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LATISSIMUS

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Front cover: Sumatran elmids spider beetles, *Ancyronyx acaroides* Grouvelle to the left and *A. malickyi* Jäch middle and right, painted by the late Professor W. Zelenka. See page 9.

†FRANZ HEBAUER 1935-2016



Franz in 2012

Dr Franz Hebauer died on 5 March 2016. His funeral was held at Pfarrkirche Schonach, Mötzing on 10 March. Franz was one of the longest supporters of the Club, and a great promoter of water beetles all over the world. His main interest was in aquatic Hydrophiloidea and, from 1972 onwards he produced over 130 publications including descriptions of about 400 new species and five new genera.

He was a pioneer of living beetle photography and I well remember his aquaria containing beetles and fed by water cooled from tubes running through his fridge.

During his lengthy illness in retirement he put his affairs into good order, for example producing his own bibliography in 2011. Albrecht Komarek is bringing together Franz's results on *Agraphydrus Régimbart* for a future publication. Franz was also a highly talented musicologist, as some of us who visited him can testify, in particular Arno van Berge Henegouwen in 2008. Franz's motto was "living like a rainbow". **GNF**

HEBAUER F 2011. Bibliography Franz Hebauer. *Acta Coleopterologica* **27** 87-101.



Franz (right) with Hans Schaefflein (centre) and GNF on the Danube Valley in 1982

†JOHN OWEN 1926 - 2016

John Owen passed away on 22 April 2016 after a protracted illness. The funeral was at Leatherhead Crematorium on 11 May 2016 with Martin Luff speaking on behalf of coleopterists. Martin is thanked for the photograph, taken in Norfolk in 2003. John was a professor of pharmacology, based at St George's Hospital in London when I first met him.

John was a staunch supporter of the Club in its formative years and prominent amongst British coleopterists for many more. When he left for Australia he had donated his collection to the Royal Scottish Museum and it is now at their site at Granton. On his return, however, the story is that he asked for it back but had to start again to pursue the idea of finding every British beetle. He added over twenty species to the British list, and published more than 200 beetle-based papers. **GNF**



BACK TO POLAND 26-30 MAY 2016

Back in 1993, so as to avoid a long train trip, we ended our Polish meeting by hurtling back to Berlin in a chauffeured white van fast enough to leap over some potholes but accentuating the effect of others. This was done to the technobeat din of “*No limit*”, as performed by 2 Unlimited, sadly all too memorable, especially when I thought I’d lost my passport at the German border. This year we bounced again but over cumulonimbus covering Germany and France during an intensely stormy period that we largely avoided both in Poland and back home.

Unfortunately, the meeting in Poland began in the same way as the Spanish meeting ended – with a heart condition. Steven Routledge has fully recovered from the hospitalisation in Spain and we must hope that Paweł Buczyński also gets over his problem. So much planning had been done before the meeting that Marek Przewoźny, taking over as organiser, was able to smooth over any problems so much so that we did not notice any! Adam Tarkowski, Paweł’s replacement, was a little out of sorts as something had gone wrong with his computer, necessitating working all night.

Chełm, pronounced something like Heulm (in International Phonetics, χε̞ɫm), is a town close to the Ukrainian border. Wikipedia has Chełm as being based on the Ukrainian for hill, but Robert had it on good authority from the Europcar man in Warsaw, later endorsed by Marek, that it is the name of a mediaeval helmet. Certainly there was a hill, possibly helmet-shaped, a surprise in the mainly flat and steppic landscape extending way beyond the Ukrainian border, and there was indeed a steepic climb to the centre where we spent most of our money on beer and food, the hill being topped by the Basilika vying for dominance with the enormous domes of Cementtown. The Hotel Kamena formed our base, reasonably priced and generally spacious, but rather noisy at night what with many lorries on the roundabout outside and freight trains all presumably heading for the Ukraine. However, this is not [tripadvisor](#)® and we are here for the beetles.....

Numbers of participants were down on last year, but we still managed to represent Belgium, England, France, Germany, Luxembourg, Scotland, and Sweden, as well as Poland itself. The absence of the Dutch and the Spanish was the main reason for this reduction. Was it something we said? Or possibly not said, as one sometimes get the impression that no-one reads our website. Perhaps we should go on Twitter?

Judging from the publications one might have expected the area to be dominated by stripmines and industrial waste associated with lignite or brown coal, but this was not evident, the area being decidedly pastoral with water dominated by mesotrophic and circumneutral fens, with the rock underlying peat being chalk. In fact the inhabitants of Chełm used to do good business mining under their houses until, as one might say, the bottom dropped out of the market.

The meeting began a little oddly for me outside the hotel as a lady, according to my wife anyway, shouted out “Are you Dr Foster?” and then strode off. Everyone told me to follow her, which I did so around a corner, where she accosted others and quickened her step. When she finally turned around and walked straight past me I began to realise that some mistake had been made and she was trying to get rid of me. My confusion was partly due to the expectation that someone might be looking for us, given that we had arrived half a day late on the Friday afternoon. Even those who arrived early suffered a little, Reading Railway Station having delivered a burger that laid David Bilton low, necessitating medical treatment and presumably reducing collecting intensity a little.

The first fen visited at Kolonia Brzeżno, not far from Cementtown, proved the best for me in that it had the bladderwort-eating *Bagous petro* (Herbst) and *Longitarsus nigerrimus* (Gyllenhal), with both *Hydrochus brevis* (Herbst) and *megaphallus* van Berge Henegouwen being present along with *Dryops anglicanus* Edwards, so reminiscent of the best part of the Norfolk Broads. The programme was tweaked a little so that Sunday’s Kolonia Ignatów, an ordinary-looking stream in



Kolonia Brzeźno – Marek in the foreground left [photographs by GNF left and Will Watson right]

a jungle of tall grasses, was visited two days early. It teemed with *Agabus pseudoclypealis* Scholz most of them recently emerged, and also had *Rhantus bistratus* (Bergsträsser).

Saturday's programme was mainly concerned with oxbows along the River Bug but our carload was taken away by Rafal Gosik, firstly to Hrubieszów, "a town of poets and smugglers" [and the traditional buckets for Clive Turner], where there was a pool so far to the east that it was almost surrounded by Ukraine. Ah, but no water! So we missed out on *Bagous frivaldskyi* Tournier, which others had found elsewhere. We chanced on a river fen near Horodło where some reed beetles were at last encountered, *Donacia semicuprea* Panzer as usual on *Glyceria maxima*, and *D. cinerea* Herbst swarming around the tips of *Typha* leaves. The fen also had *Haliphus furcatus* Seidlitz and *Lixus paraplecticus* (L.). A long trip to the north got us to Garbatówka, where we were serenaded by frogs and water rail, and Rafal provided handfuls of *Bagous binodulus* (Herbst) from *Stratiotes*. The main group had visited a sandpit at Turka, lured by the possibility of *Hygrotus polonicus* (Aubé), and Robert Angus found the only one (though Clive Turner went back a few days later and found it in a pool a 100 metres or so away). The original intention had been to debug the Bug, the river on the Ukrainian border, but its level was judged too low to produce anything of interest.

Kevin Scheers looks on jealously as Adam Tarkowski feigns awe at the sight of the Club trophy. Robert is not hitting him with a cushion. The walls of the restaurant were decorated with objects based on goose feathers, an unsuccessful way of deadening noise.



Our predations had an impact on the town in that the restaurant ran out of ducks and draught beer, requiring a switch to goose and, so I was told by Anders, Robert singing the whole of "A pub with no beer" later on. Our meal, in a barrel-vaulted chamber, proved quite noisy but we managed to get through the Club's business, passing the lerse Kevers, now nicely adorned with a *Pecten*



shell ornament to commemorate our 2015 stay on the Camino de Santiago, to this year's recipients, principally Paweł Buczyński and Edyta Buczyńska via Marek. Fridge magnets were also distributed. A birthday celebration in the neighbouring, also barrel-vaulted, cellar reached a pitch which no amount of beetroot, plugged in breaches in the intervening wall, could quell.

Sunday started with another beautiful fen, this time with booming bitterns, at Olenówka, again reminiscent of Norfolk in that the dominant *Dryops* was different to the last one, in this case *D. griseus* (Erichson). We were taken on to Rozkosz, a vast fen with much *Cladium* and a few moose, but the site was almost dry, though this was apparently nothing to do with the fact that the neighbouring ditch had recently been deepened. Fortunately this disappointment was offset by a trip to the Srebrzyszcze Reserve.



Bukowski Las ad Macoszyn

This involved traversing the village fête twice and then walking along the railway. The fen here had a central canal-like pool with *Graphoderus bilineatus* (De Geer), the commonest beetle probably being *Haliphus variegatus* Sturm. Others found *Hydroporus glabriusculus* Aubé. The water temperature here was up to 27° C in the early evening, and the next day was just as hot, the carefully planned stops at cooling-off points (i.e. hotels

with beer) were much appreciated. Monday was a little more acid, with two partly shaded *Sphagnum* bogs, at and near Okuninka. There was a near miss at the second site where Marek's permit blew out of the car window and, almost miraculously, was caught by the forestry lady who was about to tell us to leave - as it was ordinarily against the rules even to park there. This was the only day when I recorded *Hydrobius rottenbergi* Gerhardt, not a species I would associate with acid water yet, and even my *Ilybius "aenescens"* turned out to be *I. guttiger* (Gyllenhal)



The last site on the Monday was a revisit for some to Pławanice Las where a pool that had supported *Agabus uliginosus* (L.) had all but disappeared three days later, such had been the heat. I had never thought in these terms before but one could find other ponds simply in the area by listening out for the frog choruses.

Great beetles, great food, great beetles, great trip.

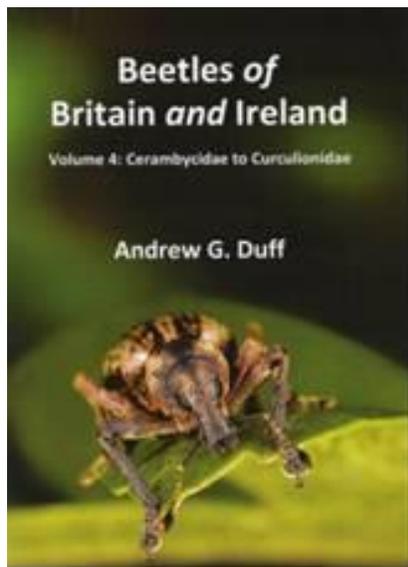
After last year we'll not tempt fate by indicating where the next meeting will be but the volunteer was Belgian and, Jojo, the country is famous for its pear brandy.

NEW CHINESE AGABUS

Agabus abaensis is described from central China with a striking photograph of the *locus classicus* at about 3,500 m a.s.l., a pool in treeless grassland with *A. brandti* Harold, *A. lobonyx* Guignot, *Ilybius cinctus* Sharp, *I. obtusus* Sharp, *Boreonectes emmerichi* (Falkenström), *Hydroporus nanpingensis* Toledo & Mazzoldi, *Hygrotus impressopunctatus* (Schaller), *H. zigetangco* Fery, and *Nebrioporus formaster* (Zaitzev). It belongs to the subgenus *Acatodes* and appears to belong to the *confinis*-group, but sharing characters with the *arcticus*-group.

