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LATISSIMUS

NEWSLETTER OF THE BALFOUR-BROWNE CLUB

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Cover photograph*:* *Austrelatus mirificus* Shaverdo, Hájek, Hendrich, Surbakti, Panjaitan & Balke, a new species from Papua New Guinea. "Mirificus" means wonderful. See page 1.

Photograph: Harald Schillhammer

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***MIRIFICUS AUSTRELATUS* + 31**

A new genetic analysis delivered a new genus out of the Copelatinae which could also be distinguished morphologically on the complexity of the median lobe of the aedeagus. *Austrelatus* Shaverdo, Hájek, Hendrich, Surbakti, Panjaitan & Balke is established on the basis of 31 new species plus four reassigned *Copelatus*. The *Austrelatus neoguineensis* group is devised for 32 of the species. Our cover features the new species *Austrelatus mirificus* from Papua New Guinea. The photograph here, by Michael Balke, shows virgin peat bog in virgin rainforest on Foja Mountain, Indonesia, home to another new species, *fojaensis*.

Two more publications may be expected from this work, the molecular analysis being led by Emmanuel Toussaint and another paper needed by Lena Shaverdo on the status of *Copelatus biroi* Guignot and *C. subterraneus* Guéorguiev, currently known only from the types.

SHAVERDO H, HÁJEK J, HENDRICH L, SURBAKTI S, PANJAITAN R & BALKE M 2023. *Austrelatus* gen. nov., a new genus of Australasian diving beetles (Coleoptera, Dytiscidae, Copelatinae), with the discovery of 31 new species from New Guinea. *ZooKeys* **1170** 1-164.

JAPANESE HALIPLIDAE

Thirteen species are recognised as Japanese, two *Peltodytes* and the rest in *Haliplus*, for which there some adjustments. *H. morii* is described as a new species, *H. diruptus* Balfour-Browne is sunk as a synonym of *H. kotoshonis* Kano & Kamiya, with records of *H. davidi* van Vondel probably referring to *kotoshonis*. *H. angustifrons* Régimbart is newly recorded from Japan. *H. basinotatus* Kano & Kamiya is shown here.

HAYASHI M, IWATA T & YOSHITOMI H 2023. Revision of the family Haliplidae (Insecta. Coleoptera) in Japan. *ZooKeys* **1168** 267-294.

CLUB MEETING IN HEREFORDSHIRE, MAY 2023

For some the meeting began inauspiciously with confrontation with the proprietor from a hired house who couldn't cope with criticism. More importantly and worryingly we tracked down Will Watson and Giles King-Salter to Berrington Pool, a Capability Brown construct, in which 24 traps caught only one *Dytiscus* larva overnight. To cap it all Robert Angus came with us initially on 26 May to Combe Moor where, after a series of false starts, we found the puddle that remained of the site where Robert had taken *Laccornis oblongus* (Stephens) in 1973. And then there was that earlier photograph in Facebook of Will hospitalised with his problem "down below", one of those that threatened several attendees (trying to avoid the word "member"). And going further back in time we had what might be classified as a drought in England last summer followed by an erratic winter of highs and lows.

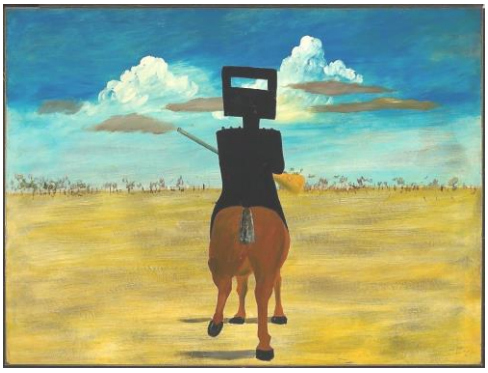
What was left of Combe Moor (GNF)

Robert Angus at Knill Farm (GNF)

Moccas Lawn Pool

Blakemere (GNF)

Even orthodox tourism was under discussion when we met other participants at the Sydney Nolan Trust centre near Presteigne for tea. Just how this Australian artist came to have a gallery in Herefordshire you can read up on the web. In Britain he was most famous for his depictions of the bandit Ned Kelly. So for more information on how we came to set up a gang of 19 strange people in a parched landscape, read on.



So much for the pessimism! The meeting came about because of interest in the Ice Age ponds project (www.herefordshirewt.org/iceageponds). After Combe we went to Knill Farm a mile to the east of Offa's Dyke and Wales. The pond looked great and must surely be worth more effort, but the best find was the first of several friendly farmers. As a young man he had thought about filling the pond in with rubbish but was now contemplating naming his dairy enterprise "Ice Age Milk"! The following day we met up at Shenmore Lodge, courtesy of Hollie Brookes and the Duchy of Cornwall, and then moved on to pay homage to Moccas Park, looking great with even the smaller ponds wetted up. Our Mainland European representative, Kevin Scheers, netted two *Graphoderus cinereus* L. in the first sweep, 57 years after Robert first took it there on 23 April 1966.

Gathering at the Falcon - a non-Club guest cowering beyond Jon Cooter on right (Photo: Sue Foster)

GNF gaining back the Earthbound Trophy on behalf of himself and Sue (Photo: Will Watson)

The Lawn Pool, Moccas

Steven feigning horror upon receipt of the Ierse Kevers Trophy (Photo: Sue Foster)

We moved about three miles south-west, encountering another obliging farmer at Blakemere. The mere itself does not appear on some maps, being at a record high level. Will and Giles had found *Agabus undulatus* (Schrank) there in 2020, the second record for Herefordshire after Newman's record for some time before 1855 in Leominster (Clark 1855). Edward Newman (1801-1876) was the editor of *The Zoologist* and one of the Entomological Society's vice-presidents at the time of Clark's publication. Anyway it doesn't look as if anyone found it again in 2023.

Before the Club Dinner in the Falcon in Bromyard it was great to catch up with Jonathan Cooter and to fabulise on our experiences in the hair-straightening salons of Dar-es-Salaam. The dinner proved excellent value, so good for Will spotting this amongst a series of pricier alternatives. Having scared off the hotel's other guests we indulged in a few traditional activities. Our Chairman confined himself to an abbreviated version of the 31 verses culminating in honour of the fate of some of our older office members

When a man goes old and his ***** grow cold
And the tip of his ***** turns blue
And the hole in the middle refuses to ******
I'd say he was ******, wouldn't you?

Steven Routledge was then persuaded to reprise recital of chunks of Prospero as a way of raising the tone, for which he was rewarded with the Ierse Kevers Trophy. This had been returned by Rachel Mackay-Austin, who broke the rules and produced a great 3D model of *Cybister chinensis* Motschulsky, surely anything but Kitsch. For possibly the same or similar try Sketchfab on the web or just search for 3D options. The Earthbound Trophy also got an airing. It now has a new brass plaque provided by Robert Angus and dedicated to Garth and Sue Foster, but will Ayrshire be its final resting place?

Lower Sturts (GNF)

Kevin Scheers and Steven Routledge at Sturts North (Photo: Will Watson)

The two Kevins at the "Ghost Pond" at Sturts North (Photo: Will Watson)

Flowers, possibly the only restaurant open on a Bank Holiday in Herefordshire - Will appears to be fighting with a live prey item (Photo: Sue Foster)

Sunday 28 May was Sturts day, when we spent the morning at Waterloo and the afternoon at ponds on the hill. The Sturts are very close to Moccas and provide a perfect example of how we can overlook such places because of a honeypot nearby. Their value was first checked by Will in 2002 and then more intensively in 2005 (Watson & Foster 2006). There is no doubting the Ice Age origin of the lower level Sturts up Waterloo Road, but they are more like kettleholes than palsas/pingos, as revealed by electrical resistance tomography (Gurney *et al*. 2010 - see ***Latissimus* 29** 29). The first thing one notices about the lower Sturts is the abundance of *Dryops auriculatus* (Fourcroy), much less common in Britain than is often supposed. The Norfolk palsa ponds often have the same feature though there sometimes with *D. anglicanus* Edwards and *D. griseus* (Erichson) mixed in. The rest of the rarities will have to wait for the final report, but pride of place must go to *Agabus uliginosus* (L.), another species often misrepresented as common. This was originally found in the area by Giles in 2019, and it turned out be the most northern record of the type form in England. The pond in which it was found, illustrated here in a photograph taken by Will a month later, and with the crack willow marked for pollarding, is clearly one that dried up each summer. It was sad that the specialist bucket team (Clive and Toby Turner) were obliged to leave the previous day to visit Turner senior in hospital otherwise something *Bagous*-like might well have turned up.

This was the third Bank Holiday weekend in May, apparently celebrated locally by everything closing down, a shame considering how such a beautiful area must be a magnet for tourists. But maybe the locals don't want them/us? *Flavours*, an Indian Restaurant in Bromyard, came to the rescue of those staying on Sunday night. Most went onto The Flits on Monday before leaving. This is a National Nature Reserve in the Wye Valley. It was nothing special back in 2006 when it was so much drier. I couldn't record anything more interesting than *Clemnius decoratus* (Gyllenhal) especially as I managed to lose a dark *Heterocerus*.

At present the list of water beetles stands at 91, also with many terrestrials listed, mainly by Martin Collier.

