

Additions and corrections to 'A reclassification of the subfamily Agrypninae (Coleoptera : Elateridae)'

C. M. F. von Hayek

Department of Entomology, British Museum (Natural History), Cromwell Road,
London SW7 5BD

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Synopsis

This work is a continuation of Hayek (1973). With its completion all the nominal species included in the Agrypninae up to the end of 1977, with the exception of nine species which remain unrecognized, are assigned to an appropriate genus. A revised key to include the recently described genus *Stangellus* Golbach is provided. One hundred and thirteen new combinations are proposed. Eighteen specific names are newly placed in synonymy and eight specific synonymies confirmed. One species is extracted from synonymy and transferred to another subfamily. The type-material of two species previously listed as Incertae Sedis has been located and examined. The location of the type-material of two hundred species is recorded and eighty-one lectotypes newly designated. Additional type-material of fifty-two species is also recorded.

In an Appendix the subdivision of the Agrypninae into groups based on certain external characteristics and the structure of the female genitalia is proposed.

Introduction

Since the publication of the first part of this work (Hayek, 1973) I have been able to locate and examine the type-material of almost all the species which were not included in that volume and to place them in the appropriate genus. The generic attribution of the remaining species is based on the descriptions. To the best of my belief the generic status of every species included in the Agrypninae up to the end of 1977 has now been reviewed. It has proved possible to give generic attributions for all except nine species which despite all my efforts have remained unknown to me.

The key to the genera has been corrected and modified to include the recently described genus *Stangellus* Golbach. The genus is discussed on p. 191 and in the Appendix.

Attention must be drawn to the fact that there is no doubt that the subfamily Agrypninae as constituted in this work cannot be regarded as a natural assemblage of genera. It was originally adopted by the writer because it was the one used in the most recent practical key to the subfamilies of the Elateridae of the world (Fleutiaux, 1941a : 36). My main aim, in which I believe

that I have succeeded, was to bring order into the chaos existing within a fairly easily recognizable group of Elateridae.

In the course of the preparatory work for this volume it became increasingly clear that the genus *Lanelater* is more closely related to *Pyrophorus* and its allies than to the remaining Agrypninae. I believe that the genera here regarded as forming the subfamily Agrypninae should be treated as part of the larger assemblage first termed the Pyrophorinae by Hyslop (1917) who based his classification on the structure of the larvae. Crowson (1961), by drawing attention to the presence of setae at the base of the claws of the adults of those species whose larvae are known to have the characteristics of Hyslop's Pyrophorinae, had some success in his attempt at restoring congruity to the adult and larval systems of the family. Unfortunately he was mistaken in his belief that in the females of these species the valves of the ovipositor always lack styli.

Gurjeva (1974), who based her classification on the structure of the thorax, and Dolin (1975), who studied the structure of the wings and took into account the anatomy of the larvae, use the name Agrypninae for the same genera, either by name or by implication, as those referred to by Hyslop and Crowson under the name Pyrophorinae. Gurjeva and Dolin credit the name to Lacordaire, 1857. I believe that they are correct in the use of the name Agrypninae but consider that Candèze, 1857 is the author as his work, with the tribe Agrypnides, appeared in May one month before that of Lacordaire.

This work follows the same arrangement as Hayek (1973) and should be used in conjunction with it. The corrigenda to Hayek (1973) will be found on p. 248.

Additions to the list of abbreviations and symbols used by Hayek (1973)

[p. 1]	page numbers within square brackets refer to Hayek (1973).
CNC, Ottawa	Canadian National Collection, Canada.
FML, Tucuman	Fundación Miguel Lillo, Argentine.
NM, Prague	Národní Muzeum v Praze, Czechoslovakia.
NSM, Tokyo	National Science Museum, Tokyo.
QM, Brisbane	Queensland Museum, Australia.
UZI, Lund	Universitetets Zoologiska Institution, Sweden.

Revised key to genera and subgenera [p. 6]

(Modified to include *Stangellus* Golbach. Page references are given to both Hayek (1973) and the present work.)

- 1 Propleurae with longitudinal grooves near the lateral margin for the accommodation of the antennae. Posterior portion of prosternopleural suture grooved for the reception of the anterior tarsi *OCTOCRYPTUS* Candèze (1973 : 266 and p. 247)
- Propleurae without longitudinal grooves near the lateral margin for the accommodation of the antennae. Prosternopleural suture never modified for the reception of the tarsi 2
- 2 Mesepisternum forming part of margin of middle coxal cavity (1973 : Fig. 1). Tibial spurs present (1973 : Fig. 9). Vestiture setose, scales entirely absent *LANELATER* Arnett (1973 : 240 and p. 246)
- Mesepisternum not forming part of margin of middle coxal cavity (1973 : Figs 2 & 3). Tibial spurs absent (1973 : Fig. 10). Vestiture generally scaly 3
- 3 Mesepimeron not forming part of margin of middle coxal cavity (1973 : Fig. 2) 4
- Mesepimeron forming part of margin of middle coxal cavity (1973 : Fig. 3) 8
- 4 Tarsal segments 1-4 expanded laterally (1973 : Fig. 17) *TRIERES* Candèze (1973 : 239 and p. 246)
- Tarsal segments 1-4 not expanded laterally (1973 : Figs 15 & 16) 5
- 5 Small species, less than 5 mm long. Prothorax constricted immediately behind the anterior angles. Lateral carina not attaining anterior margin of prothorax *RISMETHUS* Fleutiaux (1973 : 235 and p. 244)
- Larger species or, if less than 5 mm long, the prothorax not constricted behind the anterior angles and the lateral carina attaining the anterior margin of the prothorax. 6
- 6 Scutellum with longitudinal carina 7
- Scutellum simple, without carina *AGRYPNUS* Eschscholtz (1973 : 113 and p. 205)

7 Propleurae without tarsal grooves	<i>MERISTHUS</i> Candèze s. str. (1973 : 231 and p. 243)	
- Propleurae with tarsal grooves	<i>MERISTHUS</i> subgenus <i>SULCIMERUS</i> Fleutiaux (1973 : 231 and p. 243)	
8 Claws without basal setae (1973 : Fig. 12)	<i>DANOSOMA</i> Thomson (1973 : 87 and p. 202)	
- Claws with basal setae (1973 : Fig. 11)		9
9 Second and third antennal segments subequal (1973 : Fig. 13). If the third is triangular and longer than the second, then propleural tarsal grooves are present and run parallel to the antennal grooves		10
- Second and third antennal segments not subequal (1973 : Fig. 14). The third segment as long as the fourth but sometimes of a different shape		12
10 Propleurae and metasternum with well-defined grooves for the reception of the tarsi. Metasternal tarsal grooves or depressions, directed laterally; the distal end of these grooves, if produced, would cut the posterior margin of the metasternum (1973 : Fig. 4)	<i>OPTALEUS</i> Candèze (1973 : 91 and p. 202)	
- Propleurae and metasternum with or without grooves for the reception of the tarsi. Metasternal tarsal grooves or depressions, if present, directed laterally; the distal end, if produced, would cut the lateral margin of the metasternum at a point at or within the anterior three-quarters of its length (1973 : Fig. 6)		11
11 Lateral margins of pronotum with a band of closely packed scales	<i>SCAPHODERUS</i> Candèze (1973 : 51)	
- Lateral margins of pronotum without a band of closely packed scales		11a
11a Antennal groove extending the whole length of the prosternopleural suture	<i>STANGELLUS</i> Golbach (p. 191)	
Antennal groove not extending beyond the anterior half of the prosternopleural suture	<i>ADELOCERA</i> Latreille (1973 : 13 and p. 188)	
12 Tarsal segments without ventral lobes (1973 : Fig. 15)		13
- One or more tarsal segments with ventral lobes (1973 : Fig. 16)		15
13 Lateral margins of prothorax not carinate	<i>EIDOLUS</i> Candèze (1973 : 90 and p. 202)	
Lateral margins of prothorax carinate		14
14 Posterior prosternal process directed upwards immediately behind the anterior coxae	<i>CANDANIUS</i> Hayek (1973 : 85)	
- Posterior prosternal process not directed upwards immediately behind the anterior coxae	<i>LACON</i> Castelnau (1973 : 52 and p. 192)	
15 Abdomen with grooves for the reception of the hind tarsi	<i>ACROCRYPTUS</i> Candèze (1973 : 92 and p. 203)	
- Abdomen without grooves for the reception of the hind tarsi		16
16 African species. Antennal groove not extending beyond the anterior half of the prosternopleural suture		17
- American and Indonesian species. Antennal groove extending beyond the anterior half of the prosternopleural suture	<i>DILOBITARSUS</i> Latreille (1973 : 93 and p. 203)	
17 Prothorax cylindrical. Head with a pair of tubercles directed anteriorly. Frons not margined anteriorly	<i>ELASMOSOMUS</i> Candèze (1973 : 101 and p. 204)	
- Prothorax not cylindrical. Head without tubercles. Frons margined anteriorly	<i>HEMICLEUS</i> Candèze (1973 : 108 and p. 204)	

Nomina nuda

The following fail to satisfy the conditions of IZN, Article 13a.

Sulcilacon candeezi Girard, 1969 : 223 and 1971 : 564.

Sulcilacon schwarzi Girard, 1969 : 223 and 1971 : 563.

Elasmosomus lamottei Girard, 1971 : 568.

Elasmosomus vanderplaetseni Girard, 1971 : 569.

Species removed from the subfamily Agrypninae [p. 11]

Elater rufipes DeGeer

Elater rufipes DeGeer, 1774 : 150.

Syntypes examined. 6 ex. standing as *E. rufipes* DeGeer (DeGeer collection, NR, Stockholm). The specimens lack any locality or determination labels. All are *Prosternon tessellatum* (Linnaeus,

1758) and *Elater rufipes* DeGeer is therefore a synonym (*syn. n.*) of *Prosternon tessellatum* (Linnaeus, 1758).

E. rufipes was synonymized with *murinus* Linnaeus by Goeze, 1777 : 557 and this has been followed by subsequent cataloguers.

DeGeer refers to *murinus* of Linnaeus, *Faun.* Ed. 2 no. 738 [1761] and *Syst. Ent.* 12 but in his description he states that the antennae are black though in certain individuals the antennae are the same colour as the tarsi (reddish) and can be hidden in grooves in the prothorax. This suggests that he had before him specimens of *tessellatum* Linnaeus and *murinus* Linnaeus. It is my opinion that DeGeer's intention was to describe the species now known as *Prosternon tessellatum* (Linnaeus) and that he regarded the *murinus* specimens as another form of his new species.

It seems probable that at some time in the last two hundred years someone removed the *murinus* specimens from DeGeer's series of *rufipes*.

Species incertae sedis [p. 12]

Adelocera kikuchii Miwa

Adelocera kikuchii Miwa, 1929 : 226.

Holotype. TAIWAN: ♂, Horisha 1 28.iv.1927 (*K. Kikuchii*). Not examined.

Dr H. Ohira (pers. comm.) reports that he was unable to find the type in the collection of the Taiwan Agricultural Research Institute, Taipei which contains many of Miwa's types.

The structure of the antennae (second segment smaller than the rest, loc. cit. : 225) suggests that this is a *Lacon* species.

Agrypnus ornaticollis Castelnau

Agrypnus ornaticollis Castelnau, 1840 : 248.

The description is based on an unrecorded number of specimens from Brazil measuring 5 lig. (=11.3 mm if French lines are intended).

I have been unable to locate this material in the MNHN, Paris or in any other institution which contains Castelnau material (see Hayek, 1973 : 273).

Candèze (1857 : 57), who based his interpretation on the very short description, regarded *ornaticollis* as a synonym of *pennata* F. (=*Lacon discoidea* (Weber)) from the U.S.A., Brazil being an erroneous locality. Candèze may be right but as Castelnau's description also fits *Dilobitarsus vitticollis* (Fairmaire & Germain) Chile, length 12–16 mm or *Lacon pectinicornis* Champion (Nicaragua, length 12 mm), I believe *ornaticollis* is best regarded as unrecognized.

Agrypnus squalidus Fairmaire

Agrypnus squalidus Fairmaire, 1849 (January) : 35.

Adelocera squalida (Fairmaire, 1849a (July) : 359).

The Latin descriptions of the two species are identical with the exception of 'summo tenuiter sulcato' which replaces 'summo tenuiter impresso' used in the first description. It seems probable that at some time between preparing the first description and the second, which is augmented by a longer French description, Fairmaire decided that *squalidus* (and also *pruinosus*, see p. 199) was better accommodated in *Adelocera* than in *Agrypnus*. I believe that there can be no doubt that the descriptions of *Adelocera squalida* Fairmaire, 1849 and *Agrypnus squalidus* Fairmaire, 1849 are based on the same material.

Fairmaire does not record how many specimens he had of *Agrypnus squalidus* but he states that *Adelocera squalida* was described from a single specimen found by M. Vesco in Tahiti in the decaying fruit of *Inocarpus edulis*.