ŠTASTNÝ J & HÁJEK J 2016. *Agabus abaensis* sp. nov., a peculiar species of the *confinis*-group from central China (Coleoptera: Dytiscidae: Agabinae). *Zootaxa* **4121** 311-318.

BEETLES OF BRITAIN AND IRELAND 4



📖 DUFF A G 2016. *Beetles of Britain and Ireland. Volume 4: Cerambycidae to Curculionidae*. West Runton: A.G. Duff (Publishing). ISBN 978-0-9573347-3-1. Currently £97.99 from NHBS (+ £7.50 postage within UK).

This is the second volume to be published in this series. It is particularly welcomed as a new treatment of wetland leaf beetles and weevils. The Chrysomelidae have been written up by Mike Cox and use of that part of the book presumably needs to be cited as something like Cox, M.G. Chapter 92. Chrysomelidae Latreille, pp. 67-216 in Duff etc. The habitus photographs have been prepared by Udo Schmidt and mercifully have none of the reproduction problems to be found in the first edition of the first volume. The book abounds in illustrations of the genitalia so sadly lacking (or poorly done) in other recent treatments of these

families in Britain. The median lobes of *Bagous* on page 360 are particularly useful in that they must surely be labelled correctly, unlike in the review by Caldara and O'Brien (1998). The postage stamp-sized photographs of surface structures are certainly of use but require careful examination in order to pick out the features that matter. Joy (for me, always a contradiction in terms) can at last be consigned to the "old stack"!

MAPUTALAND HOTSPOT

Sixty-eight species of Hydradephaga are known from the Lake St Lucia system, and most are illustrated in this paper. They include some well-known species such as *Canthydrus notula* (Erichson) and *Cybister tripunctatus africanus* Laporte, and some that still require taxonomic work - a *Peltodytes*, a *Hydaticus* likened to *natalensis* Guignot, and a *Derovatellus* likened to *natalensis* Omer-Cooper. This work highlights the importance of temporary wetlands, and demonstrates that hotspots for species richness and centres of endemism are not necessarily the same. The author for correspondence is Matthew Bird.

PERISSINOTTO R, BIRD M S & BILTON D T 2016. Predaceous water beetles (Coleoptera, Hydradephaga) of the Lake St Lucia system, South Africa: biodiversity, community ecology and conservation implications. *ZooKeys* **595** 85-135.

BORDER MOVEMENTS & SEXUAL CONFLICT

This paper splices together some basic field recording of *Hydroporus memnonius* Nicolai on the Scots-English Border with some experiments on thermal physiology of its two forms. The form with the matt female known as *castaneus* Aubé occupies most of England whereas the form with a female shining like the male occurs over nearly all of Scotland. The contact zone between them has shifted 40-50 km to the north-west into Scotland since the 1970s/1980s. Of course this must be because the matt form is better able to take advantage of climate change, just like most of the other insects on the move north. *But no it isn't!* The male-like form in Scotland is marginally *more* thermally tolerant of both high and low temperatures. But we know that males associated with the matt females have more sucker hairs on their tarsi than those associated with the shining females. The best explanation of this relatively slight change in distribution could be that the males associated with matt females are more competitive sexually, and are slowly taking over in southern Scotland despite being at a slight physiological disadvantage.

BILTON D T & FOSTER G N 2016. Observed shifts in the contact zone between two forms of the diving beetle *Hydroporus memnonius* are consistent with prediction from sexual conflict. *PeerJ* doi 10.7717/peerj.2089 1-15.

CHALLENGING TATARSTAN LAKE NON-FAUNA

We are well used to those surveys of lakes with a few "beetle sp." in the table. But here we have a reservoir near Kazan in the Republic of Tatarstan in which no beetles were found at all!

TARASOV G S, KHAMITOV O L & FROLOVA L A 2016. Characterisation of littoral macrozoobenthos communities of the Kuybyshev Reservoir in the area of Kazan. *Uchenye Zapiski Kazanskogo Universiteta. Seriya Estestvennye Nauki* **158** 135-147 [in Russian].

THRACIAN LAKE FAUNA

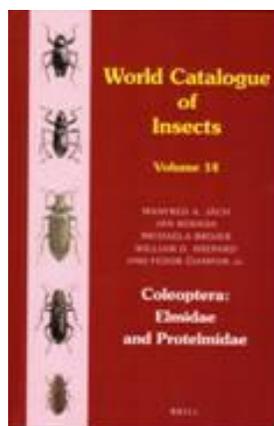
Lake Danamandra, in western Turkey, was surveyed for its bottom fauna. Five taxa of water beetle were identified from 27 of the 153 animals found. Unfortunately, the only one identified to species was *Hydrobius fuscipes* L., which might well be another species with what we know now. Will someone offer to help these limnologists to species, please?

ALBAYRAK E & ÖZULUĞ O 2016. Danamandira Gölü (Sılivri-İstanbul) bentik makro omurgasızları. *Turkish Journal of Aquatic Sciences* **31** 51-58.

WILLOW PLANTATIONS

This study is based on two plantations of willow (*Salix viminalis*), and attempts to cover all animals (and soil fungi) associated with the habitat. Included is a table of 38 water beetle taxa.

CZACHOROWSKI S, GENCZA J, BUCZYŃSKI P, PAKULNICKA J, MACHALEK N, GŁOWACKI Ł & KURZAŃKOWSKA A. 2015. Rozdział 3. Wstępne badania nad różnorodnością biologiczną wewnątrz i wokół plantacji wierzby w Łężankach i Śmigławkach. – Chapter 3. Preliminary research of biodiversity in and around willow plantations in Łężany and Samławki. Pp. 69- 85 in: M. Stolarski, J. Gołaszewski (eds). *Biorafineria lignocelulozowa – uwarunkowania środowiskowe, energetyczne i społeczne. – Lignocellulosic biorefinery – environmental, energy and social conditions.* Wydawnictwo UWM, Olsztyn, Poland.



ELMIDAE CATALOGUE

📖 JÄCH M A, KODADA J, BROJER M A, SHEPARD W D & ČIAMPOR F 2016. *World Catalogue of Insects*. **14**. *Coleoptera: Elmidae and Protelmidae*. Leiden: Koninklijke Brill NV. Available as a hardback (ISBN 978-90-04-29176-8), a softback and an e-book. Prices will vary – about £72 depending on your source.

The last complete World list was published by Zaitzev (1910). It had 297 species but the present list has 147 genera with over 1,500 taxa in the extant Elmidae, plus five species *incertae sedis* and five fossil species. In addition, the African Protelmidae, formerly treated as a tribe, includes four genera and six species.

The foreword to this checklist demonstrates the extent to which detective work has taken the authors. Firstly though, a little uncertainty. They do not come to a collective decision as to whether the Elmidae belong in the Dryopoidea or to the Byrrhoidea – perhaps they could not agree? The correct usage of names is clearly central to any catalogue, and there are many examples of ways in which these have gone wrong in the past – and here are rectified. Howard Hinton regularly used names for specific epithets as nouns in apposition, e.g. *Macrelmis aleus* is named after the King of Arcadia and therefore could not become *Macrelmis alea*. Sometimes the distinction between an “unjustified emendation”, available as a name under current ICZN rules, and an “incorrect



JOHN L. LECONTE.

subsequent spelling”, not available, can be difficult, though the authors clearly agree about the inadequacy of many internet lists, which get a well-deserved pasting on pp. xvi-xvii, with the implication some are bad because they simply copy the mistakes made in others. In contrast, authors’ names varied more in the past than now, an example being Lieutenant Colonel John Lawrence LeConte (1825-1883), “the most important American entomologist of the 19th century” as Google will tell you. The catalogue’s

references list only Leconte and Le Conte, drawing attention to an 1881 publication in which both variants are used. In fact, LeConte preferred the third variant, simply losing the space in the surname of his father the naturalist John Eatton Le Conte. Another name problem stems from Victor Ivanovitch Motschulsky occasionally using the pseudonym Victor.

Hinton’s major contribution to the knowledge of South American Elmidae is a little marred by the discovery that he attributed finds of 21 newly described species in the Brazilian State of Rondônia to the State of Mato Grosso, in which he never collected. A couple of African type localities have also been found to be misrepresented in the original description, quite a feat of detective work when faced with such a large catalogue to complete. Apparently the greatest need for sleuthing – and a cool head - concerned the works of Zhang and Yang from 1995 onwards about five new species of Chinese *Stenelmis*. This is so intricate that it is best to read the description on page xvi rather than try to explain it here.

There are a few changes in the Palaearctic catalogue, *Elmis caliginosa* and *E. confusa* being assigned to François-Louis Comte de Castelnau rather than Laporte, *Esolus filum* (Fairmaire) being dated to 1871, not 1870, and, most importantly, the synonymising of *Normandia* Pic with *Riolus* Mulsant & Rey, an overdue recognition of the problem.

Elmis maugetii Latreille has suffered from misrepresentations of its name as *maugetii* and *maugetti* according to this checklist. It might also have suffered from being regarded as a synonym of *E. aenea* (Müller) in British treatments, with, in addition to the checklist names, *Elmis maugei* (Bedel), *Helmis maugei* Bedel and *Helmis megerlei* (Duftschmid) (see David Holland, 1972. A key to the larvae, pupae and adults of the British species of Elminthidae. *Freshwater Biological Association Scientific Publication* 26). The correct spelling is based on the latinisation of the name for René Mauge de Cely (1761-1802), a zoologist who took the type material. He is also known for Point Mauge on Maria Island, Tasmania, where he was buried after travelling on Nicolas Baudin's expedition, having been taken ill at Timor.

Many catalogues cannot be complete nowadays without mention of the problems associated with someone working in Leiden. The comments on page 249 bear repeating, but with some redaction

Nomina exclusa (taxa intentionally excluded from this catalogue)

In 2005, 2007, 2008 and 2011 ■■■■ published four articles, describing three new genera and four new species of Elmidae from Suriname (South America). A fifth paper, dated 2006 (occasionally cited in ■■■■'s publications), probably does in fact not exist.

The descriptions of these seven taxa are very short, not providing characters to enable their recognition. Very probably, all the three genera described by ■■■■ represent in fact well known genera.

The types of the species described by ■■■■ from Suriname are not accessible (depository not even mentioned in one case).

One of the papers (2011) was "coauthored" by Miss Somayah Ezzatpanah (Tehran, Iran). In fact Miss Ezzatpanah had not been aware that ■■■■ had added her as a coauthor, and eventually she informed us that ■■■■ had been stalking her for quite a long time, after he saw her photograph in the internet. Unfortunately, Miss Ezzatpanah late faced problems with her university due to the (entirely unintended) cooperation with ■■■■ (at least one of these "joint" articles contained very insulting and vilifying sentences). It must be assumed that all papers published under the name Ezzatpanah (as single author) were in fact solely written and submitted by ■■■■....."

