*The Coleopterist*

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**Cover:** *Malachius aeneus* (Linnaeus) (Melyridae) *D. R. Copestake*

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***Bembidion coeruleum*** **new to Britain**
**Status of the Lily Beetle in Britain**
**Notes • Review**

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# *The Coleopterist*

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# *Bembidion coeruleum* Serville (Carabidae) new to Britain and other notable carabid records from Dungeness, Kent

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During the night of 22nd July 1999, Simon Busuttil went out to investigate a torchlight on the Dungeness RSPB reserve, Kent. He encountered Mr Sindre Ligaard, a Norwegian coleopterist on holiday, who promised to send his records for the site. Those records included some remarkable finds, not least of which was *Bembidion coeruleum* Serville. Mr Ligaard had recognised that this species was a potential first for Britain, and had already had his original determination checked by Palle Jørum from Denmark.

Mr Ligaard kindly sent two of his *B. coeruleum* specimens to me for my opinion. Using Jeannel (1941), Freude *et al.* (1976) and the collections of the Natural History Museum (NHM), I reached the same identification. It was clear that the species could be overlooked as *Bembidion tibiale* (Duftschmid). An investigation of earlier records of *B. tibiale* from Kent held by the Biological Records Centre and Mr E.G. Philp, led to some specimens also collected at Dungeness in 1989 by Mark Parsons. On re-examination, these also proved to be *B. coeruleum*, pre-dating Mr Ligaard's discovery by ten years. A specimen from Kent in the K.C. Side collection at Maidstone Museum, collected on 12th May 1956 in TQ 83 was forwarded to me via Mr Philp, and confirmed that *B. tibiale* has a place on the Kent list, albeit with no subsequent records.

This paper presents the full details of both British records of *B. coeruleum*, and discusses the identification and status of this beetle in Britain.

The earliest British record of *B. coeruleum* is of two specimens collected by Mark Parsons at Brett's Pit, Dungeness (TR 0119) on 3rd May 1989, probably from the edge of a recent gravel pit with fairly silty/sandy edges, either running on the surface or by puddling. The later record was of about 15 specimens collected during the night of 22nd July 1999 by Sindre Ligaard near Boulderwall Farm (TR 0619). Specimens were found by searching with a torch "among rather big stones, but without vegetation" (Ligaard, *in litt.*). Both localities are in East Kent (VC 15).

Mr Ligaard reported finding *B. coeruleum* together with *B. decorum* (Zenker in Panzer), the latter being the more numerous. *B. decorum* was discovered new to Kent on 4th May 1998 by Brian Eversham and myself. It was found to be fairly common around recently created, shallow gravel pits near Boulderwall Farm (TR 061196 and TR 066202).

Also taken by Mr Ligaard was a single specimen of *Microlestes minutulus* (Goeze). Added to the British list by Eversham & Collier (1997), this species has previously been recorded from West Kent, North Essex and East Suffolk. However, this is the first record for the south coast of Britain, and for East Kent. A single example was collected from

gravel and litter in company with *Notiophilus substriatus* Waterhouse, G.R., and *N. biguttatus* (Fabricius), and has been donated to MGT's personal collection.

*Bembidion saxatile* Gyllenhal was recorded by Mr Ligaard in the same area of Dungeness. Old Kent records come from Dover, Shellness (Sheppey), Folkestone and the Rochester district. There are no other records of this species from Kent since 1909.

**Identification**

*B. coeruleum* is a member of the *Bembidion* subgenus *Bembidionetolitzkya*, otherwise represented in Britain by *B. tibiale*, *B. atrocoeruleum* Stephens and *B. geniculatum* Heer. All four of these *Bembidion* spp. are included in keys in Jeannel (1941) (as *Peryphus* subgenus *Daniela*) and Freude *et al.* (1976).

Using the key in the Royal Entomological Society handbook (Lindroth, 1974) may lead to an identification as *B. geniculatum*, since *B. coeruleum* has elytral apices produced like *geniculatum*, not truncate like *tibiale* and *atrocoeruleum*. However, the pronotal base of *coeruleum* is obliquely truncate at the sides, forming a slightly obtuse hind-angle. This character state is also shown by *atrocoeruleum*; *tibiale* and *geniculatum* have an evenly convex pronotal base and hind-angles more rectangular. *B. coeruleum* may further be distinguished by its larger size (5.2-7 mm, cf. 5.5-6.5 for *tibiale*, 4.5- 6.0 for *geniculatum* and 4.0-5.0 for *atrocoeruleum* (Freude *et al.*, 1976)), and fairly strong metallic blue colour of the whole upperside (*tibiale*, *geniculatum* and *atrocoeruleum* tend to have a weaker and greener metallic colouration). Compared to *tibiale* (the only other *Bembidionetolitzkya* known from south-east England), *coeruleum* also has less strongly punctate elytral striae, flatter elytral intervals, and slightly more ovate elytra with the side margins straighter in the basal half. The median lobes of the aedeagi of all four British *Bembidionetolitzkya* are figured in Freude *et al.* (1989) and appear to provide good diagnostic characters.

One of Mr Ligaard's specimens is to be deposited at the NHM for incorporation into the British beetle collection.

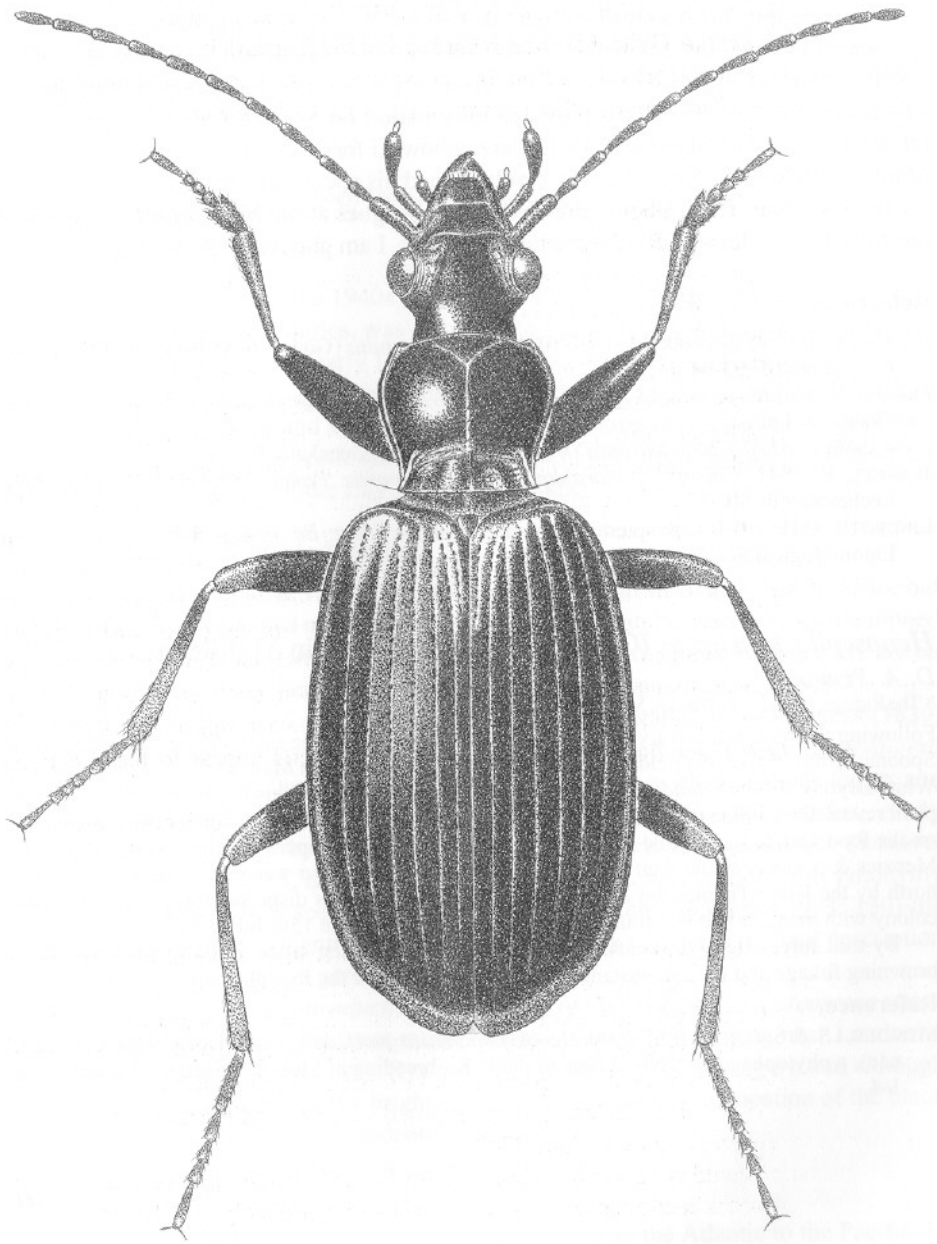
**Status and distribution**

The nominate subspecies of *B. coeruleum*, to which British material is referable, is recorded from southwest Europe and North Africa, eastwards to the southern Tirol (Austria). In southeast Europe, Turkey and the Caucasus, *B. coeruleum* ssp. *astrabadense* Mannerheim (= *concoeruleum* Netolitzky) occurs (Freude *et al.*, 1976, 1989). Within France, *B. coeruleum* is a southern species, but also occurs in the north on the Atlantic coast (Jeannel, 1941). I collected it from exposed riverine sediments on the Rivers Dordogne and Vézère, France, in June 2000.

*B. coeruleum* would appear to have been established at Dungeness since at least 1989. It seems likely that this beetle has recently colonised Britain, probably by natural dispersal.







**Pl. 1:** *Bembidion coeruleum* Serville (Carabidae) *R. W. J. Read*

**Acknowledgements**

Many people have contributed to this note. Sindre Ligaard loaned or donated specimens and provided full details of his finds; Simon Busuttil and Matt Shardlow of the RSPB forwarded the initial news of the discovery to me and have helped with various subsequent queries; Eric Philp provided information on Kent records of *B. tibiale* and other species and arranged with Dr Ed Jarzembowski for the loan of a specimen from the Maidstone Museum; Mark Parsons kindly loaned his specimens and provided details of the record; Stuart Hine, Martin Brendell and colleagues at the NHM arranged access to the collections; Martin Luff commented on a draft. I am grateful to them all.

**References**

EVERSHAM, B.C. & COLLIER, M. 1997. *Microlestes minutulus* (Goeze) (Carabidae) new to Britain. *Coleopterist* **5**: 93-94.

FREUDE, H., HARDE, K.W. & LOHSE, G.A. (eds) 1976. *Die Käfer Mitteleuropas*. Volume 2. Krefeld: Goecke & Evers.

—— 1989. *Die Käfer Mitteleuropas*. Volume 12. Krefeld: Goecke & Evers.

JEANNEL, R. 1941. *Coléoptères carabiques, première partie. Faune de France*, 39. Paris: Paul Lechevalier et fils.

LINDROTH, C.H. 1974. Coleoptera: Carabidae. *Handbk Ident. Br. Insects* **4**(2). London: Royal Entomological Society.

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## *Henosepilachna argus* (Geoffroy) (Coccinellidae) in Middlesex

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Following the recent discovery of this ladybird in Molesey and the surrounding area (Menzies & Spooner, 2000), I visited a field here in Sunbury (TQ 0969) on 20th May 2000 where the foodplant White Bryony *Bryonia dioica* grows, to see if *H. argus* had spread this far. Inspection of just one plant revealed a number of adults and some larvae. The following day I noticed many more resting on the foodplant in half a mile of hedgerows in neighbouring Upper Halliford (TQ 0968). When Menzies & Spooner wrote their paper, the distribution of *H. argus* was said to be bounded to the north by the River Thames but clearly this has not prevented its dispersal northwards. A further colony with many larvae was found at Felthamhill (TQ 1071) on 15th July 2000.

By mid July, extensive skeletonization of leaves by feeding larvae in these areas had led to browning foliage and in some instances complete die-back of the foodplant.

**Reference**

MENZIES, I.S. & SPOONER, B.M. 2000. *Henosepilachna argus* (Geoffroy) (Coccinellidae, Epilachninae), a phytophagous ladybird new to the U.K., breeding at Molesey, Surrey. *Coleopterist* **9**: 1-4.

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# The status of the Lily Beetle *Lilioceris lilii* (Scopoli, 1763) in Britain (Chrysomelidae: Criocerinae)

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**Introduction**

During the period from the 1940s to the late 1970s the Lily Beetle, one of the major pests of lilies and fritillaries, was restricted to five vice-counties in central southern England. However, since the early 1980s there has been a massive extension in the range of this species. This paper aims to establish the present distribution, as of March 2001, of the Lily Beetle in Britain, and attempts to explain this taking into account the apparently low dispersal ability of the beetle and the movement of planting material. In addition, the possible host-plant range of the Lily Beetle is examined.

**History of the Lily Beetle in Britain**

According to Taylor & Hill (1982), lilies were present in Britain before 1596, but possibly the Lily Beetle had not even arrived by the next century, since it is not mentioned by Hammond (1975: 267) in his list of Leonard Plukenet British beetles and there are no British specimens of that period in the Natural History Museum, London (NHM).

