

**Revision of *Melanophthalma taurica* (MANNERHEIM, 1844) species-group
and description of three new species.
(Coleoptera: Latridiidae)**

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Abstract

Restudies of type and other specimens (COLIN JOHNSON) of *Melanophthalma algerina* MOTSCHULSKY, 1866, *Melanophthalma angulata* (WOLLASTON, 1864), *Melanophthalma extensa* REY, 1889, *Melanophthalma parvicollis* (MANNERHEIM, 1844) and *Melanophthalma taurica* (MANNERHEIM, 1844) confirmed all taxa as valid species, especially with the help of a large number of further specimens of the *Melanophthalma taurica* species-group. Three new species are described: *Melanophthalma andrewi* sp. nov., *Melanophthalma rispini* sp. nov. and *Melanophthalma rhenana* sp. nov.. Detailed descriptions and figures of the male genitalia are provided.

Zusammenfassung

Neue Studien des Typenmaterials (COLIN JOHNSON) von *Melanophthalma algerina* MOTSCHULSKY, 1866, *Melanophthalma angulata* (WOLLASTON, 1864), *Melanophthalma extensa* REY, 1889, *Melanophthalma parvicollis* (MANNERHEIM, 1844) und *Melanophthalma taurica* (MANNERHEIM, 1844) konnten fünf Arten als valid bestätigt werden. Nach Untersuchungen von einer großen Anzahl Männchen der *Melanophthalma taurica* Arten-Gruppe, werden hier drei neue Arten detailliert beschrieben: *Melanophthalma andrewi* sp. nov., *Melanophthalma rispini* sp. nov. und *Melanophthalma rhenana* sp. nov.. Die Genitalstrukturen der Männchen aller acht Arten werden abgebildet.

Introduction

The works for the „Catalogue of Palaearctic Coleoptera” volume 4, presupposed type study and revisions of the Latridiidae (JOHNSON, 2007). Many species had to be synonymized others needed redescription or new descriptions, necessitating especially a long overdue revision of the *Melanophthalma taurica* species-group, which became necessary and also now possible for the first time.

The authors were already since many years conscious that there were several different species in the *Melanophthalma taurica* species-group. Type material largely consisted of females which made identification difficult (since the best characters are male genitalic ones!), so all „*taurica*” were put together for the time being under *Melanophthalma taurica* (MANNERHEIM) and are now described in detail in this work.

The specific identification of this group without well preserved comparative material is extremely difficult and can only be made through an investigation of the male genitalia. The external measurements and colour information can vary within each species.

Keywords

Coleoptera, Latridiidae, *Melanophthalma algerina*, *Melanophthalma andrewi* sp. nov., *Melanophthalma angulata*, *Melanophthalma extensa*, *Melanophthalma parvicollis*, *Melanophthalma rhenana* sp. nov., *Melanophthalma rispini* sp. nov., *Melanophthalma taurica*, Palaearctic Region, revision, taxonomy, new species.

Acronyms

Museums, institutions and private collections in which material is deposited are as follows: Hungarian Natural History Museum, Budapest (HNHM); Muséum d’Histoire Naturelle, Genève, (MHNG); The Manchester Museum, The University of Manchester, (MMUE); Natural History Museum, London, (BMNH); FERNANDO ANGELINI, Brindisi, Italy, (FA); COLIN JOHNSON, Glossop, United Kingdom, (CJ); Dr. HANS-PETER REIKE, Boxdorf, Germany (HPR); WOLFGANG H. RÜCKER, Neuwied, Germany, (WR); ROGER VINCENT, Igé, France, (RV); TATYANA TRIKHLEB, Donetsk, Ukraine, (TT).

Redescription of species.

Melanophthalma parvicollis (MANNERHEIM, 1844) (Figs 1–3)

Corticaria parvicollis MANNERHEIM, 1844: 62

Diagnosis. A small species variable in size, length 1.43–1.71 mm. Reddish brown to brown, unicolorous dark brown when mature, with short pubescence, antennae and legs yellowish-brown. Males mostly a little smaller than females. Posterior pronotal edge with small blunt tooth, pronotal margins clearly bent in middle.

Redescription. Head. As wide as long including eyes (1: 0.48), eyes large, coarsely faceted and dark, taking up more than $\frac{3}{4}$ head parallel to axis; temples clear, short, acute-angled, parallel, of two facet rows; punctuation of head coarse, a facet in width, finely micro sculptured, pubescence short; antennae with eleven segments, antennal club with three segments. Antennae only just reaching rear edge of pronotum. First segment large, twice as long as wide, second segment twice as long as wide, segments three to six 2.5 times as long as wide and of same length, segment seven 1.5 times as long as wide, segment eight a little spherical, segment nine keystone shaped and 1.5 times as long as wide, segment ten keystone shaped, as wide as long, segment eleven twice as large as segment nine, as long as wide, from middle forward obliquely trimmed to 1.5 times, all antennal segments finely hairy. Length of antennae 0.50 mm.

Pronotum. Wider than long (1: 0.70), widest at front edge of middle, pronotal margins finely serrate and in middle forming an angle, converging to rear, posterior pronotal edge with small blunt tooth bearing a seta of 0.07 mm length. Transversely in front of base with shallow impression extending a little in front of pronotal margins. Punctuation fine, not larger than a facet in width, between the points finely micro sculptured, pubescence short. Colour of pronotum reddish brown to dark brown.

Elytra. Widely oval and slightly curved (1: 1.52), weakly impressed shoulders, apices rounded at suture, pubescence white-yellow, $\frac{1}{4}$ overlapping. Punctuation in rows, about double size of a facet, elytral intervals low and finely micro sculptured, a little shining. Hind wings well developed and capable of flight. Colour reddish brown to dark brown when mature.

Legs. Males - apical joint of front tarsi with a small

acuminate tooth directed forwards, front tibiae without teeth. Legs and tarsi finely hairy. Colour of legs yellowish-brown.

Underside. Ventricle 1 with coxal lines reaching almost to rear edge of first ventrite. Underside finely hairy, finely micro sculptured. Colour yellowish-brown.

Aedeagus. Laterally evenly but little bent, in ventral view with regular arch running into a long wide and flat apex. Figs 1–3.

Bionomics and Ecology. Lives as detriticole in heaped grass cuttings, swept during hot evenings from varied grasses and tall vegetation, rarely found in ground litter and moss.

Country Records. Azerbaijan, Cyprus, France, Greece, Hungary, Iran, Italy, Jordan, Russia (Caucasus), Spain, Tunisia, Turkey (European and Asiatic), Ukraine and Yugoslavia (Serbia and Montenegro) (JOHNSON, 2007).

Type Material Examined. Lectotype ♀ from the Caucasus in collection MANNERHEIM (Zoological Museum, Helsinki) (JOHNSON, 1972); 1 ♂, 1 ♀ paralectotypes from Daghestan in collection MOTSCHULSKY (Zoological Museum, Moscow).

Other Material. Cyprus: 2 ♂ Yerovasa, 14.VII.1977, leg. BESUCHET (MHNG); 1 ♂, 1 ♀ Mamoria, 14.VII.1977, leg. BESUCHET (MHNG); 1 ♂ Yerovasa, 14.VII.1977, leg. BESUCHET (MMUE); 2 ♀ env. de Polis, 19.VII.1977, leg. VIT (MMUE); 1 ♂ Troodos, an B9, *Pinus*-Bestand, Streu und Moos, 850 m, 4.IV.1995, leg. ASSING (WR); **France:** 1 ♂ Haute Savoie, Grand Salève, 25.VI. (no year), leg. MÄERKY (MHNG); 1 ♂ Ariège, Lanoux, 15-29.VIII.1992, leg. BOWESTEAD (MMUE); 1 ♂ Tarn, Foret de Grèsigne, fagot bruyères, 25.III.1981, leg. RABIL (MMUE); 2 ♂ Var, Port Grimaud, 11-26.VII.1986, leg. C. JOHNSON (MMUE); 3 ♂ Corsica, Calvi, 4-17.VII.1989, leg. C. JOHNSON (MMUE); 1 ♂ Corsica, Calvi, 17-30.VII.1980, leg. C. JOHNSON (MMUE); 6 ♂, 12 ♀ Env. De Bordeaux, Gardignan, Jardin, 11.VIII.1978, leg. TEMPÈRE (WR); 2 ♂, 4 ♀ Gironde marais, Parempuyre, 9.VI.1978, leg. TEMPÈRE (WR); 1 ♂ Corsica, Calvi, 17.-30.VII.1990, leg. C. JOHNSON (WR); **Greece:** 1 ♂ Pentelikon; 1 ♂ Corfu, leg. SCHMIDL (WR); **Hungary:** 1 ♂ Kiskunsági N.P., Orgovány, szikes rét fűhálózás, 1-2.IX.1979, leg. HÁMORI (HNHM); 1 ♂ Pest megye, Szigetújfalu, autós hálózás délután, 22.X.2006, O. MERKL (HNHM); 1 ♂ Pest megye, Vác, Naszály, déli oldal, autós hálózás este, 14.VII.2007, O. MERKL (HNHM); 1 ♂ Villany, 17.V.1981, leg. SIEBER (MMUE); 1 ♂, 2 ♀ Balaton, Tihany, 1-8.VIII.1983, leg. RÜCKER (WR); **Iran:** 2 ♂ Bakhtiari, Kúhrang, 19.VI.1974, leg. SENGLET (MHNG); 2 ♂, 3 ♀ Khorassân, Bodjnour, 20.VIII.1975, leg. SENGLET (WR); **Italy:** 1 ♂, 3 ♀ Lucania, Pollino, Timpa del Demonio (PZ), 1300 m, 7.VI.1987, leg. ANGELINI (FA); 2 ♂, 1 ♀ Lucania, Policoro

