

Koleopterologische Rundschau	60	37 - 105	Wien, 1990
------------------------------	----	----------	------------

Revision of the Palearctic species of the genus *Ochthebius* LEACH

V. The subgenus *Asiobates* (Coleoptera: Hydraenidae)

M. A. JÄCH

Abstract

Sixty-two species and one subspecies of the subgenus *Asiobates* are treated. A lectotype is designated for *abeillei* GUILLEBEAU, *bellieri* KUWERT, *bonnairi* GUILLEBEAU, *breviusculus* KUWERT, *corsicus* SAINTE-CLAIRE DEVILLE, *cyprensis* KUWERT, *czwalinae* KUWERT, *haberfelneri* REITTER, *immaculatus* BREIT, *impressipennis* REY, *impressus* MARSHAM, *infuscatus* SAHLBERG, *kaninensis* POPPIUS, *laevisculptus* REITTER, *lenkoranus* REITTER, *limbicollis* REITTER, *numidicus* REITTER, *opacus* BAUDI, *perdurus* REITTER, *perfectus* KUWERT, *remotus* REITTER, *rugulosus* WOLLASTON, *striatus* CASTELNAU, *subopacus* REITTER and *taygetanus* KUWERT. Neotypes are designated for *flavipes* DALLA TORRE and *rufipes* DALLA TORRE. New synonymies: *O. flavipes* DALLA TORRE (= *eppelsheimi* KUWERT syn. nov. = *obensis* SAHLBERG syn. nov.), *O. rugulosus* WOLLASTON (= *alpinus* IENISTEA syn. nov. = *hungaricus* ENDRÖDY syn. nov. = *minervius* ORCHYMONT syn. nov.), *O. crenulatus* MULSANT & REY (= *genavensis* IENISTEA syn. nov.), *O. czwalinae* KUWERT (= *stockmanni* BALFOUR-BROWNE syn. nov.), *O. impressipennis* REY (= *perfectus* KUWERT syn. nov. = *ichnusae* PIRISINU syn. nov.), *O. laevisculptus* REITTER (= *lindbergi* JANSSENS syn. nov.), *O. lenkoranus* REITTER (= *ghilanensis* FERRO syn. nov.), *O. opacus opacus* BAUDI (= *O. gallicus* IENISTEA syn. nov.), *O. peregrinus* ORCHYMONT (= *marianii* FERRO syn. nov.) and *O. striatus* CASTELNAU (= *fageli* JANSSENS syn. nov. = *sutorinensis* FERRO syn. nov. = *taygetanus* KUWERT syn. nov.). Eleven new species and one new subspecies are described: *adventicius* sp. n., *corcyraeus* sp. n., *ferganensis* sp. n., *italicus* sp. n., *lederi* sp. n., *olicinium* sp. n., *pliginskiyi* sp. n., *rivibelli* sp. n., *tadilatus* sp. n., *thraciae* sp. n., *turcmeniae* sp. n. and *opacus sardus* ssp. n. The male copulatory organs of all species except *coomani* d'ORCHYMONT, *furcatus* PU, *khnzoriani* JANSSENS, *kiesenwetteri* KUWERT, *pui* PERKINS and *unimaculatus* PU are illustrated.

The subgenus *Asiobates* was erected by THOMSON in 1859 (type-species by monotypy: *O. rufomarginatus* ERICHSON [= *O. bicolon* GERMAR]). In 1887, KUWERT established the subgenera *Trymochthebius* (type-species: *O. bicolon*, by present designation) and *Homalochthebius* (type-species: *O. pygmaeus*, sensu GYLLENHAL [= *O. minimus* FABRICIUS], designated by ORCHYMONT, 1942), which are junior synonyms of *Asiobates*. Finally, in 1988 IENISTEA erected the genera *Mimasiobates* (type-species by original designation: *O. montanus* FRIVALDSKY) and *Lunzochthebius* (type-species by original designation: *O. haberfelneri* REITTER), which are doubtlessly synonyms of *Asiobates* (see also JÄCH, 1989).

The subgenus *Asiobates* differs from other subgenera by pronotal and aedeagal characteristics: 1) sides of pronotum pronouncedly excised in posterior half, anterior (convex) portion always

longer (or at least equally long) than excised (concave) portion. 2) Parameres distinctly divergent from main piece at their bases.

Further characteristics: Front margin of labrum truncate, slightly emarginate or even clearly excised (*turcmeniae*). Median sulcus of pronotum always developed; admedian foveae developed or obsolete or replaced by a transverse suture (*perkinsi*, some African species); a small postocular tooth is sometimes present. Elytral striae usually regular; accessory striae are frequently developed; colour brown to black, occasionally with metallic lustre; one species (*maculatus*) with black spots on yellowish elytra.

Aedeagus: Main piece usually long and slender, curved in lateral aspect and straight in ventral aspect; flattened or cylindrical; length and curvature are usually constant, but can be variable in certain species (*rugulosus*, *laevisculptus*, *maculatus*); phallobasis more or less symmetrical (ventral view); subapical bristles completely reduced. Shape of distal lobe markedly varied; usually cylindrical, not flattened; lateral membrane and its micropores reduced. Parameres widely separated from the main piece; usually very slender and symmetrical, occasionally right one slightly longer; only rarely slightly enlarged apically; apical bristles usually completely reduced, only rarely with some hairs (*bicolon*, cf. *khnzoriani*); insertions asymmetrical in *dilatatus*, *hyblaemajoris* and *gagliardii*.

SEXUAL DIMORPHISM: 1) Front margin of labrum slightly enlarged (upturned) and usually truncate or slightly emarginate in male and slightly more emarginate in female (e.g. all species of the *minimus* group, *annae*, *dilatatus*, *auriculatus*, *striatus*,...) or distinctly emarginate in male and even more so in female (*turcmeniae*) or slightly emarginate in both sexes (*bicolon*, *czwalinae*,...). 2) Mandibles of male fringed with stiff setae (e.g. all species of the *minimus* group, *dilatatus*, *annae*, *striatus*, *auriculatus*, *bicolon*, *dilucidus*,...) or mandibles identical in both sexes (*corsicus*, *opacus*, *amplicollis*, *czwalinae*, *haberfelneri*, *bonnairei*, *kaninensis*, *heydeni*, *italicus*,...). 3) Pro- and mesotarsi modified in male (fig. 9): four proximal segments of protarsus dilated (most species); distal segment of protarsus slightly geniculate (*flavipes*, *dilucidus*); distal segment of mesotarsus more or less distinctly notched (most species of the *minimus* group, *annae*, *striatus*, *dilatatus*, *gagliardii*, *auriculatus*, *bicolon*, *czwalinae*, *dilucidus*,...); or pro- and mesotarsi more or less similar in both sexes (*bonnairei*, *subopacus*,...). 4) Modification of last sternite and tergite: last tergite of female with a more or less strongly developed fringe of stiff setae (all species); last sternite of male more (*dilucidus*, *maculatus*,...) or less (*italicus*, *haberfelneri*, *heydeni*,...) narrower than in female.

SPECIES GROUPS: Two species groups are distinguished (*minimus* group and *bicolon* group). The species of the *minimus* group are mainly united by the missing anterior and posterior foveae of the pronotum (probably apotypic). In *perdurus* rudimentary posterior foveae may be developed. *Ochthebius depressus* forms a transitional stage between the two species groups (only anterior foveae reduced, distal lobe resembling species of both groups), but due to the presence of well-developed anterior foveae I have placed it in the *bicolon* group. Aedeagal similarities within the species groups suggest the presence of several subgroups.

GEOGRAPHY: The majority of species is found in the Palearctic region. The centre of distribution is the Mediterranean. No species have been reported from Japan, the Oriental and the Australian regions yet. Eighteen species have been reported from the New World (southern

border: Ecuador) and a few species are described from the Ethiopian region (especially eastern Africa).

ECOLOGY: While most species are strictly aquatic, occurring in a variety of aquatic habitats, at least two species seem to be terrestrial: Two females of *amplicollis* were collected by K.H.Hyatt in Nepal in "rotting barley husks" and in "litter under trees"; Besuchet, Löbl & Burkhardt got 2 specimens of *subopacus* by sifting the forest floor near Artvin (northeastern Turkey), far away from any aquatic habitat. Running water species: *bicolon*, *striatus*, *montanus*, *haberfelneri*, *opacus*, *impressipennis*, *rivibelli*, *laevisculptus*, and related species. Stagnant water species: all species of the *minimus* group, *dilatatus*, *maculatus*, *auriculatus*, *corcyraeus*, and related species. Some species are reported to be halophilic or even halobiontic: *dilatatus*, *auriculatus*, *corcyraeus*.

Fifty-one species (and 36 synonyms) have been described in the Palearctic realm until today. Eleven new species and one new subspecies are described in this paper. One species will be described in the near future by GARRIDO (in press).

A) *minimus* species group

- | | |
|---------------------------------------|--|
| 1. <i>O. adventicius</i> sp. n. | 8. <i>O. perdurus</i> REITTER |
| 2. <i>O. aeneus</i> STEPHENS | = <i>altaicus</i> JANSSENS |
| = <i>fallax</i> REY | 9. <i>O. pliginskiyi</i> sp. n. |
| = <i>lutescens</i> KUWERT | 10. <i>O. remotus</i> REITTER |
| = <i>pallidipennis</i> VILLA | 11. <i>O. rugulosus</i> WOLLASTON |
| 3. <i>O. coomani</i> ORCHYMONT | = <i>alpinus</i> IENISTEA syn. nov. |
| 4. <i>O. flavipes</i> DALLA TORRE | = <i>hungaricus</i> ENDRÖDY syn. nov. |
| = <i>eppelsheimi</i> KUWERT syn. nov. | = <i>minervius</i> ORCHYMONT syn. nov. |
| = <i>obensis</i> SAHLBERG syn. nov. | 12. <i>O. unimaculatus</i> PU |
| 5. <i>O. furcatus</i> PU | 13. <i>O. yunnanensis</i> ORCHYMONT |
| 6. <i>O. hebaueri</i> JÄCH | |
| 7. <i>O. minimus</i> F. | |
| = <i>impressus</i> MARSHAM | |
| = <i>?murinus</i> CASTELNAU | |
| = <i>rufipes</i> DALLA TORRE | |
| = <i>rufopacus</i> EVERTS | |

B) *bicolon* species group

- | | |
|--|--|
| 14. <i>O. amplicollis</i> CHAMPION | 22. <i>O. corcyraeus</i> sp. n. |
| 15. <i>O. annae</i> FERRO | 23. <i>O. corsicus</i> SAINTE-CLAIRE DEVILLE |
| = <i>cretensis</i> IENISTEA | 24. <i>O. crenulatus</i> MULSANT & REY |
| 16. <i>O. atricapillus</i> REITTER | = <i>genavensis</i> IENISTEA syn. nov. |
| 17. <i>O. auriculatus</i> REY | 25. <i>O. cyrenensis</i> KUWERT |
| 18. <i>O. bellieri</i> KUWERT | 26. <i>O. cyrenaeus</i> FERRO |
| 19. <i>O. bicolon</i> GERMAR | 27. <i>O. czwalinae</i> KUWERT |
| = <i>rufimarginatus</i> STEPHENS | = <i>stockmanni</i> BALFOUR-BROWNE syn. nov. |
| 20. <i>O. bonnairi</i> GUILLEBEAU | |
| 21. <i>O. cantabricus</i> BALFOUR-BROWNE | |

28. *O. depressus* SAHLBERG
29. *O. dilatatus* STEPHENS
= *breviusculus* KUWERT
= *imperfectus* KUWERT
= *impressicollis* CASTELNAU
= *numidicus* REITTER
30. *O. dilucidus* ORCHYMONT
31. *O. ferganensis* sp. n.
32. (*O. sp.* GARRIDO in press)
33. *O. gagliardii* ORCHYMONT
34. *O. haberfelneri* REITTER
35. *O. haeli* FERRO
36. *O. heydeni* KUWERT
37. *O. hyblaemajoris* FERRO
38. *O. impressipennis* REY
= *perfectus* KUWERT syn. nov.
= *ichnusa* PIRISINU syn. nov.
39. *O. italicus* sp. n.
40. *O. kaninensis* POPPIUS
41. *O. khnזורiani* JANSSENS
42. *O. kiesenwetteri* KUWERT
43. *O. laevisculptus* REITTER
= *lindbergi* JANSSENS syn. nov.
44. *O. laticollis* PANKOW
45. *O. lederi* sp. n.
46. *O. lenkoranus* REITTER
= *ghilanensis* FERRO syn. nov.
47. *O. limbicollis* REITTER
48. *O. maculatus* REICHE
= *abeillei* GUILLEBEAU
= *immaculatus* BREIT
= *infuscatus* SAHLBERG
49. *O. montanus* FRIVALDSKY
50. *O. monychus* ORCHYMONT
51. *O. naxianus* IENISTEA
52. *O. olicinium* sp. n.
53. *O. opacus opacus* BAUDI
= *O. barnevillei* REY
= *O. gallicus* IENISTEA syn. nov.
O. opacus sardus ssp. n.
54. *O. perkinsi* PANKOW
55. *O. peregrinus* ORCHYMONT
= *marianii* FERRO syn. nov.
56. *O. pui* PERKINS
= *nitidus* PU (homonym)
57. *O. rivibelli* sp. n.
58. *O. striatus* CASTELNAU
= *fageli* JANSSENS syn. nov.
= *sutorinensis* FERRO syn. nov.
= *taygetanus* KUWERT syn. nov.
= *torrentium* COYE
59. *O. stygialis* ORCHYMONT
60. *O. subopacus* REITTER
61. *O. tadilatus* sp. n.
62. *O. thraciae* sp. n.
63. *O. turcmeniae* sp. n.

ACKNOWLEDGEMENT AND ABBREVIATIONS: The material used for this study was borrowed from the following institutions and private collections (abbreviations are used to refer to collections in the text):

BML	British Museum (Natural History), London (R.Aldridge)
CAL	Coll. Angus, London
CBKB	Coll. Brandstetter & Kapp, Bürs (Rankweil)
CCW	Coll. Cuppen, Wageningen
CFA	Coll. Foster, Ayr
CFB	Coll. Fery, Berlin
CHB	Coll. Hendrich, Berlin
CHD	Coll. Hebauer, Deggendorf
CKH	Coll. Kahlen, Hall in Tirol
CMM	Coll. Montes, Madrid
CMT	Coll. Mencl, Tynec
CPL	Coll. Pretner, Ljubljana (B. Drovenik)
CPM	Coll. Pankow, Markdorf

CSB	Coll. Scheuern, Bad Neuenahr
CSM	Coll. Schembri, Malta
CVH	Coll. Vondel, H.I.Ambacht
FMC	Field Museum of Natural History, Chicago (H.Nelson)
FSF	Forschungsinstitut Senckenberg, Frankfurt/Main (R. zur Strassen)
HUB	Museum der Alexander Humboldt Universität, Berlin (F. Hieke)
ISNB	Institut National des Sciences Naturelles, Bruxelles (L. Baert)
IZI	Institut für Zoologie der Universität Innsbruck (W. Schedl)
MCM	Museo Civico di Storia Naturale, Milano (C. Leonardi)
MCT	Museo Civico di Storia Naturale, Trieste
MFT	Museum Frey, Tutzing (H. Wesiak)
MGL	Musée Guimet d'Histoire Naturelle, Lyon (J. Clary)
MHNG	Muséum d'Histoire Naturelle, Genève (I. Löbl)
MHNP	Muséum d'Histoire Naturelle, Paris (Y. Cambefort)
MMB	Musée Municipal de Brou, Bourg-en-Bresse (F. Poiret)
MTD	Museum für Tierkunde, Dresden (R. Krause)
MZT	Museo di Zoologia Sistemica della Università, Torino (A. Rolando)
NMB	Naturhistorisches Museum, Basel (M. Brancucci)
NMP	Národní Nuseum v. Praze (J. Jelinek)
NMW	Naturhistorisches Museum, Wien
RMS	Riksmuseum, Stockholm (P. Lindskog)
OLL	Oberösterreichisches Landesmuseum, Linz (F. Gusenleitner)
TMB	Természettudományi Múzeum, Budapest (O. Merkl, G. Szél)
TLFI	Tiroler Landesmuseum Ferdinandeum, Innsbruck (G. Tarmann, M. Kahlen)
ZIL	Zoological Institute (Academy of Sciences), Leningrad (A. Kirejtshuk)
ZMH	Universitetets Zoologiska Museum, Helsingfors (H. Silfverberg)

My sincere thanks are due to all persons mentioned above for sending material and valuable informations. I warmly thank Dr. P. Cate for reading the manuscript.

Scale next to figures represents 0.1 mm.

A) The *Ochthebius minimus*-species group

Ochthebius adventicius sp. n.

TYPE LOCALITY: Bakuriani, Gori district, Gruziya (Georgia), Soviet Union.

TYPE MATERIAL: Holotype ♂: "Bakuriani, dist.Gori, 5000' 1. VI 13." (ZIL). Paratypes: 11 exs. with same label data as holotype (ZIL, NMW).

DIAGNOSIS: 2.1 - 2.2 mm long. Darkbrown to black. Surface rather smooth, elytra of female slightly reticulated. Labrum truncate, front margin more or less entire and slightly upturned in

male, slightly emarginate in female. Pronotum sparsely punctured. Elytral striae regular, punctures large and deeply impressed, intervals flat. Last segment of mesotarsus of male geniculate.

Aedeagus (fig. 3): Very large, differs considerably from all other species. Distal lobe flat and recurved.

Ochthebius adventicius is very similar to *O. remotus* from which it differs by the dark colour. *Ochthebius perdurus* is quite similar in body shape but differs by its usually brown colouration. *Ochthebius minimus*, *pliginskiyi* and *rugulosus* have densely punctured elytral striae and slightly convex intervals.

DISTRIBUTION (fig. 65): Known only from the type locality.

ETYMOLOGY: *Adventicius*, 3 (Lat.) - strange, alien. Refers to the deviating shape of the aedeagus.

Ochthebius aeneus STEPHENS

Ochthebius aeneus STEPHENS 1835: 397. - KNISCH, 1924. - NORMAND, 1933. - ORCHYMONT, 1935b, 1937, 1942. - HORION, 1949. - F.BALFOUR-BROWNE, 1958. - CHIESA, 1959. - BURAKOWSKI et al., 1976. - J.BALFOUR-BROWNE, 1978. - PIRISINU, 1981. - VALLADARES, 1986. - FRIDAY, 1988.

Ochthebius pallidipennis VILLA 1835: 48. - KNISCH, 1924. - ORCHYMONT, 1942.

Ochthebius fallax REY 1886: 41. - KNISCH, 1924. - ORCHYMONT, 1942.

Ochthebius lutescens KUWERT 1890: 266. - KNISCH, 1924. - ORCHYMONT, 1942. - ENDRÖDY, 1967.

TYPE LOCALITY: Putney Heath, London, Great Britain.

TYPE MATERIAL: Lectotype (designated by d'ORCHYMONT, 1937): "♀ / Type / Putney Heath / BRITAIN STEPHENS COLL. / TYPE / A. d'Orchymont Rev. *Ochthebius* (*Homalochthebius*) *aeneus* Stephens" (BML). As the label data agree very well with the original description I have no doubt that this female belongs to the type series. Number of syntypes unknown.

SYNONYMS: The types of *pallidipennis* (described from Italy), which were deposited in the MCM are destroyed.

The holotype (by monotypy) of *O. fallax* (type locality: Collioure, Pyrénées orientales) is deposited in the MGL (Rey collection).

In the MHNP I found two specimens of *O. aeneus* under the name "var. *lutescens* Pand. Pyr.", which are labeled "*Ochthebius lutescens* Pand. Altos Pirineos / Ex. Musaeo S. de Uhagon 1904". These specimens might well be syntypical, as KUWERT (1890) described his taxon as "var. *lutescens* Pand. [=Pandellé]". I did not designate a lectotype as there is no evidence that these specimens are from either the Pandellé or the Kuwert collection.

DIAGNOSIS: This species is well characterized by its pale brown elytra and the superficial punctuation. Elytral margin fringed with fine hairs. Elytra of female more or less smooth, only rarely slightly rugulose. Aedeagus (fig. 1).

DISTRIBUTION (fig. 65): Atlanto-mediterranean.

ADDITIONAL MATERIAL EXAMINED:

F R A N C E: GERS: leg. Guillebeau (NMW); HAUT GARONNE: Toulouse (DEI); Miremont (DEI).

S P A I N: Palencia, leg. Paganetti (NMW, DEI, HUB); Ibiza, San Miguel, 20.V.1978, leg. Malicky (NMW); Mallorca, Playa de la Cuarassa, 3.I.1990, leg. Foster (CFA); Menorca, Barranco de Algendar, 3.VII.1983, leg. Montes (CMM, NMW); Menorca, Playa tirant, 5.VIII.1983, leg. Montes (CMM, NMW).

M O R O C C O: Casablanca, leg. Reitter (TMB).

A L G E R I A: Biskra (MFT).

T U N I S I A: Kairouan, leg. Normand (MHNP).

Ochthebius coomani ORCHYMONT

Ochthebius coomani ORCHYMONT 1925: 265. - ORCHYMONT, 1928, 1942.

TYPE LOCALITY: Hoa Binh, w Hanoi, northern Vietnam.

TYPE MATERIAL: I have not seen the holotype ♀ (ISNB) and the two female paratypes (ISNB).

REMARKS: The aedeagus was illustrated by ORCHYMONT (1942, fig. 5).

DISTRIBUTION (fig. 66): Known only from the type locality.

Ochthebius flavipes DALLA TORRE

Ochthebius pygmaeus var. *flavipes* DALLA TORRE 1877: 71. - KNISCH, 1924.

Ochthebius obensis SAHLBERG 1880: 60 (= syn. nov.). - KNISCH, 1924.

Ochthebius eppelsheimi KUWERT 1887: 394 (= syn. nov.). - KNISCH, 1924. - ORCHYMONT, 1942. - CHIESA, 1959. - ENDRÖDY, 1967, 1968, 1969. - IENISTEA, 1968b, 1978, 1979. - LOHSE, 1971. - BURAKOWSKY et. al., 1976. - DANNAPFEL, 1980. - GEISER, 1982.

TYPE LOCALITY: Linz, Austria.

TYPE MATERIAL: DALLA TORRE (1877) described two varieties of *O. pygmaeus* [= *O. minimus*] in his synopsis of the Upper Austrian insects: var. *flavipes* ("[Beine] hellgelb") and var. *rufipes* ("Beine roth"). Indeed there are two different species in the Danube backwaters in Upper Austria: the well known *O. minimus* and a much paler brownish species (*obensis* SAHLBERG = *eppelsheimi* sensu auctorum) with usually yellow legs. Both are common. It is plausible that DALLA TORRE had these two species before his eyes when he described the varieties. As the DALLA TORRE collection is irretrievably lost (see JÄCH, 1988: 135), neotypes must be designated: Neotype ? of *Ochthebius flavipes* (pres. des.): "Linz H. Priesner" (NMW).

SYNONYMS: Lectotype ♂ (pres. des.) of *O. obensis*: "Narym 59°. / Ob-Ienissej Exp. 1876. F. Trybom det. J. Sahlberg / Typus / *Asiobates obensis* Typ. J. Sahlb. / 398 88 / Riksmuseum Stockholm" (RMS). Paralectotypes: 2 exs. with same label data as lectotype (RMS); 1 ex.: "Surgut 61° 10'" (RMS) and 4 ex.: "Obi fl. / J. Sahlb. / J. Sahlb. ind. typ." (RMS, MHNP).

Ochthebius eppelsheimi was described from Hungary. Unfortunately there is no Hungarian specimen in the Eppelsheim collection in the NMW. The three specimens of *O. flavipes* in the Eppelsheim collection are labeled "Maxau" [= near Karlsruhe, FRG]. Thus I refrain from a lectotype designation.

DIAGNOSIS: Elytra usually brownish with an elongated black marking on each half, which may be connected in the middle, thus forming an "X" or an "H". Elytra of female usually smooth, never chagreened.

Aedeagus (fig. 6): quite similar to that of *rugulosus*, but basal half of distal lobe much wider and apical half straight, not curved ventrad.

DISTRIBUTION (fig. 65): Euro-sibirian.

ADDITIONAL MATERIAL EXAMINED:

F R A N C E: BOUCHES DU RHONE: Aix, leg. Koechlin (HUB) - ? label mistake.

G E R M A N Y (west): SCHLESWIG-HOLSTEIN: Kossau nr Plön, leg. Schröder (MTD); NORDRHEIN-WESTFALEN: Bonn, 9.VII.1938, leg. Rüschkamp (MHNG); Duisburg (TLFI); BADEN-WÜRTTEMBERG:

Maxau, leg. Eppelsheim (NMW); HESSEN: Darmstadt (FMC, DEI); BAYERN: Winzer, 20.IV.1977, leg. Hebauer (NMW, CHD).

G E R M A N Y (east): HALLE: Köthen (NMW).

A U S T R I A: WIEN: Lobau, Kreuzgrund, 11.VII.1984, leg. Jäch (NMW); Lobau, Fasangartenarm, 26.VI.1983, leg. Jäch (NMW); NIEDERÖSTERREICH: Spillern, 13.V.1980, leg. Jäch (NMW); Zeiselmauer, 4.IX.1967, leg. Wewalka (NMW, CWW); Stockerau, leg. Bernhauer (NMW); Marchfeld, leg. Blühweiss (NMW); Marchegg, 26.IV.1980, leg. Jäch (NMW); Stopfenreuther Au, 2.VIII.1983, leg. Jäch (NMW).

H U N G A R Y: Kalosca (FMC).

C Z E C H O S L O V A K I A: SLOVAKIA: Zemplinske vrchy, Ladmovce, 16.III.1975, leg. Mencl (CMT, NMW).

Y U G O S L A V I A: VOJVODINA: Morovic, leg. Zoufal (DEI).

P O L A N D: Breslau (= Wroclaw), leg. Letzner (DEI).

R O M A N I A: Dobrogea (NMW); Slatina, Macin, 23.V.1959, leg. Ienistea (NMB).

S O V I E T U N I O N: MOLDAVIYA: Lipkany, 10.V.1918, leg. Springer (NMW).

Ochthebius furcatus PU

Ochthebius yunnanensis ssp. *furcatus* PU 1958: 253.

TYPE LOCALITY: Chengkiang, Yunnan, China.

TYPE MATERIAL: I did not see the holotype male or any of the 140 paratypes which are deposited in the Zhongshan (Sun Yatsen) University, Guangzhou (Canton).

REMARKS: The aedeagus depicted in the original description is not very similar to the aedeagus of *yunnanensis*, illustrated by ORCHYMONT (1942). Thus I think that *furcatus* is a proper species and not a subspecies of the former.

DISTRIBUTION (fig. 66): Known only from the type locality.

Ochthebius hebaueri JÄCH

Ochthebius hebaueri JÄCH 1983: 110. - IENISTEA, 1988.

TYPE LOCALITY: Virpazar, Lake Skutari, Crna Gora, Yugoslavia.

TYPE MATERIAL: The holotype ♂ is deposited in the CHD. Twenty-four paratypes are deposited in the CHD and NMW.

DIAGNOSIS: I was not able to find constant external differences between *hebaueri*, *minus* and *rugulosus*.

Aedeagus (fig. 5): distal lobe smaller than in the two other species.

DISTRIBUTION (fig. 65): Yugoslavia (Croatia, Crna Gora).

ADDITIONAL MATERIAL EXAMINED:

Y U G O S L A V I A: CROATIA: Metkovic (NMW); Dubrovnik (NMW); CRNA GORA: D. Plavnica, 8.VII.1955, leg. Pretner (NMW); Herceg Novi (DEI).

Ochthebius minimus (FABRICIUS)

Ochthebius minimus FABRICIUS 1792: 330 (described as *Elophorus*). - KNISCH, 1924. - ORCHYMONT, 1937, 1942. - F.BALFOUR-BROWNE, 1958. - BRAKMAN, 1966. - IENISTEA, 1968a, 1968b, 1978, 1979, 1982. - FRANZ, 1970. - LOHSE, 1971. - GEORGUIEV, 1971. - BURAKOWSKI et al., 1976. - NIEUKERKEN & TOL, 1978. - BANGSHOLT et. al., 1979. - BERCIO & FOLWACZNY, 1979. - DANNAPFEL, 1980. - BIESIADKA, 1980, 1988. - HEBAUER, 1980, 1983. - BURMEISTER, 1981. - PIRISINU, 1981. - BELLSTEDT, 1982. - NIEUKERKEN, 1982. - FOSTER & MAGNUS, 1982. - FICHTNER, 1983. - MOL,

1984. - EYRE & FOSTER, 1984. - NILSSON, 1984, 1987. - SPITZENBERG, 1985, 1987. - GRÄF, 1987. - HANSEN, 1987. - DRAKE, 1988. - FRIDAY, 1988, 1990. - FOSTER et al., 1989. - KORDYLAS, 1990. *Ochthebius impressus* MARSHAM 1802: 408 (described as *Hydrophilus*). - KNISCH, 1924. - ORCHYMONT, 1927, 1937. - CHIESA, 1959. - ENDRÖDY, 1967, 1968, 1969. - ALFIERI, 1976. *?Ochthebius murinus* CASTELNAU 1840: 48. *Ochthebius rufipes* DALLA TORRE 1877: 71 (described as a variety of *O. pygmaeus*). - KNISCH, 1924. *Ochthebius rufopacus* EVERTS 1920: 243 (described as an aberration of *O. riparius*). - KNISCH, 1924. - ORCHYMONT, 1942.

TYPE LOCALITY: "Europae aquis".

TYPE MATERIAL: Lectotype ♂ (designated by ORCHYMONT, 1937) and 5 paralectotypes are deposited in the Zoological Museum of the University, Kiel (Germany).

SYNONYMS: The BML contains two syntypes (♂♂) of *O. impressus*: "*impressus* / BRITAIN STEPHENS COLL. / *O. pygmaeus* / ♂ / ♂ / A. d'Orchymont Rev. *Ochthebius* (*Homalochthebius*) *minimus* (F.)". According to R. J. W. Aldridge (i.l.) Marsham's collection was acquired by Stephens and incorporated into his collection. I dissected one of the two males, which is identical with *O. minimus* (FABRICIUS) and herewith designated as lectotype of *Hydrophilus impressus* MARSHAM.

Neotype ♂ of *Ochthebius rufipes* (pres. des.): "Ob.-Oest. Munganast / Umgeb. Linz 4.7.07 / Ob.-Oest. / *impressus* Mrsh. det. Dr H. Priesner / *Ochthebius minimus* det. M. Jäch" (OLM). For further information about *rufipes*, see under *flavipes*.

I have not seen the types of *O. rufopacus*, described from Holland, but there is very little doubt that it is a synonym of *minimus*.

DIAGNOSIS: Very variable species. Externally this species cannot be distinguished from *hebaueri* and *rugulosus*. It differs from *flavipes* by the usually more densely punctured pronotum, by its surface being less smooth and by the darker colouration. Elytra usually dark green or almost black, margin occasionally brown, but middle of elytra always black. Females usually with distinctly chagreened elytra, males usually smooth, only rarely reticulated, but never distinctly chagreened.

Aedeagus (fig. 8): quite constant, very little variation observed.

DISTRIBUTION (fig. 66): British Islands to Nepal.

ADDITIONAL MATERIAL EXAMINED:

N E T H E R L A N D S: Oostvoorne, 26.VII.1986, leg. Vondel (NMW, CVH); Halsteren (NMW).

F R A N C E: PARIS: 28.X.1900 (NMW); ILLIER: (MTD); ILLE-ET-VILLAIN: Rennes (NMW); LANDES: La Palmyre, VIII.1967, leg. Besuchet (MHNG).

S W I T Z E R L A N D: Basel, V.1908 (NMB).

G E R M A N Y (west): HAMBURG: (DEI); SCHLESWIG-HOLSTEIN: Lübeck, Grönauer Heide (MHNG); Oldesloe, 17.IV.1976 (MHNG); NIEDERSACHSEN: Bremen, leg. Budberg (NMW); Vechta, 19.IV.1944, leg. Kerstens (NMW); Hannover, 22.VIII.1912, coll. Ihssen (HUB); Hildesheim (OLL); NORDRHEIN-WESTFALEN: Düsseldorf, Mönchenwerth, XII.1939, leg. Ermisch (HUB); Rees, 13.VI.1935, leg. Ermisch (HUB); Düsseldorf, Büderich, 16.IV.1939, leg. Ermisch (HUB); RHEINLAND-PFALZ: Dürkheim, leg. Eppelsheim (NMW); Grünstadt, leg. Eppelsheim (NMW).

