. K.

One female shaken from a dry Sea-Pink root found on the north-western slopes.

COMMENT

The following comments relating to this paper have been contributed by Tony Parsons:

W. S. Bristowe was one of the major arachnologists of the 20th century. He visited Lundy in July 1928 and in June 1929. The paper reproduced here is based on his first visit. The full list of spiders from both of these visits, in which he added a further 24 species, was published by Bristowe in 1946 in Palmer, M. G. *The Flora and Fauna of the Ilfracombe District of North Devon*. J. Townsend, Exeter.

A complete list, to date, of all the spiders recorded on Lundy has been published in the Annual Report of the Lundy Field Society by Keith Alexander.

Alexander, K. N. A. 1989. The Spiders of Lundy. *Annual Report of the Lundy Field Society* 40, 60-64.

Alexander, K. N. A. 1992. Some Additions to the Spiders and Hemiptera of Lundy. *Annual Report of the Lundy Field Society*, 43, 113-114.