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Cover photograph: a female *Limbodessus alexanderi* Balke & Hendrich 2015, from a New Guinea mountain, taken by Alexander Riedel: photograph kindly supplied by Lars Hendrich, by way of celebrating the paper by Adrián Villastrigo *et al*. 2024. See page 21.

The 2015 paper was overlooked earlier - this diving beetle is unusual in that, judging by the antennae, the female must seek out the male.
BALKE M, RUTHENSTEINER B, WANKAR E, NEVEN K & HENDRICH L 2015. Two new species of *Limbodessus* diving beetles from New Guinea - short verbal descriptions flanked by outline content (digital photography, µCT scans, drawings and DNA sequence data). *Biodiversity Data Journal* **3** doi: 10.3897/BDJ.3.e7096

ADDRESSES Contacts for articles and reviewed works are given at the end of this issue of ***Latissimus***. The address for other correspondence is: Garth Foster, 3 Eglinton Terrace, Ayr KA7 1JJ, Scotland, UK – latissimus/at/btinternet.com

RHANTUS SUTURALIS (MACLEAY), ON FAIR ISLE, THE NORTHERNMOST BRITISH RECORD

Nick J Riddiford

A *Rhantus* water beetle which entered an actinic light trap at Schoolton, Fair Isle HZ 204704, vc112 during the night of 3 September 2024 was determined as *R. suturalis* (Fig. 1). This may not appear earth-shattering for those familiar with this widespread taxon but it represents a considerable northwards expansion in known range. The nearest records would be from Caithness on 27 June 2003 by Garth Foster (2007), and then a gap until Kev Rowley and Jeff Blincow found a site in West Sutherland in late September 2024 (Fig. 2). Almost contemporary with the Fair Isle find was Gail Clark's first record for Kincardineshire on 7 September.

Fig. 1 The *Rhantus suturalis* trapped on 3 September 2024

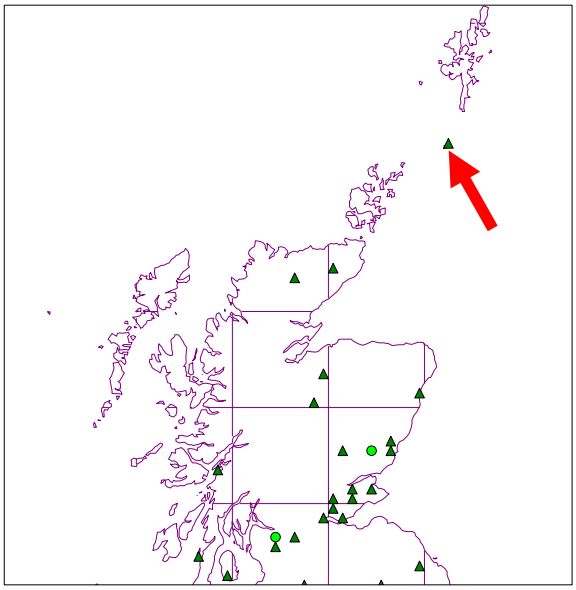


Fig. 2 *Rhantus suturalis* - triangles 2000 onwards, black circles 1980-1999, pale circles the rest. Fair Isle is arrowed at 59° 32' N 0.1° 37'W

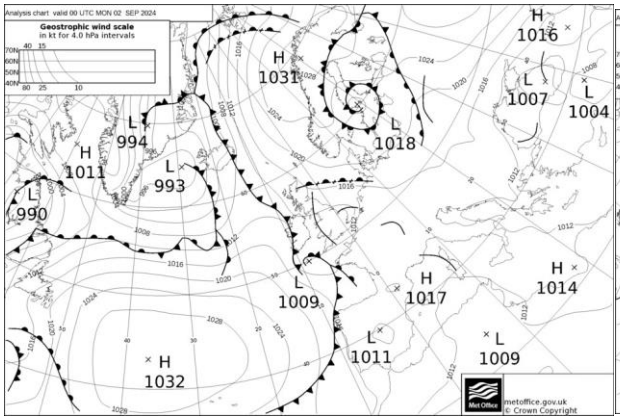


Fig. 3 Synoptic weather chart for Britain and western Europe at 0000 UTC Monday 2 September 2024

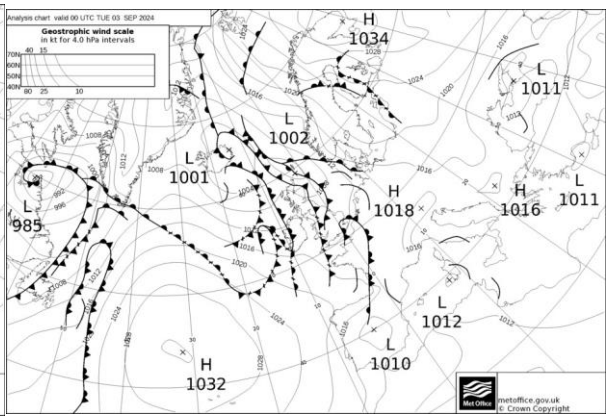


Fig. 4 Synoptic weather chart for Britain and western Europe at 0000 UTC Tuesday 3 September 2024

Three, occasionally four, light traps are in use at different locations across the Isle on most suitable nights between late March and October, 'suitable' being determined by winds low enough not to carry off the trap. Trapping began in 1987 and has been

almost continuous since. In all that time, this is the first diving beetle to be taken in any of the traps.

The arrival coincided with a notable influx of insects over the period 3 to 8 September 2024 carried northwards by an extensive southerly airflow. Meteorological charts were consulted for 2 and 3 September 2024 to understand the prevailing weather conditions immediately prior to the *R. suturalis* capture. On the 2nd and 3rd the UK was wedged between high pressure systems to the south-west and north-east with low pressure and, by the 3rd, a rash of associated fronts pushing eastwards over the country (Figs 3 and 4). This created a narrow funnelling effect of stiff south to south-easterlies from the Low Countries/Germany region (and potentially beyond) northwards across the North Sea.

This must have prompted this exceptional influx of northward-dispersing insects, including a caddis fly new to Fair Isle and to Shetland – in the same trap and date as the beetle, Fair Isle's fifth ever dragonfly, a birch shield bug *Elasmostethus interstinctus* (L.), the third recorded on Fair Isle, on an island without birch, record numbers of convolvulus hawkmoths *Agrius convolvuli* (L.) and elevated totals for other well-known moth immigrants which do not usually penetrate this far north in such numbers.

Over a dozen convolvulus hawkmoths logged between 3 and 8 September indicated that some at least of the recorded immigrants were drawn from continental Europe. This does not mean that the *Rhantus* came from far away, it (and other components of the influx) could have been picked up anywhere along that route including within the UK range.

The possibility that *suturalis* is an overlooked resident cannot be ruled out, bearing in mind the Caithness record of 2003. However, the water beetles of Fair Isle are reasonably well known with publications reporting collections made in 1905, 1907, 1952, 1957 and 1959-61 by various naturalists. Since 1981 the presence of a resident naturalist, often enlisting the local schoolchildren and adults, has resulted in good (though not full) knowledge of the aquatic beetle fauna, including a rough guide of populations and haunts. The information gathered for the Dytiscidae over the last 120 years is summarised here.

Other Fair Isle dytiscids

***Agabus bipustulatus* (L.)** - abundant throughout; largest lochans to shallow peat pools, water troughs and garden ponds

***Agabus guttatus* (Paykull)** - infrequent, hill and in-bye; in ponds, short boggy grass, Vaadal stream, damp soil under rocks and discarded tarpaulin

***Agabus nebulosus* (Forster)** - scarce or overlooked, two records; two, pond near sheep dip, 5 September 1961; one, Easter Lother Water, 25 July 2009

***Ilybius montanus* (Stephens)** - common throughout; wet mires, flushes, lochans

***Colymbetes fuscus* (L.)** - frequent; garden ponds, Golden Water; appears to avoid shallow pools

***Hydroporus erythrocephalus* (L.)** - numerous, Golden Water; also recorded in Sukka Mire burn and shallow peat pool at Ferny Cup. One specimen of the form *H. erythrocephalus deplanatus* Gyllenhal was found in the Golden Water on 8 August 2009

***Hydroporus gyllenhalii* Schiødte** - abundant amongst vegetation; Sukka Mire, Skadan pool

***Hydroporus memnonius* Nicolai** - very common, widespread; temporary rain pools on hill, Vaadal burn, Skadan quarry pool

***Hydroporus pubescens* (Gyllenhal)** - abundant, lochans, peat pools and burns in north; common, drinking troughs, in-bye; scarce, Skadan quarry pool

***Oreodytes davisii* (Curtis)** - rare or overlooked, one record; three under stones, Dronger HZ2171 on 3 September 1961 – Bryan Sage (1963), verified Steve Lane (*in litt*. 2020)

Voucher specimens have been verified by one or more of GNF, David Bilton and David N Smith and retained in Fair Isle collection at Schoolton, an exception being Bryan Sage's specimen of *Oreodytes davisii* in the Castle Museum, Norwich, seen by Steve Lane. Weather maps are from the *Meteorological Office Daily Weather Summaries* and are Crown Copyright 2024.

FOSTER G N 2007. Six water beetles recently recorded in Scotland – east and west coast arrivals? *The Coleopterist* **16** (3) 113-117.
SAGE B L 1963. Notes on the Coleoptera of Fair Isle. *Scottish Naturalist* **71** 1-12.

Received October 2024

A RED VOLVO OUTCOMPETES A PADDLING POOL WHEN IT COMES TO ATTRACTING FLYING WATER BEETLES

Anders Nilsson

The paddling pool used in my yard in 2023 to attract water beetles was not active until 20 May, i.e. after the supposed spring migration (Nilsson 2024). In 2024 the same pool was filled with water as soon as the snow had disappeared from the lawn, on 10 May. Water beetles landing in the pool were then recorded daily from the first warm day, reaching 20°C, 13 May, and until 21 May (when sawflies got more of my attention). During the same period, water beetles were also recorded landing on a red car, a Volvo model 240 from 1985, parked on the other side of our house (Fig. 1). The distance between the car and the pool was about 40 m. The area of the circular paddling pool is 1.3 m^2, whereas the combined area of the car hood, top, and tailgate is 5.2 m^2, i.e. about four times larger. Dust and pollen were cleaned off the car when necessary. All beetles found were collected and stored in alcohol. Visits for checking new arrivals were rather random, but were made repeatedly during one and the same day, and each visit included both the car and the pool.

According to weather data from Umeå airport, about 30 km ENE of our house in Mullsjö village (63°41'N, 19°42E), maximum temperatures of 17-20 °C were observed at 10-13 h on most days, with the last two days colder (10-12°C). On most days mornings and evenings were rather still, followed by a cool breeze from the Baltic Sea in the afternoon. As I remember, most beetles were observed landing during the sunny mornings with no wind during the study period. According to Gilles Carron and Tibor Becze-Deak (1999) morning and evening landings may also be favoured due to the angle of the incoming light.

Fig. 1 Red Volvo car used in this study for attracting flying water beetles in May 2024

Altogether, 104 beetles were collected during the nine days, 13 in the pool and 91 on the car. The following species were found: *Hydroporus incognitus* Sharp 52, *H. nigrita* (Fab.) 5, *Anacaena lutescens* (Stephens) 4, and *Helophorus flavipes* Fab. 43 individuals. The highest number of beetles observed in one day was 26 on the car and six in the pool (Fig. 2). Data from the same site in June 1997 show that up to 400 *Hydroporus* individuals, mainly *incognitus*, may land on a red car in one and the same day (Nilsson 1997). The early spring migration is seemingly not as massive as the one in early summer combined with higher evening air temperatures.

Occasionally beetles were observed leaving the car surface before being collected, the actual numbers landing were probably higher than the numbers reported here. One could also think that beetles were more easily observed on the two-dimensional car surface than in the pool water. However, the pool water was in this early season clean and the beetles thus highly visible over the light blue bottom.

What about reflecting surface area?

Water insects are known to detect water from the horizontal polarization of light reflected from wet surfaces, and the nearly horizontal polarization of light reflected from cars is enough to explain the phenomenon that polarotactic water-seeking beetles are attracted to especially red and black cars (Kriska *et al.* 2006). As the light reflecting surface of the car in my case was four times larger than the pool area, the difference in attractive power may have been caused by the size difference. It is also possible that the window glass of the car increased its attraction. What kind of positive relation there is between water beetle attraction and area of the reflecting surface is hard to tell. One could think that different species have different thresholds for accepting the reflecting area as a suitable breeding water body. I've observed occasional specimens of *Agabus bipustulatus* (L.) and *A. congener* (Thunberg) landing in buckets of water, but never in a drinking glass. According to Nilsson and Svensson (1995) twelve 1.6 m^2 paddling pools in a clearing in northern spruce forest attracted 223 diving beetles from May to October, whereas the 0.1 m^2 plastic bowls used got nil. Most likely there is also some kind of saturation, above which size increase is no longer important. Anyway, in my comparison of a car and a pool, the size difference has to be a part of the explanation why the car attracted so many more individuals. If repeating the study, an easy way to overcome this bias would be to cover the hood and the tailgate of the car with some non-reflective material, thus comparing only the top with the pool.