Some of the syntype material of *Agrypnus pruinosus* Fairmaire which was described at the same time is in the MNHN, Paris (see p. 198) but up till now I have been unable to locate the holotype of *squalidus* Fairmaire.

Candèze (1874 : 27) synonymized *squalidus* with *modestus* Boisduval. *Lacon modestus* (Boisduval) is a very variable and widespread species and the synonymy may well be justified, but in the absence of the type to confirm the synonymy I believe the species is best regarded as unrecognized.

Elater cruentus Olivier

Elater cruentus Olivier, 1790 : 45, pl. 4, fig. 42a, b.

The description is based on an unrecorded number of specimens from 'la Côte de Barbarie' [probably N. Morocco, Algeria or Tunisia but possibly Somali Republic] in Marsham's collection.

Marsham's collection was broken up, the greater part being acquired by the BMNH via J. C. Stephens (Horn & Kahle, 1936 : 166; Hammond, 1972). As there is no record of this species in any of the BMNH lists or catalogues and as no specimens which could be from Marsham's collection can be found it must be assumed that the specimen or specimens are lost. The fate of the remainder of the Marsham collection is unknown.

Despite the difference in the localities Schoenherr (1817 : 302) listed *cruentus* Olivier as a possible synonym of *pennatus* Fabricius (together with *Lacon discoideus* (Weber)) from Carolina, U.S.A. and this synonymy is recorded in the Schencking catalogue (1925 : 14).

Olivier's figure agrees well with *discoideus* (Weber), far better than any North or East African species known to me, but as there is no type-material extant I consider it best to regard it as a taxon of uncertain taxonomic position.

The name *cruentus* Olivier, 1870 has never, to the best of my belief, been used as a senior synonym of *discoideus* Weber, 1801 or *pennatus* Fabricius, 1801.

Elater taeniata Panzer

Elater taeniata Panzer, 1795 : 263.

The description is based on an unrecorded number of damaged (Panzer, 1801, heft 76, No. 5) specimens. The fate of Panzer's collection is unknown (Eisinger, 1919).

E. taeniata Panzer was synonymized with *E. fasciatus* Fabricius (= *Danosoma*) by Schoenherr (1817 : 282) and this synonymy has been generally accepted by cataloguers.

Panzer's (1801, loc. cit.) redescription is accompanied by a figure. Illiger (presumably in litt., see Panzer, 1805, Vorbericht) believed it to be a variety of *fasciatus* Fabricius but Panzer (1805 : 108) does not agree with this and again treats it as a good species.

Panzer's figure is difficult to identify. I do not think it is a small *fasciatus* (Linnaeus). It could be *Agrypnus murinus* (Linnaeus) or *Prosternon tessellatum* (Linnaeus). In the circumstances I believe the best course is to regard it as unrecognized.

Elater thoracicus Scopoli

Elater thoracicus Scopoli, 1763 : 92.

As Scopoli's collection seems to have been destroyed (Horn & Kahle, 1936 : 252; Higgins, 1963 : 167) there is no means of telling whether Fabricius' (1775 : 211) synonymy with *tessellatus* Fabricius (= *Actenicerus sjællandicus* Müller) or Schrank's (1872 : 164) synonymy with *murinus* Linnaeus (*Agrypnus*), which is given in the Junk Catalogue, is correct. The description could apply to either species. In my opinion the species is best regarded as unrecognized.

Lacon adanensis Jagemann [p. 12]

See *Adelocera pygmaeus* (Baudi) p. 190.

Lacon anathesinus Candèze [p. 12]

See *Agrypnus anathesinus* (Candèze) p. 207.

Lacon senilis Peringuey

Lacon senilis Peringuey, 1892 : 44.

Adelocera senilis (Peringuey) Fleutiaux, 1926 : 99.

The description is based on an unrecorded number of specimens presumably (Peringuey, loc. cit. : 1) collected by Mr A. W. Eriksson in Northern Ovampoland [or Ovamboland, South West Africa, probably the area between 15°15' S to 20°45' S and 15° E to 21°20' E, see Trimen, 1890 : 59]. On two occasions Eriksson presented his collection to the South African Museum, Cape Town (Peringuey, loc. cit. : 1) and according to Horn & Kahle (1936 : 205) part of the Peringuey collection is also there. Dr A. J. Hesse has searched the SAM, Cape Town collections on my behalf but has been unable to find *senilis*. The remainder of the Peringuey collection is in the Transvaal University collection, but up till now Dr S. Endrody-Younga has not been able to find *senilis*.

The species was omitted from the Junk catalogue. There have been no subsequent records of this species.

Lacon tristis Blanchard

Lacon triste [sic] Blanchard, 1853 : 86, pl. 6, fig. 8.

Adelocera tristis (Blanchard) Fleutiaux, 1926 : 96.

The description is based on an unrecorded number of specimens collected at 'Triton Bay [West Irian] sur la côte sud de la Nouvelle Guinée' in the course of the voyage of the *Astrolabe* and *Zélée* (J. Dumont D'Urville and Jacquinot) between 1837 and 1840. Although the type-material of *Agrypnus nigroplagiatus* Blanchard (= *Lacon modestus* (Boisduval) (see Hayek, 1973 : 71)), which was described at the same time, was found in the MNHN, Paris, I have been unable to find any *tristis* syntype-material.

Blanchard comments that the species resembles *Lacon humilis* Erichson (= *Agrypnus*, see Hayek, 1973 : 165) and the figure suggests a species similar to *Agrypnus gracilis* (Candèze) but, in the absence of the type-material I consider it unwise to make a generic attribution.

Lacon variegatus Motschulsky

Lacon variegatus Motschulsky, 1854 : 45.

Brachylacon variegatus (Motschulsky) Yakobsen, 1913 : 736.

Adelocera variegatus (Motschulsky) Fleutiaux, 1926 : 96.

The description is based on an unrecorded number of specimens measuring 6 l. (= 13·5 mm if French lines used) collected by Tatarinoff and Gaschkewitsch near Pekin. What became of this collection is not recorded. If the specimens were acquired by Motschulsky they should be in ZM, Moscow.

As Motschulsky's interpretation of *Lacon* appears to have been that of other workers at that time (see *Agrypnus binodus* (Motschulsky), Hayek, 1973 : 131) this is probably an *Agrypnus* species, but without examination of authentic material it is impossible to confirm this.

Continuation of and additions to the annotated catalogue of all species of Agrypninae [p. 12]

ADELOCERA Latreille [p. 13]

The relationships of the genus are discussed in the Appendix, p. 252.

DISTRIBUTION [p. 22]. With the transference of *minutus* (Candèze) to *Stangellus* (see p. 192) the distribution of *Adelocera* becomes limited to the Ethiopian and Oriental regions.

SPECIES INCLUDED IN THE GENUS [p. 22]. With the transference of *A. minutus* (Candèze) to *Stangellus* and the assignment of 6 species to *Adelocera* the genus now includes 80 species.

Adelocera acerbus (Candèze) comb. rev.

Lacon acerbus Candèze, 1888 : 670.

Adelocera acerbus (Candèze); Fleutiaux, 1926 : 96.

Agrypnus acerbus (Candèze); Hayek, 1973 : 120.

Holotype. BURMA: ♂ Bhamo, Birmania, Fea, viii.1885; Typus; *acerbus* Cand. [unknown handwriting replacing Candèze's determination label which is stuck on an index card] (MCSN, Genoa).

The determination label is probably a replacement for Candèze's label which is almost certainly stuck on an index card. See also Van Zwaluwenburg (1959 : 352), *Adelocera (Compsolacon) beccari* [sic] (Candèze).

Adelocera aethiopicus (Candèze) [p. 23]

Brachylacon aethiopicus (Candèze) Cobos, 1964 : 586. Omitted from Hayek (1973).

Adelocera borneoensis (Ohira) comb. n.

Brachylacon (Brachylacon) borneoensis Ohira, 1973a : 106, fig. 41.

Holotype. BORNEO (Sabah): ♀, Forest Camp, 19 km N. of Kalabakan (BPBM, Honolulu, Type No. 9852). Not examined.

Paratype. BORNEO (Sarawak): ♀, Sarika Dist., Rejang Delta, 15–26.vii.1958; T. C. Maa (Ohira collection). Examined.

Adelocera difficilis (Lewis) [p. 28]

Additional paralectotypes examined: JAPAN: 4♂, 2♀, Japan, G. Lewis, 1910 : 320 (BMNH). The specimens lack any indication of the locality but I believe I am justified in regarding them as part of the syntype series (see Hayek, 1973 : 277).

Adelocera exiguus (Candèze) [p. 30]

Lacon exiguus Candèze, 1897 : 10.

Brachylacon (Brachylacon) tawauensis Ohira, 1973a : 107, fig. 1B, 4M. **Syn. n.**

Brachylacon (Brachylacon) tawauensis Ohira. Holotype. BORNEO (Sabah): ♀, Tawau Residency Kalabakan R. (BPBM, Honolulu, Type No. 8958). Not examined.

Paratype. BORNEO (Sabah): ♀, British N. Borneo, Tawau Residency, Kalabakan R., Tawau 48 km W, 9–18 xi '58; Prunay Forest; T. C. Maa Collector (Ohira collection). Examined.

Adelocera gressitti (Ohira) comb. n.

Brachylacon (Aganlacon) gressitti Ohira, 1972b : 3.

Holotype. TAIWAN. ♀, Hassenzan, 24.vi.1934 (J. L. Gressitt) (BPBM, Honolulu. Type No. 9485).

The generic attribution is based on the following specimen kindly lent to me by Dr Ohira: ♂, Liukuei, Formosa, 13 viii 1972 Y. Maeda.

Adelocera hilaris (Candèze) [p. 34]

Holotype. BURMA: sex unknown, Carin Cheba, 900–1100 m, L. Fea, V.xii.88; Typus; *hilaris* Cand. [unknown handwriting replacement label, see *Adelocera acerbus* (Candèze) above] (MCSN, Genoa).

The inclusion of *hilaris* Candèze in *Adelocera* is fully justified.

Adelocera microcephalus (Motschulsky) [p. 38]

I have examined the following specimens from published localities. They are not *microcephalus* (Motschulsky) and belong to a species unknown to me.

1 ♂, Palon (Pegu) L. Fea VIII-IX 87 (Candèze, 1891a : 777). 2 ♀, Sumatra Si Rambe XII 90-III 91 E. Modigliani (Candèze 1894 : 486) (MCSN, Genoa).

Adelocera minicephalus (Ohira) comb. n.

Brachylacon (*Brachylacon*) *minicephalus* Ohira, 1970b : 236, pl. 8, fig. E.

Holotype. SINGAPORE: ♂, Singapore, 1897 (TM, Budapest).

The generic attribution is based on the description.

Adelocera minusculus (Candèze) [p. 39]

Additional paralectotype examined. INDIA: 1 ex., Bombay; *minusculus* Cdz. *Bombay* Murr. [Cand., yellow border]; Collection E. Candèze; *Lacon minusculus* Cd. det. E. Candèze [IRSNB curatorial label] (IRSNB, Brussels).

Adelocera minutus (Candèze) [p. 39]

See *Stangellus minutus* (Candèze) p. 192.

Adelocera nebulosus (Candèze) [p. 40]

Additional paralectotype examined. 1 ex., Indes Orientales; *nebulosus* Cdz. Ind. Or. [Cand., yellow border]; Collection E. Candèze; *Lacon nebulosus* Cd. det. E. Candèze [IRSNB curatorial label] (IRSNB, Brussels).

Adelocera palawanensis (Ohira) comb. n.

Brachylacon (*Brachylacon*) *palawanensis* Ohira, 1974 : 165.

Holotype. PHILIPPINES: ♂, Palawan, Uring Uring, 14.viii.1961. Collected by the Noona Dan Expedition 1961-62 (UZM, Copenhagen).

The generic attribution is based on the description.

Adelocera pygmaeus (Baudi) [p. 45]

Lacon pygmaeus Baudi, 1871 : 49.

Lacon adanensis Jagemann, 1944 : 333. **Syn. n.**

Lacon adanensis Jagemann. LECTOTYPE (present designation). TURKEY: ♂, Asia min. Adana, 06.; *Lacon adanensis* Jg. Type. Det. Jagemann [Jagemann] (NM, Prague).

Adelocera quadriguttatus (Candèze) [p. 45]

Holotype. SUMATRA: probably ♂, Pangherang. Pisano x.90 e iii.91 E. Modigliani Type; *quadriguttatus* Cand.; *Lacon quadriguttatus* Cand., n. sp. [Cand.] (MCSN, Genoa).

Adelocera sarawakensis (Ohira) comb. n.

Brachylacon (*Brachylacon*) *sarawakensis* Ohira, 1973a : 107, fig. 4K.

Holotype. BORNEO (Sarawak): ♀, Nanga Pelagus nr. Kapit. (BPBM, Honolulu). Not examined.

