

Saproxylic Beetles from Ickworth Park, West Suffolk

Ross Piper¹, A.J. Allen² & R.G. Booth³

¹ Ashburnham Farm, Barking, Suffolk IP6 8HJ; ross_piper@yahoo.com

² 56 Windsor Way, Fordingbridge, Hampshire SP6 3BN; allentonyallen@aol.com

³ Scientific Associate, Department of Life Sciences, Natural History Museum, London SW7 5BD

Introduction and Methods

The National Trust's Ickworth Park Estate near Bury St Edmunds in West Suffolk covers approximately 730 hectares and includes large areas of parkland/wood pasture and woodland (centred on TL8155461445). The parkland/wood pasture has many veteran and ancient trees, mostly pedunculate oak *Quercus robur*. A survey of the site's saproxylic beetle fauna was commissioned by the National Trust.

RP installed and serviced ten vane traps, based on a design kindly provided by Adrian Dutton. Nine of these traps were placed on veteran and ancient trees oaks across the Ickworth Estate, focussing on the parkland. One trap was installed on a large, pollarded Beech in the estate woodland. The traps were installed on 23 May 2022 and emptied monthly until the end of September 2022. The trees were selected based on the decay features they possessed, e.g. large rot holes, hollows and recently dead, standing trees.

The Saproxylic Quality Index database lists 142 saproxylic beetle species from Ickworth Park, of which 137 have a rarity score assigned (Fowles, 2023). The records for saproxylic beetles from Ickworth Park cover the period from 1986 to 2019. The last, targeted survey of the site's saproxylic beetle fauna was by David Nash in 1999. Currently, the Species Quality Score (SQS) for Ickworth is 737, the Saproxylic Quality Index (SQI) is 538 and the Index of Ecological Continuity (IEC) is 55.

Results and Discussion

141 insect species were recorded from the vane traps during this survey. 93 of these were saproxylic beetle species, 48 of which are new to the site (Table 1). 21 of these 48 species have a conservation status.

These results take the saproxylic beetles species list for Ickworth Park to 191 species. Of these, 178 species have an assigned rarity score, which is used to calculate the SQI for the site. The total SQS for this list of scoring species is 1026, which yields a SQI of 583 and moves the site to 27 from 38 in the current ranking of sites evaluated by their SQI. With the addition of the new data, the IEC for the site now stands at 78. The SQI and IEC values all indicate a site of national importance for saproxylic beetles.

The most interesting species

CLERIDAE

Opilo mollis (Linnaeus). One, June-July sample, from oak in parkland with a large, central hollow (TL81533 62402).

ELATERIDAE

Calambus bipustulatus (Linnaeus). One, May-June sample, from ancient parkland oak with large, central hollow and broken trunk (TL8089162916).

Procrærus tibialis (Lacordaire). One, June-July sample, from ancient parkland ‘stag-horn’ oak with a large central hollow (TL8086363164).

LYMEXYLIDAE

Lymexylon navale (Linnaeus). Two, May-June, five, June-July, one, July-August and one, August-September, from recently dead, standing oak in parkland near the main entrance (TL8244162099).

MELANDRYIDAE

Phloiotrya vaudoueri (Mulsant). One, June-July sample, from oak in parkland with a split trunk (TL8163562063).

SCIRTIDAE

Prionocyphon serricornis (Müller). One, June-July, and one, July-August samples, from large, pollarded beech in woodland with wet, central rot hole (TL8214260173).

STAPHYLINIDAE

Euplectus tholini (Guillebeau). One, July-August sample, from recently dead, standing oak in parkland near main entrance (TL8244162099).

Stichoglossa semirufa (Erichson). One, June-July sample, from an oak in parkland with a large rot hole (TL8193261710). This species is only known in Britain from six other records spread between 1898 and now (Cooter, 2022). Next to nothing is known about the habitat requirements of this species, but for it to be encountered so infrequently suggests that they may be very specific.

SCRAPTIIDAE

Scraptia testacea (Allen). Two, May-June sample, from Tea Party Oak (TL8141561849) with large, central hollow. Three, May-June sample and one, June-July sample, from oak in parkland with large, central hollow (TL8153362402).

