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Distributional Notes on Northeastern Algerian Hydrophilidae (Coleoptera), with Three New Records

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Abstract: Distributional notes on some Northeastern Algerian Hydrophilidae species are given. Three newly recorded species (*Anacaena limbata* (Fabricius, 1792), *Hydrobius fuscipes* (Linnaeus, 1758), and *Hydrophilus piceus* (Linnaeus, 1758)) are described, and their distributions in Algeria and worldwide are presented.

Key Words: Coleoptera, Hydrophilidae, new records, Algeria

Hydrophilidae Familyasına Ait Bazı Türlerin (Coleoptera) Cezayir'deki Yayılışı Üzerine Notlar ve Üç Yeni Kayıt

Özet: Kuzeydoğu Cezayir'den toplanan bazı Hydrophilidae türlerinin dağılımları üzerine notlar sunulmuştur. Cezayir faunası için yeni kayıt olan, *Anacaena limbata* (Fabricius, 1792), *Hydrobius fuscipes* (Linnaeus, 1758) and *Hydrophilus piceus* (Linnaeus, 1758)'un tanımları Cezayirden toplanan örnekler üzerinden gözden geçirilmiş, Cezayir ve dünyadaki dağılımları verilmiştir.

Anahtar Sözcükler: Coleoptera, Hydrophilidae, Yeni Kayıtlar, Cezayir

Introduction

Studies on Algerian aquatic Coleoptera fauna are very limited. This study can be seen as a beginning of the exploration of the actual fauna. All samples were collected from lowland and moderately highland habitats of northeastern Algeria (maximum 800 m a.s.l.).

Materials and Methods

Specimens of aquatic Coleoptera were collected in various parts of northeastern Algeria in different surveys in 2005. The beetles were killed with ethyl acetate or in 70% alcohol solution. Aedeagophores of the beetles, cleaned with brushes, were dissected under a stereo microscope and left in 10% KOH solution for 1-2 h. Photographs were taken using a SMZ-1500 Nikon type 104 microscope.

Results and Discussion

Genus: *Anacaena* (Thomson, 1859)

Anacaena limbata (Fabricius, 1792)

Distribution: Palaearctic: Austria, Belgium, Britain, Czechoslovakia, Denmark, Finland, France, Germany, Greece, Hungary, Ireland, Israel, Italy, Netherlands, Poland, Spain, Sweden, Switzerland, Turkey, and Yugoslavia (Hansen, 1999; Henegouwen, 1986c; Incekara et al., 2003). Nearctic: according to Hansen (1999), the species has been recorded from many localities in Canada and U.S.A., but many records undoubtedly concern *lutescens* and need confirmation.

Body length 2.6-3.1 mm. Body form broadly oval to convex. Head and labrum entirely black. Pronotum and scutellum black. Pronotum with yellowish band at the all sides (laterally larger in all specimens). Elytra brown and

strongly punctured. Ventral side brown to dark brown. Mesosternum with distinct, acutely pointed, transverse carina (Figure 1A). Hairline on underside of hind femur rounded distally, non pubescent portion confined to apical fifth (Figure 1B). Antenna brown, club darker. Maxillary palpi brown, last segments blackish. Aedeagophore 0.5 mm in length (Figure 1C).

A. limbata was most abundant in the research area. *A. limbata* and *A. globulus* were sometimes found together, but were easily distinguishable by their general appearance (*A. globulus* darker) and the hair-line shape of hind femur (Figure 1A, D).

Material examined: Chaabat Feid El-Bagrat, 31.V.2005, 2 ♂♂, 2 ♀♀; Bir Slaymates, 19.V.2005, 5 ♂♂, 2 ♀♀; Bir Bentaryaga, 19.V.2005, 12 ♂♂, 13 ♀♀; Mare Gauthier I, 26.V.2005, 14 ♂♂, 16 ♀♀; Mare Gauthier II, 26.V.2005, 14 ♂♂, 7 ♀♀; El-Medjen, 18.V.2005, 1 ♂♂, 12 ♀♀; Feid I, 31.V.2005, 11 ♂♂, 3 ♀♀; El-Ghobn, 19.V.2005, 12 ♂♂, 7 ♀♀; Feid II, 20.II.2005, 4 ♂♂, 1 ♀; Mare Messida, 26.V.2005, 9 ♂♂, 3 ♀♀; Feid IV, 20.II.2005, 2 ♂♂, 8 ♀♀; Ain Damous, 19.V.2005, 7 ♂♂, 3 ♀♀; Oued El-Hout, 26.V.2005, 21 ♂♂, 7 ♀♀; El-Medjen, 18.V.2005, 24 ♂♂, 27 ♀♀; Medjen Djeneb H'mouda, 19.V.2005, 8 ♂♂, 7 ♀♀; Mouilha Ben Haouech, 19.V.2005, 4 ♂♂, 1 ♀; Bir Lalalcha, 18.V.2005, 2 ♂♂, 2 ♀♀; Ain Guesba, 14.VII.2005, 2 ♂♂; Chaabat Djebenet Ghorba, 20.V.2005, 4 ♂♂, 3 ♀♀; Feid III, 20.II.2005, 1 ♂.