Material examined. BORNEO (Sabah): 1 ♀, North Borneo (SE), Forest Camp, 19 km N of Kalabakan 27.x.1962 Y. Hirashima. Malaise Trap (Ohira collection).

Adelocera subcostatus (Candèze) [p. 48]

Holotype. BURMA: ♀, Carin Ghecu [sic], 1300–1400 m, L. Fea, 11–iii.88; Type; subcostatus Cand. [unknown handwriting replacement label, see *Adelocera acerbus* (Candèze) p. 189] (MCSN, Genoa).

Adelocera tumidipennis (Candèze) [p. 50]

Lectotype, TANZANIA: sex undetermined; Viag. Raffray, Acq. Deyrolle; Type; tumidipennis Cand. [unknown handwriting replacement label, see *Adelocera acerbus* (Candèze) p. 189] (MCSN, Genoa).

Additional paralectotypes examined. TANZANIA: 1 ex., n. sp. tumidipennis Cdz. Zanzibar [Cand., blue border]; Collection E. Candèze; Lacon tumidipennis Cd. det. E. Candèze [IRSNB curatorial label]; Type 1 ex., Zanzibar, Raffray; Lacon tumidipennis Cd. det. E. Candèze [IRSNB curatorial label] (IRSNB, Brussels).

***STANGELLUS* Golbach**

Stangellus Golbach, 1976 : 256. Type-species: *Stangellus bucheri* Golbach, by monotypy.

GENERIC DIAGNOSIS. Each claw with a group of setae at the base (1973 : Fig. 11). Tibial spurs absent (1973 : Fig. 10). Mesepisternum does not form part of margin of mesocoaxal cavity; mesepimeron forms part of margin of mesocoaxal cavity (1973 : Fig. 3). Second and third antennal segments subequal, each smaller than the fourth and following segments (1973 : Fig. 13). Antennal groove attaining the anterior coxae. Vestiture scale-like. Propleurae and metasternum without well defined tarsal grooves. Scutellum not carinate. Tarsi with or without ventral lobes.

The antennal structure of *Stangellus* and *Adelocera* is similar but the two genera differ in the length of the prosternal antennal groove. *Stangellus* differs from *Lacon* in the structure of the antennae but the long antennal groove which attains the anterior coxae resembles the condition found in many *Lacon* species. The male of *S. massula* is unknown, but the aedeagi of *bucheri* and *minutus* have the long lateral lobe and shorter median lobe characteristic of many species of *Lacon*. To the best of my belief this condition does not occur in *Adelocera*.

Two species are here transferred to *Stangellus*. In *S. minutus* (Candèze) the third tarsal segment is strongly oblique and the fourth distinctly lobed, a condition strongly reminiscent of that found in *Dilobitarsus*.

The characteristics by which *Adelocera*, *Dilobitarsus*, *Lacon* and *Stangellus* are separated (the size of the second and third antennal segment, length and depth of the antennal grooves and the presence or absence of tarsal lobes) are known to show considerable inter-specific variation within the Elateridae. At present it is possible to assign all known Agrypnine species to a genus but I suspect that as more material becomes available more 'borderline' species will occur. Before yet more genera are erected to accommodate them I believe a reappraisal of the value of the characters used and a search for new characters should be made. A study of the female genitalia may help to clarify the situation.

The relationships of the genus are discussed in the Appendix, p. 151.

DISTRIBUTION. Species belonging to this genus occur in Mexico, Brazil and the Argentine.

BIOLOGY AND HABITS. Nothing is known of the biology or habits of *Stangellus* species.

SPECIES INCLUDED IN THE GENUS. Three species are included in the genus. The MNHN, Paris possesses a single ♀ specimen of a new species from Argentina (Jatahay, Goyaz).

***Stangellus bucheri* Golbach**

Stangellus bucheri Golbach, 1976 : 257.

Holotype. ARGENTINA: ♂, La Soladad, 11 km west of La Cejas Dep. Cruz Alta. Tucuman 14.x.1965. E. Bucher (FML, Tucuman).

Allotype ♀, paratypes, 2 ♂, same locality and collector (FML, Tucuman). 1 ♂, same locality and collector, kindly presented by Dr Golbach (BMNH).

***Stangellus massulus* (Candèze) comb. n.**

Adelocera massula Candèze, 1882 : 2.
Lacon massulus (Candèze) Fleutiaux, 1926 : 93.

LECTOTYPE (present designation). MEXICO: ♀, n. sp. *massula* Cdz. Mex. [Cand., green border]; *Adelocera massula* Cand. det. E. Candèze [IRSNB curatorial label]; Collection E. Candèze (IRSNB, Brussels).

***Stangellus minutus* (Candèze) comb. n.**

Dilobitarsus minutus Candèze 1878b : 11 (6)
Adelocera minutus (Candèze) Hayek, 1973 : 39.

Up till now I regarded this as the only known Neotropical *Adelocera* species.

In general appearance, and especially in the form of the posterior half of the prosternum the sides of which fall almost vertically to the antennal grooves, this species bears a strong resemblance to certain *Adelocera* species (e.g. *microcephalus* (Motschulsky)) in which the posterior portion of the prosternum bears two lateral longitudinal carinae from which the sides fall fairly steeply to the sternopleural suture. A re-examination of the lectotype of *minutus* has shown that the antennal grooves attain the anterior coxae. The aedeagus has the short median and long lateral lobes which are characteristic of many *Lacon* species. To the best of my belief this condition does not occur in *Adelocera* species.

S. minutus differs from the other *Stangellus* species in that the third tarsal segment is obliquely truncate and the fourth distinctly lobed.

LACON Castelnau [p. 52]

The relationships of the genus are discussed in the Appendix, p. 151.

SPECIES INCLUDED IN THE GENUS [p. 56]. The generic attribution of 11 species has been confirmed, 9 species are transferred to the genus, 1 species is restored to the genus and 2 species placed in synonymy. The genus now includes 125 species.

***Lacon altaicus* (Candèze) [p. 56]**

Syntype examined. MONGOLIA: 1 ex., n. sp. *altaicus* Cdz. Altai [Cand., yellow border]; Type; Collection E. Candèze; *Adelocera altaicus* Cd. det. E. Candèze [IRSNB curatorial label] (IRSNB, Brussels).

***Lacon anthracinus* (Candèze)**

Adelocera anthracina Candèze, 1900 : 77 (1).
Lacon anthracinus (Candèze) Fleutiaux, 1926 : 93.

LECTOTYPE (present designation). MADAGASCAR: ♀, n. sp. 1897 *anthracina* Cand. Madag. St. [Candèze, blue border]; Collection E. Candèze; *Adelocera anthracina* Cd. det. E. Candèze [IRSNB curatorial label]; vid Fleutiaux 1942 *Adelocera anthracina* (IRSNB, Brussels).

***Lacon atterimus* (Candèze) [p. 57]**

The lectotype designation is erroneous. The specimen is 24 mm long compared with the published length of 18 mm. Since Candèze was generally fairly accurate in his measurements I suspect that he did not have the Paris specimen before him at the time of the description. The specimens are conspecific.

LECTOTYPE (present designation). MADAGASCAR: ♂, Madag; C.M.; n. sp. afterima Cdz. Mad. Mn. [Candèze, blue border]; Collection Candèze; Adelocera afterima Cd. det. E. Candèze [IRSNB curatorial label]; Type (IRSNB, Brussels). Length 19 mm.

***Lacon aurosquamatus* (Jagemann) comb. n.**

Adelocera aurosquamata Jagemann, 1944 : 332.

LECTOTYPE (present designation). TURKEY: ♂, Asia Minor Amasia; *Adelocera aurosquamata* Jg. Typus. Det. Jagemann [Jagemann] (NM, Prague).

This species bears a very close resemblance to *L. lepidopterus* (Panzer). It seems probable that, when more material of both sexes becomes available, the two species will be found to be conspecific.

***Lacon balachowskyi* Girard**

Lacon balachowskyi Girard, 1971 : 561, figs 9, 10.

Holotype. ♂ (MNHN, Paris). Allotype ♀, paratypes 1 ♂, 1 ♀ (location unknown). IVORY COAST: Lamto, 8-4 et 10.4.1964 (Y. Gillon), 9-3 et 24.3.1968, 8.4.1969 (C. Girard et R. Vauttaux), à la lumière. Not examined. The generic attribution is accepted on the basis of the figures.

***Lacon boninensis* (Ohira) comb. n.**

Alaotrypus boninensis Ohira, 1970a : 11, figs 1, 2.

Type. JAPAN: Ogasawara Gunto [Bonin Island] ♂, Chechi-jima (NSM, Tokyo). Not examined. Paratype ♀, Hakajima 4-iv.1970, K. Kojima (Ohira collection). Examined.

***Lacon brasiliensis* (Castelnau) sp. rev., comb. n.**

Adelocera brasiliensis Castelnau, 1836 : 14.

Adelocera rubra (Perty); Candèze, 1857 : 67, pars.

[*Adelocera rubra* (Perty); Candèze, 1889 : 71. Misidentification].

The description is based on an unrecorded number of large specimens (18 (? French) lig. =40–45 mm) from Brazil in which the posterior two-thirds of the elytral suture is black. I have been unable to locate these specimens in the IRSNB, Brussels and Dr Neboiss informs me that they are not in the NMV, Melbourne.

Apart from the size Castelnau's description fits a female specimen (length 28 mm) in the BMNH bearing Candèze's determination label 'rubra Perty'. This specimen is not conspecific with the lectotype of *Lacon ruber* Perty which does not have distinct black markings on the thorax or elytra. Selection of a neotype of *brasiliensis* is postponed until more material in better condition becomes available.

Germar (1840 : 253, pl. 1, figs 2, 2a) synonymized *brasiliensis* with *Agrypnus ruber* Perty. A female specimen on which Germar may have based his interpretation of *ruber* is in the BMNH. The specimen, which is from the Schaum collection, bears Germar's determination label: validus m. *ruber* Perty. The name *validus* was never published. It is not *ruber* Perty but conspecific with the specimen believed to be *brasiliensis* Castelnau recorded above.

Candèze (1857) states that *rubra* varies in size and is brown-red in colour but that some specimens are more reddish with the margins of the elytra brown. In 1889 Candèze described *castelnau* and his comments show that at that time he regarded *rubra* as having the suture and margins of the elytra black.

Lacon cantaloubei (Girard) comb. n.

Sulcilacon cantaloubei Girard, 1969 : 222, figs 1, 3.

Holotype. CAMEROUN: ♂ Douala, bois de Singes, X-1958 (*J. Cantaloube*) (MNHN, Paris). Not examined. The generic attribution is based on the figures.

Lacon carinensis (Candèze) [p. 59]

Holotype. BURMA: ♂, Carin Ghecu 1300–1400 m. L. Fea 11–iii.88 Type; 26 [refers to aedeagus which is mounted between two cover strips and stands next to the holotype with the collection]; *carinensis* Cand. [unknown handwriting replacement label, see *Adelocera acerbus* (Candèze) p. 189]; Redescritto in Boll. Soc. Ent. 11 G. Binaghi det. 1941 (MCSN, Genoa).

Lacon castelnoui (Candèze) [p. 59]

A synonym of *Lacon ruber* (Perty), see p. 200.

Lacon churakagi (Ohira) comb. n.

Alaotypus churakagi Ohira, 1971a : 39.

Holotype. JAPAN (Ryukyu Is.): ♂, Iriomote Is., 5.viii.1968, H. Ohira (Ohira coll.).

Lacon cinctus (Candèze) [p. 60]

LECTOTYPE (present designation). SUMATRA: sex undetermined, *cincta* Cdz. Sumatra [Candèze, yellow border]; Type; Collection E. Candèze; *Adelocera cincta* Cd. det. E. Candèze [IRSNB curatorial label] (IRSNB, Brussels).

Lacon cognatus (Candèze) [p. 61]

Holotype. ENGGANO: ♂, Engano, Bua Bua v–vi Modigliani 1891; 20 [refers to aedeagus which is mounted between two cover strips and is pinned in the collection beside the holotype]; Type; *cognatus* Cand. [unknown handwriting replacement label, see *Adelocera acerbus* (Candèze) p. 189] (MCSN, Genoa).

Lacon collisus (Candèze)

Adelocera collisa Candèze, 1889 : 70.

Lacon collisus (Candèze); Fleutiaux, 1926 : 93.

LECTOTYPE (present designation). SIKKIM: sex not determined, n. sp. *collisa*. Cdz. Ind. [Cand., yellow border]; Type; Collection E. Candèze; *Adelocera collisus* Cd. det. E. Candèze [IRSNB curatorial label]; Revision Ed. Fleutiaux (IRSNB, Brussels).

The published locality is Sikkim, Himalaya.

Lacon cribratus (Candèze) [p. 61]

The specimen from the Guérin-Méneville collection on which Candèze based his description has not been located. The IRSNB, Brussels possesses two specimens from Malacca from the Candèze collection one of which bears Candèze's yellow-bordered determination label. These are presumably the specimens to which Candèze (1874 : 25) refers.