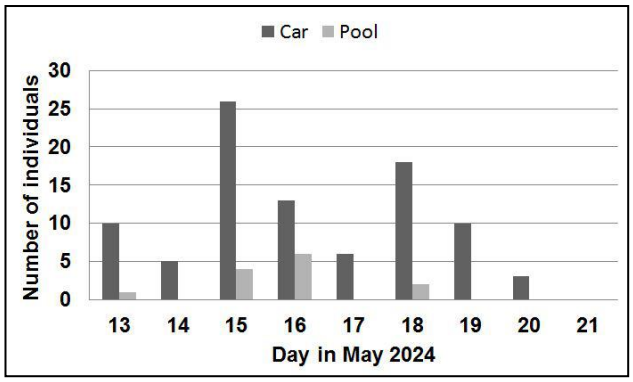


Fig. 2 Daily numbers of water beetles observed landing on red car and in paddling pool in May 2024

Fig. 3 Pupation island constructed in paddling pool on 12 August 2024

Agabus bipustulatus on pupation island

The pool was emptied on 23 September when night frost became more regular. As many third instar *Agabus* larvae were observed in August a device for helping them leave the water for pupation was installed on the 12th. A brick on the pool bottom supported a metal sheet, with its dry part covered with peatmoss (Fig. 3). Only one *Agabus* pupa was found in the moss, however, when emptying the pool. The following specimens were found in the pool during the emptying of it:

Agabus bipustulatus: 1 adult female, 1 instar I, 17 instar II, and 31 instar III larvae. As judged from the empty larval skin also the pupa belongs to this species. *Hydroporus incognitus* 3, *H. nigrita* 14, *Limnebius truncatellus* (Thunberg) 2, *Helophorus flavipes* 14, and *Anacaena lutescens* 3 individuals.

The species composition is identical to the one observed in 2023 (Nilsson 2024), meaning that the local trash fauna remains intact. One difference is that the *Helophorus* was now more abundant than the *Limnebius*. When it comes to *Agabus bipustulatus*, I remember seeing two adults together in the pool earlier in the summer. Consequently, all of these fifty larvae are not necessarily the progeny of the single adult female present at the emptying party. Anyway, it says something about how many new *Agabus* individuals that can be produced in a single season in a pool only slightly larger than one square metre. The instar composition indicates a faster development than in 2023, although the pool then was emptied already on 8 September. The fact that only one mature larva had pupated this year strongly indicated that in *A. bipustulatus* the full-grown larva is the main overwintering stage, at least at this latitude.

References

CARRON G & BECZE-DEAK T 1999. Some ideas about recent reports of water beetles landing on car roofs. ***Latissimus* 11** 14-15.

KRISKA G, CSABAI Z, BODA P, MALIK P & HORVÁTH G 2006. Why do red and dark-coloured cars lure aquatic insects? The attraction of water insects to car paintwork explained by reflection-polarization signals. *Proceedings of the Royal Society* B **273** 1667-1671.

NILSSON A N 1997 On flying *Hydroporus* and the attraction of *H. incognitus* to red car roofs. *Latissimus* **9** 12-16.

NILSSON A 2024 A paddling pool, an aquarium, and three Bippos. *Latissimus* **56** 1-4.

NILSSON A N & SVENSSON B W 1995 Assemblages of dytiscid predators and culicid prey in relation to environmental factors in natural and clear-cut boreal swamp forest pools. *Hydrobiologia* **308** 183-196.

Received October 2024

THREE BELGIAN RARITIES

The new one is *Augyles pruinosus* (Kiesenwetter), found in a clay quarry in the province of Antwerp. This species is known over much of the western Palaearctic except the British Isles and Scandinavia, reaching to central Asia. The rediscovered one is *Helophorus longitarsis* Wollaston, found in West Flanders in 2022, not reported in Belgium since 1965. In 2023 *Heterocerus fossor* Kiesenwetter was also found in West Flanders, the most recent record otherwise being from 1947.

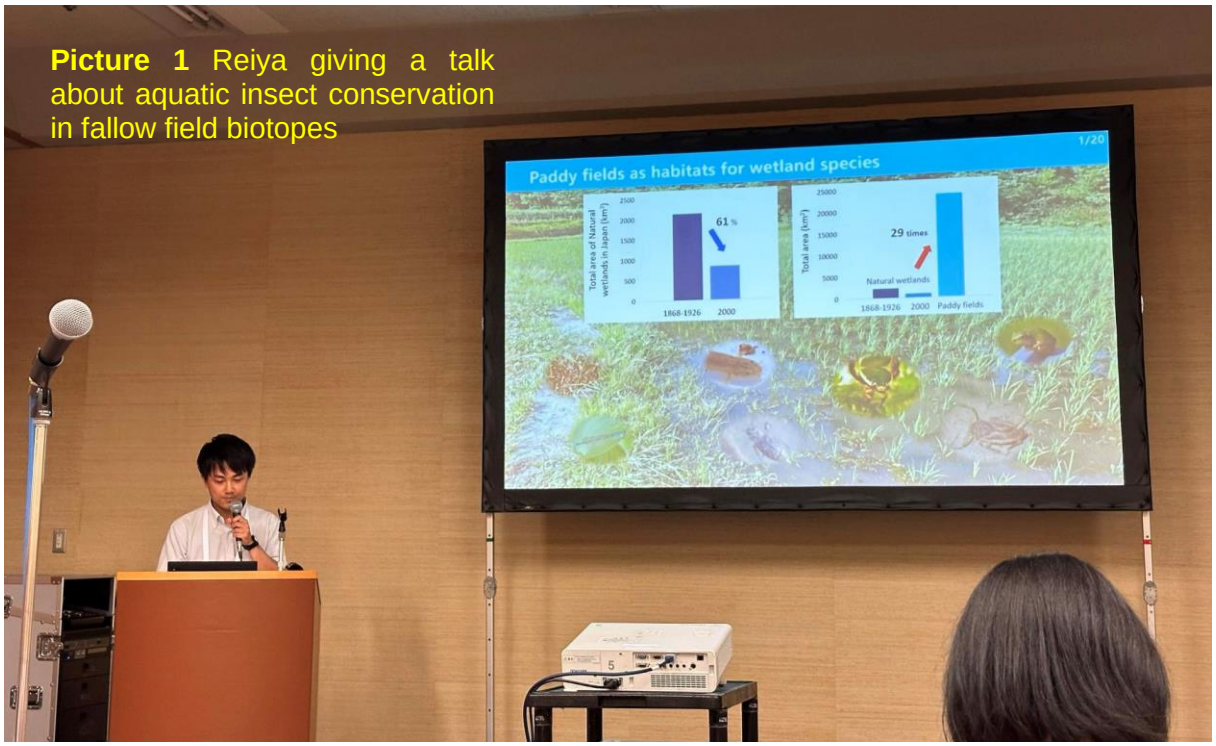
THYS N 2023. One new and one rediscovered water beetle for Belgium (Coleoptera: Heteroceridae, Helophoridae). *Bulletin de la Société royale belge d'Entomologie* **159** 21-25.

THYS N 2024. *Heterocerus fossor* Kiesenwetter, 1843 (Coleoptera: Heteroceridae): rediscovered in Belgium. *Bulletin de la Société royale belge d'Entomologie* **160** 60-62.

EXPERIENCE IN ICE2024 KYOTO

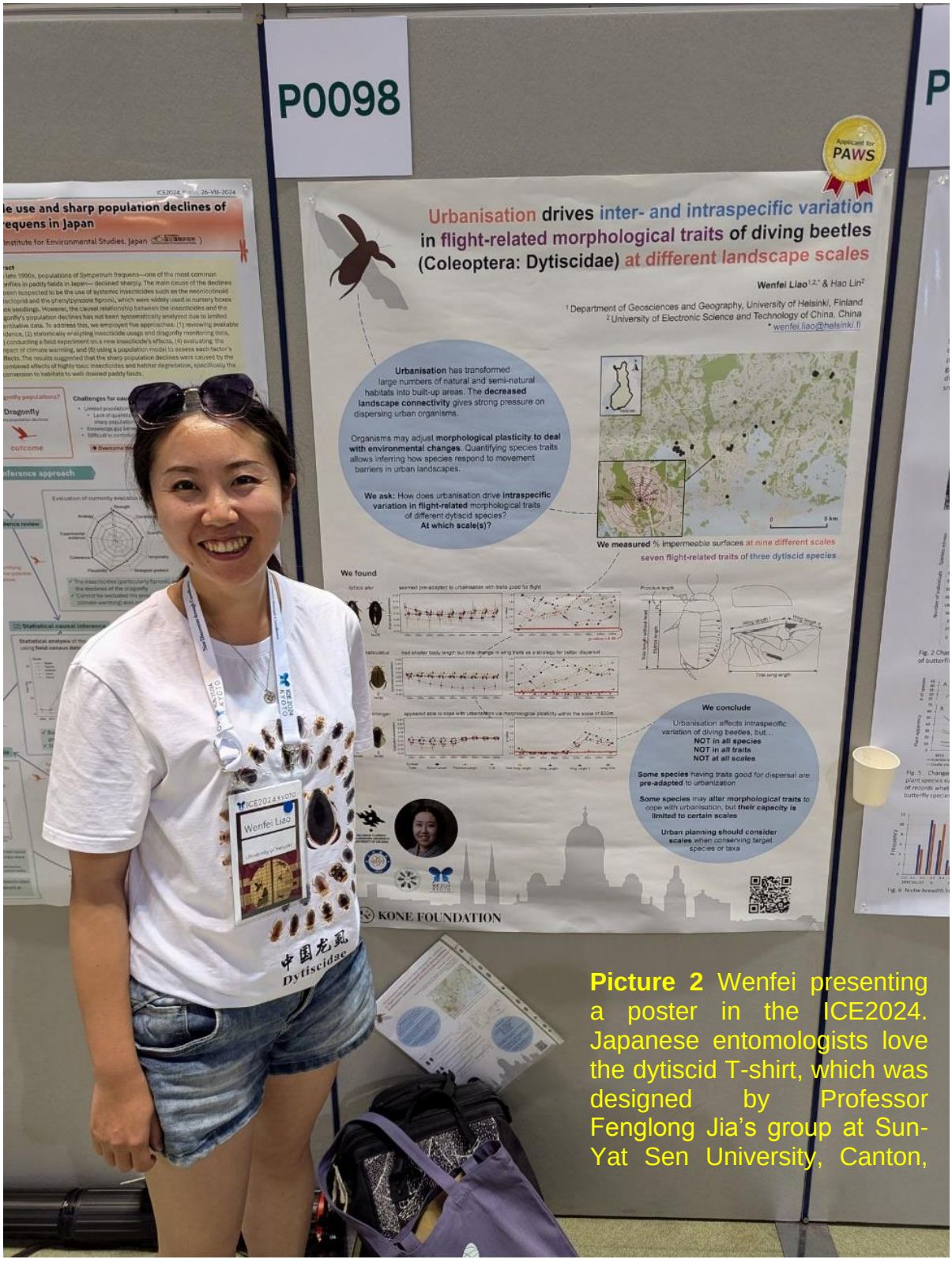
Wenfei Liao

The ICE2024 in Kyoto, Japan, was very well organised but had no special session arranged for water beetlers, which means that I had to search talks very carefully beforehand. These talks were often located in *ad hoc* sessions and different ones, so I had to run from one room to another during the conference. I especially enjoyed Reiya Watanabe's talk about Japanese fallow field biotopes for aquatic insects, including water beetles (Picture 1). Reiya's research involves the ecology of dytiscid larvae, which Anders Nilsson asked me why I had not studied when I visited him in Mullsjö, ha ha! Gabriela Caballero Vidal from France presented her initial results on chemical communication of *Rhantus suturalis*, and her project has the potential to biocontrol of mosquitoes.



Picture 1 Reiya giving a talk about aquatic insect conservation in fallow field biotopes

As far as I could find in the programme, there were three posters about water beetles, including mine. On Monday, Taichi Fukuoka presented his poster at the same time as me, so I was a bit annoyed that I could not visit his poster and talk with him. Taichi's poster was about the potential competition between the larvae of two *Cybister* species, *C tripunctatus lateralis* (Fab.) and *C. brevis* Aubé. *C. tripunctatus lateralis* has been expanding its distribution northwards in Japan due to global warming, which may have negative effects on *C. brevis* because they prefer similar microhabitats and compete for food. I presented my publication about how urbanisation drives inter and intraspecific variations in flight-related traits of three dytiscid species (Picture 2). Diving beetles are famous among Japanese entomologists. I was surprised that many people came to my poster and my mini posters were all handed out! More surprise: Taichi, Reiya, and Shin-ya Ohba, a very important Japanese water beetler who presented giant water bugs instead of beetles in the conference, came to talk with me and invited me to a dinner.



Picture 2 Wenfei presenting a poster in the ICE2024. Japanese entomologists love the dytiscid T-shirt, which was designed by Professor Fenglong Jia's group at Sun-Yat Sen University, Canton,

On Tuesday, Vlatka Micetic Stankovic presented her poster about water beetles, more specifically the lotic families Elmidae and Hydraenidae in Croatia and nearby regions. Vlatka's poster presented many different projects she had worked on, the results of which suggested that water beetles had been overlooked and future studies should pay more attention to habitats, such as hypersaline ponds and remote mountain springs. Vlatka also suggested that I should check museum collections,

which may hold lots of interesting specimens collected in places that are now urbanised.

As for the ‘Dytiscid2024’ dinner, we had another two members, Kosuke Nakanishi and Kiyhito Morii, who love water beetles but currently work on dragonflies and honeybees. We had delicious Kyoto cuisine, and I received a big birthday gift – two water beetle books in Japanese (Picture 3)! I am very motivated to learn Japanese, maybe mainly the water beetle names!

There is something very different in Japan: many Japanese professional and amateur entomologists know diving beetles and truly love them. I saw a girl wearing a cute dytiscid T-shirt and talked with her. She was very happy to share her experience of collecting dytiscids with photos in her phone! Another girl who saw my poster told me she loves dytiscids and showed me where she collected dytiscids on Google Maps. Although I did not find dytiscid T-shirts in the conference souvenir shop, I found something water beetly and did not hesitate to buy everything I could find (Picture 4). The conference was very inspiring. I felt so lucky to have attended it!