Wolfram Sondermann (2012. Is the elmidae fauna of Colombia strongly marked by Nearctic elements? A remote analysis of genus names provided in 30 recently published benthic macroinvertebrate assessments (Coleoptera: Byrrhoidea: Elmidae. *Dugesiana* 20 251-260) coined the term *nomina seminuda* for such weakly described taxa.

Like other treatises on water beetles this one is likely to mark the beginning of a new round of effort. Manfred has noted *in e-litteris* that several new European species have already been detected by DNA analysis. The next catalogue will presumably be rather different.

On a lighter note I don't know of any checklist including artwork, here a beautiful painting of spider elmids (*Ancyronyx* spp.) from Sumatra, depicted by the late W. Zelenka, and reproduced as our front cover courtesy of Manfred Jäch. (@ Naturhistorisches Museum Wien).

NOTARIS PROBLEMS & FLIGHT LOSS

This is a brilliant paper worth reading for the way the authors come to terms with some very tricky results. But that is not much of an excuse for intruding a paper about flightless weevils living on forest floors in China into a newsletter supposedly about water beetles. There are four real excuses. 1. Having just got used to Eirrhinidae as distinct from Curculionidae what am I supposed to do about its descent to the tribe Eirrhini via the subfamily Brachycerinae again? 2. The DNA phylogram includes European aquatic weevils. 3. *Tournotaris* Alonso-Zarazaga & Lyal is shown to be well and truly nested within *Notaris* Germar, so much so that it has to be sunk as a synonym if not here then surely elsewhere; 4. The possibility is recognised that flightless and "voollant" (= "flight-capable") weevils may evolve at different rates. A paper by Fatima Mitterboeck and Sarah Ademowicz is cited showing greater changes in mitochondrial DNA in flightless insects but not in nuclear genes. In flightless weevils this rate could be 2-5 times faster than in flight-capable species. Why? The 2013 paper indicates that flightless species would have relaxed energy demands. If coupled with a situation in which flightlessness develops, e.g. on islands, then selection pressure would be relaxed even more.

GREBENNIKOV V V & KOLOV S V 2016. Flightless *Notaris* (Coleoptera: Curculionidae: Brachycerinae: Eirrhinini) in southwest China: monophyly, mtDNA phylogeography and evolution of habitat associations. *Zootaxa* **4105** (6) 557-574.
 MITTERBOECK F T & ADAMOWICZ S J 2013. Flight loss linked to faster molecular evolution in insects. *Proceedings of the Royal Society B* **280**: 20131128.
<http://dx.doi.org/10.1098/rspb.2013.1128>

DREDGING A RIVER

This study, on the Krapiel River in north-west Poland, is well worth citing in any review of the impacts of dredging. As might be expected the water beetle fauna was much poorer following dredging but abundance and diversity were restored within just half a year. The restored fauna was strongly associated with vegetation, water velocity and the composition of the bottom sediments. The first beetles to reappear were the usual eurytopic species, plus species typical of small water bodies, obviously emanating from fish ponds beside the river. Differences in the water beetle faunas before and after dredging were most striking, for example the loss of *Gyrinus* species, and the appearance of *Haliphyscus immaculatus* Gerhardt, *Ilybius fuliginosus* (Fab.), *I. subaeneus* Erichson, *Hyphydrus ovatus* (L.) and *Laccobius minutus* (L.). The biplots based on redundancy analyses are particularly clear. The author for correspondence is Andrzej Zawal.

DĄBKOWSKI P, BUCZYŃSKI P, ZAWAL A, STĘPIEŃ E, BUCZYŃSKA E, STRYJECKI R, CZACHOROWSKI S, ŚMIETANA P & SZENEJKO M 2016. The impact of dredging of a small lowland river on water beetle fauna (Coleoptera). *Journal of Limnology* 10.4081/jlimnol.2016.1270 33 pp.

TERRESTRIAL AUSTRALIAN - *PAROSTER* SUBSUMES *TERRADESSUS*

Terradessus caecus was originally described by Chris Watts from the floor of a rainforest in north-east Australia. Genetic analysis establishes that *Terradessus* is nested within *Paroster*, being synonymised with that genus. This terrestrial species is shown to have originated in the middle of Miocene (about 15 million years ago) following the onset of the Australian aridification that is still going on today. The distribution of *Paroster* species is mapped, contrasting the largely southern distribution of the aquatic subterranean species with this northern terrestrial outlier.

TOUSSAINT E F A, HENDRICH L, ESCALONA H E, PORCH N & BALKE M 2016. Evolutionary history of a secondary terrestrial Australian diving beetle (Coleoptera, Dytiscidae) reveals a lineage of high morphological and ecological plasticity. *Systematic Entomology* doi:10.1111/syen.12182

WAINWRIGHTS

According to the editor of *Lakeland Naturalist* Wainwrights are any hills in the English Lake District over 1000 ft high and/or appearing in one of Alfred Wainwright's seven *Pictorial Guides to the Lakeland Fells*, published from 1955 to 1966. Twenty species of water beetle feature among the finds, which are summarised as the maximum altitudes at which each species was found in the seven areas of the Lakeland Fells. *Contacyphon kongsbergensis* Munster is perhaps the most interesting species, recorded from 2,100 ft in the east and 1,725 ft in the west. Some beetles get a more specific reference – *Dytiscus marginalis* L. in a pool at 1,915 ft on Little Calva and *Platambus maculatus* (L.) in a small tarn at 1,750 ft on Lank Rigg. With montane beetles it would be useful to note in addition the lowest point at which they have been found, as this is more likely to be changing than the upper one.

ATTY D 2016. Beetles on 'Wainwrights' 1970-2015. *Lakeland Naturalist* **4** 17-20.



ENOCHRUS CALABRICUS IN TURKEY

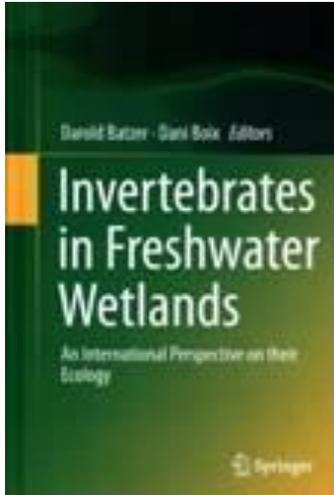
Enochrus calabricus was originally described as *Philydrus calabricus* by the late Baron Giorgio Ferro (1976. Diagnosi preliminare di una nova species de Hydrobiini (Coleoptera Hydrophilidae). *Rivista di Idrobiologia* **15** (3) 433-437). This was on the basis of a single male from Calabria in Italy with the parameres distinctively narrowed at their tips, as can be seen in the illustration (left) from Ferro's paper.

POLAT A, TAŞAR G E & İNCEKARA Ü 2015. A new record of *Enochrus* Thomson, 1859 (Coleoptera: Hydrophilidae) for the Turkish fauna. *Turkish Journal of Science & Technology* **10** (1) 9-12.

PADDY BIODIVERSITY

The macroinvertebrate faunas were compared for paddy fields with and without irrigation ponds. Species numbers and counts of individuals were consistently higher in the presence of ponds. There were, for example, 16 species of water beetle based on 253 individuals found in paddies with ponds as opposed to 13 species based on 108 individuals in fields without ponds. Unfortunately no species are named. The address for correspondence is that of Myung Hyun Kim.

CHOE L J, CHO K J, HAN M S, KIM M K, CHOI S K, BANG H S, EO J, NA Y E & KIM M H 2016. Benthic macroinvertebrate biodiversity improved with irrigation ponds linked to a rice paddy field. *Entomological Research* **46** 70-79.



INTERNATIONAL WETLAND STUDIES

📖 BATZER D & BOIX D (eds) 2016. *Invertebrates in Freshwater Wetlands. An international perspective on their ecology*. Heidelberg etc., Springer. ISBN 978-3-319-24976-6 £119 or cheaper from some website-based companies.

Seventeen chapters cover invertebrates in a wide range of situations – rock pools, alpine ponds, “temporary wetland ponds of the temperate biome”, temporary ponds in Mediterranean climates, Irish turloughs, peatland, “permanent wetlands (long-hydroperiod marshes and shallow lakes)”, Great Lakes marshes, Florida Everglades, “groundwater springs and seeps”, “beaver-created wetlands and ponds”, “temperate-zone river floodplains”, “Neotropical floodplains”, “created and restored wetlands”, managed waterfowl marshes, finally an attempt to summarise all the previous chapters. The last is weak on bugs and beetles on pages 624-625, coming to some odd conclusions unhelpful if stated as generalities – e.g. “It seems that these families [mainly water beetles] can successfully exploit wetlands regardless of conditions, likely because they are all strong flyers able to colonize any available habitat”. That word “all” suggests a lack of understanding of the strategies available to and practised by beetles. What might have “seemed like a good idea at the time” was to get authors to summarise the fauna by family or genus at the end of their chapters. It really doesn’t work, possibly being more useful for the branchiopod species summarised for Mediterranean climate ponds and in Chapter 6 for Irish turloughs, divided into the faunas of the wet and dry phases.

The alpine ponds Chapter 3 lists water beetles to be found in Colorado, Switzerland and New Zealand, potentially of some value but without recognition of *Boreonectes* Angus or the complexities associated with it. The Mediterranean ponds chapter gives an uncomfortable feeling when stating on p.154 “Beetles of the genus *Berosus* rest in the sediment during the metamorphosis from larval instar III to imago while waiting for the pond to reflow”, citing A. Thiéry (1979. Influence de l’assèchement estival sur le peuplement d’insectes aquatiques d’un marais saumâtre temporaire en Crau (Bouches-du-Rhône). *Annales de Limnologie* **15** 181-191) and M. Barbero and J. Guidicelli (1982. Étude des bicénoses des mares et ruisseaux temporaires à éphémérophytes dominants en région méditerranéenne. *Bulletin d’Écologie* **13** 387-400). What do the authors think the other beetles do, and why not just say “pupate”?

Chapter 15 (Ruhí *et al.*) sets out to define *created wetlands* as any stagnant water habitat with wetland vegetation on undrained soils with shallow water at least of the growing season, and created from scratch by human beings in places where there was no wetland before. This is to differentiate them from *restored wetlands*, the same in every respect except that they replace an existing wetland area. It has been truly said that the inventor of, say, a fourth all-embracing language designed to replace the previous three has simply brought the number of languages to four, and this is always the danger associated with redefining things. This chapter, which is mainly to do with the faunas

associated with wetlands intended to improve water quality by capturing pollutants, silt, and also, increasingly in a time of increased rainfall, to slow down water movement through a catchment. Table 15.5 is interesting in that it identifies important taxa associated more with created wetlands in Ireland than with natural ones. *Haliphus ruficollis* (De Geer) and *Noterus clavicornis* (De Geer) are among 17 taxa reckoned to have medium tolerance to organic pollution. From the totally biased viewpoint of a coleopterist Table 15.2 is also good for identifying abundance and richness of Coleoptera in the USA, Iran and Spain in four out of nine studies.