G E R M A N Y (east): Erfurt, nr. Gotha, 23.V.1986, leg. Jäch (NMW); Harz, Netzkater, 11.III.1914, leg. Petry (HUB); Halle: Eisleben, Bindersee, leg. Feige (HUB); Ammendorf, Elsteraue, 30.IV.1921, leg. Maertens (HUB); Naumburg, 14.I.1920, leg. Maertens (HUB); Seeburg, 13.II.1920, leg. Feige (HUB); Potsdam: Golm, II.1916 (NMW); Spandau (HUB); Veltin, leg. Laas (HUB); Schwerin: Schweriner See, Insel Liepa, 3.VIII.1972, leg. Uhlig (HUB); Rostock: Zingst (HUB); Neubrandenburg: Malchin, 10.VIII.1978, leg. Uhlig (HUB); Strelitz, leg. Formanek (NMW); Müritz NR, 7.X.1975, leg. Uhlig (HUB); Frankfurt: Storkow (HUB);

- Leipzig (Schkeuditz, Merseburg, Lindenthal), 1915 - 1937, leg. Linke (HUB, MTD); Leipzig (NMW); Dresden, Dobritz, 18.VII.1915 (HUB); Berlin: Biesdorf, 23.VII.1983, leg. Günther (HUB).
- A U S T R I A: WIEN: Donauauen, leg. Pazourek (NMW); Lobau (several localities), leg. Jäch (NMW); Augarten, 16.IV.1980, leg. Jäch (NMW); Laaerberg, leg. Schlereth (NMW); Prater, Lusthauswasser, 16.IV.1980, leg. Jäch (NMW); Neuwaldegg, 8.V.1980, leg. Jäch (NMW); NIEDERÖSTERREICH: Ullrichskirchen, 29.VII.1986, leg. Jäch (NMW); Herrnbaumgarten, 29.VII.1986, leg. Jäch (NMW); Mistelbach, 23.7.1986, leg. Jäch (NMW); Marchegg, 20.IV.1983, leg. Jäch (NMW); Stopfenreuter Au, 2.VIII.1983, leg. Jäch (NMW); Kritzendorf, leg. Mandl (NMW); Rohrwald, leg. Otto (NMW); Spillern, 13.V.1980, leg. Jäch (NMW); Stockerau, 20.V.1980, leg. Jäch (NMW); Mödling, 15.V.1980, leg. Jäch (NMW); Schönaauer Teich nr Wr. Neustadt, 20.VI.1984, leg. Jäch (NMW); Arbesthal, leg. Holdhaus (NMW); Bad Vöslau (NMW); Krems, leg. Bachinger (NMW); Laxenburg (NMW); BURGENLAND: Podersdorf, VII.1928, leg. Prock (NMW); Illmitz, 16.IV.1976, leg. Wewalka (NMW, CWW); Zornsdorf, 18.VI.1986, leg. Jäch (NMW).
- H U N G A R Y: Bács, Kéleshalom, 28.V.1962, leg. Endrödy (TMB, NMW); Kelebia, Halastavak, 18.X.1962, leg. Endrödy (TMB, NMW).
- C Z E C H O S L O V A K I A: MORAVIA: Brno, leg. Formanek (NMW); M.Weisskirchen (= Hranice), leg. Zoufal (DEI); Aussee (s Sumperk) (NMW); BOHEMIA: Brandys/Elbe (NMW).
- I T A L Y: MODENA: 30.III.1896, leg. Fiori (HUB); BERGAMO: Dalmine, 23.IV.1972, leg. Kiener (MHNG); BOLOGNA: 20.VI.1899, leg. Fiori (HUB); Sala, 18.X.1908, leg. Fiori (MHNG).
- Y U G O S L A V I A: CROATIA: Brod, 4.IX.1943, leg. Pretner (CPL, NMW); Osijek, 30.VII.1976, leg. Fery (CFB); SERBIA: Fruska Gora, IV.1930, leg. Pretner (CPL, NMW); BOSNIA: Pazaric, leg. Apfelbeck (NMW).
- G R E E C E: Thraki, ne Alexandroupolis, 27.VII.1988, leg. Jäch (NMW); Ebros plain, 26.VII.1988, leg. Jäch (NMW).
- D E N M A R K: Kobenhavn (NMW).
- N O R W A Y: Langesund, 10.V.1903, leg. Strand (HUB).
- S W E D E N: Elketrask Lake, Fore, Gotland, VIII.1959, leg. Malkin (FMC).
- P O L A N D: Gdansk (Danzig) (NMW); Breslau (= Wroclaw), leg. Letzner (DEI); Glatz (= Glodzko), leg. Letzner (DEI).
- R O M A N I A: Comana Vlasca, leg. Montandon (HUB).
- T U R K E Y: SAMSUN: Carsamba, 27.V.1989, leg. Jäch (NMW).
- S O V I E T U N I O N: LATVIA: Libau (= Liepaja), 27.IV.1910, leg. Lackschewitz (HUB); UKRAINA: Tiligul r., Odessa, 22.IV.1921, leg. Znojko (CPL, NMW); WHITE RUSSIA: Pripet, 27.VII.1928, leg. Maholsky (CPL, NMW).
- N E P A L: Khumbu, Sutje nr Lughla, leg. Franz (NMW).

Ochthebius perdurus REITTER

Ochthebius perdurus REITTER 1899: 198. - KNISCH, 1924. - ORCHYMONT, 1935a, 1942. - JANSSENS, 1971.
Ochthebius altaicus JANSSENS 1968b: 85. - JANSSENS, 1971.

TYPE LOCALITY: Northern Mongolia, Hangayn Nuruu Mts.

TYPE MATERIAL: Lectotype ♂ (pres.des.): "Nordl. Mongolei Changai [= Hangayn Nuruu] Leder / coll. Reitter / *O. perdurus* m. n. sp. Shangai 1893" (TMB). Eighteen paralectotypes with similar labels in TMB, NMW, ZIL, MTD, DEI and MHNP.

SYNONYMS: The synonymy (*perdurus* = *altaicus*) was confirmed by JANSSENS (1971).

DIAGNOSIS: A unicolorous brown species, elytra smooth or slightly rugulose - in both sexes. Pronotum usually sparsely (but sometimes quite densely) punctured; rudimentary posterior foveae (accumulations of punctures) can be observed occasionally.

Aedeagus (fig. 2): distal lobe similar to that of *rugulosus*, but without any setae, apical rod much longer.

DISTRIBUTION (fig. 66): Mongolia, Soviet Union (Kazakhstan).

ADDITIONAL MATERIAL EXAMINED:

S O V I E T U N I O N: KAZAKHSTAN: sw Alma Ata [Kentyktau], leg. Sahlberg (DEI, ZMH, ZIL); Karkaralinsk, 19.VIII.1972, leg. Konev (CAL).

M O N G O L I A: 24 km e Somon Cagannuur, 29.VI.1968, leg. Kaszab (TMB, NMW).

***Ochthebius pliginskiyi* sp. n.**

TYPE LOCALITY: Talish Mts., Azerbaydzhan, Soviet Union.

TYPE MATERIAL: Holotype ♂: "Talysch Reitter" (NMW). Paratypes: 3 exs.: "Lenkoran Leder (Reitter)" (TMB, DEI); 1 ex.: "Reitter / Lenkoran / planicollis Reitter / Museum Paris ex. Coll. R. Oberthür" (MHNP); 1 ex.: "West-Caucas Utsch-Dere E. König / Mus. Caucas. 75 - 15 / *Ochthebius pygmaeus*" (ZIL); 12 exs.: "Krim Angarsk. Perv. Jaltysk. u. Luzha Shosse 1.VII.07 W. Pliginskiy" [partly in Cyrillic script] (ZIL, NMW).

DIAGNOSIS: 1.8 - 2.0 mm long. Externally this new species cannot be distinguished from *mini-mus*, *rugulosus* and *hebaueri*.

Aedeagus (fig. 4): quite constant, no variability observed, distal lobe similar to that of *rugulosus*, but without any setae, apical rod of distal lobe long and evenly curved.

DISTRIBUTION (fig. 65): Soviet Union: Ukraina (Crimea) to Azerbaydzhan.

ETYMOLOGY: Named for W. PLIGINSKIY, who collected most of the type specimens.

***Ochthebius remotus* REITTER**

Ochthebius remotus REITTER 1885: 361. - KNISCH, 1924. - IENISTEA, 1978.

TYPE LOCALITY: Caucasus.

TYPE MATERIAL: Lectotype ♂ (pres. des.): "*O. remotus* m. / Kaukas Leder / coll. Reitter" (TMB). Number of syntypes not known: "wenige Stücke von Hans Leder gesammelt."

DIAGNOSIS: The lectotype (2.2 mm long) is very broad; pronotum and elytra uniformly brown, head black; pronotum and elytra wider than in *flavipes* and *aeneus*; surface glabrous and shining, pronotum with few large punctures; elytral punctures more strongly impressed than in *aeneus*; mandibular teeth slightly stronger than in *flavipes*. Last segment of middle tarsus curved.

Aedeagus (fig. 15) very similar to that of *rugulosus*, but basal part of distal lobe wider and parameres longer.

DISTRIBUTION (fig. 65): Known only from the type locality.

***Ochthebius rugulosus* WOLLASTON**

Ochthebius rugulosus WOLLASTON 1857: 28. - KNISCH, 1924. - ORCHYMONT, 1940b, 1942. - IENISTEA, 1978, 1988. - BIESIADKA, 1988.

Ochthebius minervius ORCHYMONT 1940b: 42 (= syn. nov.). - ORCHYMONT, 1942. - IENISTEA, 1978, 1979, 1988. - PIRISINU, 1981. - BIESIADKA, 1988.

Ochthebius hungaricus ENDRÖDY 1967: 9 (= syn. nov.). - ENDRÖDY, 1968. - IENISTEA, 1978, 1979, 1988. - BIESIADKA, 1988.

Homalochthebius alpinus IENISTEA 1979: 935 (= syn. nov.). - IENISTEA, 1982.

TYPE LOCALITY: Porto Santo, Madeira, Portugal.

TYPE MATERIAL: Lectotype ♂ (pres.des.): "Type / *rugulosus*, Woll." (BML). The type series consists of "...a few specimens...". I did not see the remaining syntypes.

SYNONYMS: I have not seen the holotype ♂ or any of the six paratypes of *O. minervius*, described from Sardinia (deposited in the ISNB), and I have not examined the holotype ♂ or any of the 47 paratypes of *O. hungaricus*, described from Hungary (deposited in the TMB), but I have seen a lot of Mediterranean and Central European specimens.

I have seen the type (♂) and 8 paratypes (MHNG, NMW) of *O. alpinus*, collected near Zermatt (Valais, Switzerland) at altitudes around 2300 and 2500 m.

DIAGNOSIS: *Ochthebius rugulosus* is very widespread and variable (size, puncturation, convexity of pronotum and elytra, body shape, elytral chagreen). The specimens vary geographically, much less within populations. Females with elytra almost glabrous (Switzerland, Canary Islands, Kazakhstan, Manchuria), slightly reticulated (Corsica) or very strongly chagreened (Austria, Ukraine, Israel). Males usually with glabrous elytra but I have seen a number of specimens with distinctly reticulated elytra (Austria, Ukraine). Due to the variability it is very difficult to find any significant characters to distinguish *rugulosus* from *minimus*. Central European specimens differ from *flavipes* by the narrower and more convex pronotum and elytra, the densely punctured pronotum, darker colour and the less glabrous surface (in both sexes). Mandibular teeth of males less strong than in *flavipes*. Populations from the Canary Islands and Kazakhstan are not as easily distinguished from *flavipes*.

I have examined the last abdominal sclerites and the spermatheca of approximately 20 Central European females of *rugulosus* and compared them with *minimus*. Last tergite (fig. 10) usually slightly wider in *minimus*, but this character is merely statistical and cannot be used for identification. Spermatheca (fig. 12) quite variable in both species.

Aedeagus (figs. 13, 14): Varies geographically, but it is quite constant within populations. The variability concerns mainly the size, the curvature of the main piece and the shape of the complicated distal lobe. Specimens from Kazakhstan are quite devious, but I found no significant difference to separate them from other populations. Distal lobe differs immediately from that of *flavipes* by the narrower basal half and by the appendix, which is always pointing to the ventral side (straight or pointing dorsad in *flavipes*).

DISTRIBUTION (fig. 66): Palearctic.

ADDITIONAL MATERIAL EXAMINED:

F R A N C E: CORSICA: Ajaccio, leg. Schneider (NMW, DEI, MTD); Aleria, leg. Leonhard (MTD, DEI); Mte Renoso, leg. Leonhard (DEI).

A U S T R I A: WIEN: Bisamberg (NMW); NIEDERÖSTERREICH: Donauauen (NMW); Dornbach, leg. Schlereth (NMW); Rohrwald, 1896, leg. Otto (NMW); Rosenburg, leg. Minarz (NMW); Gars, leg. Minarz (NMW); Plank, leg. Minarz (NMW); BURGENLAND: Neusiedler See, 1889, leg. Ganglbauer (NMW).

H U N G A R Y: leg. Rosenhauer (NMW).

C Z E C H O S L O V A K I A: MORAVIA: Brno, leg. Formanek (NMW); SLOVAKIA: Ladmovce, 9.VIII.1982, leg. Mencl (CMT).

S P A I N: PALENCIA: leg. Paganetti (NMW); TENERIFE: Adeje, B. del Infierno, 200 m (NMW); Laguna, leg. Cabrera (MTD); GRAN CANARIA: Moya (NMW); B. de Tirajana, 1200 m, 7.VI.1989, leg. Balke & Hendrich (NMW, CHB); FUERTEVENTURA: leg. Polatzek (NMW).

I T A L Y: SARDINIA: Terra Nova, leg. Paganetti (NMW); Assuni, leg. Krausse (MTD).

S W E D E N: Jämtland, Ragunda, 5.VI.1987, leg. Cuppen (CCW, NMW).

B U L G A R I A: Varna, VII.1908, leg. Rambousek (NMW); Ciren, 17.VIII.1963, leg. Pretner (CPL, NMW).

E G Y P T: Cairo (MHNP); Ismailiya (MHNP).

I S R A E L: Mt. Hermon, B. Ativ, 26.VIII.1985, leg. Jäch (NMW); Golan, 2264/2585, 8.IV.1986, leg. Jäch (NMW); Golan, Sha'al, 3.VIII.1985, leg. Jäch (NMW); Golan, Ein Juwiza, 3.VII.1985, leg. Jäch (NMW); Golan, N. Daliyot, 31.III.1985, leg. Jäch (NMW); Golan, Ayoun-a-tariq, 16.VII.1985, leg. Jäch (NMW); Golan, N. Samakh, 12.IV.1986, leg. Jäch (NMW); Golan, Yesud ha'Mala, 16.VII.1985, leg. Jäch (NMW); shores of Lake Kinneret, 12.IV.1986, leg. Jäch (NMW); P. ha'Yarden, 12.IV.1986, leg. Jäch (NMW); En Yezzer (nr L. Kinneret), 27.VIII.1985, leg. Jäch (NMW); Hula reserve, 20.III.1985, 13.IV.1986, leg. Jäch (NMW).

S O V I E T U N I O N: UKRAINA: Kiew, 7.VIII.1943, leg. Prock (NMW); KAZAKHSTAN: Kara Butak (ZIL, NMW); SIBERIA: Novosibirsk oblast, Karasuk, V., VI., 1982, leg. Angus (CAL); Novosibirsk, 27.V.1982, leg. Angus (CAL).

C H I N A: Harbin, Heilunkiang, 11.VI.1965, 9.IX.1966, leg. Hammond (BML, NMW).

Ochthebius unimaculatus PU

Ochthebius unimaculatus PU 1958: 252.

TYPE LOCALITY: Guiyang (= Kweiyang), Guizhou (= Kweichow) province, China.

TYPE MATERIAL: I did not see the male holotype or any of the 74 paratypes, which are deposited in the Zhongshan (Sun Yatsen) University, Guangzhou (Canton).

DISTRIBUTION (fig. 66): China (Guizhou, Sichuan, Guangdong).

Ochthebius yunnanensis ORCHYMONT

Ochthebius yunnanensis ORCHYMONT 1925: 263. - ORCHYMONT, 1928, 1935a, 1942. - PU, 1958.

TYPE LOCALITY: Yunnan, China.

TYPE MATERIAL: I have examined two paratypes (♂ + ♀): "Yunnan / Coll. Deuts. Ent. Mus / Cotypes / A. d'Orchym. det. *Ochthebius (Homalochth.) yunnanensis* Orchym." (DEI). The holotype ♂ and a series of paratypes are housed in the ISNB.

DIAGNOSIS: 2.0 - 2.2 mm long. Elytra usually brown, with dark markings - like in *flavipes*. Pronotal puncturation very dense, which distinguishes *yunnanensis* from all other species known to me. Punctures of elytral striae small. The accessory striae mentioned in the original description are absent in the two paratypes of the DEI. Sexual dimorphism: Labral emargination of male more or less obsolete (distinct in female); mandibles of male with strong spines; lateral margin of female elytra wider and slightly more acuminate apically; front tarsi slightly enlarged (middle tarsi missing). According to ORCHYMONT (1925) *yunnanensis* differs from *coomani* by the dense pronotal puncturation, by the smaller elytral punctures, by the convex body shape and by the aedeagus. I have not seen *furcatus* and *unimaculatus*, but their aedeagi (see PU, 1958) are quite different.

Aedeagus (fig. 7): resembles that of *hebaueri*, *pliginskiyi* and *rugulosus*, but the apical branch of the distal lobe is very short and simple in *yunnanensis*.

DISTRIBUTION (fig. 66): Known only from Yunnan.

B) The *Ochthebius bicolon* species group

Ochthebius amplicollis CHAMPION

Ochthebius amplicollis CHAMPION 1925: 172. - ORCHYMONT, 1928.

TYPE LOCALITY: Naini Tal, Uttar Pradesh, northern India.

TYPE MATERIAL: Holotype ♂ (by monotypy): "Nainital U. P. 7-8600 ft. July 1923 HGC / SWEEPING / 4473 / TYPE H.T. / *Ochthebius amplicollis* Type Ch. / *Ochthebius amplicollis*, Ch. / E.M.M. 1925. det. G.C.C." (BML).

DIAGNOSIS: This species is rather small (1.7 mm long) and has a densely punctured and strongly convex pronotum. Anterior and posterior foveae are greatly obscured by the dense punctuation. Accessory stria consists of ca. 3 punctures. Elytral intervals slightly convex and slightly rugulose. *Ochthebius amplicollis* resembles *O. haberfelneri* from Europe.

Aedeagus (fig. 27): apex of distal lobe deeply furcate.

DISTRIBUTION (fig. 70): Nepal to Uttar Pradesh.

ADDITIONAL MATERIAL EXAMINED:

N E P A L: Dzunda Khola nr Talphi, 3000 - 3500 m, Jumla area, leg. Franz (NMW); Gurjakhani, rotting barley husks, 8500 ft., 7.VII.1954, leg. Hyatt (BML); Gurjakhani, litter under trees, 8500 ft., 30.VI.1954, leg. Hyatt (BML).

Ochthebius annae FERRO

Ochthebius annae FERRO 1979b: 267. - FERRO, 1982b.

Ochthebius creticus IENISTEA 1980: 724.

TYPE LOCALITY: Knossos, Crete, Greece.

TYPE MATERIAL: The holotype ♂ is deposited in the CFL. Paratypes are housed in the NMP, NMW and CFL.

SYNONYMS: The holotype ♂ of *creticus* is deposited in the ISNB.

DIAGNOSIS: This species replaces *O. striatus* on the island of Crete. Elytra of female less distinctly reticulated than in *striatus*.

Aedeagus (fig. 24): distal lobe long and sinuous, apically enlarged.

DISTRIBUTION (fig. 67): Endemic to the island of Crete.

ADDITIONAL MATERIAL EXAMINED:

G R E E C E: CRETE: Assitaes, leg. Holtz (DEI); Choumeki, 31.VI.1970, leg. Senglet (MHNG); Rhetilimnion, Choumerion/Perama, 1.VII.1970, leg. Senglet (MHNG); Moni Arkadi, 21.IV.1971, leg. Malicky (NMW); Agios Andreas, 14.IV.1978, leg. Malicky (NMW); Kakopetros, 13.V.1979, leg. Malicky (NMW); e Argoules, 17.V.1979, leg. Malicky (NMW).

Ochthebius atricapillus REITTER

Ochthebius atricapillus REITTER 1901: 66. - KNISCH, 1924. - ORCHYMONT, 1928

TYPE LOCALITY: Kulyab, Tadzhikskaya SSR, Soviet Union.

TYPE MATERIAL: Holotype ♀ (by monotypy): "Turkestan Buchara / coll.Reitter / *O. atricapillus* m. 1900. Buchara" (TMB).

DIAGNOSIS: This species is very distinctive by its very wide pronotum and by the strongly pronounced latero-basal excision. Accessory striae of elytra usually reaching the middle. Explanate margin of elytra well-developed. Elytra of female smooth, labrum distinctly emarginate in male, more so in the female. Mandibular bristles of male not very strong. Mesotarsus more or less identical in both sexes.

Aedeagus (fig. 63): distal lobe not very strongly sclerotized, resembles that of *laevisculptus*, but parameres and main piece widely separated.

DISTRIBUTION (fig. 70): Soviet Union (Tadzhikistan, Uzbekistan).

ADDITIONAL MATERIAL EXAMINED:

S O V I E T U N I O N: Uzbekskaya SSR: Tashkent (NMW, TMB, MTD); "Turcmenien", leg. Reitter, Leder (NMW, MHNP, TMB, DEI).

Ochthebius auriculatus REY

Ochthebius auriculatus REY 1886: 45. - KNISCH, 1924. - ORCHYMONT, 1937. - HORION, 1949. - F.BALFOUR-BROWNE, 1958. - CHIESA, 1959. - ANGUS, 1964, 1965. - BRAKMAN, 1966. - LOHSE, 1971. - BANGSHOLT et al., 1976. - IENISTEA, 1978. - NIEUKERKEN, 1982. - MOL, 1984. - EYRE & FOSTER, 1984. - HANSEN, 1987. - LUCHT, 1987. - GRÄF, 1987. - FRIDAY, 1988. - FOSTER, 1988. - HEBAUER, 1989.

TYPE LOCALITY: Calais or Dieppe, France.

TYPE MATERIAL: There are no syntypes in the MGL (Rey collection), and I could not find any syntype in the MHNP (Grouvelle collection and Lethierry collection) during my visit in 1986. Three specimens of the Puton collection (MHNP) are labeled "Calais". They might be syntypical.

DIAGNOSIS: This species differs clearly from *dilatatus* by the widely explanate pronotum, its anterior (convex) portion reaching far beyond middle, thus concave portion of pronotum much shorter; elytra less wide, without dorsal depression, apically acuminate; surface punctures smaller. Elytra of female sometimes slightly rugulose, but never distinctly reticulated. *Ochthebius bicolon* differs readily by its short and convex habitus and by the chagreened elytra of the female.

Aedeagus (fig. 52): distal lobe short and simple, parameres rather strong.

DISTRIBUTION (fig. 69): Great Britain, Western France, northern Germany (with a few isolated inland populations), southern Scandinavia.

ADDITIONAL MATERIAL EXAMINED:

F R A N C E: VENDEE: St. Gilles, VII.1913 (NMW, CPL); Calais, leg. Fauvel (DEI).

G E R M A N Y (west): SCHLESWIG HOLSTEIN: Sylt, 6.VII.1914, coll.Ihsssen (HUB); NIEDERSACHSEN: Borkum, Außenweide, 24.VIII.1939, leg. Struve (MTD); Borkum, leg. Schneider (NMW, HUB, DEI); Juist (MTD, DEI); Norderney (NMW, DEI, HUB); Cuxhaven, 25.VII.1953, leg. Budberg (NMW); Jadebusen, VIII.1926 (NMW, HUB); Rüstersiel, n Wilhelmshaven, 4.VIII.1953, leg. Liebmann (DEI).

G E R M A N Y (east): HALLE: Artern, 9.VII.1955, leg. Dieckmann (DEI, NMW); Naumburg, 24.IX.1958, leg. Mohr (HUB); Numburg nr Kelbra, 31.III.1956, leg. Dieckmann (DEI, NMW); Eisleben (DEI).

D E N M A R K: Fanö, XII.1901, leg. Reitter (DEI).

Ochthebius bellieri KUWERT

Ochthebius bellieri KUWERT 1887: 395 (380). - KNISCH, 1924. - ORCHYMONT, 1940a. - PANKOW, 1986.

TYPE LOCALITY: Andalucia, Spain.

TYPE MATERIAL: Lectotype ♂ (pres. des.) of *O. bellieri*: "Andalousie / Ex. Musaeo A. KUWERT 1894" (MHNP). This specimen lacks the head (as mentioned in the original description). The second syntype (♂) of *bellieri*: "Andalousie / Bellieri Kuw. type" is also deposited in the MHNP (Pic collection).

DIAGNOSIS: Pronotum more convex and less wide than in *dilatatus*. Elytra rather long and slender; I could not observe a median depression. Punctures of elytral striae very large and deeply impressed, almost rectangular. Accessory striae very short (0 - 3 punctures). Elytra of female smooth or slightly rugulose.

Aedeagus (fig. 45): distal lobe large and flat.

DISTRIBUTION (fig. 69): Southern Spain.

ADDITIONAL MATERIAL EXAMINED:

S P A I N: Cadiz: Algeciras (NMW).

Ochthebius bicolon GERMAR

Ochthebius bicolon GERMAR 1824: 92. - MULSANT, 1844. - KNISCH, 1924. - ORCHYMONT, 1937. - J.BALFOUR-BROWNE, 1948a, 1948b, 1948c. - F.BALFOUR-BROWNE, 1958. - HORION, 1949. - CHIESA, 1959. - WÖRNDLE, 1950. - ANGUS, 1964. - BRAKMAN, 1966. - ENDRÖDY, 1967. - IENISTEA, 1978, 1982. - FRANZ, 1970. - LOHSE, 1971. - GEORGUIEV, 1971. - GASSMANN, 1974. - BURAKOWSKI et al., 1976. - BANGSHOLT et. al., 1979. - BERCIO & FOLWACZNY, 1979. - WIEMERS, 1980. - NIEUKERKEN, 1982. - EYRE & FOSTER, 1984. - MOL, 1984. - HANSEN, 1987. - LUCHT, 1987. - RAVEN, 1988. - FRIDAY, 1988. - BRETTFELD, 1988. - HEBAUER, 1989.

Ochthebius rufimarginatus STEPHENS 1829: 116. - KNISCH, 1924. - ORCHYMONT, 1937. - F. BALFOUR-BROWNE, 1962. - GEORGUIEV, 1971. - HANSEN, 1987.

Ochthebius rufimarginatus ERICHSON 1837: 199 (unjustified emendation of *O. rufimarginatus* STEPHENS). - KNISCH, 1924. - HANSEN, 1987.

TYPE LOCALITY: Scotland.

TYPE MATERIAL: The type of *Ochthebius bicolon* is not in the HUB and not in the Kirby collection (BML). The specimen was seen by MULSANT (1844: 66) and may have been incorporated into this collection, which is lost today. Thus a neotype should be designated.

SYNONYMS: The lectotype ♂ of *O. rufimarginatus* STEPHENS (des. by ORCHYMONT, 1937: 220) is deposited in the BML. ERICHSON's *rufimarginatus* is not a new description but an unjustified emendation of *rufimarginatus* STEPHENS, as one of the specimens examined by ERICHSON is labeled: "*rufo-marginatus* STEPH. Berol. KIRST." (see ORCHYMONT, 1937: p.220).

DIAGNOSIS: A very short and convex species, related with *crenulatus*, *czwalinae*, *perkinsi* and *striatus*. Differs from *perkinsi* by the less convex pronotum and by the usually distinctly impressed pronotal foveae, which are only very rarely obsolete. For distinction from the three other species refer to comments there. *Ochthebius haberfelneri* and related species (*italicus*, *montanus*) differ by the densely punctured pronotum.

Aedeagus (fig. 36): apical half of distal lobe curved and very thin; parameres with apical hairs.

DISTRIBUTION (fig. 67): British Islands, northern and central France, Central Europe, Scandinavia, Poland.

ADDITIONAL MATERIAL EXAMINED:

F R A N C E: FINISTERE: Morlaix (NMW).

S W I T Z E R L A N D: VAUD: Bavois, V.1968, coll. Toumayeff (MHNG); GENEVE: Allondon, 20.IX.1964, leg. Besuchet (MHNG); Lully, coll. Toumayeff (MHNG).

A U S T R I A: TIROL: Tannheim, Haldensee, coll. Ammann, 1 / (TLFI).

G E R M A N Y (west): RHEINLAND-PFALZ: Dürkheim (NMW); SCHLESWIG-HOLSTEIN: Bad Oldesloe, 17.IV.1976 (NMW, MHNG); NIEDERSACHSEN: Vedesack, leg. Fischer (DEI); Huntlosen (DEI); HESSEN: Höchst/Main, 21.II.1904, leg. Bickhardt (TLFI).

G E R M A N Y (east): GERA: Mollschütz nr Camburg, 5.III.1978, leg. Bellstedt (CBG, NMW); Arnstadt, 2.III.1948, leg. Liebmann (DEI); ERFURT: Stotternheim, 13.IV.1906, leg. Bickhardt (TLFI); BERLIN: (DEI, NMW, HUB); POTSDAM: Brieselang (HUB); HALLE: Eisleben, Bindersee, leg. Feige (HUB); Ammendorf, Müritz NR, 7.X.1975, leg. Uhlig (HUB); LEIPZIG: Connewitzer Holz, 29.XI.1951, leg. Dorn (HUB); Eilenburg, 23.VII.1944, leg. Linke (MTD); Schkeuditz, 14.V.1935, leg. Linke (MTD); Leipzig (DEI).

D E N M A R K: Falby, nr København (MHNG).

P O L A N D: Liegnitz [= Legenica], leg. Letzner (DEI).

Ochthebius bonnairei GUILLEBEAU

Ochthebius bonnairei GUILLEBEAU 1896: 241. - KNISCH, 1924. - NORMAND, 1933. - ORCHYMONT, 1941. - CHIESA, 1959. - IENISTEA, 1978.

TYPE LOCALITY: Marguerite, Algeria.

TYPE MATERIAL: In the Bedel collection (MHNP) I found two specimens (♂): "MARGUERITTE Mai 1893 Dr. CHOBOUT / *Ochthebius bonnairei* G. / Co-typus / Museum Paris 1926 Coll. L. BEDEL". Both specimens are mounted on one pin. The locality labels agree very well with the indications of the original description: "Plusieurs exemplaires. Algérie: Laverdure (baron Bonnaire), Marguerite (Dr. Chobaut)". One of the two males is herewith designated as lectotype of *O. bonnairei*. Three paralectotypes - one from Marguerite and two from Laverdure - are housed in the MMB.

DIAGNOSIS: 1.7 - 2.0 mm long. This species differs from *crenulatus* by a series of characters: mandibles of male without bristles; pronotum less convex, but more densely punctured (but less densely than in *montanus*); elytra longer, more densely punctured, a median depression may be developed (which is never as distinct as in *opacus*); accessory stria well-developed, at least reaching middle of elytra, thus six striae between suture and shoulder; elytral intervals flat; elytra of female not reticulated. It differs from *dilatatus* immediately by the more densely punctured surface and by the usually smaller size.

Aedeagus (fig. 25): distal lobe slender and bisinuous.

DISTRIBUTION (fig. 68): Southern Spain, North Africa, Italy (Sicily).

ADDITIONAL MATERIAL EXAMINED:

S P A I N: Albacete, Rio Tus, 30.IX.1982 (NMW).

I T A L Y: SICILY: leg. Solari (NMW); leg. Reitter (MTD).

A L G E R I A: Dj.Mouzaia, 1905, leg. Peyerimhoff (MHNP, NMW); Atlas de Blida, Chr  a, Les Glaci  res, 1100 m, 3.V.1988, leg. L  bl, Besuchet & Burkhardt (MHNG, NMW); Djurdjura, Tikjda, 1500 m, 7.V.1988, leg. Besuchet, L  bl & Burkhardt.

T U N I S I A: Ain Draham, 18.V.1982, leg. Malicky (NMW); H.Bourgiba, 15.V.1982, leg. Malicky (NMW).

Ochthebius cantabricus BALFOUR-BROWNE

Ochthebius cantabricus J. BALFOUR-BROWNE 1978: 68.

TYPE LOCALITY: Val de Valdeon, 1300 m, Le  n, Spain.

TYPE MATERIAL: Holotype ♂ (BML) and 32 paratypes (BML, CAL, NMW).

DIAGNOSIS: Very similar to *bellieri*. Elytral punctures deeply impressed and densely arranged. No accessory stria developed. Elytra of female slightly rugulose. Differs from *dilatatus* by the smaller size, the convex pronotum and especially by the strongly and densely punctured elytra. *Ochthebius heydeni* differs immediately by its very densely punctured pronotum.

Aedeagus (fig. 29): distal lobe very long, slender and sinuous.

DISTRIBUTION (fig. 68): Known only from the type locality.

Ochthebius corcyraeus sp. n.

TYPE LOCALITY: Corfu, Greece.