***A. globulus* (Paykul, 1798)**

Distribution: Algeria, Austria, Belgium, Czechoslovakia, Denmark, Estonia, Finland, France, Germany, Ireland, Italy, Luxembourg, Morocco, Netherlands, Norway, Poland, Portugal, Spain, Sweden, and Switzerland (Hansen, 1999; Henegouwen, 1986c).

Material examined: El-Medjen, 18.V.2005, 2 ♂♂, 6 ♀♀; Bir Bentaryaga, 19.V.2005, 11 ♂♂, 4 ♀♀; Feid II, 20.II.2005, 1 ♂, 1 ♀; Ain Guesba, 14.VII.2005, 1 ♂.

Genus: *Berosus* Leach, 1817

***Berosus* (*s. str.*) *affinis* Brulle, 1835**

Distribution: Albania, Algeria, Bosnia-Herzegovina, Britain, Bulgaria, Croatia, Cyprus, Egypt, France, Greece, Iran, Israel, Italy, Macedonia, Morocco, Netherlands, Poland, Portugal, Spain, Syria, Tunisia, Turkey, and Yugoslavia (Hansen, 1999; Incekara et al., 2003; Schödl, 1993).

Material examined: Ain Chef, 18.V.2005, 4 ♂♂, 2 ♀♀; Chaabat Feid El-Bagrat, 18.V.2005, 1 ♂; Feid I, 31.V.2005, 1 ♂; Bir Lalalcha, 18.V.2005, 3 ♂♂, 3 ♀♀; El-Ghobn, 19.V.2005, 14 ♂♂, 16 ♀♀; Mare Gauthier I, 26.V.2005, 6 ♂♂, 4 ♀♀; Feid II, 20.II.2005, 4 ♂♂, 4 ♀♀; Ain Allaiga, 08.VII.2005, 18 ♂♂, 13 ♀♀; Chaabat Feid El-Bagrat, 23.VII.2005, 1 ♂, 1 ♀; Oued Bouaroug, 26.V.2005, 1 ♀; Feid III, 20.II.2005, 1 ♂.

***B. (s. str.) signaticollis* (Charpentier, 1825)**

Distribution: Afghanistan, Albania, Algeria, Austria, Bosnia-Herzegovina, Britain, Bulgaria, Croatia, Czech Republic, Denmark, Estonia, Egypt, France, Georgia, Germany, Greece, Hungary, Iran, Ireland, Italy, Kazakhstan, Lithuania, Macedonia, Morocco, Netherlands, Norway, Poland, Romania, Russian Fed., Slovakia, Slovenia, Spain, Sweden, Switzerland, Tajikistan, Turkey, Turkmenistan, Ukraine, Uzbekistan, and Yugoslavia (Hansen, 1999; Incekara et al., 2003; Schödl, 1993).

Material examined: Feid I, 20.II.2005, 1 ♂, 1 ♀; Feid III, 20.II.2005, 1 ♂.

Genus: *Helochares* Mulsant, 1844

***Helochares* (*s. str.*) *lividus* (Forster, 1771)**

Distribution: Algeria, Austria, Bosnia-Herzegovina, Britain, Bulgaria, Czechoslovakia, France, Germany, Greece, Hungary, Italy, Morocco, Netherlands, Poland, Portugal, Spain, Switzerland, Tunisia, and Turkey (Hansen, 1999; Mart, 2005).

Material examined: Ain Chef, 18.V.2005, 1 ♂, 1 ♀; Mare Gauthier III, 26.V.2005, 4 ♂♂, 3 ♀♀; Medjen Djeneb H'mouda, 19.V.2005, 9 ♂♂, 7 ♀♀; Ain Allaiga, 08.VII.2005, 4 ♂♂, 3 ♀♀; Ain Guesba, 14.VII.2005, 6 ♂♂, 3 ♀♀; Ain El-Aoudiyete, 09.VII.2005, 4 ♂♂, 3 ♀♀; Ain Chef, 23.VII.2005, 17 ♂♂, 18 ♀♀; Exutoire Salines, 31.V.2005, 3 ♂♂, 4 ♀♀; Bir Slaymates, 19.V.2005, 1 ♂; Oued Bouaroug, 26.V.2005, 3 ♂♂.