(MT), 7.II.1982, leg. ANGELINI (FA); 1 ♂, 1 ♀ Lucanio, Policoro (MT), 27.III.1977, leg. ANGELINI (FA); 2 ♂, 1 ♀ Callabria, Pollino, Campotenese (CS), 1100 m, 22.VII.1983, leg. ANGELINI (FA); 1 ♀ Callabria, Pollino, Pàno Ruggio (PZ), 1500 m, 11.VI.1977, leg. ANGELINI (FA); 1 ♀ Lucania, Pollino (MT), 24.IV.1977, leg. ANGELINI (FA); 1 ♀ Puglia, Triggiano (BA), XI. 1976, leg. ANGELINI (FA); 1 ♂, 2 ♀ Basilicata, Policoro (MT), 26-29.VI.1988, leg. ANGELINI (FA); 1 ♂ Lombardia, Mantova, Mamirolo dint., 6.VII.1976, leg. COMACCHIO (MMUE); 3 ♂ Moniga del Garda (BR), 2-9.VIII.1987, leg. C. JOHNSON (MMUE); 3 ♂, 1 ♀ Belvedere, Grado, 9-15.VIII.1987, leg. C. JOHNSON (MMUE); 1 ♂, 3 ♀ Nähe Montaperti, Straße 5,5 km vor Kreuzung mit Straße Nr. 68 Richtung Volterra, an Brücke über Fluß „Fiume Era“, Nähe Flußufer, Robinienblätter, Brombeerblätter mit Schwarzschilder, trocken, 250 m, 03.IX.2003, leg. H.-P. REIKE (HPR); 1 ♂ Belvedere, Grado (UD), 9-5.VIII.1987, leg. C. JOHNSON (WR); **Jordan:** 9 ♂, 11 ♀ Kleat, Jordan Vly, 200m, 15.II.1963, leg. KLAPPERICH (MMUE); 2 ♂, 1 ♀ Kleat, Jordan Vly, 200m, 15.II.1963, leg. KLAPPERICH (WR); 1 ♂ Jordan, Wadi Sir, b.Amman, 600m, 20.IV.1956, leg. KLAPPERICH (WR); **Lebanon:** 1 ♂, 7 ex., Ainab, 700 m, s. Beirut, 13.V.1956, leg. KLAPPERICH (HNHM); 1 ♂, 1 ♀ Ainab S. Beirut, 700m, 13.V.1956, leg. KLAPPERICH (WR); **Russia:** 2 ♂, 1 ♀ Caucasus, Elizabethpol, 1.II.1904 leg. MALJUSCHENCO (MMUE); **Spain:** 1 ♂ Malaga, Estepona, 14-26.VII.1969, leg. SENGLER (MHNG); **Turkey:** 1 ♂ Angora, 27.V.1925, leg. BIRÓ (HNHM); 1 ♂, 1 ♀ Vil Urta, 2 km N of Halfeti, 38°03'E, 37°38'N, 400 m, 11-12.IV.1994, leg. M. HREBLAY & T. CSÖVÁRI (HNHM); 5 ♂, 10 ♀ Stambul, 20.VI.1925, leg. BIRÓ (HNHM); 2 ♂ 1 ♀ Bolu, Düzce-Akçakoca, 400 m, 26.V.1967, leg. BESUCHET (MHNG); 1 ♂ Istanbul, Yalova-Orhangazi, 11.V.1976, leg. BESUCHET (MHNG); 2 ♂ Side, 3.VI.1989, leg. GILLERFORS & LUNDBERG (MMUE); 2 ♂, 2 ♀ Muğla, N. Fethiye, Çalis, bank of stream, 10 m, 1.X.2002, leg. ASSING(WR) ; 1 ♂, 1 ♀ Umg. Anamur, Str. Anamur 17 km Richtung Ermenek, 23.III.1997, leg. BRACHAT (WR). **Ukraine:** 2 ♂ Donetsk, 21.IX.1999, leg. T. TRIKHLEB (TT); 9 ♂ Donetska region, Azovske forestry, 13.VII.2000, leg. T. TRIKHLEB (TT); 8 ♂ Melekine, 25.VI.2002, leg. T. TRIKHLEB (TT); 15 ♂ Dronivka, 1-8.IX.2006, leg. T. TRIKHLEB (TT); 4 ♂ Luganska region, Stanychno-Luganske, 2.VII.2000, leg. T. TRIKHLEB (TT); Kharkivska region, 8 ♂ Podolivka, 7.X.2001, leg. T. TRIKHLEB (TT); **Yugoslavia:** 1 ♂ Serbia, Pirot, leg. HORVÁTH, IX.1902 (WR).

***Melanophthalma extensa* REY, 1889 (Figs 4–6)**

Melanophthalma extensa REY, 1889: 54

Diagnosis. A small and little variable species in size, length 1.50–1.64 mm. Mature colouration unicolorous dark brown, with short pubescence, antennae and legs yellowish-brown. Males mostly a little smaller than females. Posterior pronotal edge with small pointed

tooth, pronotal margins only weakly bent in middle.

Redescription. Head. Clearly wider than long including eyes (1: 0.50), eyes bright, large, coarsely faceted, occupying $\frac{3}{4}$ of head's parallel axis, temples clear, short, acute-angled, parallel, of two facet rows; punctuation of head fine, a facet in width, finely micro sculptured between them, pubescence short; antennae with eleven segments, antennal club with three segments. Antennae reach rear edge of pronotum. First antennal segment large, twice as long as wide, second segment twice as long as wide, segments three to six 2.5 times as long as wide and of same length, segment seven 1.5 times as long as wide, segment eight a little spherical, segment nine keystone shaped and 1.5 as long as wide, segment ten keystone shaped, as wide as long, segment eleven twice as large as segment nine, as long as wide, from the middle forward obliquely trimmed to 1.5 times, all segments finely hairy. Length of antennae 0.50 mm.

Pronotum. Wider than long (1: 0.70), widest at middle, at front edge, pronotal margins finely serrate and in middle forming a blunt angle, converging to rear, posterior pronotal edge with small pointed tooth bearing a seta of 0.09 mm length. Transversely in front of base with shallow impression extending a little in front of pronotal margins. Punctuation fine, not larger than a facet, between the points finely micro sculptured, pubescence short. Colour of pronotum dark brown.

Elytra. Widely oval and slightly curved (1: 1.50), impressed shoulders, apices rounded at suture, pubescence white-yellow, $\frac{1}{4}$ overlapping. Punctuation in rows, fine, about size of a facet, elytral intervals low and finely micro sculptured, rather shining. Hind wings well developed and capable of flight. Colour of elytra dark brown when mature.

Legs. Males - apical joint of front tarsi with a small acuminate tooth directed forwards, front tibiae without teeth. Legs and tarsi finely hairy. Colour of legs yellowish-brown.

Underside. Ventrite 1 with coxal lines reaching almost to rear edge. Underside finely hairy, finely micro sculptured. Colour dark brown.

Aedeagus. Laterally evenly wide, only slightly bent, apex slightly bent backwards, in ventral view evenly narrowed to slightly open apex. Figs 4–6.

Bionomics and Ecology. Probably lives as detriticole, swept during hot evenings from varied grasses and tall vegetation, also found in orange plantations.

Country records. France, Greece, Italy, Portugal, Spain, Turkey (Asiatic) and Ukraine (JOHNSON, 2007).

Type material Examined. Lectotype ♂ and 4 paralectotypes from Provence, southern France in collection REY (Natural History Museum, Lyon) (JOHNSON, 1986). A Corsican male collected by C.J. was compared with these specimens by STAN BOWESTEAD during a visit there in 1989.