Anyone wanting a souvenir other than some interesting beetles might like a T-shirt, designed by StuArtWildlife, and Will may have some left. Tell him what size you need. And while we are at it, thanks go to Will and Giles for having so effectively filled the gap left by the local tourist industry.

CLARK H 1855. Synonymic list of the British carnivorous water beetles, together with critical remarks and notices of foreign and allied species. *Zoologist* **13** 4846-4869.

GURNEY S, ASTIN T & GRIFFITHS G 2010. Origin and structure of Devensian depressions at Letton, Herefordshire. *Mercian Geologist* **17** 181-184.

NEWMAN E 1855. Duplicates of the genus *Colymbetes*. *Zoologist* **13** 4816.

WATSON W R C & FOSTER G N 2006. Some modern records of wetland Coleoptera in Herefordshire. *The Coleopterist* **15** 107-114**.**

June 2023

BENGTJOHAN "JOJA" GEIJER 1945-2023

Anders Nilsson writes....

"Part of the well-known Swedish Geijer family with its many bankers, lawyers and politicians, the multitalented Joja chose to study architecture in Stockholm. As part of the 68 generation he got involved in music and more philosophical issues, and got inspired by the anthroposophical movement, reading Rudolf Steiner and being attracted to Goethe's *Naturphilosophie*. He moved to his rural home at Vassmolösa in SE Sweden in 1996, where he enjoyed gardening and the preparation of firewood for the winter. He developed a keen interest in pears, soon becoming one of the foremost Swedish pomologists and collectors of distilled beverages based on pears. As a musician he mastered many instruments and was especially interested in medieval sounds; also making some recordings and being part of the local folk and jazz music scene. His interest in nature led him into beetle collecting, and finding the rare *Agabus clypealis* in Öland boosted his interest in water beetles. Developing close contacts with the local university in Kalmar, his frequent collecting got more scientifically oriented, with some reluctance due to Joja's more spiritually based view of nature. And writing was seemingly one of the few talents he did not have. Joja rolled his own smokes and was never that far from his next beer. When waiting on a bench outside the Warszawa railway station for the Chełm train, two guards ordered us, just two bums in their view, to remove some empty beer cans, not ours for sure. Joja wanted to stand his ground, whereas I did as they said, preferring to catch our train instead of being busted. Joja sure had his pride and knew what he was worth, and egocentric is a word that comes to mind. He had his ways and he

Vår Far

Joja Geijer

* 20 januari 1945
† 25 april 2023

har lämnat jordelivet
efter en tids sjukdom

Mikael
Martin
Linda
Ninja
med familjer

Begravningen äger rum fredag den 26 maj kl 14.00 i Arby kyrka, Vassmolösa. Anmälan till minnesstund efter urnsättning görs till

senast den 14 maj.

stuck to them, surely not being quick to adopt new digital technology. He is mourned by his four children." Joja died of cancer on 24 April 2023 and is buried in Arby Cemetery.

He attended several of our meetings, usually along with our President in their joint search for pear concoctions. Joja spent 25 years collecting water beetles in south-east Sweden, in particular on Öland, and wrote it up in a magnum opus in 2021. His favourite beetle was *Agabus clypealis* (Thomson), as on the front cover of *Vattenskalbaggar på Öland* (see ***Latissimus* 51** 20) and even on his funeral notice (above left) and he was able to show us the *clypealis* habitat in our meeting in Sweden in 2011. He received the Ierse Kevers Trophy in 2019 for playing his fiddle on Midsummer's Night in the Arctic.

BERGSTEN J, BILTON D T,FUJISAWA T, ELLIOTT M, MONAGHAN M T, BALKE M, HENDRICH L, GEIJER J, HERRMANN J, FOSTER G N, RIBERA I, NILSSON A N, BARRACLOUGH T G & VOGLER A P 2012. The effect of geographical scale of sampling on DNA barcoding. *Systematic Biology* **61** 851-869.

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GEIJER B (J) & HERRMANN J 2005. Intressanta fynd av vattenskalbaggar i Mittlandsskogen på Öland. *Entomologisk Tidskrift* **126** 97-102.

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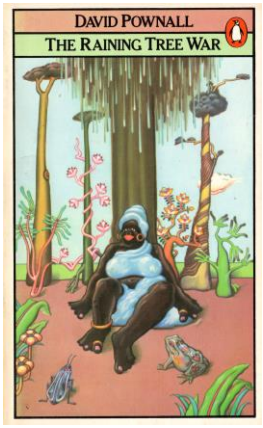
Thanks to Anders and to Steven Routledge for material used here, apologies to anyone whose help has gone unacknowledged.

MISSISSIPI WATER BEETLES?



David Pownall (1938-2022) was an English dramatist and novelist. In his novel *The Raining Tree War* (1974, 1977 in Penguin), the tree produces an immortality giving liquid produced by a "beetle", actually an auchenorrhynchan spittle bug, *Ptyelus grossus* (Fab.). But Rob Close has drawn attention to "'So you're really going into native remedies on a professional basis? Trying to ascertain whether they have any provable curative powers by biochemical analysis?" Dennis cocked an eyebrow and rubbed a thoughtful finger along the spine of his book about water-beetles of the Mississippi Delta. "That's very interesting."

CYMBIODYTA IN AMBER

Cymbiodyta samueli is named for François Rion's son as compensation for the intended gift of polished Lithuanian amber instead being deposited in the Naturhistorisches Museum, Freiburg, Switzerland. It closely resembles the sole extant European species, *C. marginella* (Fab.), and confirms the occurrence of the genus in Europe since the Eocene. The authors refer to Fikáček (2019) for recognition that the subfamily Enochrinae comprises four genera. This is from the work on Australian beetles (Slipiński & Lawrence 2019) described in ***Latissimus* 43** 15. Thanks go to Martin Fikáček for facilitating use of the figure.

FIKÁČEK M 2019. 20. Hydrophilidae Leach, 1815. pp. 271-337 in: A. Slipiński & J.F. Lawrence (eds) *Australian Beetles. Volume* **2***. Archostemata, Myxophaga, Adephaga. Polyphaga (part)*. Clayton South: CSIRO Publishing.
FIKÁČEK M, PRAŽÁK J S, SHORT A E Z & RION F 2023. Fossil *Cymbiodyta* from Baltic amber confirms Euro-American ancient distribution of the genus (Coleoptera: Hydrophilidae). *Arthropod Systematics & Phylogeny* **81** 555-563.

A MOTHER'S TOUCH IN *COELOSTOMA*

Observations on oviposition by *Coelostoma stultum* (Walker) show that the lid of the egg cocoon is smeared with faeces. This gives some chemical protection and "textural camouflage" to reduce attack by pillbugs and slugs.

MATSUSHIMA R & YOKOI T 2023. Eggs in faeces: defensive mechanisms and effects of faecal coating by a water scavenger beetle, *Coelostoma stultum* (Coleoptera: Hydrophilidae). *The Science of Nature* doi.org/10.1007/s00114-023-01857-6 pp. 11.

A PLATE OF GENITALIA **Robert Angus**

Figs 1 – 23 *Helophorus* aedeagi. 1 – 16, *H. hammondi* Angus: 1, Paratype, Harbin, China; 2 - 4, China, Qinghai: 2 Toso Nor (Kozlov-Roborovsky collection) 3, 4 Mado, my collection; 5, European Russia, Kalmykia; 6 – 16: Mongolia, coll. A.E.Z. short, 2002; 6 - 8 Ovorkhangai Aimag, Kharzani Gol; 9, 10 Tov Aimag, Tuul River ca 1.5 km W of Tuul Ovoot; 11 – 15 Zavkhan Aimag, lake/marsh by Tsegshiin Gol; 16 Zavkhan Aimag, Delgarakhiin Gol. 17 – 23, *H. jaechi* Angus: 17, Holotype, China, Sichuan (from Angus, 1995); 18 – 21, China, Sichuan, Xinduqao, my collection; 22 China, Qinghai, E of Xining, my collection; 23 Mongolia, Tov Aimag, Tuul River ca 1.5 km W of Tuul Ovoot (the same locality as *H. hammondi* figs 9 and 10). Scale = 1 mm.

In the course of my recent identification of a collection of about 1,700 Mongolian *Helophorus* made by Andrew Short in 2002, I found a single male *H. jaechi* among very many more *H. hammondi*, and this necessitated a detailed comparison of the aedeagi of the two species. To my relief I have the chromosomes of both species and the clearly larger X chromosome of *H. jaechi* shows that the two are genuinely different species. However, their aedeagi are similar in shape, necessitating exploration of the variation in what Harry Kenward of the York Archaeological Trust referred to as a Plate of Genitalia. History does not record how hungry he was at the time! The aedeagus of *H. jaechi* is slightly longer, 0. 93 – 1.0 mm, as against 0.82 – 0.89 mm in *H. hammondi*. In practice, I find the easiest measurement for a quick separation is paramere length – about 0.45 mm in *H. jaechi* and 0.37 in *H. hammondi*. My microscope has a 1 mm scale in one of its X 10 eyepieces and an objective magnification going up to X 4. This gives values of just under 2 $^{mm}/_{4}$ for *H. jaechi* and about 1.5 $^{mm}/_{4}$ for *H. hammondi*.