The first reference to *L. lilii* (Scopoli) in the British literature is by Stephens (1839: 284) who stated that it was very rare. Stephens misidentified it as *Crioceris merdigera* Linnaeus, 1758, but it is the true *L. lilii* since he described it as black with the thorax and elytra bright red. *Lilioceris merdigera* (Linnaeus) is a continental species, easily distinguished from *L. lilii* by the red head and almost entirely red legs. In fact *Crioceris merdigera* Fabricius, 1775, is the true junior synonym of *L. lilii*, but for a full synonymy of *L. lilii* (Scopoli, 1763) see White (1993: 129). According to White (1993: 130) the Scopoli collection was evidently destroyed by fire in 1766 and in the original description no locality of collection was given.

Rye (1866: 213) in *An Introduction to the Study of Our Indigenous Coleoptera* stated that *Crioceris merdigera* is of great rarity, though sometimes occurring near London in the flowers of lilies. Unfortunately, Rye omitted the author of *C. merdigera* and although he described it when alive as of a bright scarlet colour, without any mention of the black head and legs, it is probably a misidentification of *L. lilii*.

**World distribution**

The natural distribution of *L. lilii* is all of Eurasia from the Atlantic to the Pacific, in the Middle East and North Africa (Balachowsky, 1963; Halstead, 1989). In the revision of *Lilioceris* by Berti & Rapilly (1976) they examined specimens of *L. lilii* from Austria,

Belgium, France, Great Britain, Greece, Hungary, Italy, Russia, Siberia, Spain and Yugoslavia. *L. lilii* is also known from Germany, Poland, Czechoslovakia, Austria and Switzerland (Lucht, 1987); Finland, Sweden, Norway, Denmark, Estonia and Lithuania (Silfverberg, 1992). The Netherlands was added by Beenen & Winkelman (1993), whilst Jelinek (1993: 124) included Bohemia, Moravia (Czech Republic) and Slovakia (Slovak Republic). There are also specimens in the NHM from Albania (NHM, 1935). Gressitt & Kimoto (1961: 52) stated that records of *L. lilii* from E. Mongolia and Kirin require verification. There are no specimens of *L. lilii* from North Africa or the Middle East in the NHM collections.

*L. lilii* was found for the first time in Canada near Montreal in 1943. It was restricted to Montreal Island until 1978, but crossed the Ottawa River and reached Ottawa in 1981, perhaps transported by commerce 200 km from its original port (LeSage, 1983).The Lily Beetle was first found in the USA in the summer of 1992 in Cambridge, Massachusetts, and has spread over 100 km from this site (Salisbury, 2001). It probably arrived in the USA in a shipment of bulbs from Europe (Casagrande & Livingston, 1995).

**Distribution in Britain**

*L. lilii* is not native to Britain and probably arrived here in imported lily bulbs; Rye (1866) is incorrect by including *L. lilii* amongst indigenous Coleoptera. In Britain, Stephens (1839) listed *L. lilii* from Camberwell, Deptford and Peckham, London area (TQ 37) and from Crwmlyn Burrows, Swansea, Glamorganshire (SS 69). These localities were repeated by Fowler (1890). Turner (1895) recorded an adult from Chattenden, Kent (TQ 77). These early sightings were probably isolated introductions that failed to become established (Halstead, 1989).

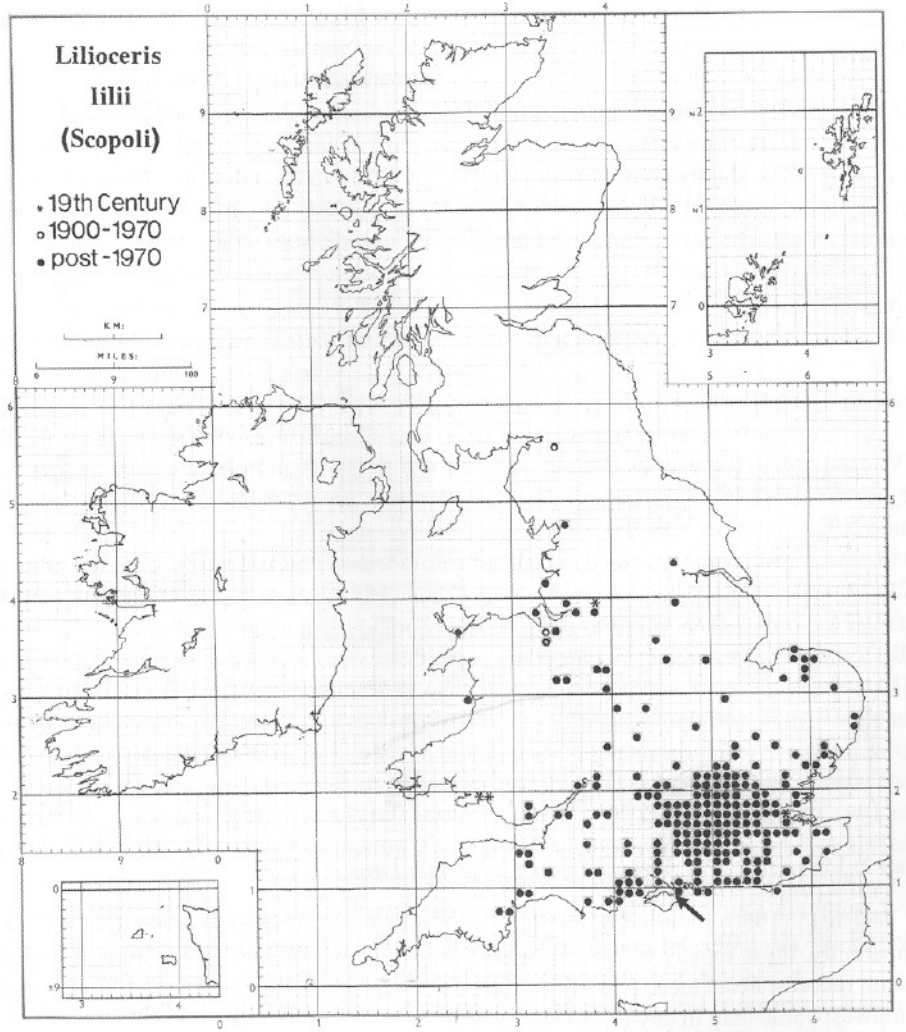
Further outbreaks were noted at Sealands, Flintshire, from 1939 to 1945 (Fox-Wilson, 1943); Carlisle, Cumberland, in 1940 (Fox-Wilson, 1943); and Chester, Cheshire, in 1945 (Southgate, 1959). According to Halstead (1989) no recent enquiries about *L. lilii* from these areas were received at Wisley so that it probably failed to establish there. Southgate (1959) reported a colony of *L. lilii* on a small clump of lilies in 1954 at West End, Woking, Surrey; the lilies had not been attacked previously. In 1957, beetles appeared on lilies in the author's garden in Ascot and these had grown for two years without attack. Southgate surmised that his infestation could have originated from a lily nursery, less than a mile away. He expressed surprise that the Lily Beetle had not extended its range to any great extent, considering that wartime neglect of gardens, between 1939 and 1945, must have exposed lilies to uncontrolled attack by this pest.

From a survey of *L. lilii* carried out at Wisley up to 1988 the resulting distribution map (Halstead, 1989) showed that Surrey, Berkshire and Hampshire remained the beetle's stronghold, but it was spreading outwards into the adjoining counties of Oxfordshire, Buckinghamshire, Hertfordshire, Middlesex and Sussex. Virtually all of the records fell within a circle of 25 miles (40 km) radius centred on Chobham, Surrey. Only two, at Midhurst, W. Sussex, and Limpsfield, Surrey, were just outside the circle (Halstead, 1989). Halstead concluded that *L. lilii* was gradually enlarging its territory and also

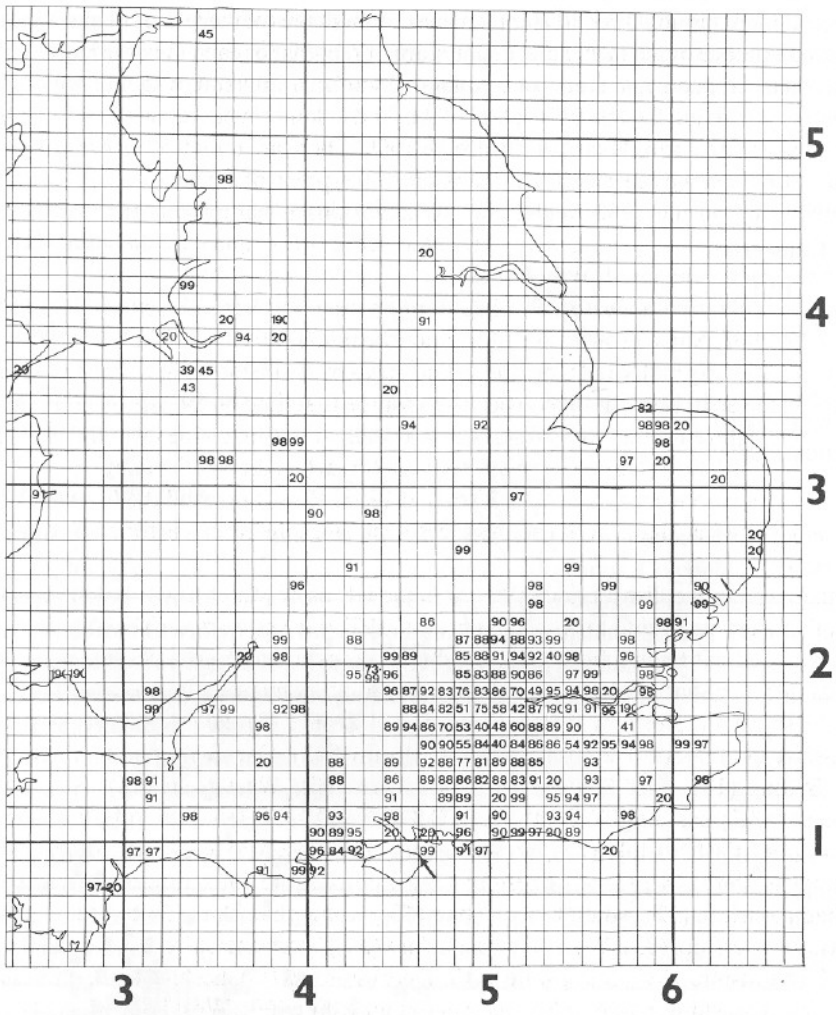




spreading to new gardens within the affected area. However, it seemed strange that it had not spread more rapidly over greater distances through the movement of plants, since the Lily Beetle probably arrived in this country among the scales or roots of imported bulbs or with other produce, and there is no reason why similar movement should not occur in Britain.




**Map 1:** British distribution of the Lily Beetle *Lilioceris lilii* (as at March 2001).




**Map 2:** First dates of occurrence of the Lily Beetle *Lilioceris lilii* by 10 km square (19C=19th Century; 20=2000).

Halstead (1990) reported on the receipt of a further 150 records of the Lily Beetle. Apparently, these mostly filled gaps within the circle, but there were a number of more distant records. From these records it appeared that the beetle was making better progress southwestwards than in any other direction.

It would appear that *L. lilii* is becoming established in more natural environments. For example it has been taken recently on *Polygonatum multiflorum* in mixed woodland in the Winchester area (Hoare & Hoare, 1992).





Salisbury (2000, 2001) plotted all records received by the Royal Horticultural Society (RHS) advisory service (1964 to 2000) on vice-county maps of the UK showing the decade of first occurrence of the beetle and the number of records for each vice-county. The Lily Beetle occurred in almost every vice-county in southern England, with the exception of the extreme west and the Isle of Wight. Established colonies were reported as far north as Warton, near Carnforth, West Lancashire, in 1999. There are only two records for Wales and none for Scotland or Ireland. The maps show the spread of the beetle from its southern stronghold during the 1980s and 1990s. Whether this is natural dispersal by flight or transportation with lilies is unknown. The latter probably accounted for the isolated coastal record at Aberdovey, North Wales in 1991.

*L. lilii* adults first appeared on lilies in my garden in Grays, Essex (TQ 67), in the summer of 1996. Since I had grown lilies since the mid-1980s it is unlikely that they were introduced with lily bulbs, but more likely that they arrived on the wing from other infested gardens in the area. The Lily Beetle occurred for the first time on the Isle of Wight during 1999: about a dozen adults were observed on a single lily plant on the evening of 5th June at Seaview (SZ 6291) (J. Spencer, *pers. comm.*). It reached the South Hampshire coast by 1984 and there are records for 1992, 1996 and 1998. How it reached the Isle of Wight is uncertain, but it may have flown across the Solent, since the record is for the northeast of the island.

Map 1 shows the distribution of *L. lilii* in the UK as of March 2001. It does not occur in Scotland and according to Anderson *et al.* (1997) it is not on the Irish list.