ZOPHERIDAE

Colydium elongatum (Fabricius). One, June-July sample, from oak in parkland with split trunk (TL8163562063). One, May-June sample, from oak in parkland with large, central hollow (TL8153362402). Two, May-June sample, one June-July sample and one, July-August sample, recently dead, standing oak in parkland near the main entrance (TL8244162099).

Diaperis boleti (Linnaeus) (Tenebrionidae) was formerly very rare and local but has expanded its range and become generally common throughout the south-east and east in recent decades, warranting a revision of its conservation status.

Table 1 Saproxyllic beetles from Ickworth Park Survey 2022. In the headings No is the total number of specimens collected and No of traps is the number of traps with specimens.

| SPECIES | STATUS | SQS | IEC | No | No of traps |
|---|--------|-----|-----|----|-------------|
| ADERIDAE | | | | | |
| <i>Euglenes oculatus</i> (Paykull) | NS | 8 | 1 | 89 | 5 |
| ANTHRIBIDAE | | | | | |
| <i>Platyrhinus resinosus</i> (Scopoli) | NS | 4 | 1 | 1 | 1 |
| BUPRESTIDAE | | | | | |
| <i>Agrilus angustulus</i> (Illiger) | NS | 8 | | 2 | 2 |
| <i>Agrilus biguttatus</i> (Fabricius) | | 8 | | 3 | 1 |
| <i>Agrilus sinuatus</i> (Olivier) | | 4 | | | DS |
| CANTHARIDAE | | | | | |
| <i>Malthinus flaveolus</i> (Herbst) | | 1 | | 1 | 1 |
| CERAMBYCIDAE | | | | | |
| <i>Anaglyptus mysticus</i> (Linnaeus) | NS | 4 | | 2 | 2 |
| <i>Grammoptera ruficornis</i> (Fabricius) | | 1 | | 1 | 1 |
| <i>Phymatodes testaceus</i> (Linnaeus) | | 4 | 1 | 3 | 2 |
| CERYLONIDAE | | | | | |
| <i>Cerylon ferrugineum</i> (Stephens) | | 2 | | 1 | 1 |
| <i>Cerylon histeroideus</i> (Fabricius) | | 4 | | 2 | 2 |
| CIIDAE | | | | | |
| <i>Cis bilamellatus</i> (Wood)* | | 0 | | 1 | 1 |
| <i>Cis boleti</i> (Scopoli) | | 1 | | 1 | 1 |
| <i>Cis castaneus</i> (Herbst) | | 2 | | 1 | 1 |
| <i>Cis fagi</i> (Waltl)* | | 2 | | 1 | 1 |
| <i>Cis pygmaeus</i> (Marsham)* | | 2 | | 1 | 1 |
| <i>Cis villosulus</i> (Marsham)* | | 2 | | 4 | 2 |
| <i>Ennearthron cornutus</i> (Gyllenhal)* | | 2 | | 3 | 2 |
| CLERIDAE | | | | | |
| <i>Korynetes caeruleus</i> (De Geer) | NS | 8 | 1 | 3 | 2 |
| <i>Opilo mollis</i> (Linnaeus)* | NS | 8 | 1 | 1 | 1 |
| <i>Thanasimus formicarius</i> (Linnaeus) | | 4 | 1 | 2 | 1 |
| CUCUJIDAE | | | | | |
| <i>Pediacus dermestoides</i> (Fabricius) | | 4 | 1 | 2 | 2 |
| CRYPTOPHAGIDAE | | | | | |
| <i>Cryptophagus labilis</i> (Erichson)* | NS | 8 | | 1 | 1 |
| <i>Cryptophagus scanicus</i> (Linnaeus)* | | 0 | | 1 | 1 |
| CURCULIONIDAE | | | | | |
| <i>Dryocoetes villosus</i> (Fabricius)* | | 2 | | 59 | 6 |
| <i>Euophryum confine</i> (Broun)* | | 0 | | 10 | 4 |
| <i>Platypus cylindrus</i> (Fabricius) | NS | 8 | 1 | 22 | 3 |