Water beetles do not do well pictorially – an unnamed dytiscid on page 14 (come on! Any limnologist can at least see that it is an *Acilius*), a truly dire photograph of *Hydroporus foveolatus* Heer on page 65, and *Agabus tristis* Aubé as “*tristus*” on page 430. The index is hit-and-miss, mainly miss, with daft things such as “Unique species assemblages” included but nearly all the taxa missing.

This carping apart, is it worth buying? At about half the price of the Springer book on diving beetles (see ***Latissimus* 35** 18) and yet 1.4 times longer, the answer ought to be “yes” but I know which one will be opened more often. It would, however, be better to have both volumes.

Chapters with offering something about beetles are below. Other chapters should have offered something more but then most limnologists are scared of beetles.

JEFFRIES M J, EPELE L B, STUDINNSKI J M & VAD C F. Chapter 4. Invertebrate in temporary wetland ponds of the temperate biomes. pp. 105-189.

REYNOLDS J D. Chapter 6. Invertebrates of Irish turloughs. pp. 191-217.

WILLIAMS D D. Chapter 11. Invertebrates in groundwater springs and seeps. pp. 357-409.

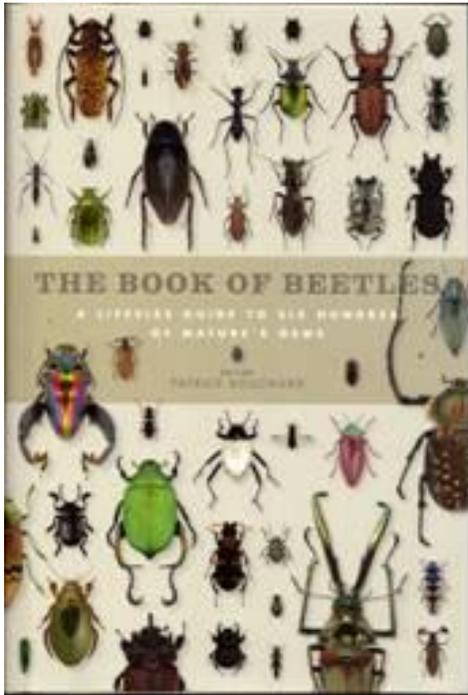
RUHÍ A, FAIRCHILD G W, SPIELES D J, BECERRA-JURADO G & MATEOS-MORENO D. Chapter 15. Invertebrates in created and restored wetlands. pp. 525-564.

PACIFIC RIM AND PLATYNECTINI

The radiation of the dytiscid Platynectini is studied to understand the changes that took place during and after the break-up of Gondwana. The group occupies part of the Oriental region, the Indo-Australian archipelago (IAA) and the Neotropics. Complex colonisation patterns occurred out of Australia, crossing major biogeographical lines such as Wallace’s Line, broadly fitting with the timing of formation of major geographic features. Analysis indicated two distinct Neotropical lines back to the Eocene, the whole group going back to the early part of that period 55 million years ago, still well after the break-up of Gondwana began but before the complete separation of Australia, Antarctica and the Neotropics. The origin of the Neotropical complexes is best explained as a mix of an ancient Gondwanan widespread distribution thinned out by later extinction periods and a more recent mid-Cenozoic long distance dispersal across the Pacific from Australia to the Andean coast.

TOUSSAINT F A, HENDRICH L, HÁJEK J, MICHAT M C, PANJAITAN R, SHORT A E Z & BALKE M 2016. Evolution of Pacific Rim diving beetles sheds light on Amphipacific biogeography. *Ecography* **39** 1-11 doi: 10.1111/ecog.02195.

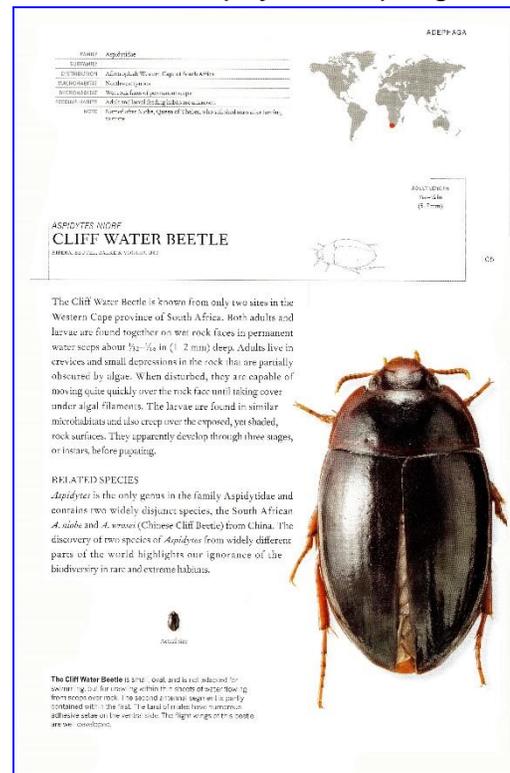
THE BOOK OF BEETLES?



📖 BOUCHARD P (ed.) 2014. *The book of beetles*. Lewes: The Ivy Press Ltd. ISBN 978-1-78240-049-3

Deep in the heart of East Sussex a team worked to produce a beautiful book from the expert offerings of coleopterists across the world. The result is something transcending the average coffee table book with depictions of 600 species representing most of the extant families of Coleoptera. But is it really a “life-size guide” as claimed at the outset? Life-size certainly in that the team has managed to retain such images at the right scale. But would one really flick through such a book to identify a beetle? Not in Europe anyway, as the Palearctic coverage is rather thin. There is some basic information in the introduction, firstly listing six criteria for species selection, the first requirement being to be scientific compelling, and then there are the bare bones of aspects of beetle biology. But who is looking? You dive straight into the pages devoted to

individual species. And these are what makes this **the** book of beetles and something you must buy. Water beetles include *Haliphus leopardus* Roberts, *Meru phyllisae* Spangler & Steiner, *Neohydrocoptus subvittulus* (Motschulsky), *Amphizoa insolens* LeConte, *Aspidytes niobe* Ribera et al., *Hygrobia hermanni* (Fab.), *Dytiscus marginalis* L., *Eretes sticticus* (L.), *Thermonectus marmoratus* Hope, *Bidessus ovoideus* Régimbart, *Laccophilus pictus coccinelloides* Régimbart, *Georissus californicus* LeConte, *Spercheus emarginatus* Schaller, *Horelophus walkeri* d’Orchymont, *Hydrophilus piceus* L., *Tropisternus collaris* (Fab.), *Hydraena anisonycha* Perkins, *Ochthebius aztecus* Sharp, and *Playpsyllus castoris* Ritsema. As with all other populist books this one fails to tackle the problem of common names consistently. Thus we have the Cliff Water Beetle for the *Aspidytes* but we have nothing for the *Haliphus*, a Leopard Beetle if ever you saw one. And please spell Balfour-Browne Club (page 649) correctly! The retail price on the cover is £29.95 but one can get this book much more cheaply by shopping around. The images are so arresting that any coleopterist should have this handy on the shelf to remind them of the extraordinary variations to be had from a simple body plan.



RIGHT-HANDED INFECTION?



In March 2016 Dave Bentley ([dave at davebentleyecology.co.uk](http://daveatdavebentleyecology.co.uk)) noticed a strange phenomenon when sorting these *Anacaena globulus* (Paykull). They all had protoctistan infestations concentrated on the **right** middle femora.

LIMNEBIUS EVOLUTION

These two papers concern how the now re-erected subgenera of *Limnebius* evolved in different ways. *Limnebius* s.s. and *Bilimneus* Rey arose in the Miocene. The smaller *Bilimneus* are smaller than *Limnebius* s.s. and do not have free parameres. The Linnean paper includes detailed reconstruction of the aedeagophores of seven species using serial histological sections. One outcome of these reconstructions is a greater understanding of the structure and function of the flagellum: this is shown to be a hollow, well-sclerotised tube, and it is likely to function as an ejaculatory duct but not as a mechanical aid to copulation as in some beetles. The great rarity is to encounter a *Limnebius* with the flagellum everted. The other reconstruction was in time, the most likely ancestor being about 1.2 mm long, with a small aedeagophore, a free left paramere and possibly an externally fused right paramere and an additional appendage. Whereas *Limnebius* s.s. showed several independent increases in male body size and increasingly complex genitalia, *Bilimneus* stayed small with increasingly simplified male genitalia. Ignacio Ribera is the addressee for correspondence.

RUDOY A, BEUTEL R G & RIBERA I 2016. Evolution of the male genitalia in the genus *Limnebius* Leach, 1815 (Coleoptera, Hydraenidae). *Zoological Journal of the Linnean Society* **2016** doi:10.1111/zoj.12402 pp 1-31 + supporting information.

RUDOY A & RIBERA I 2016. The macroevolution of size and complexity in male genitalia. *PeerJ* **4**:e1882;DOI 10.7717/peerj.1882



SAXON RED LIST

📖 KLAUSNITZER B 2016. *Rote Liste und Artenliste Sachsens. Wasserbewohnende Käfer*. Dresden: Freistaat Sachsen, Landesamt für Umwelt, Landwirtschaft und Geologie. <https://www.publikationen.sachsen.de/bdb/artikel/25906>

The water beetle fauna of Saxony stands at 279 species. Perhaps the most interesting feature of this extensive and expert review is the list of extinct or lost species, a mixture of the usual suspects and some surprising absentees: *Haliphus varius* Nicolai, *Hygrobia hermanni* (Fab.), *Hydroporus brevis* Sahlberg, *Oreodytes septentrionalis* (Gyllenhal), *Ilybius similis* (Thomson), *Gyrinus caspius* Ménétrés, *Gyrinus natator* (L.), *G. urinator* Illiger, *Hydraena dentipes* Germar, *H. pulchella* Germar, *Ochthebius exsculptus* Germar, *O. metallescens* Rosenhauer, *O. pusillus* Stephens, *Laccobius colon* (Stephens), *Paracymus aeneus* (Germar), *Elmis obscura* (Müller), *Esolus parallelepipedus* (Müller), *Limnius opacus*

Müller, *Riolus cupreus* (Müller), *Stenelmis canaliculata* (Gyllenhal), and *S. consobrina* (Dufour). Now there's a challenge!

BURKINA FASO STUDY

Sixty species of water beetle (27 Dytiscidae, 11 Noteridae and 22 Hydrophilidae) were found in 18 water bodies in Burkina Faso, 24 of the species being reported from that West African country for the first time. Species richness was significantly correlated with vegetation cover, reservoirs with the habitat dominated by *Pistia stratiotes* (known variously as Nile or water cabbage, or water lettuce) having particularly high numbers of species. There was also a negative association with habitats dominated by water-lilies.

KABORÉ I, JÄCH M A, OUÉDA A, MOOG O, GUENDA W & MELCHER A H 2016. Dytiscidae, Noteridae and Hydrophilidae of semi-arid rivers and reservoirs of Burkina Faso: species inventory, diversity and ecological notes. *Journal of Biodiversity and Environmental Sciences* **8** (4) 1-14.