H. hammondi and *H. jaechi* both belong to the "*H. bergrothi* group of species" as defined by Angus (1970) for those *Helophorus* s. str. species lacking any clearly square-ended teeth on the last fixed abdominal sternite. *H. jaechi* is slightly larger than *H. hammondi*, length 5.1 – 5.9 mm as against to 4.2 – 5.3. Angus (1995) mentions the elongate rather gangling appearance of *H. jaechi*, but whether this would give a clear distinction between all specimens of *H. jaechi* and *hammondi* remains to be seen. Both species are illustrated and keyed by Angus *et al*. (2019).

H. jaechi was described from the Kangding area of SW Sichuan, and in 2016 I collected a good series near Xinduqao in the same area. In 2013 I collected a small number in a marsh beside the Huang He (Yellow River) downstream from Xining (Qinghai province). The entomological collections of Sun Yat-sen University in Guangzhou have a male from Yushu in southern Qinghai. Thus the species appears to be quite widely distributed on the Tibetan Plateau, but the Mongolian record (close to Ulaan Baatar) is a notable range extension. *H. hammondi* is widely distributed in China, from Harbin in the northeast to Qinghai in the northwest, and occurs in the Vladivostok area of Russian Far East, as well as in Europe – the Kalmykia Republic northwest of the Caspian Sea.

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NET QUALITY A few reports suggest that commercially-made nets are not what they used to. Problems reported are the quality of net material itself and a lack of taping over of joins in the net bag. Confirmation or refutation would be of interest. Also, is there anyone with access to good quality mesh and handy with a sewing machine? Could be a market here! July 2023

SOME NEW RECORDS OF WATER BEETLES FROM COSTA RICA AND BRAZIL

Sergey K Ryndevich & Alexey K Tishechkin

This paper is based on studying material collected in Brazil and Costa Rica.

Gyrinidae Subfamily Orectochilinae Tribe Orectochilini

Gyretes acutangulus Sharp, 1882. N America, Costa Rica, Heredia Prov., Cordillera Volcánica Central Biosphere Reserve, La Selva Biological Station, FIT, 18-29.vi.1998, 10°25′19″ N 84°00′54″ W, leg. Tishechkin A, 1 specimen. New for Heredia Province.

Noteridae Subfamily Noterinae

Hydrocanthus debilis Sharp, 1882. N America, Costa Rica, Heredia Prov., Cordillera Volcánica Central Biosphere Reserve, La Selva Biological Station, FIT, 18-29.vi.1998, 10°25′19″ N 84°00′54″ W, leg. Tishechkin A, 2 specimens. New for Heredia Province.

Hydrocanthus marmoratus Sharp, 1882. N America, Costa Rica, Heredia Prov., Cordillera Volcánica Central Biosphere Reserve, La Selva Biological Station, FIT, 18-29.vi.1998, 10°25′19″ N 84°00′54″ W, leg. Tishechkin A, 5 specimens. First record for Heredia Province.

Noteridae Subfamily Notomicrinae

Notomicrus sharpi J. Balfour-Browne, 1939. N America, Costa Rica, Heredia Prov., Cordillera Volcánica Central Biosphere Reserve, La Selva Biological Station, FIT, 18-29.vi.1998, 10°25′19″ N 84°00′54″ W, leg. Tishechkin A, 3 specimens. New for Heredia Province.

Hydrophilidae Subfamily Hydrophilinae Tribe Berosini

Berosus aculeatus Chevrolat, 1863. N America, Costa Rica, Heredia Prov., Cordillera Volcánica Central Biosphere Reserve, La Selva Biological Station, FIT, 18-29.vi.1998, 10°25′19″ N 84°00′54″ W, leg. Tishechkin A, 1 specimen. First record for Costa Rica fauna.

Derallus angustus Sharp, 1882. N America, Costa Rica, Heredia Prov., Cordillera Volcánica Central Biosphere Reserve, La Selva Biological Station, FIT, 18-29.vi.1998, 10°25′19″ N 84°00′54″ W, leg. Tishechkin A, 1 specimen. New for Heredia Province.

Hydrophilidae Tribe Hydrophilini

Hydrophilus ensifer Brullé, 1837. **S America, Brazil,** Bahia, 20 km N of Ilheus, 9-20 m, 6.XI.2012, S. & S.V. Kurbatov leg., 1 specimen. Recorded for the State of Bahia the first time.

Tropisternus* (*Strepitornus*) *collaris (Fabricius, 1775). **S America, Brazil,** Bahia, 20 km N of Ilheus, UESC, 13.XI.2012, S. & S.v. Kurbatov leg., 1 specimen. First record from the State of Bahia.

Tropisternus apicipalpis Chevrolat, 1834. N America, Costa Rica, Heredia Prov., Cordillera Volcánica Central Biosphere Reserve, La Selva Biological Station, FIT, 18-29.vi.1998, 10°25′19″ N 84°00′54″ W, leg. Tishechkin A, 3 specimens. New for Heredia Province

In addition to new findings, two more species of water beetles were collected using a flight interception trap (FIT) at La Selva Biological Station. This species was already known from Costa Rica.

Dytiscidae Subfamily **Copelatinae** Tribe Copelatini

Copelatus caelatipennis fragilis Sharp, 1882. N America, Costa Rica, Heredia Prov., Cordillera Volcánica Central Biosphere Reserve, La Selva Biological Station, FIT, 18-29.vi.1998, 10°25′19″ N 84°00′54″ W, leg. Tishechkin A, 1 specimen.

Hydrophilidae Subfamily Enochrinae

Enochrus* (*Methydrus*) *pseudochraceus Gundersen, 1977. N America, Costa Rica, Heredia Prov., Cordillera Volcánica Central Biosphere Reserve, La Selva Biological Station, FIT, 18-29.vi.1998, 10°25′19″ N 84°00′54″ W, leg. Tishechkin A, 8 specimens.

Acknowledgements We are very grateful to S.A. Kurbatov (All-Russian Research Institute of Chemical Agents of Plant Protection, St.-Petersburg, Russia) for the loan of material.

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ALLER R B 2015 Catálogo y actualización corológica de los notéridos (Coleoptera: Adephaga: Noteridae) de Costa Rica. *Boletín de la Sociedad Entomológica Aragonesa (S.E.A.)* **56** 179–186

ALLER R B 2019 El género *Copelatus* Erichson, 1832 (Coleoptera: Dytiscidae: Copelatinae) en Costa Rica. Composición de especies y corología. *Boletín de la Sociedad Entomológica Aragonesa (S.E.A.)* **64** 89–96

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KUWAIT

📖 KATBEH-BADER A, AMR Z & MARAFI M A J 2022. *Field guide to the common insects of the State of Kuwait*. Gland, Switzerland: IUCN and Kuwait, State of Kuwait: Environment Public Authority.

The book begins with a guide on collecting and preservation, illustrated mainly by products of Bio-Quip Inc. Their water net looks flimsy, D-shaped for statically catching insects disturbed by kick-sampling, whereas most of the beetles listed would require a proper pond net or sieve. This book is an excellent starting guide for any entomologist visiting the area but there are almost inevitably a few problems when attempting a complete entomological review. Twenty-one species of dytiscid are listed but it should be twenty as the montane variant of *Agabus bipustulatus* (L.), "*Agabus solieri* Aubé, is unfortunately included as well as the intended *Hyphoporus solieri* (Aubé), *Hyphoporus* is now treated as a subgenus of *Hygrotus* - see Villastrigo *et al*. (2017). The *Hydrovatus* sp. mentioned is based on two females in GNF's collection possibly *acuminatus* Motschulsky. The Noteridae got omitted, *Canthydrus diophthalmus* (Reiche & Saulcy) and *Noterus ponticus* (Sharp) having been reported at the Al-Jahra pools, shown here from an aerial photograph in the book - see also Edmonds *et al*. (2019). *Dineutus grandis* Klug and *Gyrinus distinctus* Aubé are the whirligigs and *Helophorus angustatus* Motschulsky is the only helophorid, unfortunately (and presumably) also listed under Hydrophilidae as "*Hydroporus angustatus* Sturm". Fifteen species of Hydrophilidae are listed, minus the nebulous *angustatus*. The Hydraenidae are *Ochthebius notabilis* Rosenhauer, *O. punctatus* Stephens and *O. zugmayeri* Kniz. Finally, the Spercheidae are included for *Spercheus belli babylonicus* (Hebauer).

VILLASTRIGO A, RIBERA I, MANUEL M, MILLÁN A & FERY H. 2017. A new classification of the tribe Hygrotini Portevin, 1929 (Coleoptera: Dytiscidae: Hydroporinae). *Zootaxa* **4317** (3) 499-529.

RECENT SCOTTISH EXPERIENCE WITH eDNA USING A COMMERCIAL KIT

Garth Foster

Following some success reported for water beetles in Magor Marsh, Wales (see ***Latissimus* 53** 16) samples have been taken in Scotland and England using the kits provided by Nature Metrics. It must be emphasised that this is an appraisal of a commercial kit, not necessarily the same as what might be achieved by a laboratory dedicated to entomological survey, rather a sideline compared to things like detecting great crested newts and the like.