TYPE MATERIAL: Holotype ♂: "Corfu Paganetti" (NMW). Paratypes: 38 exs. with same label data as holotype (NMW, HUB, ISNB, DEI, MTD, FMC, CPL); 1 ex.: "Balkan Corfu Paganetti 03" (MTD); 10 exs.: "Corfu Lagune" (NMW); 1 ex.: "Corfu H. Mathias" (NMW); 1 ex.: "Corfu Gasturi / leg. Winkler" (ISNB); 8 exs.: "Corfu / J. Sahlb." (DEI, HUB, ZMH); 1 ex.: "Corfu Reitter / Ex. Musaeo A. KUWERT 1894" (MHNP); 2 exs.: "Corfu" (NMW); 17 exs.: "KERKYRA Lag. Kalikiopulo 18 iv 1930 d'Orchym." (ISNB); 26 exs.: "KERKYRA Emb. Potam 19 (21) iv 1930 d'Orchym." (ISNB); 1 ex.: "KERKYRA Cap. Elias 20 iv 1930 d'Orchym." (ISNB); 5 exs.: "KERKYRA Kontokali 21 iv 1930 d'Orchym." (ISNB); 1 ex.: "KERKYRA Alepu Pele kd R. v Potamos 19 iv 1930 d'Orchym." (ISNB); 1 ex.: "Alban. Wgth. Valona" (CPL); 5 exs.: "Soline 10.IV.1959 / Rovinj / Istria Pretner" (NMW, CPL); 1 ex.: "Grado Bernhauer" (NMW); 1 ex.: "Triest. Noghera 19.3.53 SPRINGER" (CPL); 1 ex.: "Sistiano bei Triest 6.6.24 / Coll. Ihssen" (HUB); 1 ex.: "LAGUNA DI VENEZIA benefiche: cassa. DIE 25.4.78 leg. E. RATTI" (NMW); 8 exs.: "Porto Corsini Ravenna V.1899 A. Andreini" (ISNB); 2 exs.: "Ravenna 8-5-1907 A. FIORI / Ochthebius impressicollis" (MHNG); 2 exs.: "EMILIA 6.V.907 A. FIORI" (HUB); 16 exs.: "Tombolo Grosseto 13.IV.1899 A. Andreini" (ISNB); 2 exs.: "Foce F. Dumbrone Grosseto P. Nat. Karemme 30 IV.79" (NMW); 5 exs.: "Poggio Cavallo Grosseto IV.1899 A. Andreini" (ISNB); 2 exs.: "ABRUZZO Pescara II.IX.906 A. FIORI" (HUB); 1 ex.: "Lago Albano b. Rom. Hldh." (NMW); 1 ex.: "Italia Mte Gargano" (MTD); 28 exs.: "Italia Manfredonia Mascaroni" (MTD, NMW); 4 exs.: "Manfredonia Italia" (MTD); 3 exs.: "Manfredonia Italia" (ISNB); 2 exs.: "BASILICATA Stigliano IX.904 A. FIORI" (HUB); 2 exs.: "San Basilio Murgien leg. Paganetti." (NMW, MTD); 1 ex.: "San Basilio Murgien" (ISNB); 1 ex.: "Collesalveti Paganetti" (NMW); 1 ex.: "Monte Amiata VIII.1908 A. Andreini" (ISNB).

DIAGNOSIS: 1.9 - 2.3 mm long. Front margin of labrum not excised in either sex, occasionally enlarged in male. Pronotum moderately to densely punctured, median groove and admedian foveae well-developed. Elytral striae composed of densely arranged regular series of punctures. I have seen only one specimen (Sistiano, Italy) with elytral puncturation not denser than in *dilatatus*. Accessory striae well-developed, usually consisting of more than 10 punctures, rarely with only 7 or 8 punctures, usually reaching the middle of the median depression, sometimes even surpassing it. Protarsus of male slightly enlarged, last mesotarsal segment of male slightly geniculate. Elytra of female slightly rugulose.

Aedeagus (fig. 48): distal lobe flat and depress, regularly bisinuous, without preapical constriction.

Ochthebius corcyraeus differs from *dilatatus* and *peregrinus* by the well-developed accessory striae and by the usually denser elytral puncturation.

DISTRIBUTION (fig. 69): Italy, Yugoslavia, Greece (Corfu).

ETYMOLOGY: *Corcyraeus*, 3 (Lat.) - refers to the locus typicus (Corfu).

Ochthebius corsicus SAINTE-CLAIRE DEVILLE

Ochthebius corsicus SAINTE-CLAIRE DEVILLE 1908: 187 (described as variety of *montanus*). - KNISCH, 1924. - ORCHYMONT, 1941. - CHIESA, 1959. - SCHAEFER, 1964. - IENISTEA, 1978.

TYPE LOCALITY: Vizzavona, Corsica.

TYPE MATERIAL: Lectotype ♂ (pres. des.): "Vizzavona (Corsica) G. P. Vodoz" (NMW). One female paralectotype is mounted on the same pin. Five additional paralectotypes (Vizzavona, Corte, l'Ospedale) are housed in the MHNP. All these localities are mentioned in the original description: "Corse (types de torrentum Rey!); Corte; foret de l'Ospedale (Révelière!); f. de Vizzavona (Dev !, Vodoz !, Budtz !)".

DIAGNOSIS: This species is characterized by its uneven elytral surface. A median impression, situated at the anterior third is always well-developed, a posthumeral and a lateral oblique one, which is situated behind the median one may also be present. Elytral punctures large, but smaller than in *opacus*, which is a very similar species. Accessory striae well-developed. Elytra longer than in *opacus*.

Aedeagus (fig. 32): Apical rod of the distal lobe slightly sinuous, not as straight as in *opacus*. A ventral lamella is present.

DISTRIBUTION (fig. 68): Southeastern France, Corsica.

ADDITIONAL MATERIAL EXAMINED:

F R A N C E: RHONE: Lyon (NMW); Givors (DEI); CORSICA: Rappale nr St.Florent, 7.VIII.1980, leg. Scheuern (CSB, NMW); Lac de Melo, 1500 m, 23.VIII.1981, leg. Wewalka (CWW); Bastia, 1905, leg. Leonhard (DEI); Mte Renoso, 1905, leg. Leonhard (DEI).

Ochthebius crenulatus MULSANT & REY

Ochthebius crenulatus MULSANT & REY 1850: 226. - KNISCH, 1924. - ORCHYMONT, 1937.

Ochthebius genavensis IENISTEA 1980: 723 (= syn. nov.). - IENISTEA, 1982.

TYPE LOCALITY: Tournus, Dep. Saone-et-Loire, France.

TYPE MATERIAL: I could not find any syntype of *O. crenulatus* in the MMB and the MGL.

SYNONYMS: I have seen all types of *O. genavensis* (type locality: Geneva), deposited in the MHNG.

DIAGNOSIS: This species is very similar to *striatus*, from which it can probably not be distinguished without aedeagus examination. The two species are probably allopatric. *Ochthebius crenulatus* is also very similar to *O. bicolon*. Both species occur in Switzerland. Although their aedeagi are quite different I found no reliably significant distinguishing character to separate the two species. In *crenulatus* the median sulcus of the pronotum is usually slightly narrower and the admedian foveae seem to be smaller than in *bicolon*. The elytra seem to be shorter and more convex (declivity steeper) in *bicolon*, elytral intervals wider and more prominent than in *crenulatus*.

Aedeagus (fig. 23): Main piece wider and more strongly curved than in *striatus*. Distal lobe usually more curved apically and apical opening less wide.

DISTRIBUTION (fig. 67): Southeastern France, Switzerland, Italy, northern Yugoslavia, ? Czechoslovakia.

ADDITIONAL MATERIAL EXAMINED:

FRANCE: ALPES-MARITIMES: Vence, 20.VIII.1918, leg. Ochs (CPL); Nice, 26.II.1920, leg. Ochs (CPL).
 SWITZERLAND: VAUD: Lausanne, coll. Toumayeff (MHNG); Elepens, coll. Toumayeff (MHNG); Bavois, X.1976, coll. Toumayeff (MHNG); GENEVE: Aire-la-Ville, 14.VI.1973, leg. Vit (MHNG).
 CZECHOSLOVAKIA: MORAVIA: Paskau, leg. Reitter (NMW, TMB) - ? label mistake; SLOVAKIA: Trencin, leg. Brancsik, 2♀♀(FMC) - could be striatus also - ? label mistake.
 ITALY: SÜDTIROL: Bozen, leg. Hauser (NMW); GORIZIA: Pieris, 12.VI.1949, leg. Springer (CPL); IMPERIA: San Remo, leg. Schneider (NMW, HUB, MHNP); ROVIGO: Po delta, 4.XI.1973, leg. Kahlen (CKH, NMW); EMILIA: (NMW); GENOVA: 11.IX.1892, leg. Fiori (HUB); FIRENCE: Vallombrosa, VIII.1901, leg. Fiori (HUB); BOLOGNA: Imola (NMW); Monghidoro, 12.IX.1926, leg. Chiesa (CPL); GROSSETO: Sovana, 350 m, 12.VII.1989, leg. Brandstetter (CBKB, NMW); ROMA: Valle Pussino, 30.V.1903 (HUB); TERAMO: Pietracamela, 26.VI.1926, leg. Pretner (CPL); ANCONA: Mt. Conero (NMW); Salerno, Pioppi, 10.XI.1964, leg. Liebmann (HUB); BASILICATA: Gallipoli-Cognato, 6.VI.1972, leg. Chemini (TMB); CALABRIA: Santa Eufemia d'Aspromonte, 1905, leg. Paganetti (NMW, DEI); SICILY: Messina, Randazzo and Patti, VI.1978, leg. Wewalka (CWW, NMW); Failla (NMW); L. Quattrochi, 4.VI.1912, leg. Fiori (NMW); Palermo (HUB, NMW); Taormina, 1.V.1933, leg. Liebmann (DEI); Ficuzza, 1906, leg. Liebmann (DEI).
 MALTA: (TMB, NMW).
 YUGOSLAVIA: CROATIA: Krk, Baska, 5.V.1980, leg. Jäch (NMW).

Ochthebius cyprensis KUWERT

Ochthebius cyprensis KUWERT 1890: 261. - KNISCH, 1924. - ORCHYMONT, 1940a.

TYPE LOCALITY: Cyprus.

TYPE MATERIAL: Lectotype ♂ (pres. des.): "Chypre / Fl. Baudi / Ex. Musaeo A. KUWERT 1894" and one paralectotype(♀) with identical labels in the MHNP.

DIAGNOSIS: Closely related with *dilatatus* from which it can hardly be distinguished. Frontal foveae shallow; pronotum more convex, laterally deflexed.

Aedeagus (fig. 59): distal lobe slim and cylindrical; parameres distinctly separated from the main piece.

DISTRIBUTION (fig. 69): Known only from the type locality.

Ochthebius cyrenaicus FERRO

Ochthebius cyrenaicus FERRO 1985a: 261.

TYPE LOCALITY: Uadi, Belgadir, Cyrenaica, Libya.

TYPE MATERIAL: Holotype ♂ (MCT) and 38 paratypes (MCT, CFL, NMW).

DIAGNOSIS: I could not find any reliable external character to distinguish this species from *dilatatus*.

Aedeagus (fig. 49): main piece similar to *dilatatus*, distal lobe more cylindrical and regular than in *dilatatus*.

DISTRIBUTION (fig. 69): Known only from the type locality.

Ochthebius czwalinae KUWERT

Ochthebius czwalinae KUWERT 1887: 392 (382). - KNISCH, 1924. - ORCHYMONT, 1941.

Ochthebius stockmanni J. BALFOUR-BROWNE 1948c: 95 (= syn. nov.). - BANGSHOLT et al., 1976. - IENISTEA, 1978. - HANSEN, 1987. - SILFVERBERG, 1987.

TYPE LOCALITY: Ditch near Gdansk, Poland.

TYPE MATERIAL: Lectotype ♂ (pres. des.): "*Czwalina Katznase bicolon*" (NMW). Paralectotypes: 2 ♀ (NMW), 1 ♂ + 5 ♀ (MHNP) and 2 exs.(DEI) with similar labels. Number of syntypes not known.

SYNONYMS: I have not seen the type of *O. stockmanni* (ZMH), type locality: Helsinki, Finland, but according to the aedeagus illustration in the original description there is no doubt that this species is a younger synonym of *czwalinae*.

DIAGNOSIS: A very short and convex species, closely resembling *bicolon*. Most of the distinguishing features given by J.BALFOUR-BROWNE (1948c) and by HANSEN (1987) are too variable. The punctures of the accessory striae are difficult to detect and there is usually one or two more in *bicolon*. Elytral interstriae are more convex in *bicolon*. Mandibles of males of *czwalinae* without stout setae. Females are easily distinguished as the elytra are distinctly micro-reticulated in *bicolon*, but more or less smooth in *czwalinae*.

Aedeagus (fig. 40): distal lobe very long and slender, sinuous.

DISTRIBUTION (fig. 67): Southern Finland, northern Poland.

ADDITIONAL MATERIAL EXAMINED:

P O L A N D: Gdansk, leg. Steiner (HUB).

Ochthebius depressus SAHLBERG

Ochthebius depressus SAHLBERG 1900: 195. - KNISCH, 1924. - ORCHYMONT, 1928.

TYPE LOCALITY: Dzhambul, Kazakhstan, Soviet Union.

TYPE MATERIAL: Holotype ♂ (by monotypy): "Aulie / J.Sahlb / Spec.typ. / O. (Trymnochth.)depressus n.sp." (ZIL). This specimen agrees very well with the original description.

DIAGNOSIS: This species exhibits a transitional stage between the *bicolon* group and the *minimus* group. General habitus resembles that of *minimus*, but posterior pronotal foveae always developed, the anterior ones more or less reduced. Elytra of female very slightly rugulose. Sexual dimorphism of labrum, mandibles, pro- and mesotarsi well-developed.

Aedeagus (fig. 61): distal lobe with apical rod and a few setae.

DISTRIBUTION (fig. 70): Soviet Union (Kazakhstan, Tadzhikistan).

ADDITIONAL MATERIAL EXAMINED:

S O V I E T U N I O N: TADZHIKISTAN: Darvazskiy Mts, 3125 m, 3.VII.1911, leg. Conradt (NMW); 1912, leg. Zhadin (NMW).

Ochthebius dilatatus STEPHENS

Ochthebius dilatatus STEPHENS 1829: 114. - KNISCH, 1924. - ORCHYMONT, 1937. - J.BALFOUR-BROWNE, 1948a, 1978. - JANSSENS, 1957, 1960. - F.BALFOUR-BROWNE, 1958. - BINAGHI, 1961. - BRAKMAN, 1966. - GEORGUEV, 1971. - LOHSE, 1971. - BURAKOWSKI et al., 1976. - BANGSHOLT et al., 1979. - PIRISINU, 1981. - NIEUKERKEN, 1982. - FOSTER & MAGNUS, 1982. - BALDARI et al., 1983. - EYRE & FOSTER, 1984. - MOL, 1984. - VALLADARES, 1986. - HANSEN, 1987. - GRÄF, 1987. - FRIDAY, 1988. - FOSTER, 1988.

Ochthebius impressicollis CASTELNAU 1840: 48. - KNISCH, 1924. - GRIDELLI, 1926. - ORCHYMONT, 1932, 1935b, 1937. - NORMAND, 1933. - F.BALFOUR-BROWNE, 1958. - CHIESA, 1959. - ENDRÖDY, 1967. - GEORGUEV, 1971. - FERRO, 1979a. - HANSEN, 1987.

Ochthebius numidicus REITTER 1872: 179, - KNISCH, 1924. - CHIESA, 1959.

Ochthebius brevisculus KUWERT 1887: 396 (381). - KNISCH, 1924. - CHIESA, 1959.

Ochthebius impressicollis var. *imperfectus* KUWERT 1887: 381. - KNISCH, 1924. - CHIESA, 1959. - GEORGUEV, 1971.

TYPE LOCALITY: England (Norfolk, London, Devonshire) or Wales (Swansea).

TYPE MATERIAL: Lectotype ♂ (designated by d'ORCHYMONT, 1937: 225): "♂ / Type / dilatatus / BRITAIN STEPHENS COLL. / O. dilatatus / Holotype A.d'Orchymont / A.d'Orchymont Rev. Ochthebius (Asiobates) dilatatus Stephens" (BML). Although the labels bear no evidence that this specimen is part of the type series it cannot be excluded that it is a syntype. Number of syntypes unknown.

SYNONYMS: I have seen the lectotype ♀ (des. by ORCHYMONT, 1937) and the paralectotype (♀) of *impressicollis*, described from France, which are housed in the MGL (Dejean collection). There is little doubt that these two specimens belong to *dilatatus* STEPHENS as their accessory striae comprise only 5 (6) punctures.

Lectotype ♂ (pres. des.) of *O. numidicus* REITTER: "Oran Algier Reitter / coll. Reitter" (TMB). Seven additional paralectotypes (TMB, HUB, DEI). All specimens are identical with *dilatatus*. The number of existing syntypes is unknown.

In the Kuwert collection (MHNP) I found one male (lectotype by pres. des.): "Marocco / Ex. Musaeo A. KUWERT 1894" under the name *brevicollis*. It is identical with *O. dilatatus*. Two paralectotypes (♀) from southern Spain are housed in the TMB.

In the Kuwert collection (MHNP) I could not find alleged syntypes of *imperfectus* from "Gallia mer." or "Hispania". But under the name *impressicollis* var. *imperfectus* I found several specimens of *O. dilatatus* making this synonymie, which was already proposed by several authors, quite plausible.

DIAGNOSIS: A very widespread and variable species. 1.8 - 2.2. mm long. Front margin of labrum entire or sometimes very slightly emarginate in both sexes, usually slightly upturned in male. Mandibles of male with stiff setae. Ocelli rather large and transverse (or slightly oblique). Pronotum usually large and wide, but sometimes small and convex, with lateral depression deflexed, almost like in *striatus* (specimen from Greece: Mesologgion). Elytral punctures usually not very deeply impressed, intervals more or less flat. Accessory striae usually very short (2 or 3 punctures), occasionally longer (up to 8 punctures), but never surpassing elytral depression, which is usually very shallow and inconspicuous, sometimes even completely obsolete. Elytra of female sometimes rugulose, but never chagreened. Protarsal segments of male enlarged, last segment of mesotarsus gently geniculate.

Aedeagus (fig. 46): distal lobe very characteristic, ventral side sinuous; one anomalous specimen from France with acuminate distal lobe.

DISTRIBUTION (fig. 70): Atlanto-mediterranean.

ADDITIONAL MATERIAL EXAMINED:

N E T H E R L A N D S: Hilversum (NMW); Munnikerzijk, leg. Vondel (CVH, NMW); Westerland, leg. Vondel (CVH, NMW).

F R A N C E: MANCHE: Couesnon r., 22.IX.1918, leg. Oberthür (MHNP); NORMANDIE: (NMW); BOUCHES DU RHONE: Camargue, Etang du Vaccarès, 6.V.1964, leg. Puthz (NMW, MHNG); EURE: Fatouville (NMW); LOIRE INF.: Le Croisic (NMW); GIRONDE: Bordeaux, V.1943, leg. Ermisch (HUB); PYR.OR.: Salse, 8.VI.1964, leg. Commelini (MHNG); LANDES: La Palmyre, VIII.1967, leg. Besuchet (MHNG); HERAULT: Montpellier (NMW); Béziers, leg. Puel (NMW, FMC, MTD); VAR: St. Raphael (DEI).

- G E R M A N Y (west):** NIEDERSACHSEN: Borkum, coll. Ihssen (HUB); Jadebusen, VIII.1928, leg. Eigen (HUB); Rüstiersiel, n Wilhelmshaven, 4.VIII.1953, leg. Liebmann (DEI). Bayern and Berlin (DEI) - probably label mistakes!
- G E R M A N Y (east):** Rostock, VI.1988, leg. Schmidt (MTD).
- P O R T U G A L:** Lissabon (HUB, DEI, MTD); Evora (HUB, DEI, CPL); Quelur (DEI); Lagos, V.1968, leg. Mussard (MHNG); Faro, Torrinha, Portimao, 13.IX.1969, leg. Senglet (MHNG).
- S P A I N:** PALENCIA: leg. Paganetti (NMW, DEI); TARRAGONA: 3.X.1962, leg. Jünger (HUB); Laguna Encanizada, 9.V.1966, leg. Besuchet (MHNG); GERONA: La Junquera, VI.1959, leg. Besuchet (MHNG); Palamos (HUB); BARCELONA: Sitges, 25.X.1922, leg. Liebmann (CPL); Tordera, VI.1959, leg. Besuchet (MHNG); HUELVA: El Rocio, 16.VII.1969, leg. Senglet (MHNG); VALENCIA: Puig, 18.V.1966, leg. Besuchet (MHNG); MURCIA: Banos de la Fuensanta, 22.VI.1987 (NMW); JAEN (DEI); SEVILLA: Sanlucar la Mayor, 17.VII.1969, leg. Senglet (MHNG); MALAGA: Estepona, 26.VII.1969, leg. Senglet (MHNG); Ronda, 10.V.1960, leg. Besuchet (MHNG); ALICANTE: Elche, leg. Strobl (NMW); CORDOBA (NMW, DEI); CADIZ: Algeciras, leg. Simon (DEI); Sierra del Pinar, 1100 m, 10.V.1960, leg. Besuchet (MHNG); MALLORCA: Capdepera, 11.V.1978, leg. Malicky (NMW); s Lluch, 15.V.1978, leg. Malicky (NMW); Playa de la Cuarassa, 3.1.1990, leg. Foster (CFA); IBIZA: San Miguel, 19.V.1978, leg. Malicky (NMW); MENORCA: Barranco de Algendar, 3.VII.1983, leg. Montes (CMM, NMW).
- I T A L Y:** TRIESTE: Muggia, V.1927, leg. Pretner (CPL); Noghera, X.1913, leg. Pretner (CPL); VENEZIA GIULIA: Belvedere di Grado, 19.II.1949, leg. Springer (CPL); GORIZIA: Monfalcone, 13.II.1949, leg. Springer (CPL); ELBA: 1908, leg. Paganetti (NMW); GROSSETO: Alberese, 2.V.1975, leg. Kiener (MHNG); ROMA: Valle Pussino, 30.V.1903 (HUB); Lago Albano, nr Roma (NMW); TOSCANA: Piombino (NMW, DEI, MTD); FIRENZE: Vallombrosa (NMW); PISA: Mt.Pisano, leg. Linke (MTD); MURGE: San Basilio and Grottaglie, leg. Paganetti (NMW, HUB, DEI, MTD, FMC); FOGGIA: Manfredonia (MTD); CALABRIA: Sta.Eufemia, Antonimina, Gerace and Cimina (NMW, HUB, DEI, MTD, FMC); SICILY: Palermo (NMW, HUB); Palermo, leg. Meschnigg (NMW, CPL); Catania (NMW, HUB, DEI); Lentini, leg. Liebmann (HUB, MTD, DEI); Ficuzza, 1906, leg. Leonhard (MTD); SARDINIA: Lostia (NMW); Asuni (NMW, DEI, MTD); Terra-nova, leg. Paganetti (NMW, CPL); Oristano (MHNP, MTD); Aritzo (DEI).
- M A L T A:** Wied is-Sewda, 17.II.1977, leg. Schembri (CSM); Chadwick Lakes, 12.III.1975, leg. Schembri (CSM); Bahrija, 25.III.1984, leg. Schembri (CSM).
- A L B A N I A:** coll. Minarz (NMW); Valona (= Vlore) (CPL).
- Y U G O S L A V I A:** CRNA GORA: Hercegnovi (DEI).
- G R E E C E:** Mesologgion, 2.V.1971, leg. Wewalka (CWW; NMW); Attica, leg. Natterer (NMW); Zakynthos: leg. Versluys (NMW); Corfu: leg. Stolz, leg. Sahlberg (NMW, HUB); Peloponnesos: Lakonia, 8.IV.1977, leg. Kinzelbach (NMW); Kalamata, 1.VIII.1979, leg. Huber (MHNG); Naxos (NMW, CPL); Euboea: Valtos, IV.1926, leg. Holtz (HUB); Crete: Assitaes (DEI); Irakleion, Charakas, 24.VII.1970, leg. Senglet (MHNG); Chora Sfakion, 21.IV.1971, leg. Wewalka (NMW).
- B U L G A R I A:** Primorsko, 7.IX.1980, leg. Bellstedt (CBG); 2 km s Micurin 30.VI.1979, leg. Uhlig (CBG); Sozopol, 15.VIII.1971, leg. Uhlig (HUB); Pomorie, 13.V.1985, leg. Wrase (HUB).
- T U R K E Y:** EDIRNE: 40 km e Edirne, 28.VII.1988, leg. Jäch (NMW); Kırklareli, 20 km ne Saray, 29.VII.1988, leg. Jäch (NMW); ISTANBUL: Agva, 19.V.1987, leg. Jäch (NMW); 80 km w Istanbul, 15.VI.1987, leg. Jäch (NMW); Ömerli, e Istanbul, 18.V.1987, leg. Jäch (NMW); KASTAMONU: w Helaldi, 26.VI.1989, leg. Jäch (NMW); e Inebolu, 25.V.1989, leg. Jäch (NMW); SAMSUN: Carsamba, 27.V.1989, leg. Jäch (NMW); IZMIR: Bahceliköy, 16.VII.1969, leg. Besuchet (MHNG).
- C Y P R U S:** (MHNP).
- M O R O C C O:** Tetuan, leg. Walker (MHNP); Tanger (DEI); Marakesh, leg. Quedenfeldt (HUB); Casablanca, leg. Reitter (TMB).
- A L G E R I A:** St.Charles (NMW); Algir (MHNP); Tarfaia, leg. Thery (MHNP). Philippeville, leg. Thery (MHNP); Gde Kabylie: Oued Isser, 21.V.1988, Djebel Bou Berak, 19.V.1988 and Keria-Hammam (800 m), 14.V.1988, leg. Besuchet, Löbl & Burckhardt (MHNG).
- T U N I S I A:** Tunis, leg. Vauloger (MHNP).

Ochthebius dilucidus ORCHYMONT

Ochthebius dilucidus ORCHYMONT 1940a: 55. - ORCHYMONT, 1941. - CHIESA, 1959. - IENISTEA, 1978. - FERRO, 1976, 1986. - PIRISINU, 1981.

TYPE LOCALITY: Provence, France.

TYPE MATERIAL: I did not examine the holotype ♂ and the 3 paratypes, housed in the ISNB.

DIAGNOSIS: This species differs from *dilatatus* and *peregrinus* by the elongated elytra, the more distinctly impressed median elytral impression and by the elytral striae, which are composed of deeply impressed large punctures. Intervals convex. Accessory striae very short (usually 1 or 2 punctures). Elytra of female very slightly rugulose. Last segment of pro- and mesotarsus of male conspicuously geniculate. *Ochthebius gagliardii* differs by the lacking elytral depression and by the elytral apices. *Ochthebius impressipennis* differs by the well-developed accessory striae.

Aedeagus (fig. 56): distal lobe short and inconspicuous, parameres very short.

DISTRIBUTION (fig. 69): Southeastern France, Corsica, Sardinia, peninsular Italy.

MATERIAL EXAMINED:

C O R S E: Ajaccio, leg. Schneider (NMW, HUB, DEI, MTD); Aleria, 1905, leg. Leonhard (DEI).

I T A L Y: SARDINIA: Asuni, V.1909, leg. Krausse (MTD).

Ochthebius ferganensis sp. n.

TYPE LOCALITY: Fergana, Uzbekistan, Soviet Union.

TYPE MATERIAL: Holotype ♂: "Fergana 16.V.20" (ZIL). Paratypes: 6 exs. with the same label data as the holotype (ZIL, NMW).

DIAGNOSIS: 2.2 - 2.3 mm long. Front margin of labrum emarginate or excised in both sexes, slightly enlarged in male. Ocelli large. Pronotum wide, not very densely punctured, all 4 foveae and median sulcus distinct, lateral depression slightly deflexed. Elytral striae regular, punctures large, round and deeply impressed. Elytral apices more or less rounded. No accessory striae developed. Elytral impression almost imperceptible. Elytra of female smooth. Pretarsal segments of male slightly enlarged, last mesotarsal segment of male very slightly geniculate.

Aedeagus (fig. 55): main piece not very evenly curved, apex rather short; distal lobe rather flat, ventral side convex; parameres long, slightly widened apically.

Externally this species is very similar to *dilatatus*, which differs only by the usually entire (or slightly emarginate) and shorter labrum. The labrum of *turcmeniae* is even more deeply excised. *Ochthebius laevisculptus* with usually more densely punctured pronotum and with chagreened pronotal foveae. *Ochthebius lederi* with almost entire and shorter labrum and with smaller ocelli. *Ochthebius rivibelli* differs by the almost reduced anterior foveae.

DISTRIBUTION (fig. 70): Known only from the type locality.

ETYMOLOGY: Named in reference to the type locality.

Ochthebius gagliardii ORCHYMONT

Ochthebius gagliardii ORCHYMONT 1940a: 56. - ORCHYMONT, 1941. - CHIESA, 1958, 1959. - IENISTEA, 1978. - FERRO, 1979a. - PIRISINU, 1981.

TYPE LOCALITY: Pisa, Italy.

TYPE MATERIAL: I have not seen the holotype ♂ or any of the 7 paratypes, deposited in the ISNB.

DIAGNOSIS: Very large (2.3 - 2.6 mm). It differs from related species (*dilatatus*, *peregrinus*, *hyblaemajoris*) mainly by the elytral apices, which are not evenly rounded, but form a distinct sutural angle. Elytra usually without dorsal depression. Punctures of elytra deeply impressed. Accessory striae consist of ca. 2 punctures. Elytra of female rather smooth. Front margin of labrum more or less entire in both sexes, but slightly enlarged in male. Terminal segment of mesotarsus only geniculate.

Aedeagus (fig. 42): main piece very large and conspicuous, distal lobe cylindrical and simple, parameres comparatively small.

Ochthebius dilucidus differs mainly by the well-developed elytral depression and by the geniculate terminal segment of the male protarsus.

DISTRIBUTION (fig. 69): Italy (Emilia, Toscana, Umbria, Lazio, Molise, Campania).

MATERIAL EXAMINED:

I T A L Y: LIVORNO: Collesalveti, leg. Paganetti (NMW); PISA: Tombolo (NMW, MHNP); Mt. Pisano, leg. Linke (MTD); BOLOGNA: Imola (DEI).

Ochthebius haberfelneri REITTER

Ochthebius haberfelneri REITTER 1890: 385. - KNISCH, 1924. - ORCHYMONT, 1941. - HORION, 1949. - WÖRNDLE, 1950. - CHIESA, 1959. - FRANZ, 1970. - LOHSE, 1971. - IENISTEA, 1978. - JÄCH, 1982.

TYPE LOCALITY: Lunz, Austria.

TYPE MATERIAL: Lectotype ♂ (by present designation): "Lunz Haberf. N.Oester. / coll. Reitter / *Ochthebius Haberfelneri* m. 1890" (TMB). Four paralectotypes with similar labels in the TMB and in the DEI. Number of syntypes unknown.

DIAGNOSIS: This species differs from *bicolon*, *crenulatus* and *striatus* immediately by the densely punctured pronotum and by the usually less distinctly impressed pronotal foveae, which are sometimes almost obsolete like in *perkinsi*. But pronotum always more densely punctured than in *perkinsi*. Accessory striae very short, not reaching middle of elytra. *Ochthebius montanus* and *italicus* usually with well-developed accessory striae. Elytra of female only slightly rugulose, but never microreticulated. Mandibles of male without stiff setae.

Aedeagus (fig. 37): appendix of distal lobe very long and slender.

DISTRIBUTION (fig. 67): Austria, Yugoslavia.

ADDITIONAL MATERIAL EXAMINED:

A U S T R I A: NIEDERÖSTERREICH: Lunz (NMW); SALZBURG: Kaprun, leg. Scheerpeltz (NMW); STEIERMARK: Zirbitz (HUB); KÄRNTEN: Gailtal, leg. Klimsch (NMW); OSTTIROL: Sillian, 25.3.1950, 3.X.1949, leg. Konecni (NMW, CKL); Sillian, Sonnseite, 24.III.1950 (HUB); Panzendorf nr Sillian, 19.III.1949, leg. Konecni (CKL); Heinfeld nr Sillian, 19.VIII.1948, leg. F.& A.Kofler (CKL, IZI); Schleiertal, Kalsertal, 11.V.1987, 1.V.1988, leg. A.Kofler (CKL); Matrei, Bürgergraben, 23.VIII.1988, leg. A.Kofler (CKL).

Y U G O S L A V I A: BOSNIA: Sarajevo, Igman planina, 24.VII.1930, leg. Fodor (TMB); MAKEDONIA: Sar planina nr. Tetovo, 19.7.1988, leg. Jäch (NMW).

Ochthebius haeli FERRO

Ochthebius haeli FERRO 1982c: 81.