PARADOXICAL AQUATIC INSECTS

Although water beetles are not specifically mentioned in this “opinion piece” they are clearly central to the argument that, despite aquatic insects being so biodiverse, very few of them might be classified as invasive compared to other animals. Some suggestions are made as to why this might be – 1. economic interest in aquatic insects is limited, and there had been little drive to move them deliberately, i.e. we don't normally eat them; 2. few are associated with particular host plants; 3. aquatic insects usually lack adaptations for movement overland or by sea; 4. their reproductive strategies are less diverse than in terrestrial insects; 5. they usually have both an aquatic and a terrestrial stage, restricting the availability of new habitat; 6. many are confined to running water, with the well-known limited ability to disperse. Thus aquatic insects appear to be the exception to the rule. Discuss. The address for correspondence is Núria Bonada.

FENOGLIO S, BONADA N, GUARESCHI S, LÓPEZ-RODRÍGUEZ M, MILLÁN A & TIerno DE FIGUEROA J M 2016. *Biology Letters* **12** 20151075. <http://dx.doi.org/10.1098/rsbl.2015.1075>

TUSCAN STREAM

One hundred and eight species of water beetle are recorded from the drainage area of the Pesa stream in Tuscany. These include *Gyrinus colymbus* Erichson, *Bidessus delicatulus* (Schaum), *Hydroporus sanfilippo* Ghidini, *Helophorus montenegrinus* Kuwert, *Laccobius albescens* Rottenberg, *L. simulatrix* d'Orchymont, nine species of *Hydraena*, *Ochthebius virgula* Ferro, *Limnichus incanus* Kiesenwetter, *Augyles flavidus* (Rossi), *A. marmota* (Kiesenwetter), *Heterocerus fuscus* *etruscus* Mascagni, and *Bagous limosus* (Gyllenhal).

ROCCHI S & TERZANI F 2016. Coleotterofauna acquatica e semiacquatica del bacino idrografico del torrente Pesa (Toscana) (Insecta: Coleoptera). *Onychium* **12** 83-103.

EASTERN HYDRAENIDS & ELMIDS

Many unfamiliar names in this treasure house, plus some well-known ones. Some examples:- *Aulacochthebius narentinus* (Reitter), second record for Russia; *Hydraena canakcioglu* *aydini* Janssens, *Hydraena gracilis* Germar, *H. pulchella* Germar, *Micragasma paradoxum* Sahlberg, *Ochthebius nonaginta* Jäch, and *O. remotus* Reitter in the Russian South European Territory; *Laeliaena sparsa* Sahlberg in Uzbekistan; *Ochthebius depressus* Sahlberg and *O. flavipes* Dalla Torre in the Urals; *Ochthebius minimus* (Fab.) and *O. jermakovi* d'Orchymont new for Kazakhstan; *O. bernhardi* Jäch & Delgado new for Ukraine; *O. foveolatus* Germar and *Stenelmis koreana* Satô new for Russia.

PROKIN A A, LITOVKIN S V & JÄCH M A 2015. New records of Hydraenidae and Elmidae (Coleoptera) from Russia and adjacent countries. *Fragmenta Faunistica* **58** 99-110.

ROMAN WELL BEFORE ROBIN HOOD

An exceptionally long list of insect taxa was produced by extracting the contents of a Roman Well near Lound in Nottinghamshire. Despite its aquatic origin water beetles are not that well represented, for example only *Agabus bipustulatus* (L.) and *Ilybius ater* (De Geer) as dytiscids, but there is a nice reconstruction of the surrounding landscape from this ancient trap.

BUCKLAND P C, BUCKLAND P I & PANAGIOTAKOPULU E 2016. Caught in a trap: landscape and climate implications of the insect fauna from a Roman well in Sherwood Forest. *Archaeological and Arthropological Sciences* doi 10.1007/s12520-016-0338-8 16 pp.

GIANT AMONG GIANTS?

This newly described species was originally taken in Brazil by the Spanglers in 1969, and only surfaced as something new when Andrew Short was able to examine type material of the Argentinian and Uruguayan *Hydrophilus masculinus* (Régimbart) in Paris Museum. At up to 47 mm long *H. herpe* is amongst the largest Hydrophilidae known in the world. One must ask that if this giant vegetarian is around can the giant predatory *Megadytes ducalis* Sharp be far behind?

SHORT A E Z & McINTOSH C E 2015. *Hydrophilus harpe* sp. nov., a remarkable new species of giant water scavenger beetle from Brazil (Coleoptera: Hydrophilidae). *Acta entomologica musei nationalis Pragae* **55** 665-671.

A *BEROSUS* IN GEORGIA NEW FOR EUROPE

Garth Foster, Alexander Prokin and Steven Routledge

When working in Georgia Simon Brown was asked to look for water beetles by SR. On 17 June 2015 near to Tbilisi he found a single male *Berosus*. It was a male and so teneral that the aedeagophore was shrivelled a little when dissected and mounted in DMHF. The beetle clearly belonged to the subgenus *Enoplurus* Hope, having a pair of spines at the extremities of the elytra and a pronotum without a clearly defined dark mark or markings. In Stefan Schödl's (1991) key to *Enoplurus* it would run to couplet 5, then 6, because of the strongly blackened puncture pores and the edge of the last visible sternite, the fifth, having a weak rim. At 5.3 mm long, the longer *furcatus* Boheman of couplet 7 would be ruled out, and the available alternatives have the rear edge of fifth ventrite unlike that of the specimen. Its ventrite most resembles (Figure 1) those of *B. bispina* Reiche & Saulcy and *B. guttalis* Rey, Schödl's Figures 18 and 19 respectively. Apart from the darkened puncture pores the beetle has weak darkening of the head and pronotum, possibly characteristic of the species, and a pale clypeus. The distorted aedeagophore seemed to be of limited use, but wrinkling of the basal piece ruled out some of the species that Schödl (1991) illustrated.

A key to Turkish *Berosus* (Incekara *et al.*, 2011) included a new species, *B. dentalis*, five specimens of which were found in Kayersi, Central Anatolia in 2009, Kayersi being about 1000 km SSW of Tbilisi, but, of course, in Asia Minor rather than in Europe. The description of *dentalis* is a reasonable fit to the Georgian specimen, being a little shorter (4.5 mm long), with the colouration similar, in particular mention of the darkening of the rear of the head and the pronotum. The photograph of the dorsal side of *dentalis* clearly shows the pigmented puncture pores as in the Georgian specimen. The mesosternum of *dentalis* is not illustrated but is described as "evenly ridged", a description that would fit the Georgian specimen's shallow but clearly defined keel. The name of the new species stems from the median lobe being "characteristically dentated near the apex in lateral view", reproduced here (Figure 3). If this is intended to refer to the shape immediately beneath the tip than the hooding of the tip in the Georgian specimen is a good fit (Figure 2), as is also the thickness of the parameres.



Figure 1
Fifth ventrite of the Tbilisi *Berosus*



Figure 2
Tips of the aedeagophore



◀ **Figure 3** Side view of aedeagophore of *B. dentalis*

Acknowledgement

Simon Brown is thanked for his efforts in searching for beetles.

References

İNCEKARA Ü, MART A, POLAT A, AYDOĞAN Z, TÜRKEN H, TAŞAR G E & BAYRAM S 2011. Studies on Turkish Hydrophilidae (Coleoptera) IV. Genus *Berosus* Leach, 1817 with description of a new species: *Berosus dentalis* sp.n. *Türkiye Entomoloji Dergisi* **35** (2) 231-244.

SCHÖDL, S., 1991. Revision der Gattung *Berosus* Leach 1. Teil: Die palaarktischen Arten der Untergattung *Enoplurus* (Coleoptera: Hydrophilidae). *Koleopterologische Rundschau* **61** 111-135.

HUNGARIAN STREAM FAUNA

The Eger-patak is the main stream of the Eger-Laskó-Csincse system in northern Hungary. Ninety-nine taxa were recorded in 2014 including *Haliphus fluviatilis* Aubé, *Peltodytes caesus* (Duftschmid), *Graptodytes granularis* (L.), *Platambus maculatus* (L.), *Helophorus redtenbacheri* Kuwert, *Laccobius minutus* (L.), *Hydraena gracilis* Germar, *Elmis maugetii* Latreille, *Limnius volckmari* (Panzer), *Macronychus quadrituberculatus* Müller, and *Pomatinus substriatus* (Müller).

CSERCSA A, BOZÓLI T, KRASZNAI E Á, FICSÓR M & VÁRBÍRÓ G 2016. Contribution to the aquatic macroinvertebrate fauna of the Eger-patak (Eger stream) in northern Hungary. *Folia historico-naturalia Musei Matraensis* (2015) **39** 5-16.

BULGARIAN COMMUNITY LIST

This paper is really disappointing in that it does not deliver what it claims. Seventeen taxa are listed as beetles including the bugs *Gerris* sp. and *Limnoporus rufoscutellatus* (Latreille). The only two taxa listed as species are *Platambus maculatus* (L.) and “*Dytiscus marginatus* [sic] Linnaeus”. Other groups fair no better. A rotten piece of editing.

VIDINOVA Y, TYUFEKCHIEVA V, VARADINOVA E, STOICHEV S, KENDEROV L, DEDOV I & UZONOV Y 2016. Taxonomic list of benthic macroinvertebrate communities of inland standing water bodies in Bulgaria. *Acta Zoologica Bulgarica* **68** 1-158.

RUGOSUS NOW AGLYMBUS SHARP

Rugosus emarginatus is a copelatine originally described from Venezuela by Mauricio García (2001. Nuevos Colymbetinae (Coleoptera; Dytiscidae) del sur de Venezuela. *Boletín del Centro de Investigaciones Biológicas* **35** (3)). An analysis based on a mitochondrial and a nuclear DNA marker showed that *Rugosus* is nested within *Aglymbus* Sharp, and is accordingly synonymised with it

TOUSSAINT E F A, BALKE M, GARCÍA M & SHORT A E Z 2016. Molecular systematics of the Neotropical diving beetle genus *Rugosus* García, 2001 (Coleoptera: Dytiscidae: Copelatinae). *The Coleopterists Bulletin* **70** 53-58.

DERONECTES DO THEIR STUFF

Five species of *Deronectes* were collected from various parts of Europe, acclimated and then exposed to five temperatures from 15 to 35° C, after which their bodies were analysed for ATP, L-lactate, succinate, protein, glucose, glycogen and lipids, the differences between the lowest and highest values being used to calculate “plasticity”. Immunological status was estimated by measuring external parasite burden, encapsulation capability, defensive capability against bacteria, and phenoloxidase activity (reckoned to be an indicator of immunocompetence in arthropods and associated with the production of the dark pigment melanin, well known to be higher in the north). These values were compared to the well-established ones for temperature acclimation in this genus, plus dispersal ability, body mass and phylogenetic links with the other species. Heavy science! Thus it is possible to begin to understand the trades-off between various functions. For example, the more southerly and range-restricted species have stronger antibacterial activity than their wider ranging relatives, i.e. an adaptation to increased bacterial attack in warmer climes. However, most analyses indicate the dominance of the relationship between thermal survival ability and geographical range.