Lacon dorsalis (Candèze) [p. 62]

Adelocera dorsalis var. *obscuripennis* Fleutiaux, 1903b : 263.

Adelocera auricollis Schwarz, 1905b : 273. [Synonymized with *dorsalis* var. *obscuripennis* Fleutiaux, 1903 by Fleutiaux, 1907a : 162.] [Synonymy confirmed.]

Adelocera dorsalis Candèze. Additional syntype examined. MADAGASCAR: 1 ex., *dorsalis* Cdz. Madag. [Cand., blue border]; Type Coll. Mn.; Collection E. Candèze (IRSNB, Brussels).

Adelocera dorsalis obscuripennis Fleutiaux. LECTOTYPE (present designation). MADAGASCAR: ♀ Montagne d'Ambre; *dorsalis* v. *obscuripennis* Fleut. Type [Fleut.] (MNHN, Paris).

Paralectotype. MADAGASCAR: 1 ♀, Diego Suarez; *dorsalis* Cand. *obscuripennis* Fleut. ♀ [Fleut.] (MNHN, Paris).

Adelocera auricollis Schwarz. LECTOTYPE (present designation). MADAGASCAR: ♂, Cap d'Ambre Madagascar ex Coll. F. Schneider, Coll Schwarz; Typus; *auricollis* Schw. [Schwarz]; *auricollis* Schw. *obscuripennis* Fleut. [Fleut.] (DEI, Eberswalde). Length 26 mm.

Paralectotype. MADAGASCAR: 1 ♂, Diego Suarez; Typus, coll Schwarz (DEI, Eberswalde). Length 20 mm.

Schwarz was mistaken in his belief that the larger specimen was a female.

Lacon dorsalis obscuripennis appears to be restricted to the northern part of Madagascar. In addition to the type-material I have examined the following specimens: 2 ♂, 1 ♀, 1 ex., Diego Suarez; 4 ♀, 4 ex., Montagne d'Ambre; 1 ex., Region de Sakarami [12°26' S, 49°24' E] (MNHN, Paris).

Lacon dorsalis dorsalis has been taken at various places throughout the length of eastern Madagascar, e.g. Bai d'Antongil, Fénérive, Lac Alaotra, Tananarive, Fianarantsoa and Fort Dauphin. Material from these localities is preserved in the MNHN, Paris.

The 1973 amendment to the ICZN Article 45(e)(i) requires that the term variety used before 1961 be interpreted as denoting subspecific rank. It would appear that in this case subspecific rank is justified.

Lacon duchoni (Schwarz)

Alaotypus duchoni Schwarz, 1905a : 257.

Adelocera duchoni (Schwarz); Schenkling, 1925 : 12.

Lacon duchoni (Schwarz); Fleutiaux, 1926 : 93.

The description is based on 3 specimens from INDIA: Assam, Koshima received from Dohrn.

Syntype-material. DEI, Eberswalde.

The generic attribution is based on the description.

Lacon fairmairei (Candèze)

Anacantha fairmairei Candèze, 1882 : 3.

Adelocera fairmairei (Candèze) Fleutiaux, 1907 : 166.

Lacon (Cornilacon) fairmairei (Candèze) Golbach, 1970b : 327.

Lectotype (Fleutiaux, 1907 : 166). CHILE. ♀, Chile [bottom left hand corner of Candèze green bordered label]; Type; *Acacantha fairmairei* Cd. det. E. Candèze [IRSNB curatorial label]; Collection E. Candèze (IRSNB, Brussels).

Candèze based his description on an unrecorded number of specimens. Fleutiaux's (1907 : 166) statement that he saw 'le type unique' from the Brussels Museum is here accepted as the lectotype designation. It must be assumed that Candèze's determination label has been lost.

Lacon foveatus (Candèze) [p. 64]

Adelocera foveata Candèze, 1895b : 52.

Lacon olsoufieffi Fleutiaux, 1932f : 450. **Syn. n.**

Lacon olsoufieffi Fleutiaux; Hayek, 1973 : 73.

Adelocera foveata Candèze. Holotype. MADAGASCAR: ♀, n. sp. *foveata* Cand. Mad. du Buys [Cand., blue border], Tamatave Pre [? illegible] Samuel; Collection E. Candèze; *Adelocera foveata* Cd. det. E. Candèze [IRSNB curatorial label]; vid E. Fleutiaux 1942, *Adelocera foveata* Cand. (IRSNB, Brussels).

Although the title of Candèze's paper suggests that the species listed and described therein were all collected by Alluaud in Diego Suarez, it is quite clear (e.g. p. 54, *Lacon procellosus* is described from specimens collected at Imerina by Sikora) that Candèze included material from other sources. Although Alluaud did pass through Tamatave (Jeannel, 1952 : 7) it seems probable that the type of *foveata* was acquired from du Buysson and had been collected by one of the many missionaries active at that time.

Lacon griseus (Schwarz)

Adelocera grisea Schwarz, 1900 : 98.
Lacon griseus (Schwarz); Fleutiaux, 1926 : 93.

The description is based on a single specimen from Buchara [Uzbekistan, U.S.S.R.] submitted by Prof. Dr O. Schneider.

Holotype. ? DEI, Eberswalde.

The generic attribution is based on the description and Schwarz's comment that the species resembles *funebris* Solsky (= *Lacon*, see Hayek, 1973 : 64).

Lacon inaequalis (Candèze) [p. 66]

Paralectotype. COLOMBIA: ♀, *inaequalis*; Cand. type; *inaequalis* Cd. N. Gran. [? Cand.]; Collection E. Candèze; *Adelocera inaequalis* Cd. det. E. Candèze [IRSNB curatorial label] (IRSNB, Brussels).

Lacon insularis (Candèze)

Adelocera insularis Candèze, 1889 : 70.
Lacon insularis (Candèze) Fleutiaux, 1926 : 93.

LECTOTYPE (present designation). ANDAMAN ISLANDS: ♀, And. Is.; n. sp. *insularis* Cd. And. [Cand., yellow border]; Collection E. Candèze; *Adelocera insularis* Cd. det. E. Candèze [IRSNB curatorial label]; Type (IRSNB, Brussels).

Lacon javanus (Candèze)

Adelocera javana Candèze, 1893b : 6.
Lacon javanus (Candèze) Fleutiaux, 1926 : 93.

Syntypes examined. JAVA: 1 ex., Mt. Tsikorai [sic] 4000 pds. Préangers; *javanus* Cand. Java Pre. [Cand.]; Collection E. Candèze; *Adelocera javana* Cd. det. E. Candèze [IRSNB curatorial label]; 2. 1 ex., Collection E. Candèze; *Adelocera javana* Cd. det. E. Candèze [IRSNB curatorial label]; 1 (IRSNB, Brussels).

The description is based on an unrecorded number of specimens from Java; Monts Tjikorai [Chicorai 7°20' S, 107°58' E] Préangers measuring between 15 and 17 mm in length and 4–5 mm in width. The two specimens examined measure 18 mm and 15 mm respectively. The numbers were probably attached by Van Zwaluwenburg. He did not publish a lectotype designation.

Lacon lepidopterus (Panzer) [p. 68]

Elater lepidopterus Panzer, 1801 : part 76, no. 4.
Elater chrysoprasus Herbst, 1806 : 18, pl. 159, fig. 12. [Synonymized by Gyllenhal, 1808 : 379.] [Synonymy confirmed.]
Elater grafi Schmidt, 1832 : 83. [Synonymized by Kiesenwetter, 1863 : 232.] [Synonymy confirmed.]

Elater lepidopterus Panzer. Eisinger (1919 : 91) states that the fate of Panzer's library and collection is unknown. Dr Hieke (pers. comm.) has told me that the NMHU, Berlin collection may contain some of Panzer's specimens but as all the old collections were amalgamated many years ago (see Hayek, 1973 : 275, Gerstaecker) it is impossible to identify them. The MNU, Berlin contains 4♂ and 1♀ specimens standing beside the following manuscript label in an unknown hand: El. lepidoptera Gyll. Panz. Mik. Bohem.. One of the males bears the number 16064 and the female the number 85 in manuscript. One or more of these specimens may come from the Panzer collection and some may be *chrysoprasa* Herbst (see below). As the provenance of all the specimens is uncertain I consider it best not to select a lectotype. Fortunately there is no doubt concerning the identity of the species: all the specimens are the species generally known as *Lacon lepidopterus* (Panzer).

Elater chrysoprasus Herbst. The description is based on an unrecorded number of specimens and the figure of a specimen in the Hellwig collection. In the text Herbst refers to fig. 11 but in the caption to the plates fig. 11 is entitled *Elater pectinicornis* (which it undoubtedly is) and fig. 12 *chrysoprasus*. Gyllenhal was aware of Herbst's mistake and refers to fig. 12.

The Hellwig collection is now in the NMHU, Berlin (Horn & Kahle, 1935 : 108). Through the kindness of Dr Hieke I have been able to examine the specimens listed above under *lepidopterus* Panzer. It is believed that the series may include Herbst's material (see above).

Elater graffi Schmidt. The description is based on an unrecorded number of specimens measuring 6–7 lines (=13·1–15·3 mm if German lines are intended) collected in Krunberg in Krain [Jugoslavia] by beating a hazelnut bush in July 1832.

LECTOTYPE (present designation). ♂ in the Schmidt collection (Slovenian Natural History Museum, Ljubljana). Length: 13·2 mm.

Paralectotype. 1♀ with a small green label standing beside the lectotype. (Slovenian Natural History Museum, Ljubljana). Length: 13·2 mm.

The specimens stand beside an oval label with serrated edge with 'Adelocera lepidopterus Gyll.' and an illegible word in an unknown handwriting. It seems probable that this is a replacement of Schmidt's original label.

Lacon lithophilus (Candèze) [p. 69]

Syntype examined. EGYPT: 1 ex., lithophila Cd. Aegypt [Cand.]; Collection E. Candèze; Adelocera lithophila Cd. det. E. Candèze [IRSNB curatorial label] (IRSNB, Brussels). The abdomen is missing.

Lacon luzonicus (Candèze) [p. 70]

Syntypes examined. PHILIPPINES (Luzon): 1♀, A. luzonica Cd. [Cand.] Marweles [?] Febr. 61 1000–4000; Luzonica Cd. Phil. [Cand., yellow border]; Type; Collection E. Candèze; Adelocera luzonica Cd. det. E. Candèze [IRSNB curatorial label]; lectotype V. Zwal. 1957. 1♀, Collection E. Candèze; Adelocera luzonica Cd. det. E. Candèze [IRSNB curatorial label] (IRSNB, Brussels).

Candèze states that he had a male and female. Van Zwaluwenburg did not designate a lectotype.

Lacon maeklinii (Candèze) [p. 70]

Alaotrypus maeklinii (Candèze) Ohira, 1967b : 99.

Lacon maklini Candèze; Hayek, 1973 : 70. [Incorrect subsequent spelling.]

Syntype examined. JAPAN: 1 ex., mäklinii Cand. Jap. [Cand., yellow border]; Collection E. Candèze; Adelocera maklini [sic] Cd. det E. Candèze [IRSNB curatorial label]; (IRSNB, Brussels). The abdomen is missing.

Lacon maenamii (Ohira) comb. n.

Alaotypus maenamii Ohira, 1969b : 41, figs 1, 4a.

Holotype. JAPAN: ♀, Kashidate, Hachijo 1, Izu 3–4.vii.1967 T. Maenami leg. (Ohira coll.). Hachijo Island lies about 200 miles south of Tokyo.

Lacon mekrani (Candèze)

Adelocera mekrani Candèze, 1889 : 71 (5).

Adelocera makrani Schenkling, 1925 : 10. [Unjustified emendation.]

Lacon mekrani (Candèze) Fleutiaux, 1926 : 93.

LECTOTYPE (present designation). PAKISTAN: ♂, Beluchistan 7085, n. sp. mekrani Cdz. Belouchist. [Cand., yellow border]; Type; Collection E. Candèze; Adelocera mekrani Cd. det. E. Candèze [IRSNB curatorial label] (IRSNB, Brussels).

Lacon mexicanus (Candèze) [p. 71]

Additional syntype examined. MEXICO: 1 ex., mexicana Cdz. Mex. [Cand., green border]; mexicana; Cand. type; Collection E. Candèze; Lacon mexicana Cd. det. E. Candèze [IRSNB curatorial label] (IRSNB, Brussels). This is presumably the specimen to which Van Dyke (1943 : 44) refers. It is 22 mm long.

Lacon mixtus (Candèze)

Adelocera mixta Candèze, 1878b : LII (5).

Lacon mixtus (Candèze) Fleutiaux, 1926 : 93.

LECTOTYPE (present designation). MEXICO: sex undetermined, n. sp. mixta Cdz. Mex. [Cand.]; Mexique; Type; Collection E. Candèze; Adelocera mixta Cd. det. E. Candèze [IRSNB curatorial label] (IRSNB, Brussels).