In England it is known from the following Regions and vice-counties, with post-1970 records in bold: South West: South Devon (**3**), South Somerset (**5**), North Somerset (**6**), Dorset (**9**); South: North Wiltshire (**7**), South Wiltshire (**8**), Isle of Wight (**10**), South Hampshire (**11**), North Hampshire (**12**), Berkshire (**22**), Oxfordshire (**23**); South East: West Sussex (**13**), East Sussex (**14**), East Kent (**15**), West Kent (**16**), Surrey (**17**), Middlesex (**21**); East Anglia: South Essex (**18**), North Essex (**19**), East Suffolk (**25**), West Suffolk (**26**), East Norfolk (**27**), West Norfolk (**28**); East Midlands: Hertfordshire (**20**), Buckinghamshire (**24**), Cambridgeshire (**29**), Bedfordshire (**30**), Huntingdonshire (**31**), Northamptonshire (**32**), South Lincolnshire (**53**), Nottinghamshire (**56**); West Midlands: East Gloucestershire (**33**), West Gloucestershire (**34**), Worcestershire (**37**), Warwickshire (**38**), Staffordshire (**39**), Shropshire (**40**), Derbyshire (**57**), Cheshire (**58**); North East: Mid-West Yorkshire (**64**); North West: South Lancashire (**59**), West Lancashire (**60**), and Cumberland (70). It is rather surprising that to date there are no records for Leicestershire (VC 55) since *L. lilii* is present in all six of the surrounding adjacent vice-counties.

In Wales, *L. lilii* is known from the following Regions and vice-counties, with post-1970 records in bold: South Wales: Glamorganshire (**40**); Dyfed-Powys: Caernarvonshire (**49**); North Wales: Merionethshire (**48**) and Flintshire (51).

Map 2 shows the first dates of occurrence of *L. lilii* in each 10 km square in England and Wales. Appendix A gives for each 10 km square the years in which *L. lilii* has been recorded. From these it can be seen that in certain areas the beetle occurred in the 1940s but did not become established, as in Flintshire, North Wales. There are also 19th-Century

records for west Glamorgan (SS 69/79) and West Kent (TQ 77) where it did not occur in subsequent years. In other squares, for example SU 85 and SU 97, the Lily Beetle occurred in the late 1940s or 1950s, but did not recur until the mid to late 1970s. However, there are a few squares, for example SU 96, where *L. lilii* has occurred regularly in most years since 1940. From the map it can be seen that although the beetle occurred in some 10 km squares in southern England in the 1940s, dates in adjacent squares suggest that dispersal and establishment did not occur until decades later. An aggregation of most records occurs in the south and southeast of England, historically the stronghold of the species. Many adjacent squares in this area have the same dates, possibly supporting spread by dispersal of the adults, whether by walking or flying. However, away from this stronghold, distances between 10 km squares increase, possibly suggesting that such squares have been reached not by the efforts of the beetles, but by movement of infected plant material, either beetles hiding in bulbs or eggs on the foliage of potted plants.

## Adult food plants and larval host plants

A distinction should be made between the terms *food plant* and *host plant*. Adults of *L. lilii* will accept a range of food plants which provide nourishment but which may or may not contribute to the maturation of the sperm and ova. However, their selection of plants on which to oviposit is more rigorous and narrowly defined—these are the true host plants on which the larvae will achieve complete development.

The names and classification of the different *Lilium* species used follows that of Jefferson-Brown and Howland (1995). According to these authors it is usual to follow a classification giving seven groups (1-7), some divided into sections given the number of the group followed by a letter (a, b, c or d). Characteristics that are employed to differentiate the relationships and groups are as follows, in order of importance: type of seed germination, leaf arrangement, entire or jointed scales, heavy or light seed, bulb form and habit, perianth segments smooth or with raised points (papillae), nectary with or without hairs, turk's-cap or trumpet-flower form, white or purple bulb, stem erect or stoloniform, obvious or absent/obscure leaf stalks, large or small stigma, stem-rooting or not, and one or more stems per bulb. The plant family classification follows that of Mabberley (1998).

Table 1 shows that the adults and larvae of *L. lilii* have been recorded on several genera of Liliaceae/Alstroemeriaceae, Liliaceae/Hemerocallidaceae, Liliaceae/Convallariaceae and Liliaceae/Liliaceae. The larvae are more specific and will not feed on some adult food plants. Both adults and larvae probably prefer foliage of *Lilium* spp.

Salisbury (2001) observed the presence of Lily Beetle adults, eggs and larvae on various *Fritillaria* and *Lilium* spp. at the RHS Garden, Wisley, Surrey. He found larvae on *F. imperialis* and 15 *Lilium* spp., so that it is assumed that they were feeding on these plant species. Eggs were also found on *L. superbum* and it is assumed that the resulting larvae would accept this as a host plant.





**Table 1:** Food plants / host plants of *L. lilii*

*Key:* ns = not stated; nt = not tested; +- will feed sparingly; + true food/host plant; - will not feed; ?+ adult(s) prsent, but feeding unconfirmed; Ad.= adult; E=eggs; Larv.=larvae.

| *Plant name* | *Lilium Group / Section* | *Ad.* | *Larv.* | *References* |
|---|---|---|---|---|
| **Liliaceae /Alstroemeriaceae** | | | | |
| *Alstroemeria* sp. ('Cyprus') (Peruvian Lily) | - | +- | - | Salisbury, 2000 |
| **Liliaceae /Convallariaceae** | | | | |
| *Convallaria majalis* (Lily of the Valley) | - | + | ns | Fabre, 1900; Hesse, 1932; Reinecke, 1910; Halstead, 1989 |
| | | + | + | Harlow, 1991 |
| | | +- | - | Salisbury, 2000 |
| *Convallaria* sp. | - | + | ns | Casagrande & Livingston, 1995 |
| *Maiamthemum canadense* | - | + | + | LeSage, 1983 |
| *Polygonatum multiflorum* | - | + | - | Fabre, 1900; Salisbury, 2000 |
| | | + | ns | Hesse, 1932; Barton, 1941; Fox-Wilson, 1943; Hoare & Hoare, 1992; Brendell, *pers. comm.* |
| *Polygonatum verticillatum* | - | + | - | Salisbury, 2000 |
| *Polygonatum* sp. | - | + | - | Casagrandre & Livingston, 1995; Salisbury & Halstead, *pers. comm.* |
| **Liliaceae/Hemerocallidaceae** | | | | |
| *Hemerocallis* sp. | - | ?+ | ns | G. Ackers, *pers. comm.* |
| **Liliaceae/ Liliaceae** | | | | |
| *Cardiocrinum giganteum* (Himalayan/Giant Lily) | - | + | ns | Fox-Wilson, 1943; Coghill, 1946 |
| *Lilium auratum* | Oriental 4b | + | ns | Fox-Wilson, 1943 |
| | | + | + | Southgate, 1959 |
| | | + | - | Salisbury & Halstead, *pers. comm.* |
| *Lilium bulbiferum* | *candidum* 3d | + | ns | Palmqvist, 1945 |
| *Lilium candidum* (Madonna Lily) | *candidum* 3a | + | ns | Barton, 1941; Fox-Wilson, 1943; Palmqvist, 1945; Coghill, 1946; Halstead, 1990 |
| | | + | + | Donisthorpe, 1943; Southgate, 1959; Sonster, *pers.comm.*1987 |
| | | + | - | Berti & Rapilly, 1976 |
| | | ns | + | NHM, 1978 |
| *Lilium carniolicum* | *candidum* 3b | + | ns | Warchalowsky, 1985 |
| *Lilium dauricum* | *dauricum* | ?+ | - | Salisbury, 2001 |
| *Lilium davidii* | Asian 5a | + | - | Sonster, *pers.comm.*1987; Cox, *pers. obs.* |
| | | ?+ | + | Salisbury, 2001 |
| *Lilium duchartrei* | Asian 5a | ?+ | + | Salisbury, 2001 |
| *Lilium formosanum* | Trumpet 6b | + | ns | Fox-Wilson, 1943 |
| | | ?+ | + | Salisbury, 2001 |
| *Lilium hansonii* | *martagon* 1 | ?+ | + | Salisbury, 2001 |
| *Lilium henryi* | Asian 5a | + | + | Coghill 1946; Southgate, 1959; |

| | | | | |
|---|---|---|---|---|
| | | | | Halstead, 1990 |
| *Lilium lancifolium* (= *tigrinum*) (Tiger Lily) | Asian 5a | + | ns | Fox-Wilson, 1942, 1943; Barton, 1940, 1941; Halstead, 1990 |
| | | + | + | Southgate, 1959 |
| | | + | - | LeSage, 1983; Wright, *pers. comm.* 1994; K.J. Chuter, *pers. comm.* 1999 |
| *Lilium leucanthemum* | Trumpet 6a | ?+ | + | Salisbury, 2001 |
| *Lilium longiflorum* | Trumpet 6b | + | - | Salisbury & Halstead, *pers. comm.*; D. Hackett, *pers. comm.* |
| | | ?+ | + | Salisbury, 2001 |
| *Lilium martagon* | *martagon* 1 | + | ns | Krogerus, 1945; Halstead, 1990; P. Roper, *pers. comm.* |
| | | + | + | Reinecke, 1910; Hesse, 1932 |
| | | + | - | Berti & Rapilly, 1976 |
| | | ?+ | + | Salisbury, 2001 |
| *Lilium monadelphum* | *candidum* 3c | ?+ | + | Salisbury, 2001 |
| *Lilium nepalense* | Asian 5c | ?+ | + | Salisbury, 2001 |
| *Lilium pardalinum* (Panther Lily) | American 2b | + | ns | Speyer (NHM 1940); Halstead, 1990 |
| | | + | + | P. Roper, *pers.comm.* |
| | | ?+ | + | Salisbury, 2001 |
| *Lilium pumilum* (= *tenuifolium*) | Asian 5b | + | + | Southgate, 1959 |
| *Lilium pyrenaicum* | *candidum* 3b | + | ns | Hodge, 1995; Halstead, 1990 |
| *Lilium regale* (Regal Lily) | Trumpet 6a | + | - | Barton, 1940 |
| | | + | ns | Fox-Wilson, 1942,1943; Palmqvist, 1945; W.R. Dolling, *pers. comm.*; D. Hackett, *pers. comm.* |
| | | + | + | Coghill, 1946; Southgate, 1959; LeSage, 1983; Sonster, *pers. comm.*1987; Wilson, *pers.comm.* 1993; Cox, *pers. obs.*; Salisbury, 2000 |
| *Lilium speciosum* | Oriental 4a | + | - | LeSage, 1983; Salisbury & Halstead, *pers. comm.* |
| | | ?+ | + | Salisbury, 2001 |
| *Lilium superbum* | American 2c | ?+ | E | Salisbury, 2001 |
| *Lilium szovotsianum* | *candidum* 3c | + | - | Halstead, 1990 |
| *Lilium* 'Enchantment' hybr. | Asiatic 1a | ?+ | ns | M.J. Crawley, *pers. comm.* |
| *Lilium* 'Star Gazer' (unknown parents) | Wood rift cultivar flat flws Div.VIIc Oriental hybr. | + | + | Cox, 1996-1999 *pers.obs.* |
| *Fritillaria imperialis* (Crown Imperial) | - | + | nt | Salisbury, 2000 |
| | | + | + | Halstead, 1989 |
| | | + | ns | K.J. Chuter, *pers.comm.* |
| *Fritillaria meleagris* (Snake's Head Lily) | - | + | - | Barton, 1940 |
| | | + | ns | Fox-Wilson, 1942, 1943; M.G. Telfer, *pers. comm.* |
| | | + | + | Halstead, *pers. obs.*; M. Storey, *pers. comm.*; A.B. Rudge, *pers. comm.* |
| *Fritillaria pontica* | - | ?+ | ns | J. Andrews, *pers. obs.* |





| | | | | |
|---|---|---|---|---|
| *Nomocharis pardanthina* | - | + | + | Synge, 1980 |
| *Nomocharis saluenensis* | - | + | ns | Fox-Wilson, 1943; Halstead, 1989 |
| | | + | + | Synge, 1980 |
| **Asparagaceae (Liliaceae *sensu lato*)** | | | | |
| *Asparagus* sp. | - | + | ns | Fabre, 1900 |
| **Iridaceae** | | | | |
| *Iris graminea* | - | ?+ | ns | A. Duff, *pers. comm.* |
| **Solanaceae** | | | | |
| *Solanum dulcamara* ('Variegata') | - | + | ns | Halstead, 1990 |
| *Solanum dulcamara* (wild form) | - | + | ns | Halstead, 1990 |
| | | +- | - | Salisbury, 2000 |
| | | + | - | P.J. Hodge, *pers. comm.* |
| *Solanum* sp. | - | + | ns | Fox-Wilson, 1942 |
| *Solanum tuberosum* | - | +- | ns | Casagrande, *pers. obs.* |
| *Nicotiana* sp. | - | +- | ns | Casagrande, *pers. obs.* |
| **Campanulaceae** | | | | |
| *Campanula* sp. | - | + | - | Casagrande & Livingston, 1995 |
| **Smilacaceae** | | | | |
| *Smilax* sp. | - | + | ns | Fabre, 1900 |
| | | +- | ns | Casagrande, *pers. obs.* |

Adults are known from lilies in the following groups: Oriental 4a, 4b; *candidum* 3a, 3b, 3c; Asian 5a; Trumpet 6a, 6b; *martagon* 1; American 2b. The larvae are known from lilies in the following groups: Oriental 4b; *candidum* 3a, 3c; Asian 5a, 5b, 5c; Trumpet 6a; *martagon* 1; American 2b, 2c. In Canada, *L. lilii* prefers cultivated lilies, but can also develop on naturalized or indigenous Liliaceae (LeSage, 1983). Unlikely food plants of the adult beetles include *Solanum dulcamara*, as shown by Halstead (1990). According to him a writer from Church Crookham, Hampshire, had picked about 50 beetles off var. 'Variegata' which was extensively eaten. Moreover, when adult beetles were confined with shoots of the wild form of *S. dulcamara* in late July, they quite readily began feeding on the foliage. However, tests were not carried out to determine whether the beetles would oviposit on this plant. After non-choice feeding tests with adults and larvae, Salisbury (2000) showed that larvae only survived on *Lilium regale* (the only *Lilium* sp. tested), but *Fritillaria* spp. should also be included as a host plant, despite being unavailable, as the larvae feed on these plants under garden conditions (Halstead, *pers. comm.*). For the adults, in addition to the Lily Beetle's main hosts (*Lilium* spp. and *Fritillaria* spp.) some of the five beetles only 'tasted' or fed on *Polygonatum verticillatum* and *P. multiflorum*, *Solanum dulcamara* and *Alstroemeria* 'Cyprus'.