Picture 3 Birthday gift from our Japanese water beetlers!

Picture 4 Wenfei bought everything dytiscidy!

Received September 2024

GLOBAL BIODIVERSITY CLAIMS

Nothing obviously about water beetles here but they should feature in any consideration of survival of tropical rainforests often claimed to be centred on lands occupied by indigenous peoples. The authors take issue with the "factoid" that 80% of the world's diversity is found in the territories of indigenous peoples. There is no scientific foundation for this figure, the nearest useful value being 37%, the actual proportion of the world's land held or stewarded by these peoples.

FERNÁNDEZ-LLAMAZARES Á and 13 others 2024. A baseless statistic could harm the indigenous peoples it is meant to support. *Nature* **633** 32-35.

VIKING *TUBERCULATUS*

Among the huge list of finds when excavating the Viking Age Ribe in Denmark was *Helophorus tuberculatus* Gyllenhal and many more hydrophiloid beetles mainly associated with dung rather than water. Other species include *Colymbetes fuscus* (L.) and *Hydraena pulchella* Germar.

ALLISON E 2022 Insects and other invertebrates recorded from the samples. Chapter 12, Appendix 1 pp. 7 in S. M. Sindbæk (ed.) *Northern Emporium:* **I**. *The making of Viking-age Ribe.* Aarhus Universitetsforlag.

IRISH FAIRY FLIES

As a result of a visit by Victor Fursov in 1995 three species were reared from agabine eggs - *Anaphes longicornis* Walker, originally identified as its synonym *Pattason leptoceras* (Debauche), *Eustochus* (*Caraphractus*) *cinctus* (Walker), and *Prestwichia aquatica* Lubbock. These are the first definitive records for these species in Ireland, the *Prestwichia* being previously unknown in Ireland.

O'CONNOR J P 2024. Freshwater parasitic wasps (Hymenoptera: Mymaridae & Trichogrammatidae) from the River Inny, County Cavan, Ireland. *Bulletin of the Irish Biogeographical Society* **47** 211-213.

FLUKES AGAIN

Despite an increase in the known diversity of the fluke genus *Allocreadium*, now with 107 species, there are still no additional records from water beetles following the report by Bray *et al*. (2012). The majority of records are for freshwater fish with some for small bivalves. A new key is provided for the 31 Palaearctic species.

VAINUTIS K S 2024. Never ending diversity: two new species of the genus *Allocreadium* (Digenea: Allocreadidae) including new keys to the genus. *Journal of Helminthology* doi.org/10.101/S0022149X24000440 pp. 14.

BEETLES VS BELGIAN TIGERS

Anyone who has been bitten by a tiger mosquito will appreciate the need for research on this invasive insect. The biological approach to control is based on the bacterium *Bacillus thuringiensis israelensis*, and it has suggested that this might be boosted by beetles. Thirty diving beetle taxa were assessed for the amount of *Aedes albopictus* they might eat in an hour. Clearly in the lead were *Dytiscus marginalis* L. as larvae, *Agabus undulatus* (Schrank), *A*. *bipustulatus* (L.), *A*. *nebulosus* (Forster), *Rhantus exsoletus* (Forster) and *Hyphydrus ovatus* (L.). It was interesting to note that some species - *A*. *undulatus*, *H. ovatus*, *Hydroporus planus* (Fab.) and *Clemnius decoratus* (Gyllenhal) - would not feed on mosquito larvae in November. Further experiments demonstrated a strong preference for *Aedes* larvae over those of *Culex* and chaoborids, and *Daphnia*. The contact is Adwine Vanslembrouck, with Kevin Scheers presumably having a hand in getting accurately identified material.

VANSLEMBROUCK A, SCHEERS K, VERMEERSCH X, HENDRICKX R, SCHNEIDER A, De WITTE J, DEBLAUWE I, Van BORTEL W, RUESS F & MÜLLER R 2024. Exploring the efficacy of predacious diving beetles as potential nature-based solution for combatting the invasive mosquito *Aedes albopictus* (Skuse, 1894). *NeoBiota* **94** 179-203.

POLISH POLISIA

This is largely a natural area shared between Belarus, Poland, Russia and Ukraine. The polish section near Lublin has had 224 species of water beetle in eleven families recorded from it. The fauna is dominated by fen and peatland species including *Rhantus bistriatus* (Bergsträsser), *Hydaticus aruspex* Clark, *Nebrioporus airumlus* (Kolenati), *Hydroporus elongatulus* Sturm, *Hygrotus polonicus* (Aubé), *Helophorus croaticus* Kuwert, *Hydrochus megaphallus* van Berge Henegouwen, *Ochthebius flavipes* Dalla Torre, *O*. *narentinus* (Reitter), *Potamophilus acuminatus* (Fab.), and *Dryops griseus* (Erichson). *Dytiscus latissimus* L. has been found up to 2019. The book was originally produced in Polish in 2020.

BUCZYNKSI P 2024. Aquatic beetles (Coleoptera aquatica). pp. 547-555 in: Y.A. Mazhaisky, A.N. Rokochinskiy, A.A. Volchek, O.P. Meshyk & J. Jesnach (eds). *Environmental engineering in Polesye*. Book **3**. *Polish Polesye*.

PRAGUE 2024

Left to right at the Insect Fair are Yuchen Zheng, Zuqi Mai, Robert Angus and Wenfei Liao. Not sure about the photographer.

Koleopterologische Rundschau 94

Welcome to another KR, with plenty of aquatic interest. Thanks to Manfred Jäch for access to the photographs.

EASTERN *CANTHYDRUS*

This part of the review covers from eastern Iran to the Indonesian island of Sulawesi. Fifteen species of *Canthydrus* are known in East Asia, three in the West Palearctic and five in the Australian Region. However, the majority of *Canthydrus* are Afrotropical. Most species are widely distributed, with a possible exception being *C. ater* Toledo, known from two islands of the Moluccas, and perhaps also from Sangihe and Sulawesi, and *C. mazzoldii* Toledo, currently known only from mountainous areas of Thailand and Laos. This review brings out a feature of many *Canthyporus,* their polymorphic colour patterns and body proportions, seen particularly in *C. luctuosus* (Aubé) illustrated here. This variability has resulted in many synonyms.

TOLEDO M E & NEGRI I 2024. Taxonomic and faunistic notes on *Canthydrus* SHARP, 1882. II. Revision of the Oriental and East Palearctic species (Coleoptera: Noteridae). *Koleopterologische Rundschau* **94** 1-65.

A SARDINIAN ROCKPOOL *OCHTHEBIUS*

Ochthebius (*Cobalius*) *neptunus* is described from crevices in the rocky shores on the northwestern shore of Sant'Antioco Island to the south-west of Sardinia. The image is courtesy of Carles Hernando.

HERNANDO C & FANCELLO L 2024. Hidden in the cracks: new cryptic species of minute moss beetles and rove beetles from supralittoral habitats on Sant'Antioco Island (Sardinia, Italy) (Coleoptera: Hydraenidae, Staphylinidae). *Koleopterologische Rundschau* **94** 67-77

HONG KONG *SCIRTES*

Scirtes yoshitomii is described from Hong Kong. It belongs to the *Scirtes tigmanensis* species group and is compared with the other three members of this group. The group's distribution is wide, from the Mariana Islands, the Palau Islands, Palawn in the Philippines to Hong Kong.

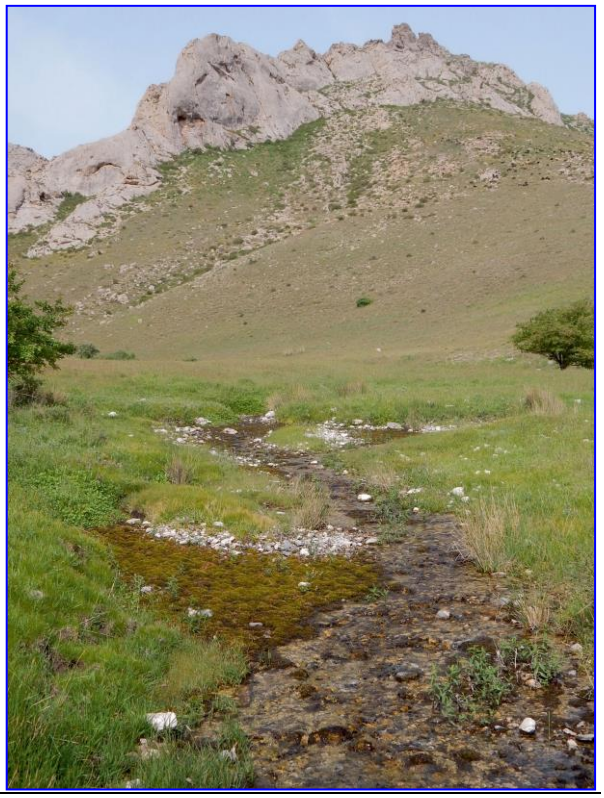
KLAUSNITZER B 2024. Eine neue Art der Gattung *Scirtes* Illiger, 1807 aus Hongkong (China) (Coleoptera: Scirtidae). *Koleopterologische Rundschau* **94** 113-119.

ORIENTAL RIFFLE BEETLES IN *AESOBIA*

This genus was originally set up by Manfred Jäch for a female specimen from Sri Lanka, the male of *pygmaea* being described here for the first time. Three new species are described from Myanmar, Laos and Malaysia. The genus is recorded from Malaysia and Myanmar for the first time. Most of the specimens collected so far are brachypterous.

YOSHITOMI H, JÄCH M A & FREITAG H 2024. Revision of the genus *Aesobia* Jäch, 1982 (Coleoptera: Elmidae). *Koleopterologische Rundschau* **94** 121-131.

ASIAN *STENELMIS*



This is a review of the Central Asian *Stenelmis*. Morphology, allopatry and DNA sequences corroborate the distinctness of *S. puberula* Reitter and *S. subtilis* Zaitzev. Habitat shots include this one by Stanislav Litovkin of a site for *S. subtilis* in the Karatau Mountains, Kazakhstan. The true positions of the type localities of two species are corrected: *S. fursovi* Zaitzev is from Uzbekistan, not Tajikistan and *S. subtilis* is from Kyrgyzstan, not Kazakhstan.

JÄCH M A, BROJER M, BRUVO MAĐARIĆ B, LITOVKIN S V, KOVALEV A V, PROKIN A A & SAZHNEV A S 2024. Faunistic and taxonomic notes on the Central Asian species of Stenelmis Dufour, 1835 (Coleoptera: Elmidae) *Koleopterologische Rundschau* **94** 133-150.

BALKAN *LIMNIUS*

Limnius balcanicus is described from Bosnia and Herzegovina, North Macedonia, Greece, and Bulgaria. It is sister to the allopatric *L. colchicus* Delève from Turkey, Georgia and Armenia. Both species are compared with the North Macedonian *L. rambouseki* (Maran).

JÄCH M A, BROJER M, BRUVO MAĐARIĆ B & FREITAG H 2024. A new species of *Limnius* Illiger, 1802 from the Balkans, and notes on its sister species *L. colchicus* Delève, 1963 (Coleoptera: Elmidae). *Koleopterologische Rundschau* **94** 151-161.

HETERLIMNIUS SATOI

As redefined to include *Optioservus* Sanderson the genus *Heterlimnius* currently includes seven species groups and 43 species distributed in the Nearctic and Palearctic regions (17 Nearctic and 26 Palearctic species), with a new species in the *Heterlimnius quadrimaculatus* species group described from NE China and the Russian Far East.

KAMITE Y & JÄCH M A 2024. *Heterlimnius satoi*, a new species from Russia and China (Coleoptera: Elmidae). *Koleopterologische Rundschau* **94** 163-167.

NEW AFRICAN LIMNICHID

Resachus bilardoi is described from Armando Bilardo's material from Gabon as deposited in the Museum of Natural History, La Specola, in Florence.

HERNANDO C 2024. *Resachus bilardoi* sp.n. from Gabon (Coleoptera: Limnichidae: Limnichinae). *Koleopterologische Rundschau* **94** 169-172.

HETEROCERIDS - *CAVEAT EMPTOR*

Augyles bendai is described from Bangladesh, coupled with a checklist of the Heteroceridae of that country including a further six additions. Of wider interest might be the problems associated with the insect dealer Jingke Li, several species now not thought to have been found in Bhutan and two species supposedly found in Tibet. In fact, there is no evidence for the occurrence of any heterocerid in Tibet. *Augyles luciae* (Mascagni) is removed from the Palaearctic list.

SKALICKÝ S & JÄCH M A 2024. A new species and new faunistic records of Heteroceridae from Bangladesh, and critical notes on the species recorded from Bhutan and Tibet (Coleoptera: Heteroceridae). *Koleopterologische Rundschau* **94** 173-186.

AMBER-GAMBLING + HALIPLID LARVAE

What would seem to be a useful parade of the known larvae of Haliplidae goes awry when the authors couple it with the conclusion that some larvae found in Burmese Amber must belong to the Adephaga in the Haliplidae. The most obvious feature of these larvae, apart from their thinness, is that they have a swollen terminal segment, with very long setae and in some cases with a rounded extremity. Two of the authors had already published recognition that a larva with such an extremity was a member of the Polyphaga in the terrestrial Scraptiidae. Rolf Beutel and Bernhard van Vondel are fairly merciless in their critique, concluding that the newly described larvae also belong to the Scraptiidae. For British roads the Highway Code advises you "to proceed with caution" when you see amber. Good advice in general?

BEUTEL R G & van VONDEL B J 2024. Misidentification of fossil beetle larvae on the subordinal level - Scraptiidae (Polyphaga: Tenebrionoidea) instead of Haliplidae (Adephaga). *Koleopterologische Rundschau* **94** 187-192.