Lacon modestus (Boisduval) [p. 71]

Elater castanidens Gyllenhal, 1817 : 134, no. 183.

Elater modestus Boisduval, 1835 : 108. Syn. n.

Agrypnus pruinosus Fairmaire, 1849 (January) : 35.

Adelocera pruinosa (Fairmaire, 1849a (July) : 359.) [Synonymized with *modestus* Boisduval by Candèze, 1857 : 71.] [Synonymy confirmed.]

Adelocera modesta var. *guadulpensis* Fleutiaux & Sallé, 1890 : 407(51). [Synonymized by Fleutiaux, 1926 : 94.] [Synonymy confirmed.]

Adelocera vicina Candèze, 1891c : 772. [Synonymized by Fleutiaux, 1926 : 94.] [Synonymy confirmed.]

Adelocera modesta var. *tessellata* Candèze, 1893b : 6. [Synonymized by Fleutiaux, 1926 : 94.] [Synonymy confirmed.]

Lacon vicinus (Candèze) Hayek, 1973 : 84.

Elater castanidens Gyllenhal. Syntype examined. 1 ♂, India Orientali. Kymell. (NR, Stockholm.)

The description is based on an unrecorded number of specimens from India Orientale, Dom. Kymell, Schonherr & Gyllenhal. The specimen recorded above stands in the Schonherr collection under the name *castanidens* Gyllenh. Spec Ins. 183.

The name *castanidens* does not appear in the Schenkling (1925) catalogue nor, to the best of my belief, has it been used elsewhere. *L. modestus* (Boisduval) is a very widespread species to which a number of authors have referred. In the interests of stability I have retained the name, pending an application to the I.C.Z.N. for a decision under The Plenary Powers (I.C.Z.N. Article 23 revised 1972).

Agrypnus pruinosus Fairmaire. Syntypes examined. SOCIETY ISLANDS: 1 ♂, Vesco, Taiti; *Adelocera pruinosa* Taiti [? Fairm.] Janson Coll. 1903: 130 (BMNH) 1 ex., Tahiti, Vesco 2.45; *Adelocera* Lat. *Agrypnus modestus* Boisduval *Adelocera pruinosa* Fairmaire [unknown handwriting]. 4 ex., same locality (MNHN, Paris).

Adelocera pruinosa Fairmaire. The Latin descriptions of *Agrypnus pruinosus* and *Adelocera pruinosa* Fairmaire are identical. As in the case of *Adelocera squalida* Fairmaire (see p. 186) the Latin description of *Adelocera pruinosa* is augmented by a longer French description. It seems probable that at some time between preparing the two descriptions Fairmaire decided that *pruinosus*, like *squalidus*, was better accommodated in *Adelocera* than *Agrypnus*. I believe that there can be no doubt that both descriptions are based on the same material. Fairmaire (1849 : 360) records that he examined 'une dizaine' specimens collected by Vesco. This collection, or at least part of it, appears to be in the MNHN, Paris. The specimen in the Janson collection was presumably acquired by exchange or purchase.

Adelocera modesta var. *guadulpensis* Fleutiaux & Sallé. Holotype. GUADELOUPE: ? ♀, 2 small grey labels with illegible numbers; *guadulpensis* Ch. Gudalp.; Collection Chevrolat; *Adelocera modesta* v. *guadulupensis* (Chv.) [Fleut.]; v. *guadulpensis* Cand. Mon. type [Fleut.]; Fleut. Ann. Fr. 1911 p. 265 [Fleut.]. The specimen stands over a green Chevrolat collection label: *Adelocera modesta* Boisd. Cand. *guadulpensis* Chev. olim. Mardemir Guadalpia [?, illegible]. D. Lherminier (MNHN, Paris).

Fleutiaux, (1911 : 246) credits the species to Candèze (1857 : 72) but as Candèze merely commented that he saw specimens of *modestus* Boisduval from the Antilles collected by Sallé standing under the name in the Chevrolat collection, the name *guadulpensis* cannot in my opinion be credited to Candèze.

Adelocera vicina Candèze. Examination of the available material of *modestus* Boisduval has shown that the species displays a considerable range of variation of size, colour and punctuation but that the structure of the aedeagus is remarkably constant. In my opinion there is no justification for regarding *vicina* Candèze as a separate species.

Adelocera modesta var. *tessellata* Candèze. LECTOTYPE (present designation). BORNEO: sex not determined, Suntang; n. sp. *tessellata* Cand. Borneo Ca. [Candèze, yellow border]; Collection E. Candèze; *Adelocera tessellata* Cd. det. E. Candèze [IRSNB curatorial label] (IRSNB, Brussels).

Paralectotype. PHILIPPINES: 1 ex., Luzon, Collection E. Candèze; *Adelocera tessellata* Cd. det. E. Candèze [IRSNB curatorial label] (IRSNB, Brussels).

Candèze's second specimen from Borneo has not been located. The original description is misleading. It is not until the last sentence that Candèze remarks 'c'est une variété ou, si l'on veut, une sous-espèce méritant un nom particulier'.

Lacon olivieri (Candèze) [p. 73]

The IRSNB, Brussels possesses a ♀, labelled 'Type' from Kursong, Darjeeling bearing Candèze's yellow-bordered determination label but as the specimen measures 17.8 mm compared with the published length of 15 mm and as Candèze records that there is one specimen under this name in the Janson collection I do not believe it to be part of the original type-series.

Lacon olsoufieffi Fleutiaux [p. 73]

A synonym of *Lacon foveatus* Candèze, see p. 195.

Lacon orientalis (Fleutiaux) [p. 74]

Additional paralectotypes examined: 1 ex., Tonkin, Chapa, 1 May 1915 (*R. V. de Salvaza*); Cotype; *Adelocera orientalis* Fleut. R. Vitalis de Salvaza det. (IRSNB, Brussels).

Lacon parallelus (Lewis) [p. 75]

Lacon (Zalepia) parallelus amamiensis Ohira, 1967b : 98.

HOLOTYPE. JAPAN, Ryuku Islands: ♂, Amami-Oshima (Hatsuno), 4-IV, 1966 (*T. Ito*) (Ohira collection). Not examined.

Lacon ramatasensis (Miwa) comb. n.

Adelocera ramatasensis Miwa, 1934 : 180, pl. 9, fig. 20.

Alaotypus ramatasensis (Miwa); Ohira, 1966b : 215.

Holotype. TAIWAN: sex unknown, Musha 27.vii.1918 (*H. Kawamura*). Not examined.

Paratype. TAIWAN: 1 ex., Arisan vi.1914 (*M. Maki*). Not examined.

The type-material is believed to be in the Taiwan Government Research Institute, Taipei.

The generic attribution is based on the following specimen kindly presented to the BMNH by Dr H. Ohira. 1 ♀, Formosa, Tanansha, 9.vi.1972 (Y. Kiyoyama).

Lacon ruber (Perty) [p. 80]

Elater ruber Perty, 1830 : 20, pl. 5, fig. 1.

Adelocera rubra (Perty) Candèze, 1857 : 67, pars.

Adelocera castelnau Candèze, 1889 : 71. **Syn. n.**

Elater ruber Perty. LECTOTYPE (present designation). BRAZIL: ♂, 1. *Brazilia Cardiorhinus*? *ruber* Prty [probably Perty]; *Adelocera*; Type von *Elater rubra* Perty [curatorial label] (ZSBS, Munich).

The published locality is 'Brazilia australi, ad S. Pauli Civitatem'. The label and the handwriting agree well with that depicted in Horn & Kahle (1936 : pl. 39, fig. 37: Perty).

The genus *Cardiorhinus* was erected by Erichson in 1829. *L. ruber* Perty is superficially not unlike some of the included species (e.g. *rufilateris* Eschscholtz and *plagiatus* Eschscholtz) and it is quite possible that Perty may have believed that *ruber* should be placed in this genus. Why he decided to describe it as an *Elater* species is unknown.

Elater castelnau Candèze. LECTOTYPE (present designation). BRAZIL: ♀, Brazil; *castelnau* Cdz. Bahia, Brazil [Candèze, green border]; Collection E. Candèze; *Adelocera castelnau* Cd. det. E. Candèze [IRSNB curatorial label] (IRSNB, Brussels).

Paralectotype. 1 ♀, same labels as lectotype but without Candèze's determination label (IRSNB, Brussels).

In 1857 Candèze regarded *Adelocera rubra* Perty as a species varying in size and including specimens with unicolourous red-brown elytra and those in which the elytra were more reddish with brown-black margins.

In 1889 when he described *castelnau* Candèze's comments show quite clearly that he misinterpreted *ruber*, believing it to have red elytra with dark marks on the suture and lateral margins. None of the specimens of *L. ruber* Perty known to me possess this colouring which is characteristic of *brasiliensis* (Castelnau) (see p. 193).

Lacon sachalinensis (Miwa) [p. 80]

A synonym of *Danosoma fasciata* (Linnaeus), see p. 202.

Lacon spurcus (Candèze) [p. 82]

Additional paralectotypes examined. LAOS: 1 ex.. Laos, Cochinch.; *spurcus* Cdz. Laos [Candèze, yellow border]; Collection E. Candèze; *Adelocera spurcus* Cd. det. E. Candèze [IRSNB curatorial label]; 2 ex., with Candèze collection and IRSNB curatorial determination label. One specimen bears the locality 'Cochinch.' (IRSNB, Brussels).

Lacon subauratus Schwarz

Adelocera subaurata Schwarz, 1904 : 46.

Lacon subauratus (Schwarz) Fleutiaux, 1926 : 93.

The description is based on an unrecorded number of specimens 17 mm long from an unknown locality in Ceylon in the Colombo Museum. Schwarz comments that this species is related to

tumulosa Candèze (= *Lacon*, Hayek 1973 : 84). The generic attribution is based on this comment. For *Adelocera subaurata* Schwarz, 1905 see *Lacon taphrobanus* nom. n., see below.

***Lacon subcostatus* (Candèze) [p. 82]**

Adelocera subcostata Candèze, 1857 : 69.

Lacon floridanus Knull, 1949 : 102. **Syn. n.**

Lacon floridanus Knull. Holotype. U.S.A.: ♀, Coral Gables Fla. May 1948; H. F. Strohecker colln.; Holotype *Lacon floridanus* Knull [Knull] (Knull collection, Ohio).

***Lacon sulcifrons* Candèze comb. rev.**

Lacon sulcifrons Candèze, 1893c : 171.

Adelocera sulcifrons (Candèze); Fleutiaux, 1926 : 96.

Holotype. INDIA: ♀, Kanara; Mars 1893 *sulcifrons* Cand. Canara A [Cand., yellow border]; Collection E. Candèze; *Lacon sulcifrons* Cd. det. E. Candèze [IRSNB curatorial label]; Type (IRSNB, Brussels).

***Lacon taphrobanus* nom. n.**

Adelocera subaurata Schwarz, 1905a : 257. **Sp. rev.** [Junior primary homonym of *Adelocera subaurata* Schwarz, 1904 : 46.]

Lacon subauratus (Schwarz) **comb. n.**

The description is based on an unrecorded number of specimens 18 mm long from an unknown locality in Ceylon.

Type material, ? DEI, Eberswalde.

The generic attribution is based on Schwarz's comment that the species resembles *aurulenta* Candèze (= *Lacon*, see Hayek, 1973 : 58).

Schenkling (1925 : 13) lists *subaurata* Schwarz, 1905 under *Adelocera subaurata* Schwarz, 1904 : 46. Although the names are identical and both species come from Ceylon I suspect that Schwarz is not referring to the same species. *A. subaurata* Schwarz, 1904 is 18 mm long and 3.5 mm wide and stated to be related to *tumulosa* Candèze (*Lacon*, see Hayek, 1973 : 84) while *subauratus* Schwarz, 1905 is 17 mm long, 4.5 mm wide and resembles *aurulenta* Candèze (also *Lacon*, see Hayek, 1973 : 58).

***Lacon tawiensis* Ohira**

Lacon (Zalepia) tawiensis Ohira, 1974 : 164.

Holotype. PHILIPPINES (Sulu Archipelago): ♀, Tauri Tauri, Tarawakan, 3.x.1961 (ZMU, Copenhagen). Not examined.

***Lacon tenebrionoides* (Candèze) [p. 83]**

Adelocera tenebrioides Candèze, 1874 : 15, 22. [Unjustified emendation.]

Lacon tenebrionoides (Candèze) Fleutiaux, 1926 : 95.

Lectotype ♂ not ♀.

***Lacon vicinus* Candèze [p. 84]**

A synonym of *Lacon modestus* (Boisduval) see p. 198.

***Lacon yayeyamana* (Miwa) comb. n.**

Adelocera yayeyamana Miwa, 1934 : 246.

Alaotypus yayeyamanus (Miwa); Ohira, 1967b : 98.

The description is based on an unrecorded number of specimens from JAPAN: Loo-Choo [Ryukyu Archipelago], Ishigaki Is. 27.v.1933.

