

Additional records of aquatic Coleoptera from Kuwait

(Coleoptera: Noteridae, Dytiscidae, Spercheidae, Hydrophilidae)

N.J. EDMONDS, G.N. FOSTER, P.I. DAVISON & A.S. AL-ZAIDAN

Abstract

Eleven taxa of aquatic Coleoptera (Noteridae, Dytiscidae, Spercheidae, Hydrophilidae) are recorded from Kuwait, based mainly upon material caught at light during 2017, with eight species determined with confidence. Six species are new for Kuwait including the first representatives of the families Noteridae and Spercheidae.

Key words: Coleoptera, Noteridae, Dytiscidae, Spercheidae, Hydrophilidae, Kuwait, Arabian Peninsula, faunistics.

Introduction

Our knowledge of the aquatic beetles of Kuwait is based largely on the work of AL-HOUTY (1997) and a visit by Robert Angus in May 1996 (AL-HOUTY & ANGUS 1999).

The brief visit by N.J. Edmonds and P.I. Davison (6th–11th October 2017) forms the basis of this note, which adds several species to the Kuwait list and at least three to the list for the Arabian Peninsula as a whole.

Habitats

The beetles were found mainly at light within Al Jahra Pools Nature Reserve (Figs. 1–3) as previously described by AL-HOUTY & ANGUS (1999). Sweep netting and bottle trapping were also conducted.

The Al Jahra Pools are the only significant area of non-marine wetland within Kuwait. The site is fed from treated sewage effluent from Al Jahra town. This flows across sandy salt-flats to the sea where it forms stagnant open shallow pools and extensive reed beds of *Arundo donax*. Waters are weakly brackish, rich in nitrogen and subject to wide variation in temperature, oxygen levels and pH across the site (EDMONDS & DAVISON 2017).

Material

Specimens were collected by N.J. Edmonds and P.I. Davison at Al Jahra Pools Nature Reserve (Kuwait) within one kilometre of 29.360282°N 47.692757°E. Voucher specimens have been deposited in G.N. Foster's collection, currently assigned to the Hunterian Museum in the University of Glasgow.

List of species

Noteridae

***Canthydrus diophthalmus* (REICHE & SAULCY, 1855):** The most numerous water beetle species at Al Jahra, caught by sweeping and in bottle traps. A widespread species in the Afrotropical and the south-western Palearctic regions, but not previously reported from Kuwait.

***Noterus ponticus* (SHARP, 1882):** A single male swept at Al Jahra. Easily recognised using the key provided by TOLEDO (2004). This species was originally described from Mesopotamia, and the type was designated from David Sharp's collection by TOLEDO (2004). Previous records were only from Iraq and Iran (NILSSON 2011), so this specimen represents an extension of range into the Arabian Peninsula. The species is newly discovered in Kuwait.

Dytiscidae

***Hydroglyphus signatellus* (KLUG, 1834):** Common in a light trap. A common species in the Arabian Peninsula, and previously recorded from Kuwait by AL-HOUTY & ANGUS (1999).

***Rhantus suturalis* (MACLEAY, 1825):** One female in a light trap. This species was recorded as common in Kuwait by AL-HOUTY & ANGUS (1999).

***Hydrovatus* sp.:** Two females swept. BRANCUCCI (1984) listed two species of *Hydrovatus* as occurring in the Arabian Peninsula, *H. aristidis* LEPRIEUR, 1879 and *H. sordidus* SHARP, 1882 (now a synonym of *H. acuminatus* MOTSCHULSKY, 1860). There are no records of *Hydrovatus* from Kuwait (NILSSON & HÁJEK 2019), but it is safer to wait for male specimens to be found before claiming a record.

Spercheidae

***Spercheus belli* ssp. *babylonicus* (HEBAUER, 1990):** A single male. This subspecies was originally described from Iraq, *S. belli* CHAMPION, 1919 having been described from Pakistan. The first documented occurrence of the species in Kuwait and the Arabian Peninsula is recorded here.

Hydrophilidae

***Enochrus (Lumetus) politus* (KÜSTER, 1849):** Five specimens were found, mainly caught at light. This species is often confused with *E. ater* KUWERT, 1888, which, despite its name, is brown, whereas *E. politus* is usually black. HEBAUER (1997) noted that this species was “frequently misinterpreted”. HEBAUER (2004) stated: “durch die tiefschwarze Färbung der Oberseite ist die Art unterscheidbar”, describing *E. ater* as being intermediate between *E. politus* and *E. bicolor* FABRICIUS, 1792. Schödl identified *E. ater* from Kuwait (AL-HOUTY & ANGUS 1999). Unfortunately, SCHÖDL (1998) narrowed his definition of the *bicolor* complex to exclude *E. ater* and *E. politus*, and sadly was unable to complete his coverage of *Lumetus* ZAITZEV, 1908. FIKÁČEK et al. (2010) noted that “Among Arabian members of *Enochrus* [THOMSON, 1859] this species can be easily distinguished by its comparatively large size, dark brown colouration, and lack of an emargination of the fifth ventrite”. It has not previously been recorded from Kuwait.