Genus: *Hydrobius* Leach, 1815

***Hydrobius fuscipes* (Linnaeus, 1758)**

Body 7.0 mm in length. Dorsal surface black. Head and pronotum densely punctured. Antennae 9-segmented, club darker. Maxillary palpi brown, its terminal segments longer than penultimate. Elytral striae rather sharply impressed, but anteriorly feeble. Mesosternum with a strong acute dentiform process posteromedially. Legs reddish, tarsi 5-segmented. Aedeagophore 1.1 mm (Figure 1E).

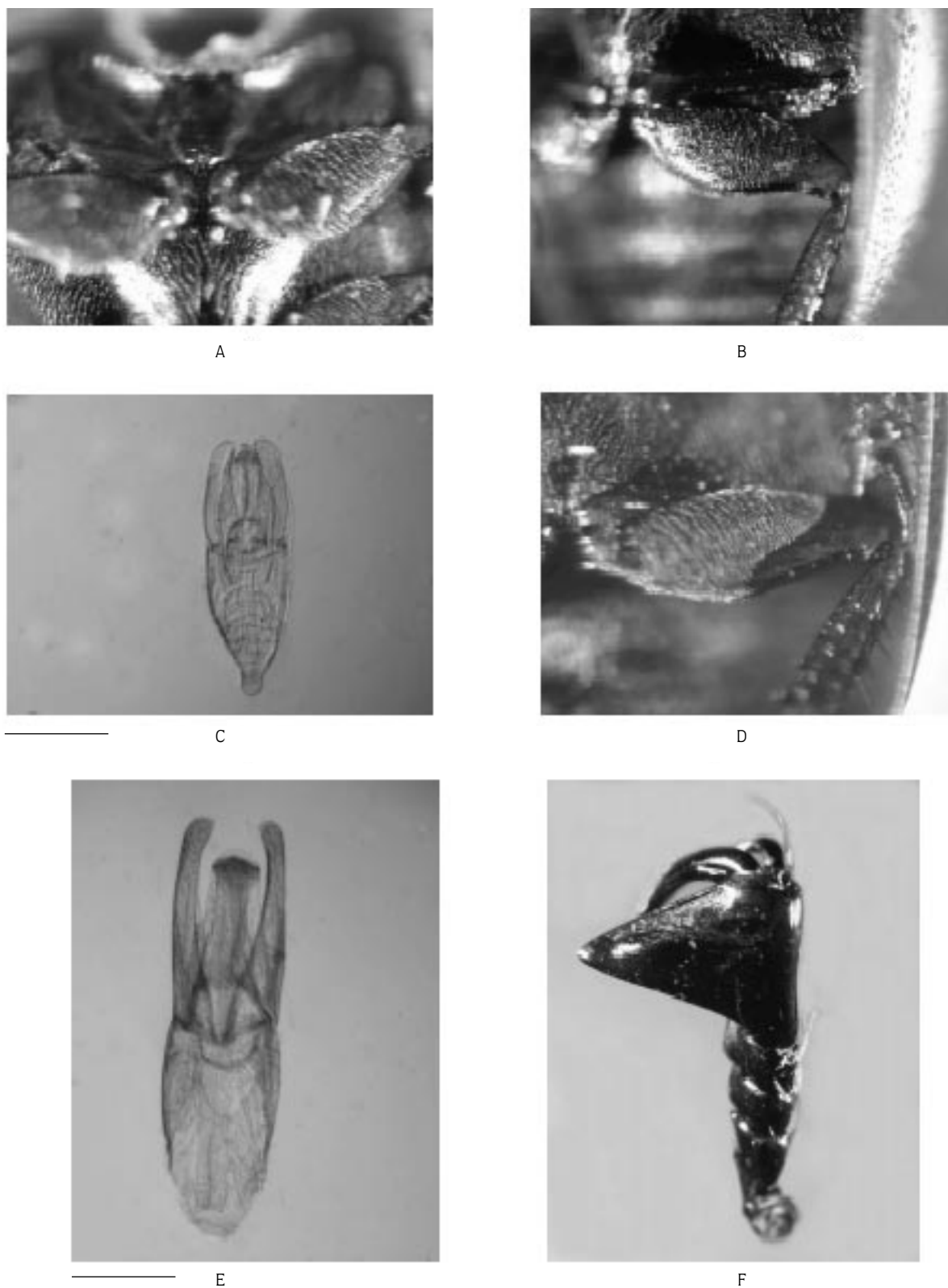


Figure 1. *Anacaena limbata*: A) mesotarsus; B) hind femur. C) *Anacaena limbata*, aedeagophore. D) *Anacaena globulus*, hind femur. E) *Hydrobius fuscipes*, aedeagophore. F) *Hydrophilus piceus*, pretarsus. Scale bars represent 0.2 mm, Figure 1C; 0.3 mm, Figure 1E.