HAUG J T & HAUG C 2019. Beetle larvae with unusually large terminal ends and a fossil that beats them all (Scraptiidae, Coleoptera). *PeerJ* **7** e7871.

LINHART S J, MÜLLER P, HAUG G T, HAUG C & HAUG J T 2023. An overview of crawling water beetle larvae and a first possible review from 100-million-years-old Myanmar amber. *Paleontologia Electronica* **26** (3) a42.

REED BEETLE UPDATE

The second edition of the *Catalogue of Palaearctic Coleoptera*, Vol. 6/2 (Chrysomeloidea II), contains many corrections and additions to the first edition (Löbl & Smetana eds 2010). The present article deals with the chapter on the Donaciinae (Geiser 2024, pp. 206–216) and explains some of the changes, especially those, requiring detail beyond what could be printed in the catalogue. The new catalogue has 91 Palaearctic species/subspecies, eight fewer than before. The number of *Donacia* species/subspecies has been increased by one because *D. kweilina* Chen, 1966 has been found to be a proper species. *Macroplea* now includes six species rather than five, two being added and one being synonymised. *Plateumaris* gets the biggest hit, from sixteen down to ten (see ***Latissimus* 56** 5). on numerous museum specimens examined by the author. The data for *Donaciasta* and *Neohaemonia* did not change in the second edition of the catalogue. New records acquired since the catalogue went to press include *D. vulgaris* (Zschach) in Israel, and *Macroplea mutica* (Fab.) confirmed for West Siberia.

GEISER E 2024. Additional explanatory notes on the updates concerning the subfamily Donaciinae in the second edition of the Catalogue of Palaearctic Coleoptera, Vol. 6/2 (Coleoptera: Chrysomelidae). *Koleopterologische Rundschau* **94** 193-209.

***HYGROTUS* IN EGYPT**

David Sharp (1882) originally recorded *Hydroporus lernaeus* Schaum from Greece, Egypt and Syria. Hans has chosen as Holotype for this new species a specimen taken by Alfieri in Felix Guignot's collection, dated 1927, and from Wadi Natroun, hence the specific epithet. *H. natrun* is very similar to *H. lernaeus* (Schaum) and *H. orthogrammus* (Sharp), distinguishable mainly on the basis of the male and female genitalia. The prosternal process is strongly keeled and unlike the flatter process of *orthogrammus*. The nearest it comes to other species is about 500 km.

FERY H 2024. *Hygrotus* (*Leptolambus*) *natrun* nov. sp. from northern Egypt (Coleoptera, Dytiscidae, Hydroporinae). *Linzer biologische Beiträge* **56** 365-377.

***AUSTRELATUS* LINK**

The two new species are *Austrelatus mirai*, named for Miroslav Vit and *A. riberai*, named for the late Ignacio Ribera. *A. mirai* is from the Malay Peninsula and *A. riberai* from Myanmar, together filling the gap in the distribution of *Austrelatus* between the Sunda Islands and India, China and Japan. *A. mirai* is shown here, courtesy of Jiří Hájek.

HÁJEK J & SHAVERDO H 2024. Two new species of *Austrelatus* diving beetles from continental Southeast Asia, linking the distribution area of the genus (Coleoptera: Dytiscidae, Copelatinae). *Acta Entomologica Musei Nationalis Pragae* **64** 243-247.

CORSICAN ISLANDS IN THE HOLOCENE

Two papers were originally reviewed (***Latissimus* 40** 17) when available online, the paginated versions being published later. *Canthydrus melanophthalmus* (Reiche & Saulcy) was first mentioned then, a full paper being published in 2023. Fragments, including the distinctive noterid postcoxal plates, were found in a deposit 6,500 years old in a dune pond on the island of Cavallo. Mario Toledo (2022) split *C. siculus* (Ragusa) from the true *C. diophthalmus* mainly on the basis of differences in the male genitalia, not available for the subfossil. It seems likely that the Cavallo beetle is *siculus*, found around the Mediterranean from Morocco and southern Spain to Sicily, but also overlapping with the Middle East *diophthalmus* in Egypt. A map is provided of the known distributions of *Canthydrus* species around the Mediterranean. Other species recorded were *Agabus bipustulatus* (L.), *Colymbetes fuscus* (L.) and *Limnoxenus niger* (Gmelin), seven other water beetle genera being noted. Thanks to Philippe Ponel for use of the photographs of core-extraction, a Russian drill being operated by Yohan Poher and Philippe, and the image of a modern *siculus* prepared by Antoine Mantillieri.

POHER Y, PONEL P, MÉDAIL F, ANDRIEU-PONEL V & GUITER F 2017. Holocene environmental history of a small Mediterranean island in response to sea-level changes, climate and human impact. *Palaeogeography, Paleoclimatology, Palaeoecology* **465** 247-263.

POHER Y, PONEL P, GUITER F, ANDRIEU-PONEL V & MÉDAIL F 2017. Erosion of insect diversity in response to 7000 years of relative sea-level rise on a small Mediterranean island. *Biodiversity and Conservation* **26** 1641-1657.

PONEL P, POHER Y, MÉDAIL F & GUITER F 2023. Présence en Corse d'un coléoptère thermophile appartenant au complexe d'espèces "*Canthydrus melanophthalmus*" à l'Holocène moyen, possible témoin d'un optimum climatique vers 6500 ans BP (île Cavallo, Corse-du-Sud, France). *Comptes rendus Palevol* **22** 623-633.

TOLEDO M E 2022. The Mediterranean *Canthydrus* Sharp and taxonomic notes on *C. arabicus* Sharp, 1882 (Coleoptera, Noteridae). *Suplemento del Boletin de la Asociación española de Entomología* **4** 50-59.

***AGABUS ULIGINOSUS/LOTTI* AGAIN**

This paper originally appeared in *bioRχiv* and was reported in ***Latissimus* 57** 28. This publication formalises the synonymisation of *A. lotti* Turner, Toledo & Mazzoldi, 2015 with *A. uliginosus* (L., 1761), the *bioRχiv* item probably not claiming to be a proper publication.

DETTNER K, KOVACS Z, REWICZ T & CSABAI Z 2024. Age-dependent variation of aedeagal morphology in *Agabus uliginosus* and the status of *A. lotti* (Coleoptera, Dytiscidae). *bioRχiv* doi.org/10.1101/2024.05.07.592935

DETTNER K, KOVACS Z, REWICZ T & CSABAI Z 2024. Age-dependent variation of aedeagal morphology in *Agabus uliginosus* and the status of *A. lotti* (Coleoptera, Dytiscidae). *ZooKeys* **1212** 153-177.

ELMOMORPHUS

The first part of this work concerned Japan and Korea (see ***Latissimus* 51** 33). Forty-five new species are described in the second paper, bringing the total known to 63. Illustrated here courtesy of Dávid Selneković, is *E. auripilosus* from Vietnam. Whereas the male genitalia are fairly similar examination of the spines and sclerites of the bursa copulatrix of the female genitalia is needed to distinguish some species. Further work is planned on the DNA.

KODADA J, SELNEVOVIČ D, JÄCH M A, GOFFOVÁ K & VĎAČNÝ P 2021. Taxonomic revision of the genus *Elmomorphus* Sharp, 1888 I. Japanese and Korean species (Coleoptera: Dryopidae). *European Journal of Entomology* **758** 97-121.

SELNEKOVIČ D, JÄCH M A & KODADA J 2024. Taxonomic revision of the genus *Elmomorphus* Sharp, 1888. II. Redescription of the genus and review of the species from India, Nepal, Bhutan, Myanmar, China, Thailand. Laos, Cambodia and Vietnam (Coleoptera: Dryopidae). *European Journal of Taxonomy* **957** 1-229.

SOUTH AFRICAN UMBRELLA STUDY

One must be wary of any study claiming surrogacy even if the groups most claimed are beetles, as of course they always should be. Finding just one species to represent the rest presupposes that there is some overarching authority that must decide which particular part of a pondscape must be protected for the greatest good. Conservation effort is more of a patchwork, with special pleading/funding possibly protecting the "wrong" species, never mind the conflicting needs of landowners. In this study four endemic species were found to be effective for the other local taxa, three of them dragonflies, with *Pseudagrion caffrum* (Burmeister) the most representative umbrella species, plus the endemic frog, *Leptopelis xenodactylus* Poynton. The beetle group came third but there is a caveat. The dragonflies and frogs were identified to species but the nine taxa of beetle are named only to genus. How can one be sure about what represents what if the status of some species is unknown? The correspondent is James Pryke.

CAWOOD R A, SAMWAYS M J & PRYKE J S 2024. Umbrella index as a conservation tool across pondscapes: a case study using frogs, aquatic insects, and plants in South Africa. *Environmental and Sustainability Indicators* **34** 100478 pp. 15.

"NEW" LAKE SAMPLING METHOD

It is not clear what is so new about what is proposed. Depending on the type of habitat encountered one either sweep-nets a square metre for 10 seconds or kick-nets three times over 20 square metres, and that is done whilst walking or wading in a zig-zag, or perhaps using a boat. The classification of the mesohabitats appears to be rigorous but the recording of what was done might take longer than the sampling itself. Water beetles do get mentioned including *Hydroglyphus geminus* (Fab.) as an example of a rapid coloniser ε-taxon. Gabrielle Thiébaut is the correspondent.

LABAT F, PISCART C & THIÉBAUT G 2022. Invertebrates in small shallow lakes and ponds: a new sampling method to study the influence of environmental factors on their communities. *Aquatic Ecology* doi.org/10.1007/s10452-023-09939-1 pp. 19.

BODO DIET

The Bodo tribe comprises about 1.4 million people of Tibeto-Burman origin and is the largest group among the Plains Tribal population in Assam. Like other groups in the north-east of India they regularly consume insects, and there is some concern that they might be exposed to heavy metals as a result. This study demonstrates that "*Dytiscus marginalis*" has a calorific value of 383 kcal and has lead, arsenic and cadmium detected at 0.044, 0.014 and 0.005 ppm respectively. Whilst there is probably no doubt about the identity of the other food substance studied, the caterpillars of the Indian silkworm (*Samia cynthia ricini* Boisduval), the "*Dytiscus*" illustrated are a *Cybister* and a *Hydrophilus*! The correspondent is Amar Deep Soren.

CHOUDHURY K, SARMA D, SAPRUNA P J & SOREN A D 2020. Proximate and mineral compositions of *Samia cynthia ricini* and *Dytiscus marginalis*, commonly consumed by the Bodo tribe in Assam, India. *Bulletin of the National Research Centre* **44** 152 https://doi.org/10.1186/s42269-020-00411-y pp. 7.

BEAVERS MAINLY IN ENGLAND

As an information note on the current status of the European Beaver in England (not Scotland, though it is claimed to have about three times as many animals as England) this is fine, but as a review of its effects on freshwater biodiversity it is lacking. There are three citations indicating that introduction is beneficial for invertebrates at the landscape scale but only one species of invertebrate, the freshwater pearl mussel, *Margaritifera margaritifera* (L.), gets a mention and that is of course to suggest that its habitat is displaced by beaver damming.

HÄNFLING B, WOODWARD G, KAHANE L, SOMEKH L, EVERSON J, DeRUIH L, GAYWOOD G, HOWE C & WILLBY N 2024. Beaver reintroduction and its effects on freshwater biodiversity in Britain. *Freshwater Biological Association Info Note* **3** pp. 11.

BEAVERS HELP MOTHS?

Nothing here about water beetles but beavers are the "in thing" for many, and it should not be a surprise to learn that the biomass of flying invertebrates and the diversity of moths are both better in the presence of them.

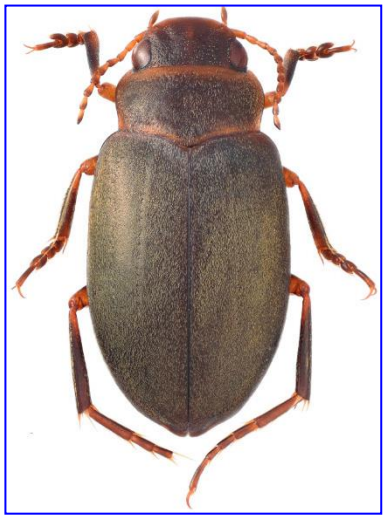
ANDERSEN L H, RANSBORG C, PERTOLDI C, PAGH S & BAHRNDORFF S 2023. Can reintroduction of beavers improve insect biodiversity? *Journal of Environmental Management* doi.org/10.1016/j.jenvman.2023.117719 pp. 7.

ROMAN WELL IN CORSICA

One wonders how many times a joke has been made on the basis that this is a well at Mariana, and not the Mariana Trench. A rich subfossil plant and insect deposit was found in this Roman well. It includes, for example, *Agabus bipustulatus* (L.) and *Hydrobius fuscipes* (L.), and at least seven water beetles identified to genus alone.

FIGUEIRAL I, PONEL P, LANOË E, SIVAN O & GUERRE J 2024. Deciphering the environmental background of a roman brick and tile works in Mariana (Pruniccia, Lucciana, Corsica) with geomorphology, palaeoentomology and archaeobotany. *Vegetation History and Archaeobotany* doi.org/10/10.1007/ s00334-024-01003-w pp. 18.

