

Report on beetles (Coleoptera) and a woodwasp recorded from the Dartington Hall Estate, 2018 by Dr Martin Luff

1. Introduction and Methods

The majority of beetle recording in 2018 was again concentrated on Berryman's Marsh. Three bottle traps were used throughout the season from April to October, suspended above several of the dead wood habitat piles in the marsh. Another trap was also hung over a large pile of logs and woody brash in Mary Bartlett's garden at 1, Martins. In the autumn, a similar trap was put on one of the large heaps of mowings left at the margin of Berryman's Marsh after it was cut. The dry summer exposed a large area of mud around the main pond on Queen's Marsh; this was colonised by a range of specialist beetle species that were sampled by searching and sieving on June 28th. Water beetles were also trapped in the first pond on Berryman's Marsh in October using baited bottle traps. On June 26th, I accompanied Mike Newby and Vicky Churchill to Redlake Meadow and Whitely Field, for a first look at sites outside the core estate.

2. Results

It was another very satisfactory season. The 245 beetle species recorded (28 more than in 2017) was the highest annual total since I started recording here. Of these, 67 (27.3%) were additions to the Dartington list: one is Nationally Rare (NR), formerly classified as Red Data Book (RDB) and eleven are Nationally Scarce (NS), formerly called Nationally Notable.

Some interesting results from each area are summarised below.

2.1 Berryman's Marsh

Using a total of three bottle traps yielded 149 species. These included a specimen of the Tanner beetle, *Prionus coriarius*, previously recorded on the estate in August 2012 by Mike Newby and included in my report for 2012. In 2017 I reported finding the wingless soldier beetle, *Malthodes lobatus* in these traps, this being only the second recorded occurrence in Britain. The species occurred in the traps again in 2018. On 26th June I visited Berryman's with Tony Allen, a fellow coleopterist and we were able to find live specimens of *M. lobatus* by shaking the shoulder high herbaceous vegetation onto trays. A note on the occurrence of *M. lobatus* and other notable beetles in the bottle traps has now been published (Luff & Alexander, 2018) and is appended to this report.

The one Nationally Rare species, new to Devon, was *Silvanoprus fagi*, an obscure species found under bark of usually coniferous trees. A single individual was trapped on 31st July. Otherwise only known from The New Forest and one or two sites in south-east England.

Other interesting species were:



Three examples of a minute ant-like rove beetle, *Euplectus duponti*, (NS) which is closely related to *E. bescedicus* (found last year and figured in that report), but is distinguished by its large, rectangular head – maybe it should be called the ‘block-headed beetle! Larvae are probably predatory under bark and in litter. It has not been found previously in Devon.



Longitarsus parvulus, (NS) the flax flea beetle, a small dark-coloured species that feeds on linseed and flax (*Linum*) species. It was formerly rare and graded Nationally Notable A, but has recently spread north and west from its core in south-east England. It has been found in Devon since about 1950.



Platyrhinus resinus, (NS) the cramp-ball fungus weevil. This moderately sized, very distinctive beetle develops in the cramp-ball fungus, *Daldinia concentrica* on dead ash trees; the larvae feed in the fungus and in the wood beneath.

Magdalis cerasi (NS) is a small black weevil found on oaks and other trees. It has not previously been recorded from south-west England, but is quite widespread in south and central regions of the country.



The bottle traps caught many other insects in addition to beetles. Some of these, in particular some flies (Diptera) have been passed on to relevant specialists for comments and possible identifications. However one that stood out as distinctive and different was the Hymenopteran willow woodwasp *Xiphydria prolongata* (Geoffroy). The woodwasps are related to sawflies but both differ from other Hymenoptera (ants, bees, wasps, etc) by lacking a 'wasp waist' at the base of the abdomen. *X. prolongata* appears to be new to Devon; a note on this has also been published (Luff, 2018) and is appended to this report.

Ten species of water beetle were recorded in traps from the island pond. None are uncommon, but they included the large diving beetle, *Dytiscus marginalis* and its smaller relative, *Acilius sulcatus*, both quite distinctive species figured below. Several were not found when the pond was sampled in October 2015.