Distribution: Palaearctic: Austria, Belgium, Bosnia-Herzegovina, Britain, Bulgaria, "Caucasus", China, Croatia, Cyprus, Czechoslovakia, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Israel, Italy, Japan, Kazakhstan, Latvia, Lithuania, Mongolia, Netherlands, Norway, Poland, Portugal, Romania, Russian Fed., Slovenia, Spain, Sweden, Switzerland, Syria, Turkey, and Yugoslavia (Hansen, 1999; Hebauer, 1994; Incekara et al., 2003). Nearctic: Canada, U.S.A (Hansen, 1999).

Material examined: Ain Chef, 18.V.2005, 1♀; Bir Slaymates, 19.V.2005, 1♂.

Although *Hydrobius fuscipes* (Linnaeus, 1758) species are frequently collected and presented in larger beetle collections, to date there are no *H. fuscipes* and other *Hydrobius* species recorded from Algeria. Therefore, the genus *Hydrobius* is a new record for the Algerian fauna.

Genus: *Hydrophilus* Geoffroy, 1762

***Hydrophilus piceus* (Linnaeus, 1758)**

Body oval and 52 mm in length. General appearance black. Clypeus with well-developed systematic punctures. Eyes yellowish, hardly protruding. Antennae 9-segmented, reddish brown. Maxillary palpi brown, with asymmetrical apical segments. Pronotum widest at base, distinctly narrowed anteriorly, sinuate at anterior and posterior margins, systematic punctures well-developed. Ventral surface black, mesosternum narrowed anteriorly. Legs black, tibia without swimming-hairs. Claw segment distinctly enlarged and triangular (Figure 1f).

Distribution: Palearctic: Austria, Belgium, Bosnia-Herzegovina, Britain, Bulgaria, "Caucasus", China, Croatia, Czechoslovakia, Denmark, Egypt, Finland, France, Germany, Greece, Hungary, India, Israel, Italy, Lebanon, Lithuania, Macedonia, Netherlands, Norway,

Poland, Romania, Russian Fed., Slovenia, Spain, Sweden, Switzerland, Syria, Turkey, Ukraine, and Yugoslavia (Hansen, 1999; Hebauer, 1994; Incekara et al., 2003).

Material examined: Feid I, 31.V.2005, 1♂, 1♀.

Only one species (*H. piceus* Castelnau, 1840) of *Hydrophilus* genus has been previously recorded (Hansen, 1999) from Algeria and the number is increased to 2 with this new record. *H. piceus* (Linnaeus, 1758) is a very rare species. Only one male and one female could be collected from the study area. We have compared the samples with the Turkish ones and found no morphological difference.

Genus: *Laccobius* Erichson, 1837

***Laccobius (Dimorpholaccobius) atrocephalus* Reitter, 1872**

Distribution: Palearctic: Algeria, Egypt, Israel, Italy, Libya, Morocco, Spain, Syria, and Tunisia. Afrotropical: Sudan (Gentili & Chiesa, 1976; Hansen, 1999).

Material examined: Chaabat Feid El-Bagrat, 18.V.2005, 1♀; Ain Chef, 23.VII.2005, 17♂♂, 15♀♀; Medjen Djeneb H'mouda, 19.V.2005, 5♂♂, 8♀♀; Chaabat Djebenet Ghorba, 20.V.2005, 32♂♂, 20♀♀; Mouilha Ben Haouech, 19.V.2005, 2♂♂, 6♀♀; Ain Guesba, 14.VII.2005, 5♂♂, 1♀.

Genus: *Paracymus* Thomson, 1867

***Paracymus scutellaris* (Rosenhauer, 1856)**

Distribution: Albania, Algeria, Belgium, Britain, Croatia, Cyprus, France, Germany, Greece, Ireland, Italy, Morocco, Netherlands, Portugal, Slovenia, Spain, and Turkey (Hansen, 1999; Mart, 2005).

Material examined: Ain El-Aoudiyete, 09.VII.2005, 2♂♂, 1♀♀; Mare Messida, 26.V.2005, 3♂♂; Bir Slaymates, 19.V.2005, 1♀.

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