Fonah Bog, Angus This small fen is a part of the Balgavies Loch Scottish Wildlife Trust Reserve. It is the only known site for *Hydroporus scalesianus* Stephens in Scotland, first found there in 2003 (Foster 2005). It was therefore of some concern that it could not be found on 24 April 2022. The site was revisited on 27 October 2022, again without *scalesianus* and when an eDNA sample was taken at NO527510 alongside 15 water beetle species netted. The commonest beetles then were larvae of a *Contacyphon* along with a few adults of fifteen water beetle species. The eDNA sample reported then only *C. variabilis* (Thunberg), arguably the first identification of a *Contacyphon* larva to species! A further visit in 2023 was successful in that two *scalesianus* were caught, resulting in what might seem media frenzy.
https://www.thecourier.co.uk/fp/news/4558051/rare-angus-water-beetle-discovery/?fbclid=IwAR3oebC4KnmRMxtbF1GevlTAUK8_WKxVfhIT3CHi_7H_yiHVAI4y5Eka
An eDNA sample taken on 26 April 2023 detected *Agabus bipustulatus* (L.) and *Contacyphon padi* (L) when the site having produced 27 species by netting. *C. padi* is not otherwise known from the site, and there appears to be only one earlier record of it from Angus, at Loch Leathann on Rossie Muir by GNF on 15 June 2003.

Bonnyton Pond, Angus

This dampond was surveyed thoroughly on 22 April 2022, when 35 water beetle species were found. This followed on the discovery of a female *Dytiscus dimidiatus* Bergsträßer there on the 21 April (see ***Latissimus* 53** 7) by Rachel Mackay-Austin. An eDNA sample was taken on 9 May 2023, when 16 species were netted by Rachel, taking the list up to 41. The eDNA sample detected *Hydroporus palustris* (L.).

Howietoun, Stirlingshire This is a fishery developed in the 19th century. There are 35 inter-connected ponds, mostly brick-lined and well-vegetated, with an unusual mixture of pond and running water species. The river-fed ponds are now part of a private nature reserve managed by Michelle Pearson. Two eDNA samples were taken on 26 April 2023 at NS785882, where 19 species were netted, and NS784883 with 11 species. Forty-nine species have been recorded across the whole site in several visits in 2022 and 2023, with *Dytiscus marginalis* L., as detected in one of the two eDNA samples, adding a 50th.

Holmhills, Lanarkshire The pond here (NS640596) is in the Holmhills Wood Community Park in Glasgow. Fourteen species were netted there on 16 April 2023 when an eDNA sample produced nothing. With another survey done in 2021 the species list stands at 28.

The Sturts, Herefordshire Andy Karran has noted that two of their ten samples in Gwent did not appear to work at all. Unfortunately our one dud, with no DNA amplified, was from that special pond in the Sturts, Herefordshire, at SO341477 sampled on 28 May 2023 when at least 20 species were netted there. This is the pond on page 6 of this issue of ***Latissimus***, pictured later when it was drying out.

Summary Discounting the failed English sample, one must describe as disappointing the detection in Scotland of five water beetle species by eDNA, as opposed to about eighty found recently by other means in the sites chosen for testing. When funds permit more samples might be taken in other habitats but a scientific reappraisal dedicated to wetland beetles is called for. The prospects do not seem to have changed greatly since the first attempts by Philip Thomsen *et al*. (2011). See also ***Latissimus* 32** 25 and Foster *et al*. (2023).

Acknowledgements The kits were purchased mainly using Aquatic Coleoptera Conservation Trust funds but Michelle Pearson chipped in with funding for the Howietoun sampling. Susan Foster, Rachel Mackay-Austin and Alan Law took most of the samples. Michelle has kindly allowed access to Howietoun. also Will Watson arranged the visit to the Sturts, Nicole Digruber to the Holmhills site, and Trefor Woodford and Jim Hughes for visits to the Balgavies Loch Wildlife Reserve. Thanks go to Andy Karran and Lowri Watkins for information on their earlier survey in Gwent.

ANON 2023. Rare water beetle. *Scottish Wildlife Trust news*. see also https://scottishwildlifetrust.org.uk/2023/05/rare-water-beetle-continues-to-survive/

BROWN G 2023. Why a two millimetre long beetle is making a big splash in Angus. *The* [Dundee] *Courier & Advertiser* 15 July 2023. https://www.thecourier.co.uk/fp/news/4558051/rare-angus-water-beetle-discovery/

FOSTER G N 2005. *Hydroporus scalesianus* (Coleoptera, Dytiscidae) new for Scotland. *Glasgow Naturalist* 2004 **24** (2) 21-23.

FOSTER G N & BILTON D T 2023. The conservation of predaceous diving beetles: knowns, more unknowns and more anecdotes. Pp. 529-565 in: Donald A. Yee (ed.) 2023. *Ecology, Systematics, and the Natural History of Predaceous Diving Beetles (Coleoptera: Dytiscidae) Second Edition* Cham: Springer.

THOMSEN P F, KIELGAST J, IVERSEN L L, WIUF C, RASMUSSEN M, GILBERT M T P, ORLANDO L & WILLERSLEY E 2011. Monitoring endangered freshwater biodiversity using environmental DNA. *Molecular Ecology* **21** 2565-2573.

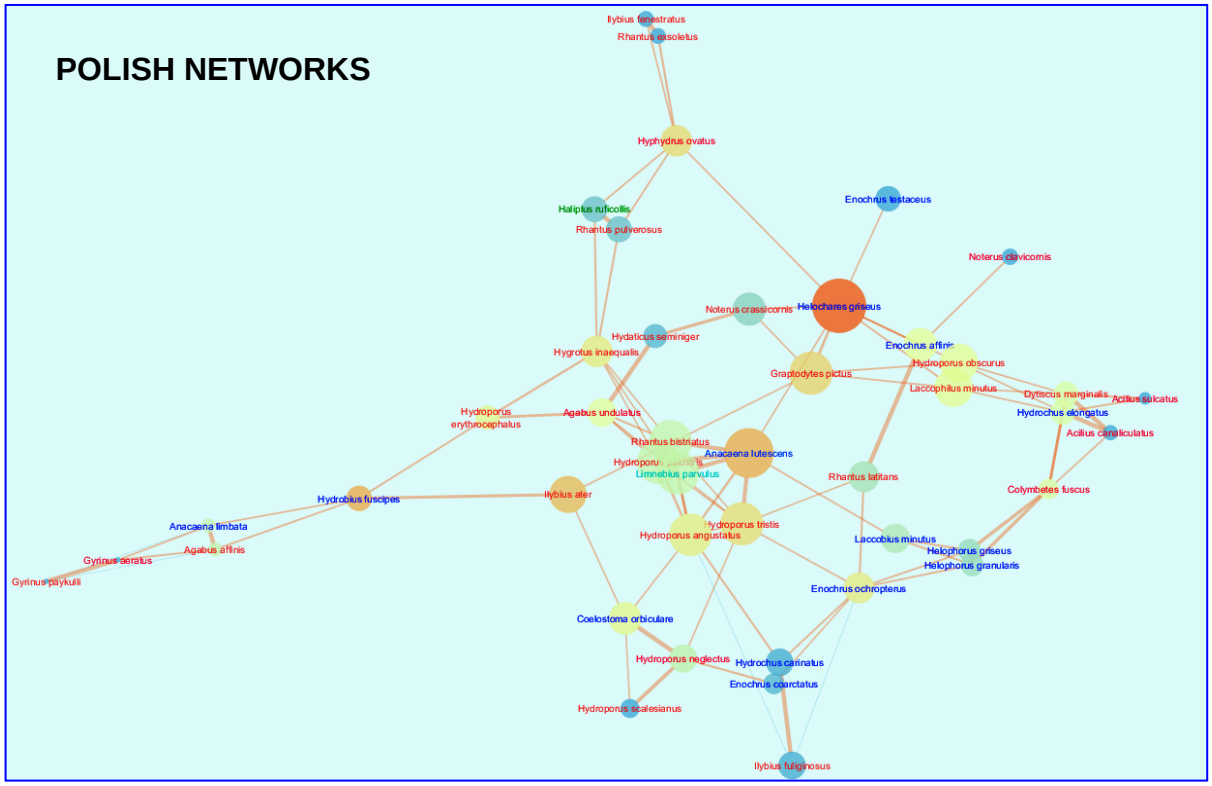
WATKINS L 2022. *Aquatic invertebrate eDNA. Report*. Gwent Wildlife Trust. pp. 1-44.

August 2023

ZAITZEVIA IN CHINA

Three new species of this elmid genus are described from Hunan Province. The ten species known from the Chinese Mainland are keyed. The correspondent is Xiang-Sheng Chen.

JIANG R-X & CHEN X-S 2023. Three new species of the genus *Zaitzevia* Champion, 1923 (Coleoptera, Elmidae) from China. *ZooKeys* **1174** 191-206.



This paper concerns the use of network graphs to portray the interrelationships between water beetles in the area of the Mazurian Lakes. Unfortunately the writing in the PDF supplied was difficult to read. Joanna Pakulnicka kindly provided the original version of figure 3, which is about the beetle fauna of the Kashubian Lakeland. Even that was tricky, and it might be that the intensification of its colour background has not helped as much as hoped. We have *Gyrinus* species to the left, *Ilybius fenestratus* (Fab.) extreme top and *I. fuliginosus* (Fab.) extreme bottom, with *Acilius* species to the right, so the analysis must be trying to tell us something. But, for example, can anyone recall a site where *fuliginosus* and *fenestratus* (bottom) co-occur? Mine was only a month ago on 8 July and plenty of similar occurrences come to mind. This is reminiscent of those multivariate analyses of the 1990s, where just one tweak to the data would make the whole thing flip over. But the idea is interesting and worth another go. The nomenclature is rather dated but mostly unambiguous.