2.2 Queen's Marsh

The bare mud during the dry summer yielded 16 species, of which three ground beetles and one rove beetle were additions to the estate list. The scarcest of these in Devon is *Elaphrus riparius*, found typically on damp but sunny sites near water.



2.3 1 Martins



The first beetles found were two specimens of the NS nocturnal ivy swollen-thigh beetle, *Oedemera femoralis*, that flew into Mary Bartlett's house on 14th April, the week before the bottle trap was installed in her garden. A third specimen was caught in the bottle trap the following week. It is related to the common green swollen thigh beetle, often seen on flowers in the summer; in both species only the males have the swollen hind thighs.

Other notable species included:

The click beetle *Athous campyloides*, also NS, is a relatively recent arrival in Britain that is still spreading. There are only three earlier records from Devon. Its larvae live under bark.



The ivy boring beetle, *Ochina ptinoides*. Related to the common woodworm, but much scarcer, with only seven previous Devon records. It has a characteristic pattern of pale hairs on the wing cases and saw-toothed antennal segments

Also found was the chunky little NS bark beetle *Xyleborus dispar*, one of the 'ambrosia' beetles whose larvae feed on a fungus that the parent female seeds its borings with. There are only two earlier records from the county.



2.4 Redlake Meadow & Whitely Field



My brief visit to these sites away from the core estate on 26th June added further species to the overall beetle list. Of greatest interest were two specimens of the hairy thistle weevil, *Rhinocyllus conicus*, another NS species. These were on the flowers of very tall thistles in Redlake Meadow.

3. Conclusions and future work

It is remarkable how ‘new’ species keep on being recorded, despite sampling mainly the same sites with the same techniques! The total Dartington beetle species list is now 706! The only site in Devon with a longer species list is Braunton Burrows on the north coast. I hope to diversify my techniques further next year; I will still operate one or two bottle traps in Berryman’s Marsh, but would like to put one or two over similar habitat piles not on the core estate, such as in Whitely Field. I also propose to use both unbaited yellow traps at ground level, and attractant ‘sap’ traps using a fermenting sugar bait. Further water beetle sampling will also be worthwhile on the various ponds/scrapes on Queen’s Marsh.

4. Acknowledgments

I continue to be dependant on the invaluable assistance from Mile Newby and Vicky Churchill; their enthusiasm for what I am doing is wonderful. Thanks as ever to Mary Bartlett also for her continued support, catching beetles that invade her house, and suggesting that I put a bottle trap in her garden.

5. Publications appended

Luff M.L. & Alexander K.N.A. 2018 *Malthodes lobatus* Kiesenwetter (Cantharidae) in South Devon, with notes on some other Coleoptera from bottle traps. *The Coleopterist* **27**: 23-27.

Luff, M.L. 2018 Willow Woodwasp *Xiphydria prolongata* (Geoffroy) (Hymenoptera: Xiphydriidae) found in South Devon. *British Journal of Entomology & Natural History* **31**: 206.