TYPE LOCALITY: Afion, Turkey.

TYPE MATERIAL: Holotype ♂ and one paratype in CFL.

DIAGNOSIS: This species is very similar to *dilatatus*. Elytra without dorsal impression, which is usually inconspicuous but present in Turkish *dilatatus*. Accessory striae of elytra very short (ca. 3 punctures). Elytra longer and more parallel-sided than in *dilatatus*.

Aedeagus (fig. 50): Distal lobe long and simple, slightly flattened laterally.

DISTRIBUTION (fig. 69): Turkey.

MATERIAL EXAMINED:

T U R K E Y: Konya, 13.V.1970, leg. Zwick (CZS, CPM).

Ochthebius heydeni KUWERT

Ochthebius heydeni KUWERT 1887: 391 (382). - KNISCH, 1924. - ORCHYMONT, 1941. - J.BALFOUR-BROWNE, 1978. - VALLADARES, 1986.

TYPE LOCALITY: Serra da Estrela, Portugal.

TYPE MATERIAL: Lectotype ♂ (pres. des.): "Estrella Hispania / Ex.Musaeo A.KUWERT 1894" (MHNP). Three female paralectotypes from the same locality are deposited in the MHNP and the DEI (coll. Heyden).

DIAGNOSIS: A small species (1.6 - 1.8 mm long) with very dense elytral puncturation and well-developed accessory striae. Dorsal and posthumeral elytral impressions are usually present, but not very deep. Differs from *opacus* and *corsicus* by the shorter elytra; by the smaller punctures of pronotum and elytra and by the usually less deeply impressed elytral impressions. *Ochthebius cantabricus* differs by the missing accessory striae, the sparsely punctured pronotum and by the even surface of the elytra. *Ochthebius italicus* differs only by the missing elytral impressions. Mandibles of male without stiff setae. Sexual dimorphism of labrum and pro- and mesotarsus only very feebly developed.

Aedeagus (fig. 19): main piece evenly curved; distal lobe with a conspicuous excision on ventral side.

DISTRIBUTION (fig. 68): Northern Portugal to the Pyrenees.

ADDITIONAL MATERIAL EXAMINED:

F R A N C E: ARRIEGE: Foix (TLFI, NMW).

S P A I N: Sierra de la Demanda, Valvanera Monastery, 1.8.1971 (CPM); Espinama, Picos de Europa, leg. Lohse (CPM); Logrono: Anguiano, leg. Franz (NMW); Santander: Jesus de Montes, w Beranga, leg. Franz (NMW); Lugo: Valle de Lozera, leg. Franz (NMW).

Ochthebius hyblaemayoris FERRO

Ochthebius hyblaemayoris FERRO 1986: 146.

TYPE LOCALITY: Catania, Sicily, Italy.

TYPE MATERIAL: I have not seen the holotype ♂ and the paratype, deposited in the CFL.

DIAGNOSIS: Differs from *dilatatus* and *peregrinus* by the more profoundly, more sparsely punctured pronotum and from *peregrinus* also by the slightly larger ocelli. Elytral punctures usually deeply impressed, thus intervals sometimes convex. Elytral impression very shallow or

absent. Elytra of female slightly rugulose. Front margin of labrum more or less entire in both sexes. Terminal segment of mesotarsus gently geniculate. *Ochthebius dilucidus* differs by the well-developed elytral impression and *gagliardii* differs by the elytral apices.

Aedeagus (fig. 43): similar to *dilatatus*, but main piece dilated in middle, distal lobe and parameres much smaller.

DISTRIBUTION (fig. 69): Endemic to Sicily.

MATERIAL EXAMINED:

I T A L Y: SICILY: Palermo, leg. Meschnigg (NMW, HUB); Ficuzza, 27.V.1906, leg. Dodero (MHNP); Ficuzza, 1906, leg. Leonhard (DEI, NMW).

Ochthebius impressipennis REY

Ochthebius impressipennis REY 1886: 42. - KNISCH, 1924.

Ochthebius perfectus KUWERT 1890: 259 (= syn. nov.). - KNISCH, 1924. - ORCHYMONT, 1940a, 1941. - CHIESA, 1959. - IENISTEA, 1978. - PIRISINU, 1981.

Ochthebius ichnusae PIRISINU 1979: 14 (= syn. nov.). - PIRISINU, 1981.

TYPE LOCALITY: Collioure, Pyrénées Orientales, France.

TYPE MATERIAL: REY (1886) described *O. impressipennis* as a closely related form of *O. impressicollis*: "Les ♂, ..., ont leurs elytres plus bossuées à leur base, plus distinctement ensellées après les bosses. Elles offrent même assez souvent une impression subhumérale et une discale oblongue plus ou moins prononcées....". There are no specimens named *O. impressipennis* in the Rey collection (MGL), but under *impressicollis* I found two specimens labeled "*impressus* R.", which agree very well with the original description of *impressipennis*. Thus I believe that these two specimens are syntypes of *impressipennis*. Both carry a tiny round lightblue label, which indicates their origin: Collioure (Pyr.Or.). Herewith I designate one of these specimens (♂) as lectotype of *Ochthebius impressipennis*. A second paralectotype is deposited in the NMW: "Collioure / Rey / Guillebeau Frankreich". Three additional paralectotypes from Collioure are housed in the MMB.

SYNONYMS: Under the name *perfectus* I found one female in the Kuwert collection (MHNP): "Mulsanti Pand. Pyren. Merkl / Ex.Musaeo A.KUWERT 1894". Herewith I designate this specimen, which undoubtedly belongs to *impressipennis*, as lectotype of *Ochthebius perfectus*.

I did not see the type of *O. ichnusae*, described from northeastern Sardinia (Siniscola), deposited in the Pirisinu private collection. But I saw several specimens from Sardinia which agree very well with the description of *ichnusae*.

DIAGNOSIS: This species is closely related with *corcyraeus*. Females are probably difficult to distinguish, but the two species are probably allopatric. It differs from *dilatatus* by the usually well-developed elytral depression and by the long accessory striae, which usually reach or even surpass the middle of the elytral impression. Elytral punctures smaller than in *dilatatus*. It differs from *corsicus* by the less convex pronotum and by the larger and more deeply impressed punctures of pronotum and elytra.

Aedeagus (fig. 47): distal lobe differs from *corcyraeus* by the distinct preapical constriction.

DISTRIBUTION (fig. 69): Southern France, Corsica, Sardinia.

ADDITIONAL MATERIAL EXAMINED:

F R A N C E: Bretagne (DEI); HERAULT: Béziers, leg. L.Puel (ISNB); VAR: St.Raphael (FMC); Hyères (FMC); Fréjus (DEI); PROVENCE: (DEI); CORSICA: Ghisonaccia, 8.V.1955, leg. Fagel (ISNB); Ajaccio, leg. Schneider (NMW); Porto Vecchio, 25.IV.1927 (HUB, NMW).

ITALY: SARDINIA: Terra Nova, leg. Paganetti (NMW, ISNB, CPL).

***Ochthebius italicus* sp. n.**

TYPE LOCALITY: Piemonte, Italy.

TYPE MATERIAL: Holotype ♂: "Piemonte Capranna 1.VIII.911 Fiori" (NMW). Paratypes: 2 exs. with identical label data as holotype (NMW); 5 exs.: "Italia / Collect. Minarz" (NMW); 2 exs.: "PIEMONTE [+ one illegible word] 7.VIII.910 A.FIORI / Zool.Mus.Berlin" (HUB).

DIAGNOSIS: 1.6 - 1.8 mm long. Labrum entire or slightly emarginate in male, always slightly emarginate in female. Mandibles of male without stiff setae. Pronotum moderately wide, convex, very densely punctured and mat, lateral depression more or less flat, median sulcus and admedian foveae well-developed. Elytra short and convex; elytral striae not always regular, punctures distinctly impressed, accessory striae usually well-developed, thus 6 striae between suture and shoulder; no distinct elytral depression developed. Sexual dimorphism of pro- and mesotarsi hardly developed.

Aedeagus (fig. 18): distal lobe similar to *montanus*, but with a distinct tooth-like projection near the apex.

Ochthebius italicus is closely related to *montanus*, from which it can hardly be distinguished without genital dissection. *Ochthebius haberfelneri* differs by the short accessory striae, *O. bicolon* and *crenulatus* differ by the less densely punctured pronotum and by the missing accessory striae. *Ochthebius corsicus* and *opacus* differ by the well-developed elytral impressions and by the not so densely punctured pronotum.

DISTRIBUTION (fig. 68): Known only from northwestern Italy (Piemonte).

ETYMOLOGY: *Italicus*, 3 (Lat.) - Italian.

***Ochthebius kaninensis* POPPIUS**

Ochthebius kaninensis POPPIUS 1909: 29. - KNISCH, 1924. - J.BALFOUR-BROWNE, 1948a, 1948b. - HANSEN, 1987. - SILVERBERG, 1987.

TYPE LOCALITY: Kanin Peninsula, northern Russia, Soviet Union.

TYPE MATERIAL: Lectotype ♂ (pres. des.): "Kanin / Spec.typ. / B.Poppius / Mus. Zool. H:fors Spec.typ.No 1888 *Ochthebius kaninensis* Popp." (ZMH). Paralectotypes: 4 exs. with similar labels (ZMH, NMW).

DIAGNOSIS: 1.6 - 1.9 mm long. A very distinctive species, somewhat related to *bicolon* and *czwalinae*. It differs from these species by the smooth pronotum, which is very sparsely punctured, although the median sulcus and the admedian foveae are deeply impressed. Mandibles of male without stiff bristles. Labrum entire in male, emarginate in female. Elytra of female only very slightly rugulose. Pro- and mesotarsus of male slightly enlarged, last segment of mesotarsus geniculate.

Aedeagus (fig. 39): main piece short and simple, distal lobe with an apical appendix.

DISTRIBUTION (fig. 67): Northern Russia, northern Finland. Fossil records from England (44.000 years b.p.).

***Ochthebius khnzoriani* JANSSENS**

Ochthebius khnzoriani JANSSENS 1974: 158.

TYPE LOCALITY: Vakhchetch, Liakch, Maidan Taou, Tadzhijskaya SSR, Soviet Union.

TYPE MATERIAL: I have not seen the holotype ♂ or the 3 female paratypes, which are deposited in the Khnzorian collection and in the ISNB.

DIAGNOSIS: As I have not seen any of the types I cannot be sure whether the specimens from Tadjikistan, which I have examined belong to *khnzoriani* or to a new species. The specimens are 1.8 - 1.9 mm long and thus considerably smaller than the types of *khnzoriani* (2.2 mm). General appearance like in *laevisculptus*, but elytra of male slightly to distinctly rugulose.

Aedeagus (fig. 62) of *O. cf. khnzoriani*: distal lobe not very strongly sclerotized; paramers widely separated from the main piece, apically thin, with remarkably long terminal bristles.

DISTRIBUTION (fig. 70): Soviet Union (Tadjikistan).

MATERIAL EXAMINED:

[S O V I E T U N I O N: Tadjikistan: Bal'dzhuan, 924 m, 1898, leg. Hauser (NMW); Rosit valley, Dushanbe, 18.VII.1984, leg. Wrase (CBG, NMW).]

***Ochthebius kiesenwetteri* KUWERT**

Ochthebius kiesenwetteri KUWERT 1887: 383 (391). - KNISCH, 1924. - ORCHYMONT, 1941. - IENISTEA, 1978

TYPE LOCALITY: Caucasus.

TYPE MATERIAL: I have seen two specimens, both unfortunately females, which might be syntypes of *O. kiesenwetteri*. One was found in a box of the Kuwert collection (MHNP) under the name "*kiesenwetteri*". It carries neither a determination label nor any locality label. The second specimen was found in the MTD (Schneider collection), which - according to the original description - is the original type depository. It carries one original label, with illegible handwriting. These two specimens probably belong to one species, although the specimen from Paris is slightly shorter, with larger elytral punctures. According to G.SCHERER (i.l.) there are no syntypes in the Kiesenwetter collection (ZSM).

DIAGNOSIS: 2.0 - 2.1 mm long. Pronotum densely punctured, but less dense than in *montanus*, *monychus* and *thraciae*, less convex than in these 3 species. General appearance like that of *bonnairei*. Accessory stria well-developed. Elytra also resemble those of *corsicus*, but impressions almost imperceptible. Some of the elytral striae slightly irregular.

DISTRIBUTION (fig. 67): Known only from the type locality.

***Ochthebius laevisculptus* REITTER**

Ochthebius laevisculptus REITTER 1901: 65. - KNISCH, 1924. - ORCHYMONT, 1928.

Ochthebius lindbergi JANSSENS 1961: 1 (= syn. nov.). - JANSSENS, 1962.

TYPE LOCALITY: Kulyab, Tadzhijskaya SSR, Soviet Union.

TYPE MATERIAL: Lectotype ♂ (pres. des.): "Turkestan Buchara / coll. Reitter / *laevisculptus* m. Buchara" (TMB). Paralectotypes: Six specimens with similar labels (TMB, NMW, MTD). Number of syntypes not known.

SYNONYMS: I have examined 5 male paratypes of *O. lindbergi* (type locality: Beltchiragh, 1500 m, Afghanistan), which are deposited in the ISNB.

DIAGNOSIS: *Ochthebius laevisculptus* is a very variable species. It varies geographically and within populations (? species complex). 1.8 - 2.2 mm long. Surface smooth and shining or reticulated in both sexes. Labrum usually distinctly emarginate in both sexes. Bristles of mandibles of male not as strong and big as in *dilatatus*. Pronotal foveae distinct. Pronotum very variable, wide or narrow (even within the same population), slightly or strongly convex; interstices of disc usually flat. Bottom of pronotal foveae usually distinctly chagreened. Accessory scutellar striae absent or present (0 - 8 punctures). Elytra of female smooth or rugulose. Sexual characters of tarsi like in *dilatatus*.

Aedeagus (figs. 64) very variable, especially teneral specimens with rather hyaline and amorphous distal lobe. Size, distal lobe and length of parameres are extremely variable in *laevisculptus*, even within one population. A very short flagellum is always present near the apex. Even the length of the parameres varies considerably.

Differs from *turcmeniae*, *lederi*, *tadilatus* and *ferganensis* by the usually more densely punctured pronotum and by the chagreen of the pronotal foveae. Labrum less deeply emarginate than in *turcmeniae*.

DISTRIBUTION (fig. 70): Soviet Union (Tadzhikistan, Uzbekistan), Afghanistan.

ADDITIONAL MATERIAL EXAMINED:

G R E E C E: Corfu, leg. Sahlberg - ? label mistake.

S O V I E T U N I O N: "Alatau", leg. Sahlberg (ZIL); UZBEKISTAN: Alai Mts., 21.6.1981, leg. Majer (NMW); Tashkent, Bolboi Chingan, 20.VI.1981, leg. Majer (NMW); Fergana, 16.V.1920 (ZIL); TADZHIKISTAN: Karatak [nr Dushanbe], leg. Staudinger (DEI).

A F G H A N I S T A N: Hindukush, Khinijantal, Do-Shak, 2500 m, 1.X.1952, leg. Klapperich (TMB).

Ochthebius laticollis PANKOW

Ochthebius laticollis PANKOW 1986: 68

TYPE LOCALITY: Maglige, Bulgaria.

TYPE MATERIAL: I have seen the holotype ♂ (FSF) and the two paratypes (FSF, CPM).

DIAGNOSIS: 1.8 - 2.1 mm long. Black. Disc of pronotum usually very densely punctured. Specimens from northern Greece differ from the types mainly by the somewhat narrower, smaller and more convex pronotum with smaller punctures. Elytral punctures not very dense and not very deeply impressed (type specimens with larger punctures). Accessory striae short (max. 8 punctures), usually not reaching the middle of the elytra. Sexual dimorphism feebly developed. Labrum emarginate in both sexes. Mandibles of male without stiff setae. Pro- and mesotarsi similar in both sexes. Elytra of female glabrous.

Aedeagus (fig. 44): distal lobe very variable, but always with a large tooth-like structure on the ventral side; distal lobe of the type specimens strongly swollen, probably due to treatment with improper chemicals. *Ochthebius montanus* and *thraciae* differ immediately by the well-developed accessory striae.

DISTRIBUTION (fig. 68): Southern Bulgaria, northern Greece.

ADDITIONAL MATERIAL EXAMINED:

G R E E C E: Pangaeon, Nikissiani, cold carstic spring, 26.VII.1988, leg. Jäch (NMW, CPM, FSF); Thraki, Lake Vistonis, 26.VII.1988, leg. Jäch (NMW).

Ochthebius lederi sp. n.

TYPE LOCALITY: Lenkoran, Azerbaydzhan, Soviet Union.

TYPE MATERIAL: Holotype ♂: "Lenkoran Leder (Reitter) / Collect. Türk / *limbicollis* Reitt." (NMW).

DIAGNOSIS: 2.2 mm long. Labrum very slightly emarginate, its front margin enlarged, mandibular bristles obviously lost. Pronotum wide, moderately densely punctured, admedian foveae and median sulcus distinct. Elytra long, apices more or less rounded, dorsal impression almost imperceptible, elytral striae regular, punctures large and deeply impressed, intervals narrow and slightly convex, one accessory puncture present. Sexual characters of tarsi like in *dilatatus*. Female unknown.

Aedeagus (fig. 53): main piece evenly curved, apex rather long; ventral side of distal lobe convex; parameres long, not enlarged apically.

The holotype of *Ochthebius lederi* can hardly be distinguished from *dilatatus*. Elytral punctures larger and more deeply impressed than usually in *dilatatus*; ocelli smaller than in other related species, not entirely delimiting the frontal fovea. *Ochthebius turcmeniae* differs by the deeply excised labrum and *O. laevisculptus* by the usually more densely punctured pronotum and by the chagreen of the pronotal impressions. *Ochthebius rivibelli* with longer labrum and almost reduced anterior foveae.

DISTRIBUTION (fig. 70): Known only from the type locality.

ETYMOLOGY: Named for Hans Leder (1843 - 1921), who obviously collected this specimen.

Ochthebius lenkoranus REITTER

Ochthebius lenkoranus REITTER 1885: 362. - KNISCH, 1924. - ORCHYMONT, 1941. - IENISTEA, 1978.

Ochthebius ghilanensis FERRO 1984b: 589 (= syn. nov.).

TYPE LOCALITY: Lerik, Talish Mts., Azerbaydzhan, Soviet Union.

TYPE MATERIAL: Lectotype ♀ (pres. des.): "Caspi.-M.-Gebiet Liryk Leder (Reitter) / coll. Reitter / *O. lenkoranus* m. 1885" (TMB). Paralectotypes: "Talyschgebg. Transcaucas. Leder, Reitter. / coll. Reitter / *O. lenkoranus* m. Rtrr."; TMB (1 ex.) and MHNP (1 ex.). Number of syntypes unknown.

SYNONYMS: I have examined one male paratype (NMW) of *O. ghilanensis* FERRO (type locality: Gilan, northwest Iran).

DIAGNOSIS: A small (1.7 mm) and convex species with rather densely punctured pronotum and missing accessory striae. Males without mandibular setae. Females with smooth elytra. *Ochthebius striatus* and *stygalis* differ by slightly longer elytra. Additionally *stygalis* differs by the longer labrum. Females of *striatus* differ also by the chagreened elytra. *Ochthebius montanus*, *thraciae* and *monychus* differ by the well-developed accessory striae. *Ochthebius subopacus* differs immediately by the gibbiform, very densely punctured pronotal disc and by the shorter, convex and broadly oval elytra.

Aedeagus (fig. 35): main piece stout and short, distal lobe with an apical rod.

DISTRIBUTION (fig. 67): Soviet Union (Azerbaydzhan) and Iran (Gilan, Mazandaran).

ADDITIONAL MATERIAL EXAMINED:

I R A N: Gilan, Dzirandeh, 1000 m, 9.8.1974, leg. Senglet (MHNG, NMW).

***Ochthebius limbicollis* REITTER**

Ochthebius limbicollis REITTER 1885: 363. - KNISCH, 1924. - ORCHYMONT, 1941. - IENISTEA, 1978.

TYPE LOCALITY: Lenkoran, Azerbaydzhan, Soviet Union.

TYPE MATERIAL: Lectotype ♂ (pres. des.): "Lenkoran Leder (Reitter) / Collect. Türk / *limbicollis* Reitt." (NMW). Sixteen paralectotypes with similar labels (TMB, NMW, MHNP, DEI, ZIL). One of these paralectotypes belongs to a different species (*O. lederi* sp. n.). Number of syntypes unknown.

DIAGNOSIS: A short and convex, quite distinctive species, somewhat resembling *bicolor* and *kaninensis*. 1.8 - 2.1 mm long. Mandibles of male with stiff setae. Pronotum wide, median sulcus and admedian foveae distinct, intervals elevated and quite sparsely punctured (I saw only one densely punctured specimen). Elytra short, convex and apically acuminate, usually shining in both sexes. No accessory striae developed.

Aedeagus (fig. 41): main piece short and evenly curved; distal lobe cylindrical.

DISTRIBUTION (fig. 69): Soviet Union (Azerbaydzhan), Iran.

ADDITIONAL MATERIAL EXAMINED:

S O V I E T U N I O N: "West Caucasus, Utsch-Dere", leg. E.König (NMW); AZERBAJDZHAN: Lenkoran, 1897, leg. Korb (TMB).

I R A N: MAZANDERAN: Nashtarud, 10.VII.1923, leg. Senglet (MHNG, NMW).

***Ochthebius maculatus* REICHE**

Ochthebius maculatus REICHE 1872: 27. - KNISCH, 1924. - ORCHYMONT, 1927, 1940a. - NORMAND, 1933. - CHIESA, 1959. - IENISTEA, 1978. - PIRISINU, 1981.

Ochthebius abeillei GUILLEBEAU 1896: 241. - KNISCH, 1924. - ORCHYMONT, 1940a.

Ochthebius maculatus var. *immaculatus* BREIT 1908: 61. - KNISCH, 1924. - ORCHYMONT, 1940a.

Ochthebius maculatus var. *infuscatus* SAHLBERG 1913: 56. - KNISCH, 1924. - ORCHYMONT, 1940a. - SILFVERBERG, 1987.

TYPE LOCALITY: Sicily (Italy) or Mallorca (Spain).

TYPE MATERIAL: I could not find the types of *maculatus* in the MHNG and the MHNP, where I checked the Marseul, Fairmaire and the Bedel collections.

SYNONYMS: Lectotype ♂ (pres. des.) of *Ochthebius abeillei*: "Abeillei Guilb. / Syrie / Abeille" (MMB). Two paralectotypes with the same label data in the same collection.

Lectotype ♂ (pres. des.) of *O. immaculatus*: "Rabassa Mallorka.Breit / TYPUS / *maculatus* Rche v. *immaculatus* Breit, Type / ex.Orig.Sammlg. J.Breit Wien" (MFT). Three paralectotypes in the same collection. The four specimens are slightly darker than other specimens from that locality. The dark elytral markings are thus not so clearly visible.

Lectotype ♂ (pres. des.) of *Ochthebius infuscatus*: "Haifa / Kison / J.Sahlb. / 2288 / Mus.Zool.Helsinki Loan NO. 85 C 721" (ZMH). Number of syntypes unknown.

DIAGNOSIS: This species is very variable and at present I am not able to decide if there are some subspecies or even different species in the complex. The species varies geographically and to a lesser extent also within populations. The size varies from 1.9 to 2.4 mm. Pronotum can be

wide and densely punctured or narrow and sparsely punctured. Elytra usually yellow with one to six brownish spots, but unicolored brown specimens are not uncommon.

Aedeagus (fig. 51): Types of *abeillei* and *infuscatus* (including specimens from northern Israel and Mallorca) with basal piece dilated near insertion of parameres. Parameres usually widened apically. Specimens from the Negev (Israel) with conspicuously long distal lobe (? subspecies). This species is usually recognized by its devious colour pattern. Unicolorous specimens resemble *dilatatus*, but differ by a number of characters: lateral depression of pronotum widely explanate, elytral apices acuminate and accessory striae longer, usually reaching the middle of the elytral impression, which is very shallow or obsolete in *maculatus*. *Ochthebius corcyraeus* and *impressipennis* differ by the narrower pronotum and by the usually well-developed elytral impression.

DISTRIBUTION (fig. 69): Mediterranean.

ADDITIONAL MATERIAL EXAMINED:

S P A I N: MURCIA: Banos de la Fuensanta, 21.V.1987 (NMW); MALLORCA: Rabassa, leg. Breit (NMW, DEI, MFT); leg. Popp (TLFI).

I T A L Y: SICILY: Porto Empedocle, 16.II.1988, leg. Eyre (CFA, NMW); Girgenti [= Agrigento], leg. Rottenberg (DEI); SARDINIA: Lostia, leg. Fiori (NMW, HUB).

M O R O C C O: Casablanca, Reitter (TMB, MHNP); Rabat, 23.III.1962, leg. Mussard (MHNG); Sud Oued Massa, 8.IV.1974, leg. Besuchet (MHNG).

A L G E R I A: Biskra, leg. De Vauloger (MHNP, NMW); Edough (TMB); Clairfontaine, leg. Sahlberg (HUB).

T U N I S I A: Douz, 14.IV.1986, leg. Schillhammer (NMW); Tunis (NMW, DEI); Kebili, leg. Normand (NMB); 10 km n Kairouan, 17.IV.1986 (NMW); Gafsa, leg. Vauloger (MHNP); Nefta, IV.1907 (MHNP).

I S R A E L: Jericho, leg. A.Sahlberg (OLL, DEI); Akko, N.Naaman, 18.IV.1982, leg. Besuchet & Löbl (NMW, MHNG); Akko, 16.IV.1981, leg. Wewalka (CWW, NMW); Kinneret Area, Bteha, 7.IV.1986, leg. Jäch (NMW); Negev: En Aqev, 14.III.1985, leg. Jäch (NMW); En Avdat, 16.II.1985, leg. Jäch (NMW).

E G Y P T: Ramleh (HUB).

Ochthebius montanus FRIVALDSKY

Ochthebius montanus FRIVALDSKY 1881: 27. - KNISCH, 1924. - ORCHYMONT, 1941. - CHIESA, 1959. - JANSSENS, 1960. - ENDRÖDY, 1967. - IENISTEA, 1968b, 1978. - GEORGUIEV, 1971.

TYPE LOCALITY: Baile Herculane, southwestern Romania.

TYPE MATERIAL: One specimen (♂) in the NMW: "Hungaria Mehadia / Friv. / *montanus* Friv. / Collectio Kaufmann" is probably syntypal. I did not designate it as lectotype, as I have not yet examined the syntypes of the Frivaldsky collection in the TMB. Number of syntypes unknown.

DIAGNOSIS: This species is easily recognized by the densely punctured pronotum and by the well-developed accessory striae. Elytra usually without (or very shallow) dorsal impressions. Sexual characters very feebly developed. *Ochthebius monychus* differs by the feebly developed elytral impressions. *Ochthebius italicus* and *thraciae* probably cannot be distinguished from *montanus* without genital dissection.

Aedeagus (fig. 16): distal lobe sinuous, ventral side less convex than in *thraciae*, without sub-apical tooth-like structure.

DISTRIBUTION (fig. 68): Balkan Peninsula. ? Italy.

ADDITIONAL MATERIAL EXAMINED:

I T A L Y: Cuneo, Terme di Valdieri (HUB, NMW) - ? label mistake

Y U G O S L A V I A: BOSNIA: Igbar (NMW); Zvijezda planina, 18.VII.1930, leg. Fodor (TMB); Sarajevo, Igman planina, 24.VII.1930, leg. Fodor (TMB); Jablanica, 1901 (NMW); Pazarić (NMW); Pazarić, 18.VI.1936, leg. Linke (HUB); KOSOVO: Sar pl. s Doganivici, 19.VII.1988, leg. Jäch (NMW); SERBIA: Toplica r., 60 km w Nis, 19.VII.1988, leg. Jäch (NMW); Ak Palanka (NMW); MAKEDONIA: nw Gevgelija, 12.VIII.1988, leg. Jäch (NMW); Pelister nr Bitola, 21.VII.1988, leg. Jäch (NMW); Zirovnica Gostivar, 14.VII.1937, leg. Fodor (TMB); Sar planina, 10.VII.1987, leg. Fodor (TMB); CROATIA: Kievo (nr Knin), 1902, leg. Apfelbeck (CPL).

A L B A N I A: Shkoder (CPL).

G R E E C E: Thasos: Prinos, 16.VI.1979, leg. Malicky (NMW); Marie, 18.VI.1979, leg. Malicky (NMW); Aliakmonas nr Trigono, VI.1985, leg. Sattmann (NMW); Magnisia, Tsangrada, 1.VI.1977, leg. Wewalka (NMW); Drama-Livadero, 9.VIII.1988, leg. Jäch (NMW); Pangaion, Nikissiani, 26.VII.1988, leg. Jäch (NMW); Thessalia, Pelion (NMW); Peloponnesos: Kalamata, 1.VIII.1979, leg. Huber (MHNG); Euboea: s Komiton, 6.VI.1979, leg. Malicky (NMW); Stopones, 11.X.1980, leg. Malicky (NMW); Ano Steni, 12.X.1980, leg. Malicky (NMW); Kymi, V.1926, leg. Holtz (HUB); Andros: Varidon, 20.X.1979, leg. Malicky (NMW); Apikia, 12.VI.1979, leg. Malicky (NMW); Agios Nikolaos, X.1979, leg. Malicky (NMW); Revmata, 21.X.1979, leg. Malicky (NMW).

B U L G A R I A: Maglige, VIII.1912, leg. Hilf (HUB, DEI, NMW); Rila, 14.VII.1927, leg. Fodor (TMB); Sofia, Pancarevo 27.V.1908, leg. Rambousek (DEI).

Ochthebius monychus ORCHYMONT

Ochthebius monychus ORCHYMONT 1941: 13. - FERRO, 1981.

TYPE LOCALITY: Small stream east of Karlovassi, 200 m, Samos, Greece.

TYPE MATERIAL: I have not examined the holotype ♂ or any of the 124 paratypes, housed in the ISNB.

DIAGNOSIS: Externally more or less identical with *montanus*, *thraciae* and *italicus*, but in *monychus* a median and a pair of posthumeral elytral impressions is usually feebly developed.

Aedeagus (fig. 21): distal lobe with a prominent tooth-like structure in apical third, which is best observed in ventral view.

DISTRIBUTION (fig. 68): Southwestern Turkey, Greece (Samos, Ikaria).

MATERIAL EXAMINED:

G R E E C E: SAMOS: Malolates, V.1979, leg. Malicky (NMW); Pandrosion, 15.IX.1983, leg. Jäch (NMW).

Ochthebius naxianus IENISTEA

Ochthebius naxianus IENISTEA 1988: 229. - JÄCH, 1989.

TYPE LOCALITY: Apollon, Naxos, Greece.

TYPE MATERIAL: I could not see the holotype ♂ and the paratypes (number unknown) which are deposited in the Ienistea private collection, Bucuresti.

DIAGNOSIS: This species is very similar to *striatus* and probably cannot be distinguished without aedeagus extraction. *Ochthebius laticollis* differs clearly by the dense puncturation of the pronotal disc.

Aedeagus (fig. 26): shorter than the similar *laticollis*; distal lobe long and slender, with a conspicuous ventral excision.

DISTRIBUTION (fig. 68): Greece (Andros, Paros, Naxos).

MATERIAL EXAMINED:

G R E E C E: PAROS: Petaludes, V.1979, leg. Malicky (MNW); ANDROS: Ateni, 20.X.1980, leg. Malicky (NMW); NAXOS: leg. Schatzmayer (DEI, NMW).

***Ochthebius olicinium* sp. n.**

TYPE LOCALITY: Ulcinj, Crna Gora, Yugoslavia.

TYPE MATERIAL: Holotype ♂: "Dulcigno Apfelb." (NMW). Paratypes: 4 exs.: "Wngth. Dulcigno" (NMW, CPL); 2 exs.: "Corfu / J.Sahlb." (DEI, ZMH).

DIAGNOSIS: 1.75 - 2.0 mm long. Brown, head dark brown. Front margin of labrum more or less entire and upturned in male, slightly emarginate in female. Mandibles of male with long stiff setae. Pronotum moderately wide and convex, median sulcus and admedian foveae well-developed, interstices convex and smooth, distinctly punctured; lateral depression deflexed. Elytra short, oval and convex, apically conspicuously acuminate; elytral striae regular, punctures large, intervals slightly convex; no accessory striae and no dorsal impression developed; elytra of female less shining than in male, but never reticulated. Pro- and mesotarsus of male slightly enlarged.

Aedeagus (fig. 38): main piece short and evenly curved; distal lobe slightly variable; parameres strong, widely separated from the main piece.

Ochthebius olicinium is closely related to *bicolon*, *czwalinae* and *striatus*, which differ by the narrower and less ovoid elytra. Females differ from *bicolon* and *striatus* also by the smooth elytra. *Ochthebius limbicollis* differs only by the usually less distinctly punctured pronotum.