## Biology

In southern England adult Lily Beetles have been collected in every month of the year, with most records for May, June and July. In 1999, in the front south-facing garden of my home in Grays, South Essex, the first adults appeared on newly emerging lily shoots in mid-March, and gravid females occurred at the end of March. They continued to mate and

oviposit until the end of July, since eggs and copulating adults were observed on 31st July. Salisbury (2000) showed that under laboratory conditions, oviposition finished by mid August. However, in Grays they probably continue ovipositing until the end of August, since final instar larvae were seen on potted lilies until late September in 1999. This is assuming that the new generation adults do not lay eggs until the following spring which has been shown to be true (Fox-Wilson, 1942; Halstead, 1989; Casagrande & Livingston, 1995). These adults probably enter a reproductive diapause, which apparently also occurs in *Lilioceris subpolita* Baly and *L. rugata* (Baly) in warm temperate lowlands of Japan (Takizawa, 1994).

The first eggs were noticed on lilies on 1st April, whereas they occurred on potted lilies in the back garden on 8th April. The shiny reddish eggs, about 1 mm in length, were mostly laid on the larger, lowermost leaves of lilies. They were laid in irregular groups of up to 10 or 12, and were stuck to the leaf surface by a yellow gelatinous substance. Prior to larval emergence the eggs become reddish-brown. The first instar larvae have egg bursting spines laterally on the first abdominal segment (Cox, 1994a: 81). Apparently females can produce over 300 eggs in one season (Salisbury, 2000), and some are able to overwinter a second time, so that they are able to oviposit in two successive years or growing periods (Fox-Wilson, 1942; Casagrande & Livingston, 1995).

In Grays, the earliest first instar larvae occurred in the front garden on 22nd April, so that incubation of the eggs required about three weeks. Upon hatching, the larvae feed by removing the lower epidermis of the leaf, leaving the upper epidermis intact. Later instars eat the entire leaf, usually from the margin and as the lower leaves are consumed they move upwards to locate undamaged leaves. This process is continued until the flowers, unopened flower buds, and even seed capsules are the only edible plant parts remaining. When these are devoured, all that is left is the dry desiccated lily stem. Larval development required a minimum of about 20 days, since mature, final instar larvae occurred on 11th May. The larvae pass through four instars as judged by head width measurements. They are bright orange-red when mature and enter the soil to a depth of several inches, where they construct a 'silken' cocoon, incorporating soil particles, in which they pupate after about one to two weeks. The pupae are orange-red, glabrous, but with the abdominal cuticle densely microspiculate; abdominal segment 9 bearing paired, very short, inwardly-directed, sometimes reduced, sexually dimorphic urogomphi (Cox, 1996: 134). The new generation adults emerged from about mid-June and were very numerous in early July, but in some years they must continue to emerge into October or even later.

The very long oviposition period of about 5 months, results in considerable overlapping of the life stages which can also occur together over the same time period. Some workers have attributed this to several generations which is not the case.

**Possible anti-predator / parasitoid devices in adults and larvae**

The adults of *L. lilii* are able to stridulate by contracting the abdomen, thus rubbing the pars stridens against the plectrum. The pars stridens situated on the pygidium consists of parallel ribs (composed of denticles fused along their longitudinal axis) medially





separated by a broad strip of caudally pointing denticles. The plectrum consists of an oval area of conical denticles, pointing slightly caudally beneath the apical sutural angle of each elytron (Schmitt, 1994). Apparently they can produce a rate of 200 chirps/min or *c.*3/sec.

Schmitt (1994) believed that, from all cited bioacoustic and behavioural studies, the most probable, or even only, biological meaning of stridulation in Criocerinae is disturbing possible predators or parasitoids. However, it is possible that some species, such as *Stethopachys formosa* Baly, stridulate in order to communicate with conspecifics, since individuals of this species have been observed to stridulate in the laboratory without any noticeable disturbing stimulus.

Adult Lily Beetles are apparently free of hymenopterous parasitoids, and there are no records of attack by tachinid dipterous parasitoids according to the review by Cox (1994b). I certainly have never dissected larval parasitoids of either of these groups from adult beetles.

The larvae of *L. lilii* cover themselves dorsally with a layer of mucilaginous faecal material derived from the dorsally situated anal opening. This may act as a physical barrier against attack by predators, such as ants or carabid beetles. Salisbury (2000) showed that limited predation of eggs and adults by carabids occurred, but larvae were not tested. The cover also looks like a bird-dropping so that it may act to camouflage the larvae and possibly protect them against attacks by birds. Certainly, the covering does not protect the larvae against attack by hymenopterous parasitoids, since Salisbury (2000) listed four European species infesting Lily Beetle larvae. Moreover, in 1998, I found that in Grays at certain times during the summer up to 100% of the larvae were parasitised by the chalcidoid *Tetrastichus setifer* Thomson. This was determined by John Lasalle, CABI and is the first record of this species in Britain.

**Discussion**

What accounts for the present-day distribution of the Lily Beetle in Britain? The distribution shown in Map 1 may be artificial since, as stated by Salisbury (2000), RHS membership is strongly based in the southeast of England. Thus, it is not surprising that there is a bias of records from this area of the country (for example, 40% from Surrey). However, this is one of the areas where *L. lilii* first became established. A further complication arises from the fact that the cultivation of ornamental lilies involves the transport of plants over long distances. The Lily Beetle may be transported to areas it would have otherwise been unable to reach by natural dispersal, giving the impression that the beetle has a wider range than expected.

Could soil type influence the establishment of *L. lilii*? As pointed out by Halstead (1989), most of the outbreaks reported in the 1940s and 1950s were in sandy areas of Surrey, Berkshire and Hampshire. However, a survey conducted by Halstead of Lily Beetle enquiries received at Wisley up to 1988, showed that the beetle was distributed across a wide range of soil types. In Europe *L. lilii* occurs as far north as Finland and Siberia. In England it has become established as far north as Warton, near Carnforth, West

Lancashire (SD 57), where it occurred in 1998 and 1999. Winter temperature minima are probably not the major factor controlling the distribution of *L. lilii* and thus Warton is unlikely to be the northernmost limit of its distribution in the UK.

Why did the beetle not establish in some gardens in the 1940s and 1950s? The example of *L. lilii* in a nursery at Sealand, Flintshire, North Wales (Coghill, 1946) will be examined in detail. In 1938, a collection of mixed bulbs, mainly from the Netherlands, was planted in a bed (later filled with *Lilium regale*) and in 1939 a severe infestation of *Lilium pardalinum* was observed. Apparently the beetles entered the nursery concealed in the bulbs. Between 1940 and 1942 slight damage occurred, but in 1943, a serious attack developed on *L. regale* so that the plants failed to develop seed. The damage was slight in 1944, with few beetles in the *regale* bed. Prior to 1945, *L. lilii* only occurred in the bed originally planted with bulbs bought in 1938. However, in 1945 it apparently dispersed to another bed with *L. henryi* about 100 yards away. This suggests that dispersal does occur, but at a slow rate. Throughout the summer of 1945 adults were destroyed by hand-picking and all beds with damaged plants were thoroughly dusted with DDT. The control measures implemented, especially the use of the insecticide DDT, were effective and there were no further reports of the Lily Beetle from Sealand.

The post-war increase in the use of DDT may account for the lack of persistence of this pest in some areas. Some gardeners refuse to use insecticides, but prefer more natural methods of control, which possibly allowed the survival of the beetle. Perhaps its resurgence in the 1950s resulted from the development of resistance to DDT and other organochlorine insecticides. The attacks by the beetle are so devastating in some gardens that the growing of lilies is terminated. However, this would not account for the lack of records for certain years in some 10 km squares.

The Lily Beetle is certainly spreading westwards at a greater rate than it is eastwards, but during the 1990s first records occurred for East Kent, South and North Essex, East and West Suffolk, and West Norfolk. By 2000 it had reached East Norfolk. Its establishment in East Anglia may be hindered by the colder winters as compared with southwest England. Perhaps the milder winters experienced in southern England account for the increase in records during the 1990s.

Continued monitoring, especially of far-flung 10 km squares distant to the beetle's stronghold in southeast England, to determine where establishment is occurring, will enable the true distribution of the pest to be determined. Global warming with milder winters and summers is resulting in the northwards expansion of the ranges of many leaf beetles, including the Lily Beetle.

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**References**

ANDERSON, R., NASH, R. & O'CONNOR, J.P. 1997. Irish Coleoptera. A revised and annotated list. *Ir. Nat. J. Spec. Ent. Suppl.* **1997**: 1-81.

BALACHOWSKY, A.S. 1963. *Entomologie Appliqué à l'Agriculture. Tome 1. Coléoptères (second volume)*. Paris: Masson et Cie.

BARTON, L.F. 1940. *Crioceris lilii* Scop. (Col., Chrysomelidae), in Chobham, Surrey. *Entomologist's Mon. Mag.* **76**: 236.

—— 1941. Notes on *Crioceris lilii* Scop. (Col., Chrysomelidae). *Entomologist's Mon. Mag.* **77**: 278.

BEENEN, R. & WINKELMAN, J. 1993. Naamlijst van de Nederlandse bladkevers (Coleoptera: Chrysomelidae). *Nederlandse Faunistische Mededelingen* **5**: 9-18.

BERTI, N. & RAPILLY, M. 1976 Faune d'Iran. Liste d'espèces et revision du genre *Lilioceris* Reitter (Col. Chrysomelidae). *Ann. Soc. Ent. Fr.* (N.S.) **12**(1): 31-73.

CASAGRANDE, R.A. & LIVINGSTON, S. 1995. Lily leaf beetle *Lilioceris lilii*. *Quarterly Bulletin of the North American Lily Society* **49**(3): 48-50.

COGHILL, K.J. 1946. *Crioceris lilii* Scop. (Col., Chrysomelidae) in Flintshire. *Entomologist's Mon. Mag.* **82**: 51.

COX, M.L. 1994a. Egg bursters in the Chrysomelidae, with a review of their occurrence in the Chrysomeloidea (Coleoptera). *In:* P.H. Jolivet, M.L. Cox. & E. Petitpierre (eds.) *Novel Aspects of the Biology of Chrysomelidae*. Dordrecht: Kluwer Academic Publishers. pp. 75-110.

—— 1994b. The Hymenoptera and Diptera parasitoids of Chrysomelidae. *In:* P.H. Jolivet, M.L. Cox. & E. Petitpierre (eds.) *Novel Aspects of the Biology of Chrysomelidae*. Dordrecht: Kluwer Academic Publihers. pp. 419-467.

—— 1996. The pupae of Chrysomeloidea. In Jolivet, P.H.A. & Cox, M.L. (eds) *Chrysomelidae Biology*, vol. 1: The Classification, Phylogeny and Genetics, SPB Academic Publishing: Amsterdam. pp. 119-265.

DONISTHORPE, H. 1943. *Crioceris lilii* Scop. (Col., Chrysomelidae) in Middlesex. *Entomologist's Mon. Mag.* **79**: 120.

FABRE, J.H. 1900. *Souvenirs Entomologiques. Études sur l'instinct et les moeurs des insectes*. Septième serie, octavo. Paris: Librairie Ch. Delagrove. pp. 194-218.

FOWLER, W.W. 1890. *The Coleoptera of the British Islands* Vol. 4. London: Reeve.

FOX-WILSON, G. 1942. The lily beetle *Crioceris lilii* Scop. *J. Roy. Horticultural Soc.* **67**(5): 165-168.

—— 1943. The lily beetle, *Crioceris lilii* Scopoli: its distribution in Britain (Coleoptera). *Proc. Roy. Ent. Soc. Lond.* (A) **18**(10-12): 85-86.

GRESSITT, J.L. & KIMOTO, S. 1961. The Chrysomelidae (Coleopt.) of China and Korea. Part 1. *Pacific Insects Monog.* **1A**: 1-299.

HALSTEAD, A.J. 1989. On the move? *The Garden* **114**: 321-323.

—— 1990. Lily beetle survey. *The Garden* **115**: 439.

—— 1992. *In:* Coleoptera Report, 1991. Annual Exhibition. *Br. J. Ent. Nat. Hist.* **1992**(5): 73.

HAMMOND, P.M. 1975. Seventeenth Century British Coleoptera from the collection of Leonard Plukenet (1642-1706). *Entomologist's Gaz.* **26**: 261-268.

HARLOW, J. 1991. Lily beetles begin to bug gardeners on a wider scale. *The Daily Telegraph* April 6, 1991: 8.

