

Report on beetles (Coleoptera) recorded from the Dartington Hall Estate, 2017 by Dr Martin Luff

1. Introduction and Methods

The majority of beetle recording in 2017, as in the previous year, was concentrated on Berryman's Marsh. Two bottle traps were used throughout the season from 10th April to 3rd October, suspended above several of the dead wood habitat piles in the marsh (see photo).

Pitfall traps were used within the tree rows in the agro-forestry field Broadlears from 13th May to 20th June. Some beetles were also recorded during the woodlands field meeting of the Devonshire Association botany and entomology sections on 27th May. Other species were also obtained from pond netting the new pond and scrapes on Queen's Marsh, as well as from litter sampling and dead squirrels in Mary Bartlett's garden.



2. Results

It was a very productive season, with 217 beetle species recorded (15 more than in 2016), of which 71 (32.7%) were additions to the Dartington list. The total Dartington beetle species list is now 639! The most interesting species from each area are summarised below.

2.1 Berryman's Marsh

The bottle traps yielded 126 species, many of note. The most surprising was a small (2mm), soft-bodied wingless soldier beetle of the genus *Malthodes*. A total of 24 specimens were found in bottle traps between 7th June and 1st August. Specimens were sent to Max Barclay, the beetle curator at the Natural History Museum and then to the European expert on this group, Andreas Kopetz in Germany. He identified them as probably *Malthodes lobatus*, a species recorded as new to Britain by Barclay & Kopetz (2003) on a basis of three female specimens found in 2002 near Brighton, Sussex. No further examples were known to have been found in Britain since then, but during the process of getting the Dartington specimens identified, one more previously unidentified female specimen was also confirmed as probably *M. lobatus*; it was collected by Dr Keith Alexander at Killerton, Devon in July 1990, so pre-dates Barclay and Kopetz (2003). This makes the Berryman's Marsh the third British site for *M. lobatus*, with only four examples having been found elsewhere prior to the 24 taken this year. It is likely that *Malthodes* larvae are predatory under the bark of branches and twigs, but this is not certain. It is also remarkable that so many specimens of a flightless insect were caught in traps well up above the log piles (although the surrounding vegetation grew at least as high during the summer). The identity of the presumed *M. lobatus* can only be confirmed with certainty by examination of a male specimen; all those found in Britain so far have been females as males are extremely rare in this group of *Malthodes*.



The most distinctive beetles from the bottle traps were two longhorn beetles (Cerambycidae), the large *Leptura quadrifasciata* and the smaller *Pogonocherus hispidulus*. Both are widespread but seldom common on the area; they have larvae that tunnel into wood.



Several species new to Devon from Berryman's Marsh included:

Two species of Leodidae: *Leiodes strigipennis*. A Red Data Book species (RDBK) probably associated with autumn fungi, possibly subterranean. One was caught on 3rd October. *Colon brunneum*. One caught on 29th August. Both these small species probably develop underground, on fungi and in small mammal nests respectively.



Euplectus bescidicus. A minute Red Data Book species (RDBK) of rove beetle (Staphylinidae) about which little is known. Usually occurs in rotten wood and may feed on mites.



Also of interest was the weevil *Dorytoms melanophthalmus*, (Curculionidae) with only two previous records from Devon. Beetles of this genus develop in *Salix* catkins.

Another surprising find was a specimen of the false click beetle *Epiphanis cornutus* on 19th July. This species is a relatively recent arrival in Britain and is spreading following its first discovery in Gloucestershire in 1966. The only previous occurrence in Devon was from Knightshayes Park in 2012 (Foster, 2013). The larvae develop in dead wood.



A further Red Date Book species (RDBK) was the mordellid *Mordellistana neuwaldeggiana*, with only one other post-1950 Devon locality recorded. Its larvae probably develop in plant stems.

2.2. Other sites.

The pitfall traps on Broadlears caught much the same assemblage as in the previous year. 13 species were new to the Estate, including four ground beetles (Carabidae) and two widespread weevils (Curculionidae). Dead squirrels in Mary Bartlett's garden at 1 Martins produced a subset of many of the carrion species previously recorded on a dead deer in 2015; only one minute featherwing beetle was new to the list



One small Nationally Notable rove beetle, *Platystethus nodifrons* was found struggling in a water-filled run in Chacegrove Wood. It seems to be the first record for Devon. *Platystethus* species live in wet mud and dung, where they are predators.

Pond netting in Queen's Marsh on 13th September yielded five species, including two crawler water beetles (Haliplidae). One widespread species, *H. lineatocollis* is new to Dartington.