6. Additional species recorded in 2018 (Family names in capitals)

B=Berryman's Marsh; Q=Queen's Marsh; M=1 Martins; R=Redlake/Whitely; O=other

DYTISCIDAE	Philonthus quisquiliarius B	OEDEMERIDAE
Hydroglyphus geminus B	Philonthus rectangulus B	Oedemera femoralis M
Hygrotus inaequalis B	Heterothops niger B	ANTHICIDAE
Ilybius ater B	Atrecus affinis M	Omonadus formicarius B
Ilybius fuliginosus B	SCARABAEIDAE	CERAMBYCIDAE
Dytiscus marginalis B	Melolontha melolontha O	Leiopus nebulosus B
Acilius sulcatus	Serica brunnea	CHRYSOMELIDAE
CARABIDAE	ELATERIDAE	Cassida flaveola B
Elaphrus riparius Q	Athous campyloides M	Phaedon armoraciae Q
Bembidion articulatum Q	CANTHARIDAE	Phratora vitellinae B
Agonum marginatum Q	Malthinus seriepunctatus B	Phyllotreta diademata M
Dromius meridionalis M	ANOBIIDAE	Phyllotreta vittula B
PTILIIDAE	Ochina ptinoides M	Longitarsus gracilis B
Ptinella errabunda B	KATERETIDAE	Longitarsus parvulus B
LEIODIDAE	Kateretes rufilabris R	Psylliodes dulcamarae B
Anisotoma orbicularis B	MONOTOMIDAE	ANTHRIBIDAE
Leiodes calcarata M	Rhizophagus perforatus M	Platyrrhinus resinosus B
Leiodes rufipennis B	Monotoma longicollis B	APIONIDAE
Nargus wilkinii B	SILVANIDAE	Protapion trifolii R
SCYDMAENIDAE	Silvanoprus fagi B	Perapion hydrolapathi B
Neuraphes angulatus M	CRYPTOPHAGIDAE	Ischnopterapion loti B
Scydmorephes helvolus B	Ephistemus globules B	CURCULIONIDAE
STAPHYLINIDAE	CERYLONIDAE	Phyllobius pyri B
Euplectus duponti B	Cerylon fagi M	Barypeithes araneiformis B
Mycetoporus longulus B	COCCINELLIDAE	Rhinocyllus conicus R
Callicerus obscurus B	Scymnus haemorrhoidalis B	Datonychus melanostictus B
Atheta brunneipennis B	LATRIDIIDAE	Tachyerges salicis B
Dalotia coriaria B	Corticaria elongate B	Rhamphus pulicarius B
Oligota inflata B	CIIDAE	Trypodendron lineatum M
Lithocharis ochracea M	Cis submicans B	Xyleborus dispar M
Philonthus micantoides B		Xyleborinus saxesenii M

***Malthodes lobatus* Kiesenwetter (Cantharidae) in South Devon, with notes on some other Coleoptera from bottle traps**

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Since June 2016, MLL has operated bottle flight interception traps (one in 2016, two in 2017) in an area of herb-rich damp grassland known as Berryman's Marsh (SX799615) adjacent to the River Dart on the Dartington Hall Estate, South Devon (VC 3). The area is about 400m x 100m, bordered by a mix of broadleaved trees, mostly not very old excepting one large oak. There are scattered young willows and some alder throughout the area, especially around two small ponds. The site is susceptible to winter flooding in some years. The site is mown or cut annually in autumn (or the following spring if the ground is too wet) and the cuttings removed. The traps are similar to those generally used (i.e. made from four 2l drinks bottles), but instead use rather larger plastic sweet jars with two sides cut out of each. They were hung adjacent to 'habitat piles' of cut branches (mainly willow and alder) or piles of smaller brush (Fig. 1). The contents were examined at two-week intervals.

On 7.vi.2017 MLL found a single small (2mm) wingless *Malthodes* with reduced elytra. Further examples were found between 7.vi and 1.viii, with a total of 24 specimens, all female; the peak was 15 on 3.vii. The specimens clearly resembled *Malthodes lobatus* Kiesenwetter, 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.

Dartington material was sent to Max Barclay, and to KNAA as author of the Species Status Review of the Cantharidae (Alexander, 2014). KNAA realised he had a further unidentified but similar female collected from the Killerton Estate, South Devon, 5.vii.1990. That specimen had been swept from a low-lying area alongside the River Culm (SS967011), with patchy reed sweet-grass *Glyceria maxima* amongst grass and nettles, open to cattle grazing, and beneath a canopy of crack willow and ash. *Malthodes dispar* (Germar) was also swept from the same area. Dartington and Killerton specimens were both sent to Andreas Kopetz in Germany. He identified them as probably *M. lobatus* although males (very rare in this group) would be needed to confirm this beyond doubt. The Killerton capture pre-dates Barclay & Kopetz (2003) and is thus the first British example of the species.