HESSE, E. 1932. Insektenfrass an *Lilium martagon* L. *Zeitschr. für Wissenschaftliche Insektenbiologie* **27**(1932/1937): 29-31.

HOARE, D.I.B. & HOARE, R.J.B. 1992. [No title]. *Br. J. Ent. Nat. Hist.* **1992**(5): 74.

HODGE, P.J. 1995. *In:* Coleoptera Report, 1994. Annual Exhibition. *Br. J. Ent. Nat. Hist.* **1995**(3): 204.

KROGERUS, R. 1945. *Lilioceris lilii* Scop. esk skadedjur fra tradgoerds liljor. *Mem. Soc. Fauna et Flora Fenn.* **21**: 46.

JEFFERSON-BROWN, M. & HOWLAND, H. 1995. *The Gardener's Guide to Growing Lilies*. Newton Abbot, Devon: David & Charles.

JELINEK, J. 1993. Check-list of Czechoslovak Insects IV (Coleoptera). *Folia Heyrovskyana, Supplementum* **1**: 123-132.

LESAGE, L. 1983. Note sur la distribution presente et future du Criocere du Lys, *Lilioceris lilii* (Scopoli) (Coleoptera: Chrysomelidae) dans l'est du Canada. *Naturaliste Can. (Rev. Ecol. Syst.)* **110**: 95-97.

LUCHT, W.H. 1987. *Die Käfer Mitteleuropas. Katalog*. Krefeld: Goecke & Evers.

MABBERLEY, D.J. 1998. *The Plant-Book. A portable dictionary of the vascular plants*. 2nd edn., completely revised. Cambridge: Cambridge University Press.

PALMQVIST, S. 1945. Skanska Skalbaggsfynd. *Opuscula Entomologica* **10**: 109-119.

REINECKE, G. 1910. Beobachtungen über die Lebens- und Entwicklungsweise von *Crioceris lilii* Scop. *Zeitschr. für Wissenschaftliche Insektenbiologie* **6**: 65-66.

RYE, E.C. 1866. *British Beetles. An introduction to the study of our indigenous Coleoptera*. London: Lovell Reeve.

SALISBURY, A. 2000. Preliminary investigations with the lily beetle (*Lilioceris lilii* (Scop.) (Col: Chrysomelidae). Unpublished report RHS, Wisley, Woking, Surrey.

—— 2001. Further investigations with the lily beetle (*Lilioceris lilii* (Scop.) Col: Chrysomelidae): the search for parasitoids. Unpublished report RHS, Wisley, Woking, Surrey.

SCHMITT, M. 1994. Stridulation in leaf beetles (Coleoptera, Chrysomelidae). *In:* P.H. Jolivet, M.L. Cox. & E. Petitpierre (eds.) *Novel Aspects of the Biology of Chrysomelidae*. Dordrecht: Kluwer Academic Publishers. pp. 319-325.

SILFVERBERG, H. 1992. *Enumeratio Coleopterorum Fennoscandiae, Daniae et Baltiae*. Helsinki.

SOUTHGATE, B.J. 1959. The present status of the lily beetle *Lilioceris lilii* (Scop.) in Great Britain (Col., Chrysomelidae). *Entomologist's Gaz.* **10**: 139-140.

STEPHENS, J.F. 1839. *A Manual of British Coleoptera, or beetles*. London: Longman, Orme Brown, Green and Longmans. p. 284.

SYNGE, P.M. 1980. *Lilies. A revision of Elmas' Monograph of the genus* Lilium *and its Supplements*. London: B.T. Batsford Ltd.

TAKIZAWA, H. 1994. Seasonal changes in leaf beetle fauna of a warm temperate lowland in Japan. *In:* P.H. Jolivet, M.L. Cox. & E. Petitpierre (eds.) *Novel Aspects of the Biology of Chrysomelidae*. Dordrecht: Kluwer Academic Publishers. pp. 511-525.

TAYLOR, M. & HILL, C. 1982. *Hardy plants introduced to Britain before 1799*. Dorset: Cranborne Garden Centre.

TURNER, H.J. 1895. [No title]. *Proc. South London Ent. & Nat. Hist. Soc.* **1895-96**: 52.

WARCHALOWSKI, A. 1985. Chrysomelidae (Insecta: Coleoptera) (Part 1) General part and subfamilies Donaciinae, Orsodacninae, Synetinae, Zeugophorinae and Criocerinae. *Fauna Polski* **10**: 1-272.

WHITE, R.E. 1993. A revision of the subfamily Criocerinae (Chrysomelidae) of North America north of Mexico. *U.S. Dept. Agric. Tech. Bull.* **1805**: 1-158.

**Appendix A:** Years of occurrence of Lily Beetle *L. lillii*, by 10 km square.

NY 45: 1940
SD 31: 1999
SD 57: 1998, 1999
SE 63: 2000
SH 46: 2000
SJ 28: 2000
SJ 35: 1943
SJ 36: 1939-1945
SJ 41: 1998
SJ 46: 1945, 1997





SJ 51: 1998
SJ 59: 2000
SJ 68: 1994-2000
SJ 82: 1998, 2000
SJ 88: 2000
SJ 89: 1864
SJ 90: 2000
SJ 92: 1999, 2000
SK 45: 2000
SK 53: 1994
SK 69: 1991
SK 93: 1992, 1996-2000
SN 59: 1991
SO 60: 2000
SO 80: 1998-2000
SO 81: 1999
SO 94: 1996, 1999
SP 08: 1990, 1991, 1998
SP 21: 1988, 1989, 1991
SP 25: 1991, 1992
SP 38: 1998
SP 40: 1999
SP 50: 1989, 1996, 1997, 1999
SP 62: 1986, 1989
SP 80: 1985
SP 81: 1987
SP 86: 1999
SP 90: 1988-1990, 2000
SP 91: 1988
SS 69: 1839, 1890
SS 79: 19th C
ST 03: 1998
ST 12: 1991
ST 13: 1991
ST 17: 1999, 2000
ST 18: 1998, 2000
ST 31: 1998
ST 47: 1997, 2000
ST 57: 1999, 2000
ST 71: 1996
ST 74: 2000
ST 76: 1998-2000
ST 81: 1994
ST 87: 1992
ST 97: 1998
SU 00: 1990, 1993, 1995
SU 10: 1989, 1990
SU 11: 1993-1995
SU 13: 1988, 1989
SU 14: 1988, 1989
SU 29: 1995
SU 30: 1995
SU 39: 1973-1999
SU 40: 2000
SU 41: 1998-2000
SU 42: 1991
SU 43: 1986, 1989
SU 44: 1989
SU 46: 1989, 1991, 1993
SU 48: 1996
SU 49: 1996
SU 56: 1994, 1996
SU 57: 1988, 1989
SU 58: 1987
SU 60: 2000
SU 63: 1989, 1991
SU 64: 1992
SU 65: 1990
SU 66: 1986, 1987, 1989, 1991
SU 67: 1984, 1986, 1988-1991
SU 68: 1992, 1996
SU 72: 1989-1991
SU 73: 1988, 1989, 1992, 1993
SU 74: 1988, 1989, 1992
SU 75: 1990, 1991, 1993
SU 76: 1970
SU 77: 1982, 1984, 1987-1991, 2000
SU 78: 1983, 1988, 1991
SU 80: 1996, 1997
SU 81: 1991
SU 82: 1989,1990
SU 83: 1986, 1988-1990, 1993, 1998
SU 84: 1977, 1984, 1986-1991, 2000
SU 85: 1955, 1973, 1977-1979, 1981-1984, 1986-1992
SU 86: 1953, 1956, 1957, 1959, 1962, 1967, 1968, 1971-1976, 1978, 1979, 1982-1985, 1987, 1989, 1991, 1992, 1994, 1997
SU 87: 1951, 1984, 1991
SU 88: 1976, 1983, 1987-1991
SU 89: 1985, 1987-1992
SU 93: 1982, 1986, 1987, 1989, 1991, 2000
SU 94: 1981, 1984-1991, 1999, 2000
SU 95: 1984, 1985, 1987, 1989, 1990, 1992
SU 96: 1940-1945, 1948, 1950-1952, 1955-1957, 1959, 1960, 1963, 1970, 1973, 1979, 1981, 1983, 1988-1990, 2000
SU 97: 1948, 1951, 1959, 1975, 1982, 1987, 1989-1992, 1995
SU 98: 1983, 1986, 1988-1993
SU 99: 1983, 1984, 1986, 1988-1993, 1995
SX 87: 1997, 1999, 2000
SX 97: 2000
SY 09: 1997
SY 19: 1997
SY 78: 1991
SY 98: 1999
SZ 08: 1992
SZ 09: 1996, 1997, 2000
SZ 19: 1984, 1989, 1990, 1994, 1997, 2000
SZ 29: 1992
SZ 69: 1999
SZ 89: 1991
SZ 99: 1997

TF 71: 1997
TF 83: 1998
TF 84: 1982
TF 91: 2000
TF 92: 1998
TF 93: 1998
TG 03: 2000
TG 20: 2000
TL 00: 1991, 1994
TL 01: 1994
TL 02: 1990, 1995, 1996
TL 10: 1994
TL 11: 1988
TL 12: 1996
TL 19: 1997
TL 20: 1992
TL 21: 1993, 1995-2000
TL 23: 1998, 2000
TL 24: 1998
TL 30: 1940, 1999, 2000
TL 31: 1999
TL 40: 1998-2000
TL 42: 2000
TL 45: Cambridge, Bailey no date, 1999
TL 64: 1999
TL 70: 1996, 1999, 2000
TL 71: 1998
TL 83: 1999
TL 92: 1998, 2000
TM 02: 1991, 1995, 2000
TM 13: 1999, 2000
TM 14: 1990
TM 46: 2000
TM 47: 2000
TQ 00: 1990, 1995, 1998, 1999
TQ 01: 1990, 1992, 1998-2000
TQ 02: 2000
TQ 03: 1988-1991
TQ 04: 1989, 1991
TQ 05: 1940s, 1955-1957, 1965-1967, 1970-1973, 1978, 1984-1986, 1989, 1990, 1999
TQ 06: 1948, 1951, 1952, 1955, 1956, 1960, 1963-1966, 1971, 1974-1979, 1982, 1985-1987, 1989-1991, 1996, 2000
TQ 07: 1958, 1959, 1967, 1975, 1978, 1982, 1985, 1986, 1989, 1992, 2000
TQ 08: 1986-1992
TQ 09: 1988-1990, 1992, 2000
TQ 10: 1999
TQ 12: 1999
TQ 13: 1983, 1989, 1990, 1992-1994
TQ 14: 1988, 1989, 1991, 1993
TQ 15: 1984, 1985, 1987-1990, 1995, 2000
TQ 16: 1960, 1975, 1980, 1982-1984, 1986, 1988-1993, 1995, 1997-1999
TQ 17: 1942, 1943, 1985, 1987-1992, 1999, 2000
TQ 18: 1970, 1987, 1990-1993, 1995, 2000
TQ 19: 1990, 1992, 1993, 1995, 1997
TQ 20: 1997, 2000
TQ 23: 1991
TQ 24: 1985, 1986, 1988-1991, 1992, 1998
TQ 25: 1986, 1988-1991, 1998, 2000
TQ 26: 1988-1994, 1999, 2000
TQ 27: 1987-1993, 1997-2000
TQ 28: 1949, 1989, 1993, 1995-1997, 1999
TQ 29: 1986, 1989, 1993, 1996
TQ 30: 2000
TQ 31: 1993, 1995, 2000
TQ 32: 1995, 1999, 2000
TQ 33: 2000
TQ 35: 1986, 1989-1994
TQ 36: 1989-1996, 2000
TQ 37: 1839, 1890, 1992, 1994, 1995, 2000
TQ 38: 1995-1998, 2000
TQ 40: 1989
TQ 41: 1994, 1996
TQ 42: 1994, 1995
TQ 45: 1954, 1990, 1992, 1996
TQ 46: 1990-1994, 2000
TQ 47: 1991, 1994, 1996, 1998
TQ 48: 1994, 1999
TQ 49: 1997
TQ 52: 1997
TQ 53: 1993-1996, 1998, 2000
TQ 54: 1993, 1994, 1996-2000
TQ 55: 1992, 2000
TQ 57: 1991, 1999
TQ 58: 1998-2000
TQ 59: 1999, 2000
TQ 65: 1995
TQ 67: 1996-1999
TQ 68: 2000
TQ 71: 1998-2000
TQ 75: 1994-2000
TQ 76: 1941, 1996-1999
TQ 77: 1895
TQ 83: 1997, 1998, 2000
TQ 85: 1998
TQ 88: 1998, 2000
TQ 89: 1998, 1999
TQ 92: 2000
TR 05: 1999
TR 13: 1998
TR 15: 1997
TV 69: 2000





## *Geotrupes stercorosus* (Scriba) (Geotrupidae) swarming in Cumbria

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On 19.iv.2000, whilst walking on the slopes below Yew Barrow, Westmorland (SD 3487), I encountered seven *G. stercorosus* at intervals along a rough track through open woodland. Conditions were mild but breezy with some short periods of light drizzle. At *c.*15.30 GMT, I made my way along the small B road, which runs approximately north-south between Rusland Cross and Haverthwaite. I noticed a *G. stercorosus* crushed on the road; this was quickly followed by several more. The density of dead and dying beetles on the road increased rapidly over a few metres, centred on a large larch *Larix* tree which was coming into leaf. This was the main focus of activity with at least 150 adults milling around at the base with up to 50 attempting to climb the trunk. None got higher than *c.*1.5 m before falling off. They were not deterred by their falls and quickly began a fresh assault on the tree. A small ash *Fraxinus* 3 m to the north had only a few beetles around it, but a larger ash *c.*6 m from the larch had over 50 at its base, and more than 25 on the trunk. The beetles on this tree obtained more purchase on the lichen-encrusted bark, so that a couple were well over 2 m up the trunk. I checked all the trees in the vicinity, and three other small ash trees had one or two *G. stercorosus c.*1 m up their trunks.