PAKULNICKA J & KRUK M 2023. Regional differences in water beetle communities networks settling in dystrophic lakes in northern Poland. *Nature, Scientific Reports* **13** 12699.

IRISH BIBLIOGRAPHY

Jim O'Connor, Emeritus Entomologist of the National Museum of Ireland, has produced a 566 page bibliography, with the 81 pages of Chapter 4 devoted to beetles. It is so comprehensive that one might even find some of your own publications you didn't know about**!** And it's free!

www.irishbiogeographicalsociety.com/pdf/bibliographyofirishinsects-1802-2020-pdf

O'CONNOR J P 2023. *Bibliography of Irish insects (1802-2020).* Occasional Electronic Publication **2,** Irish Biogeographical Society.

HIGHEST DIVING BEETLE IN IRIAN JAYA

Limbodessus moni is newly described from 3,970 metres above sea level in the central highlands of New Guinea. It was near to the Grasberg Mine, seen here in the background of this photograph of the senior author. The mine is the single largest known gold reserve and has the second largest copper reserves in the world. The elegant male holotype was found in 2018 and is shown here courtesy of the authors. Some more broadly oval specimens were also found at about 4,000 m in 1997: molecular genetic data are needed to see if they are another new species.

SURBAKTI S, BALKE M & HENDRICH L 2023. *Limbodessus moni* sp. nov., a new high altitudinal diving beetle from the Grasberg in West Papua, Indonesia (Coleoptera: Dytiscidae, Bidessini). *Zootaxa* **5319** 413-420.

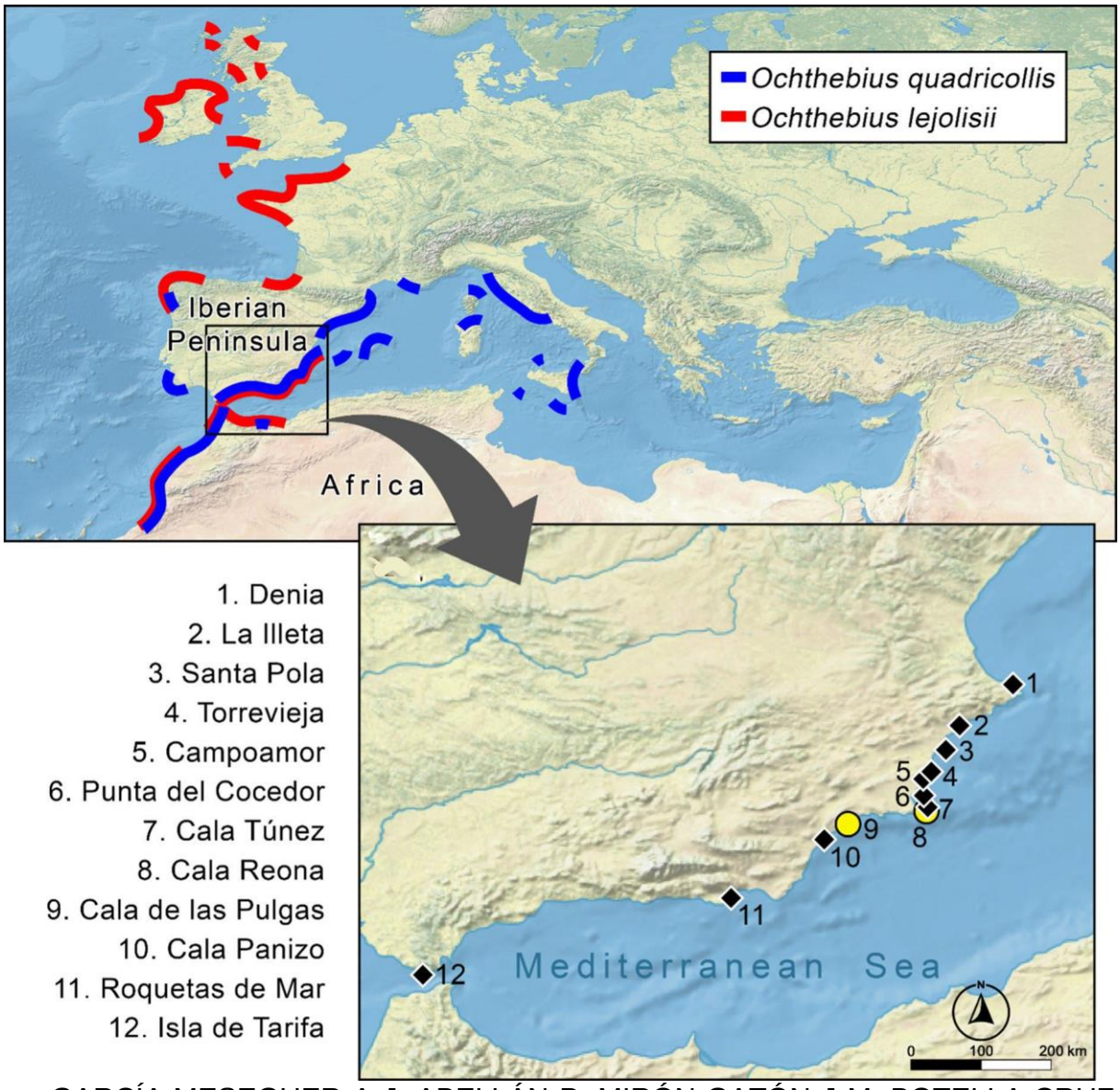
PEATLAND RESTORATION

This paper summarises work in 2012-14 in blanket peatland across the Pennines in northern England, the main interest being the extent of recolonisation of rewetted peat by invertebrates. Water beetles are noted as being late on the scene after ponds have been colonised by potential prey such as chironomids. Particularly well described are the rapid changes in the fauna of new ponds initially. *Enochrus ochropterus* (Marsham), a species some of us know as typical of base-flushed peat, is noted as being found only in natural ponds on the Butterburn Flow. The correspondent is Lee Brown.

BEADLE J M, HOLDEN J & BROWN L E 2023. Landscape-scale peatland rewetting benefits aquatic invertebrate communities. *Biological Conservation* **283** 110116 pp.10.

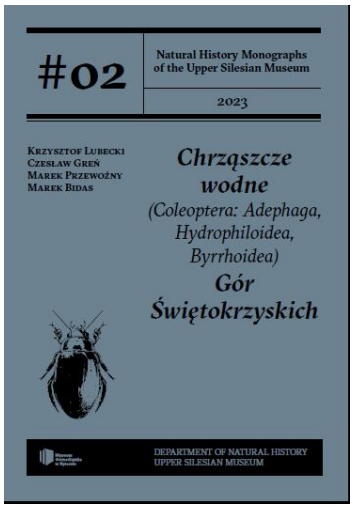
ROCKPOOL CO-EXISTENCE

This paper covers the coexistence of *Ochthebius quadricollis* Mulsant and *O. lejolisii* Mulsant & Rey along part of the Spanish Mediterranean coast. *O. subinteger* Mulsant & Rey also occurs in some places in association with the first two species. Ten pools in 12 localities were sampled monthly, and an attempt was made to explain negative associations between *quadricollis* and *lejolisii* by regression models of the occurrence of their larvae. The best models for *quadricollis* showed a positive relationship with depth, conductivity and fineness of sediments, and a negative one with distance to the sea and amount of coarsely particulate organic matter (CPOM). For *lejolisii* the positive associations were with CPOM and periphyton, and negatives with pool area, depth and conductivity.



GARCÍA-MESEGUER A J, ABELLÁN P, MIRÓN-GATÓN J M, BOTELLA-CRUZ M, GUARESCHI A, MILLÁN A & VELASCO J 2023. Fine-scale niche differences allow the co-existence of congeneric aquatic beetles in supratidal rockpools. *Hydrobiologia* doi.org/10.1007/s10750-023-05333-0 pp. 15.

POLAND - UPPER SILESIAN MOUNTAINS



📖 LUBECKI K, GREŃ C, PRZEWOŹNY M & BIDAS M 2023. *Chrząszcze wodne (Coleoptera: Adephaga, Hydrophiloidea, Byrrhoidea) Gór Świętokrzyskich*. Natural History Monographs of the Upper Silesian Museum **2** 1-163. Department of Natural History Upper Silesian Museum in Bytom, Plac Jana III Sobieskiego 2, 41-902 Bytom, Poland. [in Polish with English abstract]

You do not need to speak Polish to appreciate the enthusiasm associated with this large work devoted to water beetles in Upper Silesia. Fieldwork from 1979 to 2021 produced 156 water beetle species, 51 new to the region. Emphasis on the National Park produced 121 species, 102 of them newly recorded. Eight are in the Red List for Poland - *Haliplus varius* Nicolai (illustrated here), *Hydrophilus aterrimus* Eschscholtz, *Hydroporus brevis* Sahlberg, *H. longicornis* Sharp, *Ilybius wasastjernae* (Sahlberg), and *Spercheus emarginatus* (Schaller); Candidates for the List include *Brychius elevatus* (Panzer) and *Pomatinus substriatus* (Müller). Beavers range through the Park, the deep pond here being one they created in the Czarna Woda, shown below.