DISTRIBUTION (fig. 68): Yugoslavia (Crna Gora) and Greece (Corfu).

ETYMOLOGY: Olicinium was the name of Ulcinj (type locality) during the the Roman Empire.

***Ochthebius opacus opacus* BAUDI**

Ochthebius opacus BAUDI 1882: 129. - KNISCH, 1924. - ORCHYMONT, 1941. - CHIESA, 1959. - BINAGHI, 1961. - GEORGUEV, 1971. - IENISTEA, 1978. - PIRISINU, 1981.

Ochthebius barnevillei REY 1886: 44. - KNISCH, 1924. - ORCHYMONT, 1941. - IENISTEA, 1978.

Asiobates gallicus IENISTEA 1980: 725 (= syn. nov.).

TYPE LOCALITY: Porretta, Bologna, Italy.

TYPE MATERIAL: Four syntypes are deposited in the Baudi collection (MZT). Only one of these specimens carries a label: "6 10". Herewith I designate one of the male specimens as lectotype. One additional paralectotype ♀: "Ochthebius opacus Baudi Type ! Apennin / Coll.Kraatz" (DEI).

SYNONYMS: In the MGL there are two specimens under the name *O. barnevillei*. At least one of them is syntypical: "Hte Pyr. Pandellé". I did not examine that specimen. According to ORCHYMONT (1941) the specimens from the second type locality ("Saint-Martin-Lantosque, Alpes-Maritimes") are identical with *O. opacus*. Since I have not yet examined one of these syntypes, which should be deposited in the MHNP (Grouvelle collection), I refrain from a lectotype designation.

I have seen the holotype ♂ of *O. gallicus* from France (type locality: St.Vallier, Alpes Maritimes), deposited in the MHNG. Although the aedeagus is lost I have little doubt that this specimen belongs to *O. opacus* rather than to *corsicus*.

DIAGNOSIS: This species (1.7 - 2.0 mm) is easily recognized by its large elytral punctures and the somewhat uneven elytral surface. Median impression on the elytra usually present and well-developed, sometimes connected with a posthumeral depression. These impressions only rarely obsolete. Rows of punctures somewhat irregular. Accessory striae well-developed. Elytra of female not chagreened. Differs from *corsicus* by the shorter elytra and by the aedeagus (fig. 31), which lacks the lamella of the distal lobe. Rod of the distal lobe straight, not sinuous like in *corsicus*.

DISTRIBUTION (fig. 68): Italy, southeastern France.

ADDITIONAL MATERIAL EXAMINED:

F R A N C E: ALPES-MARITIMES: St.Martin-Vésubie, VII.1911, leg. Magdelaine, 1♀, (CPL).

I T A L Y: FIRENZE: Vallombrosa (NMW, DEI); LUCCA: (TMB); EMILIA: Castiglione, 22.VI.1904, leg. Fiori (NMW, DEI, HUB); TOSCANA: Alpi Apuane, Campo Cecina, 1100 m, 30.VII.1984, leg. Löbl (MHNG, NMW); MODENA: Fiumalbo (NMW); BASILICATA: Stigliano, IX.1904, leg. Fiori (HUB); SICILY: leg. Merkl, 1♀, (DEI); Messina, Randazzo, 17.VI.1978, leg. Wewalka, 1♀, (NMW).

Ochthebius opacus sardus n.ssp.

TYPE LOCALITY: Mt.Gennargentu, Sardinia, Italy.

TYPE MATERIAL: Holotype ♂: "Sardinia.Aritzo Mte Genargentu GeO. C.Krüger" (NMW). Paratypes: 19 exs. with identical label data (NMW, DEI, HUB); 2 exs.: "Aritzo 7.38" (NMW); 1 ex.: "Aritzo Sardinia" (NMW); 1 ex.: "Sardinia Assuni leg. Dr.Krausse Coll.O. Leonhard" (DEI); 2 exs.: "Seui Sardinia" (NMW); 1 ex.: "49324 / Sardin. Gené / Zool.Mus.Berlin" (HUB); 1 ex.: "Sardinien Cl.Müller S." (MHNG).

DIAGNOSIS: This subspecies (or species) differs from *opacus opacus* by its slightly smaller pronotal and elytral punctures and by the aedeagus (fig. 30): apical rod of the distal lobe bent slightly ventrad in *sardus* but straight in *opacus*.

DISTRIBUTION (fig. 68): Endemic to Sardinia.

ETYMOLOGY: *Sardus*, 3 (Lat.) - Sardinian.

Ochthebius peregrinus ORCHYMONT

Ochthebius peregrinus ORCHYMONT 1941: 2. - IENISTEA, 1978. - FERRO, 1979a.

Ochthebius marianii FERRO 1976: 34 (= syn. nov.). - FERRO, 1979a. - PIRISINU, 1981.

TYPE LOCALITY: Kalikiopoulo, Corfu, Greece.

TYPE MATERIAL: The holotype ♂ is deposited in the ISNB.

SYNONYMS: I have not seen the holotype ♂ of *O. marianii* (type locality: Italy, Puglia), deposited in the CFL, but I have examined one paratype (TMB) and there is no doubt that it is a synonym of *peregrinus*, as the aedeagus illustrations of ORCHYMONT (1937) and FERRO (1976) are more or less identical.

DIAGNOSIS: Closely related to *dilatatus*, from which it differs by the small and round (not transverse) ocelli, which are not entirely delimiting the frontal foveae posteriorly. Elytral punctu-

res occasionally more deeply impressed than in *dilatatus*. Accessory striae composed of 0 - 10 punctures. Specimens with well-developed accessory striae are rare and they can hardly be distinguished from *corcyraeus*. Elytral punctures usually much smaller in *corcyraeus*, but I have seen a few *corcyraeus* with large punctures (Grosseto). Sexual characters as in *dilatatus*.

Aedeagus (fig. 60): dorsal side of main piece enlarged in middle, distal lobe very small, parameres long.

DISTRIBUTION (fig. 69): Italy, Yugoslavia, Greece (Corfu), ? Austria.

ADDITIONAL MATERIAL EXAMINED:

AUSTRIA or YUGOSLAVIA: "Styria" (= Steiermark), 1♂ in FMC.

ITALY: VENEZIA GIULIA: Grado, leg. Bernhauer (NMW); ROVIGO: Po delta, 4.XI.1973, leg. Kahlen (CKH, NMW); VENEZIA: Laguna di Venezia (TMB); TRIESTE: Istria: Noghera, X.1913, leg. Pretner (CPL, NMW); GORIZIA: Monfalcone, 18.II.1948, leg. Springer (CPL).

Ochthebius perkinsi PANKOW

Ochthebius perkinsi PANKOW 1986: 65.

TYPE LOCALITY: Allgäu, Germany.

TYPE MATERIAL: Holotype ♂ and one female paratype are deposited in the FSF.

DIAGNOSIS: This species is characterized by its pronotum, which resembles some African species. Pronotum without admedian foveae but with a shallow transverse depression before and after the middle, less densely punctured than in *haberfelneri*. In the type specimens the caudal depression is deeper than the cranial one. In the Austrian specimens, even these transverse depressions are almost obsolete. Elytral punctures large and deep, larger than in *bicolon*. Interstriae slightly convex.

Aedeagus (fig. 28).

DISTRIBUTION (fig. 67): Southern Germany and western Austria.

MATERIAL EXAMINED:

AUSTRIA: Tirol: Forchach, 9.VI.1944, leg. F.Kofler, 1♂ (TLFI).

GERMANY (west): München, 6.II.1904, leg. Ihssen (HUB).

Ochthebius pui PERKINS

Ochthebius nitidus PU 1958: 221 (= primary homonym of *O. nitidus* LECONTE 1850).

Ochthebius pui PERKINS 1979: 336 (replacement name for *nitidus* PU).

TYPE LOCALITY: Yunnan, China.

TYPE MATERIAL: I could not examine the holotype ♂ or any of the 5 paratypes, which are housed in the insect collection of the Zhongshan (Sun Yatsen) University, Guangzhou (Canton).

DIAGNOSIS: According to the aedeagal structure, *O. pui* could be related with *O. amplicolis*, but differs from it - according to the original description - by the distinct admedian foveae of the pronotum and by the larger size (1.9 mm long).

DISTRIBUTION (fig. 70): Known only from the type locality.

Ochthebius rivibelli sp. n.

TYPE LOCALITY: Stream on Güzeldere pass, ca.2600 m, Van province, eastern Turkey.

TYPE MATERIAL: Holotype ♂: "TR 5.6.1987 Van-Baskale 2600 m Güzeldere P. leg. JÄCH (61)" (NMW). Paratypes: 4 exs. with same label as holotype (NMW); 3 exs. labeled as the holotype, but with number "62" instead "61" (NMW).

DIAGNOSIS: 2.0 - 2.3 mm long. Dark brown or black. Labrum longer than in *dilatatus*, almost truncate in male, distinctly emarginate in female; mandibles of male with stiff bristles; ocelli large, entirely delimiting the frontal foveae caudally. Pronotum large, moderately densely punctured, smooth between punctures; median sulcus and posterior foveae well-developed, anterior foveae small or even completely obsolete. Elytra without median impression, long and glabrous, occasionally slightly rugulose in female; elytral striae regular, punctures not very deeply impressed; accessory striae short (max. 5 punctures). Sexual characters of pro- and mesotarsus like in *dilatatus*.

Aedeagus (fig. 57): main piece rather short; distal lobe small, with a short appendix; parameres comparatively long.

Ochthebius rivibelli differs from *dilatatus* and *lederi* by the longer labrum and by the almost reduced anterior foveae of the pronotum and from *ferganensis* and *turcmeniae* by the less deeply excised labrum and the anterior foveae.

DISTRIBUTION (fig. 69): Known only from the type locality.

ETYMOLOGY: *Rivus* (Lat.) - stream and *bellus* (Lat.) - beautiful, refers to the type locality. Güzeldere (Turkish) means beautiful stream.

Ochthebius striatus (CASTELNAU)

Ochthebius striatus CASTELNAU 1840: 47 (described as *Hydraena*). - KNISCH, 1924. - ORCHYMONT, 1935b, 1937, 1940. - JANSSENS, 1957, 1960. - CHIESA, 1959. - GEORGUIEV, 1971. - IENISTEA, 1978, 1980. - J.BALFOUR-BROWNE, 1978. - PIRISINU, 1981. - BALDARI et al., 1983. - MOUBAYED, 1986.

Ochthebius torrentium COYE 1869: 370. - KNISCH, 1924. - ORCHYMONT, 1937. - GEORGUIEV, 1971.

Ochthebius taygetanus KUWERT 1891: 363 (= syn. nov.). - KNISCH, 1924. - IENISTEA, 1978.

Ochthebius fageli JANSSENS 1968a: 1 (= syn. nov.). - FERRO, 1978, 1981.

Ochthebius fageli ssp. *sutorinensis* FERRO 1978: 82 (= syn. nov.). - FERRO, 1981.

TYPE LOCALITY: Corfu, Greece.

TYPE MATERIAL: CASTELNAU (1840) indicates in the original description, that he had received the specimens of his new species from L.Parreyss, who was an Austrian insect dealer. Part of his collection is in the NMW today. Lectotype ♂ (pres. des.): "Par. L. / *bicolor*" (NMW). The first label is an original Parreyss label, the second one was added by Ganglbauer. One paralectotype with identical labels in the NMW. One ♀ paralectotype: "Corfu Parreyss / *O. [Hydraena] striata* Cast. TYPE / Museum Paris 1922 Coll. L.BEDEL" (MHNP). One male paralectotype: "Corfu Parr / 49325 / A.d'Orchymont Rev. striatus Castelnau ♂" (HUB). One paralectotype: "Hyd.striata Koll. Ins.Ion.Parr" (DEI). According to ORCHYMONT (1935b) there are no syntypes in Melbourne.

SYNONYMS: I could examine one specimen (♂) from the type locality of *torrentium* in Lebanon: "*Ochthebius torrentium* Coye Kab Elias I Coye 73" from the Marseul collection (MHNP). This specimen is identical with *Ochthebius striatus* and it might be a syntype, but as "73" could also stand for the date of collecting I refrain from a type designation.

Lectotype ♂ (pres. des.) of *O. taygetanus*: "Taygetus / Ex. Musaeo A.KUWERT 1894" (MHNP). Altogether I found 4 syntypes in the Kuwert collection (MHNP). They are all identical with *O. striatus*.

I have not seen the type of *O. fageli*, described from the Lebanon, but there is no doubt that this is a synonym of *O. striatus*. The original aedeagus illustration agrees perfectly with the aedeagus of *O. striatus*.

I have examined two paratypes (♂+♀) of *sutorinensis* (TMB), type locality: Bosnia, Yugoslavia. These specimens undoubtedly belong to *O. striatus*.

DIAGNOSIS: 1.5 - 2.1 mm long, thus usually smaller than *dilatatus*. Females always differ from *dilatatus* by the distinctly chagreened elytra. Last segment of mesotarsus more strongly geniculate than in *dilatatus*; other sexual characters like in *dilatatus*. Pronotum usually less wide and more convex than in *dilatatus*, but I have seen very small specimens of *dilatatus* (Greece: Mesologgion), which have the pronotum very similar to *striatus*. Elytra usually shorter, more convex and less wide than in *dilatatus*. Elytral striae regular; punctures distinctly impressed; accessory striae missing or very short (max. 5 punctures); dorsal impression usually obsolete, only rarely very feebly developed. Punctures of pronotum and elytra generally more distinctly impressed than in *dilatatus*. Externally this species cannot be distinguished from *crenulatus* and *naxianus*.

Aedeagus (fig. 22): very similar to *crenulatus*, but main piece less wide and distal lobe not so distinctly curved apically. Aberrant forms are not uncommon.

DISTRIBUTION (fig. 67): East Mediterranean.

ADDITIONAL MATERIAL EXAMINED:

HUNGARY: Vertes hegy, Fáni völgy, 13.III.1961, leg. Endrödy (TMB, NMW).

CZECHOSLOVAKIA: SLOVAKIA: Trencin, leg. Brancsik, 2 ♀ (FMC) - could be *crenulatus* also - ? label mistake.

YUGOSLAVIA: CROATIA: Gravosa, nr Dubrovnik (NMW); BOSNIA: Jablanica (NMW); SERBIA: Ak Palanka (NMW); CRNA GORA: Castelnuovo [= Herceg Novi], leg. Holdhaus (NMW); Savina, nr Herceg Novi, leg. Paganetti (NMW); Budva, leg. Hummler (DEI); Kotor, leg. Pretner (CPL).

ALBANIA: Elbasan, 10.IX.1918, leg. Priesner (NMW, MTD); Maj' eShbogut, V.1931, leg. Winkler (NMW); Kruja, leg. Mader (CPL).

GREECE: Ag.Mammas, 3.X.1980, leg. Malicky (NMW); Mystras, 15.VIII.1981, leg. Hebauer (NMW, CHD); 15 km n Kabala, 10.VIII.1988, leg. Jäch (NMW); Chalkidike, Pargadikia, 23.VII.1988, leg. Jäch (NMW); Olympia, 1.V.1971, leg. Wewalka (NMW); Kalamata, leg. Meschnigg (CPL); Patras, 2.V.1971, leg. Wewalka (NMW); Korfu: Mesaria, IX.1980, leg. Malicky (NMW); Kefallinia: A.Nikolaos and Katelios and Pastra, 27.IX.1980, leg. Malicky (NMW); Lefkas: 8.IX.1988, leg. Jäch (NMW); Zakynthos: Skopos, 27.III.1936, leg. Versluys (NMW); Limni Makri, 27.III.1936, leg. Iselstöger (NMW); Skiathos: Moni Evangelistrias, 4.VI.1989, leg. Malicky (NMW); Euboea: Steni Difris, VI.1979, leg. Malicky (NMW); Kymi, V.1926, leg. Holtz (HUB); Kithira: Avlemonas, V.1976, leg. Malicky (NMW); Andros: Apikia, 12.VI.1979 and Varidon, 20.X.1970, leg. Malicky (NMW); Lesbos, leg. Sahlberg (ZMH); Samos: Mitilini and Pargos, V.79, leg. Malicky (NMW); Rhodes: Epta Pigai, 9.IV.1977, leg. Besuchet (MHNG); Salakos, 15.IV.1977, leg. Besuchet (MHNG); Petaloudes, 15.IV.1977, leg. Besuchet (MHNG); Profitis Ilias, 11.IV.1977, leg. Besuchet (MHNG); Kos: 3 km e of Kos, 12.VI.1985, leg. Wewalka (CWW).

TURKEY: ISTANBUL: 80 km w Istanbul, 15.VI.1987, leg. Jäch (NMW); Sile and Agva, 19.V.1987, leg. Jäch (NMW); Ömerli, e Istanbul, 19.V.1987, leg. Jäch (NMW); TEKIRDAG: s Tekirdag, 7.VIII.1988, leg. Jäch (NMW); KASTAMONU: w Helaldi, 26.VI.1989, leg. Jäch (NMW); e Inebolu, 25.V.1989, leg. Jäch (NMW); SINOP: w Yenikonak, 27.V.1989, leg. Jäch (NMW); Erfelek, 27.V.1989, leg. Jäch (NMW); ARTVIN: Artvin-Borcka, 4.VI.1989, leg. Jäch (NMW); BALIKESIR: Balikesir-Susurluk, 2.VIII.1988, leg. Jäch (NMW); CANAKKALE: 5 km w Yenice, 4.VIII.1988, leg. Jäch (NMW); s Türkmenli, 5.VIII.1988, leg. Jäch

(NMW); IZMIR: n Bergama, 4.VIII.1988, leg. Jäch (NMW); MERSIN: Namrun, 27.VIII.1981, leg. Jäch (NMW); GAZIANTEP: 5 km n Halfeti, 27.V.1987, leg. Jäch (NMW); w Kilis, 26.V.1987, leg. Jäch (NMW); Islahiye, 26.VI.1987, leg. Jäch (NMW); HATAY: Payas, n Iskenderun, 24.V.1987, leg. Jäch (NMW); Yayladagi, 22.V.1987, leg. Jäch (NMW); Amanus Mts., Bakaras r., 22.V.1987, leg. Jäch (NMW); DIYARBAKIR: Silvan, 29.V.1987, leg. Jäch (NMW); SIIRT: Kizilsu r., Cizre-Sirnak, 31.V.1987, leg. Jäch (NMW); BITLIS: Hizan, 8.VI.1987, leg. Jäch (NMW); HAKKARI: Beytüssebab, 31.V.1987, leg. Jäch (NMW).

LEBANON: several localities in the Damour and Aouali river basins (NMW).

ISRAEL: Golan: N.Samakh, 31.III.1985, leg. Jäch (NMW); N.Daliyot, 31.III.1985, leg. Jäch (NMW); N.Yahudia, 31.III.1985, leg. Jäch (NMW); N.Meshushim, 31.III.1985, leg. Jäch (NMW); N.Meizar, 1.IV.1985, leg. Jäch (NMW); Jordan springs: Banyas, 31.VII.1985 (stn III), 26.VIII.1985 (stn IV), leg. Jäch (NMW); N.Dan, 31.VII.1985 (stn I, IV), leg. Jäch (NMW); Kinneret Area: Lake Kinneret, 12.IV.1986, leg. Jäch (NMW); Ein Mashpa, 12.IV.1986, leg. Jäch (NMW); Bteha, Majerasee, 7.IV.1986, leg. Jäch (NMW); Galilee: En Taron, 13.VIII.1981, leg. Ortal (HUT; NMW); N.Yavnel, 12.IV.1986, leg. Jäch (NMW); En Ya'ala, 12.IV.1986, leg. Jäch (NMW); Ein el Takhtah, 1.V.1980 (NMW); N.Iyon, 10.VI.1981 (NMW); N.Amud, 9.VIII.1985, leg. Jäch (NMW); N.Tavor, 11.IV.1986, leg. Jäch (NMW); Samaria: Ein e'Shalal, 7.IX.1985, leg. Jäch (NMW); Ein e-Limon, 13.VIII.1983, leg. Jäch (NMW); Dead Sea Area: N.David (NMW); Jericho, leg. Sahlberg (ZMH).

Ochthebius stygialis ORCHYMONT

Ochthebius stygialis ORCHYMONT 1937: 224. - ORCHYMONT, 1941. - J.BALFOUR-BROWNE, 1948b.

TYPE LOCALITY: Spring near Elmali, 1220 m, southwestern Turkey.

TYPE MATERIAL: I have not examined the holotype ♂ and the 2 paratypes, deposited in the ISNB.

DIAGNOSIS: This species is related to *striatus* and *lenkoranus*. Pronotum not very densely punctured, accessory striae short (max. 3 punctures). Elytra of female smooth. Mandibles of male without stiff setae. Sexual characters of pro- and mesotarsus like in *striatus*. Labrum emarginate or almost truncate in male; always longer than in the two mentioned species. Elytra slightly longer than in *striatus* and distinctly longer than in *lenkoranus*.

Aedeagus (fig. 34): main piece slender and evenly curved.

DISTRIBUTION (fig. 68): Turkey.

MATERIAL EXAMINED:

TURKEY: Toros, Yeniköy, 30.VIII.1947 (MHNP, CFL, NMW); Mersin: Namrun, 22.VIII.1981 and 26.VIII.1981, leg. Jäch & Preuler (NMW); Erzincan: se Refahiye, 10.VI.1989, leg. Jäch (NMW).

Ochthebius subopacus REITTER

Ochthebius subopacus REITTER 1885: 363. - KNISCH, 1924. - IENISTEA, 1978

TYPE LOCALITY: Suram Pass, Gruziya, Soviet Union.

TYPE MATERIAL: Lectotype ♂ (pres. des.): "Caucas.occ. Circassien Leder.Reitter / O. subopacus m. 1885 Suram, Ca." (TMB). Paralectotypes: 1 ♀: "Caucasus Meskisches Geb. Leder (Reitter) / Coll.Reitter" (TMB) and 1 ♂: "Caucas.occ. Circassien Leder.Reitter / O. subopacus m. 1885 Suram, Ca." (NMW). Number of syntypes not known.

DIAGNOSIS: A very short and convex species. Labrum short and emarginate in both sexes. Mandibles of male without stiff setae. Tarsi and elytra more or less identical in both sexes. *Ochthebius subopacus* is easily recognized by the gibbiform and densely punctured pronotal disc and by the short and oval, strongly convex elytra. Accessory striae missing.

Aedeagus (fig. 33): distal lobe long, slender and bisinuous.

DISTRIBUTION (fig. 67): Soviet Union (Gruziya) and northeastern Turkey.

ADDITIONAL MATERIAL EXAMINED:

T U R K E Y: Prov. Artvin, Borcka-Hopa, 700 m, 8.VI.1986, leg. Besuchet, Löbl & Burkhardt (MHNG); Artvin, 800 m, 7.VI.1986, leg. Besuchet, Löbl & Burkhardt (MHNG).

***Ochthebius tadilatus* sp. n.**

TYPE LOCALITY: Fergana, Uzbekistan, Soviet Union.

TYPE MATERIAL: Holotype ♂: "Fergana" (NMW). Paratypes: 1 ♂: "Aulie-Ata / Coll.Reitter" (TMB) and 1 ♂: "Turkestan Reitter.Leder. / Ochthebius impressicollis Cast. Coll.Reitter" (TMB).

DIAGNOSIS: 2.2 mm long. Labrum slightly longer than in *dilatatus* and *lederi*, front margin gently emarginate. I could not see mandibular bristles. Ocelli large. Pronotum wide, not very densely punctured, smooth between punctures, median sulcus and admedian foveae well-developed. Elytra long, apices more or less rounded, dorsal impression almost imperceptible, elytral striae regular, punctures large and deeply impressed, intervals narrow and slightly convex, one accessory puncture present. Sexual characters of tarsi like in *dilatatus*. Female unknown.

Aedeagus (fig. 54): main piece long and slender, slightly uneven, apex long; distal lobe vaguely resembles *dilatatus*; parameres very long, apices very thin.

Ochthebius tadilatus differs from *dilatatus* only by the slightly longer and emarginate labrum. I could not find significant differences between *tadilatus* and *ferganensis*.

DISTRIBUTION (fig. 70): Soviet Union (Uzbekistan, Kazakhstan).

ETYMOLOGY: *Tadilatus* (Lat.) is an anagram of *dilatatus*.

***Ochthebius thraciae* sp. n.**

TYPE LOCALITY: Small stream (ca. 2 m wide), 3 km ne Yeniköy, Istranca Mts., Thrace, Turkey.

TYPE MATERIAL: Holotype ♂: "TR-THRAKIA 28.7. Istranca (30) leg. Jäch 1988" (NMW). Paratypes: 5 exs. with same label data as holotype (NMW); 2 exs. with no "31" (NMW) and 3 exs. with no "34" (NMW, ISNB); 1 exs.: "NW-ANATOLIEN (48) Uludag s Bursa leg. Jäch 1.3.88" (NMW); 3 exs.: "TURQUIE KASTAMONU 18.V.76 5 km n. Küre, Besuchet & Löbl" (MHNG, NMW); 3 exs.: "BULGARIEN 15.6.80 Katundere lg.Malicky (3)" (NMW).

DIAGNOSIS: 1.7 - 1.8 mm long. Dark brown to black. Front margin of labrum truncate or very slightly emarginate and slightly enlarged in male, always slightly emarginate in female. Mandibles of male without stiff setae. Head densely punctured. Pronotum moderately wide, very densely punctured and mat, median sulcus and admedian foveae well-developed. Elytra oval, elytral striae not very regular; punctures usually dense, small and distinctly impressed; dorsal elytral impressions obsolete; accessory striae well-developed. Elytra of female smooth. Sexual characters of tarsi only very feebly developed.

Aedeagus (fig. 17): distal lobe very similar to *montanus*, but ventral side much more dilated in basal third; without any tooth-like projection.

Externally *Ochthebius thraciae* cannot be distinguished from *montanus*. *Ochthebius monychus* differs by the usually developed elytral impressions.

DISTRIBUTION (fig. 68): Northwestern Turkey.

ETYMOLOGY: *Thracia* (Lat.) - Thrace (Thracia).

Ochthebius turcmeniae sp. n.

TYPE LOCALITY: Kugitan, Turkmeniya, Soviet Union.

TYPE MATERIAL: Holotype ♂: "Turkmenija Kugitan 5.VI.41" (ZIL). Paratypes: 3 exs. with identical label data - two of the labels in Cyrillic script (ZIL, NMW); 2 exs.: "Turkmenija Poltavka 2.V.41" - one in Cyrillic script (NMW).

DIAGNOSIS: 1.9 - 2.0 mm long. Labrum long, front margin distinctly emarginate in male, deeply excised in female; ocelli large; mandibular bristles of male present, but not very strong. Pronotum wide, not very densely punctured, all 4 foveae and median sulcus distinct, lateral depression slightly deflexed. Elytral striae regular, punctures large, round and rather deeply impressed; elytral apices more or less rounded; no accessory striae developed; elytral impression almost imperceptible. Elytra of female slightly rugulose. Sexual characters of pro- and mesotarsus like in *dilatatus*.

Aedeagus (fig. 58): main piece long and slender, evenly curved; distal lobe small with a short apical appendix; parameres slender, widely separated from the main piece.

This species is characterized by its excised labrum. Other characters like in *ferganensis* or *dilatatus*. *Ochthebius tadilatus* differs statistically by the slightly wider pronotum (lateral depression).

DISTRIBUTION (fig. 70): Known only from the type localities.

ETYMOLOGY: Named in reference to the type locality.

Zusammenfassung

Zweiundsechzig Arten und eine Unterart der Untergattung Asiobates werden in dieser Arbeit behandelt. Lectotypen werden für folgende Arten festgelegt: *abeillei* GUILLEBEAU, *bellieri* KUWERT, *bonnairei* GUILLEBEAU, *breviusculus* KUWERT, *corsicus* SAINTE-CLAIRE DEVILLE, *cyprensis* KUWERT, *czwalinae* KUWERT, *haberfelneri* REITTER, *immaculatus* BREIT, *impressipennis* REY, *impressus* MARSHAM, *infuscatus* SAHLBERG, *kaninensis* POPPIUS, *laevisculptus* REITTER, *lenkoranus* REITTER, *limbicollis* REITTER, *numidicus* REITTER, *opacus* BAUDI, *perdurus* REITTER, *perfectus* KUWERT, *remotus* REITTER, *rugulosus* WOLLASTON, *striatus* CASTELNAU, *subopacus* REITTER und *taygetanus* KUWERT. Neotypen werden für *flavipes* DALLA TORRE und *rufipes* DALLA TORRE designiert. Folgende neue Synonymien wurden festgestellt: *O. flavipes* DALLA TORRE (= *eppelsheimi* KUWERT syn.nov. = *obensis* SAHLBERG syn.nov.), *O. rugulosus* WOLLASTON (= *alpinus* IENISTEA syn.nov. = *hungaricus* ENDRÖDY syn.nov. = *minervius* ORCHYMONT syn.nov.), *O. crenulatus* MULSANT & REY (= *genavensis* IENISTEA syn.nov.), *O. czwalinae*

KUWERT (= *stockmanni* BALFOUR-BROWNE syn.nov.), *O. impressipennis* REY (= *perfectus* KUWERT syn.nov. = *ichnusae* PIRISINU syn.nov.), *O. laevisculptus* REITTER (= *lindbergi* JANSSENS syn.nov.), *O. lenkoranus* REITTER (= *ghilanensis* FERRO syn.nov.), *O. opacus opacus* BAUDI (= *O. gallicus* IENISTEA syn.nov.), *O. peregrinus* ORCHYMONT (= *marianii* FERRO syn.nov.) und *O. striatus* CASTELNAU (= *fageli* JANSSENS syn.nov. = *sutorinensis* FERRO syn.nov. = *taygetanus* KUWERT syn.nov.). Elf neue Arten und eine neue Unterart werden beschrieben: *adventicius* sp.n., *corcyraeus* sp.n., *ferganensis* sp.n., *italicus* sp.n., *lederi* sp.n., *olicinium* sp.n., *pliginskiyi* sp.n., *rivibelli* sp.n., *tadilatus* sp.n., *thraciae* sp.n., *turcmeniae* sp.n. und *opacus sardus* ssp.n. Die männlichen Genitalorgane aller Arten mit Ausnahme von *coomani* d'ORCHYMONT, *furcatus* PU, *khnzorani* JANSSENS, *kiesenwetteri* KUWERT, *pui* PERKINS und *unimaculatus* PU sind abgebildet. Verbreitungskarten aller paläarktischen Arten wurden angefertigt.

References

- ALFIERI, A. 1976: The Coleoptera of Egypt. - Mémoires de la Société Entomologique d'Egypte 5: 1 - 361.
- ANGUS, R. 1964: Some coleoptera from Cumberland, Westmorland and the northern part of Lancashire. - The Entomologist's Monthly Magazine : 61 - 69.
- ANGUS, R. 1965: Some northern Scottish coleoptera. - The Entomologist's Monthly Magazine 100: 172 - 182.
- BALDARI, F., P.AUDISIO and C.BELFIORE 1983: Dati sugli Insetti bentonici dei fiumi salinello e tordino. - Atti XII Congr.Naz. Ital.Entomol., Roma 1980 II: 139 - 153.
- BALFOUR-BROWNE, F. 1958: British Water Beetles. London: Ray Society, pp. 1 - 210.
- BALFOUR-BROWNE, F. 1962: Water beetles and other things. Dumfries: Blacklock Farries & sons LTD., pp. 1 - 219.
- BALFOUR-BROWNE, J. 1948a: *Ochthebius (Asiobates) kaninensis* B.POPP. (Col., Hydrophilidae) not a British species. - The Entomologist's Monthly Magazine LXXXIV: 23 - 24.
- BALFOUR-BROWNE, J. 1948b: Further notes on *Ochthebius kaninensis* B. POPPIUS (Col., Hydrophilidae). - The Entomologist's Monthly Magazine LXXXIV: 239.
- BALFOUR-BROWNE, J. 1948c: On a new species of *Ochthebius (Asiobates)* of the *bicolon*-group from Finland. - Notulae Entomologicae XXVIII: 95 - 96.
- BALFOUR-BROWNE, J. 1978: Studies on the Hydraenidae of the Iberian Peninsula. - Ciencia Biologica 4: 53 - 107.
- BANGSHOLT, F., O. BISTRÖM, S.LUNDBERG, J.MUONA, H.SILFVERBERG and A.STRAND 1979: Enumeratio Coleopterorum Fennoscandiae et Daniae. Helsingfors: Hels.Ent.Bytesförening, pp. 1 - 79.
- BAUDI, F. 1882: Note entomologiche. - Nat.Sic. I: 127 - 131.
- BELLSTEDT, R. and M. REMUS 1982: Beitrag zur Kenntnis der Wasserinsektenfauna im Hakelwald unter besonderer Berücksichtigung der Wasserkäfer. - Hercynia 19: 171 - 182.