ADDITIONS IN THE EASTERN PALEARCTIC



A cornucopia of beautifully illustrated finds here from seven countries. *Coelostoma transcaspicum* Reitter and *Enochrus salomonis* (Sahlberg) are new for Armenia and the Caucasus in general. The following are new for Kyrgyzstan - *Haliplus furcatus* Seidlitz, *Hydaticus ponticus* Sharp, *Oreodytes mongolicus* (Brinck), *Enochrus coarctatus* (Gredler), *Laccobius quaesitus* Gentili, and *Dryops renateae* Greń & Przewoźny. Those last three plus *Laccobius hindukuschi* Chiesa are also new for Kazakhstan. *Dryops similaris* Bollow is new for Tajikistan. Beauty is in the eye of the beholder and for my money the best of the additional records is for *Deronectes vestitus* (Gebler) from Kazakhstan, illustrated here courtesy of the authors.

SAZHNEV A S, LITOVKIN S V & PROKIN A A 2024. New records of water beetles (Coleoptera: Haliplidae, Dytiscidae, Helophoridae, Hydrochidae, Spercheidae, Hydrophilidae, Dryopidae) from the Palearctic region. *Russian Entomological Journal* **33** 192-202.

SOME 1840s RECORDS IN LEICESTER

This detective story began with John Moray, Earl of Moray, pointing out to me that there was a box of beetles as lot 726 at an auction at McTear's in Glasgow. Geoff Hancock, of the Hunterian Museum saw that it might be of interest with very early locality data. He won it at £60 plus charges and later did a great forensic job. Others, particularly me, might have got it wrong, being misled by 1840s Leicester labels into thinking the collection was something to do with Henry Walter Bates (1825-1892). Cutting a long story short the key specimens were a bat fly, *Nycteribia kolenatii* Theodor & Moscona and Daubenton's bat mite, *Spinturnis andegavinus* Kolenati, found by William MacGillivray (1796-1852) on Daubenton's bats, *Myotis daubentonii* (Kuhl), in the Old Machar Cathedral in Aberdeen. MacGillivray was Regius Professor of Civil and Natural History at Marischal College, and the material would have been part of his teaching collection. The *Donacia* specimens that first attracted my attention were *clavipes* Fab., *crassipes* Fab. and *vulgaris* Zschach, from Leicester, the latter being dated as from 1841. What we have to do to get records! GNF

HANCOCK E G 2024. Evidence for a remarkable survival of invertebrates from the teaching collection of William MacGillivray (1796-1852), Marischal College, Aberdeen. *Archives of Natural History* **51** 86-94.

THE CASE FOR *AGABUS NEVADENSIS*

Agabus nevadensis was originally described by Håkan Lindberg (1939) as the form of *A. bipustulatus* (L.) to be found in the high lakes of the Sierra Nevada. Twenty-six populations of *bipustulatus* were sampled in Iberia, ranging from sea level to above 3,000 metres, plus five populations from other parts of Europe and from the Middle East. It would have been more if material had not been turned back by customs officials at Baracas! The best-supported idea based on genetic analysis was that the there were three lineages, one based on the strictly alpine *A. nevadensis*, another being Iberian at low to high elevation, and another being trans-European. The remarkable thing is that the *nevadensis* ecotype was confined to the Sierra Nevada. The variations were consistent with a succession of Pleistocene glaciations causing isolation alternating with connectivity. The main morphological feature was the narrower elytra of *nevadensis*, possibly associated with fast movement in open water as opposed to the wider elytra being associated with wider beetles being more manoeuvrable among vegetation.

LINDBERG H 1939.Inventa entomologica itineris Hispanici et Maroccani, quod a 1926 fecerunt Harald and Håkan Lindberg. XXIII. In Spanien und Marokko gefundene Coleoptera Adephaga. *Commentationes biologicae* **7** 1-35.

PALLARÉS S, ORTEGO J, CARBONELL J A, FRANCO-FUENTES E, BILTON D T, MILLÁN A & ABÉLLAN P 2024. Genomic, morphological and physiological data support fast ecotypic differentiation and incipient speciation in an alpine diving beetle. *Molecular Ecology* 2024;00:e17487. https://doi.org/10.1111/mec.17487

POLISH RAISED BOG

Bagno Kosowo is reckoned to be one of the best preserved raised bogs in Poland. Of the 497 invertebrate species recorded in 2017 are *Gyrinus natator* L., the usual two *Noterus*, 32 diving beetles including *Hydaticus aruspex* Clark (as *modestus* Sharp), *Ilybius wasastjernae* (Sahlberg), 14 Hydrophilidae, *Hydrochus crenatus* (Fab.) as *carinatus* Germar, only two *Helophorus*, two hydraenids, and five scirtids, all *Contacyphon* species.

RUTA R, RUTKOWSKI T, SIENKIEWICZ P & WENDZONKA J 2024. Selected groups of invertebrates of "Bagno Kosow" nature reserve: arachnids, odonates. aculeate hymenopterans and lepidopterans (Arachnida, Odonata, Coleoptera, Hymenoptera: Aculeata, Lepidoptera). *Przegląd Przyrodniczy* **35** 51-103. [in Polish with English summary]

ASIACYON

The amazing diversity of terrestrial Asian Sphaeridiines featured in Zuqi Mai's talk in Italy (see ***Latissimus* 57** 29). Here we see ample demonstration of it with 21 species being recognised in the new genus *Asiacyon* Mai, Jia, Ryndevich & Fikáček, most of which were found in a recent Chinese survey in rotting vegetable matter. *Asiacyon* is shown to be monophyletic on the basis of DNA. Eleven species are newly described from China, with more to be described from India, Myanmar and Indonesia. *Asiacyon* are contrasted with the synanthropic species of *Cercyon*, and it seems that some are local endemics of the forest floor. The correspondents are Martin Fikáček and Fenglong Jia.

MAI Z, WANG L, RYNDEVICH S K, FIKAČEK M, ARRIAGA-VARELA E & JIA F 2024. DNA but not always morphology help to recognise monophyletic genera with *'Cercyon'* terrestrial water scavenger beetles: a case study of *Asiacyon* gen. nov. (Coleoptera, Hydrophilidae). *Invertebrate Systematics* **38** doi:10.101/IS24012

ROBERT ANGUS AT 80

Robert was 80 on 14 August 2024, this being followed by celebratory meals, the one attended by most entomologists being at the Barley Mow, Englefield Green on 18 August. Robert is seen there and somewhat earlier in Oxford, below. The Balfour-Browne Club presented him with a painting of *Helophorus rufipes* (Bosc d'Antic) by Carim Nahaboo.

***NOTOMICRUS* EVOLUTION**

Phylogenomics, the use of genomic data to reconstruct evolutionary history, is most often needed to resolve relatively ancient divergences which have proved troublesome with single-gene approaches. Here the approach is based on Ultraconserved Elements (UCEs - see, for example, ***Latissimus* 40** 26 and **45** 9 for earlier usage) to study the Neotropical *Notomicrus traili* species group, where the more traditional approaches have had limited success. Using 3,400 UCEs from 44 specimens a pattern is consistent with repeated diversification and dispersal of groups in the Neotropics.

BACA S M, GUSTAFSON G T, DeRAAD D A, ALEXANDER A, HIME P M & SHORT A E Z 2024 A shallow-scale phylogenomics approach reveals repeated patterns of diversification among sympatric lineages of cryptic Neotropical aquatic beetles (Coleoptera: Noteridae). *Systematic Entomology* doi: 10.1111/syen.12643 pp. 20. Volume **49**.

USING THE FIXATIVE

When preserving samples for future DNA extraction it is normal to replace the fluid used in the field with fresh alcohol on arrival back at the lab. But what if the fluid, about to be discarded, is just as informative as the main sample? This study investigates the optimal period of extraction by the fixative based on freshwater invertebrates in the Tatra Mountains in Slovakia. Samples were stored at -20°C ad then extracted 1, 14 and 28 days after sampling. It was clear that the best results were obtained at 14 days, detection being in decline by 24 days after sampling, which fits with earlier observations that detectable richness rises in the first two week of storage by up to ten species, being optimal after 7 days. This study goes on to link barcode data with the ecological status of the lakes, also indicating that fixative DNA is better at detected freshwater species over terrestrial ones. The correspondent is Zuzana Čiamporová‑Zaťovičová.

VARGOVČÍK O, ČIAMPOROVÁ‑ZAŤOVIČOVÁ Z, BERACKO P, KOPÁČEK J, MACKO P, TUHRINOVÁ K & ČIAMPOR Jr F 2024. Environmental gradients and optimal fixation time revealed with DNA metabarcoding of benthic sample fixative. *Nature, Scientific Reports* **14** 18396.

CAPERHANTUS

Caperhantus Balke, Hájek & Hendrich, 2017 was erected for the single species *cicurius* Fab. following on a genetic analysis and reappraisal of the genus *Rhantus* (see ***Latissimus*** 40 28). *C. cicurius* is not as confined as previously thought. It ranges from Namaqualand to the Eastern Cape Province. The image is courtesy of the authors.

BALKE M, HÁJEK J & HENDRICH L 2017. Generic reclassification of species formerly included in *Rhantus* Dejean (Coleoptera, Dytiscidae, Colymbetinae). *Zootaxa* **4258** 91-100.

BILTON D T, TURNER C R & MIAMBO *M C* 2024. The phylogenetically isolated South African endemic diving beetle *Caperhantus cicurius* (Fabricius, 1787): redescription and range extensions (Coleoptera, Dytiscidae, Colymbetinae). *Check List* **20**(5) 1149-1156 https://doi.org/10.15560/20.5.1149

HERON & EGRET DIETS

Pellets disgorged by heron and egret at Northward Hill, West Kent, were examined for insects. This indicated that their diets differed, heron mainly on insects in standing freshwater whereas the insects found in egret pellets were predominantly terrestrial. Heron pellets had seven water beetle prey named, the commonest being *Dytiscus circumflexus* Fab., *Colymbetes fuscus* (L.) and *Hydrophilus piceus* (L.). The egret pellets had thirteen wetland beetle species named as prey, the commonest being *Hydrobius fuscipes* (L.) and *Limnoxenus niger* (Gmelin), and the most interesting perhaps being *Paracymus aeneus* (Gmelin), only recently detected elsewhere in the inner Thames marshes. The correspondent is Robert Angus.

WILKINSON E, ANGUS R B, BARCLAY M V L, BOOTH R G, GALSWORTHY A C & MORRITT D 2024. An investigation of the insect component in the diet of the Grey Heron *Ardea cinerea* and Little Egret *Egretta garzetta*. *Bird Study* 10.1080/00063657.2024.2386863

YET MORE ROCKPOOL *OCHTHEBIUS*

O. vilanovensis was found in tidal rock crevices to the west of Barcelona at Vilanova i la Geltrú. It is genetically most related to the Iberian/Moroccan *O. evae* Villastrigo, Hernando, Millán & Ribera but the distal lobe of the aedeagus is longer. Nearest comes the Maltese *O. cortomaltese* Villastrigo, Hernando, Millán & Ribera. The molecular clock indicates that *vilanovensis* evolved before the Messinian Salinity Crisis, presumably to the north of the bar created by the connection of the Balearics to the Mainland. Is there no end to these rockpool specialists? See page 11.

VILLASTRIGO A, HERNANDO C, MILLÁN A & RIBERA I 2020. The neglected diversity of the *Ochthebius* fauna from Eastern Atlantic and Central and Western Mediterranean coastal rockpools. *Organisms, Diversity & Evolution* doi.org/10.1007/s13127-020-00463-y

VILLASTRIGO A & GARCíA-ESQUIVEL E 2024. Overlooked coastal habitats expose a new species: *Ochthebius vilanovensis* sp. nov. (Coleoptera, Hydraenidae). *Zootaxa* **5538** 439-447.

HUMBOLDT REVISITED - THE *LIMBODESSUS* EXPERIENCE

Alexander von Humboldt is famous for his early 19th Century study of plant communities on a gradient from sea level to that of the Himalayas. This modern version covers the evolution of *Limbodessus* in association with the Sahul continent, now Australia and New Zealand, in the Miocene, about 17 million years ago. *Limbodessus* diversified into two clades, one with 72 species found mainly in Australia and 21 species from Australia, New Guinea, New Zealand and the Pacific, and in association with the collision of the Australian and Pacific plates. By 12 million years ago the first clade covered an enormous geographical range in temperate, subtropical and tropical zones. The aridification from 15 million years ago resulted in colonisation of the desert calcretes and further evolution of species within them, in up to three different body sizes within a calcrete. The second clade gave rise to a subclade exclusive to montane and alpine New Guinea at 2,800-4,000 metres altitude. The other subclade had species that got back to Australia and ranged to French Polynesia and New Zealand. So, we have one ancestor to species living in alpine conditions at one extreme and under a desert at the other! This is the general thrust of the evolution but analysis reveals many false starts and process going on in parallel. This paper has beautifully illustrations based on clade credibility trees.

VILLASTRIGO A, COOPER S J B, LANGILLE B, FAGAN-JEFFRIES E P, HUMPHREYS W F, HENDRICH L & BALKE M 2024. Aridification and major geotectonic landscape change shaped an extraordinary species radiation across a world's extreme elevation gradient. *Communications Biology* **7** 1500 doi.org/10.1038/s42003-024-07181-7 pp. 11.

***HELOPHORUS AQUATICUS* IN TURKEY**

Sixty-seven male *Helophorus aquaticus* were collected from 17 sites ranging from 41 metres above sea level to 2,661 m. Body and aedeagus lengths were found to increase significantly with altitude. This is in contradiction to Allen's rule (1877) that the bodily extremities of conspecific and heterospecific endotherms are usually shorter in cooler environments than in warmer environments. But could the large specimens from the higher altitudes be a new species?

ALLEN J S 1877. The influence of physical conditions in the genesis of species. *Radical Review* **1** 108-140.

POLAT A 2023. A study on morphological variations of male *Helophorus* (*Helophorus*) *aquaticus* (L., 1758) (Coleoptera: Helophoridae in Türkiye. *Turkiye Entomoloji Dergisi* **47** 59-72.