***Enochrus (Lumetus)* cf. *segmentinotatus* (KUWERT, 1888):** Three females caught in a light trap. SCHÖDL (1998) noted the difficulties of identifying isolated female specimens of the *bicolor* complex. He had identified the material of AL-HOUTY & ANGUS (1999) from Kuwait as *E. segmentinotatus*, and it is reasonable to assume that the more recent material is more likely to belong to that species than to *E. bicolor* (F., 1792). HEBAUER (1997) had previously noted that revision of the *bicolor* complex might result in recognition of eastern records being dominated by *E. segmentinotatus*.



Figs. 1–3: Al Jahra Pools Nature Reserve, various *Arundo*-fringed pools; Fig. 1 shows the senior author sweep netting (photographs P.I. Davison).

***Enochrus (Methydrus) sp.*:** A single female specimen, 3.5×1.9 mm. This specimen has a black head, large yellow preocular marks and maxillary palps almost entirely yellow apart from some darkening of the second segment. The pronotum is yellow apart from four strongly marked dots, the elytra are also yellow, and the ventral side black. PRZEWOŹNY (2019) lists five species of the subgenus *Methydrus* REY, 1885 from the Arabian Peninsula. Lone females can be difficult to identify. The most likely species is *E. tetraspilus* (RÉGIMBART, 1903), which would be new for Kuwait.

***Paracymus aeneus* (GERMAR, 1824):** Several caught in a light trap. *Paracymus relaxus* REY, 1884 was found in Kuwait by AL-HOUTY in 1998 (AL-HOUTY & ANGUS 1999). WOOLDRIDGE (1978) reviewed the Palearctic species. His illustrations of aedeagi were used to confirm the identification alongside Mediterranean examples of *P. aeneus*. The species is new to Kuwait and the Arabian Peninsula.

***Sternolophus solieri* (CASTELNAU, 1840):** A single female in a light trap. HEBAUER (1997) noted difficulties in distinguishing the two species likely here, *S. decens* ZAITZEV, 1909 and *S. solieri*, but the very long sternal spine of *S. solieri* is indicative, as illustrated by NASSERZADEH & KOMAREK (2017). *Sternolophus solieri* is the more widespread species but recorded here for the first time from Kuwait.

Discussion

These results add at least six species to the fauna of Kuwait, expanding the previously documented aquatic Coleopteran diversity (see AL-HOUTY 1997, AL-HOUTY & ANGUS 1999). The discovery of *Canthydrus diophthalmus*, *Noterus ponticus* and *Spercheus belli* ssp. *babylonicus* represents the first confirmed members of the Noteridae and Spercheidae to be found in Kuwait.

Lone female water beetles sometimes pose identification problems, especially if teneral as is so often the case when caught at light. There is a reasoned temptation to assume that they belong to species already recorded from the same site, and that at least prevents a false record of an additional species. This small sample indicates the risks of making any assumptions, with the *Paracymus* THOMSON, 1867 and *Enochrus* found at Al Jahra differing from those reported earlier. This may well be because specimens caught at light are from a spectrum of the fauna different from that which can be netted.

The aquatic Coleopteran diversity of Kuwait has received limited attention to date, and the discovery of so many species new to the country on a single sampling trip suggests more may yet be found. Findings presented here provide a further reference against which to compare future status assessments of Kuwait's biodiversity.

Acknowledgements

This work was funded by the Kuwait Environment Public Authority under the eMISKMarine Project. We are grateful to Robert B. Angus for advice on a number of issues and Val McAtear, Librarian for the Royal Entomological Society, for arranging a literature loan. Thanks are also extended to Brett Lyons (Centre for Environment, Fisheries and Aquaculture Science, UK) for facilitating the sampling expedition.