Type-material. Taiwan Agricultural Research Institute, Taipei, Taiwan. Not confirmed.

Material examined. JAPAN (Ryukyu Is.); ♀, Yana, Okinawa, 10 viii 1972. Y. Araki; det. H. Ohira (BMNH).

***DANOSOMA* Thomson [p. 87]**

The relationships of the genus are discussed in the appendix, p. 251.

***Danosoma fasciata* Linnaeus [p. 89]**

Elater inaequalis DeGeer, 1774 : 148, No. 6, pars. [Synonymized by Gyllenhal, 1808 : 367.]

Adelocera sachalinensis Miwa, 1927 : 13, pl. 1, fig. 1. [Synonymized by Miwa, 1934 : 145.]

Lacon sachalinensis (Miwa) Hayek, 1973 : 80.

Adelocera fasciata a. *cejkai* Roubal, 1928 : 46. **Syn. n.**

Lacon fasciatus a. *ornatus* Jagemann, 1955 : 53, 288. **Syn. n.**

Elater inaequalis DeGeer. LECTOTYPE (present designation); ♀, without locality or determination label standing as *inaequalis* in the DeGeer collection (NR, Stockholm).

Paralectotypes. 2 ex., without locality or determination labels standing beside the lectotype (NR, Stockholm). Both specimens are *Damosoma conspersa* (Gyllenhal).

DeGeer does not record the number of specimens he had or their locality. The description fits both *fasciata* and *conspersa* but as Gyllenhal knew both species and regarded *inaequalis* as a synonym of *fasciata* the specimen recorded above has been selected as the lectotype.

Adelocera sachalinensis Miwa. Miwa's synonymy was missed in 1973. Miwa's description and comments and the fact that *fasciata* is known to have a wide distributional range suggest that the synonymy is fully justified.

Adelocera fasciata a. *cejkai* Roubal and *Lacon fasciatus* a. *ornatus* Jagemann.

Examination of the material in the BMNH and MNHN, Paris has shown that the colour, number and distribution of the light coloured scales is very variable. In my opinion *cejkai* and *ornatus* are no more than individual variations.

Adelocera fasciata a. *cejkai* Roubal. Syntype material. CZECHOSLOVAKIA: Brezno, IV.1928 Ing. J. Čejky (probably Slovak National Museum, Bratislava). The golden scales cover the greater part of the dorsal surface leaving only isolated patches of black scales.

Lacon fasciatus a. *ornatus* Jagemann. Syntype material. CZECHOSLOVAKIA: Kelčského Javorníku (? NM, Prague). There is a transverse band of pale scales on the anterior third of the elytra.

***EIDOLUS* Candèze [p. 90]**

I am not at all sure that the retention of this genus is justified. It differs from *Lacon* only in that the lateral margins of the prothorax are not carinate. Similar pectinate antennae and antennal grooves are found in *Lacon pectinicornis* Champion from Nicaragua and *L. subpectinatus* (Schwarz) from North Vietnam. The relationships of the genus are discussed in the Appendix p. 252.

SEXUAL DIMORPHISM. Not strongly marked. The antennae of the female appear to be less strongly pectinate than those of the male but from experience of the family this may be no more than an individual variation.

***Eidolus gratiosa* (Fleutiaux) [p. 90]**

A synonym of *E. linearis* Candèze, see below.

***Eidolus linearis* Candèze [p. 90]**

Eidolus linearis Candèze, 1857 : 179, pl. 3, fig. 1.

Adelocera gratiosa Fleutiaux, 1902b : 213. **Syn. n.**

Eidolus gratiosa (Fleutiaux) Hayek, 1973 : 90.

***OPTALEUS* Candèze [p. 91]**

Opatelus Candèze; Hayek, 1973 : 91. [Incorrect subsequent spelling.]

Optaleus Candèze; Golbach, 1975. [Useful key to species.]

The relationships of the genus are discussed in the Appendix, p. 251.

***ACROCRYPTUS* Candèze [p. 92]**

Apocryptus Candèze; Rye, 1876 : 290. [Incorrect subsequent spelling.]

The relationships of the genus are discussed in the Appendix, p. 251.

***DILOBITARSUS* Latreille [p. 93]**

The relationships of the genus are discussed in the Appendix, p. 251.

SPECIES INCLUDED IN THE GENUS [p. 95]. The generic attribution of *Dilobitarsus impressicollis* Schwarz is confirmed and *Anacantha fairmairei* Candèze is transferred to *Lacon*. The genus includes 24 species.

***Dilobitarsus crux* (Philippi) [p. 97]**

Philippi (1861 : 744) records the species from Araucania and the province of Valdivia. The province of Valdivia does not extend as far north as Araucania.

***Dilobitarsus eloini* Candèze [p. 97]**

The type-material cannot be found in the IRSNB, Brussels and must be assumed to be lost.

***Dilobitarsus impressicollis* Schwarz**

Dilobitarsus impressicollis Schwarz 1902d : 129.

LECTOTYPE (present designation). PERU: ♀, Chanchamayo; Peru D. Lange; Coll. Schwarz; Typus; *impressicollis* Schw. [Schwarz] (DEI, Eberswalde).

The specimen measures 14 mm compared with the published length of 15.5 mm.

***Dilobitarsus quadrituberculatus* Candèze [p. 99]**

The type-material cannot be found in the IRSNB, Brussels and must be assumed to be lost.

Dilobitarsus sulcicollis (Solier) [p. 100]

Anacantha sulcicollis Solier, 1851 : 18.

Adelocera angustata F. A. E. Philippi, 1861 : 744. [Synonymized by Fleutiaux, 1907 : 169.]

Examination of Philippi's description has shown that there can be little doubt that Fleutiaux's synonymy is justified.

Dilobitarsus vitticollis (Fairmaire & Germain) [p. 100]

Syntype examined. 1 ♀ *Adelocera vitticollis* [? Fairm.]; G. Fairm.; Collection E. Candèze; *Anacantha vitticollis* Fairm. det. E. Candèze [IRSNB curatorial label] (IRSNB, Brussels). This is probably the 'type primitif de Fairmaire' to which Fleutiaux (1907b : 167) refers.

***ELASMOSOMUS* Schwarz [p. 101]**

The relationships of the genus are discussed in the Appendix, p. 252.

SPECIES INCLUDED IN THE GENUS. Two species described by Girard (1971) were omitted from the previous work and one species has been sunk in synonymy. The genus includes 30 species.

Elasmosomus christophei Girard

Elasmosomus christophei Girard, 1971 : 570, figs 17, 18.

Holotype. IVORY COAST: ♂, Lamto 16–24.4.1968, à la lumière (MNHN, Paris). Not examined.

Elasmosomus delamarei Hayek [p. 104]

See *Elasmosomus edmundi* Quelle.

Elasmosomus edmundi Quelle [p. 104]

Dilobitarsus fleutiauxi Paulian, 1947 : 87. [Synonymized by Girard, 1971 : 571.]

Elasmosomus delamarei Hayek, 1973 : 104.

Elasmosomus raffrayi (Candèze) [p. 107]

Syntype examined. TANZANIA: 1 ♂, Zanzibar Viag. Raffray. Leg. E. Deyr.; Type; *raffrayi* Cand. [replacement label in unknown handwriting, see *Adelocera acerbus* (Candèze), p. 189] (MCSN, Genoa).

Elasmosomus vauttouxi Girard

Elasmosomus vauttouxi Girard, 1971 : 568, figs 16, 19.

Holotype. GUINEA: ♂, Ziela, 30.3.1957 (*Lamotte, Amiet, Vanderplaetsen*) (MNHN, Paris). Not examined.

Paratypes. 4 ♂, IVORY COAST: Lamto, 25.2.1968 (*R. Vauttoux*). CENTRAL AFRICAN REPUBLIC: La Maboké, 16.9.1968, 18.2.1969 (*P. Teocchi*). Location unknown.

***HEMICLEUS* Candèze [p. 108]**

The relationships of the genus are discussed in the Appendix, p. 252.

SPECIES INCLUDED IN THE GENUS. The generic attributions of 2 species have been confirmed. The genus includes 19 species.

Hemicleus adspersulus (Klug)

Dicrepidius adspersulus Klug, 1855 : 647.

Hemicleus adspersulus (Klug) Candèze, 1857 : 386.

LECTOTYPE (present designation). MOZAMBIQUE: ♂, 16152; *adspersulus* *Atractodes adspersulus* Klug Tette Peters [Gerstaecker] (MNHU, Berlin).

Paralectotype. 1 ♂ without any labels standing beside the above (MNHU, Berlin).

Klug did not publish any descriptions of *Atractodes* species. The specimens agree very well with the description of *Dicrepidius adspersulus* and I have no hesitation in accepting them as Klug's type-material. There can be no doubt that this is the material examined by Candèze. Why Klug changed his mind about the generic attribution remains a mystery.

Hemicleus caffer Candèze [p. 109]

The IRSNB Brussels possesses two specimens, a male from Afr. Or. Ikutha [Kenya] with Candèze's blue bordered determination label and another without a locality labelled 87.1. Both bear Fleutiaux's labels; 'Non le type, Coll. Dohrn 1930' which suggests that Fleutiaux may have examined what he believed to be the type in the Dorhn collection (IZPAN, Warsaw). The presence of this specimen in Warsaw has not been confirmed.

Hemicleus majusculus Candèze

Hemicleus majusculus Candèze, 1897 : 8.

LECTOTYPE (present designation). SENEGAL: sex undetermined; MK. [illegible] Seneg.; n.s. 1893 *majusculus* Cand. Senegal [Candèze, blue border]; Collection E. Candèze; *Hemicleus majusculus* Cd. det. E. Candèze [IRSNB curatorial label] (IRSNB, Brussels).

The description was not published in 1893.

AGRYPNUS Eschscholtz [p. 113]

The relationships of the genus are discussed in the Appendix, p. 251.

SPECIES INCLUDED IN THE GENUS [p. 119]. Of the 413 (not 409) species included in the genus by Hayek (1973) one (*acerbus* Candèze) is transferred to *Adelocera* and four are placed in synonymy. Ninety-one additional species are now included in the genus making a total of 499 species.

Agrypnus aberdarensis (Fleutiaux) [p. 119]

Additional paralectotype examined. 1 ex., same locality as lectotype, with Fleutiaux' determination label (NR, Stockholm).

Agrypnus abreptus (Candèze) [p. 119]

Additional syntypes examined. INDIA: 1 ex., Belgaum P.; n. sp. 1893 *abreptus* Cand., Bombay. Andr. [Cand., yellow border]; Collection E. Candèze; *Lacon abreptus* Cand., det. E. Candèze [IRSNB curatorial label]. 1 ex., Kanara; Collection E. Candèze; paratype (IRSNB, Brussels).

Agrypnus acerbus (Candèze) [p. 120]

See *Adelocera acerbus* (Candèze), p. 189.

Agrypnus acervatus (Candèze) [p. 120]

Syntypes examined. BURMA: 1 ex., Tenasserim, Plapoo. Fea Apr. 1887; *Lacon acervatus* Cand. [? Cand.]; Collection E. Candèze; *Lacon acervatus*, det. E. Candèze [IRSNB curatorial label]

(IRSNB, Brussels). 1 ex., Tenasserim, Plapoo, Fea Apr. 1887; acervatus Cand. [replacement label in unknown handwriting, see *Adelocera acerbus* Candèze, p. 189]. (MCSN, Genoa).

Agrypnus acutangulus (Fleutiaux) [p. 121]

Paralectotype examined. CHINA: ♀, Kina S. Kansu; Sven Hedins Exp. Centr. Asien. Dr. Hummel 28.9.30; Compsolacon acutangulus Fleut., comparé au type [Fleut.] (NR, Stockholm).

Agrypnus adeloceroides (Candèze) [p. 121]

LECTOTYPE (present designation). EQUATORIAL GUINEA: sex not determined, Benito, Congo Franç.; n. sp. 1898 [sic] adeloceroides Cand. [Cand., blue border]; Collection E. Candèze; Tilotarsus adeloceroides Cand. det. E. Cand. [IRSNB curatorial label]; Type (IRSNB, Brussels).

Paralectotypes. EQUATORIAL GUINEA: 2 ex., Benito, Congo Franç. bearing Fleutiaux' determination labels (MNHN, Paris).

Agrypnus adustus (Elston) [p. 121]

Syntypes examined. AUSTRALIA: 1 ♂, 1 ♀ [on one card]; Coen River, Queensland; adustus Elston, co-type. 2 ♂, Mlanda; Queensland Mjoberg; adustus Elston co-type variety (NR, Stockholm). The NR, Stockholm presumably acquired these specimens as a gift or by exchange.

Agrypnus albitactus (Candèze) [p. 123]

Paralectotype. NIGERIA: ♂, Old Calabar; albitactus Cd. Calab. [Cand., blue border]; Collection E. Candèze; Lacon albitactus Cand., det. E. Candèze [IRSNB curatorial label] (IRSNB, Brussels).