CIOFFI R, MOODY A J, MILLÁN A, BILLINGTON R A & BILTON D T 2016. Physiological niche and geographical range in European diving beetles (Coleoptera: Dytiscidae). *Biology Letters* **12** 20160130 5 pages.

AUSTRALIAN SCIRTIDS

As usual, a fine production generating many new species and insights. These paper are always worth toothcombing for detail. For example, here is an as-yet-undescribed *Pachycyphon* Zwick was found to have minute wing remnants and yet it was caught in a Malaise trap. *P. televisionarius* Zwick does not resemble a telly but was found beneath a television tower. The severe modification of scirtid genitalia can render their position nebulous, for example *Leptocyphon abnormis* Zwick is known only from males at a light trap in a Northern Territory jungle: its name is based on the misfit of the thorax shape to the genus's diagnosis, and uncertainties about what is what in the genitalia – females are needed to fix where this species belongs. A new key is given to Australian Scirtinae.

ZWICK P 2016. Australian marsh beetles (Coleoptera: Scirtidae). 9. The relations of Australasian *Ypsilocyphon* species to their Asian congeners, additions, mainly to *Petrocyphon* and *Prionocyphon*, and a key to Australian genera of Scirtidae. *Zootaxa* **4085** 151-198.

ASIAN LACCOPHILUS

Guignot set up the *Laccophilus javanicus* species group on the basis of a single species, *L. flavopictus* Régimbart. He was apparently aware of Oriental species but did not list them. Additions since then have brought the group to ten species. The novelty of this paper is that the Afrotropical *flavopictus* is removed from the *javanicus* group, leaving this as purely Oriental. Eight new species are described from south-east Asia, the 18 species being keyed, mapped and fully illustrated. The group is particularly associated with running water, most often remnant pools in small forest streams and rivers.

HÁJEK J & BRANCUCCI M 2015. A taxonomic review of the Oriental *Laccophilus javanicus* species group (Coleoptera: Dytiscidae). *Raffles Bulletin of Zoology* **63** 309-326.

GRAPHODERUS CONUNDRUM AND KEY

or - Sharp is right again!

Within this review of the whole genus is the elucidation of a longstanding problem. *G. elatus* Sharp is recognised as a true species east of the Yenisei-Angara river in the Palaearctic with *G. zonatus* (Hoppe) to the west of that river, *G. perplexus* Sharp being the Nearctic representative of this complex. The knobby dimorphic female formerly thought to be a subspecies, *verrucifer* (Sahlberg), of *zonatus* turns out to be found in both *zonatus* and *elatus*. Thus twelve species are recognised, five in the Holarctic of which three are transcontinental, and the rest in the Palaearctic. The whole genus is keyed and the male genitalia are illustrated, demonstrating the usefulness of the lateral view. The author for correspondence is Johannes Bergsten.

HOLMGREN S, ANGUS R B, JIA F, CHEN Z-N & BERGSTEN J 2016. Resolving the taxonomic conundrum in *Graphoderus* of the east Palearctic with a key to all species (Coleoptera, Dytiscidae). *ZooKeys* **574** 113-142.

MINGULAY

Mingulay is a 640 ha island, one of the southernmost of the Outer Hebrides. This comprehensive set of invertebrates arose from trips in 2013. One must always approach Hebridean recording with caution if a Heslop-Harrison has been involved. The authors note that J.W. HH “was criticised for not retaining voucher specimens to validate many of his finds.” Unfortunately, that it not quite right as his expeditions often generated voucher material unlikely to have come from the Hebrides. What a shame that reports of any trip to these fascinating islands has to be prefaced by such concerns! The 2013 works produced *Hydroporus longulus* Mulsant & Rey new for the Hebrides, *H. pubescens* (Gyllenhal), *Helophorus flavipes* Fab., *Anacaena globulus* (Paykull), *Enochrus fuscipennis* (Thomson), *Chaetarthria simillima* Vorst & Cuppen, and *Coelostoma orbiculare* Fab.

ROBINSON J, HANCOCK E G, HEWITT S M & MANN D 2016. The terrestrial invertebrate fauna of Mingulay, including 19 new species records for the Outer Hebrides. *Glasgow Naturalist* **26** (2) 71-83.

FLYING ON WATER

The next time you see a beetle fluttering along the surface of the water check this paper out for the calculations alone. Some insects practise “interfacial flight”, i.e. flying along the water’s surface with the body weight supported by surface tension. Several insects skim the surface in this way, stoneflies, a few caddis and, to use the American name, “waterlily beetles”, for *Galerucella nymphaeae* L. Intensive analysis of high speed videos reveal the flight dynamics. The beetles use their tarsal claws to “attach” to the interface, and the resultant movement is costlier in terms of energy than normal flight. Its advantage is that the beetles remain in contact with the surface on which their host plant’s leaves float, presumably guaranteeing that the beetle will eventually intercept more food. The author for correspondence is Manu Prakash.

MUKUNDARAJAN H, BARDON T C, KIM D H & PRAKASH M 2016. Surface tension dominates insect flight on fluid interfaces. *Journal of Experimental Biology* **219** 752-766

THERMAL TOLERANCE IN A SALT STREAM-LIVING HYDROPHILID

Enochrus politus lives in saline stream in the south-east of Spain. Tolerance of heat extremes, as measured by supercooling temperature and heat coma was remarkably high, -10.4 to 57.4° C. The thermal range was lower when beetles were acclimated at temperatures below 20° C and at salinities less than 12 g/L. Higher salinities decreased heat tolerance and increased freezing tolerance.

BOTELLA-CRUZ M, CARBONELL J A, PALLARÉS S, MILLÁN A & VELASCO J 2016. Plasticity of thermal limits in the aquatic saline beetle *Enochrus politus* (Küster 1849) (Coleoptera: Hydrophilidae) under changing environmental conditions. *Limnetica* **35** 131-142.

NEW DRYOPS

The only *Dryops* known from Tajikistan until now was *D. rufipes* Krynicky. The new species was found in five places and is distinctive in that the parameres are differently sized, an asymmetry otherwise only seen in the genus in the Kashmiri *D. osellai* Olmi. The last sternite of the female is also distinctive.

GREŃ C, PRZEWOŹNY M, SZCZEPAŃSKI W T & KARPIŃSKI L 2016. *Dryops renateae* Greń & Przewoźny sp. n. from Tajikistan. *Zootaxa* **4103** (2) 177-179.

POTAMOPHILUS IN SERBIA

In surveys from 2011 to 2013 *P. acuminatus* was found at eight sampling points on six rivers. It was absent from reservoirs, lakes and artificial water bodies, and also from lowlands except for the Pannonian Plain. Although it might be classified as associated with β -mesosaprobic waters the authors found that it could also tolerate moderate organic pollution in α -mesosaprobic waters. Nice map.

NOVAKOVIĆ B B, MARKOVIĆ V M, ILIĆ M D, TUBIĆ B P, ĐUKNĆ J A & ŽIVIĆ I M 2016. Recent record and ecological notes on the riffle beetle *Potamophilus acuminatus* (Fabricius, 1792) (Coleoptera: Elmidae) in Serbia. *Acta Zoologica Bulgarica* **68** 207-214.

CATALOGUE DES COLÉOPTÈRES DE FRANCE

Franck Bameul and Pierre Queney have produced a set of amendments to the water beetles section of the Catalogue (see *Latissimus* **35** 8-9). These are expected to appear in the second supplement to the Catalogue in due course, but some may want a copy earlier than that.

POLISH SPRINGS

Forty-two water beetle taxa were identified in this study of the relationships between the faunas of springs and the surrounding area. The only species typical of springs was *Agabus biguttatus* (Olivier) and most springs were dominated by species that normally live in stagnant water. The scirtid fauna was unusual in that *Prionocyphon serricornis* (Müller), a species normally associated with treeholes, was detected regularly.

PAKULNICKA J, BUCZYŃSKI P, DĄBKOWSKI P, BUCZYŃSKA E, STĘPIEŃ E, STRYJECKI R, SZLAUER-ŁUKASZEWSKA A & ZAWAL A 2016. Aquatic beetles (Coleoptera) in springs of a small lowland river: habitat factors vs. landscape factors. *Knowledge & Management of Aquatic Ecosystems* **417** DOI: 10.1051/kmae/2016016

DERONECTES EVOLUTION

Thirty of the 60 or so *Deronectes* species were sequenced for one nuclear gene and four mitochondrial ones in order to reconstruct their history. The genus has two major lineages starting in the mid Miocene, one being mainly eastern and the other western and central, an ancient division caused by isolation of Europe west of the Alps from the Balkans and Anatolia. Range expansions at the end of the Miocene and beginning of the Pliocene resulted in several species-groups including a few of the species still around today. However, most of the current diversity and distributions came about more recently, particularly for the widespread species. Thus, for example, *D. latus* (Stephens) arose from the eastern lineage in the Pliocene/Pleistocene, and the same process produced *D. angusi* Fery & Brancucci in Iberia and *D. angelini* Fery and Brancucci in Italy, the latter not being possible until then as Italy was below the waves! The author for correspondence is Ignacio Ribera.

GARCÍA-VÁSQUEZ D, BILTON D T, ALONSO R, BENETTI C J, GARRIDO J, VALLADARES L F & RIBERA I 2016. Reconstructing ancient Mediterranean crossroads in *Deronectes* diving beetles. *Journal of Biogeography* doi: 10.1111/jbi.12740 13 pages + supporting information.

BELGIAN SURVEY

This paper reports some of the results of an extensive survey in North Hageland, the area of Belgium near Aarschot. Reported are two species of Gyrinidae, 11 of Haliplidae, *Hygrobia hermanni* (Fab.), two *Noterus*, 69 Dytiscidae, 6 Hydrochidae, 10 Helophoridae, 32 aquatic Hydrophilidae, 11 Hydraenidae, 3 *Dryops*, 10 Scirtidae – also *Cercyon castaneipennis* Vorst and *Megasternum concinnum* sensu lato. Illustrated are *Platambus maculatus* (L.), *Helophorus nanus* Sturm, *Hydrochus elongatus* (Schaller), *Cercyon ustulatus* (Preyssler), *Hydraena melas* Dalla Torre, and *Dryops auriculatus* (Fourcroy).

THYS N 2014. Waterkevers in Noord-Hageland en omgeving. *Brakona Jaarboek 2013-2014* 40-63

GYRINID CHROMOSOMES

The karyotypes of ten species of Gyrinidae all has 13 pairs of chromosomes plus XX for females and X0 for males. Small differences are detected between different species but not between Greenland and Swedish *G. opacus* Sahlberg and French *G. distinctus* Aubé and *G. distinctus* var. *fairmairei* Régimbart from Kuwait.

ANGUS R B & HOLLOWAY T C 2016. A chromosomal analysis of eleven species of Gyrinidae (Coleoptera). *Comparative Cytogenetics* **10** 189-202.