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|--|---------------|------------|------------|-----------|--------------------|
| <i>Scolytus intricatus</i> (Ratzeburg) | | 2 | | 46 | 5 |
| <i>Xyleborus dryographus</i> (Ratzeburg)* | NS | 8 | 1 | 10 | 4 |
| ELATERIDAE | | | | | |
| <i>Calambus bipustulatus</i> (Linnaeus)* | NS | 8 | 1 | 1 | 1 |
| SPECIES | STATUS | SQS | IEC | No | No of traps |
| <i>Melanotus villosus / castanipes</i> (Geoffroy in Fourcroy) | | 0 | | 10 | 5 |
| <i>Procaerus tibialis</i> (Lacordaire)* | RDB3 | 16 | 3 | 1 | 1 |
| <i>Stenagostus rhombeus</i> (Olivier) | | 4 | 1 | 2 | 1 |
| ENDOMYCHIDAE | | | | | |
| <i>Endomychus coccineus</i> (Linnaeus) | | 2 | | | DS |
| EROTYLIDAE | | | | | |
| <i>Dacne bipustulata</i> (Thunberg) | | 2 | | 1 | 1 |
| HISTERIDAE | | | | | |
| <i>Paromalus flavicornis</i> (Herbst) | | 2 | | 5 | 3 |
| <i>Plegaderus dissectus</i> (Erichson)* | | 8 | 2 | 6 | 3 |
| LAEMOPHLOEIDAE | | | | | |
| <i>Cryptolestes duplicatus</i> (Waltl)* | | 2 | | 2 | 2 |
| <i>Cryptolestes ferrugineus</i> (Stephens)* | | 2 | | 1 | 1 |
| LATRIDIIDAE | | | | | |
| <i>Enicmus brevicornis</i> (Mannerheim) | NS | 8 | 1 | 4 | 3 |
| <i>Enicmus rugosus</i> (Herbst)* | NS | 8 | 2 | 2 | 1 |
| <i>Enicmus testaceus</i> (Stephens) | | 2 | | 3 | 3 |
| LEIODIDAE | | | | | |
| <i>Agathidium nigrinum</i> Sturm* | | 2 | | 1 | 1 |
| <i>Nemadus colonoides</i> (Kraatz)* | | 2 | | 1 | 1 |
| LUCANIDAE | | | | | |
| <i>Sinodendron cylindricum</i> (Linnaeus) | | 2 | | 2 | 2 |
| <i>Dorcus parallelipipedus</i> (Linnaeus) | | 2 | | 1 | 1 |
| LYMEXYLIDAE | | | | | |
| <i>Lymexylon navale</i> (Linnaeus)* | NS | 32 | 2 | 9 | 1 |
| MELANDRYIDAE | | | | | |
| <i>Conopalpus testaceus</i> (Olivier) | | 8 | 1 | 1 | 1 |
| <i>Orchesia micans</i> (Latreille)* | | 4 | | 1 | 1 |
| <i>Phloiotrya vaudoueri</i> (Mulsant)* | NS | 8 | 2 | 1 | 1 |
| MELYRIDAE | | | | | |
| <i>Axinotarsus marginalis</i> (Laporte)* | | 0 | | 2 | 2 |
| <i>Dasytes aeratus</i> (Stephens) | | 2 | | 4 | 3 |
| <i>Malachius bipustulatus</i> (Linnaeus) | | 1 | | 1 | 1 |
| MONOTOMIDAE | | | | | |
| <i>Rhizophagus bipustulatus</i> (Fabricius) | | 1 | | 1 | 1 |
| <i>Rhizophagus ferrugineus</i> (Paykull) | | 2 | | 1 | 1 |
| MORDELLIDAE | | | | | |
| <i>Mordellochroa abdominalis</i> (Fabricius) | | 4 | | 2 | 2 |
| MYCETOPHAGIDAE | | | | | |