Agrypnus alboguttatus (MacLeay) comb. n.

Lacon alboguttatus MacLeay, 1888 : 1238.

Lacon alboguttatus MacLeay; Neboiss, 1956 : 4.

LECTOTYPE (present designation). AUSTRALIA: ♂, N.W. Austr.; Lacon albogattatus MacL. King's Sound N.W. Aust. [MacLeay] (ANIC, Canberra).

Paralectotypes. AUSTRALIA: 2 ♂, N.W. Austr. (ANIC, Canberra). The aedeagus of the larger specimen is missing.

Elston (1931 : 3) records this species from N.W. Australia: Kimberley District. Two specimens in the NR, Stockholm from this locality determined by Elston are not conspecific with the lectotype. In these specimens the tip of the last visible abdominal sternite is vertical, resembling the transom of a boat, a feature which occurs in many *Agrypnus* species, but not in *alboguttatus* MacLeay.

Agrypnus alboscutatus (Candèze) [p. 124]

Syntype examined. MADAGASCAR: 1 ♂, Madag.; alboscutatus Cand. Lacon alboscutatus Cd., det E. Candèze [IRSNB curatorial label]; Collection E. Candèze (IRSNB, Brussels).

Agrypnus alternans (MacLeay) sp. rev., comb. n.

Lacon alternans MacLeay, 1872 : 251.

LECTOTYPE (present designation). AUSTRALIA: ♂ K 32984 [AM, Sydney number]; Lacon alternans McL. W. Gayndah [MacLeay]; syn of variabilis Id. by A. M. Lea [Lea] (AM, Sydney).

Paralectotype. AUSTRALIA: 1 ex. Gayndah recorded by Hahn (1962 : 80) (CSIRO, Canberra).

The synonymy with *variabilis* Candèze published by Candèze (1891 : 24) and accepted by subsequent cataloguers and workers is not justified.

Agrypnus amamiensis (Miwa) comb. n.

Paralacon amamiensis Miwa, 1934 : 248.

Adelocera (Sabikikorius) amamiensis (Miwa) Ohira, 1967b : 101.

Adelocera (Sabikikorius) amamiensis okinawana Ohira, 1967b : 101.

Paralacon amamiensis Miwa. Holotype. JAPAN: sex unknown, Amami-Oshuna; Yakkachi in Sumiyomura 17-VII, 1933 (T. Esaki & K. Yasumatsu) (Entomological Laboratory, Kiushiu University). Not examined.

Paratype. Same locality. Location unknown.

The generic attribution is based on the following specimen: ♂, Hatsuno, Amami-Oshima, 24.vii.1962. Coll. J. Napao: *Adelocera amamiensis* ♀ (Miwa, 1934) H. Ohira det. 1974 (BMNH),

Adelocera (Sabikikorius) amamiensis okinawana Ohira. Holotype. JAPAN: ♂, Okinawa (Mt Yonaha), 10.v.1963 H. Nomura (Ohira collection).

Paratypes. JAPAN: 1 ♂, Okinawa (Naha) 1962, K. Kojima. 1 ♂, Okinawa (Yonat) 7.vii.1965 M. Yasui. Location unknown, see Ohira (1967b : 95).

Agrypnus anathesinus (Candèze) comb. n.

Lacon anathesinus Candèze, 1897 : 10.

Adelocera anathesinus (Candèze) Fleutiaux, 1926 : 96.

LECTOTYPE (present designation). CHINA: ♀, coll. Nonfried, China; n. sp. 94 [sic] *anathesinus* Cand. Chine [Cand., yellow border]. Collection E. Candèze; *Lacon anathesinus* Cand., Candèze det. [IRSNB curatorial label] (IRSNB, Brussels).

Agrypnus angulicollis (Candèze) [p. 125]

The IRSNB, Brussels possesses 10 specimens from Soerabaia [Surabaja] labelled 'Ex Typis'. One specimen bears in addition Candèze's yellow bordered label; n. sp. *angulicollis* Cand. Soerabaia. These are presumably the specimens from the eastern part of the island to which Candèze (1891b : 143) refers and which are recorded by Van Zwaluwenburg (1959 : 352). They are not part of the original syntype-series.

Agrypnus angulosus (Candèze) comb. n.

Lacon angulosus Candèze, 1857 : 117, pl. 2, fig. 17.

Adelocera angulosus (Candèze) Fleutiaux, 1926 : 96.

The description is based on an unrecorded number of specimens 'probablement' from 'Indes-Orientales' (see Hayek, 1973 : 271) received from Dohrn.

Syntype-material. ? IZPAN, Warsaw.

The generic attribution is based on the description and figure.

Agrypnus angusta (Fleutiaux) [p. 125]

Paralectotypes. BURMA: 1 ♂, N.E. Burma, Kambaiti, 7000 ft., 12/5 1934, R. Malaise; *Adelocera* (*Lacon*) *angusta* Fleut. Type [Fleut.]. 1 ♂, same locality but with the date 3-7/5 and without a determination label (NR, Stockholm).

The published height is 2000 m.

Agrypnus apiatus nom. n.

Lacon maculosus MacLeay, 1888 : 1283. [Junior primary homonym of *Lacon maculosus* Candèze, 1874.]

Lacon variegatus Schwarz, 1906 : 316. [Replacement name for *Lacon maculosus* MacLeay, 1888.] [Junior secondary homonym of *Lacon variegatus* (Motschulsky, 1854).]

Lacon variatus Schwarz, 1925 : 30. [Replacement name for *Lacon variegatus* Schwarz, 1906.] [Junior primary homonym of *Lacon variatus* Candèze, 1890.]

Agrypnus maculosus (MacLeay) comb. n.

LECTOTYPE (present designation). AUSTRALIA: ♂, N.W. Austr.; *Lacon maculosus* MacL. King's Sound N.W. Austr. [MacLeay] (ANIC, Canberra).

Paralectotype. 1 ♀, on the same card mount as the male.

Agrypnus maculosus (MacLeay) is not conspecific with *Agrypnus variabilis* (Candèze) see Hayek, (1973 : 227).

Agrypnus apodixus (Candèze) [p. 126]

Compsolacon apodixus (Candèze) Ohira, 1972a : 41.

Paralectotypes examined. PHILIPPINES: 1 ex., Philippines; *apodixus* Cdz. Philipp. [Cand., yellow border]; Collection E. Candèze; *Lacon apodixus* Cand., det. E. Candèze [IRSNB curatorial label]; *Lacon apodixus* Cand. [Fleut.]. 2 ex., labels as above but without Candèze's determination label (IRSNB, Brussels).

The lectotype is 15 mm long compared with the published length of 18 mm. Two paralectotypes are 16 mm and the third 19 mm long.

Agrypnus applanatus (Elston) [p. 126]

Additional syntypes examined. AUSTRALIA: 2 ex. on one card, W. Australia; *aplanatus* Elston co-type (NR, Stockholm). The specimens were presumably obtained as a gift or by exchange.

Agrypnus aquilus (Elston) comb. n.

Lacon aquilus Elston, 1927 : 360.

Lacon aquilus Elston; Neboiss, 1956 : 4.

The description is based on an unrecorded number of specimens from AUSTRALIA: Northern Territory, Groote Eylandt (*N. B. Tyndale*).

Syntype-material (see Hayek, 1973 : 274). SAM, Adelaide, AM, Sydney.

The generic attribution is based on the description and Elston's comment that the species is very close to *ferruginous* [sic] Candèze (= *Agrypnus*, see Hayek, 1973 : 154).

Agrypnus arbitrarius (Elston) [p. 126]

Additional syntype examined. AUSTRALIA: ? ♀, Kimberley district; NV. Australia, Myoberg; *arbitrarius* Elston co-type (NR, Stockholm).

Agrypnus argentatus (Candèze) [p. 127]

Syntypes examined. MADAGASCAR: 1 ex., Tananarivo; n. sp. *argentatus* Cand. Tananarivo, S. [Cand., blue border]; collection E. Candèze; *Lacon argentatus* Cand., det. E. Candèze [IRSNB curatorial label]; 12 ex., labels as above but without Candèze's determination label (IRSNB, Brussels).

Agrypnus argillaceus (Solsky) [p. 127]

Lacon argillaceus Solsky, 1871 : 360.

Lacon cinnamomeus Candèze, 1874 : 76. [Synonymized by Fleutiaux, 1918a : 191.] [Synonymy confirmed.] *Adelocera (Sabikikorius) argillaceus shirozui* Ohira, 1966b : 216.

Agrypnus (Paralacon) argillaceus shirozui (Ohira) Ohira, 1968b : 363. [First publication of new combination.]

Agrypnus cinnamomeus (Candèze), Hayek, 1973 : 139.

Lacon argillaceus Solsky. LECTOTYPE (present designation). U.S.S.R.: ♂, Vladivostock 15 Jul. 1868; *Lacon argillaceus* mihi [Solsky]; (Z1, Leningrad).

Adelocera (Sabikikorius) argillaceus shirozui Ohira. Type. TAIWAN: ♂, Alishan (Arisan) 2000 m, C. Formosa 9-iv, 1965 (Entomological Laboratory, Faculty of Agriculture, Kyushu University, Japan). Not examined.

Paratypes. 5 ex., Sungkang, 5–v, 1965; Alishan 9–iv, 1965 (location unknown). The interpretation of the subspecies is based on: 1 ♂, Taiwan, Tonpogoe, 2500 m, Kagi Ken, 23.3.67 (*T. Shirozu*) determined by Ohira (BMNH).

Agrypnus aristatus (Champion) [p. 127]

Additional syntypes examined. 1 ex., V de Chiriqui, 4000-6000 ft. Champion, Lacon aristatus Ch. [Champion]; aristatus Champ., Chiriqui Ch.; Lacon aristatus Champ. det. Champion [IRSNB curatorial label], 2 ex., V. de Chiriqui, 25–4000 ft. Champion; Lacon aristatus Champ. det. Champion [IRSNB curatorial label]. One specimen bears an additional printed label: Biol. C. Amer. Don. Godman & Salvin. 1 ex., V. de Chiriqui, 2–3000 ft. Champion. 1 ex., Caché, Costa Rica H. Rogers. The last two specimens also bear the following two labels: BCA Coll. III (1) Lacon aristatus Ch. and Biol. C. Amer. Don. Godman & Salvin (IRSNB, Brussels).

Agrypnus asperulatus (Candèze) [p. 128]

Lectotype (designated by Van Zwaluwenburg, 1959 : 352). PAPUA NEW GUINEA: sex not determined, N. Guinea, Isola Yule iv.1875 L. M. D'Albertis; TYPE; asperulatus Cand. [replacement label in unknown handwriting, see *Adelocera acerbus* (Candèze) p. 189]; Lectotype Van Zwaluwenburg (MCSN, Genoa).

The 9 paralectotypes recorded by Van Zwaluwenburg bear the following labels: 3 ex., same locality label as lectotype. 6 ex., N. Guinea, Isola Yule. T. F. v. 1875 L. M. D'Albertis (MCSN, Genoa).

Additional paralectotypes examined. 1 ♀, locality label as lectotype; asperulatus, I. Yule, N. Guinea [? Cand.]. 3 ex., N. Guinea, Isola Yule, T. F. v. 1875 L. M. D'Albertis. All specimens bear Candèze collection and IRSNB curatorial determination labels (IRSNB, Brussels). 3 ex., N. Guinea, Isola Yule, T.F.V. 1875 L. M. D'Albertis. One specimen bears a determination label which seems to be in Candèze's handwriting (NR Stockholm).

Agrypnus assus (Candèze) comb. n. [p. 128]

Lacon assus Candèze, 1857 : 145.

Lacon gayndahensis MacLeay, 1872 : 251. [Synonymized by Elston, 1924 : 197.] [Synonymy confirmed.] *Lacon assus* Candèze; Hayek, 1973 : 128. [Erroneous combination.]

Lacon gaydahensis MacLeay. LECTOTYPE (present designation). AUSTRALIA: ♂, K32789; *Lacon gayndahensis* McL.W. [MacLeay] (AM, Sydney).

Paralectotypes. AUSTRALIA: 1 ♂, K32789; *L. gayndahensis* (AM, Sydney). 1 ♀, Gayndah; *Lacon gayndahensis* MacL. Gayndah [MacLeay]. 1 ♀, Gayndah (ANIC, Canberra).

The specimens agree well with the description except that the prothorax is distinctly wider than long. The published length is $6\frac{1}{2}$ lines [=13.76 mm if English lines are used]. The lectotype measures 14.2 mm and the paralectotype 12 mm.

Agrypnus atricolor (MacLeay) comb. n.

Lacon atricolor MacLeay, 1888 : 1236.

Lacon atricolor MacLeay; Neboiss, 1961 : 7.

LECTOTYPE (present designation). AUSTRALIA: ♂, N.W. Aust.; *Lacon atricolor* MacL. Barrior [sic] Range N.W. Austr. [MacLeay] (ANIC, Canberra).