NAMES AND MONUMENTS

Naming an animal after a person has always seemed risky. A beetle named after a spouse might become a reminder of a messy divorce. And there is of course naming after someone later considered to be nasty. There are discussion documents out there (i.e. not quite scientific papers) that call for renaming rather like pulling down statues and reappraising history. The International Commission on Zoological Nomenclature (for it is they who are the 25 authors) stand firm for stability based on the names already applied no matter what they might recall. The authors reckon that about 20% of names in use are eponyms based on people, and there may even be a problem with a further 10 % based on toponyms, names based on places, if they seem to endorse a disputed claim. ICZN is fundamentally opposed to establishment of what has been called a "Committee on Culturally Offensive or Inappropriate Names". Fair enough, but it might be an idea for ICZN at least to urge some restraint. Otherwise we could end up with two systems. Carl von Linné didn't keep slaves, but his statues attracted some attention in Sweden in 2020.

CERÍACO L M P + 24 others 2023. Renaming taxa on ethical grounds threatens nomenclatural stability and scientific communication. *Zoological Journal of the Linnean Society* 197 283-286.

HÜBINETTE T, WISTRÖM P & SAMUELSSON J 2022. Scientist or racist? The racialized memory war over monuments to Carl Linnaeus in Sweden during the Black Lives Matter Summer of 2020. *Journal of Ethnic and Cultural Studies* **9** 27-55.

COUNTING *DYTISCUS LATISSIMUS*

Censuses of *Dytiscus latissimus* L. have been done by mark-and-recapture independently in Latvia and Germany. The layout of traps differed between the sites, being a shoreline transect around Lake Rothemoorsee in Germany and a grid across the whole of Lake Glušonoks in Latvia. This affected the sex ratios observed, which can be explained by females staying within a small home range whilst males are more active and exploratory. Thus the activity of males can lead to their being detected disproportionately to population size. The life-span of three years is also confirmed. The correspondent is Maksims Zolovs.

BALALAIKINS M, SCHMIDT G, AKSJUTA K, HENDRICH L, KAIRIŠS K, SOKOLOVSKIS K, VALAINIS U, ZOLOVS M & NITCIS M 2023. The first comprehensive population size estimations for the highly endangered largest diving beetle *Dytiscus latissimus* in Europe. *Nature, Scientific Reports* doi.org/10.1038/s41598-023-36242-w.

FISH FLUKES AGAIN

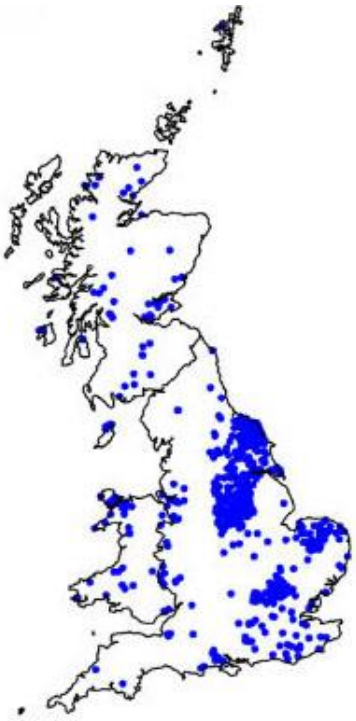
Work continues on the *Allocreadium* flukes associated with fish, but no-one has found out more about *A. neotenicum* Peters, the species we know from dytiscids. The correspondent is Daria Lebedeva.

SOKOLOV S G, KHASANOV F K & LEBEDEVA D I 2023. Phylogenetic assessment of some Palearctic *Allocreadium* spp. (Trematoda, Gorgodeoidea: Allocreadiidae). *Parasitology Research* doi/org/10.1007/s00436-023-07893-5

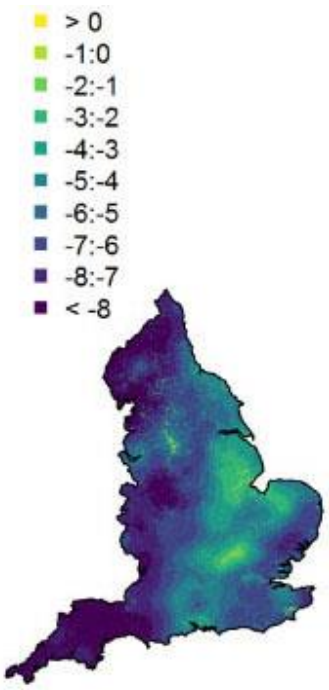
AGABUS MAPPING GOES WRONG

In November 2022 one of the eight authors here was advised that mapping a mixture of data for *Agabus* species in England would not be such a good idea. Nevertheless the paper has been produced. Experts on water beetles can read it and draw their own conclusions about the wisdom of this approach. It is a minor point, but the actual water beetle data for 2001 and 2003 should have had many more records from northern England.

Some data from river monitoring by the Environment Agency for England and Wales, with 157 presences of *Agabus* spp. shown as black dots, and absences, presumably from many other samples, shown in grey.



1,086 observations on *Agabus* spp. drawn from water beetle surveys in 2001 and 2003, which were dominated then as ever by stagnant water samples.



"Occurrence probability (on cloglog scale)"
"Predicted distribution of *Agabus* water beetles at 1-km resolution after integrated modelling using both datasets."

JARVIS S G, MACKAY E B, RISSER H A, FEUCHTMAYR H, FRY M, ISAAC N J B, THACKERAY S J & HENRYS P A 2023. Integrating freshwater biodiversity data sources: key challenges and opportunities. *Freshwater Biology* doi 10:1111/fwb.14143 pp. 9.

ÁVILA RIVER

Fifty-three species of water beetles and 17 bugs were found in a survey of two parts of río Arevalillo, a temporary river in the Duero basin. The majority of species are widely distributed, but with two endemics, *Hygrotus lagari* (Fery) and *Limnebius evanescens* Kiesenwetter. Sixteen water beetle species are newly recorded for the province of Ávila.

MIGUÉLEZ D & VALLADARES L F 2023. Coléopteros y hemipteros acuáticos en un río temporal del centro de España. *Boletín de la Asociación española de Entomología* **47** 39-56.

EXTINCT ITALIAN BEETLES

This list contains some familiar species, here with the dates, some approximate, when they were last found: *Gyrinus minutus* Fab. (1923), *Haliplus confinis* Stephens (1955), *H. sibiricus* Motschulsky (1960), *Ilybius fenestratus* (Fab.) (1963), *Rhantus exsoletus* (Forster) (1924), *R. frontalis* (Marsham) (1925), *Dytiscus lapponicus disjunctus* Camerano (1923), *D. latissimus* (L.) (about 1900), *Helophorus strigifrons* Thomson (1964), *Laccobius algiricus* Hansen (1874), *L. hispanicus* Gentili (1919), *L. femoralis mulsanti* Zaitzev (1962), *Sternolophus solieri* Laporte (? before 1959), *Crenitis punctatostriata* (Letzner) (193), *Hemisphaera seriatopunctata* (Perris) (1972), *Enochrus concii* Chiesa (1952), *E. natalensis* (Gemminger & Harold) (1942), *Helochares nigritulus* Kuwert (1925), *Cercyon alpinus* Vogt (before 1949), *C. inquiniatus* Wollaston (1924), *C. subsulcatus* Rey (1963), and *Pelosoma lafertei* Mulsant (1959).

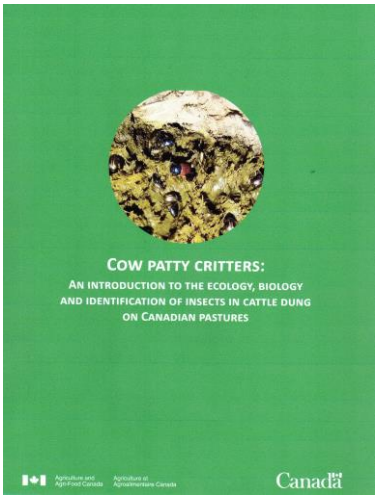
ROCCHI S 2023. Coleotteri Idroadefagi e Idrofiloidei in fase de declino o già estinti in Italia (Insecta: Coleoptera: Hydradephaga, Hydrophiloidea). *Quaderno di Studi e Notizie di Storia Naturale dell Romagna* **57** 165-173.

MICRODYTES

Fifty-two species are now known with five new ones - *eliasi* Wewalka & Okada, *jeenthongi* Okada & Wewalka, *maximiliani* Wewalka & Okada, *sekaensis* Okada & Wewalka, and *ubonensis* Okada & Wewalka (illustrated, courtesy of Ryohei Okada). *Microdytes* ranges through south-east Asia, the new species being from Laos and Thailand. There are new records of other species from these countries plus Cambodia.

OKADA R, JAITRONG W & WEWALKA G 2023. A review of *Microdytes* J. Balfour-Browne, 1946 from Thailand, Laos, and Cambodia with descriptions of five new species and new records (Coleoptera, Dytiscidae). *ZooKeys* **1159** 87-119.

CANADIAN DUNG



📖 FLOATE K D 2023. *Cow patty critters: an introduction to the ecology, biology and identification of insects in cattle dung in Canadian pastures*. Lethbridge, Alberta: Agriculture and Agri-Food Canada.