INDIAN PSEPHENID

Schinostethus (*Sundrodrupeus*) *sipekorum* is described from seepage in Meghalaya, India. It is strikingly patterned with “flabellate” antennae, the fourth to tenth segments of the male drawn out into long fingers. Other records of *Schinostethus* species are given.

HÁJEK J 2015. A new species of *Schinostethus* (Coleoptera: Psephenidae) from India, with new records of the genus from southeast Asia. *Acta entomologica Musei Nationalis Pragae* **55** 685-690.

GRAPHODERUS CINEREUS RE-FOUND AT MOCCAS PARK, ENGLAND**Will Watson**

Whilst in Poland I discussed with Robert Angus various water beetle highlights in Herefordshire and the conversation inevitable turned to Moccas Park Local Nature Reserve and the Lawn Pool, a glacial kettle hole site, where both Robert and Garth Foster had collected range of interesting material including *Graphoderus cinereus* (L.). However, the last record for *G. cinereus* in the recording scheme data-base was from 1st June 1973 by Garth. The site has been well searched since then and it was presumed lost to the site, an expected to be a casualty of hot summers in the 1990s when the site completely dried out and subsequent damage to the site by Canada Geese.



However, inspired by finding *Graphoderus* in Poland I thought I would have another look this June. This time focusing on the southern side of the pool and without a willing band of 'citizen scientists' who inevitably disrupts concentration. In the first five minutes I had netted *Graphoderus* around the base of *Carex* tussocks. It wasn't immediately visible in the net being buried amongst half a kilo of duckweed with the occasional fragment of bladderwort. When this was tipped out on a polythene sheet the beetles made an appearance.

They can be remarkably persistent and can withstand events such as drought (pers. comm. Garth Foster). *G. cinereus* has IUCN Vulnerable status in Great Britain and has previously been recorded there in England in only nine sites since 2000.



A *Graphoderus cinereus* from Moccas Park, complete with ciliates Photograph: Will Watson

Received July 2016

† NORMAN MOORE AND CHRIS NEWBOLD

Dr Norman Moore (24 February 1923-21 October 2015) would be known to many as a dragonfly expert, but he held many key offices in British government and in the conservation movement. Sadly, he can be linked to Dr Chris Newbold (18 February 1942 -17 May 2016), who was taken ill and died when in New Zealand, whose funeral was held at St Mary's Church, Bottesford, Leicestershire on 17 June 2016. Chris was a freshwater plant specialist and a member of the Nature Conservancy Council freshwater team along with Margaret Palmer, who passed on the news of his death. Though neither Norman nor Chris had much to do with water beetles, the link is based on a Balfour-Browne Club meeting in 1982 when we learnt that in the past some experimental pools had been dug at the far end of Woodwalton Fen in connection with Chris's PhD work. On 16 May that year a group of us (Ron Carr, Mike Davidson, Mick Eyre, Andy Foster, Magnus Sinclair and GNF) went off to investigate and were delighted to find that we could each have his own pond to investigate.... thoroughly. Sixty-one species were found on the Fen, mainly in these pools, which were isolated from the poor quality water on the ditches surrounding Woodwalton. We had noticed the cattle used to graze the fen when we arrived and we met up with what appeared to be a very tall cowherd on the way back. This turned out to be Norman on his way down the fen to carry out the annual survey of dragonflies. The true gentleman that he was, he was quite good about our having trashed his site.

<http://www.theguardian.com/environment/2015/oct/28/norman-moore>

ELMIDS IN AMBER

Only one elm mid specimen was previously known from Baltic amber, *Palaeoriorhynchus samlandica* Bollow. This has been re-examined and placed in the extant genus *Heterolimnius* Hinton. A second specimen has been found and is newly described as in the subtropical/warm temperate *Heterelmis* Sharp. The authors point out that elmids often fly soon after eclosion, hence becoming stuck in terrestrial amber deposits is not unlikely.

BUKEJS A, ALEKSEEV V I & JÄCH M A 2015. The riffle beetles (Coleoptera: Elmidae) of the Eocene Baltic amber: *Heterelmis groehni* sp. nov. and *Heterolimnius samlandicus* (Bollow, 1940) comb. nov. *Zootaxa* **3986** 452-460.

POLISH RECORDS

Hygrotus polonicus is newly recorded from the Podlasie region in three places, with, despite its name, very earlier records for Poland as a whole. *Macronychus quadrituberculatus* and *Potamophilus acuminatus* are recorded from the Wielkopolska-Kujawy region, and *Anacaena bipustulata* is new for the Podlasie Lowland and the fourth record for Poland as a whole.

The Dolina Ilanki is a wooded bog nature reserve in western Poland. A good list of beetles, none particularly special for the area, but *Rhantus bistratus* (Bergsträsser) leaps out as a rarity in other parts of western Europe, and dominance of a long list of stagnant water species by *Platambus maculatus* (L.) indicates a mix of habitats. Another list is given for an oxbow in Głogów in Lower Silesia.

BANASZAK K & PRZEWOŹNY M 2016. Chrząszcze wodne (Coleoptera aquatica) stwierdzone w rezerwacie "Dolina Ilanki". *Wiadomości Entomologiczne* . **35** 122-123.

FRANCZUK Z & PRZEWOŹNY M 2016. Materiały do poznania chrząszczy Dolnego Śląska - chrząszcze wodne (Coleoptera aquatica) starorzeczka w Głogowie. *Wiadomości Entomologiczne* **35** 123-124.

PRZEWOŹNY M, KOT H & KOT C 2016. Nowe stanowiska *Hygrotus* (*Coelambus*) *polonicus* (Aubé, 1842) (Coleoptera: Dytiscidae) na Podlasiu. *Acta entomologica silesiana* **24** (online 013) 1-2.

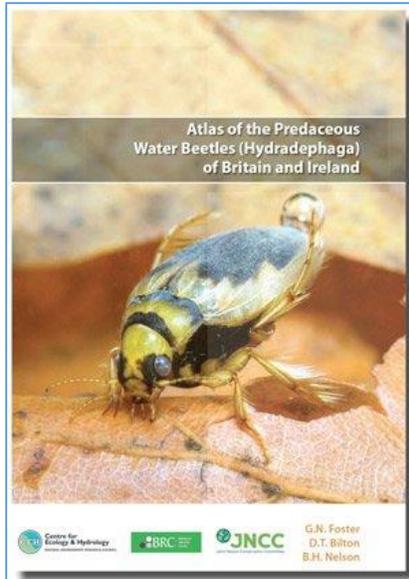
PRZEWOŹNY M & LUBECKI K 2016. Drugie stanowisko *Macronychus quadrituberculatus* P.W.J. Müller, 1806 (Coleoptera: Elmidae) na Nizinie Wielkopolsko-Kujawskiej. *Acta entomologica silesiana* **24** (online 014) 1-2.

KOT H & PRZEWOŹNY M 2016. Nowe stanowisko *Anacaena bipustulata* (Marsham, 1802) (Coleoptera: Hydrophilidae) na Podlasiu. *Acta entomologica silesiana* **24** (online 015) 1.

HYDROGLYPHUS GGO-MA-MUL-BANG-GAE-SOK

Water beetles in Korea all get Korean names. I wonder if they make fun of the process in rather the way that we some of us do? The well-known *Hydroglyphus geminus* (Fab.) is Keun-ggo-ma-mul-bang-gae and the newly described *H. coreanus* is U-ri-ggo-ma-mul-bang-gae. The four species known in Korea are keyed and depicted. The author for correspondence is Kee-Jeong Ahn.

LEE D-H & AHN K-J 2016. A taxonomic review of Korean *Hydroglyphus* Motschulsky (Coleoptera: Dytiscidae: Hydroporinae) with a description of new species. *Entomological Research*. DOI. 10.1111/1748-5967. 12174. 9 pages.



ATLAS OF BRITISH & IRISH HYDRADEPHAGA

📖 FOSTER G N, BILTON D T & NELSON B H 2016. *Atlas of the predaceous water beetles (Hydradephaga) of Britain and Ireland*. Wallingford: Biological Records Centre. The usual websites have this book at just over £20 inc. p & p.

The maps in this atlas are based on 276,000 records of 154 species predaceous water beetle in Britain, Ireland, the Isle of Man, and the Channel Islands. Rebecca Farley-Brown of the Field Studies Council, is to be congratulated for turning this material into what one hopes is a useful compendium running well beyond just maps. For example, karyotypes are listed where known and sources are given that may help in identifying some of the immature stages. Given the time from the inception of the recording scheme (1979) until now it is probably

unwise to promise volume 2 but a fair bit has already been prepared. Over 11,000 records have been received since volume 1 went to press and more can easily be accommodated into maps for volume 2 if received soon.

Omissions from Table 1. One thing that annoyingly went wrong, undetected in proof, was some gaps in the listing of species Nationally Scarce in Britain – *Gyrinus aeratus* Stephens, *G. distinctus* Aubé, *G. minutus* Fab., *G. opacus* Sahlberg, *G. paykulli* Ochs, *Haliplus apicalis* Thomson, *Haliplus mucronatus* Stephens, *Agabus melanarius* Aubé, *Dytiscus circumcinctus* Ahrens, *Hydaticus seminiger* (De Geer), *H. transversalis* (Pontoppidan), *Hydroporus ferrugineus* Stephens, *H. marginatus* (Duftschmid), *H. neglectus* Schaum, *H. obsoletus* Aubé, *Deronectes latus* (Stephens), *Graptodytes bilineatus* (Sturm), *Hydrovatus clypealis* Sharp, *H. cuspidatus* (Kunze), *Hygrotus decoratus* (Gyllenhal), and *H. nigrolineatus* (von Steven). You might well ask how the authors missed this! All I can say, as one of them, that it is probably my fault but it may have something to do with transcribing tables from *Word* to a PDF. Any other problems should be notified to GNF.

Postscript A non-waterbeetling friend, when shown the book, said “Why is there a blue tit on the front cover?”

PATRUS LIMBATUS

Patrus limbatus (Régimbart) was originally described as an *Orectochilus*, which it resembles overall but with a large part of the upper side note covered with hair. The subgenus *Patrus* was promoted by Miller and Bergsten (2012. Phylogeny and classification of whirligig beetles (Coleoptera: Gyrinidae): relaxed-clock model outperforms parsimony and time-free Bayesian analyses. *Systematic Entomology* **37** 706-746). See **Latissimus** 32 29.

HÁJEK J & SKALE A 2015. Where the Orient begins: first record of the genus *Patrus* Aubé, 1838 (Coleoptera: Gyrinidae) in Iran. *Klapalekiana* **51** 169-173.