I collected 6 dead specimens, all of which were males. No mating pairs were seen, and the beetles were remarkably similar in size, especially for a *Geotrupes*. I do not know if any females were present. I saw no beetles in flight, but some were wandering on the road up to 30 m away.

The field to the west of the road contained cattle and was heavily churned up, as the stock were being fed silage from a ring feeder placed near a gate opposite the larch tree. The distinctive smell of silage was the only unusual odour that I could detect in the vicinity.

The pattern of road casualties was also interesting with a much greater spread of bodies to the south (the wind was rather swirling in the valley, but tending to prevail from the north). I counted 124 bodies within 10 m of the larch, and a further 57 in the next 20 m to the south, with a scattering of bodies for a further 20 m. No bodies were found along the next 100 m or so. The furthest body on the north side of the larch was less than 20 m away. Many of the beetles had been well ground into the road surface by vehicles, indicating that this gathering had been in progress for some time as traffic was very light on the road.

The cause of such an aggregation is a mystery, but it seems reasonable to assume that over 400 beetles would normally be spread over a wide area, and that an extremely attractive odour had drawn them in. But what made these two trees so attractive in such a heavily wooded area?

On 2.vi.2000, I found an aggregation of *Phyllopertha horticola* (Linnaeus) (Scarabaeidae) in similar, albeit more explicable circumstances, near Gracious Pond, Surrey (SU 9863). Here 61 adults had been crushed on a 25 m length of B road. At least 50 others including pairs *in copula* were seen on Cow Parsley *Anthriscus sylvestris* and other plants on the adjacent road verge. The adults had been attracted to the only section of open verge, in an otherwise wooded area with the tree canopy closed over the road.

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## *Agrilus sulcicollis* Lacordaire (Buprestidae) in Bedfordshire

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On 13th July 2000 a single adult of *Agrilus sulcicollis* Lacordaire was secured from low-growing bramble *Rubus* foliage adjacent to two small apparently dying oaks *Quercus* on Dunstable Downs, Bedfordshire (TL 005195). These trees have a trunk diameter of approximately 20 cm and are probably no more than a few decades old. The cause of their demise was not clear though they had been 'released' from surrounding scrub during the last couple of years as part of a programme of

scrub clearance. So far as I am aware this is the first record for this jewel beetle in Bedfordshire and follows its relatively recent addition to the British list resulting from the collection of a specimen on 21st June 1992 in the neighbouring county of Hertfordshire (James, 1994). Hodge (1999) also records the beetle from Middlesex on 19th July 1998. These previous occurrences indicate an association with oak, either cut logs or decaying standing trees.

A return visit to the Dunstable location on 19th July failed to reveal any further examples of the beetle or characteristic buprestid exit holes from the two dying trees, though it is possible that the example collected on the 13th was attracted to the decaying oaks rather than having emerged from them. The site is located on the western slopes of the main Chiltern escarpment and comprises calcareous grassland with extensive areas of scrub. The latter is dominated by hawthorn *Crataegus*, though there are a few scattered, rather stunted, oaks within—accessible examples within the scrub were beaten but no further examples of *A. sulcicollis* were obtained.

### References


HODGE, P.J. 1999. *In:* Coleoptera Report, 1998. Annual Exhibition. *Br.J.Ent. Nat. Hist.* **12**: 174-175.

JAMES, T.J. 1994. *Agrilus sulcicollis* Lacordaire (Buprestidae): a jewel beetle new to Britain. *Coleopterist* **3**: 33-35.


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## *Myrmecocephalus* (formerly *Falagria*) *concinnus* (Erichson) (Staphylinidae) common in bracket fungus in South Essex


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Since Donisthorpe (1944) first discovered *Myrmecocephalus* (=*Falagria*) *concinnus* new to Britain 'in some numbers' in decaying vegetable matter at Lampton, Middlesex, this small staphylinid has apparently been recorded very rarely and in only ones and twos. I was pleased, therefore, to discover many specimens of it in small bracket fungus growing on a cut tree stump on the Central Line railway embankment near Roding Valley, South Essex (TQ 425932) on 13.vii.1999. Several dozen specimens were beaten onto a plastic sheet from the bracket fungi, but only 5 specimens were collected. They were later identified, with the help of Mr P.J. Hodge. Although very small staphylinids are a notoriously difficult group, species of *Falagria sensu lato* (including *Myrmecocephalus*) are very distinctive, *M. concinnus* particularly so with its bright yellow eleventh antennal segment. There is even a delightful colour picture of it in the article by Blair (1948).

This pretty little beetle was early recognized as an imported species. Jacobs (1945) reported it from a cargo of sawn wood from Africa. Woodroffe & Halstead (1959) recorded two specimens in a shipment of imported Brazil nuts and alluded to other occasional importations. Published records of this species out of doors are few and far between. Williams (1974) reported one in an 'autokatcher' attached to his car as he toured West Kent. Appleton (1987) found it in Hampshire. Hodge (1990) found one in a red rotten oak *Quercus* in Windsor Great Park. Owen *et al.* (1997) found one in a huge pile of composting grass cuttings in Epsom, Surrey. The only occurrence of "several" specimens is reported by Martin Collier (*pers. comm.*) from Lopham Fen, East Norfolk (TM 0479) on 18.x.1997, found by sieving a large pile of cut sedge *Carex* litter.

On the Continent it was also extremely rare. Lohse (1973) records it once in compost in the Rheinland, but fifteen years later (Lohse, 1988) he describes it as being lately widespread throughout central Europe. How odd that this acknowledged cosmopolitan species should remain so elusive in Britain.

### Acknowledgements


Thanks to Peter Hodge for identifying the beetles and to John Owen and Martin Collier for information on their finds.






### References


APPLETON, D. 1987. *Falagria concinna* Erichson (Col., Staphylinidae) new to Hampshire. *Entomologist's Mon. Mag.* **123**: 126.

BLAIR, K.G. 1948. Some recent additions to the British insect fauna. *Entomologist's Mon. Mag.* **84**: 51-52, plate C.

DONISTHORPE, H.StJ.K. 1944. *Falagria concinna* Er. (Col, Staphylinidae), a very interesting addition to the British list. *Entomologist's Mon. Mag.* **80**: 226.

HODGE, P.J. 1990. [Exhibit at 1989 BENHS Annual Exhibition.] *Br. J. Ent. Nat. Hist.* **3**: 86.

JACOBS, S.N.A. 1945. Some recent imported insects. President's Address. *Proc. Trans. S. Lond. Ent. Nat. Hist. Soc.* **1944-5**: 28.

LOHSE, G.A. 1973. *In:* H. Freude, K.W. Harde & G.A. Lohse (eds.) *Die Käfer Mitteleuropas*. Vol. 5, p. 66. Krefeld: Goeke & Evers.

—— 1998. *In:* G.A. Lohse & W.H. Lucht (eds.) *Die Käfer Mitteleuropas*. Vol. 12, p. 198. Krefeld: Goeke & Evers.

OWEN, J.A., ALLEN, A.J.W., BOOTH, R.G. & LUFF, M.L. 1997. Beetles from a large grass-compost heap studied over three years at a site in Surrey, Great Britain. *Entomologist's Gaz.* **48**: 111-124.

WILLIAMS, S.A. 1974. *Falagria concinna* Er. (Col., Staphylinidae) in W. Kent. *Entomologist's Mon. Mag.* **109**: 254.

WOODROFFE, G.E. & HALSTEAD, D.G.H. 1959. *Fulvus brevicornis* Reut. (Hem., Miridae) and other insects breeding on stored Brazil nuts in Britain. *Entomologist's Mon. Mag.* **95**: 131.


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## *Athous campyloides* (Elateridae) widespread in urban South London, and a note on its spread in England


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*Athous campyloides* is accorded nationally scarce (notable B) status by Hyman (1992), but he comments that it might be under-recorded because of its crepuscular activity. However in London, south of the Thames at least, it is remarkably common. I have come across it on eight occasions in the last few years, as follows.

Sydenham Hill Woods, Dulwich (TQ 3472, Surrey), many specimens (including a female, the elusive sex) determined in 1998 from Malaise trap material stored in alcohol since 1-20.vii.1993. Although a fragment of ancient woodland, there are some open grassy clearings and some surrounding rough grassland on neighbouring allotments and playing fields.

Nunhead Cemetery, Peckham (TQ 3575, Surrey), one swept, 9.vii.1994.

Woodlands Farm, Bexley (TQ 4476, West Kent), 18.vi.1998, one swept in what were once arable fields but which have lain fallow for about 10 years allowing long grass growth.

Battersea Park, Battersea (TQ 2877, Surrey), 1.vii.1998, two specimens swept in a rough grassy 'nature area' at the edge of a narrow woodland.

Morden Cemetery, Morden (TQ 2367, Surrey), 15.vii.1998, one swept from long grass allowed to grow up in flowery hayfield style as a nature area.

Folkstone Gardens, Deptford (TQ 362779, West Kent) 8.vi.1999, one swept from this very small open space surrounded by roads and railway lines, usually close-mown like a playing field, but with a few rough edges.

Mayow Park, Forest Hill (TQ 356719, West Kent), 9.vi.1999, one swept from this relatively formal park where the grass is all close mown except for one area allowed to grow long during the summer.

Forster Memorial Park, Catford (TQ 3872, West Kent), 17.vi.1999, one swept from a part of the park not close mown, but allowed to grow long in hayfield style.

All of these sites have areas of rough grassland, but there seems nothing unusual or special about any of the localities. Surprisingly, I did not find it even once during an intensive invertebrate survey of railway tracksides, mostly north of the River Thames, carried out in 1999 and covering over 100 sites of various habitat types, many of which would seem to have been eminently suitable. It is, however, obviously fairly widespread and has been found in North London by Hackett (1995, 1996).

I regard the beetle as being quite frequent in the south London area, but this was not always the case—there has been a dramatic change in the beetle's fortunes during the last century and a half.

Fowler (1890) describes *Athous campyloides* (= *A. difformis*) as having been for a long time considered one of our rarest British beetles. He relates how it was first taken at Ramsgate, Kent, beaten from alders *Alnus*, more than 50 years earlier, but he is able to give a few Kent and East Sussex localities and one from Devon. Joy (1932) describes it (= *Orthathous difformis*) as rare, giving its distribution as southeast England, Yorkshire and Ireland. Over the next few decades it continues to increase. Mendel (1988), has a distribution map showing it to be mainly coastal in occurrence, the majority of localities being in Kent, Sussex and Hampshire, but with outlying records now in Cornwall and the Isles of Scilly. During the next few years the increase continues; Mendel & Clarke (1996) illustrate the spread inland to Surrey and Middlesex, Devon and South Wales, but, oddly, the few outlying records north of the Wash are not reiterated.

Surprisingly, I cannot find any reference to the idea that this beetle arrived in Britain in the first half of the 19th Century, in easternmost Kent and has since spread. Am I alone in believing this to have been the case?

## References


FOWLER, W.W. 1890. *The Coleoptera of the British Islands*.Vol. 4, p. 100. London: Reeve & Co.

HACKETT, D.S. 1995. [Exhibit at 1994 BENHS Annual Exhibition.] *Br. J. Ent. Nat. Hist.* **8**: 203.

—— 1996. [Exhibit at 1995 BENHS Annual Exhibition.] *Br. J. Ent. Nat. Hist.* **9**: 233.

HYMAN, P.S. (revised PARSONS, M.S.) 1992. *A review of the scarce and threatened Coleoptera of Great Britain*. Part 1. UK Nature Conservation: 3. Peterborough: Joint Nature Conservation Committee.

JOY, N.H. 1932. *A Practical Handbook of British Beetles*. 2 vols. London: H.F. & G. Witherby.

MENDEL 1988. *Provisional atlas of the click beetles (Coleoptera: Elateroidea) of the British Isles*. Huntingdon: Biological Records Centre.

—— & CLARKE, R.E. 1996. *Provisional Atlas of the Click Beetles (Coleoptera: Elateroidea) of Britain and Ireland*. Ipswich: Ipswich Borough Council Museums.


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# *Eutheia plicata* Gyllenhal (Scydmaenidae) rediscovered in the New Forest, Hampshire


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On a sunny, showery afternoon on 25th May 2000, I visited Costicles and Busketts Inclosures, near Ashurst in the New Forest, Hamphire (SU 324102), where I sieved wood ant *Formica rufa* nest material in search of myrmecophilous Coleoptera. After some two hours had produced only single specimens of *Thiasophila angulata* (Erichson) (Staphylinidae) and *Monotoma conicicollis* Aubé (Rhizophagidae), I resorted to sweeping herbaceous and shrubby vegetation surrounding other wood ant nests in the hope of collecting other species which may have alighted there. This proved to be an equally fruitless occupation, except for a single scydmaenid collected in this manner. Later, when I was able to examine the specimen under a microscope, I recognised it as a species of *Eutheia*. It was noticeably much larger than *E. schaumi* Kiesenwetter and the presence of obvious temples left me in no doubt that this was a female *E. plicata* Gyllenhal.