Other Material. **Bulgaria:** 1 ♂, 1 ♀ Küstendil, 1928, leg. BIRÓ (WINKLER collection) (WR); **France:** 1 ♂, 5 ♀ Corsica, Calvi, 4.-17.VII.1989 (MMUE), leg. C. JOHNSON; 5 ♂ Corsica, Calvi, 17-30.VII.1990, leg. C. JOHNSON (MMUE); 9 ♂, 3 ♀ Corsica, Lumio, F. Seccu, 22.VII.1990, leg. C. JOHNSON (MMUE); 1 ♂, 10 ex. Camargue, S. Marie de la Mer, 1919, leg. A. CHOBOUT (HNHM); 1 ♂, 8 ♀ Toulouse, 1895 (WINKLER collection) (WR); 1 ♂, 1 ♀ Gironde, Pyla sur Mar, 17.VII.1946, leg. KLAPPERICH (WR); 6 ♂, 10 ♀ Gironde (Médoc), Grayan, 10.VIII.1975, leg. TEMPÈRE (WR); 2 ♂, 1 ♀ Corsica, Calvi, 4.-17.VII.1989, leg. C. JOHNSON, LUMIO, F. SECCU (WR); **Gibraltar:** 1 ♂, 1 ♀ Upper Rock, 30.X.2005 on *Osyris quadripartita* leg. PEREZ & BENSUSAN (CJ); **Greece:** 2 ♂ Cyclades, Paros, Naoussa, 21.VI.1968, leg. SENGLET (MHNG); 1 ♂ Cyclades, Paros, Pétaloudès, 22.VI.1968, leg. SENGLET (MHNG); 1 ♂, 3 ♀ Crete, Herakleion, IV.1906, leg. BIRÓ (HNHM); 4 ♂ Karpathos südlich Olympos, 28.IV.2000, leg. MEYBOHM (HPR); 1 ♂ Kreta, Heraklion, 20.IV.1999, leg. SIEDE (HPR); **Hungary:** 1 ♂ Aggteleki N.P. Jósvalő, Almás-völgy, hálózás, egyelés, 20.VI.1990, leg. O. MERKL (HNHM); 2 ♂, 4 ♀ Békés megye, Szarvas, Szanvasi Arborétum, autós hálózás, 3-5.VIII.2000, leg. Unknown, (HNHM); 1 ♂ Pest megye Ócsa, Alsópakony, katonai lőtér, autós hálózás este, 22.VI.2006, leg. O. MERKL (HNHM); **Iran:** 1 ♂, 3 ♀ Prov. Ghuilan, Lahijan a. Kasp. Meer, 200 m, VII.-VIII.1961, leg. KLAPPERICH (HNHM); **Italy:** 1 ♂, 1 ♀ Lucania, Policoro (MT), 24.IV.1977, leg. ANGELINI (FA); 1 ♀ Puglia, Grottagli (TA), 8.IV.1977, leg. ANGELINI (FA); 3 ♂, Puglia, Torre Rinalda (LE), 17.IV.1977, leg. ANGELINI (FA); 1 ♂, Puglia, S. Pietro (Mandurai TA), 9.III.1968, leg. DE MARCO (FA); 1 ♂, 1 ♀ Puglia, S. Pietro (Mandurai TA), 23.V.1967, leg. DE MARCO (FA); 2 ♂, Puglia, Campo Marino (TA), 25.VIII.1967, leg. ANGELINI (FA); 3 ♂, 1 ♀ Puglia, (BR), Pietro Vera, VII.1972, leg. ANGELINI (FA); 1 ♂ Puglia, (TA), Bosco San Basilio, 24.V.1987, leg. MONTEMURRO (FA); 1 ♂ Bas ilicata (PT), Latronico, F.Sinni, 16.VI.1996, leg. ANGELINI (FA); 2 ♂ Puglia, S.Pietro, Manduria (TA), 10.VIII.1968, leg. DE MARCO (MMUE); 2 ♂, 1 ♀ S.Pietro Vern. (BR), VII.1972, leg. ANGELINI (MMUE); 1 ♀ Lazio, Parc. Naz. Circeo Sabaudia, Foresta Denan, 23.v.1974, leg. ZAMPETTI (MMUE); 1 ♂, 6 ♀ Puglia, S. Pietro (Manduria), 20.VII.1969, leg. DE MARCO (WR); **Jordan:** 1 ♂ Kleat, Jordan Vly, 200 m, 1-5.II.1963, leg. KLAPPERICH (MMUE); **Portugal:** 1 ♂, 1 ♀ Algarve, Alvor, Portimao, 2-14.VIII.1992, leg. C. JOHNSON (MMUE); **Spain:** 1 ♂ Catalonia, Tiana, leg. Unknown (MMUE); 1 ♂, 3 ♀ Valencia, Almenara, Orangenplantage,

20.IV.1985, leg. SIEDE (WR); **Turkey:** 13 ♂, 12 ♀ Ephes, 2.V.1967, leg. KLAPPERICH (MMUE); 1 ♂, 1 ♀ Istanbul, 12.V.1925 (WINKLER collection) (WR); 2 ♂, 2 ♀ Ephes, 2.V.1967, leg. KLAPPERICH (WR); **Ukraine:** 1 ♂ Crimea, Yevpatoriia, 8.XI.2006 (WR); 2 ♂ Krim, Sebastopol, 2-8.IX.1908, leg. PLIGINSKIY (WR); 4 ♂ Donetska region, Bilosarayska Kosa, leg. T. TRIKHLEB (TT); 5 ♂ Crimea, Yevpatoriia, 8.XI.2006 (TT).

***Melanophthalma algerina* MOTSCHULSKY, 1866** (Figs 7–9)

Melanophthalma algerina MOTSCHULSKY, 1866: 273

Diagnosis. A small and little variable species, length 1.50–1.66, colour unicolorous yellowish-brown, with short pubescence, antennae and legs a little brighter. Males mostly a little smaller than females. Posterior pronotal edge with small blunt tooth, pronotal margins clearly bent in middle.

Redescription. Head. Clearly wider than long including eyes (1: 0.52), eyes black, large, coarsely faceted, occupying $\frac{3}{4}$ of head's parallel axis, temples clear, short, acute-angled, parallel, 1.5 facet rows; punctuation of head fine, a facet in width, finely micro sculptured between them, pubescence short; antennae with eleven segments, antennal club with three segments. Antennae reach rear edge of pronotum. First segment large twice as long as wide, second segment twice as long as wide, segments three to six 2.5 times as long as wide and of same length, segment seven 1.5 as long as wide, segment eight a little spherical, segment nine keystone shaped and 1.5 times as long as wide, segment ten keystone shaped, as wide as long, segment eleven twice as large as segment nine, as long as wide, from middle forward obliquely trimmed to 1.5 times, all segments finely hairy. Length of antennae 0.50 mm.

Pronotum. Wider than long (1: 0.67), widest at middle and front edge, pronotal margins finely serrate and forming at middle a pointed angle, converging to rear, posterior pronotal edge with small blunt tooth bearing a seta of 0.07 mm length. Transversely in front of base with shallow impression extending a little in front of pronotal margins. Punctuation fine, not larger than a facet, between the points finely micro sculptured, pubescence short. Colour of pronotum yellowish-brown.

Elytra. Widely oval and slightly curved (1: 1.50), impressed shoulders, apices rounded at suture, pubescence white-yellow, raised, $\frac{1}{2}$ overlapping. Punctuation in rows, fine, about size of a facet, elytral intervals low

and finely micro sculptured, rather shining. Hind wings well developed and capable of flight. Colour of elytra dark brown.

Legs. Males - apical joint of front tarsi with a small sharp tooth directed forwards; front tibiae without teeth. Legs and tarsi finely hairy. Colour of legs yellowish-brown.

Underside. Ventricle 1 with coxal lines reaching almost to rear edge. Underside finely hairy and finely micro sculptured. Colour yellowish-brown.

Aedeagus. Laterally slim and little curved, in ventral view with the last third lean slim and with regularly bevelled apex. Figs 7–9.

Bionomics and Ecology. Probably lives as detritivore or myceticole, swept during hot evenings from varied grasses and tall vegetation.

Country Records. Algeria, Egypt, France, Morocco, Spain and Tunisia (JOHNSON, 2007).

Type Material Examined. Lectotype ♀ from Algeria, single paralectotypes from Egypt and Corsica in collection MOTSCHULSKY (Zoological Museum, Moscow) (JOHNSON, 1986).

Other Material. **Austria:** 1 ♂, 2 ♀ Vienne, date unknown, leg. L. FALCOZ (HNHM); 1 ♂, 2 ♀ Lobau, leg. CARL MANDL (WINKLER collection) (WR); **Egypt:** 1 ♂ El Simbillswain, 28.VII.2000, leg. EL-SAWRY (MMUE); 1 ♀ Sherbin, 20.III.2000, leg. EL-SAWRY (MMUE); 1 ♀ El Mansura University, striplight fittings, 16.IV.2000, leg. SKIDMORE (MMUE); **France:** 1 ♂ Corsica, Muro/Bagnone, 5.VI.1971, leg. SENGLET (MHNG); 2 ♂ Var, Port Grimaud, 11–26.VII.1986, leg. C. JOHNSON (MMUE); 1 ♂ Corsica, Lumio, F. Seccu, 22.VII.1990, leg. C. JOHNSON (MMUE); 2 ♂, 10 ♀ Le petit Rhône, Camargue, IX. 1982, leg. KLAPPERICH (WR); 3 ♂, 8 ♀ Nähe Nizza, Mont Chauve, 850 m, 6.V.1985, leg. KLAPPERICH (WR); 1 ♂, Port Grimaud, Var, 11–26.VII.1986, leg. C. JOHNSON (WR); **Greece:** 1 ♂, 2 ♀ Laconia, str. Gythio-Skala, Skala, 9.III.1995, leg. SABELLA (FA); 4 ♀ Etolia, Arkanania, Plagià, 15.V.2005, leg. ANGELINI (FA); 3 ♀ Ahaia, Kalogria, 1–2.V.2004, leg. ANGELINI (FA); **Italy:** 4 ♂, Insel Elba, IV.1987, leg. GRÄF (WR); **Jordan:** 4 ♂ Kleat, Jordan Vly, 200 m, 15.II.1963, leg. KLAPPERICH (MMUE); 1 ♂ Romana, 15.III.1966, leg. KLAPPERICH (MMUE); 1 ♂ Wadi Schaib, 200 m, 17.X.1956, leg. KLAPPERICH (MMUE); **Malta:** 1 ♂ Buskett, in decaying hay and vegetation, 12.II.2000, leg. MIFSUD (WR); **Morocco:** 1 ♂ Agadir, no date, leg. LEILER (MMUE); 1 ♂, 1 ♀ Tamrin of Agadir, 13–17.II.1961, leg. MEINANDER (MMUE); 1 ♂ South, Puerto Cansado, 7–8.III.1961, leg. MEINANDER (MMUE); 1 ♂ Haut Atlas, Asni, 1200 m, 10–11/III.1961, leg. MEINANDER (MMUE); Sahara Espanol, Plaia de Aaina, 10–12.IV.1963, leg. LINDBERG (MMUE); **Spain:** 1 ♂ Catalonia, Tiana, 1935, leg. Unknown (MMUE); 4 ♂, 4 ♀ Menorca, Es