References

- AL-HOUTY, W. 1997: Checklist of the insect fauna of Kuwait. – Kuwait Journal of Science and Engineering 24: 145–162.
- AL-HOUTY, W. & ANGUS, R.B. 1999: A preliminary account of some families of aquatic Coleoptera of Kuwait (Coleoptera: Dytiscidae, Gyrinidae, Hydraenidae, Helophoridae, Hydrophilidae). – Koleopterologische Rundschau 69: 183–186.
- BRANCUCCI, M. 1984: Insects of Saudi Arabia. Coleoptera: Fam. Haliplidae, Noteridae, Dytiscidae, Gyrinidae (Part 4). – Fauna of Saudi Arabia 6: 229–242.
- EDMONDS, N.J & DAVISON, P.I. 2017: Rapid Biodiversity Assessment of Jahra Pools, Kuwait. – Cefas Commercial Report to Kuwait Environment Protection Authority, pp. 31–34.

- FIKÁČEK, M., GENTILI, E. & SHORT, A.E.Z. 2010: Order Coleoptera, family Hydrophilidae, pp. 135–165. – Arthropod fauna of the UAE, Vol. 3. – Abu Dhabi: Multiply Marketing Consultancy Services, 700 pp.
- HEBAUER, F. 1997: Annotated checklist of the Hydrophilidae and Helophoridae (Insecta: Coleoptera) of the Arabian Peninsula with a description of a new genus and species. – Fauna of Saudi Arabia 16: 255–276.
- HEBAUER, F. 2004: Taxonomische Studien zur Hydrophiliden-Gattung *Enochrus* Thomson, 1859. – 6. Teil: Die afrikanischen Arten der Untergattungen *Lumetus* Zaitzev, 1908 und *Enochrus* s. str. – Beiträge zur Entomologie 54: 75–88.
- NASSERZADEH, H. & KOMAREK, A. 2017: Taxonomic revision of the water scavenger beetle genus *Sternolophus* Solier, 1834 (Coleoptera: Hydrophilidae). – Zootaxa 4282: 201–254.
- NILSSON, A.N. 2011: A world catalogue of the family Noteridae, or the burrowing water beetles (Coleoptera, Adephaga). – Version 16.VIII.2011. http://www.waterbeetles.eu/documents/W_CAT_Noteridae.pdf, accessed 6 February 2018.
- NILSSON, A.N. & HÁJEK, J. 2019: Catalogue of Palearctic Dytiscidae (Coleoptera). – Internet version 2019-01-01. http://www.waterbeetles.eu/documents/PAL_CAT_Dytiscidae_2019.pdf, accessed 15 June 2019.
- PRZEWOŹNY, M. 2019: Catalogue of Palearctic Hydrophiloidea (Coleoptera). – Internet version 2019-01-01. http://www.waterbeetles.eu/documents/PAL_CAT_Hydrophiloidea_2019.pdf, accessed 15 June 2019.
- SCHÖDL, S. 1998: Taxonomic revision of *Enochrus* (Coleoptera: Hydrophilidae). I. The *E. bicolor* species complex. – Entomological Problems 29 (2): 111–127.
- TOLEDO, M. 2004: Diagnosis of *Noterus ponticus* Sharp, 1882 (Coleoptera: Noteridae). – Koleopterologische Rundschau 74: 33–43.
- WOOLDRIDGE, D.P. 1978: *Paracymus* of the Palearctic faunal region (Coleoptera: Hydrophilidae). – Journal of the Kansas Entomological Society 51 (1): 123–130.

Nathan J. EDMONDS

Centre for Environment, Fisheries and Aquaculture Science, Pakefield Road, Pakefield, Lowestoft, Suffolk NR33 OHT, England, UK (nathan.edmonds@cefas.co.uk)

Garth N. FOSTER

Aquatic Coleoptera Conservation Trust, 3 Eglinton Terrace, Ayr KA7 1JJ, Scotland, UK (latissimus@btinternet.com)

Phil I. DAVISON

Centre for Environment Fisheries and Aquaculture Science, Pakefield Road, Pakefield, Lowestoft, Suffolk NR33 OHT, England, UK (phil.davison@cefas.co.uk)

Abdullah S. AL-ZAIDAN

Kuwait Environment Public Authority, P.O. Box 24395, Safat-13104, Kuwait (alzaidan.abdullah@gmail.com)

ZOBODAT - www.zobodat.at

Zoologisch-Botanische Datenbank/Zoological-Botanical Database

Digitale Literatur/Digital Literature

Zeitschrift/Journal: [Koleopterologische Rundschau](#)

Jahr/Year: 2019

Band/Volume: [89_2019](#)

Autor(en)/Author(s): Edmonds Nathan J., Foster G.N., Davison Phil I., Al-Zaidan Abdullah S.

Artikel/Article: [Additional records of aquatic Coleoptera from Kuwait \(Coleoptera: Noteridae, Dytiscidae, Spercheidae, Hydrophilidae\) 11-15](#)