SPHAERIDIUM SUBSTRIATUM FALDERMAN, 1839 AND *CONTACYPHON PALMI* (NYHOLM, 1948) NEW TO THE IBERIAN PENINSULA

David T Bilton

Sphaeridium substriatum Faldermann, 1839 is a relatively widespread Palaearctic species (Fikáček *et al*. 2015; Berge Henegouwen & Foster 2019) associated with fresh herbivore dung. In mid-April 2022, the species was abundant in cow dung at Fornillos de Fermoselle, Zamora Province (41°21' 57.4"N 6°19'36.4"W, 719 m) together with *S. lunatum* Fabricius, 1792 and *S. scarabaeoides* Linnaeus, 1758. This is apparently the first record of the species from either Spain or Iberia, the nearest being from southern France. Given the proximity of Fornillos to Portugal, it is highly likely *S. substriatum* will also be found there.

On 17 May 2016, two males and a female *Contacyphon palmi* (Nyholm, 1948) were swept from grasses in spring fed pools in an *Alnus* swamp beside the Arroyo Riofrio ca 1 km N of Sarracín de Aliste in the Sierra de la Culebra, Zamora Province (41°15'30.0"N 6°10'41.1W, 893 m). These were found mixed with abundant *C. iberus* (Nyholm, 1976), the commonest beetle in the water being *Hydroporus brancoi brancoi* Rocchi, 1981. *C. palmi* has previously been reported only from southern France, Italy and Morocco (Klausnitzer 2009), this Spanish record representing a significant extension to its known range.

BERGE HENEGOUWEN A L van & FOSTER G N 2019. A new illustrated key to the British species of *Sphaeridium*, with the possibility of *S. substriatum* Faldermann, 1839 as a British species (Hydrophilidae: Sphaeridiinae). *The Coleopterist* **28** 1-12.

FIKÁČEK M, ANGUS R B, GENTILI E, JIA F, MINOSHIMA Y N, PROKIN A, PRZEWOŹNY M & RYNDEVICH S K 2015. Helophoridae, Hydrochidae, Hydrophilidae. In: Löbl, I. & Löbl, D. (eds) *Catalogue of Palaearctic Coleoptera. Volume* **2/1**. *Hydrophiloidea-Staphylinoidea*. Leiden: Brill.

KLAUSNITZER B 2009. Insecta: Coleoptera: Scirtidae. *Sußwasserfauna von Mitteleuropa* **20/17**. Heidelberg, Spektrum Akademischer Verlag.

Received November 2024

AMBER SCIRTIDS

The importance of early fossil scirtid material cannot be over-estimated as they would appear to be crucial in reconstructing the polyphagan ancestor. *Varcalium* is described as a new scirtid genus. *V. lawrencei* is described in detail including imaging the aedeagus by micro-computed tomography, a way of avoiding the potentially damaging use of chloroform to dissolve the amber. The contact for this paper is Chen-Yang Cai. Scirtid larvae have previously been noted in Australian amber (see ***Latissimus* 54** 31).

The first amber beetle from New Zealand is unmistakably a *Contacyphon*, named as *pomahakaensis*. This sounds rather like A.G. Ponomarenko, a key investigator of fossil material, but in fact derives from a coastal swamp forest by the Pomahaka River. There are lignite beds containing a lot of amber, which is basically fossilised resin.

KAULFUSS U, SZAWARYN K, LEE D & RUTA R 2024. The first beetle species described from Oligocene New Zealand amber (Coleoptera: Scirtidae). *Palaeoentomology* **7** 529-538

LI Y-D, RUTA R, TIHELKA E, LIU Z-H, HUANG D-Y & CAI C-Y 2022, A new marsh beetle from mid-Cretaceous amber of northern Myanmar (Coleoptera: Scirtidae). Scientific Reports **12** 13403 pp. 11.

WATTS C H S & HAMON H 2023. Fossil marsh beetle larvae (Scirtidae: Coleoptera) from the Lower Cretaceous (Aptian) Koonwarra fossil bed of Victoria, Australia. *Alcheringa* doi.org/10.1080/03115518.2023.2184493 pp. 5.

AN AMBER LIMNICHID

This Eocene limnichid is identified as belonging to otherwise extant *Platypelochares,* described by Harry Champion from India and Myanmar. It comes from Gdańsk and the specimen is in the Museum of Amber Inclusions there.

HERNANDO C, SZAWARYN K & RIBERA I 2024. A new species of *Platypelochares* from Baltic amber (Coleoptera: Limnichidae). *Acta entomologica musei nationalis Pragae* **58** 17-20.

***HYDROPORUS NORMANDI* IN ALMERÍA**

Seven specimens of the type form have been found at various times in the underground river of the Ceva del Agua at Sorbas. These famous caves can be accessed for about 40€.

HERNANDO C 2024. Presencia de *Hydroporus normandi normandi* Régimbart, 1903 en las aguas subterráneas del Karst de Yesos de Sorbas (Almería) (Coleoptera: Dytiscidae). *Monografías Biospeleol-ógicas* **18** 4-5.

THERMAL TOLERANCE OF *AGABUS BIPUSTULATUS*

Five Iberian populations of *Agabus bipustulatus* (L.) were studied, ranging from about 400 to 2,400 metres above sea level in Huelva, in the Sierra Espuña, in the Gredos and Guadarrama and in the Pyrenees. Annual mean temperatures ran from 1.6 to 15.4°C with annual ranges of 25 to 32°C. Tolerance tests indicate that, despite this species being one of the commonest diving beetles in the Western Palaearctic, it is still limited in its ability to tolerate temperature extremes such as might be expected in global climate change.

Incidentally I recall that Anton Bruckner had a Symphony No. 0 but no, not heard of a journal issue **0** before!

PALLARÉS S, CARBONELL J A, PICAZO F, BILTON D T, MILLÁN A & ABELLÁN P 2024. Intraspecific variation of thermal tolerance along elevational gradients: the case of a widespread diving beetle (Coleoptera: Dytiscidae). *Insect Science*. **0** 1-13 doi 10.1111/1744.7917.13466

NANOPHYINI - NEARLY WATER BEETLES

A magnificent set of stacked images support this key to western palaearctic nanophyine weevils, of which quite a few might fall into a pond net, the majority being confined to loosestrife, poly and purslane species in *Lythrum*. Mark Telfer introduces *Microon sahlbergi* (C.R. Sahlberg) to the British list, found feeding on water-purslane, *L. portula* L. in North Hampshire in England.

STÜBEN P E 2023. Schlüssel der westpalärktischen Nanophyini (Coleoptera: Curculionoidea: Nanophyinae). *Weevil News* **111** 1-23.

TELFER M G 2024. *Microon sahlbergi* (Sahlberg, 1834) (Nanophyidae): a native weevil new to Britain. *The Coleopterist* **33** 127-132.

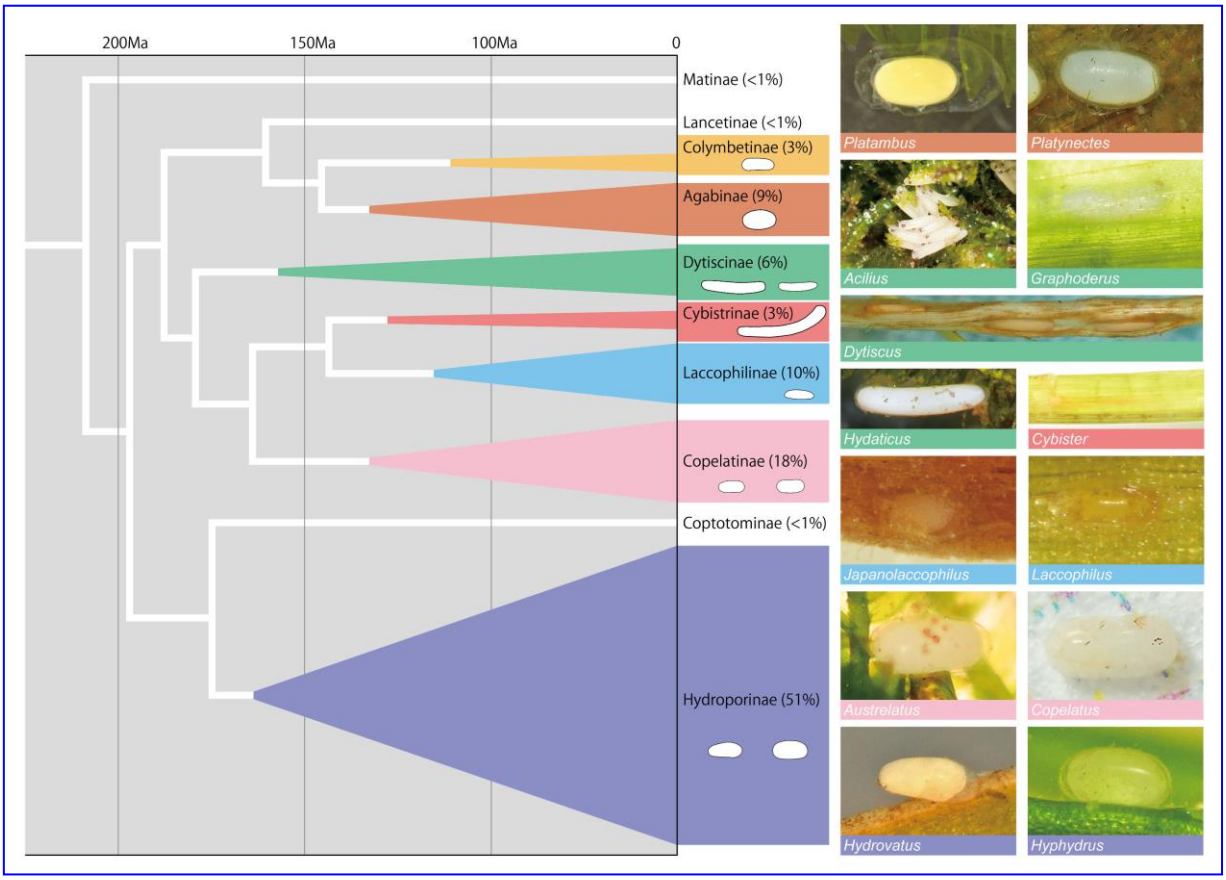
WIGTOWNSHIRE ADDITIONS

Helophorus griseus Herbst, *Enochrus bicolor* (Fab.) and *Augyles maritimus* (Guérin-Méneville) were newly recorded in 2024 from the RSPB Reserve at the Crook of Baldoon, an otherwise well-worked brackish area in south-west Scotland.

FOSTER G N 2024. Three species of wetland beetles new for Wigtownshire. *The Coleopterist* **33** 792-93.

DIVING BEETLE EGGS

This brings together what is known about egg-laying in 40 of the 138 diving beetle species found in Japan. One key contrast is based on the extent to which eggs are laid in plant tissue, the observation being made that the species that do that are those Dytiscidae most endangered. It just so happens that these are the species providing the best protection from attack by parasitic wasps, 13 species of which are listed in the Japanese fauna. Climate change is mentioned, largely based on observations of *Dytiscus sharpi* Wehncke, which are sensitive to high temperatures.



A fascinating pictorial summary shows the extent to which egg morphology and egg-laying can be linked to the phylogeny of dytiscid subfamilies, shown here courtesy of the author.

WATANABE K 2024. Review of Dytiscidae (Coleoptera) eggs: focus on Japanese species. *Journal of Insect Conservation* **29** (2025) pp. 17.

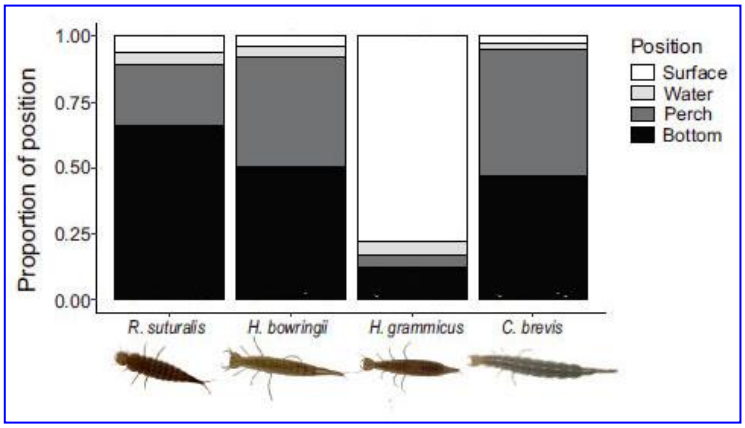
MOROCCAN CORK OAK FOREST

Two hundred and twenty-nine species of beetle are recorded in this forest near Larache on the Atlantic coast. The only hydrophilid recorded to species is *Cercyon obsoletus* (Gyllenhal), known in North Africa previously from Algeria according to the Palaearctic Catalogue. *Ochthebius bicolon* (Germar), if correct, would appear to be new for North Africa but none of the more likely hydraenids is reported. *Dryops luridus* (Erichson) again is a little surprising given there being no record of *D. algiricus* (Lucas). Sergi Trócoli verified the identifications.