This appears to be the first attempt at a complete guide to dung insects since Pete Skidmore's 1991 work on Britain. Coverage of hydrophilids necessitates coverage here. Of the 151 species known in Canada ten are regularly found in cattle dung and a further fourteen are either occasional visitors or lacking in information. The three species of *Sphaeridium* get more treatment than the smaller species of which six are depicted -, *Cercyon haemorrhoidalis* (Fab.), *C. lateralis* (Marsham), *C, pygmaeus* (Illiger), *C. quisquilius* (L.), *C. unipunctatus* (L.) and *Cryptopleurum minutum* (Fab.).

SKIDMORE P 1991. *Insects of the British cow dung community*. Occasional Publication **21**. Shrewsbury: Field Studies Council.

***NARTUS GRAPII* (GYLLENHAL, 1808) NEW FOR CENTRAL WALES, WITH OBSERVATIONS ON SEXUAL INTERACTIONS WITH *RHANTUS EXSOLETUS* (FORSTER, 1771) David T Bilton**

Nartus grapii remains a relatively local species in Britain and Ireland, being characteristic of poor fen habitats with mosses etc., often in partial shade. The species has apparently expanded in range recently, presumably in response to climate change, now extending north to southern Scotland (Foster 2014). In Wales, the species has long been known from both southern and northern areas, particularly Anglesey and Pembrokeshire (Balfour-Browne 1950; Foster *et al*. 2016). On 2 April 2023, I found *N. grapii* abundantly in flooded *Menyanthes* beds and in the margins of *Salix* carr developed in old peat diggings at the edge of Cors Caron (Tregaron Bog, SN68-62-), this being the first record of the species in Ceredigion or mid-Wales. I placed specimens in a flooded collecting tray, together with other species, and observed a male *N. grapii* repeatedly attempt to mate with a female *Rhantus exsoletus.* This involved rhythmic shaking of the female, which was apparently tolerated, and persistent attempts to insert the median lobe, which was not! This interaction continued for over half an hour (when I released the beetles), despite five female *N. grapii* being present in the tray. Whilst related, these two species are no longer considered very close evolutionarily, likely diverging around 50 MYA (Morinière *et al*. 2016). The fact that such interactions persist suggest that many aspects of their mating systems remain similar, however.

BALFOUR-BROWNE WAF 1950. *British Water Beetles* Volume 2. Ray Society.

FOSTER GN 2014. *Rhantus grapii* (Gyllenhal) (Coleoptera, Dytiscidae) new for Scotland. *The Coleopterist* **23** 85-86.

FOSTER GN, BILTON DT & NELSON BH 2016. *Atlas of the Predaceous Water Beetles* (*Hydradephaga*) *of Britain and Ireland*. Field Studies Council.

MORINIÈRE J, VAN DAM MH, HAWLITSCHEK O, BERGSTEN3 J, MICHAT MC, HENDRICH L, RIBERA I, TOUSSAINT EFA & BALKE M 2016. Phylogenetic niche conservatism explains an inverse latitudinal diversity gradient in freshwater arthropods. *Scientific Reports* **6** 26340.

Received May 2023

***ACILIUS SINENSIS* AGAIN**

Readers may remember how this species was rediscovered by a taxi driver in Yunnan in 2007 (see ***Latissimus* 25** 19). Here the larvae (photograph courtesy of Yves Alarie) are fully described from Dahaoping, having been taken with adults in a muddy ditch with decaying leaves and no other vegetation, in company with *Laccophilus kempi holmeni* Brancucci. A single female was taken in a mountain lake, another Yunnan site. The new records indicate a need to reduce its status to IUCN Vulnerable.

ALARIE Y, MAI Z, MICHAT M C & HÁJEK J 2023. Larval morphology and new records of the iconic diving beetle *Acilius sinensis* Peschet, 1915 (Coleoptera: Dytiscidae: Dytiscinae) - a species well established in western Yunnan, China. *Zootaxa* **5301** 277-291.

HENDRICH L 2008. Rediscovery of *Acilius sinensis* Peschet, 1915 (Coleoptera: Dytiscidae) *Koleopterologische Rundschau* **78** 37-41.

GROYNES GREAT FOR WATER BEETLES

The River Odra (shown here, courtesy of the authors) in Poland is known as the Oder elsewhere. A series of stone groynes have been built along the 350 km-long stretch of river from Brzeg Dolny to Czelin. Marshland vegetation is dominated by reed canary grass, *Phalaris arundinacea* L. There are also oxbows dominated by *Carex* species. Fifty-five species of water beetle have been identified from the area, and analysis indicates that the groynes have restored the range of riverine habitats lost when the river was regulated. The beetles of the groyne areas are similar to those of the oxbows.

SZLAUER-LUKASZEWSKA A, BUCZYŃSKI P, PAKULNICKA J & BUCZYŃSKA E 2023. Is search of suitable habitats for water beetles (Insecta: Coleoptera) within a heavily transformed river system. *Folia Biologica* (*Kraków*) **71** 69-87.

SANDRACOTTUS LARVAE

The skipjack appearance of Figure 22 announces this as a genus near to the *Acilius* familiar to most of us. Analysis involving the larvae of seven Aciliini species in four genera confirms the monophyletic nature of the tribe with the larvae of the four genera, *Sandracottus* Sharp, *Acilius* Leach, *Graphoderus* Dejean and *Thermonectus* Dejean, being morphologically distinct from each other.

ALARIE Y, MICHAT M C, SHAVERDO H & HÁJEK J 2023, Morphology of the larvae of *Sandracottus femoralis* Heller, 1934, and *S. mixtus* (Blanchard, 1843) and phylogenetic comparison with other known Aciliini (Coleoptera: Dytiscidae, Dytiscinae). *Zootaxa* **5263** 30-334.

CUMBRIAN LAKE CHANGES

Talkin Tarn is well known (to beetlers, anyway) as the locus classicus for the *Nebrioporus depressus* (Fab.) with the most extreme median lobe, often called a soup spoon. An intensive survey in June 2022 revealed just how much the lake has changed, and for the worst. Twenty-nine species have been identified from 1852 onwards, with *N. depressus*, last reported in 1989, and *Macroplea appendiculata* (Panzer), last in 1994, considered extinct. The fauna has changed from that of a northern oligo-mesotrophic lake to one more characteristic of a eutrophic pond. If the flag flying at the tea-room is red, don't enter the water. It means that there no beetles.

BILTON D T & ROUTLEDGE S 2023. Global change reflected in the water beetles (and bugs) of a north Cumbrian tarn. *Lakeland Naturalist* **10** (2) 68-72.

***SUPHISELLUS* LARVA**

The first instar of *S. rufipes* (Sharp) was the first *Suphisellus* larva to be described (see ***Latissimus* 45** 12). This paper follows up with description of the third instar of *S. curtus* (Sharp), which has the slender and pointed siphon typical of other noterid larvae.

URCOLA J I & MICHAT M C 2023. Description of the mature larva of *Suphisellus curtus* (Sharp, 1882) (Coleoptera: Noteridae) with chaetotaxy analysis. *Aquatic Insects* doi 10.1080/01650424.2022.2162086 pp. 11.

SARDINIAN *RHITHRODYTES*

Rhithrodytes pantaleonii is newly described from a stream in a karstic area in the south of Sardinia. DNA links it strongly to the only other Sardinian *Rhithrodytes*, *sexguttatus* (Aubé) but it is clearly adapted to the twilight zone, being transparent, flat and with small eyes. Twenty-four species are listed in association with it. The photograph is courtesy of David Bilton.

TOLEDO M, BILTON D T, BALKE M, SCHIZEROTTO A & VILLASTRIGO A 2023. A new, putatively semisubterranean, *Rhithrodytes* diving beetle from southwestern Sardinia (Coleoptera: Dytiscidae). *Acta Entomologica Musei Nationalis Pragae* **63** 125-133.

LACCOPHILINE LARVA IN JAPAN

This is the eighth laccophiline genus to have its larvae described. The morphology of *Japanolaccophilus* is quite distinct, being nearest to *Laccophilus* and *Philodytes*, the authors arguing that their analysis finally provides a convincing argument for *Philodytes* being sunk as a synonym of *Laccophilus*. The most obvious visible feature of *Japanolaccophilus* is the bipartite colouring, with the back of the head as part of the black bar of the pronotum and mesonotum, a second black bar being made up of the second-sixth tergites and the front of the seventh being black.

ALARIE Y, WATANABE K & MICHAT M C 2023. The very rare Japanese endemic diving beetle *Japanolaccophilus niponensis* (Kamiya, 1939), (Coleoptera, Laccophilinae): larval morphology and phylogenetic comparison with other known Laccophilini *Zootaxa* **5285** 116-132.

***COELOSTOMA* IN GEORGIA**

C. orbiculare (Fab.) is among the beetles recorded from Georgia, backed up by DNA analysis. Thanks to Shota for use of the photograph.

JAPARASHVILI S + nine others 2023. New and well-forgotten: DNA-assisted records of two beetle (Insecta, Coleoptera) species new for the fauna of Georgia with an update on the distribution of some other little studied taxa. *Caucasiana* 2.e98998

DELEVEA IN SOUTHERN AFRICA

David Bilton notes that he thought these must be some kind of haliplid when he first saw them. There are now four species, *D. bertrandi* Reichardt and *D. namibiensis* Endrödy-Younga from the Western Cape, the newly described *D. madiba* (illustrated here, courtesy of DTB) and *D. namaqua* from the Northern Cape. They are found on wet rock faces or in residual rock pools in seasonal rivers.