A further interesting beetle was the wasp's nest beetle, *Metoecus paradoxus*. This curious-looking and distinctive insect was photographed by Vicky Churchill on 27th July on the Deer Park Wall. Its larvae are parasitic on wasp larvae in the wasp nest. There are only three other post-1900 records from Devon.

3. Conclusions and future work.

It is clear that Berrymans' Marsh has many beetles living in or on dead wood (saproxylic species). I will carry out further bottle trapping there in 2017 in particular to try and obtain a male example of *Malthodes lobatus*. The ponds and scrapes on Queen's Marsh will be re-sampled to follow the development of water beetle assemblages in them. The possibility of systematic sampling of field margins in Broadlears and elsewhere is also being discussed.

4. Acknowledgements.

Thanks as always are due to the warden Mike Newby and assistant Vicky Churchill for their continued interest in this work and for sending photos of beetles they come across. I am grateful to Mary Bartlett for putting out dead squirrels in her garden to attract carrion species. The specimen of *Epiphanis cornutus* was identified by Keith Alexander and that of *Malthodes lobatus* by Andreas Kopetz.

5. References.

Barclay M.V.L. & Kopetz A., 2003. *Malthodes lobatus* (Kiesenwetter) (Cantharidae) new to Britain. *The Coleopterist* **12**: 97-100.

Foster A.P.. 2013. *Epiphanis cornutus* Eschscholtz (Eucnemidae), *Uleiota planatus* (Linnaeus) (Silvanidae) and *Agrilus sinuatus* (Olivier) (Buprestidae) new to Devon from Knightshayes Park. *The Coleopterist* **22**: 29-30.

6. List of Additional species recorded in 2017 (family names in capitals).

BM = Berryman's Marsh; BL = Broadlears Field agro-forestry; QM = Queen's Marsh; E = Elsewhere

HALIPLIDAE	Carpelimus pusillus BM	Octotemnus glabriculus BM
Halipus lineatocollis QM	Platystethus nodifrons E	MELANDRYIDAE
CARABIDAE	Anotylus complanatus E	Orchesia undulata BM
Notiophilus substriatus BL	Anotylus nitidulus BM	MORDELLIDAE
Amara ovata BL	Stenus latifrons BM	Mordellistena neuwaldeggiana BM
Harpalus affinis BL	Paederus fuscipes BM	RHIPIPHORIDAE
Paradromius linearis BM	Paederus littoralis BL	Metoecus paradoxus E
HYDROPHILIDAE	Gabrius appendiculatus BL	SALPINGIDAE
Anacaena lutescens QM	Quedius schatzmayri BL	Salpingus planirostris BM
Cercyon lateralis BL	Quedius semiaeneus BL	Salpingus ruficollis BM
Megasternum concinnum BL	BYRRHIDAE	CERAMBYCIDAE
Megasternum immaculatum BL	Simplocaria semistriata BL	Leptura quadrifasciata BM
PTILIIDAE	EUCNEMIDAE	Pogonocherus hispidulus BM
Ptiliolum spencei E	Epiphanis cornutus BM	CHRYSOMELIDAE
Ptinella cavelli BM	THROSCIDAE	Galerucella pusilla BM
Acrotrichis sitkaensis BM	Trixagus carinifrons BM	Aphthona lutescens BM
LEIODIDAE	Trixagus dermestoides BM	Longitarsus rubiginosus BM
Leiodes strigipennis BM	ELATERIDAE	Psylliodes picina BM
Colon brunneum BM	Agrypnus murinus E	RHYNCHITIDAE
Choleva glauca BM	CANTHARIDAE	Neocoenorrhinus germanicus
STAPHYLINIDAE	Malthodes lobatus BM	CURCULIONIDAE
Dropephylla ioptera BM	NITIDULIDAE	Otiorhynchus sulcatus BM
Biblopectus spinosus BM	Epuraea distincta BM	Barynotus obscurus BM
Euplectus bescidicus BM	COCCINELLIDAE	Hypera nigrirostris BL
Sepedophilus littoreus BM	Halysia sedecimguttata BM	Hypera plantaginis BL
Mycetoporus lepidus BL	CORYLOPHIDAE	Cionus alauda E
Philhygra malleus BM	Orthoperus nigrescens BM	Cionus hortulanus E
Encephalus complicans BM	Sericoderus brevicornis BM	Dorytomus taeniatus BM
Anomognathus cuspidatus BM	LATRIDIIDAE	Dorytomus melanophthalmus BM
Bolitochara bella BM	Enicmus testaceus BM	Archarius salicivorus BM
Oligota apicata BM	CIIDAE	Pityophthorus pubescens BM
Scaphisoma agaricinum BM	Cis villosulus BM	