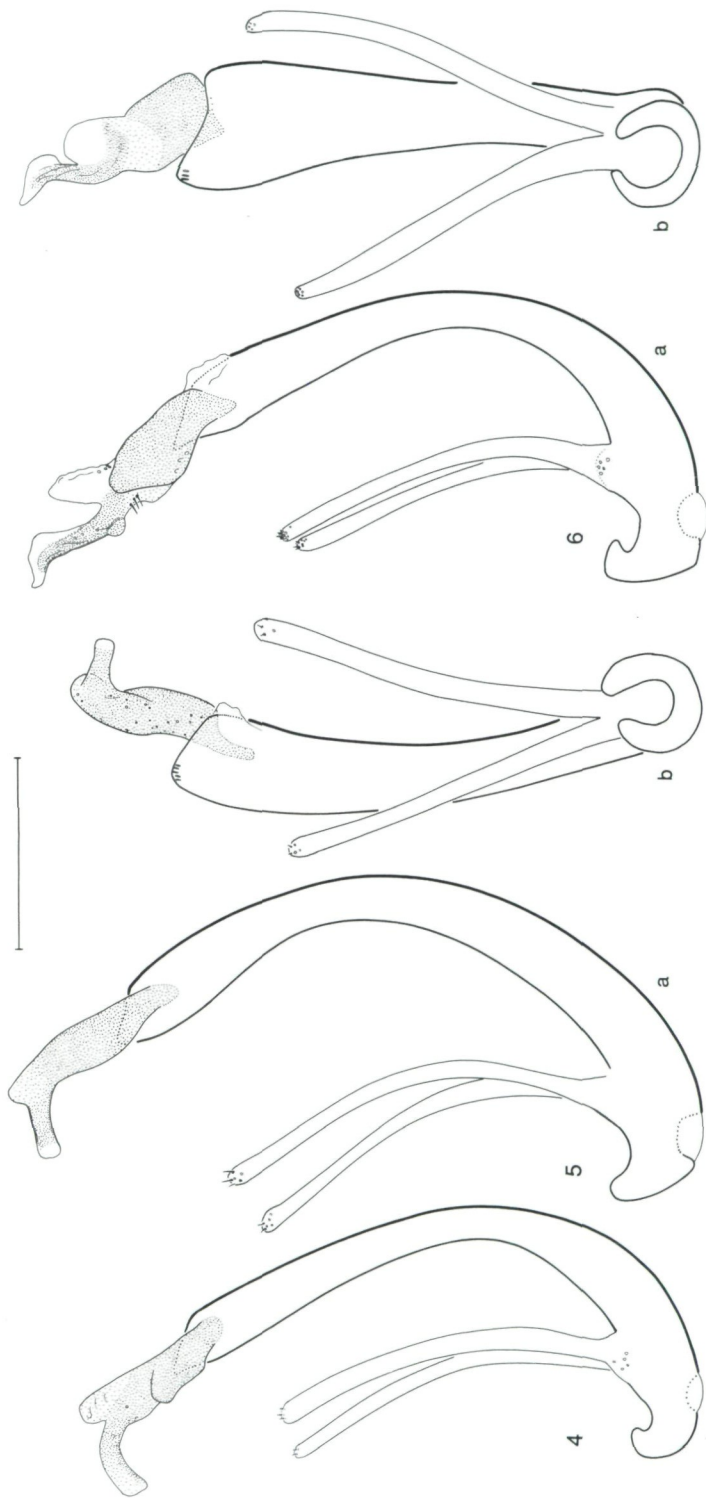
Figs. 1 - 3: Aedeagus, lateral view: 1) *O. aeneus*, Palencia (Spain); 2) *O. perdurus* (paralectotype); 3) *O. adventicius* (paratype).

BIESIADKA, E. 1980: 14. Water beetles (Coleoptera) of the eutrophic lake Zbechy (Leżno Voiv.). - Polish Ecological Studies 6(2): 263 - 275.

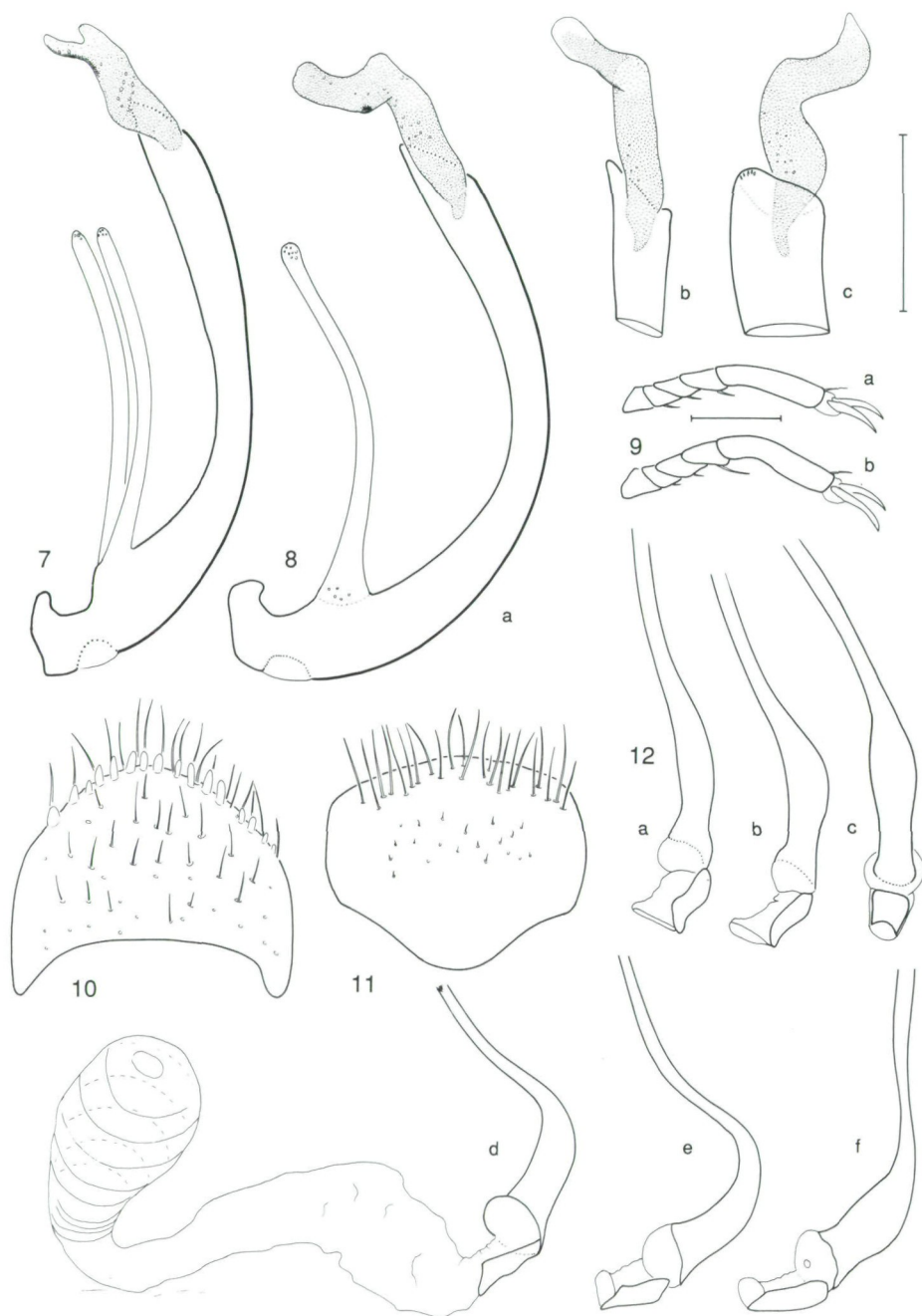
BIESIADKA, E. 1988: *Ochthebius minervius* d'Orchymont, 1940 (Coleoptera, Hydraenidae) - gatunek chrząszcza wodnego nowy dla fauny Polski. - Przegląd Zoologiczny XXXII,2: 213 - 215.

BINAGHI, G. 1961: Materiali per lo studio delle Hydraena Italiane le Hydraena dell'isola d'Elba e notizie sulla coleotterofauna acquatica associata. - Bolletino della Società Entomologica Italiana XCI: 66 - 77.

BRAKMAN, P.J. 1966: Lijst van Coleoptera uit Nederland en het omliggend gebied. - Monographien van de Nederlandsche Entomologische Vereeniging 2: 1 - 219.



Figs. 4 - 6: Aedeagus: 4) *O. pliginskiyi*, Azerbaydzhan; 5) *O. hebaueri*, Dubrovnik (Yugoslavia), lateral (a) and ventral (b) view; 6) *O. flavipes*, Surgut (Siberia), lateral (a) and ventral (b) view.



Figs. 7 - 8: Aedeagus: 7) *O. yunnanensis*, paratype; 8) *O. minimus*, (a) Gdansk (Poland), (b) Austria, not exactly lateral orientation, (c) Austria, ventral aspect of apex.

Fig. 9: Mesotarsus of *O. minimus*, (a) female, (b) male.

Figs. 10 - 11: *O. minimus*, last abdominal (10) tergite and (11) sternite of female.

Fig. 12: Spermathecae, (a-c) *O. rugulosus*, Wien (Austria), (d-f) *O. minimus*, Lower Austria.

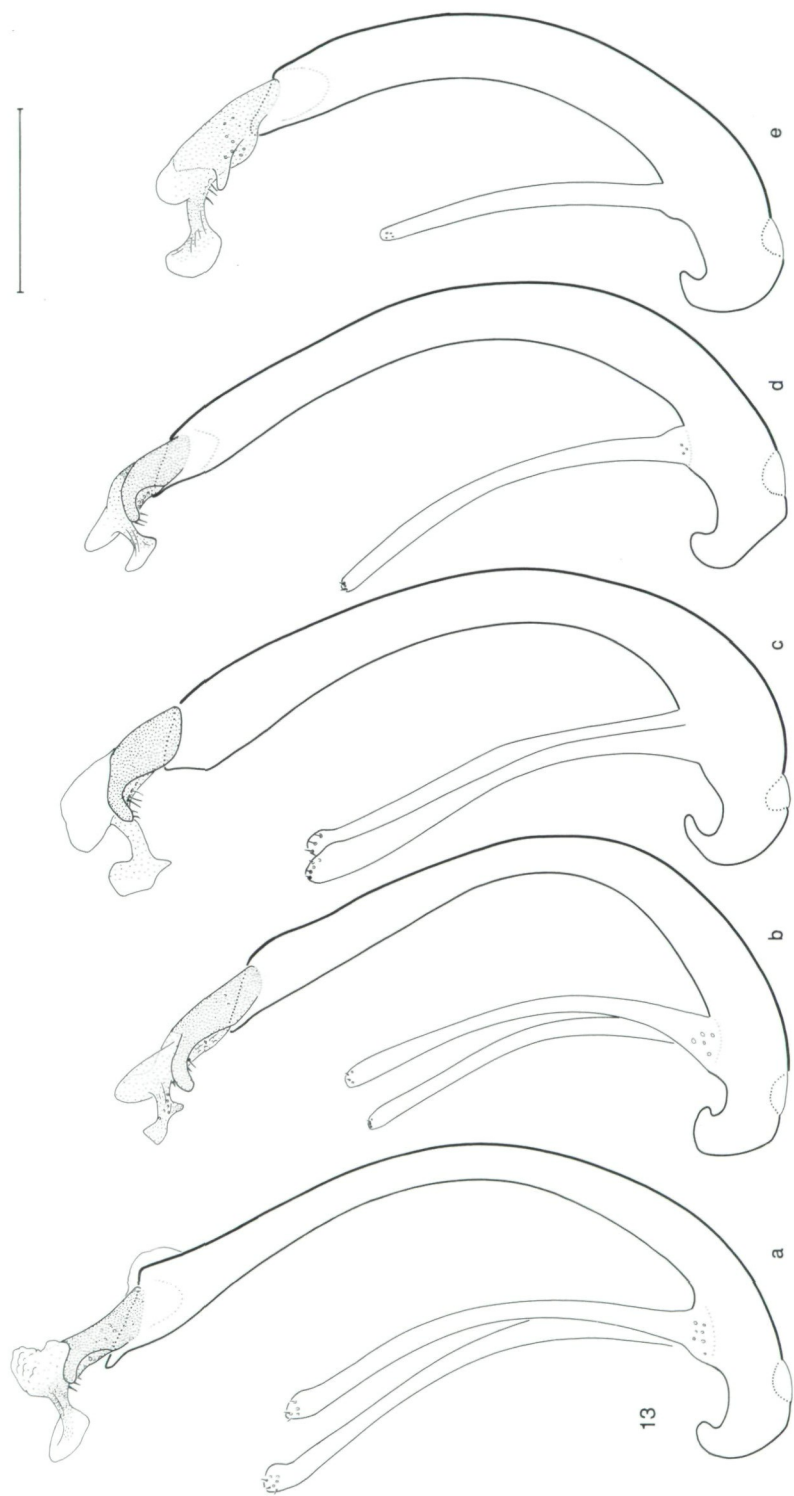
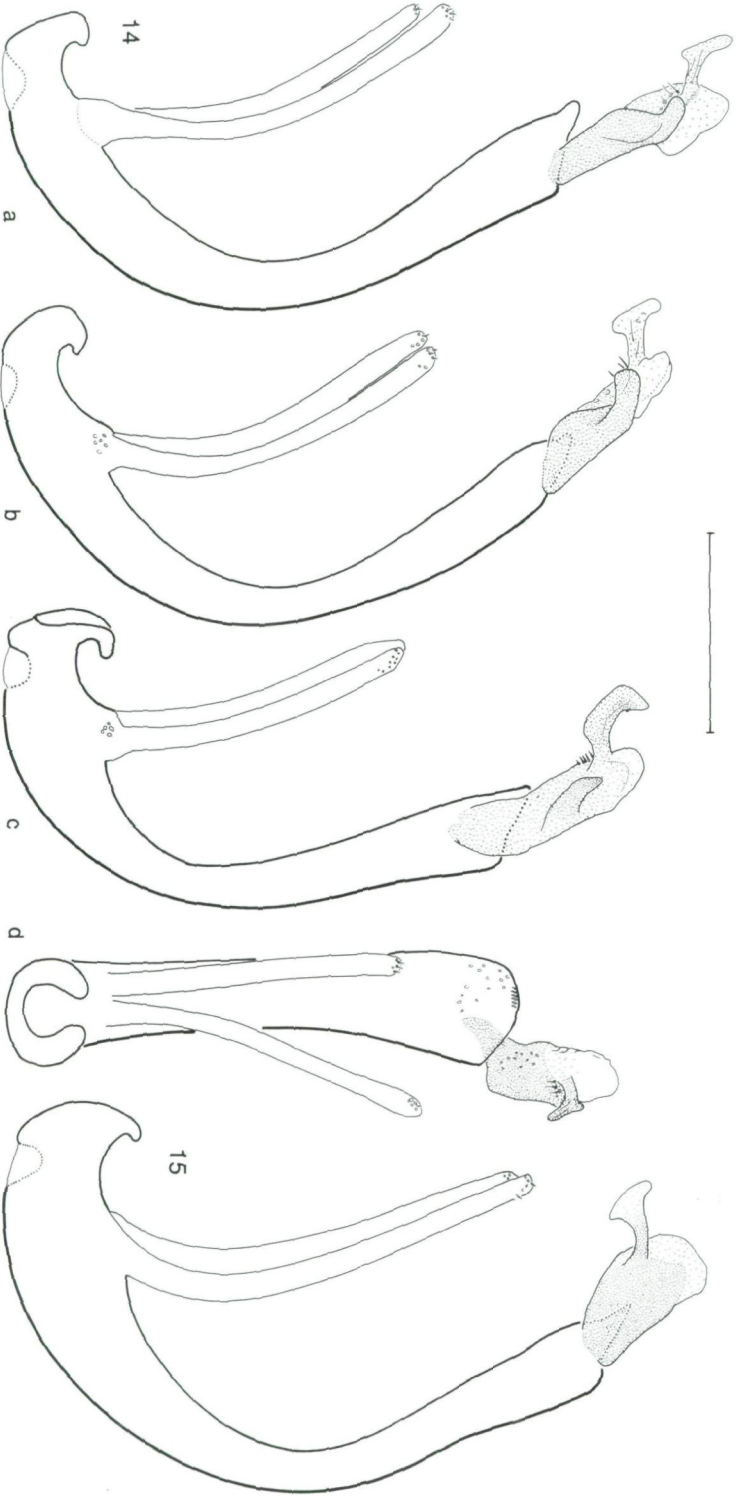
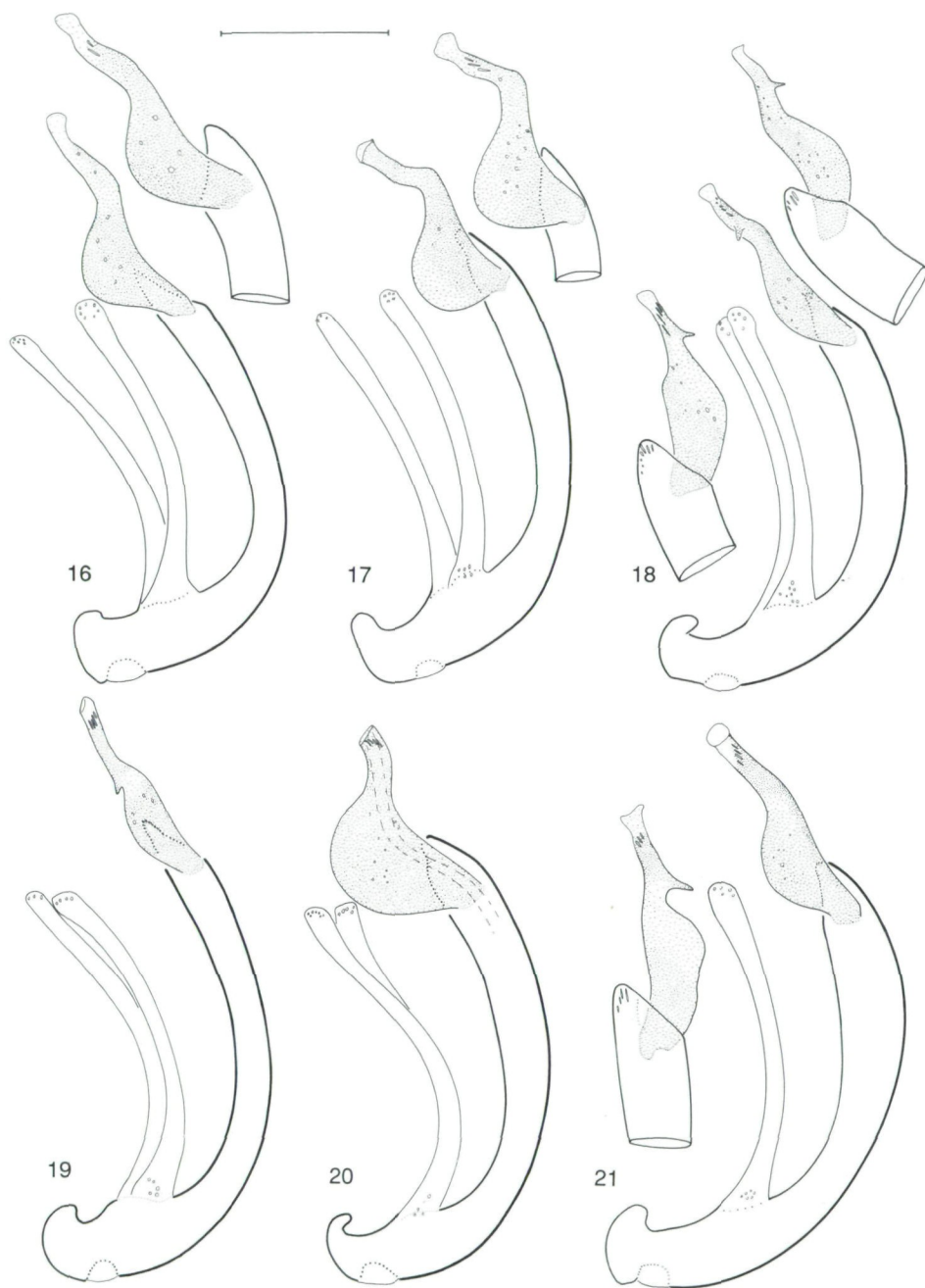


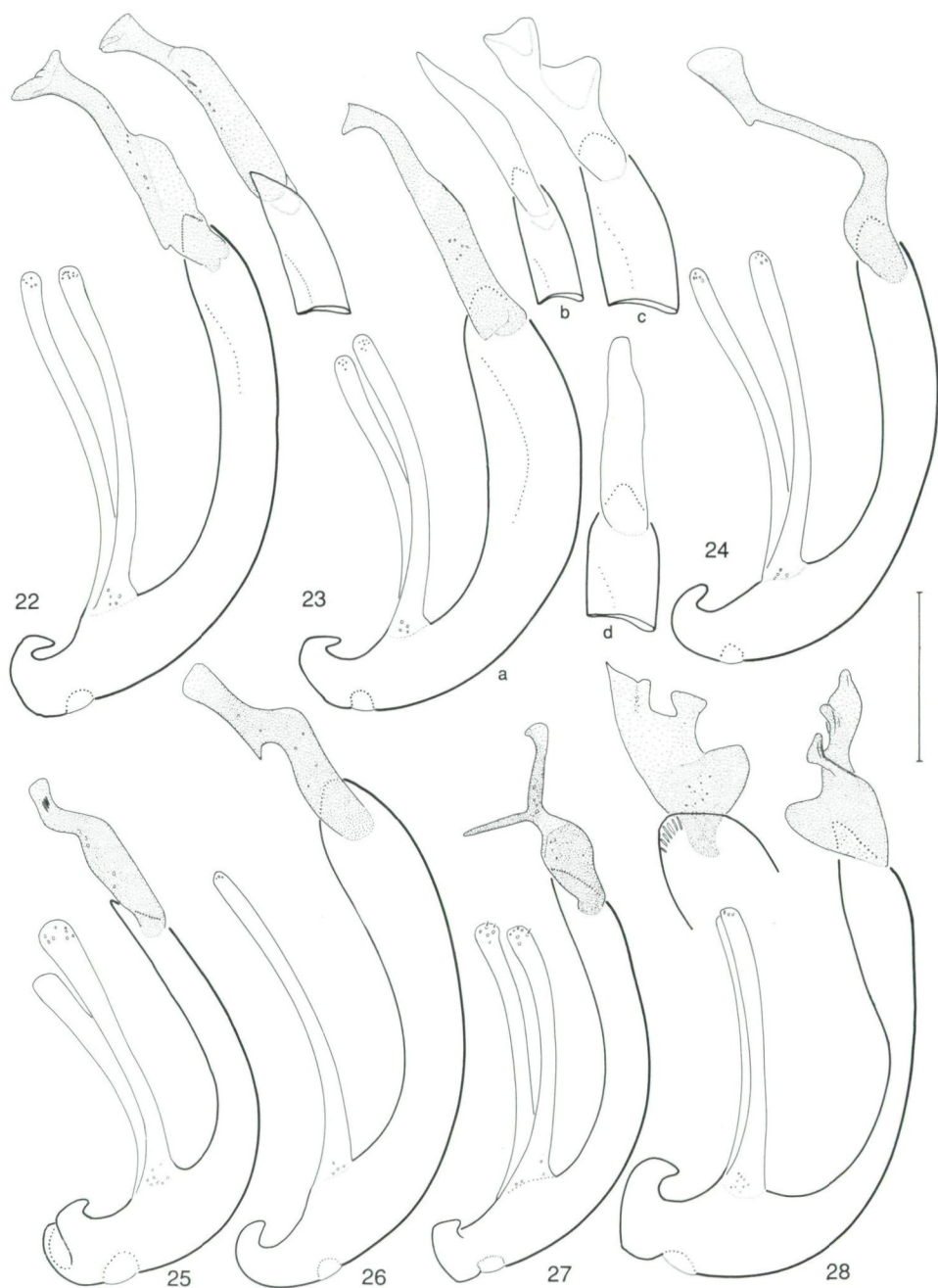
Fig. 13: Aedeagus of *O. rugulosus*, lateral view, (a) Gran Canaria (Spain), (b) Sardinia (Italy), (c) Zermatt (Switzerland), (d) Israel, (e) Karabutak (Kazakhstan).



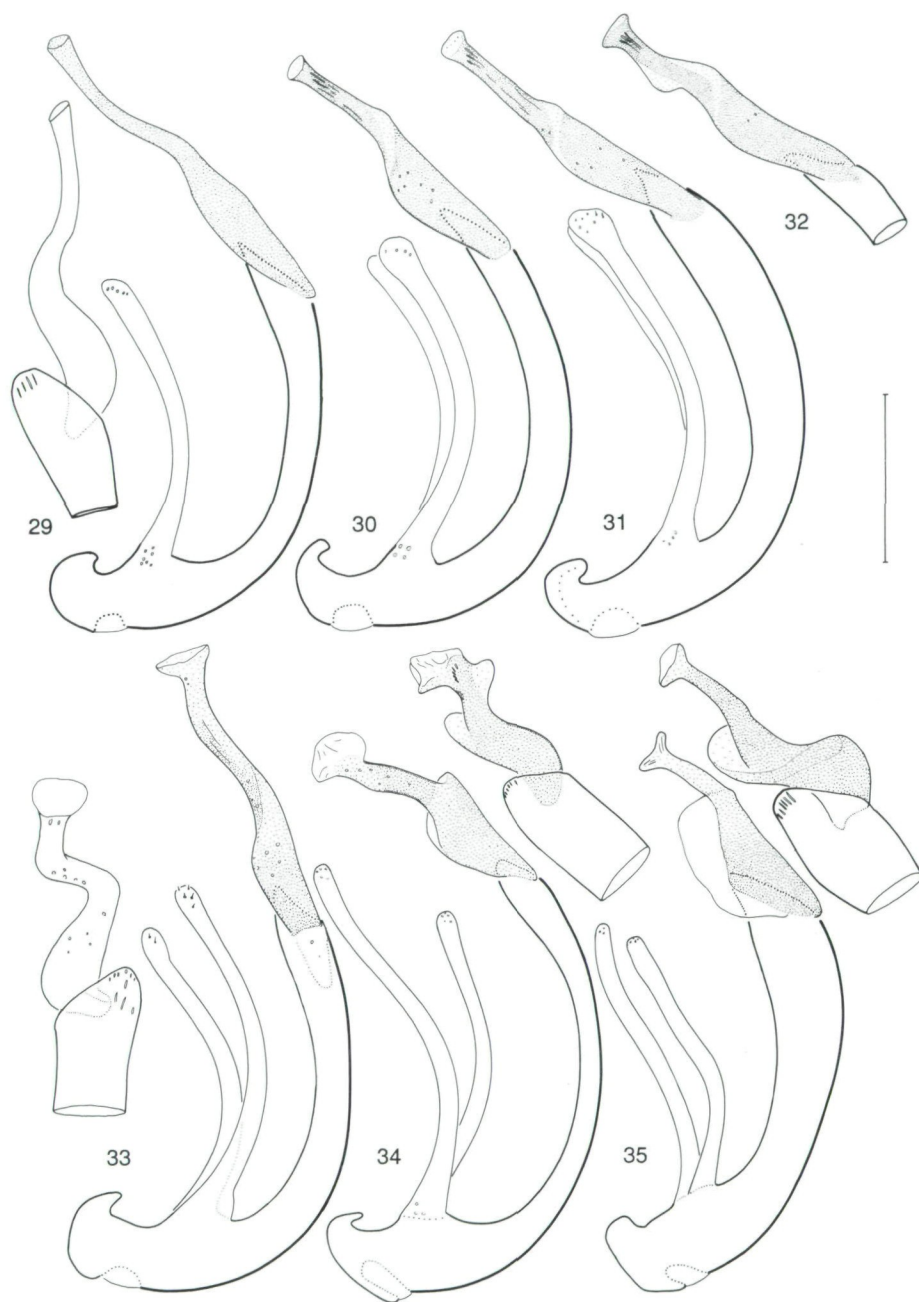
Figs. 14: Aedeagus of *O. rugulosus*, (a) Kiew (Ukraine), (b) Rosenberg (Austria), (c) Harbin (China), (d) Neusiedler See (Austria), ventral view.
Fig. 15: Aedeagus of *O. remotus* (holotype).



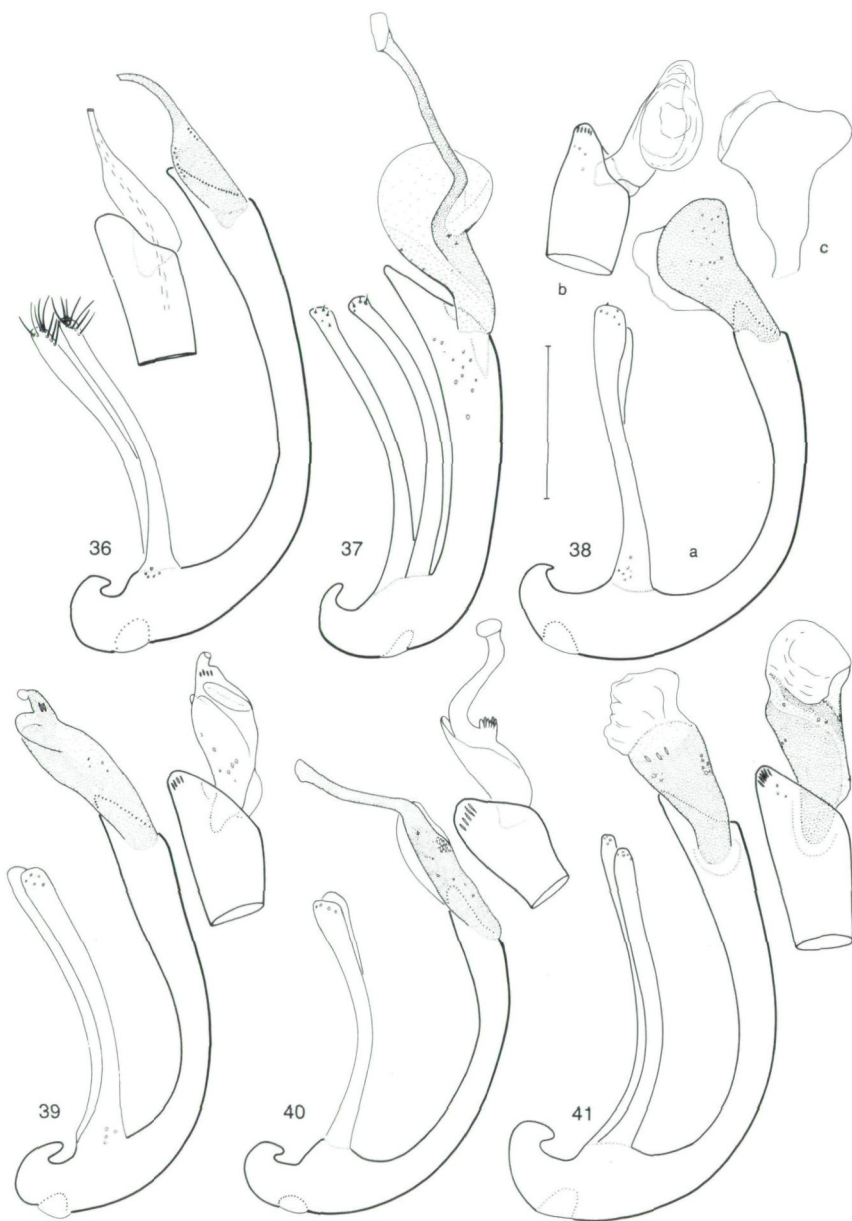
Figs. 16 - 21: Aedeagus: 16) *O. montanus*, Andros (Greece), inset: Pangaeon (Greece); 17) *O. thraciae*, Kastamonu (Turkey), inset: Ulu Dag (Turkey); 18) *O. italicus*, paratype, insets: same, ventral and ventrolateral view of apex; 19) *O. heydeni*, Logrono (Spain); 20) *O. sp. n.* GARRIDO (in press), Spain; 21) *O. monychus*, Samos (Greece), inset: same, ventral view.