BILTON D T & MLAMBO M C 2023. A revision of *Delevea* Reichardt, 1976: a Southern African endemic water beetle genus including the largest known extant myxophagans (Coleoptera: Myxophaga: Torridincolidae). *Zootaxa* **5285** 311-324.

ELMIS AENEA GENOME

Before we go any further it must be stated that one of the authors verges on being a fraud, simply drafted in to produce a general account of *Elmis aenea* (Müller). And that is all you are going to get here! This species was described as a *Limnius* from Germany but no type has been specified. Perhaps the description of an entire genome might give an opportunity for a new form of type to be specified? The beetle was a female, from Great Staughton, East Suffolk, England. Eight autosomes and the X sex chromosome are specified.

FINDLAY J D S & FOSTER G [N] 2023. The genome sequence of a riffle beetle, *Elmis aenea* (Müller, 1806) [version 1: peer review: awaiting peer review]. *Wellcome Open Research* **8** 322.

THE ANTARCTIC STEPPING STONE

A new genetic analysis of Southern Hemisphere Elmidae was used to work out how Antarctica may have provided links between increasingly separated populations. Previous to this the assumption was that continent-endemic lineages had arisen with the break-up of Gondwana. Instead it appears that large continent-endemic clades postdated the initial break-up and would require some long distance dispersals across a sea that was getting bigger all the time. David Bilton (pers. comm.) emphasises the difference between the relatively recent splits in elmids as opposed to what appear to be older ones in the Hydraenidae. The correspondent is Martin Fikáček.

SÝKORA V, HERRERA-ALSINA L, MAIER C, MARTíNEZ-ROMÁN N R, ARCHANGELSKY M, BILTON D T, SEIDEL M, LESCHEN R A B & FIKÁČEK M 2023. Reconstructing ancient dispersal through Antarctica: a case study of stream-inhabiting beetles. *Journal of Biogeography* doi 10.1111/jbi.14702 pp. 16.

UKRAINIAN RECORDS

Among the invertebrates recorded are *Dytiscus latissimus* L., *D. marginalis* L. and *Hydrophilus piceus* L.

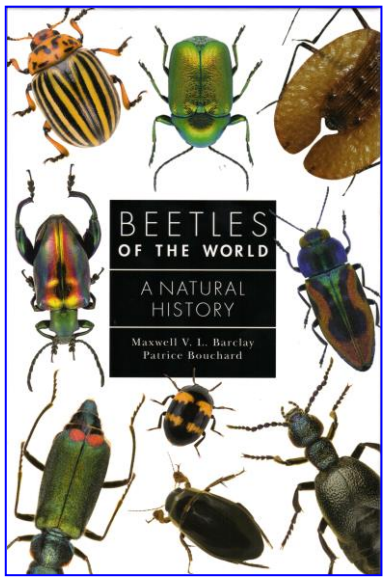
BEKHTER A A & MUKHINA O Yu 2023. The faunistic complex of invertebrate animals of the Zolochiva Bogoduhiv district, Kharkiv region. *Sixth International Conference of Young Scientists 18-19 May 2023* 337-341

NGALIA BEETLES

Resisting adding "down under" the subterranean dytiscid fauna of the Ngalia Basin in the Northern Territory is now known to comprise thirteen species in four genera, the new monospecific genus having been found as two females in Sullivans Well, Napperby Station. Two larvae associated with the adults are also described. *Ngaliadessus humphreysi* Watts and Villastrigo is named for William F. Humphreys. The author for correspondence is Steven Cooper.

WATTS C H S, VILLASTRIGO A, LANGILLE B L, STRINGER D N, BRADFORD T M, HUMPHREYS W F, AUSTIN A D, BALKE M & COOPER S J B 2023. Phylogenetic placement and description of *Ngaliadessus humphreysi* gen. et sp. nov., Watts & Villastrigo (Coleoptera: Dytiscidae), a subterranean diving beetle from the Ngalia Basin in central Australia. *Austral Entomology* **62** 300-309.

BEETLES OF THE WORLD



📖 BARCLAY M V L & BOUCHARD P 2023. *Beetles of the World. A natural history*. Princeton University Press. £18 plus postage from NHBS, cheaper than Amazon.

There is nothing wrong with being a coffee table book, and this is a good one. There is no pretence that all beetles are covered, but most showy ones are seen at their best in some arresting photographs. It was surprising that reed beetles did not get a mention. Wetland beetles are covered by entries on Skiff and Torrent Beetles, Whirligig Beetles, Crawling Water Beetles, Dytiscidae as Great Diving Beetles and Small Diving Beetles, Water Scavenger Beetles, Rove Beetles and Allies which include *Coelometopon* as the token hydraenid, Marsh Beetles and Allies, Byrrhoid Beetles (including the mysterious elmid *Peloriolus brunneus* (Waterhouse) taken by Darwin in 1836 when returning on HMS Beagle, and never seen again). The beaver beetle, *Platypsyllus castoris* Ritsema is mentioned under "Round Fungus and Small Carrion Beetles" and indexed as such but its illustration, on page 39, is not indexed. Neither is the *Stenelmis* on page 48, which is claimed to exemplify elmid genera with larvae developing in submerged wood: *Macronychus* comes to mind rather than *Stenelmis*. There is one howler among the water beetles, *Stictotarsus duodecimpustulatus* (De Geer) standing duty for *Nebrioporus elegans* (Panzer) on page 107 with the remark "This widespread European species of rivers and mountain stream may, in fact, represent several species" - how true! On page 51 the impression is given that *Ochthebius marinus* (Paykull), again not indexed, lives in rockpools. On page 93 it is stated that *Hygrobia* make squeaking noises by "pushing air through sound-producing organs". The six species, not five as stated, make noises without air being involved - see Dettner (1997) and Blair & Bilton (2020). On page 113 the authors confuse the feeler-like maxillary palps with the antennae, the latter having hydrophobic hairs to break the surface tension. The largely identical world maps accompanying most entries are of very little use. Nevertheless the book is a good guide for a non-specialist, and is a must for the photographs alone.

BLAIR J & BILTON D T 2020. The call of the squeak beetle: bioacoustics of *Hygrobia hermanni* (Fabricius, 1775) revisited (Coleoptera: Hygrobiidae). *Aquatic Insects* **41** 131-144.

DETTNER K 1997 Insecta: Coleoptera: Hygrobiidae. *Süßwasserfauna von Mitteleuropa* **20** Part **4**. 127-147. Stuttgart: Gustav Fischer.

CYBISTER IN CHINA

Sixteen species of *Cybister*, including the newly described *danxiaensis*, are known from China, and are comprehensively reviewed here. *C. lateralimarginalis torquatus* (von Waldheim) is newly recorded from Tajikistan and Uzbekistan. Lars Hendrich is the correspondent.

JIANG Z-Y, ZHAO S, MAI Z-Q, JIA F-L & HENDRICH L 2023. Review of the genus *Cybister* in China, with description of a new species from Guangdong (Coleoptera: Dytiscidae). *Acta Entomologica Musei Nationalis Pragae* **63** 75-102.

BECOME, BECOMEd AND SMALL WATER BODIES

BECOME is proposed as a new index coupled with BECOMEd as a diagnostic tool, both based on macrophytes and invertebrates. Three hundred and eighteen sites were sampled to develop the system, which must of necessity be extremely complicated, and is not explained here. Interest tailed off when it was realised that Coleoptera were recognised only to genus and were combined with Odonata as a statistic. But any set-up that uses "pressure categories" at the same level ranging from Drought and Bank verticality to Exotic fish and Bioturbator crayfish is worth more than a second look, especially if it becomes a standard procedure under the Water Framework Directive for the evaluation of small water bodies.

LABAT F & USSEGLIO-POLATERA P 2023. A new bioassessment multimetric index (BECOME) and diagnostic tool (BECOMEd) for small standing waters. *Ecological Indicators* 154 1-21.

CITIZEN SCIENCE WORK ON SMALL WATER BODIES

This is a review of what groups have been inspired to do on water quality and biodiversity. "Small" doesn't seem right given that flowing water gets included, the RiuNet project in Catalonia and the Anglers' Riverfly Monitoring Initiative in England for example. However, this is a citable item concerning the phenomenon of Citizen Science (CS). The great crested newt is honoured in that it is claimed that CS-inspired work led to a professional UK-wide survey. The former prime minister of the UK, Boris Johnson, has an alternative view, recently based on rejection of his right to build a swimming pool. His label "newt-counter" has stuck in some parts, so it seems that we are all newt-counters now.

KELLY-QUINN M, BIGGS J N, BROOKS S, FORTUÑO P, HEGARTY S, JONES J I & REGAN F 2023. Opportunities, approaches and challenges to the engagement of citizens in filling small water body data gaps. *Hydrobiologia* doi.org/10.1007/s10750-022-04973-y

MEETING IN CALABRIA

On 20-24 June 2024 we are hoping to run the meeting postponed from 2020 in Calabria. See ***Latissimus* 44** 31 for an idea of what might be involved. Let Vincenzo Volpe (volpeit@gmail.com) and GNF know if you are interested.

Latissimus is the newsletter of the Balfour~Browne Club.

***Latissimus* 55** was produced in August 2023

Correction to *Latissimus* 54

Only the first email in Sergey Ryndevich's address is to be used.

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