Canutells, 5.VII.1991, leg. C. JOHNSON (MMUE); 5 ♂, 3 ♀ Menorca, Cala'n Porter, 1–10.VII.1991, leg. C. JOHNSON (MMUE); 1 ♂, 1 ♀ Menorca, S'Albufera, 5.VII.1991, leg. C. JOHNSON (MMUE); 3 ♂, 1 ♀ Menorca, Son Bou, 9.VII.1991, leg. C. JOHNSON (MMUE); 1 ♂, 3 ♀ Mallorca, Pollenas, 10.VI.1990, leg. DÖBERL (WR); 2 ♂, 2 ♀ Menorca, Cala'n Porter, 5.VII.1991, leg. C. JOHNSON (WR); **Tunisia:** 1 ♂ Hammamet, 11.VI.1988, leg. WHITEHEAD (MMUE); 1 ♂ Entida, 28.VI.1989, leg. ARNE NILSSON (MMUE); 1 ♂, En Aida, 8.VI.1989, leg. NILSSON (WR).

***Melanophthalma angulata* (WOLLASTON, 1864)**

(Figs 10–12)

Corticaria angulata WOLLASTON, 1864: 148

Diagnosis. A species little variable in size, length 1.64–1.78 mm. Colour yellow-red to yellowish-brown and brown, with short pubescence, antennae and legs yellow-red. Males mostly a little smaller than females. Posterior pronotal edge with small pointed tooth, pronotal margins clearly bent in middle.

Redescription. Head. Clearly wider than long including eyes (1: 0.60), eyes black, large, coarsely faceted, occupying $\frac{2}{3}$ of head's parallel axis, temples clear, short, acute-angled, parallel, 1.5 facet rows; punctuation of head fine, a facet in width, between that finely micro sculptured, pubescence short; antennae with eleven segments, antennal club with three segments. Antennae reaching rear edge of pronotum. First segment large and twice as long as wide, second segment twice as long as wide, segments three to six 2.5 as long as wide and of same length, segment seven 1.5 times as long as wide, segment eight a little spherical, segment nine keystone shaped and 1.5 as long as wide, segment ten keystone shaped, as wide as long, segment eleven twice as large as as segment nine, as long as wide, from middle forward obliquely trimmed to 1.5 times, all segments finely hairy. Length of antennae 0.57 mm.

Pronotum. Wider than long (1: 0.68), widest at middle and front edge, pronotal margins finely serrate and forming at middle a strong pointed angle, converging to rear, posterior pronotal edge with small blunt tooth bearing a seta of 0.08 mm length. Transversely in front of base with shallow impression extending a little in front of pronotal margins. Punctuation fine, not larger than a facet, between the points finely micro sculptured, pubescence short. Colour of pronotum yellow-red.

Elytra. Widely oval and slightly curved (1: 1.45), impressed shoulders, apices rounded at suture, pubes-

cence white-yellow, raised, $\frac{1}{2}$ overlapping. Punctuation in rows, fine, about size of a facet, elytral intervals low and finely micro sculptured, rather shining. Hind wings well developed and capable of flight. Colour of elytra yellow-red to brown.

Legs. Males - apical joint of front tarsi with a small sharp to tooth directed forwards; front tibiae without teeth. Legs and tarsi finely hairy. Colour of legs yellow-red.

Underside. Ventricle 1 with coxal lines reaching $\frac{3}{4}$ length of first ventrite. Underside finely hairy and finely micro sculptured. Colour yellowish-brown.

Aedeagus. The largest aedeagus in the group, laterally very thin and not bent, in ventral view with the apex very narrow, elongated and almost pointed.

Figs 10–12.

Bionomics and Ecology. Found mainly in association with cacti, although maybe another detriticole or myceticole.

Country records. Canary Islands of Spain (JOHNSON, 2007).

Type Material Examined. Lectotype ♀ from Fuerteventura and 21 paralectotypes from Fuerteventura (10 ex.), Gran Canaria (9 ex.) and Lanzarote (2 ex.), in Canarian collections WOLLASTON (BMNH and OUM) (JOHNSON, 1972).

Other Material. **Egypt:** 1 ♂, 3 ♀ Exc. Egypt Mus. Nat. Hung., Komosin, Distr. Fayum, 8.X.1957, leg. GOZMÁNY (HNHM); **Spain (Canary Islands):** 2 ♂ Fuerteventura, Corralejos, 27.III.1963, leg. LINDBERG (MMUE); 5 ♂, 4 ♀ Lanzarote, N.E. 11.VII.1988, leg. ARNE NILSSON (MMUE); 3 ♂, 1 ♀ Lanzarote, VII.1988, leg. NILSSON (WR); 1 ♂, 1 ♀ Gran Canaria, Fataga, aus kriechender Bodenvegetation gesiebt, 04.XII.2002, leg. H.-P. REIKE (HPR); **Tunisia:** 3 ♂, 7 ♀ Thyna 12 km on the Gaŕsa road, 7.IV.1977, leg. MAHUNKA (HNHM).

***Melanophthalma taurica* (MANNERHEIM, 1844)** (Figs 13–14)

Corticaria taurica MANNERHEIM, 1844: 51

Corticaria angulosa MOTSCHULSKY, 1849: 90

Melanophthalma asiatica IABLOKOFF-KHNZORIAN, 1970: 67

Rediagnosis. The smallest species in this group, hardly variable in size, length 1.36–1.46 mm. Colour unicolorous bright yellowish-brown, with short pubescence, antennae and legs a little brighter. Males mostly a little smaller than females. Posterior pronotal edge

with small blunt tooth, pronotal margins in middle clearly bent.

Description. Head. Clearly wider than long including eyes (1: 0.55), eyes black, small and finely faceted, occupying $\frac{2}{3}$ of head's parallel axis, temples clear, short, acute-angled, parallel, 1.5 facet rows; punctuation of head fine, micro sculpture wrinkled, pubescence short antennae with eleven segments, antennal club with three segments. Antennae only just reaching rear edge of pronotum. First segment large and twice as long as wide, second segment twice as long as wide, segments three to six 2.5 times as long as wide and of same length, segment seven 1.5 times as long as wide, segment eight a little spherical, segment nine keystone shaped and 1.5 times as long as wide, segment ten keystone shaped, as wide as long, segment eleven twice as large as segment nine, as long as wide, from middle forward obliquely trimmed to 1.5 times, all segments finely hairy. Length of antennae 0.46 mm.

Pronotum. Wider than long (1: 0.70), widest at middle and front edge, pronotal margins finely serrate and forming at middle a strong pointed angle, easily converging to rear, posterior pronotal edge with small blunt tooth bearing a seta of 0.06 mm length. Transversely in front of base with shallow impression extending a little in front of pronotal margins. Punctuation fine, not larger than a facet, between the points finely micro sculptured, pubescence short. Colour of pronotum yellowish-brown.

Elytra. Widely oval and slightly curved (1: 1.52), impressed shoulders, apices rounded at suture, pubescence white-yellow, raised, a $\frac{1}{4}$ overlapping. Punctuation in rows, fine a little larger than the size of a facet, elytral intervals low and finely micro sculptured, rather shining. Hind wings well developed and capable of flight. Colour of elytra yellowish-brown.

Legs. Males - apical joint of front tarsi with a small sharp to tooth directed forwards; front tibiae without teeth. Legs and tarsi finely hairy. Colour of legs bright yellowish-brown.

Underside. Ventricle 1 with coxal lines reaching almost to rear edge. Underside finely hairy and finely micro sculptured. Colour yellowish-brown.

Aedeagus. Of medium size, laterally slim, slightly bent, from middle, in ventral view with apex sharply pointed. Figs 13–14.

Bionomics and Ecology. Probably lives as detriticole or myceticole.