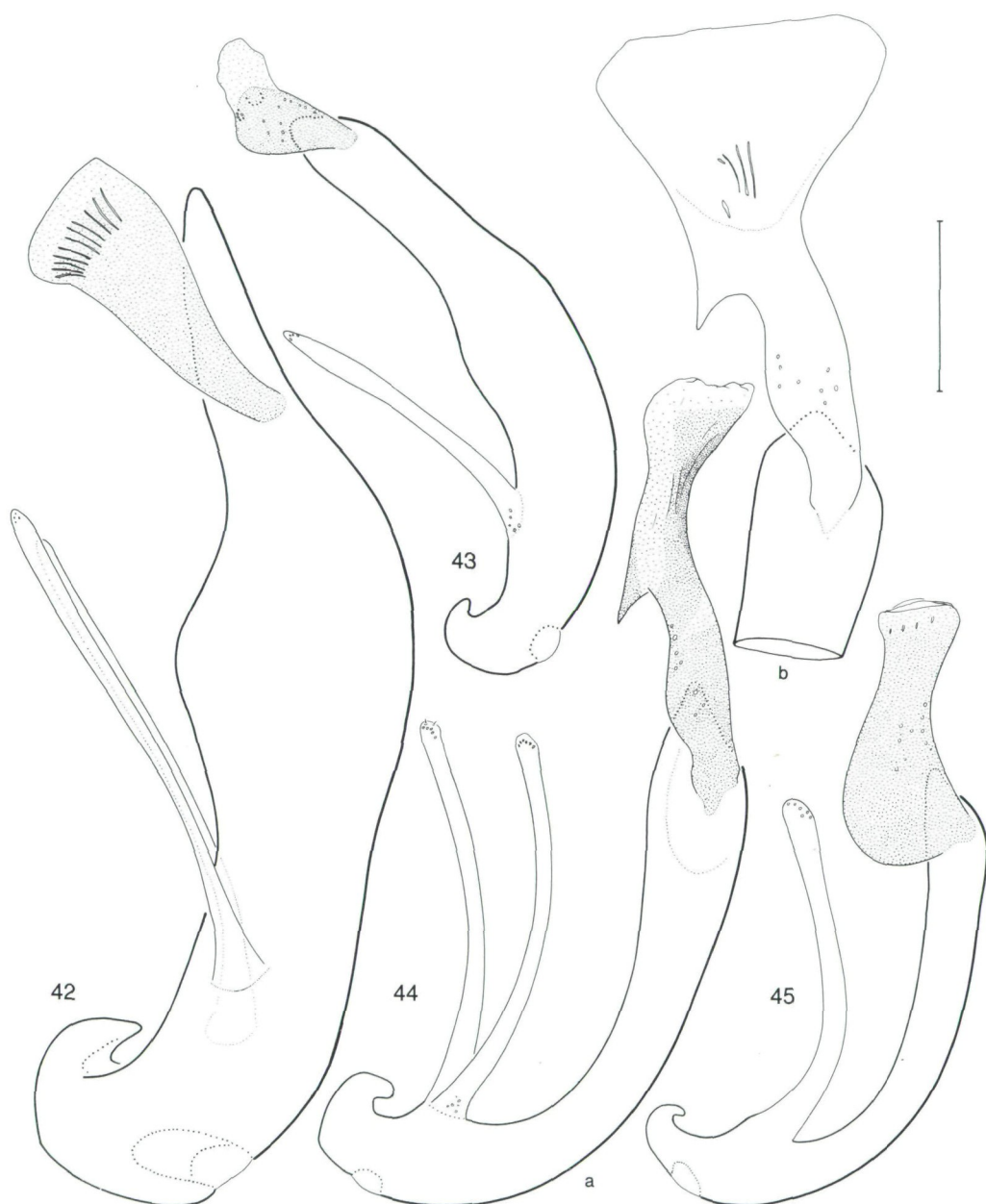
Figs. 22 - 28: Aedeagus: 22) *O. striatus*, Bergama (Turkey), inset: Golan (Israel), slightly different orientation; 23) *O. crenulatus*, (a) Emilia (Italy), (b-c) aberrant distal lobes of *crenulatus* and *striatus* from Greece (Lefkas) and Italy; 24) *O. annae*, Crete (Greece); 25) *O. bonnairei*, Blida (Algeria); 26) *O. naxianus*, Andros (Greece); 27) *O. amplicollis*, Nepal; 28) *O. perkinsi*, holotype, inset: same, ventral view of apex.



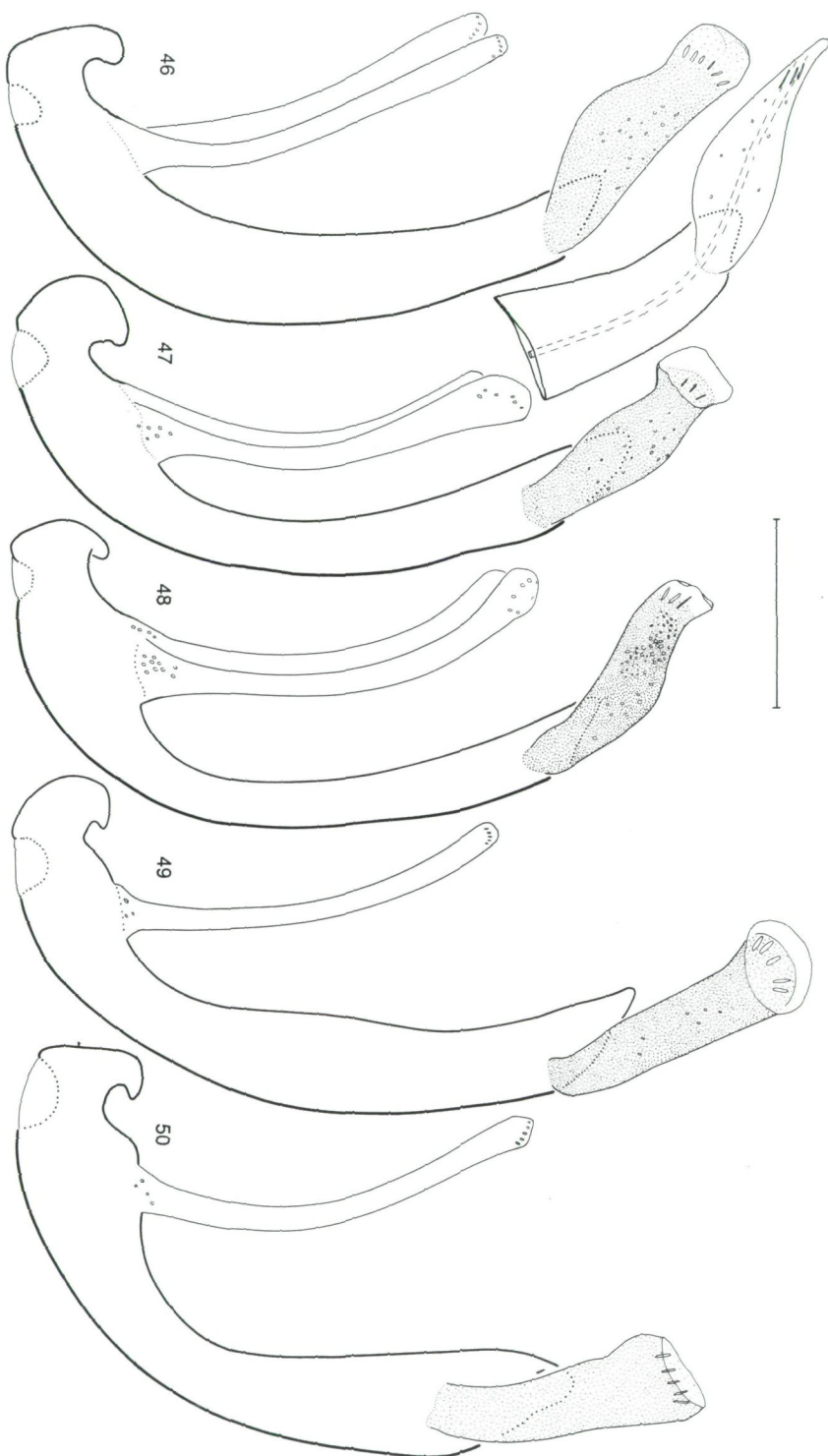
Figs. 29 - 35: Aedeagus: 29) *O. cantabricus*, paratype, inset: same, ventral view of apex; 30) *O. opacus sardus*, paratype; 31) *O. opacus opacus*, Emilia (Italy); 32) *O. corsicus*, Rhone (France), apex only; 33) *O. subopacus*, Artvin (Turkey), inset: same, ventral view of apex; 34) *O. stygialis*, Namrun (Turkey), inset: same, ventral view of apex; 35) *O. lenkoranus*, Gilan (Iran), inset: same, ventral view of apex.



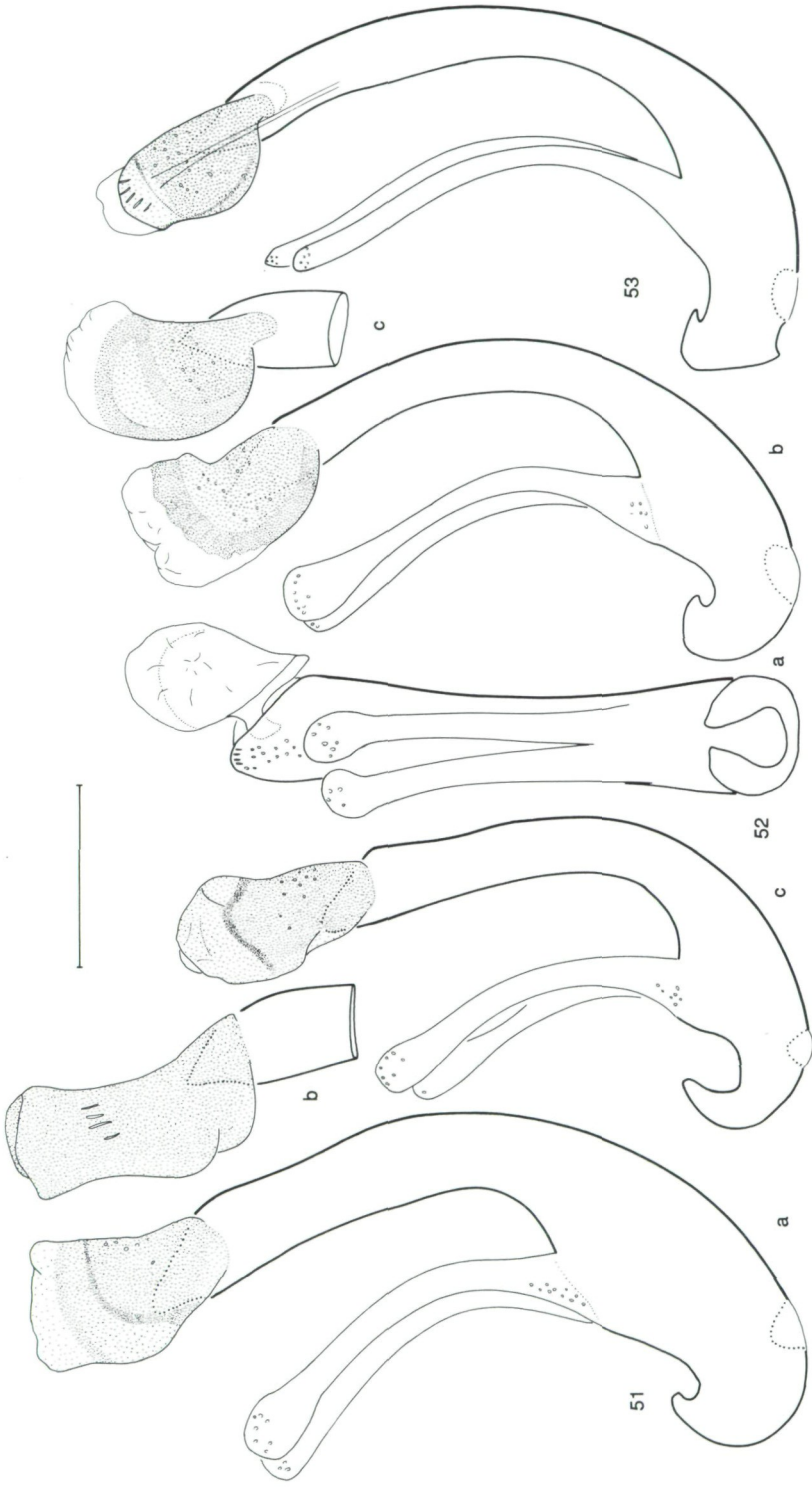
Figs. 36 - 41: Aedeagus: 36) *O. bicolon*, Bad Oldesloe (Germany), not completely in maximum opoutlines, inset: same, ventral view of apex; 37) *O. haberfelneri*, Sar planina Yugoslavia; 38) *O. olicinium*, (a) holotype, (b) same: ventral view of apex, (c) paratype from Corfu (Greece), distal lobe; 39) *O. kaninensis*, lectotype, inset: same, ventral view of apex; 40) *O. czwalinae*, Gdansk (Poland), inset: same, ventral view of apex; 41) *O. limbicollis*, lectotype, inset: same, ventral view of apex.



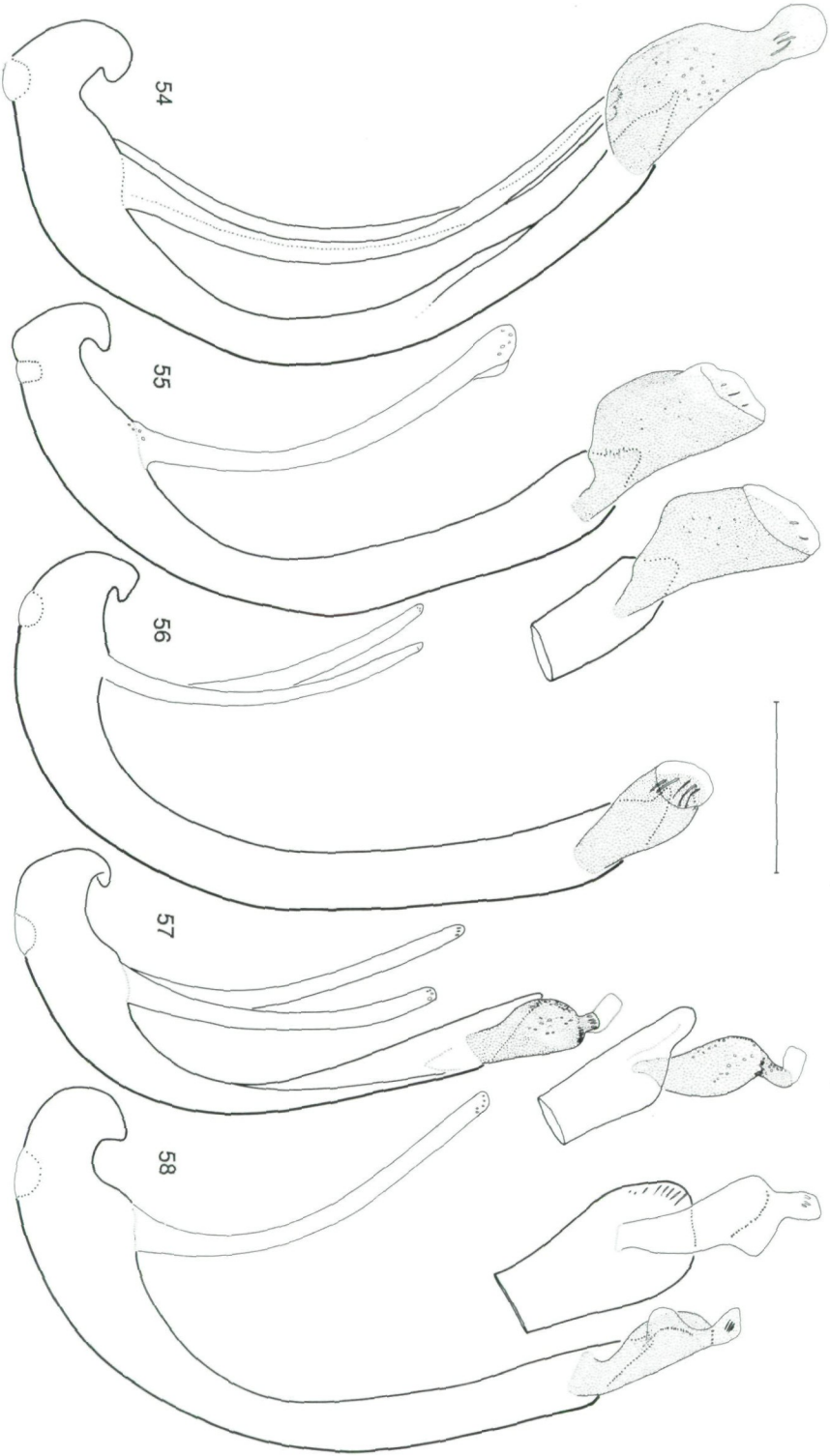
Figs. 42 - 45: Aedeagus: 42) *O. gagliardii*, Collesalveti (Italy); 43) *O. hyblaemajoris*, Palermo (Italy); 44) *O. laticollis*, (a) Pangaeon (Greece), (b) holotype, apex; 45) *O. bellieri*, Andalucia (Spain).



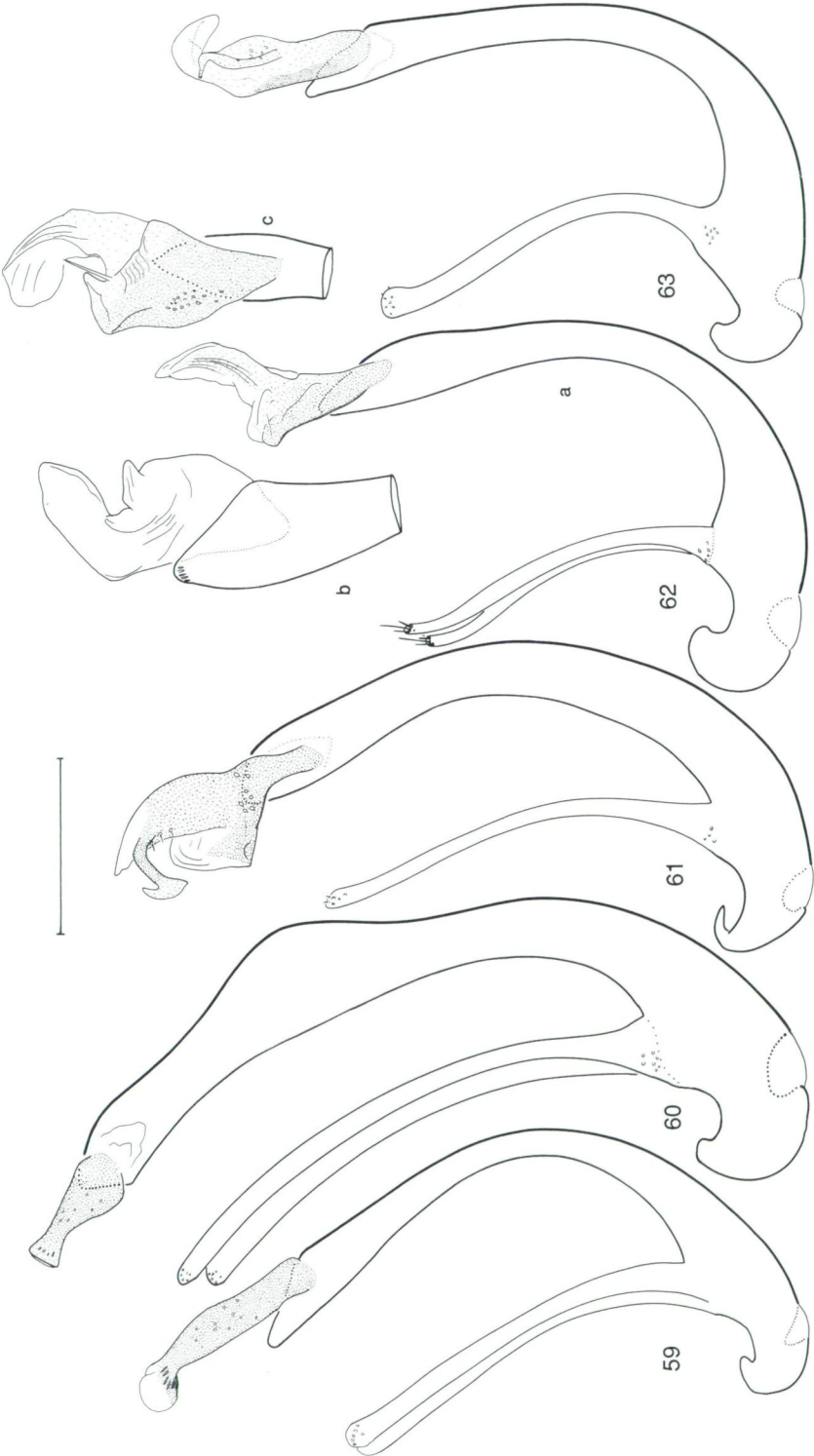
Figs. 46 - 50: Aedeagus, lateral aspect: 46) *O. dilatatus*, Agva (Turkey), inset: anomalous distal lobe, Loire Inf. (France); 47) *O. impressipennis*, Collioure (France); 48) *O. coreyraeus*, Corfu (Greece); 49) *O. cyrenaeus*, paratype; 50) *O. haeli*, Konya (Turkey).



Figs. 51 - 53: Aedeagus: 51) *O. maculatus*, (a) lectotype of *O. abeillei*, (b) Negev (Israel), apex, (c) Biskra (Algeria); 52) *O. auriculatus*, Germany, (a) ventral aspect, (b) same, lateral aspect, (c) apex of same, slightly different orientation; 53) *O. lederi*, holotype.



Figs. 54 - 58: Aedeagus: 54) *O. tadilius*, holotype; 55) *O. ferganensis*, paratype, inset: same, slightly different orientation; 56) *O. dilucidus*, Corsica (France); 57) *O. rivibelli*, paratype, inset: same, ventral view of apex; 58) *O. turcmeniae*, paratype, inset: same, ventral view of apex.



Figs. 59 - 63: Aedeagus: 59) *O. cyprensis*, holotype; 60) *O. peregrinus*, Grado (Italy); 61) *O. depressus*, holotype; 62) *O. cf. khnזורiani*, (a) Bal'dzhuan (Tadzhikistan), (b) same, ventral view of apex, (c) Dushanbe (Tadzhikistan), apex; 63) *O. atricapillus*, Tashkent (Uzbekistan).

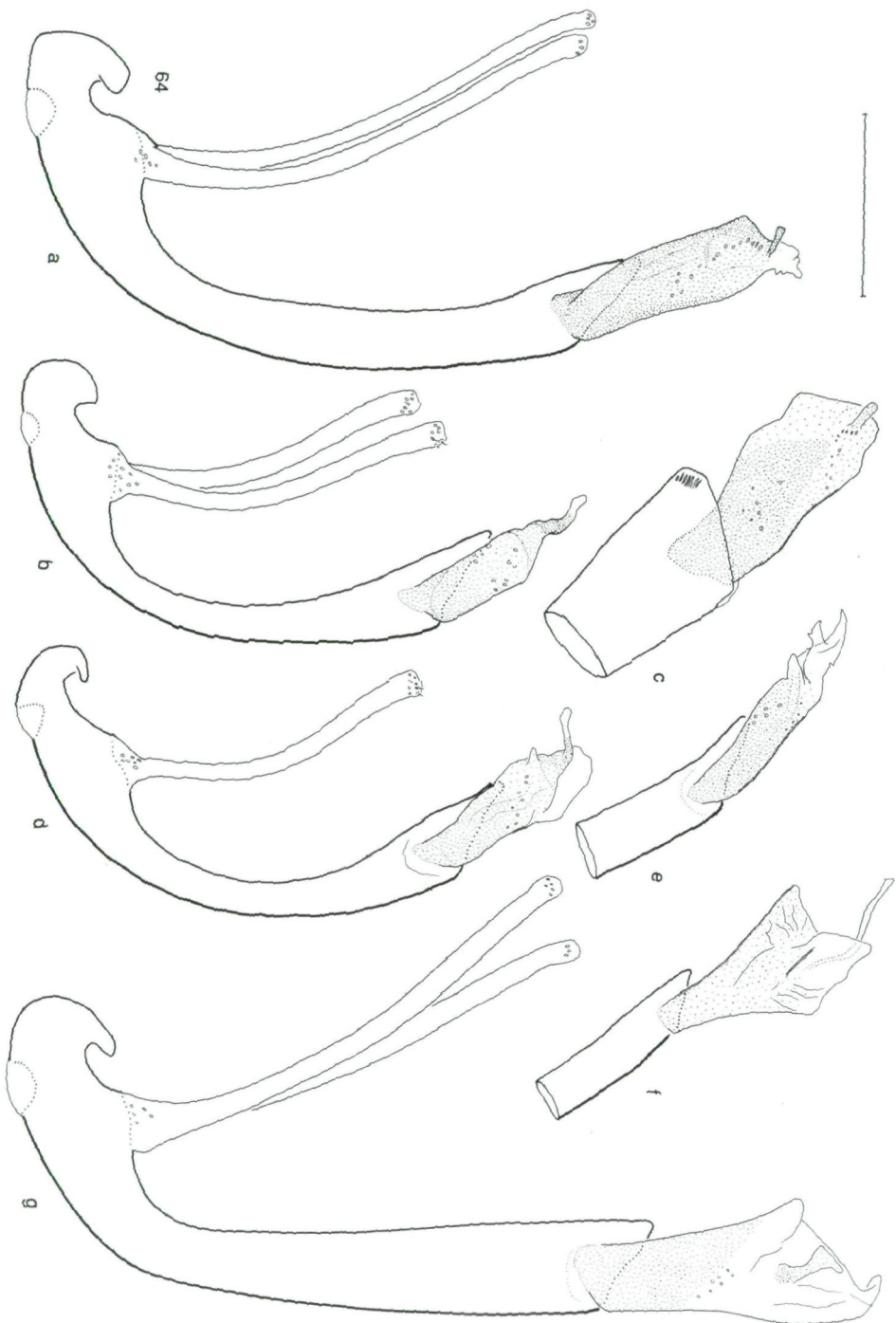


Fig. 64: *O. laevisculptus*, aedeagus, (a, b) Alai Mts. (Uzbekistan), (c) same locality, ventral view of apex, (d) Kulyab (Tadzhikistan), (e) Fergana (Uzbekistan), (f) Alatau (Soviet Union), (g) Corfu (Greece).

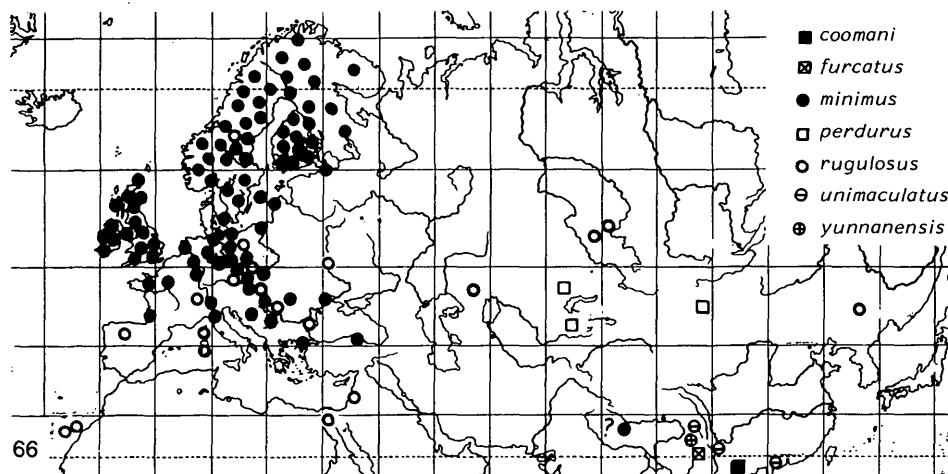
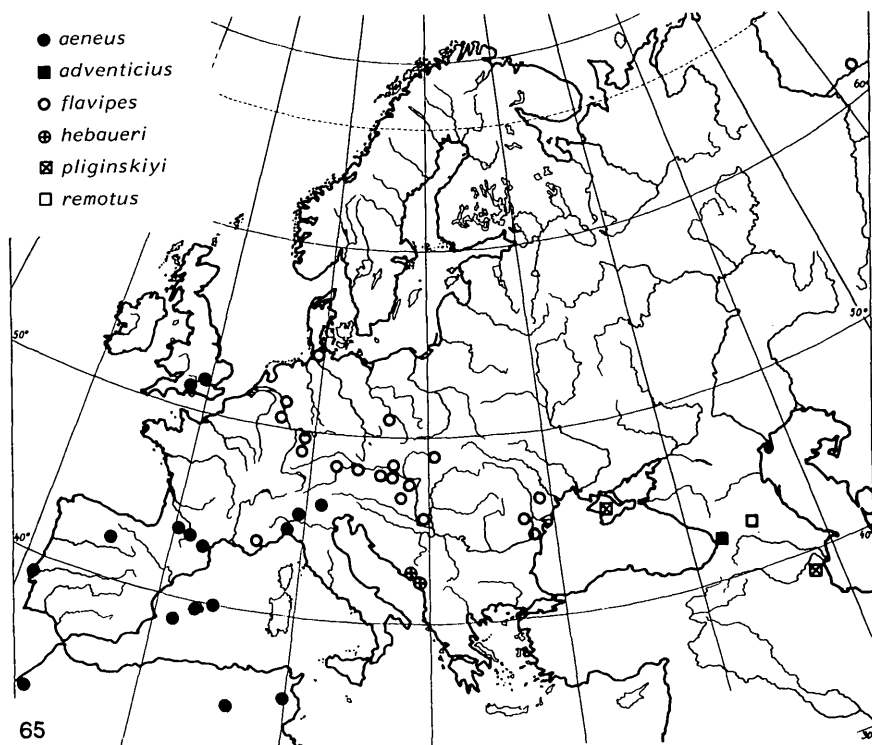


Fig. 65: Geographical distribution of *O. aeneus*, *O. adventicius*, *O. flavipes*, *O. hebaueri*, *O. pliginskiyi* and *O. remotus*.

Fig. 66: Geographical distribution of *O. coomani*, *O. furcatus*, *O. minimus*, *O. perdurus*, *O. rugulosus*, *O. unimaculatus* and *O. yunnanensis*.

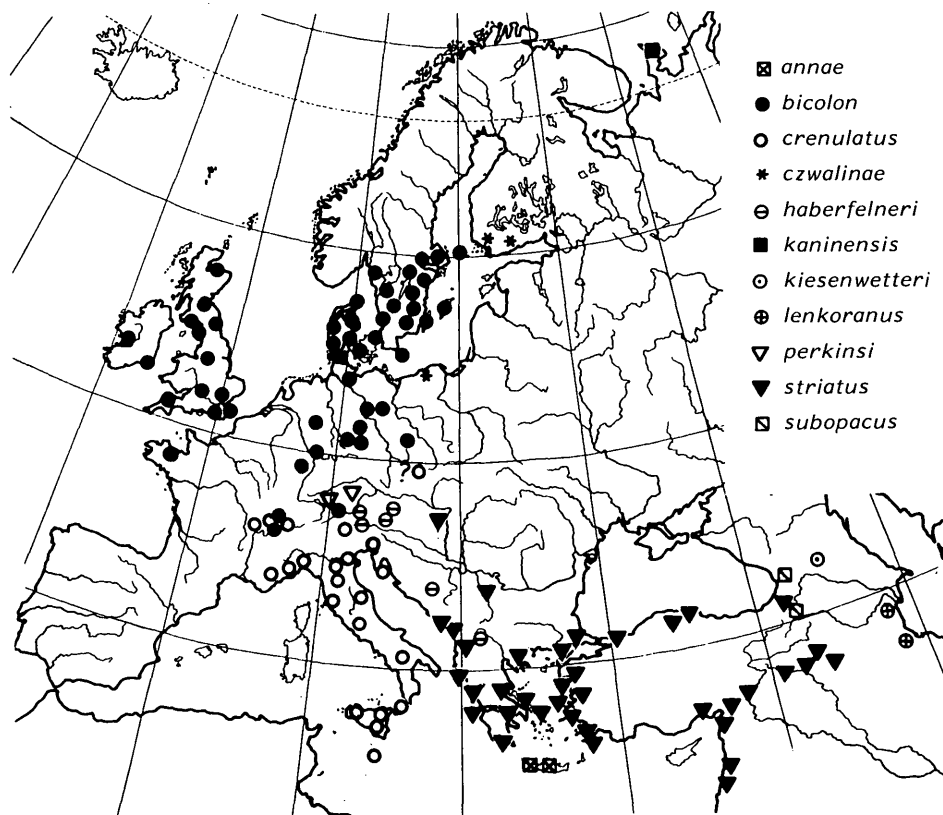


Fig. 67: Geographical distribution of *O. annae*, *O. bicolon*, *O. crenulatus*, *O. czwalinae*, *O. haberfelneri*, *O. kaninensis*, *O. kiesenwetteri*, *O. lenkoranus*, *O. perkinsi*, *O. striatus* and *O. subopacus*.