The status of *M. lobatus* remains uncertain. Neither Barclay & Kopetz (2003) nor Alexander (2014) could decide whether it was a recent immigrant or an overlooked native species. The numbers found and the length of time over which they occurred suggest that it is probably breeding at the Dartington site. Its occurrence at three

separate localities in southern England may support the view that it is an overlooked and little noticed native. But equally, as all three sites are not that far inland, could they have been blown across the English Channel on warm strong winds? The Devon sites are rather similar, both along river valleys, both with tall vegetation amongst woody growth; in contrast the Sussex specimens were from short, dry chalk grassland, but adjoining an old hedgerow, so the trees may be a common factor. Alexander (2014) noted that, in the absence of a demonstrable long-term established population, it would appear sensible to defer a review of its British status to a later date. The Devon finds now provide that information, and an IUCN regional status of 'Data Deficient' now seems more appropriate.

A further question is: how does this small, flightless beetle occur in such abundance in traps designed to catch flying insects? By mid to late summer the vegetation around the traps had grown to their level, so specimens may have crawled or been blown off this; Fig. 1 shows that the herbage reached the bottom of the trap by May. If they do get carried around on the wind then capture by flight-trapping does also make sense.



Fig. 1 Bottle trap in which *M. lobatus* specimens were caught, adjacent to a brash heap and near to a log pile; photograph taken on 16.v.2017.

Other notable species

The bottle traps caught nearly 150 species of beetle; others of local or national significance are listed below, with date of first capture and national status (if any). Species apparently new to Devon are indicated by “*”. Species statuses are from Hyman (1992, 1994) or relevant more recent Species Status Reviews where these exist.

Ptiliidae

**Acrotrichis strandi* Sundt. Notable. 9.viii.2016.

**Ptinella cavelli* (Broun). 29.viii.2017.

Leiodidae

Choleva glauca Britten. Notable. 29.viii.2017. There is a single earlier Devon record in G.H. Ashe’s index of Devon beetles, from Dartmoor (?SX67), 1933, coll. A.A. Allen.

**Colon brunneum* (Latreille). 29.viii.2017.

**Leiodes strigipennis* Daffner. RDBK. 3.x.2017.

Staphylinidae

Anomognathus cuspidatus (Erichson). 3.vii.2017 and subsequently. There are only three records in Ashe’s Devon index, the most recent in 1948 from Colyton, coll. G.H. Ashe.

**Biblopectus spinosus* Raffray. Notable. 3.x.2017.

**Euplectus bescidicus* Reitter. RDBK. 7.vi.2017.

Oligota apicata (Erichson). Notable. 7.iii.2017 and subsequently. There are four earlier Devon records of this species between 1944 and 1989, including one from North Devon (VC 4).

Scaphisoma boleti (Panzer). Notable B. 19.vii.2017. Recorded from an interception trap in Whiddon Deer Park in 1999 (Kirby, 1999). The only other Devon specimen was taken by MLL on 19.vii.2010 in leaf litter elsewhere on the Dartington Hall estate (SX795633). The commoner *S. agaricinum* (Linnaeus) was also found in Berryman’s Marsh traps on 20.vi.2017.

Eucnemidae

Epiphanis cornutus Eschscholtz. 19.vii.2017. Identified by KNAA. The only previous Devon record of this relatively recent arrival in Britain is from Knightshayes Park in 2012 (Foster, 2013).

Sphindidae

Aspidiphorus orbiculatus (Gyllenhal). 1.vii.2016 and subsequently. Only recorded from four other sites in Devon, of which two are post-1960.

Nitidulidae

Epuraea distincta (Grimmer). Notable A. 20.vi.2017. Since the first find of this species in north Devon in 1989, it seems to have become more widespread with records from ten widely spaced localities in both VC 3 and VC 4.

Biphyllidae

Diplocoelus fagi (Chevrolat in Guérin-Méneville). Notable B. 18.viii.2016. The only other Devon record is by MLL elsewhere on the Dartington Hall estate (SX796633) on 14.viii.2013, under bark of stacked beech logs.