A search of the entomological literature indicated that the most recent record for *Eutheia plicata* from the New Forest may be that of Donisthorpe (1927) on 29th July 1918 when he "captured a specimen in the nest of *F. rufa* containing workers which were particularly large and fierce". He went on to state that Fowler (1889) "records it from *rufa* nests in Buddon Wood (Leicestershire) and J.J. Walker took it with the same ant in Blean Wood". Allen (1969) shared Donisthorpe's doubts regarding the validity of many British records of *E. plicata* but stated that "The late Cmdr. J.J. Walker took the species on several occasions at Cobham Park and Blean Woods, Kent; much of his material seems to have been lost, but there are two from the latter place and one, also by Walker, from the New Forest in the Hope Dept., Oxford". Walker (1913) referred to taking "a single specimen in faggots at Blean Woods on 30th May 1913" but does not appear to have published a record for this species from the New Forest. Chris O'Toole kindly checked for me the Walker material in the Oxford University Museum and found four specimens of *E. plicata* standing over a note in E. Taylor's hand stating "4 checked by A.A. Allen, June 1969". One bears the label: 'Nr. Bank / New Forest / J.J. Walker / 5.vi.1931 [SU 2807]'. There are also two specimens from Blean Woods, Kent; one undated J.J.W. [maybe the 1913 specimen referred to above], and one collected on 28.6.07 by A.J. Chitty. The fourth is a nineteenth-century Chitty specimen labelled '4.91/Gocs.' [?].

Hyman (1994) gives pre-1970 records for *E. plicata* from South Hampshire, East Kent, Middlesex and Leicestershire & Rutland, with Buckinghamshire (Burnham Beeches) providing the only recent record of one example (Purvis & Hammond, 1991). Enquiry revealed that this last specimen was collected in a flight-interception trap set up on 1st May 1990 in an area where *Formica rufa* are plentiful, and there are no other recent records of *E. plicata* from the British Isles. Given that A.E. Gardner and S.A. Williams did not record it during an intensive Coleoptera survey between 1966 and 1971, and the considerable amount of collecting that has been done in the New Forest over the years, it is remarkable that almost 70 years have elapsed since it was last found there. It would appear that Hyman's (1994) RDBK ranking for *Eutheia plicata* is fully justified.

## Acknowledgements


I am grateful to Michael Salmon for arranging permits and organising the Survey of New Forest Coleoptera as part of the Life 2 Project (European Commission); to Peter Hammond and Owen Purvis for details of the Burnham Beeches capture; and to Chris O'Toole for abstracting data from material in the Oxford University Museum Collection.


## References


ALLEN, A.A. 1969. Notes on some British Scydmaenidae (Col.), with corrections to the List. *Entomologist's Rec. J. Var.* **81**: 239-246.

DONISTHORPE, H.St.J.K. 1927. *The Guests of British Ants: their habits and life-histories*. London: G. Routledge & Sons Ltd.

FOWLER, W.W. 1889. *The Coleoptera of the British Islands*. Vol. 3. London: L. Reeve & Co.

GARDNER, A.E. & WILLIAMS, S.A. *et al.* 1982. *New Forest Coleoptera*. Unpublished report for Nature Conservancy Council.

HYMAN, P.S. (revised PARSONS, M.S.) 1994. *A review of the scarce and threatened Coleoptera of Great Britain*. Part 2. UK Nature Conservation: 12. Peterborough: Joint Nature Conservation Committee.

PURVIS, O.W. & HAMMOND, P.M. 1991. *Report on the plants and insects of Burnham Beeches SSSI*. Unpublished report. London: The Natural History Museum.

WALKER, J.J. 1913. Coleoptera in Kent. *Entomologist's Mon. Mag.* **49**: 160-161.


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## *Dacne bipustulata* (Thunberg) (Erotylidae) on an ornamental street tree in London

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A number of small beetles were observed on a bracket fungus growing on a council street tree in Elmwood Avenue, Harrow, Middlesex (VC21; TQ 165884) on 10th June 2000. The beetles were sampled on 22nd June, and identified as *Dacne bipustulata* (Thunberg) (Erotylidae) using Joy (1932). It should be noted that this species does not run correctly to family in Unwin (1984) which keys the Erotylidae under 'Key J' (hind tarsi with some segments lobed), whereas in *Dacne* spp. all tarsal segments are simple.

The fungus was Sulphur Polypore *Laetiporus sulphureus* growing on the trunk of a *Prunus pissardii*, the ornamental purple-leaved plum tree commonly planted by local authorities on roadsides and in recreation grounds. On that occasion, 12 beetles were seen on the surface of the group of three contiguous fruiting bodies, including one pair *in cop.* The number of beetles on the surface of the fungus was recorded over the following days (Table 1).

The maximum number observed was 18 individuals at 5.30 p.m. on 28th June in warm but dull and overcast conditions. No beetles were seen after 12th July, by which date the fungus was obviously aged, being deep orange-brown, shrunken and rubbery.

**Table 1:** Records of *Dacne bipustulata*, Harrow, Middlesex, 2000.

| *Date* | *Time (approx.)* | *Total number* | *Pairs in cop.* |
|---|---|---|---|
| 10 June | ? | *c.*10 | ? |
| 22 June | ? | 12 | 1 |
| 23 June | 3.00 p.m. | 9 | 2 |
| 23 June | 11.00 p.m. (night) | 0 | 0 |
| 27 June | 5.00 p.m. | 15 | 3 |
| 27 June | 10.00 p.m. (twilight) | 6 | 0 |
| 27 June | 11.30 p.m. (night) | 1 | 0 |
| 28 June | 5.30 p.m. | 18 | 2 |
| 29 June | 11.00 a.m. | 10 | 2 |
| 30 June | 3.00 p.m. | 11 | 1 |
| 30 June | 8.00 p.m. | 5 | 1 |
| 30 June | 11.30 p.m. (night) | 3 | 1 |
| 2 July | 10.00 a.m. | 2 | 0 |
| 4 July | 4.00 p.m. | 3 | 0 |
| 9 July | 5.00 p.m. | 2 | 1 |
| 10 July | 2.00 p.m. | 1 | 0 |
| 12 July | ? | 0 | 0 |

Due to its habit of remaining in full view on the surface of the fruiting body, this species is easy to record. There was some evidence of diurnal activity, as few beetles were seen after dark. However, the tree was partially illuminated by a sodium streetlight about 10 m away, which may have modified this aspect of their behaviour. Beetles were observed feeding, mating, walking and occasionally running (for reasons unknown) on the surface of the fungus. The lower surfaces of the cortex of the fruiting bodies were peppered with 1-4 mm convex patches, presumably as a result of grazing by the beetles. The convexity of these patches may have resulted from teasing out of the mycelium by the beetles, localised undifferentiated regrowth of the fungus, or secondary colonisation of the wounds by a filamentous fungus or mould. Further inspection of the surface of the fungus revealed





only two circular tunnels, and this did not appear to change over the observation period. I do not know whether *D. bipustulata* adults are known to tunnel in fungi, but in view of the number of beetles present, the small number of tunnels is of interest. Other tunnelling species may have been present, but were not observed on the surface of the fruiting bodies.

*D. bipustulata* was also recorded on 8th July from the car park of Harrow Weald Common (VC21; TQ 143926). On this occasion six beetles (including two pairs *in cop.*) were found on a large, fresh fruiting body of Dryad's Saddle *Polyporus squamosus* growing from a barkless willow trunk *Salix*, which had been placed at the edge of the car park as a traffic barrier. In this case the beetle might have been associated with nearby ancient oak-hornbeam *Quercus-Carpinus* woodland habitat.

As *D. bipustulata* is easy to record, it might be a genuinely scarce species. It is possible, however, that it has been under-recorded from polypore fungi growing on native and non-native trees situated away from good quality woodland sites.

### References

JOY, N.H. 1932. *A Practical Handbook of British Beetles*. 2 vols. London: H.F. & G. Witherby.

UNWIN, D.M. 1984. *A Key to the Families of British Beetles*. Reprinted from: *Field Studies* **6**:149-197. Field Studies Council.

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## Confirmation of Rock Samphire *Crithmum maritimum* L. as a larval foodplant of the weevil *Hypera pollux* (Fabricius) (Curculionidae) in Britain

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During searches by MJH and Dr M. Hull for micro-Lepidoptera larvae on maritime plants along the Anglesey coast, several insect larvae were discovered on Rock Samphire *Crithmum maritimum* that were not immediately recognisable. A sample of the larvae was taken home by MJH and reared in containers on this foodplant. The larvae fed well on the leaves and soon after pupated in round, netted cocoons, either up on the plants or on the walls of the container. Adults began emerging in early July and were subsequently identified as *Hypera pollux*. Following emergence, most of them consumed their cocoon before moving off to feed. Five adults were reared from larvae collected on 5th June 2000 at Llanbadrig (SH 378947) and nine adults emerged from larvae collected at Aberffraw (SH 337676) eight days later.

In Britain *H. pollux* is primarily associated with Fool's Watercress *Apium nodiflorum* (L.) Lag. and water-dropworts *Oenanthe* spp., although other Apiaceae (formerly Umbelliferae) are occasionally reported as hosts. Fowler (1891) reported that *Crithmum* was known as a host of *H. pollux* in France, whilst Hoffmann (1954) attributes to Gadeau de Kerville (see below) the comment that *H. pollux* develops equally well on *Crithmum* as *Apium*. The source of this observation has not been traced but it is possible that both Hoffmann and Fowler were referring to the same (ancient) text. As a coastal species occurring on the "Atlantic coast of Europe, northwards to Scotland; Mediterranean and Black Sea coasts" (Tutin *et al.*, 1968), Rock Samphire does not occur in many European countries, but it is not reported as a foodplant of *H. pollux* in either Germany Koch (1991) or Bulgaria (Angelov, 1978). It is possible that Rock Samphire has been reported as a foodplant elsewhere in the literature or from other Mediterranean countries, such as Spain, Portugal, Italy or Greece, but no literature search has been performed to confirm this.

This confirmation of *Crithmum* as a larval foodplant of *H. pollux* appears to be the first time such an association has been observed in Britain. Moreover, we are not aware of any published accounts of adults having been taken on this plant. In Wales there are sixty recorded occurrences

of *H. pollux* held on the Welsh Curculionoidea Database maintained by APF, but the majority of specimens have been taken on Fool's Watercress and of the records without host plant information there is only one from a locality where Rock Samphire occurs. On 4th June 1999 Dr R.G. Loxton swept a single specimen (det. APF) from cliff vegetation on Ramsey Island, Pembrokeshire (SM 704237). It is not known if any other Apiaceae were present on this stretch of cliff but Rock Samphire would seem to be the most likely host here. It is of interest, therefore, that two adult *H. pollux* were collected from *Crithmum* during a specific search for the species at Great Furzenip (SR 889983) in Pembrokeshire on 4th August 2000 by APF. Bullock (1992) does not mention Rock Samphire as a foodplant of any British Coleoptera and hence it is probable that the plant is frequently ignored during surveys. Recognition of Rock Samphire as an alternative foodplant should lead to further records of *H. pollux* from coastal localities.

**Acknowledgement**

The authors are grateful to Dr M.G. Morris for information on the occurrence of *Hypera pollux* in Europe.

**References**

ANGELOV, P.A. 1978. Coleoptera, Curculionidae II Part (Brachyderinae, Brachycerinae, Tanymecinae, Cleoninae, Curculioninae, Myorrhinae). *Fauna Bulgarica*. 7. Sofia.

BULLOCK, J.A. 1992. *Host plants of British beetles: a list of recorded associations*. Supplement to a Coleopterist's Handbook. Feltham, Amateur Entomologist's Society.

FOWLER, W.W. 1891. *The Coleoptera of the British Islands*. 5. London: Reeve.

HOFFMANN, A. 1954. Coléoptères Curculionides (deuxième partie). *Faune de France*, 59. Paris: Librarie de la Faculté des Sciences.

KOCH, K. 1991. *Die Käfer Mitteleuropas. Ökologie*. 3. Krefeld.

TUTIN, T.G., HEYWOOD, V.H., BURGES, N.A., MOORE, D.M., VALENTINE, D.H., WALTERS, S.M. & WEBB, D.A. 1968. Rosaceae to Umbelliferae. *Flora Europaea*. 2. Cambridge University Press.

[*Note:* Henri Gadeau de Kerville (1858-1940) was one of the most respected of French naturalists and travellers. He lived in Normandy but travelled extensively and published on a wide range of marine and terrestrial organisms. He was apparently noted as having a keen interest in biospelaeology. He corresponded with key figures of his day, entering into debate, for instance, with Thomas Huxley on evolution and theology. In 1897 he produced *Faune de Normandie*, with others, and this may be the source of the original observations on the foodplants of *Hypera pollux*. Fowler, of course, could not have seen this work when he was writing *The Coleoptera of the British Islands* but it is feasible that Gadeau de Kerville also corresponded with Fowler about Coleoptera.]