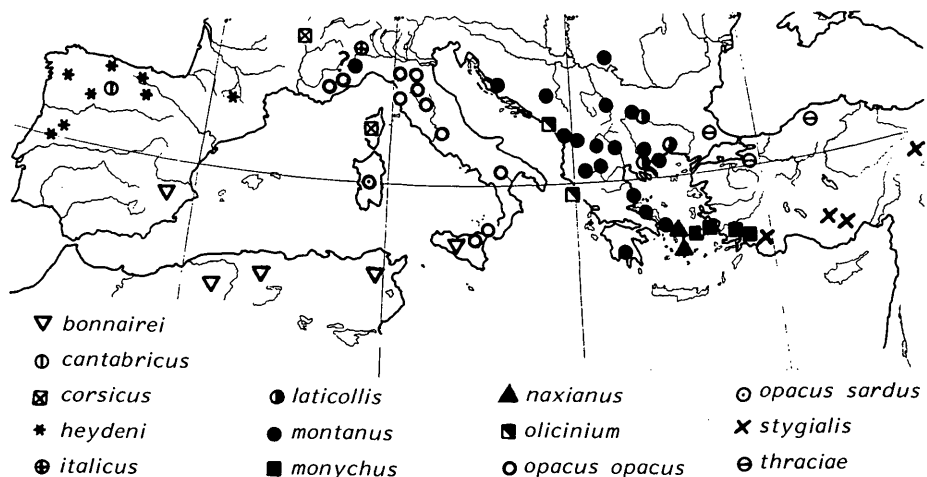


Fig. 68: Geographical distribution of *O. bonnairei*, *O. cantabricus*, *O. corsicus*, *O. heydeni*, *O. italicus*, *O. laticollis*, *O. montanus*, *O. monychus*, *O. naxianus*, *O. olicinium*, *O. opacus opacus*, *O. opacus sardus*, *O. stygialis* and *O. thraciae*.

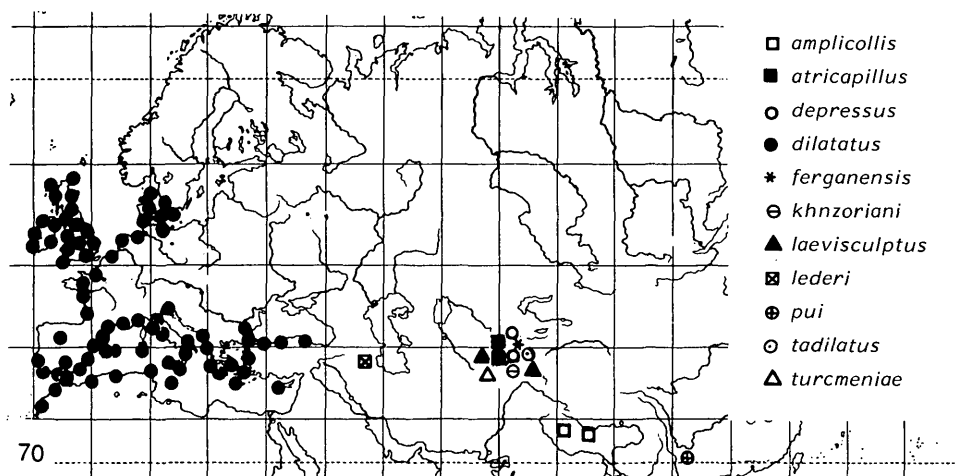
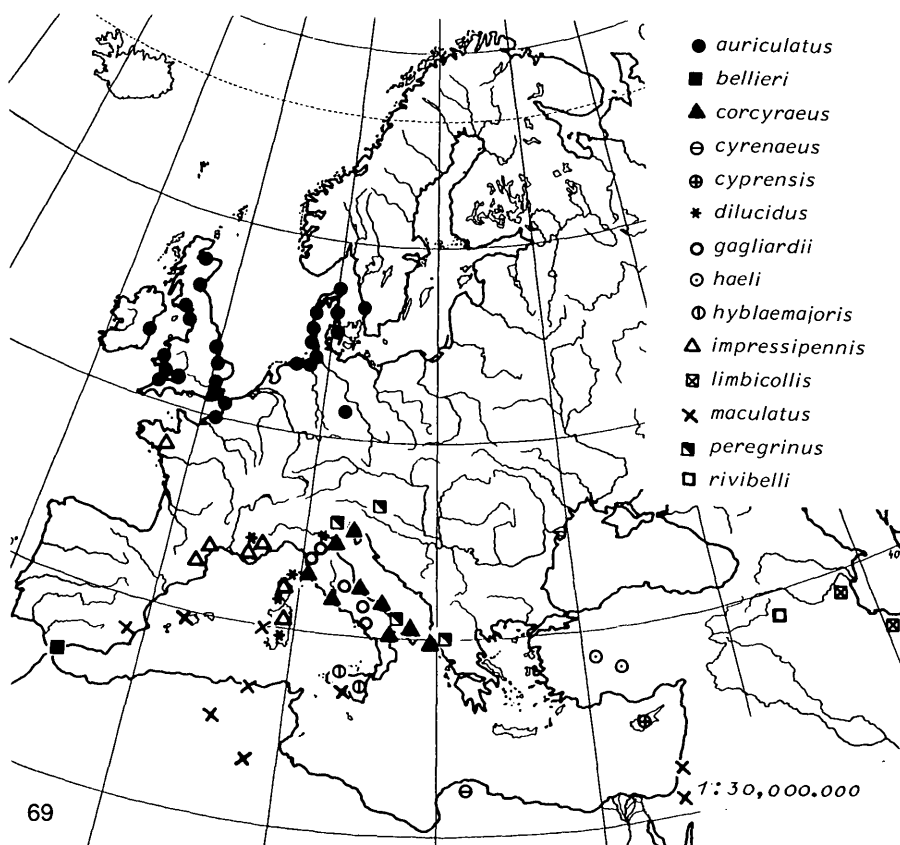


Fig. 69: Geographical distribution of *O. auriculatus*, *O. bellieri*, *O. corcyraeus*, *O. cyrenaeus*, *O. cyprensis*, *O. dilucidus*, *O. gagliardii*, *O. haeli*, *O. hyblaemajoris*, *O. impressipennis*, *O. limbicollis*, *O. maculatus*, *O. peregrinus* and *O. rivibelli*.

Fig. 70: Geographical distribution of *O. amplicollis*, *O. atricapillus*, *O. depressus*, *O. dilatatus*, *O. ferganensis*, *O. khnzoriani*, *O. laevisculptus*, *O. lederi*, *O. pui*, *O. tadilatus* and *O. turkmeniae*.

- BRETTFELD, R. 1988: Der Sulzbach im Südthüringer Grabfeld. - Veröffentlichungen des Naturhistorischen Museums Schleusingen 3: 52 - 57.
- BURAKOVSKY, B., M. MROCZKOWSKI and J. STEFANSKA 1976: Chrzaszczce Coleoptera Adephaga procz Carabidae, Myxophaga, Polyphaga: Hydrophiloidaea. In (ed): Katalog Fauny Polski.: pp. 1 - 307.
- BURMEISTER, H.-G. 1981: Zur Wasserkäferfauna Nordwestdeutschlands. Teil II: Palpicornia - Hydrophiloidaea (Hydraenidae, Hydrochidae, Hydrophilidae) und Diversicornia (Dryopidae, Elminthidae, Helodidae). - Spixiana 4(4): 175 - 189.
- CASTELNAU, M. 1840: Histoire Naturelle des Insectes Coléoptères. Paris: P.Duménil, pp. 1 - 563.
- CHIESA, A. 1958: Idrofilidi nuovi o notevoli per la fauna Italica. - Bolletino della Società Entomologica Italiana 88: 98 - 102.
- CHIESA, A. 1959: Hydrophilidae Europae (Coleoptera Palpicornia). Bologna: Arnaldo Forni, pp. 1 - 198.
- COYE, M. 1869: Descriptions de Coléoptères nouveaux. - L'Abeille VI: 370.
- DALLA TORRE, C.W. 1877: Synopsis der Insekten Oberösterreichs. - Jahresbericht des Vereins für Naturkunde in Linz : 17 - 74.
- DANNAPFEL, K.-H. 1980: Die Wasserkäfer einiger Altwässer des mittleren Oberrheins. Ein Beitrag zur Charakterisierung von Gewässern durch Wasserkäfer - Assoziationen (Insecta: Coleoptera). Gutenberg Univ.Mainz: Dissertation, pp. 1 - 76.
- DRAKE, M. 1988: Water beetles from the Gwent levels, Wales. - The Balfour-Browne Club Newsletter 43: 13 - 15.
- ENDRÖDY-YOUNGA, S. 1967: Csiboralkatuak - Palpicornia. Coleoptera I. In (ed): Magyarorszag Allatvilaga Fauna Hungariae.: pp. 1 - 97.
- ENDRÖDY-YOUNGA, S. 1968: Neue und weniger bekannte Hydrophiliden aus dem Karpatenbecken (Coleoptera, Hydrophilidae). - Mitteilungen der Münchner Entomologischen Gesellschaft 58: 65 - 73.
- ENDRÖDY-YOUNGA, S. 1969: Neue und weniger bekannte Hydrophiliden aus dem Karpaten-Becken. - Annales Historico-Naturales Musei Nationalis Hungarici 61: 215 - 221.
- ERICHSON, W.F. 1837: Die Käfer der Mark Brandenburg. Berlin: F.H. Morin, pp. 1 - 740.
- EVERTS, R. 1920: Nieuwe vondsten voor de Nederlandsche Coleopteren- fauna. - Ent.Ber. V: 241 - 243.
- EYRE, M.D.and G. FOSTER 1984: A revision of the aquatic coleoptera of Northumberland and County Durham. - Entomologist's Gazette 35: 111 - 135.
- FABRICIUS, J.C. 1792: Entomologica Systematica. Hafniae [Kobenhavn]: pp. 1 - 330, 1 - 5638.
- FERRO, G. 1976: Ricerche Coleotterologiche sul litorale Jonico dell Puglia, Lucania e Calabria. Campagne 1956 - 1957 - 1958 - XV. Un nuovo *Ochthebius* (*Asiobates*) del litorale Jonico (Coleoptera Hydraenidae). - Società Veneziana di Scienze Naturali - LAVORA 1: 34 - 36.
- FERRO, G. 1978: *Ochthebius* (*Asiobates*) *fageli sutorinensis* ssp.nov. della Jugoslavia. - Bollettino della Società Entomologica Italiana 110: 82 - 83.

- FERRO, G. 1979a: Ricerche Coleotterologiche sul litorale Jonico della Puglia, Lucania e Calabria Campagne 1956 - 1957 - 1958. XVIII. Coleoptera Palpoicornia. - Bolletino della Società Entomologica Italiana 111: 26 - 33.
- FERRO, G. 1979b: Diagnosi preliminari di Hydraenidae Palaearctici (Coleoptera). - Rivista di Idrobiologia XVIII-2: 267 - 169.
- FERRO, G. 1981: Note su alcune specie del genere *Ochthebius* LEACH. - Bulletin et Annales de la Société royale belge de l'Entomologie 117: 275 - 277.
- FERRO, G. 1982a: Hydraenidae nuovi ed interessanti del Museo di Storia Naturale di Praga (Coleoptera Hydraenidae). - Bulletin et Annales de la Société royale belge de l'Entomologie 118: 153 - 154.
- FERRO, G. 1982b: Hydraenidae nuovi ed interessanti del Museo di Storia Naturale di Praga (Coleoptera Hydraenidae) II. Contributo. - Bulletin et Annales de la Société royale belge de l'Entomologie 119: 73 - 80.
- FERRO, G. 1982c: *Ochthebius (Asiobates) haelii* n.sp. (Coleoptera Hydraenidae) nuova specie della Turchia. - Bulletin et Annales de la Société royale belge de l'Entomologie 119: 81 - 83.
- FERRO, G. 1983: Su alcuni *Ochthebius* della fauna spagnola (Coleoptera, Hydraenidae) XII. Contributo allo studio degli Hydraenidae. - Bulletin et Annales de la Société royale belge de l'Entomologie 120: 111 - 115.
- FERRO, G. 1984a: Hydraenidae nuovi ed interessanti del Museo Zoologico di Helsinki (Coleoptera Hydraenidae). - Bulletin et Annales de la Société royale belge de l'Entomologie 120: 105 - 110.
- FERRO, G. 1984b: Nuovi ed interessanti Hydraenidae del Museo di Storia naturale di Ginevra XIV. Contributo alla conoscenza degli Hydraenidae (Coleoptera, Hydraenidae). - Revue suisse de Zoologie 91 (3): 589 - 594.
- FERRO, G. 1985a: "*Ochthebius (Asiobates) cyrenaicus*" n.sp. nuova specie della Cirenaica. - Atti del Museo Civico di Storia Naturale - Trieste XXXVII: 261 - 263.
- FERRO, G. 1985b: Hydraenidae (Col. Hydrophiloidae) del Nord Africa XV Contributo alla conoscenza degli Hydraenidae. - Bulletin et Annales de la Société royale belge de l'Entomologie 121: 233 - 241.
- FERRO, G. 1986: *Ochthebius* nuovi ed interessanti. XVII contributo alla conoscenza degli Hydraenidae (Coleoptera Hydraenidae). - Bulletin et Annales de la Société royale belge de l'Entomologie 122: 145 - 150.
- FOLWACZNY, B. 1967: Verzeichnis der Käfer Preußens. Fulda: Parzeller, pp. 1 - 97.
- FOSTER, G. 1988: The status of *Ochthebius lenensis* Poppius (Coleoptera: Hydraenidae) in the Moray Firth area. - Entomologist's Gazette 39: 77 - 81.
- FOSTER, G., A. FOSTER, M.D. EYRE and D. BILTON 1990: Classification of water beetle assemblages in arable fenland and ranking of sites in relation to conservation value. - Freshwater Biology 22: 343 - 354.

- FOSTER, G. and M. Sinclair 1982: Some wetland Coleoptera from Lurgie Loch Moss, Berwickshire, including *Dryops anglicanus* EDWARDS new to Scotland. - Entomologist's Gazette 33: 41 - 42.
- FRANZ, H. 1970: Die Nordostalpen im Spiegel ihrer Landtierwelt. Innsbruck:, pp. 1 - 501.
- FRIDAY, L. 1988: A key to the adults of British water beetles. - Field Studies 7: 1 - 151.
- FRIDAY, L. 1990: Sixty years of water beetle records at Wicken Fen, Cambridgeshire, England. - The Balfour-Browne Club Newsletter 46: 11 - 13.
- FRIVALDSKY, J. 1881: Coleoptera Europaea Nova. - Termesz.Füzetek V: 26 - 29.
- GASSMANN, M. 1974: La faune des coléoptères aquicoles du marais de Kloten. - Thèse présentée à l'Ecole Polytechnique Federale Zürich : 1 - 166.
- GEISER, R. 1982: 10. Bericht der Arbeitsgemeinschaft Bayerischer Koleopterologen. - Nachrichtenblatt Bayerischer Entomologen 31(3): 33 - 47.
- GEORGUIEV, V.B. 1971: Coleoptera, Hydrocanthares et Palpicornia. In (ed): Catalogus Faunae Jugoslaviae. Ljubljana:, pp. 1 - 45.
- GERMAR, E.F. 1824: Insectorum species novae aut minus cognitae, descriptionibus illustratae. Halle: Hendel & Son, pp. 1 - 624.
- GRIDELLI, E. 1926: Materiali per una fauna dell'Arcipelago Toscano XIX. Coleotteri del Giglio. - Annali del Museo Civico di Storia Naturale di Genova X (L): 1 - 103.
- GRÄF, H. 1987: Beitrag zur Käferfauna Langeoogs. - Entomologische Blätter 83(2 - 3): 65 - 90.
- GUILLEBEAU, F. 1896: Description de quelques espèces de Coléoptères inédites. - Bulletin de la Société Entomologique de France : 226 - 232, 239 - 245.
- HANSEN, M. 1987: The Hydrophiloidea (Coleoptera) of Fennoscandia and Denmark. Leiden - Copenhagen: E.J.Brill, p. 254.
- HEBAUER, F. 1980: Beitrag zur Faunistik und Ökologie der Elminthidae und Hydraenidae in Ostbayern (Coleoptera). - Mitteilungen der Münchner Entomologischen Gesellschaft 69: 29 - 80.
- HEBAUER, F. 1983: Corrigenda et Addenda zum Beitrag zur Faunistik und Ökologie der Elminthidae und Hydraenidae in Ostbayern. - Mitteilungen der Münchner Entomologischen Gesellschaft 72: 1 - 8.
- HEBAUER, F. 1986: Drei neue *Ochthebius* (*Hymenodes*) - Arten aus dem östlichen Mittelmeerraum. - Entomologische Blätter 82(1 - 2): 74 - 78.
- HORION, A. 1949: Faunistik der Mitteleuropäischen Käfer. Frankfurt/Main: Vittorio Klostermann, pp. 1 - 388.
- IENISTEA, M.A. 1968a: Ord.Coleoptera (pars), in: L'Entomofaune de l'île de Leta (Delta du Danube). - Travaux du Muséum d'Histoire Naturelle "Grigore Antipa" IX: 97 - 114.
- IENISTEA, M.A. 1968b: Die Hydraeniden Rumäniens (Coleoptera, Hydraenidae). - Travaux du Muséum d'Histoire Naturelle "Grigore Antipa" VIII: 759 - 795.
- IENISTEA, M.A. 1978: Hydradephaga und Palpicornia. In Jillics (ed): Limnofauna Europea. Stuttgart: G.Fischer, pp. 291 - 314.

- IENISTEA, M.A. 1979: Contribution à la connaissance des espèces européennes du genre *Homalochthebius* Kuw. (Coleoptera, Ochthebiidae). - Revue suisse de Zoologie 86(4): 933 - 935.
- IENISTEA, M.A. 1980: Contribution à la connaissance du genre *Asiobates* Thomson en Europe (Coleoptera, Ochthebiidae). - Revue suisse de Zoologie 87(3): 723 - 726.
- IENISTEA, M.A. 1982: Hydraenoidea de la Suisse (Coleoptera) (Catalogue). - Archives des Sciences, Genève 35(3): 303 - 316.
- IENISTEA, M.A. 1988: Vorläufige Beiträge zur Revision einiger Ochthebiidae (Coleoptera). - Lucrarile celei de a IV-a Conferințe Nationale de Entomologie. Cluj-Napoca : 217 - 238.
- JANSSENS, E. 1961: Contribution à l'étude de la Faune de l'Afghanistan. 63. - Coléoptères torrenticole (Hydraenidae & Elmidae). - Bulletin de l'Institut royale des Sciences naturelles de Belgique XXXVII: 17. 1 - 7.
- JANSSENS, E. 1962: Hydraenidae (Col. Hydrophiloidea) d'Afghanistan. - Bulletin de l'Institut royale des Sciences naturelles de Belgique XXXVIII: 38. 1 - 12.
- JANSSENS, E. 1963: Hydraenidae du Vilayet de Trebizonde (Nord-est Anatolie). - Bulletin de l'Institut royale des Sciences naturelles de Belgique XXXIX-7: 1 - 30.
- JANSSENS, E. 1967: 91. Hydraenidae. Ergebnisse der zoologischen Forschungen von Dr.Z.Kaszab in der Mongolei (Coleoptera). - Reichenbachia 9(5): 53 - 58.
- JANSSENS, E. 1968a: *Ochthebius (Asiobates) fageli* n.sp. - Bulletin de l'Institut royale des Sciences naturelles de Belgique 44(22): 1 - 2.
- JANSSENS, E. 1968b: 139. Hydraenidae: *Ochthebius*, II Ergebnisse der zoologischen Forschungen von Dr.Z.Kaszab in der Mongolei. - Reichenbachia 11(9): 83 - 86.
- JANSSENS, E. 1971: Ergebnisse der zoologischen Forschungen von Dr.Z. Kaszab in der Mongolei. 258. Hydraenidae: *Ochthebius* III. (Coleoptera). - Annales Historico-Naturales Musei Nationalis Hungarici 63: 185 - 187.
- JANSSENS, E. 1974: Hydraenidae du Tadjikistan. - Bulletin et Annales de la Société royale belge de l'Entomologie 110: 155 - 160.
- JÄCH, M.A. 1982: Beitrag zur Kenntnis der Wasserkäfer des Bezirkes Scheibbs (NÖ) (Col. Elmidae, Hydraenidae excl. Limnebius, Dytiscidae). - Koleopterologische Rundschau 56: 75 - 88.
- JÄCH, M.A. 1983: *Ochthebius (Homalochthebius) hebaueri* n.sp. aus Jugoslawien (Col.: Hydraenidae). - Entomologische Zeitschrift 93 (8): 110 - 112.
- JÄCH, M.A. 1988: Revisional notes on the *Hydraena riparia* species complex (Coleoptera: Hydraenidae). - Aquatic Insects 10(3): 125 - 139.
- JÄCH, M.A. 1989: IENISTEA 1988 - Is this 20th Century taxonomy ?. - The Balfour-Browne Club Newsletter 45: 14 - 16.
- JÄCH, M.A. and Y. MARGALIT 1987: Distribution of Dytiscids in springs of the western Dead Sea Area (Coleoptera: Dytiscidae). - Coleopterists Bulletin 41(4): 327 - 334.
- KNISCH, A. 1924: Hydrophilidae. In S. Schenkling (ed): Coleopterorum Catalogus. Berlin: Junk, W., pp. 1 - 306.

- KORDYLAS, A. 1990: Water beetles in the Pasleka river, north-east Poland. - The Balfour-Browne Club Newsletter 46: 16 - 21.
- KUWERT, A. 1887: Übersicht der europäischen *Ochthebius*-Arten. - Deutsche Entomologische Zeitschrift XXXI: 369 - 455.
- KUWERT, A. 1890: Bestimmungstabelle der Hydrophiliden Europas, Westasiens und Nordafrikas. - Verhandlungen des Naturforschenden Vereins, Brünn : 159 - 328.
- KUWERT, A. 1891: *Trymochthebius taygetanus* nov.sp vom Taygetus. - Deutsche Entomologische Zeitschrift : 363.
- LEACH, W.E. 1817: The Zoological Miscellany. London: R.& A. Taylor, pp. 1 - 151.
- LOHSE, G.A. 1971: 7.Familie. Hydraenidae. In H. Freude, K.W. Harde, and G.A. Lohse (eds): Die Käfer Mitteleuropas. Krefeld: Goecke & Evers, pp. 95 - 125.
- LOHSE, G.A. 1989: Familienreihe Hydrophiloidea (Palpicornia). In G.A. Lohse and W. Lucht (eds): Die Käfer Mitteleuropas. 1. Supplementband mit Katalogteil. Krefeld: Goecke & Evers, pp. 72 - 92.
- LUCHT, W. 1987: Die Käfer Mitteleuropas (Katalog). Krefeld: Goecke & Evers, pp. 1 - 342.
- LUCHT, W. 1989: Katalogteil zum 1.Supplementband. In Lucht and Lohse (eds): Die Käfer Mitteleuropas. Bd.12. Krefeld: Goecke & Evers, pp. 249 - 346.
- MARSHAM, T. 1802: Entomologica Britannica. London:, pp. 1 - 151.
- MOL, A. 1984: Limnofauna Neerlandica. - Nieuwsbrief van de European Invertebrate Survey - Nederland 15: 1 - 124.
- MOUBAYED, Z. 1986: Recherches sur la faunistique, l'ecologie et la zoogeographie de trois réseaux hydrogéographiques du Liban. In (ed): Thèse présentée devant l'Université Paul Sabatier de Toulouse. :, pp. 1 - 496.
- MULSANT, M. and C. REY 1861: Description de quelques Coléoptères nouveaux ou peu connus. - Opuscles Entomologiques 12: 47 - 92.
- MULSANT, M.E. 1844: Histoire Naturelle des Coléoptères de France. Palpicornes. Paris: Maison, Libraire, pp. 1 - 196.
- NIEUKERKEN, E. 1982: Handleiding voor het Projekt Waterkevers (Coleoptera). - Istructies voor medewerkers EIS-Nederland 6: 1 - 28.
- NORMAND, H. 1933: Contribution au Catalogue des Coléoptères de la Tunisie. - Bulletin de la Société d'Histoire naturelle de l'Afrique Noire 24: 295 - 307.
- ORCHYMONT, A. 1925: Contribution à l'étude des Hydrophilides III. - Annales de la Société Entomologique de Belgique 65: 261 - 295.
- ORCHYMONT, A. 1928: Catalogue of Indian Insects. Calcutta: Govt. of India, Centr.Publ.Branch, pp. 1 - 146.
- ORCHYMONT, A. 1935a: Aquatic Insects of China. XX. Catalogue of Chinese Palpicornia (Coleoptera). - Peiping Natural History Bulletin 9 (3): 185 - 225.
- ORCHYMONT, A. 1935b: Inventa entomologica itineris Hispanici et Maroccani quod a. 1926 fecerunt Harald et Hakan Lindberg. - Societas Scientiarum Fennica. Commentationes Biologicae. V.1: 1 - 22.

- ORCHYMONT, A. 1937: Contribution à l'étude des Palpicornia IX. - Bulletin et Annales de la Société royale belge de l'Entomologie 77: 213 - 233.
- ORCHYMONT, A. 1940a: Notes sur quelques *Ochthebius* (*Asiobates*) du group *bicolon*. - Bolletino della Società Entomologica Italiana 72: 53 - 61.
- ORCHYMONT, A. 1940b: Les Palpicornia des Iles Atlantiques. - Mémoires du Musée Royal d'Histoire Naturelle de Belgique 2me(20): 1 - 87.
- ORCHYMONT, A. 1941: Nouvelles notes sur quelques *Ochthebius* Paléarctiques du sous-genre *Asiobates*. (Coleoptera Hydraenidae). - Bulletin du Musée royal d'Histoire naturelle de Belgique XVII(8): 1 - 23.
- ORCHYMONT, A. 1942: Revision du sous-genre *Homalochthebius* KUWERT, 1887 du genre *Ochthebius* LEACH (Coleoptera Hydraenidae). - Bulletin du Musée royal d'Histoire naturelle de Belgique XVIII: 1 - 16.
- PANKOW, W. 1986: Über alte und neue *Ochthebius*-Arten (Coleoptera: Hydraenidae) aus den Sammlungen des Senckenberg-Museums Frankfurt a.M. - Entomologische Blätter 82(1 - 2): 65 - 73.
- PERKINS, P. 1979: New names for two species of aquatic beetles from Australia and China (Coleoptera: Hydraenidae). - The Coleopterists Bulletin 33(3): 336 - 337.
- PIRISINU, Q. 1970: Su alcuni Idrofilidi (Coleoptera Palpicornia) rinvenuti nel corso di ricerche idrobiologiche nell'Isola di Capraia (Arcipelago Toscano). - Rivista di Idrobiologia IX (3): 171 - 199.
- PIRISINU, Q. 1974: Due nuovi *Ochthebius* (*Hymenodes*) del grupo *metallescens* (Coleoptera Hydraenidae). - Rivista di Idrobiologia XIII: 361 - 374.
- PIRISINU, Q. 1981: PALPICORNI (Coleoptera: Hydraenidae, Helophoridae, Spercheidae, Hydrochidae, Hydrophilidae, Sphaeridiidae). In (ed): Guide per il riconoscimento delle specie animali delle acque interne italiane. Roma: Consiglio Nazionale delle Ricerche, pp. 1 - 97.
- PIRISINU, Q. and G. FERRO 1978: Un nuovo *Ochthebius* (*Hymenodes*) del Gruppo *lobicollis*: *Ochthebius* (*Hymenodes*) *montalbanensis* (Coleoptera Hydraenidae). - Rivista di Idrobiologia XVII(2): 259 - 263.
- POPPIUS, B. 1909: Die Coleopteren-Fauna der Halbinsel Kanin. - Öfversigt af Finska Vetenskaps-Societetens Förhandlingar 31(8): 1 - 58.
- PU, C.-L. 1958: The genus *Ochthebius* LEACH of China (Coleoptera, Palpicornia). - Acta Entomologica Sinica VIII(3): 247 - 265.
- REICHE, L. and F. SAULCY 1856: Espèces nouvelles ou peu connus des Coléoptères, recuilles par M.F.Saulcy. - Annales de la Société Entomologique de France 3 IV: 353 - 422.
- REITTER, E. 1890: Neue Coleopteren aus Europa, den angrenzenden Ländern und Sibirien, mit Bemerkungen über bekannte Arten. - Deutsche Entomologische Zeitschrift : 385 - 396.
- REITTER, E. 1899: Beitrag zur Coleopterenfauna des russischen Reiches und der angrenzenden Länder. - Deutsche Entomologische Zeitschrift : 189.
- REITTER, E. 1901: Weiter Beiträge zur Coleopteren-Fauna des russischen Reiches. - Deutsche Entomologische Zeitschrift I: 65 - 84.

- REITTER, E. 1985: Neue Coleopteren aus Europa und den angrenzenden Ländern, mit Bemerkungen über bekannte Arten. - Deutsche Entomologische Zeitschrift XXIX: 353 - 392.
- REY, C. 1884: Notices sur les Palpicornes. - Revue d'Entomologie III: 266 - 271.
- REY, C. 1885: Description des Coléoptères nouveaux ou peu connus de la tribu des Palpicornes. - Annales de la Société Linnéenne de Lyon 31: 13 - 32.
- REY, C. 1886: Histoire naturelle des Coléoptères de France. - Annales de la Société Linnéenne de Lyon 32: 1 - 186.
- ROSENHAUER, W.G. 1847: Beiträge zur Insekten-Fauna Europas. Erlangen: Theodor Blaesing, pp. 1 - 160.
- SAHLBERG, J. 1900: Coleoptera mediterranea et rosso-asiatica nova vel minus cognita. - Öfversigt af Finska Vetenskaps-Societetens Förhandlingar XLII: 174 - 208.
- SAHLBERG, J. 1908: Coleoptera mediterranea et rosso-asiatica nova vel minus cognita. - Öfversigt af Finska Vetenskaps-Societetens Förhandlingar L (7): 1 - 29.
- SAINTE-CLAIRE DEVILLE, J. 1908: Catalogue critique des Coléoptères de la Corse. - Revue d'Entomologie XVII: 1 - 531.
- SCHAEFER, L. 1957: Notes faunistiques sur les Coléoptères et remarques diverses. - Ann.Soc.Hort.Hist.nat.Herault : 105 - 106.
- SCHAEFER, L. 1964: Dix voyages entomologiques en Corse. - Annales Société Horticulture Histoire Naturelle Hérault 104(3): 189 - 193.
- SCHAEFER, L. 1985: Capture interessantes de Coléoptères dans l'Herault. - Ann.Soc.Hort.Hist.nat.Herault : 42 - 47.
- SILFVERBERG, H. 1987: List of the insect types in the Zoological Museum, University of Helsinki. 4. Coleoptera: Hydrophiloidea. - Acta Entomologica Fennica 48: 41 - 45.
- SPITZENBERG, D. 1985: Beiträge zur Insektenfauna der Naturschutzgebiete im Bezirk Magdeburg. 2. Aquatile Coleopteren der Naturschutzgebiete Jeggauer Moor, Jävenitzer Moor und Mahlpfuhler Fenn. - Abh.Ber.Naturkd.Vorgesch. XII(6): 59 - 66.
- SPITZENBERG, D. 1987: Die aquatilen Coleopteren des Naturschutzgebietes "Schollener See". - Abh.Ber.Naturkd.Vorgesch. XIII: 77 - 84.
- STEPHENS, J.F. 1829: Illustrations of British Entomology. Vol. II. Mandibulata. London: Baldwin & Cradock, pp. 1 - 200.
- STEPHENS, J.F. 1835: Illustrations of British Entomology. London: Baldwin & Cradock, pp. 1 - 447.
- VALLADARES, L.F. 1986: Los palpicornia acuáticos de la provincia de Léon. I. *Ochthebius* Leach, con la descripción de una nueva especie. (Coleoptera. Hydraenidae). - Actas de las VIII Jordanas A e E, Sevilla : 649 - 664.
- VILLA, A. 1835: Supplementum Coleopterorum Europae Dupletorum. Mediolani:, pp. 37 - 66.
- WATTL, J. 1835: Reise durch Tyrol, Oberitalien und Piemont nach dem südlichen Spanien II. Passau:, pp. 1 - 247.
- WIEMERS, W. 1980: Beitrag zur Invertebratenfauna der Elz und ihrer Nebenbäche. - Decheniana 133: 149 - 154.

WOLLASTON, T.V. 1854: *Insecta Maderensia*. London: Van Voorst, pp. 1 - 643.

WOLLASTON, T.V. 1857: *Catalogue of the coleopterous insects of Madeira in the collection of the British Museum*. London: pp. 1 - 234.

WOLLASTON, T.V. 1871: VII. On additions to the Atlantic coleoptera. - *Transactions of the Entomological Society London*: 203 - 314.

WÖRNDLE, A. 1950: *Die Käfer von Nordtirol*. Innsbruck: Schlern-Schriften.

Address of the author:

Dr.Manfred A. JÄCH, Naturhistorisches Museum, Burgring 7, A-1014 Wien, Austria.

ZOBODAT - www.zobodat.at

Zoologisch-Botanische Datenbank/Zoological-Botanical Database

Digitale Literatur/Digital Literature

Zeitschrift/Journal: [Koleopterologische Rundschau](#)

Jahr/Year: 1990

Band/Volume: [60_1990](#)

Autor(en)/Author(s): Jäch Manfred A.

Artikel/Article: [Revision of the Palearctic species of the genus Ochthebius Leach. V. The subgenus Asiobates \(Coleoptera: Hydraenidae\). 37-105](#)