| | | | | | |
|---|---------------|------------|------------|-----------|--------------------|
| <i>Eulagius filicornis</i> (Reitter)* | | | | 1 | 1 |
| <i>Mycetophagus atomarius</i> (Fabricius) | | 2 | 1 | 1 | 1 |
| NITIDULIDAE | | | | | |
| <i>Cryptarcha undata</i> (Olivier)* | NS | 8 | | 2 | 1 |
| <i>Eपुरaea aestiva</i> (Linnaeus)* | | 0 | | 1 | 1 |
| <i>Eपुरaea fuscicollis</i> (Stephens)* | NS | 8 | | 2 | 1 |
| <i>Eपुरaea unicolor</i> (Olivier)* | | 2 | | 2 | 1 |
| SPECIES | STATUS | SQS | IEC | No | No of traps |
| <i>Glischrochilus hortensis</i> (Geoffroy in Fourcroy)* | | 0 | | 1 | 1 |
| PTINIDAE | | | | | |
| <i>Anobium punctatum</i> (De Geer) | | 1 | | 6 | 5 |
| <i>Ctesias serra</i> (Fabricius) | | 4 | | 10 | 5 |
| <i>Dorcatoma chrysomelina</i> (Sturm) | | 4 | 1 | 4 | 3 |
| <i>Dorcatoma flavicornis</i> (Fabricius) | NS | 8 | 1 | 6 | 3 |
| <i>Grynobius planus</i> (Fabricius) | | 2 | | 2 | 2 |
| <i>Hemicoelus fulvicornis</i> (Sturm)* | | 1 | | 2 | 2 |
| <i>Ptilinus pectinicornis</i> (Linnaeus) | | 1 | | 1 | 1 |
| <i>Ptinomorphus imperialis</i> (Linnaeus) | | 8 | | 1 | 1 |
| <i>Ptinus sexpunctatus</i> (Panzer)* | | 0 | | 1 | 1 |
| SCIRTIDAE | | | | | |
| <i>Prionocyphon serricornis</i> (Müller)* | NS | 8 | 1 | 2 | 1 |
| SCRAPTIIDAE | | | | | |
| <i>Anaspis fasciata</i> (Forster) | | 2 | | 1 | 1 |
| <i>Anaspis garneysi</i> (Fowler)* | | 0 | | 1 | 1 |
| <i>Anaspis maculata</i> (Fourcroy) | | 0 | | 3 | 3 |
| <i>Anaspis regimbarti</i> (Schilsky)* | | 0 | | 2 | 1 |
| <i>Anaspis thoracica</i> (Linnaeus)* | NS | 8 | 3 | 2 | 2 |
| <i>Scraptia testacea</i> (Allen)* | NS | 16 | 3 | 4 | 2 |
| STAPHYLINIDAE | | | | | |
| <i>Anomognathus cuspidatus</i> (Erichson)* | | 2 | | 1 | 1 |
| <i>Atrecus affinis</i> (Paykull)* | | 1 | | 1 | 1 |
| <i>Bisnius subuliformis</i> (Gravenhorst)* | | 2 | | 2 | 1 |
| <i>Dropephylla ioptera</i> (Stephens)* | | 1 | | 1 | 1 |
| <i>Euplectus tholini</i> (Guillebeau)* | RDB3 | 24 | 3 | 1 | 1 |
| <i>Hapalaraea pygmaea</i> (Paykull) | | 2 | | 1 | 1 |
| <i>Haploglossa gentilis</i> (Märkel)* | | 2 | | 2 | 2 |
| <i>Haploglossa villosula</i> (Stephens)* | | 0 | | 1 | 1 |
| <i>Phloeopora testacea</i> (Mannerheim)* | | 1 | | 1 | 1 |
| <i>Scaphidium quadrimaculatum</i> (Olivier) | | 2 | | | DS |
| <i>Stichoglossa semirufa</i> (Erichson)* | RDBI | 24 | | 1 | 1 |
| TENENBRIONIDAE | | | | | |
| <i>Diaperis boleti</i> (Linnaeus)* | NS | 24 | | 9 | 6 |
| <i>Prionychus ater</i> (Fabricius) | | 8 | 1 | 1 | 1 |
| <i>Pseudocistela ceramboides</i> (Linnaeus)* | NS | 8 | 2 | 10 | 5 |

| | | | | |
|--|------|----|---|----|
| <i>Tribolium castaneum</i> (Herbst) | | 0 | 1 | 1 |
| THROSCIDAE | | | | |
| <i>Aulonthroscus brevicollis</i> (de Bonvouloir) | RDB3 | 24 | 3 | 18 |
| ZOPHERIDAE | | | | |
| <i>Colydium elongatum</i> (Fabricius)* | NS | 16 | 7 | 3 |

DS = direct searching. NS = nationally scarce. * = new to the site.

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References

- COOTER, J. 2022. A tale of two staphs (Staphylinidae: Aleocharinae); correcting the record. *The Coleopterist* **31**: 21-26.
- FOWLES, A.P. 2023. Saproxylc Quality Index: Evaluated sites ranked by SQI. <https://khepri.uk/main/>. Accessed August 2023.