HOAXES

At the risk of not letting sleeping dogs lie page 190 of a recent *New Naturalist* publication (STACE C A & CRAWLEY M J 2015. *Alien Plants*. London: HarperCollins Publishers) needs to be repeated: “The most celebrated of the botanical frauds involved Professor John Heslop Harrison, FRS (1881-1967) of Newcastle University, who ran an annual expedition to Rum in the Inner Hebrides. Indeed, there is a whole book written about it by Karl Sabbagh (1999), entitled *A Rum Affair: How Botany’s Piltdown Man was Unmasked*. Harrison is accused of fraudulently introducing the non-British *Carex bicolor*, *C. capitata*, *C. glacialis*, *Epilobium lactiflorum* and *Erigeron uniflorus* to the islands during the 1940s. They were accepted (with reservations) by many at the time and all except the *Epilobium* were included (with caveats) in Dandy’s *List of British Vascular Plants* (1958). They were all undoubtedly planted, but nevertheless they did exist for a while as aliens in our flora. Only *Carex bicolor* survived until 1950 (in fact, it lasted until 1961)....The incident was certainly much less scandalous than is suggested by Sabbagh, and there was no organised campaign to deceive as there had been with Piltdown Man. What remains as a mystery is why a scientist, so distinguished and academically accomplished as Harrison, should behave so foolishly.”

One would have to differ and point out that the HH hoaxes come a little nearer to Charles Dawson’s Piltdown Man than that. Miles Russell (2012. *The Piltdown Man Hoax. Case Closed*. Stroud: The History Press) showed that the Piltdown Man was only the culmination of a series of frauds perpetrated by Dawson. As water beetlers know, there was a series of fraudulent records generated by Heslop Harrison, perhaps in association with others. The Rum plants were not just an isolated foolishness. Certainly, Sabbagh’s treatment is scurrilous in parts but clearly widens the extent of the scandal beyond a few alien plants.

ENGLISH MIDLANDS POND DIVERSITY

Ninety-one lowland ponds in the English Midlands are divided into three land use types. Urban and floodplain ponds supported more species of macroinvertebrate than ponds in arable areas. Water beetles featured strongly amongst rare species, the only seven species named in floodplains, and four out of five in both arable and urban areas. Some of the species reported are surprising – *Gyrinus distinctus* Aubé, *Agabus conspersus* (Marsham), *A. uliginosus* (L.), *Rhantus frontalis* (Marsham), and *Paracymus scutellaris* (Rosenhauer), and not all of them still “enjoy”, if that’s the right word, any national rarity status. It is clear that floodplain ponds support the rarest species and urban ponds the fewest.

HILL M J, RYVES D B, WHITE J C & WOOD P J 2016. Macroinvertebrate diversity in urban and rural ponds: implications for freshwater biodiversity conservation. *Biological Conservation* **201** 50-59.

DYTISCUS CIRCUMFLEXUS IN NORTHERN ENGLAND

A female of this species was caught in a bottle trap in May 2015, the first having been caught by Steven Routledge (2012. *Latissimus* 32 28) nearby in 2011. The beetle is depicted in the centrefold page of that issue of *Lakeland Naturalist*.

COLGATE S & ROUTLEDGE S 2016. A second Cumbria record of the great diving beetle *Dytiscus circumflexus* Fabricius, 1801. *Lakeland Naturalist* **4** 9-10.

WHEN IS THE RIGHT TIME TO SURVEY A POND?

When you feel like it? When the money becomes available? When the zealot in charge has decreed that the coots are no longer breeding? Or is there a more scientific answer? Ninety-five Leicestershire ponds were surveyed in spring, summer and autumn for most macroinvertebrates, 228 taxa being identified. For the six main groups, the most species were found in the autumn, the exception being Trichoptera, most speciose in the spring. But not a single species of anything is mentioned, and the characteristics of the ponds, go unmentioned. So it is difficult to explain why the spring captures of water beetles are so low, probably lower than in summer, when most water beetlers will know that beetles typically do best in the spring and autumn. The mean numbers involved are so small, 5 species for water beetles, 4.5 for bugs, 3.5 for gastropods, 1.5 for Odonata, 3 for Diptera, and less than 1.5 for Trichoptera. Either these are useless ponds or the beetles have suffered because of a sampling approach intended to capture everything. Why would one bother with ponds yielding 2.2 +/- 0.3 S.E. beetles in the spring? The Club's little outing in the autumn of 1985 in the same area yielded 15 +/- 2.6 S.E. beetle species, despite the effects of late night drinking in a disco (see Foster, A., 1986. Square-bashing in Leicestershire. *The Balfour-Browne Club Newsletter* **36** 7-9). Which is the more reliable, or the more useful, or the more reproducible? A short burst of pond-netting is not enough to inform you about a site's beetle biodiversity.

HILL M J, SAYER C D & WOOD P J 2016. When is the best time to sample aquatic macroinvertebrates in ponds for biodiversity assessment? *Environmental Monitoring and Assessment* doi 10.1007/s10661-016-5178-6 188-194.

HYDROBIUS FUSCIPES SPLIT

Erlend Fossen's thesis was reviewed in *Latissimus* **36**, p. 18. This paper formalises the split by raising *Hydrobius subrotundus* Stephens and *H. rottenbergi* Gerhardt, *H. fuscipes* (L.) having to be more narrowly defined. *H. arcticus* Kuwert and *H. rottenbergi* are treated as a species-pair in contrast to *H. fuscipes* and *H. subrotundus*. The main differences, apart from DNA, remains the more robust parameres of the first two species, the blunter mesoventral process of *H. arcticus*, and the positioning of the elytral trichobothria, very close to the 3rd and 5th elytral striae in *H. rottenbergi*. *H. subrotundus* is more compact and shorter than *H. fuscipes* with darker legs.

FOSSEN E I, EKREM T, NILSSON A N & BERGSTEN J 2016. Species delimitation in northern European water scavenger beetles of the genus *Hydrobius* (Coleoptera, Hydrophilidae). *ZooKeys* **564** 71-120.

MORE APENNINE BEETLES

The Apennines of Piacenza have been surveyed. The list runs to 118 taxa with 46 recorded from the area for the first time, *Helophorus aequalis* Thomson and *H. liguricus* Angus being also new for Liguria. The list is dominated by Hydraenidae and Elmidae. A comparison is made with the faunas of three other Apennine provinces and with the regions of Umbria and Marche.

ROCCHI S & TERZANI F 2016. Contributo alla conoscenza della coleotterofauna acquatica dell'Appennino piacentino. *Quaderno di Studi e Notizie di Storia Naturale della Romagna* **43** 133-162.

ALFRED FURLONG 1792-1861

Furlong collected beetles all over Ireland and some of his specimens are in the National Museum of Ireland. He associated with A.H. Haliday, and this paper includes some of their correspondence. Early records are often problematical, as demonstrated by Myles Nolan struggling with the one about *Hygrobia hermanni* (Fab.), drawing on the 2013 paper by Jervis Good about the Tardy Collection in Trinity College Dublin (see **Latissimus 35** p 30)*Paelobius (Hygrobia) hermanni* (Fabricius) (Hygrobiiidae) is noted in the Haliday ms with the following “Old ponds now overgrown, Mr Furlong...road from Lara to Rathdrum.” Ta! Furlong has specimens (1849)”. It is possible to read this notice in a number of ways: does it mean that specimens were identified/collected from the “old ponds” by Tardy and then later from the “overgrown” ponds by Furlong?; it might imply that Tardy and Furlong collected the specimens together, Furlong retaining them? Furlong’s knowledge of the location and habitat and the way “Ta!” is bracketed by Furlong’s name suggests the information therein is Furlong’s which again suggested at least an acquaintance with Tardy’s collecting efforts. And it might be asked if the specimens in question are those originally collected by Tardy (and Furlong?), Haliday becoming aware Furlong had them only in 1849? Such are the uncertainties of this detective work.

NOLAN M 2015. Alfred Furlong: a Nineteenth Century Irish entomologist. *Bulletin of the Irish Biogeographical Society* **39** 252-274.

LATVIAN RECORDS

This paper has records of 212 species of beetle. Water beetles include *Dytiscus lapponicus* Gyllenhal, *Spercheus emarginatus* (Schaller), *Cryptopleurum subtile* Sharp, *Limnebius aluta* (Bedel), *Platypsyllus castoris* Ritsema, *Prionocyphon serricornis* (Müller), *Hydrothassa hannoveriana* (Fab.), and many wetland species.

TELNOV D, BUKEJS A, GAILIS J, KALNIŅŠ M, KIREJTSHUK A G, PITERÄN S & SAVICH F 2016. Contributions to the knowledge of Latvian Coleoptera. 10. *Latvijas Entomologs* **53** 89-121.

EFE GOES NHBS

Martyn Overton has announced that EFE will be taken over by NHBS, operating from 1-7 The Stables, Ford Road, Totnes, Devon, from 16 May 2016. Martyn will be available for technical issues for a year after that and Ruth, the all-important seamstress of all those net bags, will work for them initially. One rarely makes a fuss about the fortunes of a particular commercial company but EFE-GB have supported water beetling activities for many years since Gill Baldwin’s GB Nets, dating from 1992, was taken over by them.

NEW IRANIAN HYDROPORUS

The new species is unusual amongst the *Hydroporus longulus*-look-alikes in having brown elytra and an almost symmetrical aedeagus. It was found in an almost dried-up stream in broad-leaved forest in association with *Agabus bipustulatus* (L.), *A. glacialis* Hochhuth and *Hydroporus planus* (Fab.).

HÁJEK J 2015. *Hydroporus golestanensis*, a new species of the *H. longulus* group from northern Iran (Coleoptera: Dytiscidae: Hydroporinae). *Zootaxa* **4072** 496-500.

GABONESE ADDITIONS

This tenth paper contains descriptions of two new species of *Hydrovatus* and *Copelatus terzanii*. The male of *Yola marginata* Biström is described and some other changes are noted.

BILARDO A & ROCCHI S 2016. Dytiscidae (Coleoptera) du Gabon (10^{ème} partie): addenda et corrigenda. *Natural History Sciences. Atti della Società italiana di scienze naturali e del Museo civico di storia naturale di Milano* **3** 27-34.

TURKISH WEEVILS

These two frequently occurring European species are reported from Erzurum Province as new for Turkey.

GÜLTEKIN L 2013. Two erirhinid weevils, *Notaris scirpi* (F.) and *Tournotaris bimaculata* (F.) (Coleoptera: Curculionoidea: Erirhinidae) new from Turkey. *Journal of the Entomological Research Society* **15** 67-70.

NORFOLK RECORDS

Rhantus suturellus (Harris) is recorded from Dersingham Bog as the second record for West Norfolk. *Helophorus porculus* Bedel is also recorded from West Norfolk, one of the very few modern British records.

COLLIER M J & LANE S A 2016. Recent Norfolk beetle records, including nine additions to the county list. *The Coleopterist* **25** 17-20.

CROATIAN ELMIDS

Twenty-three species are known from Croatia in eight genera. Newly recorded are *Elmis rioloides* (Kuwert), *Esolus angustatus* (Müller), *E. pygmaeus* (Müller), *Oulimnius tuberculatus* (Müller), and *Stenelmis consobrina* Dufour.

STANKOVIĆ V M, JÄCH M A & KUČINIĆ M 2015. Annotated checklist of Croatian riffle beetles (Insecta: Coleoptera: Elmidae). *Natura Croatica* **24** 93-109.

CATALOGUES ON LINE

Jiri Hájek reports that the Palaearctic Catalogues can now be downloaded at www.waterbeetles.eu along with the world catalogue.

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