Country records. Afghanistan, Azerbaijan, Germany, Iran, Russia (Caucasus), Tadjikistan, Turkey (Asiatic) and Ukraine (JOHNSON, 2007). The record of *M. taurica* from Germany (JOHNSON, 2007) refers to *M. rhenana* sp. nov. – see below.

Type material. Lectotype ♀ of *taurica* from 'Tauria' in collection MANNERHEIM (Zoological Museum, Helsinki) (JOHNSON, 1972).

Lectotype ♂ and 22 paralectotypes of *angulosa* from Tuhugueff in southern Russia in collection MOTSCHULSKY (Zoological Museum, Moscow) (JOHNSON, 1986). Holotype ♀ of *asiatica* from Tadjikistan in collection LABLOKOFF-KHNZORIAN (Zoological Institute, Yerevan, Armenia) (JOHNSON, 1972).

Other Material. **Afghanistan:** 1 ♂ Ghorbandtal, 1500m, 26.VIII.1952, leg. KLAPPERICH (MMUE); 2 ♂, 2 ♀ near Kabul, 13-18.IX.1952, leg. KLAPPERICH (MMUE); 1 ♂, 3 ♀ Khanabad, Kataghan, 650 m, 27.VI.1953, leg. KLAPPERICH (MMUE); 1 ♀ Herat, Murghab, 470 m, 11-15.VI.1964, leg. JAKEŠ (MMUE); 1 ♂ Herat, Murghab, 470 m, 8.VIII.1964, leg. JAKEŠ (MMUE); 2 ♂, 2 ♀ Khanabad, Kataghan, 650 m, 27.VI.1953, leg. KLAPPERICH (WR); 5 ♂, 3 ♀ near Kabul, 13-18.IX.1952, leg. KLAPPERICH (HNHM); **Bosnia Herzegovina:** 2 ♂ Herzegovina, date unknown, ex. coll. REITTER (HNHM); **Hungary:** 1 ♂ Baranya megye, Teklafalu, zuzmó, rostálás, 11.III.1905, SÁR JÓZEF & SÁR PÉTER (HNHM); **Iran:** 1 ♂ Mázanderán, Chorteh, 1600 m, 8.VII.1973, leg. SENGLLET (MHNG); 1 ♂ Kohkiluyeh, Charam, 23.V.1974, leg. SENGLLET (MHNG); **Kyrgyzstan:** 6 ♂, 15 ♀ Turk. Sus-samyr-Gebirge, Ketmen-Tjube, 1898, leg. HAUSER (WINKLER collection) (WR); **Russia:** 1 ♂ Caucasus, Elisabethpol, 1.II.1905, leg. MALJUSCHENCO (MMUE); 1 ♂ Daghestan, Novo Bíryuzyak, 28.VIII.1960, leg. VOROBYOV (MMUE); **Turkmenistan:** 3 ♂, 12 ♀ Mt. Ghissar, 1898, leg. HAUSER (WINKLER collection) (WR); 2 ♂, 10 ♀ Caucasus, 1898, leg. HAUSER (WINKLER collection) (WR); 1 ♂ Mt. Ghissar, leg. HAUSER, 1898 (WINKLER collection) (WR); 4 ♂, 14 ♀, date unknown, leg. REITTER & LEDER (REITTER collection) (HNHM); **Ukraine:** 7 ♂ Kharkov, Podolovka, 7.X.2001, dried rotten vegetation, leg. T. TRIKHLEB (MMUE); 3 ♂ Kharkiv Prov., Podolovka, in garden on dead dry plants, 7.X.2001, leg. T. TRIKHLEB (WR); 3 ♂ Kharkiv Prov., Podolovka, in garden on dead dry plants, 7.X.2001, leg. T. TRIKHLEB (TT).

Descriptions of new species.

Melanophthalma andrewi sp. nov. (Figs 15–16)

Diagnosis. A small species, hardly variable in size, length 1.46–1.57 mm. Colour yellowish-brown, with short pubescence, antennae and legs a little brighter.

Males mostly a little smaller than females. Posterior pronotal edge with strong pointed tooth, pronotal margins in middle clearly bent.

Description. **Head.** Clearly wider than long including eyes (1: 0.50), eyes black, coarsely faceted, occupying $\frac{3}{4}$ of head's parallel axis, temples short, acute-angled, 1.5 facet rows; punctation of head fine and spaced, micro sculpture wrinkled, pubescence short, antennae with eleven segments, antennal club with three segments. Antennae only just reaching rear edge of pronotum. First segment thick according to visual angle and almost spherical, twice as long as wide, so that second segment is half of first segment, twice as long as wide, segments three to five twice as long as wide and of same length, segments seven to eight half as long as segments three to five, segment nine keystone shaped and twice as long as wide, segment ten keystone shaped and as wide as long, segment eleven twice as large as segment nine, from middle forward obliquely trimmed, all segments finely hairy. Length of antennae 0.46 mm.

Pronotum. Wider than long (1: 0.70), widest at middle and front edge, pronotal margins finely serrate and forming at middle a strong pointed angle almost parallel to rear posterior pronotal edge with strong pointed tooth bearing a seta of 0.07 mm length. Transversely in front of base with shallow impression extending a little in front of pronotal margins. Punctation fine, not larger than a facet, between the points finely micro sculptured, pubescence short. Colour of pronotum yellowish-brown.

Elytra. Widely oval, ovate and distinctly convex (1: 1.75), weakly impressed shoulders, apices rounded at suture, pubescence white-yellow, short a $\frac{1}{4}$ overlapping. Punctation in rows, fine, shallow, about the size of a facet, elytral intervals low and finely micro sculptured, rather shining. Hind wings well developed and capable of flight. Colour of elytra brown.

Legs. Males - apical joint of front tarsi with a small sharp to tooth directed forwards; front tibiae without teeth. Legs and tarsi finely hairy. Colour of legs bright.

Underside. Ventricle 1 with coxal lines reaching almost to rear edge. Underside finely hairy and finely micro sculptured. Colour brown.

Aedeagus. The smallest of the group, apex pointed in ventral view, laterally slightly curved and apex slightly bent backwards, Figs 15–16. In general appearance similar to that of *taurica*.

Bionomics and Ecology. Probably lives as detriticole or myceticole, swept during hot evenings from varied grasses and tall vegetation.

Derivatio nominis. Dedicated to Dr. ANDREW C. JOHNSON, son and companion on family holidays overseas, during which many coleoptera specimens were collected, especially with the aid of a sweep net.

Material. Holotype: 1 ♂ **France:** Corsica, Calvi, 4.-17.VII.1989, leg. C. JOHNSON (Holotype in Manchester Museum).

Paratypes: France: 3 ♂, 8 ♀ Corsica, Calvi, 4.-17.VII.1989, leg. C. JOHNSON (MMUE); 11 ♂, 1 ♀ Corsica, Calvi, 17.-30.VII.1990, leg. C. JOHNSON (MMUE); 3 ♂, 1 ♀ Corsica, Lumio, F. Seccu, 22.VII.1990, leg. C. JOHNSON (MMUE); 1 ♂ Corsica, Muo/Balagne, 5.VI.1971, leg. A. SENGLÉ (MHNG); 1 ♂ Corsica, Olmo, 5.VI.1971, leg. A. SENGLÉ (MHNG); 2 ♂ Corsica, Prunelli di Casacconi, 22.V.1971, leg. A. SENGLÉ (MHNG); 3 ♂, 2 ♀ Corsica, Calvi, 4.-17.VII.1989, leg. C. JOHNSON (WR).

Paratypes in Manchester Museum, Geneva Museum and RÜCKER collection.

***Melanophthalma rispini* sp. nov.** (Figs 17–19)

Diagnosis. A species very variable in size, length 1.43–1.79 mm. Colour brown, with short slightly outstanding pubescence, antennae and legs a little brighter. Males mostly a little smaller than females. Posterior pronotal edge with small pointed tooth, pronotal margins in middle only weakly bent.

Description. Head. Clearly wider than long including eyes (1: 0.56), eyes black, coarsely faceted, occupying two thirds of head parallel to axis, temples short, acute-angled, 1.5 facet rows punctation of head fine and far, micro sculpture wrinkled, pubescence short, antennae with eleven segments, antennal club with three segments. Antennae reaching rear edge of pronotum. First segment thick, almost twice as long as wide, so that second segment is half of first segment, twice as long as wide segments three to six 2½ times as long as wide and of same length, segment seven 1.5 times as long as wide, segment eight spherical, segment nine keystone shaped and 0.5 times as long as wide, segment ten keystone shaped, as wide as long, segment eleven twice as large as segment nine, from middle forward obliquely trimmed, all segments finely hairy. Length of antennae 0.44 mm.

Pronotum. Wider than long (1: 0.72), widest at middle and front edge, pronotal margins finely serrate and at middle hardly angular and with a blunt angle, narrowed to rear, posterior pronotal edge with small pointed tooth bearing a seta of 0.06 mm length. Transversely in front of base with shallow impression extending a little in front of pronotal margins. Punctation coarse wrinkled, between the points finely micro sculptured, pubescence short. Colour of pronotum brown.