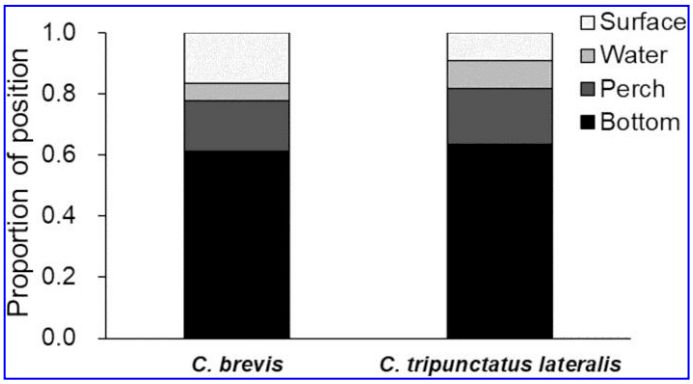
SAMIH A, PETIT D, MAATOUF N, TRÓCOLI S, HABBAZ H & ROHI L 2024. Diversity of beetle communities in cork oak forest of Larache from Morocco. *Indian Journal of Entomology Online* doi. 10:55446/ije.2024.2590

COEXISTENCE STUDIES IN DYTISCIDAE

Observations at night in paddy fields demonstrated differences in the behaviour of the larvae of *Rhantus suturalis* (Macleay), [the gorgeous] *Hydaticus bowringii* Clark, [the equally gorgeous] *H. grammicus* (Germar) and *Cybister brevis* Aubé. The prey items in hunting events were identified as nearly as possible and classified into nine traits - burrower, sprawler, climber-sprawler, climber, climber-swimmer, swimmer, diver, planktonic and skater. The position of the event in the water column was classified on the surface, in the open water, perching or on the bottom. *H. grammicus stood* out as being found mainly at the surface, which fits with its feeding on plankton more than the other species. *H. bowringii* larvae were mainly preying on tadpoles and those of *Rhantus suturalis* were mostly grubbing around on the bottom.



The second paper addresses the apparent paradox that two species of *Cybister* share the same paddy fields and have similar position profiles for their larvae. It was found that larvae of *C. tripunctatus lateralis* (Fab.) larvae were more abundant in the shallow open water of paddy fields whereas those of *C. brevis* were commoner in the surrounding ditches. Thanks to the authors for use of the figures.



FUKUOKA T, TAMURA R, OHBA S-y & YUMA M 2024. Different use of two *Cybister* (Coleoptera: Dytiscidae) species larvae in a paddy field water system. *Entomological Science* **27** pp. 7.

WATANABE R, OHBA S-y & SAGAWA S 2024. Coexistence mechanism of sympatric predaceous diving beetle larvae. *Ecology* doi.10.1002/ecy.4267

PORTUGUESE *HELOPHORUS*

Helophorus minutus Fab. is shown to be frequent in the northern half of Portugal whereas the newly recorded *H. calpensis* Angus is largely confined to the Algarve. The species coexist in the Ribatejo province north of Lisbon.

SHATROVSKIY A G & ANGUS R B 2024. The first record of *Helophorus minutus* Fabricius, 1775 (Coleoptera: Helophoridae) for Portugal with some notes about *H. calpensis* Angus, 1988. *The Kharkiv Entomological Society Gazette* **31** 21-29.

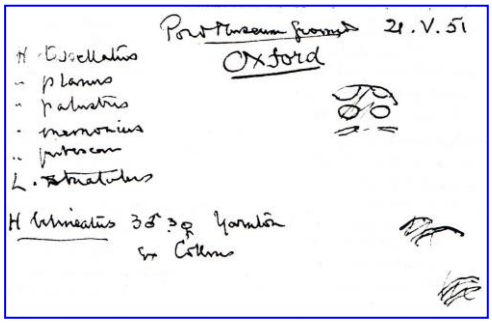
COPELATUS LATIPES COMPLEX

Six species, including two newly described ones, are known in the *latipes* complex, which is characterised by processes on the ventral side of the median lobe. They range from the west of India to Indonesia.

HÁJEK J & SHETH S D 2024. A review of the Oriental *Copelatus latipes* complex, with the description of two new species (Coleoptera: Dytiscidae: Copelatinae). *Zootaxa* **5481** 119-130.

GRAPTODYTES BILINEATUS IN OXFORDSHIRE

Now it can be told. A seemingly innocent new record turned out to be anything but. Jeremy Biggs (left) netted several small brown diving beetles on a day when the one who stayed on the bank, lacking chest waders, got more wet than Jeremy. This was our search for *Haliplus furcatus* Seidlitz on a gloomy March day. The stripes on the beetle became more apparent later when it also seemed that this was new for Oxfordshire, with such a seat of learning ensuring that its beetle fauna should be well-recorded. Checking on the new record later in the facsimile of Professor Balfour-Browne's journal I came across one photocopy that further enquiry to Ashleigh Whiffin in the National Scottish Museum confirmed was from a folded slip of tissue paper inserted in B-B's card index (right), and one that he must have overlooked when writing up the British distribution of *bilineatus*. It notes "*H. bilineatus* 3 ♂ 3♀ Yarnton ex Collins". Cutting to the chase the beetles exist in Oxford University Museum as checked by Louis Lofthouse. Given that this is the Balfour-Browne Club Newsletter, albeit by another name, I hope that readers, if there are any, will appreciate B-B's little sketches, bottom right, including the key character of the elongated inner fore claw. And we didn't find *furcatus*. Principal thanks must go to Jeremy for braving the elements.



FOSTER G N & BIGGS J 2024. *Graptodytes bilineatus* (Sturm) (Dytiscidae) in Oxfordshire. *The Coleopterist* **33** 94-95.

PONDERFUL 2024

About ninety papers were presented, mainly as pre-recorded talks followed by live Q & A sessions, at the *Ponds and pondscapes for biodiversity, climate and people: International pond conference 2024* on 12/13 November. The speakers came from 22 countries. It was difficult to keep up with them all but Wenfel Liao and I agree that only two did more than touch on water beetles, her own obviously, plus the demonstration of pond noises by David De La Haye of Newcastle University. Nevertheless a fine gathering of pondologists and thoughts, achieved in large part by the activity of Jeremy Biggs at Freshwater Habitats Trust.

HYDRAENA NOTSUI GROUP ADDITIONS

The eleven known members of the *Hydraena notsui* group are endemic to Japan on the Hinshu and Shikoku islands. *H. watanukii* and *H. nihonkoku* are newly described.

HAYASHI M 2024. Two new species of *Hydraena* from Niigata Prefecture, Honshu, Japan (Coleoptera; Hydraenidae). *Japanese Journal of Systematic Entomology* **30** 32-42.

BRIAN MORRISON'S COLLECTION

Brian died in 2022 (see ***Latissimus* 54** 30). His family has passed his collection to the Hunterian Museum in the University of Glasgow (curator: Jeanne Robinson). An overhaul has revealed quite a few records additional to those he had already provided for the recording scheme. Five hundred and twenty-eight specimens yielded 320 usable records for 102 species. The Scottish records of water beetles are reviewed in *The Coleopterist* paper. Brian worked for the Freshwater Laboratory, Pitlochry, now part of Marine Scotland. Amongst his records are several species detected in the flume on the River Tummel at Loch Faskally - *Brychius elevatus* (Panzer), *Hydroporus ferrugineus* Stephens, and *Oreodytes davisii* (Curtis), also records from remoter lochs in the Highlands and the Southern Uplands of Scotland. *Riolus cupreus* (Müller) is noted from Mid-Perthshire.

FOSTER G N 2024. Scottish records of water beetles from the collection of Brian Morrison (1938-2022). *The Coleopterist* **33** 75-77.

AUTHOR! *DYTISCUS SHARPI*

This paper appeared when surfing (as it used to be called) for something else. Describing the entire sequence of the mitochondrial genetic structure of *Dytiscus sharpi*, however desirable, must surely acknowledge Ernst Wehncke? And surely one needs some idea of the specimen or specimens on which the analysis is based, and whether a voucher specimen exists - and where? Fortunately the author's address indicates that the latter must have been taken care of.

NAGATA N 2019. The complete mitochondrial genome of the critically endangered diving beetle *Dytiscus sharpi* (Coleoptera: Dytiscidae). *Mitochondrial DNA, Part B* **4** 2375-2376.

BELGIAN HYDRADEPHAGA CHECKLIST

There are 146 species of Hydradephaga recognised as Belgian. *Graphoderus austriacus* (Sturm) is newly recorded for Belgium. Seventeen species mentioned by earlier authors are omitted from the Belgian list and the 22 that have not been recorded since before the Millennium are regarded as extinct.

SCHEERS K, DOPAGNE C & THYS N 2024. An annotated checklist of the Hydradephaga of Belgium (Coleoptera: Dytiscidae, Gyrinidae, Haliplidae, Hygrobiidae, Noteridae). *Bulletin de la Société royale belge d'Entomologie* **160** 69-162.

***DEROVATELLUS* LARVA**

The third instar larva is described for the first time, based on a capture of *D. lentus* (Wehncke) in Argentina. It has elaborate frontal processes, and it would be interesting to know how these help it to capture and dispose of prey.

MICHAT M C, ALARIE Y & BENETTI C J 2024. Description of the mature larva of *Derovatellus lentus* (Coleoptera: Dytiscidae). *Zootaxa* **5492** 145-150.

INDIAN DAMPONDS

A survey in northern India produced 164 water beetle specimens in six taxa;- *Hydroglyphus flammulatus* (Sharp), *H. pendjabensis* (Guignot), a *Hyphophorus* species, *Laccophilus parvulus* Aubé, *L. sharpi* Régimbart, *Enochrus esuriens* (Walker), and *Sternolophus inconspicuus* (Nietner). Some of the citations caused concern as that for Ignacio Ribera and others does not exist at the position indicated in *Aquatic Conservation: Marine and Freshwater Ecosystems*.

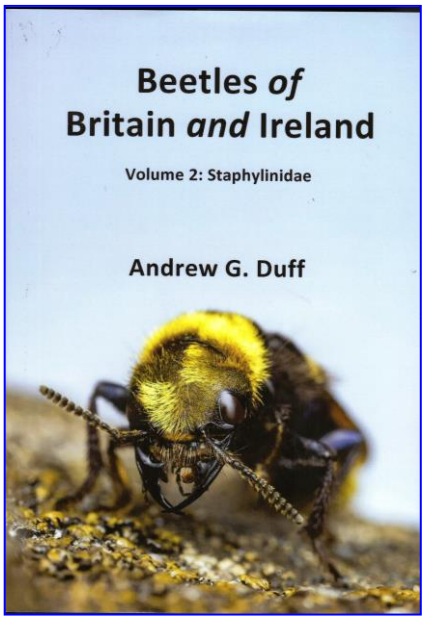
CHAUDHARY K O 2024. Diving into diversity: aquatic beetles of Sukhna Wildlife Sanctuary, Chandigarh, India. *Journal of Threatened Taxa* **16** 26124-26130.

PARACYMUS AENEUS - THE LARVA

Fortunately for us in Western Europe this species ranges to Japan, where it has been subject to the local expertise in rearing. There was always some doubt about whether the larvae described by Bøving and Henriksen (1938) really belonged to this species, and this error is confirmed here in association with a detailed description of the egg cocoon and all three instars. Larvae were behaved as expected, breathing by exposing the tip of the abdomen above the water but spending most time on land. Prey were lifted out of the water, cannibalism was frequent and the colour of midgut contents indicated consumption of small invertebrates as prey as well as the chironomid larvae on offer. Third instars burrowed in the soil when they had stopped feeding but none reached adulthood.

MINOSHIMA Y & WATANABE K 2024. Morphology of the egg-case and larva of *Paracymus aeneus* (Germar) (Coleoptera: Hydrophilidae). *Zootaxa* **5541** 200-214.

BRITISH & IRISH ROVE BEETLES



📖 DUFF A G 2024. Beetles *of* Britain *and* Ireland. Vol. 2: Staphylinidae. West Runton: A.G. Duff. About £119.

This completes Andrew Duff's *magnus opus* in four volumes. It covers 1,148 species in 254 genera and 19 subfamilies to which might be added 21 species of Silphinae when they were still regarded as Silphidae, these having been covered in Volume 2 in 2012. For a water beetler this will be the least used of the set, the paradox being that toothcombing the text would probably reveal as many or more beetles confined to wetland as in the other families put together. This volume continues with the same high standard of presentation, running to 768 pages with 360 habitus photographs in colour over and above the copiously illustrated keys.

Perhaps the jury was still out when the text was completed but with a review of over 20 analyses since Michael Hansen's 1997 paper Derek Sikes, Margaret Thayer and Alfred Newton conclude "*from the multiple lines of phylogenetic evidence presented above, supported by the ever-expanding fossil record of Staphylinidae (29, possibly 30, of the 34 subfamilies now known), it seems well justified to treat Silphinae as a subfamily of a strongly supported monophyletic Staphylinidae*."

HANSEN, M. 1997. Evolutionary trends in "staphyliniform" beetles (Coleoptera). *Steenstrupia* **23** 43-86.

SYKES D S, THAYER M K & NEWTON A F 2024. Large carrion and burying beetles evolved from Staphylinidae (Coleoptera, Staphylinidae, Silphinae): a review of the evidence. *ZooKeys* **1200** 159-182.

DORSET NEW RECORDS

Records of 139 beetle species include *Hydroporus necopinatus* Fery, *Helophorus alternans* Gené, *H. nanus* Sturm, *Cercyon bifenestratus* Küster and *Megasternum immaculatum* (Stephens), the latter from a vane trap set on a veteran oak tree with exposed heart-rot.

FOSTER A P & MYLNWARD A F 2024. Recent Dorset beetle records of interest. *The Coleopterist* **33** 97-100.

45 ANOS À ESPERA DOS OLHOS CERTOS

It must be a first that a water beetle is in the *National Geographic* magazine, well into its Portuguese version at least. The article by Alexander Vaz concerns the description of *Helophorus bivari* Shatrovskiy & Angus from a specimen taken by António Bivar de Sousa in Furnas Lake on the Azorean island of São Miguel in 1978. See ***Latissimus* 56** 6. The article also describes Sasha Shatrovskiy being obliged to leave Ukraine, taking up residence in the Santarém region and working on the water beetles of the Algarve and Ribatejo. The image of *H. bivari* was created by Roberto Keller and the photograph of Sasha in the National Museum of Natural History and Science of the University of Lisbon was taken by Vaz. The beetle is among those surviving the disastrous fire in the Museum in 1978.