Corylophidae

Orthoperus nigrescens Stephens. Notable B. 5.v.2017 and subsequently. MLL has also found this species in bottle traps over his compost heap in Totnes (SX811605) from 2010 to 2012. There are four other recorded Devon localities.

Sericoderus brevicornis Matthews. 7.vii.2017 and subsequently. KNAA has recorded this introduced species elsewhere in the south of England in flight interception traps (Alexander, 2013). MLL found it new to Devon in fungi in the centre of Sidmouth (SY125800) on 6.viii.2016, so the Dartington specimens are the second county locality for the species, which is probably now widespread.

Latridiidae

Enicmus brevicornis (Mannerheim). Notable. 9.viii.2016 and subsequently. Previously recorded by MLL from woodland elsewhere on the Dartington Hall estate (SX784629) on 10.vi.2010. The first Devon record was from Exeter University campus (SX9294) in 1977 (coll. R.G. Booth) but it was found commonly in interception traps at Whiddon Deer Park in 1999 (Kirby, 1999) and has also been recorded by C. Turner from Killerton in 2010.

Mordellidae

Mordellistena neuwaldeggiana (Panzer). RDBK. 29.viii.2017. There is an old record (coll. G.C. Champion) from Teignmouth in Ashe's index; otherwise the only other Devon records are from a trap above MLL's compost heap (SX811605) on 25.vii.2010 and 8.viii.2012.

Salpingidae

Salpingus ruficollis (Linnaeus). 3.x.2017. The only other Devon record of this species was by KNAA from a flight interception trap at Clayhidon Turbery Nature Reserve (ST1515) on 12.ix.2015.

Curculionidae

Dorytomus melanophthalmus (Paykull). 24.v.2017. The only other Devon records are from Yarner Wood (SX7778) in 1955 (Natural England) and Otterton (SY0784) in 2015 (coll. A. Cunningham).

Pityophthorus pubescens (Marsham). 13.ix.2017. Other than a pre-1950 record from Tiverton in Ashe's index, the only other recent record from the county is from Yarner Wood (SX7778) on 22.vi.2002 (Natural England).

It is evident that Berryman's Marsh supports a range of interesting beetles, many, but not all, associated with the dead branches in the habitat piles against which the bottle traps were placed. Further trapping, as well as searching for males of *M. lobatus*, will be worthwhile in the future.

Acknowledgments

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Willow Woodwasp *Xiphydria prolongata* (Geoffroy) (Hymenoptera: Xiphydriidae) found in South Devon. – Individual females of *Xiphydria prolongata* were found on 1st and 15th August 2017 in a flight interception trap over a pile of cut logs in an area of herb-rich damp grassland with willow and alder trees known as Berryman’s Marsh (SX799615) adjacent to the River Dart on the Dartington Hall Estate, South Devon (VC 3). Full details of the locality and traps are given in Luff & Alexander (2017). The species seems to be established at the Devon site as a further female was caught on 19th June 2018. *Xiphydria prolongata* was readily recognised by the combination of ovipositor, long neck and red markings on the abdomen (Fig. 1).



Fig. 1. Female *Xiphydria prolongata* lateral view, from Dartington Hall, Devon, 19th June 2018.

There do not seem to be previous records of *X. prolongata* from Devon or Cornwall. The list of Devon Symphyta by Perkins (1924) did not include any Xiphydriidae. Benson (1951) gave its distribution as ‘... confined to the south east of a line from the Wash to Hampshire’. However Shaw & Liston (1985) in a paper on the identification and distribution of all three species of *Xiphydria* included Nottinghamshire, Hereford and Somerset in their summary of the distribution of *X. prolongata*. The National Biodiversity Network Atlas includes an Invertebrate Site Register record from ST4310, South Somerset, VC5 in 1978, A. J. Parsons. Together with the present Devon records this suggests that the species may be spreading westwards in Britain. – MARTIN LUFF, 7 Southcote Orchard, Totnes, Devon TQ9 5PA.

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