Elytra. Widely oval, ovate and markedly convex (1: 1.50), weakly impressed shoulders, apices rounded at suture, pubescence white–yellow, short fitting, a ½ overlapping, raised. Punctation in rows, fine, shallow, about the size of a facet, elytral intervals low and finely micro sculptured, rather shining. Hind wings well developed and capable of flight. Colour of elytra brown.

Legs. Males - apical joint of front tarsi with a small sharp to tooth directed forwards; front tibiae without teeth. Legs and tarsi finely hairy. Colour of legs bright yellowish-brown, 3rd tarsal segment slightly darkened.

Underside. Ventricle 1 with coxal lines running out at middle of ventrite. Underside finely hairy and finely micro sculptured. Colour brown.

Aedeagus. Large, laterally sickle-shaped and slim, apex bent backwards and, in ventral view strongly constricted and extended as a long thin point.

Figs 17–19.

Bionomics and Ecology. Lives as mycetophile or detriticole on mouldy plant waste and on false acacia leaves with black mould (*Aspergillus niger* TIEGH, 1867).

Derivatio nominis. Dedicated to PHILLIP RISPIN, who has provided technical support at the Manchester Museum for nearly 33 years, most of that within the entomological department with the handling of countless specimens and parcels.

Material. Holotype: Austria: 1 ♂ Kärnten, Reifritz, X.1997, leg. C. Wieser. (Holotype in Manchester Museum).

Paratypes: France: 1 ♂, 1 ♀ Gironde, Planteyre, 24.VIII.1902, leg. TEMPÈRE (RV); 1 ♀ Gironde, Citon, 1-5.VI.1902, leg. TEMPÈRE (RV); **Hungary:** 1 ♂ Ócsa, Turjáni erdő, kopogtatva, 22.IV.1953, leg. KASZAB (HNHM); 2 ♀ Ócsa, Turjáni erdő, kopogtatva, DK, 15.VIII.1952, leg. HAJDÚ & ZSIRKÓ (HNHM); 1 ♂, 2 ♀ Hortobágy N.P., Újszentmargita, Margitai erdő szegély, klop, 27.V.1974, leg. MAHUNKA (HNHM); 3 ♀ Hortobágy N.P., Egyek, Ohati erdő

fűhálózza, 16.-17.VI.1975, leg. KASZAB (HNHM); 1 ♂ Hortobágy N.P., Újszentmargita, Margitai erdő fűhálózza, 2-2.IV.1976, leg. HÁMORI (HNHM); 1 ♂ Győr-M.-S. megye, Csorna, Esterházy-madávárta, fénycsapda, 17.IX.1997, leg. NAGY LÁSZLÓ (HNHM); 1 ♂ Békés megye, Szarvas, Szarvasi Arborétum, fűhálózza, 3-5.VIII.2000, leg. O. MERKL (HNHM); 1 ♂ Budapest, Hármashatár-hegy, autós hálózza este, leg. O. MERKL, 25.VI.2006 (HNHM); 1 ♀ Pest megye Pustazámor, autós hálózza este, leg. O. MERKL, 19.VI.2006 (HNHM); Komárom-Esztergom megye, Pilismarót, Pilismaróti-patak, autós hálózza este, leg. O. MERKL, 28.VI.2006 (HNHM); 1 ♀ Bács-Kiskun megye, Kunpeszér, autós hálózza este, leg. O. MERKL, 27.VI.2006 (HNHM); 1 ♂, 3 ♀ Budapest, Soroksári Botanikus kert, autós hálózza este, 2-0.V.2006, leg. O. MERKL (HNHM); 1 ♂ Pest megye, Nagykovácsi, Napkocs máros-dűlő, autós hálózza délután, 1-1.V.2007, O. MERKL (HNHM); **Italy:** 5 ♂, 4 ♀ Bas ilicata, Policoro (MT), 26.-29.VI.1988, leg. ANGELINI (FA); 16 ♂, 6 ♀ Nähe Montaperti, Straße 5,5 km vor Kreuzung mit Straße Nr. 68 Richtung Volterra, an Brücke über Fluß „Fiume Era“, Nähe Flußufer, Robinienblätter mit Schwarzschilder, trocken, 250 m, 03.IX.2003, leg. H.-P. REIKE (HPR); **Jordan:** 1 ♂ Kreat, Jordan Vly, 200 m, , 15.II.1963, leg. J. KLAPPERICH (MMUE); **Slovenia:** 1 ♂ Fravograd, Črneče, 350 m, 20.V.1993, leg. BRELJH (HPR); **Switzerland:** 1 ♂ Genève, Allondon : La Plaine, 24.VII.1990, en fauchant, leg. C. BESUCHET (MHNG); 1 ♀ Genève, Allondon, 15.IV.1973, leg. C. BESUCHET (MHNG); 1 ♂ Genève, VI.1949, leg. TOUMAYEFF; 1 ♂ Lavey Alpes, 7.VII. no year, leg. MAERKY (MHNG); **Turkey:** 1 ♂ Ephes, 2.V.1967, leg. J. KLAPPERICH (MMUE); 1 ♂ Kadykö, Istanbul, 15.V.1965, leg. J. KLAPPERICH (MMUE); 1 ♂ Antakya, Soğukoluk, 700m, 3.V.1978, leg. BESUCHET & LÖBL (MHNG); 2 ♂, 4 ♀ Antalya, 8 km SE Iskenderun, 4 km NE Belen, 1130 m, 36°31'04N/36°14'21E, 4.IV.2004, leg. V. ASSING (WR); **Ukraine:** 1 ♂ Donetska Prov., Melovaya Flora reserve, dry flowers of *Cirsium* and *Carduus* 16.IX.2001, leg. T. TRIKHLEB (TT); 1 ♂ Dronivka, 18.IX.06, leg. T. TRIKHLEB (TT).

Paratypes in Manchester Museum, Geneva Museum, Hungarian Natural History Museum, REIKE and RÜCKER collections.

***Melanophthalma rhenana* sp. nov.** (Figs 20–22)

Diagnosis. A small and little variable species, length 1.51–1.64 mm. Mature colouration bicoloured, pronotum and head yellowish-brown, elytra dark brown, with short pubescence, antennae and legs yellowish-brown, tarsi often darkened. Males mostly a little smaller than females. This new species resembles a small *Melanophthalma distinguenda* (COMOLLI, 1837), but is distinguished by its flatter form and smaller pronotum. It also has only a small tooth at the posterior pronotal edge, and very little bent pronotal margins in middle unlike *Melanophthalma distinguenda*

(COMOLLI, 1837), whose pronotum in middle is very strongly bent and with a very strong blunt tooth at posterior pronotal edge.

Description. Head. As wide as long including eyes (1: 0.46), eyes large and strongly prominent, finely faceted and dark, occupying $\frac{3}{4}$ head parallel to axis, temples clear, blunt angled, parallel, two facet rows punctation of head coarse, width of a facet, between which finely micro sculptured, pubescence short, antennae with eleven segments, antennal club with three segments. Antennae reaching rear edge of pronotum. First segment large and twice as long as wide, second segment 1.5 times as long wide, segments three to seven 1.5 times as long as wide and of same length, segment eight a little spherical, segment nine keystone shaped and twice as long as wide, segments ten and eleven twice as large as segment nine, all segments finely hairy. Length of antennae 0.50 mm.

Pronotum. Only a little wider than long (1: 0.80), widest at middle and front edge, pronotal margins finely serrate and at middle forming a small angle, then almost parallel to rear, posterior pronotal edge with small tooth and long seta. Transversely in front of base with shallow impression extending a little in front of pronotal margins. Punctation fine, not larger than a facet, between the points finely micro sculptured, pubescence short. Colour of pronotum yellowish-brown to reddish brown.

Elytra. Widely oval and slightly curved (1: 1.45), almost 1.95 times as long as wide and 3.1 times longer than pronotum, clearly impressed shoulders, apices rounded at suture, pubescence white-yellow, 1.2 to 1.5 times overlapping. Punctation fine, a little larger than a facet, in rows, elytral intervals low and finely micro sculptured, a little shining. Hind wings well developed and capable of flight. Colour of elytra dark brown when mature.

Legs. Males - apical joint of front tarsi with a small sharp tooth directed forwards; front tibiae without teeth. Legs and tarsi finely hairy. Colour of legs yellowish-brown all tarsi mostly darkened.

Underside. Ventricle 1 with coxal lines reaching almost to rear edge. Underside finely hairy and finely micro sculptured. Colour dark brown.

Aedeagus. Strongly bent ventrally, dark brown, in lateral view rather evenly curved to the simple apex, blackened on outer curve, similar in size to *M. taurica* but thicker and darker coloured and with a long conspicuous flagellum protruding from basal opening. Figs 20–21.

Bionomics and Ecology. Lives in community with *Corticarina similata* (GYLLENHAL, 1827) and *Corticinara gibbosa* (HERBST, 1793) on wilting leaves and blossoms from mock orange (*Philadelphus coronarius* LINNAEUS) and wild cherry trees (*Prunus avium* LINNAEUS), whose leaves are crimped by aphids and struck from black mould (*Aspergillus niger* TIEGH, 1867) and wilting leaves of St. Lucie cherry (*Prunus mahaleb* LINNAEUS); on mouldy leaves of plum trees (*Prunus domestica* LINNAEUS).