TRAPPING METHODS COMPARED

This paper must surely cover one of the most comprehensive comparisons of sampling methods for terrestrial beetles, done in the forest area south-east of Moscow. In fact the survey is so comprehensive that it has something to say about aquatic beetles too. Almost 28,000 specimens were collected in pitfall traps (17,659 specimens), beer traps (4,971), window traps (1,014), Malaise traps (109), pan traps (2,220), or by sweepnetting (1,919). There were 927 species in 64 families. Small numbers of diving beetles and hydrophilids were found by all sampling methods except beer and Malaise traps. These included *Dytiscus thianschanicus* (Gschwendtner), *Ilybius erichsoni* (Gemminger & von Harold), *I. subtilis* (Erichson), and *Hydaticus continentalis* (Balfour-Browne). Just one *Ochthebius minimus* (Fab.) represented the Hydraenidae. Ten species of Scirtidae were found mainly by sweepnetting and in the window traps. *Heterocerus fenestratus* (Thunberg) and *H. fusculus* (Kiesenwetter) were caught in pan traps. The contact is Alexander Ruchin.

EGOROV L V, DEDYUKHIN S V, ALEKSEEV S K, TRUSHITSYNA O S, RUCHIN A B, SAZHNEV A S, NIKOLAEVA A M, ESIN M N & KHAPUGIN A A 2024. Regional Coleoptera fauna: applying different methods to study species diversity in a single region. *Insects* **15** 917 pp. 40 https://doi.org/10.3390/Insects15120917

GLASGOW-LAKE DISTRICT-NORFOLK BROADS COMPARED

Three landscapes in Britain were selected for survey because of their contrasting land types, mainly urban around Glasgow, upland in the Lake District and lowland agricultural in Norfolk. In each landscape lakes, canals, ponds and ditches were surveyed for four groups. The totals found were 199 waterbodies, with 192 macrophytes, 35 odonates, 48 molluscs and 242 water beetles. Twelve non-native species and 34 species of conservation concern were recorded, lakes having the non-native species as well as mostly having the greatest numbers of species of conservation concern. The survey came near to water beetle hotspots as in Catfield Fen, but was in danger of dismissing these as outliers. There is a pervading idea that connectivity, whether by water, air or humans, and physical features of the habitat and its surroundings differ between different types of waterbody and landscape. However, in this study the relative importance of different waterbody types was the same across different topographies and land use, and this in spite of the range of conditions appearing to differ so much from lakes through ponds and ditches to canals.

One important tip concerned the Lake District. Alan Law was asked how his team coped with the difficulty of parking a vehicle given the attitude of many Park employees and landowners. One simply hires a "white van" - you can park that anywhere!

LAW A, BAKER A, SAYER C D, FOSTER G, GUNN I D M, MACADAM C R & WILLBY N J 2024. Repeatable patterns in the distribution of freshwater biodiversity indicators across contrasting landscapes. *Landscape Ecology* **39**, 195 pp. 16. https://doi.org/10.1007/s10980-024-01992-z

WILTSHIRE NEW RECORDS

The River Avon near Downton in South Wiltshire has provided two species new for Wiltshire as a whole, *Hydroporus striola* (Gyllenhal) and *Enochrus melanocephalus* (Olivier) amongst a number of beetles new for the area.

DENTON J S 2024. Further additions to the Wiltshire Coleoptera list, including nine species new to the county. *The Coleopterist* **33** 95.

PNG *HYDROGLYPHUS*

The newly described *H. kanwariensis* is the second *Hydroglyphus* to be known from Indonesia.

HENDRICH L & BALKE M 2024. A new species of *Hydroglyphus Motschulsky*, 1853 from the East Sepik Province in Papua New Guinea (Coleoptera, Dytiscidae, Bidessini). *Spixiana* **47** 37-42.

CATALOGUE OF INDIAN HYDROPHILOIDEA

This catalogue lists 286 valid species in 49 genera and six families of the superfamily Hydrophiloidea. The Hydrophilidae has 260 species in 44 genera, and the other families each have just one genus - Helophoridae with eight species, Epimetopidae with five, Georissidae with seven, Hydrochidae with four and Spercheidae with two. One hundred and thirteen species are apparently endemic to India.

GUPTA D, SONALI S, GHOSH S K, DAS P, JAISWAL D & CHANDRA K 2024. A Catalogue of Indian Hydrophiloidea (Insecta: Coleoptera). *Zootaxa* **5546** 1-92. ISBN 978-1-77973-216-3 (Online edition)

PSEUDUVARUS VITTICOLLIS

P. vitticollis is known from India, China, Myanmar, Malaysia, Indonesia and the Philippines. Included is this West Sumatran record based on the description of *Bidessus instriatus*, the seventh synonym to be acquired by the *Pseuduvarus*.

HÁJEK J, HENDRICH L & BALKE M 2024. *Bidessus instriatus* Zimmermann, 1928 - another junior synonym of widespread *Pseuduvarus vitticollis* (Boheman, 1848), with notes on the distribution in the Oriental Region. *Spixiana* **47** 43-47.

HYGROTUS DIVERSIPES STUDY

H. diversipes Leech was first found in 1964 and became a candidate for Category II of the Endangered Species Act. Further work showed it to occupy four Wyoming streams systems in all, intermittent at the surface where the species can be common in pools less than 8 metres long and with some sheltering vegetation, and that survive drought but lack fish. It was not given federal protection under the Endangered Species Act in 2023.

TRONSTAD L M, LINDSTEADT A & HOTALINO S 2024. Integrating historical and contemporary data for narrow-foot hygrotus diving beetle (*Hygrotus diversipes* Leech, 1966): perspectives studying invertebrates of management and conservation concern. *Western North American Naturalist* ***84*** 447-477.

ANDEAN *LIODESSUS* - THE "FLICKERING CONNECTIVITY SYSTEM"

The abstract and the discussion differ strikingly in this extensive paper on the *Liodessus* of the Andes between 11°N and 8°S in one axis 2,800 and 4.700 metres in another. The abstract refers only to the creation of three new subspecies but the discussion works up the concept of a "flickering connectivity system" on the basis of complete DNA alignments of 147 specimens of *L. quimbaya* Megna, Hendrich & Balke, 2019 and 59 of *L. quillacinga* Megna, Hendrich & Balke, 2019. The northern and southern Andes groups of *Liodessus* can be explained by past climatic change, perhaps with the intervention of the Puracé volcano. Orthodox explanations are challenged by the vestigial wings of *L. quimbaya* not having prevented its producing more lineages in a smaller geographical span than the fully winged *quillicinga*. The correspondent is Adrián Villastrigo.

BALKE M, MAINDA T, NEVEN T, HENDRICH L, BASANTES M S, PRIETO C & VILLASTRIGO A 2024. Recent range expansion and lineage idiosyncratic population structure of *Liodessus* diving beetles in the high Andes (Coleoptera: Dytiscidae, Bidessini). *PLoS ONE* **19** https://doi.org/10.1371/journal.pone. 0308683

MILFOIL WEEVIL IN SWEDEN

Eubrychius elevatus (Beck) was found on *Myriophyllum sibiricum* Kom and *M. verticillatum* L. on the Swedish coast but neither on *M. alterniflorum* DC nor *M. spicatum* L. The photograph shows a dense stand of *M. sibiricum* at Galtön.

NILSSON A N 2024 Förekomst av gul dykvivel på olika arter av slingor i Nordamalings kustområde. [Occurrence of yellow diving weevil on different species of milfoil in Nordmaling's coastal area]. *Skörvnöpparn* **16** 5-8.

CHANGE IN URBAN PONDS

The water beetles of 20 ponds near Helsinki were studied by trapping for six years. Six were isolated and 14 were in clusters. The number of species per site decreased over time whilst change-over between sites increased, i.e. "heterogenisation". Fish reduced diversity. Dytiscid assemblages became more diverse over time. Stable populations developed best in pond clusters.

LIAO W & SOININEN J 2024. Temporal alpha and beta diversity of diving beetles (Coleoptera: Dytiscidae) reveal biotic heterogenisation in biotic ponds. *Freshwater Biology* **70**:e14374 (2025) pp. 13.

LANCETINAE'S HISTORY

Genetic analysis indicates that the subfamily Lancetinae of the Dytiscidae developed in the early Miocene with its diversification resulting from the fragmentation on Gondwana, development of cold-hardiness and ability to achieve extraordinarily long dispersals. The split from the closely related Coptotominae occurred in the late Cretaceous and is more likely to have occurred in Pangea than in Gondwana. The Lancetinae are now confined to the south of South America and Australia and to New Zealand, and more remotely, such as *Lancetes angusticollis* (Curtis) reported in this paper for the first time on Tristan da Cunha, over 2,600 km from known sites in Argentina and South Georgia. Lars Hendrich (in litt. 27 December 2024) notes how this project began several years ago when Athena Lam found it possible to extract DNA from museum material almost 100 years old.

VILLASTRIGO A, LAM A, VAN DAM M H, SCHEUNERT A, HÁJEK J, HENDRICH L, MICHAT M C, MEGNA A, FIGUEROA A, ZENTENO N, LEDEZMA J, GUERRA-SERRUDO F & BALKE M 2024. Plate tectonics, cold adaptation and long-distance range expansion to remote archipelagos and the high Andes as drivers of a circumantarctic freshwater arthropod radiation. *Molecular Phylogenetics and Evolution* **204** (2025) 108279

THURINGIAN "AUTUMN-LIVING PONDS"

The Herbslebener Teiche are a group of ponds based on flooded chalkpits 2 km north-east of the market town of Herbsleben, the name of which might mislead one in to thinking the ponds fill up in the autumn. About 18 people met there in June 2024 and recorded 1,480 species of arthropod, of which 705 were beetles. Water beetles included *Gyrinus paykulli* Ochs, *Liopterus haemorrhoidalis* (Fab.), *Berosus frontifoveatus* Kuwert, *Enochrus halophilus* (Bedel), *Limnoxenus niger* (Gmelin), *Hydrophilus* piceus (L.), *Scirtes hemisphaericus* (L.) and *Dryops nitidulus* (Heer).

FRITZLAR F, KREBS D, KOPETZ A, MÜLLER M & EIGEL A 2024. Coleoptera (Käfer) pp. 141-151 *in:* A. Kopetz, E. Anton, R. Bellstedt, D. Krebs, M. Müller & A. Weigel (eds) Gemeinschaftsexkursion des Thüringer Entomologenverbandes e. V. (TEV) 2024 in das Gebiet der "Herbslebener Teiche" im Thüringer Becken (Unstrut-Hainich-Kreis). *Mitteilungen des Thüringer Entomologenverbandes e. V*. **31**.

PLANT PARASITES OF EUROPE

A citation in Anders Nilsson's paper on p.32 is a useful reminder of the continuing progress of Dr Ellis's website on galls and leafmines, now having 52,288 pages of information on the hosts and parasites, 14,232 references, and 21,860 images. Leaf beetles and weevils are well covered.

ELLIS W N 2024. Plant parasites of Europe: leafminers, galls and fungi. https://bladmineerders.nl

***HYDROCHARA* DIET**

Hydrochara caraboides (L.) may be called a sapro-phytophage, using as food both algae and higher plants, detritus and dead animals, both vertebrates (fish) and invertebrates (insects). The remains of dipteran larvae (Diptera) were repeatedly found in excrement, probably because the beetles ate the dead larvae. Colonies of cyanobacteria (*Oscillatoria*) were noted in the excrement of one specimen. Spores and conidiophores of fungi and pollen of higher plants, in particular members of the Apiaceae) were found in the intestines and excrement.

RYNDEVICH S K, ZEMOGLYADCHUK A V, MISHUKOVA E M & LUKASHENYA M A 2024. Trophic preferences of *Hydrochara caraboides* (Linnaeus, 1758) (Coleoptera; Hydrophilidae). *Ecological culture and environmental protection: IV Dorofeev papers at the international scientific and practical conference, Vitebsk, November 29, 2024, Vitebsk State University* pp. 93-95. [in Russian]

FAR EAST *ENOCHRUS*

Enochrus umbratus (Sharp, 1884) is reinstated as a species and is described alongside *E. simulans* (Sharp, 1873) as members of the subgenus *Holcophilydrus* Kniž. *E. simulans* is confined to Japan whereas *E. umbratus* is mapped in China, Korea and Japan.

RYNDEVICH S K & PROKIN A A 2024. Taxonomic status of *Enochrus simulans* and *E. umbratus* (Coleoptera: Hydrophilidae). *Russian Entomological Journal* **33** 430—444.

MEETINGS 2023-2025

OCCITANIE 2025

A meeting is planned for the Montpellier area, led by Pierre Queney. The dates looking suitable are 8-12 May 2025, hopefully not too early for the interesting river fauna and not too late for a summer drought that seems almost inevitably to follow the floods of 2024. If you are interested let either Pierre or the editor - or both - know by email.

LA SILA, 2024

Toby Turner has been volunteered to bring together the records for this meeting. Please contact him by email if you have any records to add to the file. Thanks to all who have already contributed.

HEREFORDSHIRE, 2023

Similarly, Will Watson is trying to finalise records from that meeting too.

Email addresses among the contacts overleaf.

Latissimus is the newsletter of the Balfour-Browne Club

***Latissimus* 58** was produced in December 2024

IN THE SOUP

Rob Close has kindly drawn attention to water beetles once available with a packet of soup.

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