## A tribute to Don Goddard (1947-2000)

Donald George Goddard was born in Leicester on 14 August 1947 and first became fascinated by insects whilst still in short trousers when he joined the Saturday morning Natural History Club at New Walk Museum in Leicester. His interests were encouraged by Ian Evans, then the keeper of Biology, and at the tender age of 14 he was sending in records of Carabidae and Heteroptera to the Museum.

From 1967 to 1970 he studied Biological Sciences at the University of Leicester before joining the British Antarctic Survey as an invertebrate ecologist researching Antarctic soil mites from 1971-77. He spent two years in the South Atlantic during which he endured temperatures of –40°C and resorted to collecting frozen mosses with a felling axe and drill. In parallel with this work he studied part-time for a PhD at Leicester University, which he was awarded in 1976. Between 1978 and 1983, he carried out a number of thorough invertebrate surveys on contract to Leicestershire





Museums Service, where he met his wife, Ann. This body of work established the conservation value of several important invertebrate sites, such as Donington Park, for the first time. In 1981 he moved to Worcestershire to take up a teaching position in biology, and was awarded a Post Graduate Certificate in Education at Worcester College of Higher Education in 1982. He eventually became Head of the Biology Department and took early retirement, for health reasons, in 1997. On his retirement, Don was very pleased to return to his first love and worked as a Wildlife Consultant mainly to the Worcestershire Wildlife Trust and as an invertebrate ecologist with the National Trust's Biological Survey Team.

Don had had a lifelong interest in natural history and one of his main enthusiasms was for pond wildlife, especially amphibians and beetles, but his interests extended much further and, as well as beetles, he published on caddis flies, springtails and mites. He was a very enthusiastic and energetic field worker, with a knack for making good finds. His somewhat wild-eyed appearance belied an easy-going, gentle and friendly nature and he was always a welcome companion on field trips. In his Leicester days, he was fond of turning up with a friend to play snooker at the Conservative Club, where his father was a prominent member, wearing long hair and open-toed sandals.

Don died suddenly from a heart attack in June 2000. Only two weeks beforehand, he had participated in Coleopterists' meetings in Norfolk and the New Forest. His many friends have learned of his untimely death with a great deal of shock, but perhaps it is some consolation that at the end of his life, he was so happy to get back to working on beetles.

Don leaves his wife, Ann and two daughters, Hannah and Jennifer. His collection stays with Ann.

*Keith Alexander & Derek Lott*

# Review

*A World Catalogue of Families and Genera of Curculionoidea (Insecta: Coleoptera) (Excepting Scolytidae and Platypodidae)* by M.A. Alonso-Zarazaga & C.H.C. Lyal. Barcelona: Entomopraxis S.C.P. for Museo Nacional de Ciencias Naturales (CSIC), Madrid, and the Natural History Museum, London, 1999. 315 pp. (double-column). ISBN: 84-605-9994-9.

Most coleopterists will be aware that the higher classification of the weevils has been an active field for research, discussion and controversy. A major contribution to the debate now exists in the work under review. Paper copies of the work are limited in number, but it is more widely available on CD-ROM.

The first impression that the catalogue gives is of the great industry and thoroughness of the authors in checking many thousands of citations, often in obscure and little-known works. The starting point for compilation was important secondary sources of information such as the *Coleopterorum Catalogus* and the *Zoological Record*. A considerable number of omissions from the *Catalogus* were discovered and rectified. Some idea of the many problems encountered by the authors in compiling their catalogue can be gained from their factual and understated account of the process, though this will involve a considerable amount of reading between the lines. The debt that the authors owe to libraries and librarians is acknowledged in their dedication of a genus, *Bibliothecarius*, to them. It is clear that the catalogue could not have been compiled without first-rate library facilities. Computer information storage and retrieval has also played a considerable part in the compilation of the catalogue.

A second, and very clear, impression which the catalogue gives is of the contribution of weevils to global biodiversity. The authors estimate that about 150,000 species-level names have been

published in the group and point out that giving figures for the numbers of species included in each genus would have been quite impracticable. To British coleopterists, with knowledge of only our meagre fauna, some of the numbers are quite astonishing. Cryptorhynchinae, with two British genera and four species, cover 30 columns of text. With as many as 25 valid genera per column, some idea of the size of this group may be gained. Another example is Baridinae (one British genus, five species), also occupying 30 columns of text.

The authors set out a number of needs which the catalogue is intended to meet. Several of these are mainly the requirements of taxonomic specialists. More general, and immediate, is the provision of "a useful tool for weevil workers worldwide" to "facilitate studies throughout the Curculionoidea". Perhaps less immediate, though desirable, is the need for the catalogue "to serve as a contribution to the preparation of an official register of names".

Although the catalogue is what it says it is, it incorporates many results of recent research, some of it unpublished, and in which molecular and DNA studies are playing a prominent role. This has resulted in some unfamiliar new placements of genera. In some cases knowledge has already moved on. An example is *Tanysphyrus*, placed in Tanysphyrini as a tribe of Erirhinidae (orthocerous); it is now known that *Tanysphyrus* is gonatocerous and must be moved to that division of the weevils. Another instance is the genus *Acalles*, which the authors acknowledge to be "Probably an artificial genus in its present limits, in bad need of revision". The results of some revision are already to hand, for example the treatment of the Macaronesian species by Dr Peter Stüben and his colleagues in which several new genera have been described.

One aim of workers on the higher systematics of weevils is to reduce the number of families and subfamilies, but of course to do this in a rational, scientific, and hopefully acceptable way. The catalogue adopts an intermediate position on this topic. On the one hand, the orthocerous families Dryophthoridae, Erirhinidae, Raymondionymidae and so on are retained; not all weevil specialists are yet in agreement on their validity. On the other hand, the subfamily Curculioninae has been greatly expanded to include many groups which formerly had separate subfamily status. As might be expected this has led to the inclusion of many more-or-less unfamiliar tribes and subtribes.

The catalogue makes considerable use of subgenera, but the treatment appears to be inconsistent in some cases. For example, subgenera have been described for *Laparocerus* (a largely Macaronesian genus of broad-nosed weevils) but are not included (possibly because the genus is known to be under revision). Subgenera of *Dorytomus* are included despite the opinions of Dieckmann (1986) and O'Brien (1970) that they are valueless. In these and other cases the authors can no doubt justifiably argue that taxonomic decisions are not part of the process of compilation. By the same token, the reversion by Gønget (1997) to a less radical treatment of genera of Apionidae than that favoured by Alonso-Zarazaga (1990) has not been accepted, not surprisingly in view of the identity of the senior author of the catalogue! However, in not including the described subgenera of *Bagous* the authors of the catalogue appear to be following the taxonomic treatment of Caldara & O'Brien (1998).

With the exception of families, which are grouped in a 'natural' sequence, the arrangement is one of alphabetical nesting. That is, genera are listed aphabetically within subtribes (or tribes), subtribes within tribes and tribes within subfamilies. This facilitates finding the categories concerned and explains such obvious changes as why the broad-nosed species (Entiminae) come in the middle of Curculionidae rather than the beginning, as in most traditional British arrangements. Anyone who has tried to trace a species-group name in an extensive catalogue, for example Winkler (1924-32), knows how time-consuming the process can be when there is no logical order in listing the names. In a catalogue much larger than Winkler, the advantages of a logical system are obvious. It may be unfortunate that the much more limited British list is so badly affected by these logical changes, but your reviewer's opinion is that the change is desirable for long-term stability. The problem comes, of course, when new research results in new placements, but again this should not be too serious in dealing with the small and well-known British fauna. It is noteworthy that





alphabetical lists are increasingly the norm: they are adopted in Chandler (1998) (genera and species), Pope (1977) (species only) and Morris (1993) (imposed by the editor!), to give three examples.

Many British coleopterists will be concerned, as so often, with changes of name. Many of these changes in the catalogue are to subgenera, tribes and subtribes, which are not much used by the general coleopterist in any case. However, some changes to genera and species have also been highlighted by the catalogue. Some are unexpected and irritating (*Tapeinotus* for *Tapinotus*), while forewarning has been given for others (*Polydrusus* (*Chrysophis*) *formosus* (Mayer) for the short-lived *Polydrusus* (*Thomsoneonymus*) *splendidus* (Herbst)). Opinion varies considerably with regard to changes of name. At least one can say that the catalogue is based on detailed, thorough and knowledgeable bibliographic research and on the provisions of the Code of Zoological Nomenclature, so that stability may be getting nearer. In some cases, changes indicate important biological features. For example, splitting off *Archarius* (more familiar as subgenus *Balanobius*) from *Curculio* recognises that species in the former genus live as inquilines in galls induced by other insects, whereas species of *Curculio* are feeders in fruits as larvae.

The British check list of Coleoptera is badly out of date. It would be very satisfactory if Alonso-Zarazaga & Lyal's catalogue were to be one of the stimuli towards rapid production of a new list. In a wider context it is difficult to over-estimate the value that the catalogue will have for studies of weevils world-wide. It will surely be a long-lasting tribute to the hard work, painstaking analysis and good judgement of the authors.

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## References

ALONSO-ZARAZAGA, M. A. 1990. Revision of the supraspecific taxa in the Palaearctic Apionidae Schoenherr, 1823 (Coleoptera, Curculionoidea). 2. Subfamily Apioninae Schoenherr, 1823: Introduction, keys and descriptions. *Graellsia* **46**: 19-156.

CALDARA, R. & O'BRIEN, C. W. 1998. Systematics and evolution of Weevils of the genus Bagous. VI. Taxonomic treatment of the species of the Western Palearctic Region (Coleoptera Curculionidae. *Mem. Soc. Ent. Ital.* **76** [1997]: 131-347.

CHANDLER, P. J. (Ed.) 1998. Checklists of Insects of the British Isles (New Series) Part 1: Diptera. *Handbk Ident. Br. Insects* **12**: i-xix+1-234.

DIECKMANN, L. 1986. Beiträge zur Insektenfauna der DDR: Coleoptera-Curculionidae (Erirhinae). *Beitr. Ent.* **36**: 119-181.

GØNGET, H. 1997. The Brentidae (Coleoptera) of Northern Europe. *Fauna Ent. Scand.* **34**: 1-289.

MORRIS, M. G. 1993. A critical review of the weevils (Coleoptera, Curculionoidea) of Ireland and their distribution. *Biology & Environment: Proc. R. Ir. Acad.* **93B** (2): 69-84.

O'BRIEN, C. W. 1970. A taxonomic revision of the weevil genus *Dorytomus* in North America (Coleoptera: Curculionidae). *Univ. Calif. Publs Ent.* **60**: 1-80.

POPE, R.D. 977. A Check List of British Insects. (Second edition). Part 3: Coleoptera and Strepsiptera. *Handbk Ident. Br. Insects* **11** (3): i-xiv+1-105.

WINKLER, A. (Ed.) 1924-32. *Catalogus Coleopterorum Regionis Palaearcticae*. Vienna: Albert Winkler.

*M. G. Morris*

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### Literature notices

ALLEN, A.A. 2001. *Scraptia fuscula* (Müll.) (Col.: Scraptiidae) in Glouc.s; with notes on this and *S. testacea* Allen. *Entomologist's Rec. J. Var.* **113**: 1-2.

—— 2001. *Sitaris muralis* (Forst.) (Col.: Meloidae): first modern record for Kent and the London area. *Entomologist's Rec. J. Var.* **113**: 25-26.

AYRE, K. 2000. A note on the feeding ecology of *Carabus problematicus* Herbst (Col., Carabidae). *Entomologist's Mon. Mag.* **136**: 205.

—— 2001. *Leistus spinibarbis* (Fabricius) (Coleoptera: Carabidae) in north-east England. *Entomologist's Gaz.* **52**: 40.

BIRKETT, N.L. 2001. Is the Orange Ladybird *Halyzia sedecimguttata* (L.) (Col.L Coccinellidae) a migrant? *Entomologist's Rec. J. Var.* **113**: 34-35.

COOTER, J. 2000. *Anoplophora chinensis* Förster, 1771) (Col., Cerambycidae) in Herefordshire, a correction. *Entomologist's Mon. Mag.* **136**: 251.

HAWKINS, R.D. 2001. *Rhyzobius chrysomeloides* (Herbst) (Coleoptera: Coccinellidae) new to Britain. *Br. J. Ent. Nat. Hist.* **13**: 193-195. [From Surrey; illus.].

NASH, D.R. 2001. *Lymexylon navale* L. (Col.:Lymexylidae) in East Suffolk. *Entomologist's Rec. J. Var.* **113**: 26.

—— 2001. *Atomaria scutellaris* Motschulsky (Col.:Cryptophagidae) in East Suffolk. *Entomologist's Rec. J. Var.* **113**: 38.

SLADE, B.E. 2001. *Arhopalus rusticus* (L.) (Col.: Cerambycidae) in Somerset. *Entomologist's Rec. J. Var.* **113**: 25.

SMITH, K.G.V. 2001. A note on *Oedemera lurida* (Marsham) (Col.: Oedemeridae) in North London (Middlesex). *Entomologist's Rec. J. Var.* **113**: 16.

WELCH, R.C. 2000. *Gyrophaena rousi* Dvorák 1966 (Col., Staphylinidae) new to Britain. *Entomologist's Mon. Mag.* **136**: 247-251. [From Cambs.; illus.].

—— 2001. A response to A. A. Allen's list of notable Cornish Coleoptera. *Entomologist's Rec. J. Var.* **113**: 27-28.



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