Derivatio nominis. Named after the River Rhine, known to the Romans under the name "rhenus".

Material. Holotype: Germany: 1 ♂ Neuwied, Feldkirchen, Wollendorf, auf Jasminstrauch (*Philadelphus coronarius* LINNAEUS) an welkenden Blüten, 22.VI.2006, leg. W. RÜCKER. Holotype in collection RÜCKER, (später Naturkundemuseum Stuttgart).

Paratypes: Germany: 1 ♂, 2 ♀ Neuwied, Feldkirchen, Wollendorf, auf Kirschbaum (*Prunus avium* LINNAEUS) im Hof, 30.VII.2004, leg. W. RÜCKER; 2 ♀ Neuwied, Feldkirchen, Wollendorf, an offenem Fenster, angefliegen, 25.VII.2004, leg. W. RÜCKER; 1 ♂ Neuwied, Feldkirchen, Wollendorf, auf Zwetschgenbaum (*Prunus domestica* LINNAEUS) an an welkenden und verschimmelten Blättern, 4.IX.2004, leg. W. RÜCKER; 1 ♀ Neuwied, Feldkirchen, Wollendorf, in Küche auf Fensterbank, 12.VI.2005, leg. W. RÜCKER; 1 ♀ Neuwied, Feldkirchen, Wollendorf, im Hof angefliegen, 20.VII.2005, leg. W. RÜCKER; 1 ♀ Neuwied, Feldkirchen, Wollendorf, in Küche auf Fensterbank, 2.VIII.2005, leg. W. RÜCKER; 2 ♀ Neuwied, Segendorf unterhalb von Schloß Monrepos, welkendes Laub von Felsen-

Kirsche (*Prunus mahaleb* LINNAEUS), 29.V.2005, leg. W. & E. RÜCKER; 1 ♂, 1 ♀ Neuwied, Feldkirchen, Wollendorf, auf Jasminstrauch (*Philadelphus coronarius* LINNAEUS) an welkenden Blüten, 22.VI.2006, leg. W. RÜCKER; 1 ♀ Neuwied, Feldkirchen, Wollendorf, auf Kirschbaum (*Prunus avium* LINNAEUS) im Hof, 22.VI.2006, leg. W. RÜCKER; 1 ♂ Neuwied, Feldkirchen, Wollendorf, im Hof auf Jasminstrauch (*Philadelphus coronarius* LINNEUS) an welkenden Blüten, 27.VI.2007, leg. W. RÜCKER; 1 ♀ Neuwied, Feldkirchen, Wollendorf, in Küche auf Fensterbank, 27.VII.2007, leg. W. RÜCKER; 1 ♂ Neuwied, Feldkirchen, Wollendorf, in Küche auf Fensterbank, 6.VII.2007, leg. W. RÜCKER; 1 ♂, 2 ♀ Neuwied, Feldkirchen, Wollendorf, auf Zwetschgenbaum (*Prunus domestica* LINNAEUS) an welkenden und verschimmelten Blättern, 1 ♂ Neuwied, Feldkirchen, Wollendorf, in Küche auf Fensterbank, 1.VIII.2007, leg. W. RÜCKER; 1 ♂ Neuwied, Feldkirchen, Wollendorf, auf Zwetschgenbaum (*Prunus domestica* LINNAEUS) an welkenden und verschimmelten Blättern, 12.VIII.2007, leg. W. RÜCKER; 2 ♀ Neuwied, Feldkirchen, Wollendorf, auf Zwetschgenbaum (*Prunus domestica* LINNEUS) an welkenden und verschimmelten Blättern, 14.VIII.2007, leg. W. RÜCKER; 1 ♂, 1 ♀ Neuwied, Feldkirchen, Wollendorf, auf Zwetschgenbaum (*Prunus domestica* LINNAEUS) an welkenden und verschimmelten Blättern, 16.VIII.2007, leg. W. RÜCKER; 1 ♂ Neuwied, Feldkirchen, Wollendorf, auf Zwetschgenbaum (*Prunus domestica* LINNAEUS) an welkenden und verschimmelten Blättern, 26.VIII.2007, leg. W. RÜCKER; 1 ♂, 1 ♀ Neuwied, Feldkirchen, Wollendorf, auf Flieder (*Syringa vulgaris* LINNAEUS) an welkenden Blättern, 26.IX.2007, leg. W. RÜCKER.

Paratypes in Manchester Museum, C. JOHNSON, REIKE and RÜCKER collections.

Figs 1–21 Aedeagi of *Melanophthalma taurica* species-group, lateral, ventral and ventral of apex:

Figs 1–3 *Melanophthalma parvicollis* (MANNERHEIM, 1844)

Figs 4–6 *Melanophthalma extensa* REY, 1889

Figs 7–9 *Melanophthalma algerina* MOTSCHULSKY, 1866

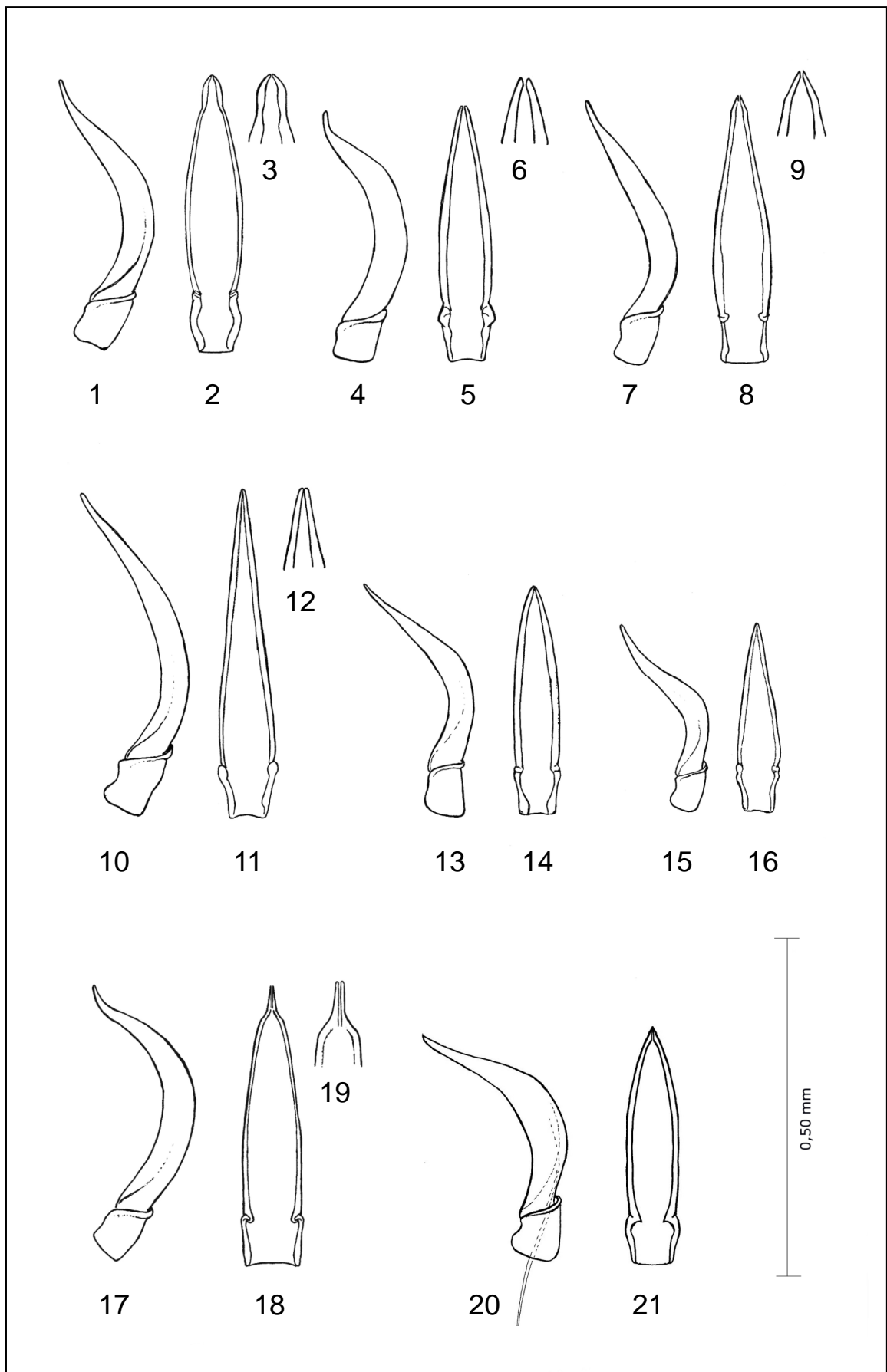
Figs 10–12 *Melanophthalma angulata* (WOLLASTON, 1864)

Figs 13–14 *Melanophthalma taurica* (MANNERHEIM, 1844)

Figs 15–16 *Melanophthalma andrewi* sp. nov. W. RÜCKER & C. JOHNSON, 2007

Figs 17–19 *Melanophthalma rispini* sp. nov. W. RÜCKER & C. JOHNSON, 2007

Figs 20–21 *Melanophthalma rhenana* sp. nov. W. RÜCKER & C. JOHNSON, 2007



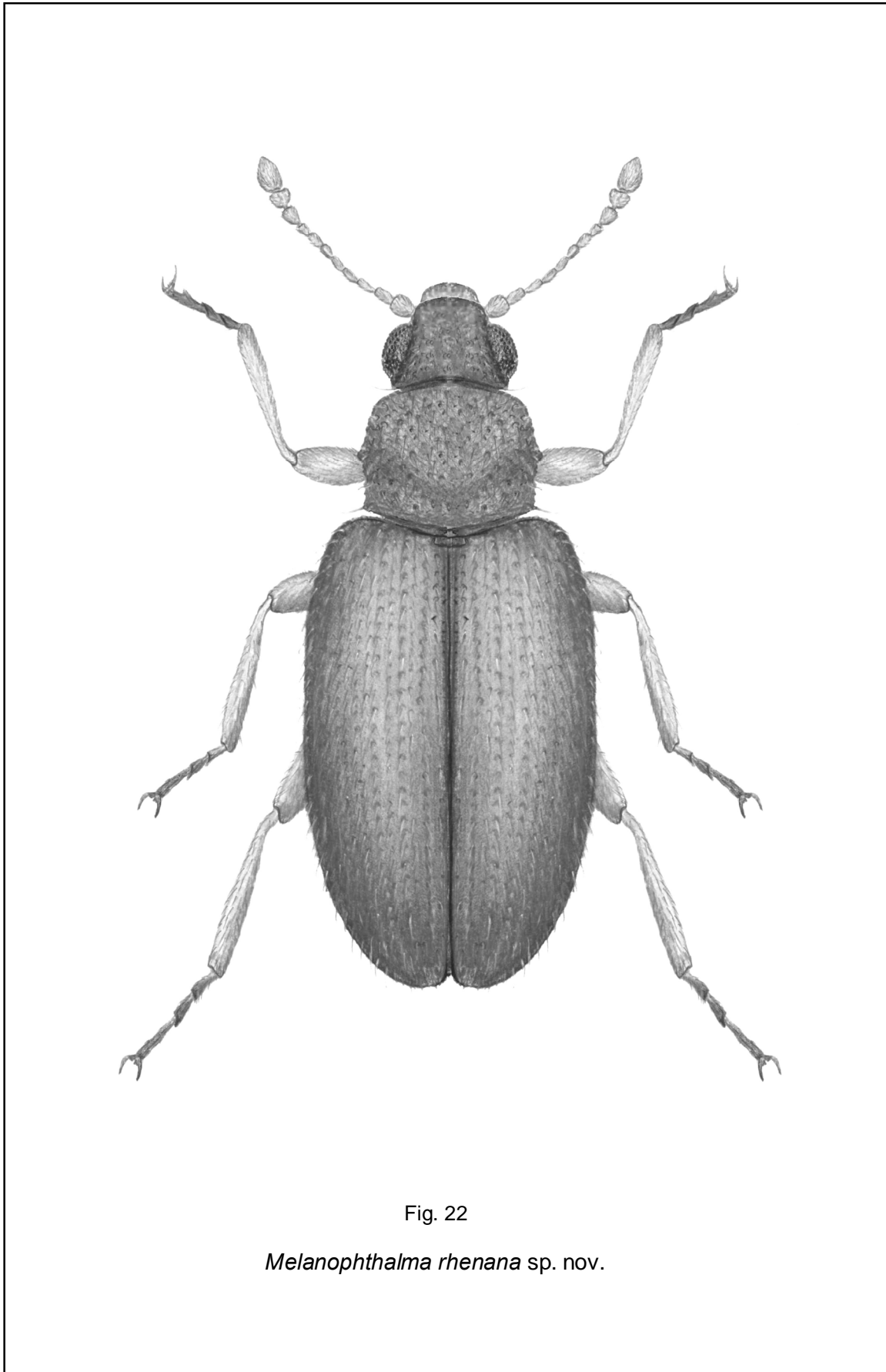


Fig. 22

Melanophthalma rhenana sp. nov.

Figs 23–26 Distribution

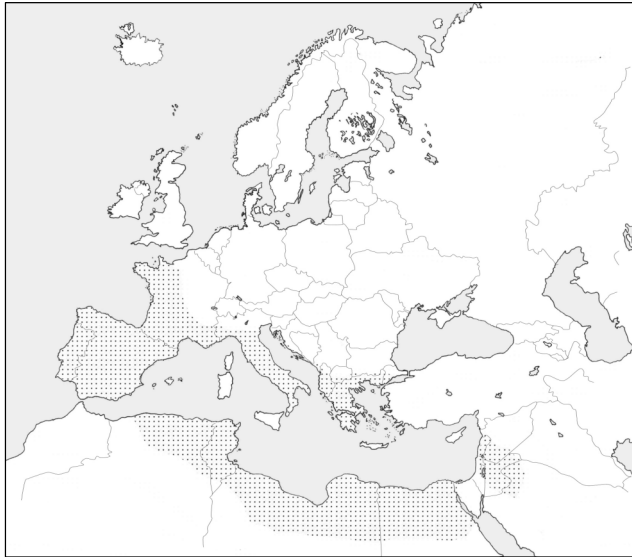


Fig. 23

Melanophthalma algerina MOTSCHULSKY, 1889

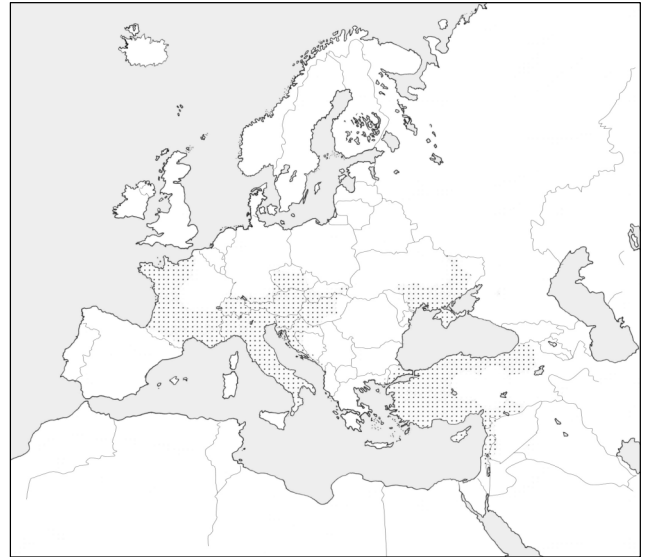


Fig. 24

Melanophthalma rispini sp. nov.

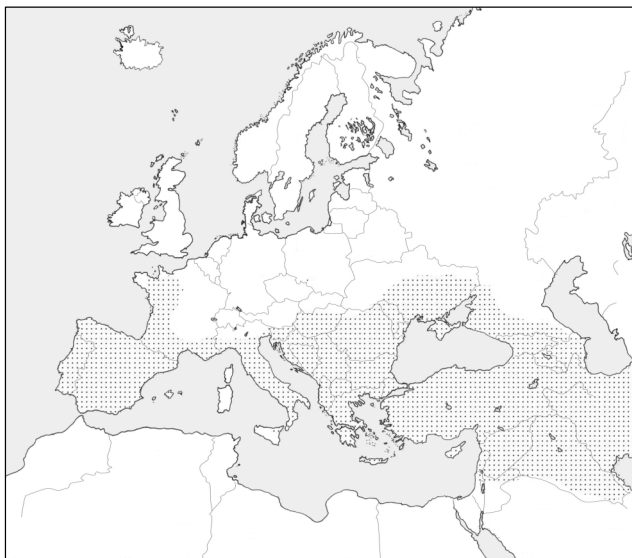


Fig. 25

Melanophthalma extensa REY, 1889



Fig. 26

Melanophthalma taurica (MANNERHEIM, 1844)

Discussion

These species of *Melanophthalma* lend themselves with difficulty to assign them to certain regions. The species *M. extensa* REY, 1889 and *M. algerina* MOTSCHULSKY, 1866 and *M. parvicollis* (MANNERHEIM, 1844) presumably have a very wide distribution in Western Europe. *M. angulata* (WOLLASTON, 1864) occurs rarely from the Canarian Islands, through Tunisia to Egypt. *M. taurica* (MANNERHEIM, 1844) on the other hand is a species occurring in the Caucasus region Eastern Europe and eastwards to central Asia. Since all species of this group including the newly described ones can occur together in localities, investigation of the genitalia of all males is absolutely necessary - the lateral view of the aedeagus as well as its apex in ventral view is important.

Acknowledgements

The authors' thanks for the loan of specimens are due to: FERNANDO ANGELINI, Brindisi, Italy; Drs. CLAUDE BESUCHET & IVAN LÖBL, Muséum d'Histoire Naturelle, Genève, Switzerland; Dr. DMITRI V. LOGUNOV, The Manchester Museum, The University of Manchester, Great Britain; Dr. OTTÓ MERKL, Magyar Természettudományi Múzeum, Budapest, Hungary; Dr. HANS-PETER REIKE, Boxdorf, Germany; ROGER VINCENT, Igé, France; Mrs. TATYANA TRIKHLEB, Ukraine.

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