On MacLeay's determination label the locality is written Barrior Range and the name is recorded in this form by Habu (1962). Froggatt's (1934) account of his 1887 collecting trip to N.W. Australia makes it quite clear that the locality is Barrier Range. This N.W. Australian place name does not appear in any gazetteer. Froggatt describes the King's Sound Pastoral Company's Barrier Range homestead as being 150 miles up the Lennard River and some 15 miles

from Mt Percy, one of the highest points in the Oscar Range. The position of the Barrier Range must be approximately 17°30' S, 125° E.

Agrypnus badeni (Candèze) [p. 129]

Syntypes examined. 1 ♀, Madagascar; n. sp. *badeni* Cdz. Mad. [Cand., blue border]; Collection E. Candèze; *Lacon badeni* Cand., det. E. Candèze [IRSNB curatorial label]; 1 ex., same labels but without Candèze's determination label (IRSNB, Brussels).

Agrypnus badius (Elston) comb. n.

Lacon badius Elston, 1927 : 350.

Lacon badius Elston; Neboiss, 1956 : 5.

The description is based on an unrecorded number of specimens from AUSTRALIA: S. Australia, Ooldea, Tarcoola (*A. M. Lea*).

Syntype-material (see Hayek, 1973 : 274). SAM, Adelaide, AM, Sydney, NMV, Melbourne.

The generic attribution is based on the description and Elston's comment that the species resembles *arbitrarius* Elston (= *Agrypnus*, see Hayek, 1973 : 126).

Agrypnus beccarii (Candèze) [p. 129]

Agrypnus beccarii Candèze; Hayek, 1973 : 129. [Incorrect subsequent spelling.]

Lectotype (designated by Van Zwaluwenburg, 1959 : 352). SUMATRA: ♂, Sumatra, Mts Singalang, Luglio 1878, O. Beccari; Type; *beccari* [sic] Cand. [replacement label in unknown handwriting, see *Adelocera acerbus* (Candèze) p. 189]; Lectotype, Van Zwaluwenburg 1959 (MCSN, Genoa).

Paralectotype. 1 ex., locality label as lectotype; n. sp. *beccari* [sic] Cdz. Sumatra [Cand., yellow border]; Collection E. Candèze; *Lacon beccari* [sic] Cand., det. E. Candèze [IRSNB curatorial label] (IRSNB, Brussels).

Agrypnus bellator (Elston) comb. n.

Lacon bellator Elston, 1927 : 354.

Lacon bellator Elston; Neboiss, 1956 : 5.

The description is based on an unrecorded number of specimens from AUSTRALIA: Northern Territory.

Syntype-material (see Hayek, 1973 : 274). SAM, Adelaide, AM, Sydney.

The generic attribution is based on the description and Elston's comment that the species somewhat resembles *palpalis* Candèze (= *Agrypnus*, see Hayek, 1973 : 195).

Agrypnus bifasciatus (Schwarz) comb. n.

Lacon bifasciatus Schwarz, 1902b : 312.

Adelocera bifasciata (Schwarz) Fleutiaux, 1926 : 96.

The description is based on an unrecorded number of specimens from Madagascar.

Type-material. ? DEI, Eberswalde.

The generic attribution is based on the description and Schwarz's comment that the species is related to *decoratus* (Candèze) (*Agrypnus* see Hayek, 1973 : 148) and *pictus* (Candèze) (= *Agrypnus*, see p. 232).

Agrypnus biforatus (Candèze) comb. n.

Lacon biforatus Candèze, 1895b : 55.

Adelocera biforatus (Candèze) Fleutiaux, 1926 : 96.

Syntype examined. MADAGASCAR: 1 ex., Madagascar; n. sp. 94 [sic] biforatus Cand. Madag. [Cand., blue border]; Collection E. Candèze; Lacon biforatus Cand., det. E Candèze [IRSNB curatorial label] (IRSNB, Brussels).

As the description is based on an unrecorded number of specimens collected in N. Madagascar (Diego Suarez and Mont d'Ambre) by Alluaud in 1893, there may be additional material in the MNHN, Paris.

Agrypnus bigranosus (Schwarz) comb. n.

Lacon bigranosus Schwarz, 1903b : 278.

Adelocera bigranosus (Schwarz) Fleutiaux, 1926 : 96.

The description is based on an unrecorded number of specimens from Madagascar.

The type-material should be in the DEI, Eberswalde but cannot be found there. It must be regarded as lost (Morge, pers. comm.).

The generic attribution is based on the description and Schwarz's comment that *bigranosus* is related to *amplicollis* Boheman (= *Agrypnus*, see Hayek, 1973 : 124).

Agrypnus bimaculatus (Schwarz) sp. rev., comb. n.

Lacon bimaculatus Schwarz, 1902c : 113.

LECTOTYPE (present designation). AUSTRALIA: ♂, Australia, Victoria; Coll. Schwarz; Typus; *bimaculatus* Schw. [Schwarz] (DEI, Eberswalde). Length 4 mm.

Paralectotype. ♀, same labels as lectotype but without Schwarz's determination label (DEI, Eberswalde). Length 4.5 mm.

Elston (1924 : 197) synonymized this species with *duplex* Blackburn, 1891. The lectotype of *duplex* is a ♀ and differs in colour and, more importantly, in the puncturation of the pronotum and elytra from the ♀ paralectotype of *bimaculatus* Schwarz. In my opinion these species should be regarded as distinct until the paralectotypes of *duplex* in the AM, Sydney and SAM, Adelaide have been examined.

Agrypnus binus (Candèze) comb. n.

Lacon binus Candèze, 1889 : 73.

Adelocera binus (Candèze) Fleutiaux, 1926 : 96.

LECTOTYPE (present designation). INDIA: sex not determined, N. Khasi Godwin Austin; n. sp. *binus* Cdz. Simla [Cand., yellow border]; Collection E. Candèze; *Lacon binus* Cand., det. E. Candèze [IRSNB curatorial label] (IRSNB, Brussels).

The description is based on an unrecorded number of specimens.

Agrypnus borneoensis (Ohira) comb. n.

Compsolacon borneoensis Ohira, 1973a : 108, figs 1D, 4H.

Holotype. BORNEO (Sabah): ♂, W. Coast Residency, Ranau 500 m, 28.ix.-7.x.1958 L. W. Quate (BPBM, Honolulu).

Paratypes. BORNEO (Sarawak): 1 ♀, Nanga Pelagus nr Kapit 180-585 m, 7-14.viii.'58; T. C. Maa Collector Bishop (Ohira collection). 1 ♂, 3 ex., recorded by Ohira (location unknown).

Agrypnus brachypterus nom. n.

Lacon brevipennis Elston, 1927 : 361.

Agrypnus brevipennis (Elston) comb. n. [Junior secondary homonym of *Agrypnus brevipennis* (Schwarz, 1903).]

LECTOTYPE (present designation). AUSTRALIA: ♀, Leigh's Ck., S. Australia, A. H. Elston; *Lacon brevipennis* Elston Type [Elston]; A. H. Elston Collection (AM, Sydney).

The wings are greatly reduced in length and do not extend beyond the posterior margin of the metathorax.

Agrypnus brevipennis (Schwarz) comb. n.

Lobotarsus brevipennis Schwarz, 1903c : 44.

LECTOTYPE (present designation). CAMEROUN: ♀, Cameroun; Sjostedt; Type; *brevipennis* n. sp. Schw. O. Schwarz det. 1902 (NR, Stockholm). Length 9 mm.

Agrypnus bullatus (Carter) comb. n.

Lacon bullatus Carter, 1939 : 301.

Lacon bullatus Carter; Neboiss, 1956 : 5.

Holotype. AUSTRALIA: ♀, L. Austin, W. A. H. W. Brown; *Lacon bullatus* Cart. Type [Carter] (AM, Sydney).

Paratypes. 1 ♂, L. Austin, W. A. H. W. Brown; K. K. Spence Collection; K 67648. 1 ♀, K. K. Spence Collection; K 67648; *Lacon bullatus* Cart. (AM, Sydney).

The metathorax is short and the wings reduced to short flaps. The elytra appear to be fused together. This species bears a strong resemblance to *Agrypnus deboulayi* (Candèze).

The description is based on four specimens collected by H. W. Brown. Brown presented the holotype to the AM, Sydney and presumably retained some or all of the remainder. I have accepted the two specimens from the K. K. Spence collection as part of the type-series as Brown is known to have given specimens to Spence (G. A. Holloway, AM, Sydney, pers. comm.) and in this case seems to have given him two paratypes. Spence's entire collection is in the AM, Sydney. The whereabouts of the fourth specimen is unknown to me. If Brown retained it, it may be in the NM, Victoria or SAM, Adelaide (G. A. Holloway, AM, Sydney, pers. comm.). If it was in Carter's possession it should be in the ANIC, Canberra (Anderson, 1941 : ii).

Agrypnus buyssoni (Jagemann) comb. n.

Lacon buyssoni Jagemann, 1944 : 332.

LECTOTYPE (present designation). CHINA: ♀, Thibet. Coll. Le Moult; Collectio D. E. Jagemann, Moravski Museum Brno; Typus; *Lacon buyssoni* nov. sp. mihi prope *furunculosus* Candèze [? Pećirka]; Syntypus; Transcriptio *Lacon buyssoni* sp. n. E. Jagemann det. (MM, Brno).

Paralectotypes. CHINA: 2 ♀, Thibet, Coll. Le Moult; *Lacon buyssoni* nov. sp. mihi prope *furunculosus* Pećirka [Pećirka] Typus (NM, Prague).

Jagemann credits the species to Pećirka in litt.

Agrypnus calamitosus (Candèze) [p. 134]

The IRSNB, Brussels collections contains a single female with the following labels: *calamitosus* Cdz. Mex. [Cand., green border]. The specimen measures only 8 mm in length compared with the published length of 12 mm and does not agree well with the description.

The specimen in the BMNH recorded by Hayek (1973 : 134) agrees very well with the description and despite the discrepancy in the locality is now selected as the lectotype.

LECTOTYPE (present designation). MEXICO: ♀, Playa Vincente; Mexico, Salle Coll.; ♂; B.C.A. Col. III (1) *Lacon calamitosus* Cand. [Champ.]; *Lacon calamitosus* Cand. Salle coll. 1420 (BMNH).

Agrypnus candezei (Fleutiaux) [p. 137]

Additional paralectotype examined. 1 ex., Tonkin, Florentin; *Lacon candezei* Fleut. [Fleut.]; *candezei* Fl. Tonkin. Fl. [Cand., yellow border]; Collection E. Candèze; *Lacon candezi* Fleut. det. Fleutiaux [IRSNB curatorial label] (IRSNB, Brussels).

Agrypnus castaneipennis (Candèze) [p. 138]

Lacon castaneipennis Candèze, 1895b : 55, [not 1956].

Syntype examined. MADAGASCAR: 1 ex., n. sp. iii. 1893 [sic] *castaneipennis* Cand. Tananarivo [Cand., blue border]; Collection E. Candèze; *Lacon castaneipennis* Cand. det. E. Candèze [IRSNB curatorial label] (IRSNB, Brussels).

Agrypnus castaneus (Elston) comb. n.

Lacon castaneus Elston, 1927 : 385.

Lacon castaneus Elston; Neboiss, 1956 : 6.

The description is based on an unrecorded number of specimens from AUSTRALIA: W. Australia, Roebuck Bay.

Syntype-material (see Hayek, 1973 : 274). SAM, Adelaide, AM, Sydney.

The generic attribution is based on the description and Elston's comment that the nearest congener of the species is *rubiginosus* Candèze (= *Agrypnus*, see Hayek, 1973 : 205).

Agrypnus castelnaui (Candèze) comb. n.

Lacon castelnaui Candèze, 1882 : 11.

Adelocera castelnaui (Candèze) Fleutiaux, 1926 : 96.

Syntypes examined. AUSTRALIA (Western Australia): 1 ex., Swan River; n. sp. *catelnaui* Cdz. Swan River, Cast. [Cand., red border]; Collection E. Candèze; *Lacon castelnaui* Cand., det. E. Candèze [IRSNB curatorial label]; 1 ♀, 4 ex., with the same labels but without Candèze's determination label (IRSNB, Brussels).

Agrypnus catatonus nom. n.

Tilotarsus [sic] *depressus* Candèze, 1882 : 4.

Agrypnus depressus (Candèze) comb. n. [Junior secondary homonym of *Agrypnus depressus* (Candèze, 1874)]

Syntypes examined. MADAGASCAR: 2 ex., Madagascar. Collection E. Candèze; *Tilotarsus depressus* Candèze det. E. Candèze [IRSNB curatorial label]. One specimen bears Candèze's blue bordered label; n. sp. *depressus* Cdz. Madag. (IRSNB, Brussels).

Agrypnus cinerascens (Candèze) [p. 139]

Lacon cinerascens Candèze, 1878a : 103 (not 1879a).

Holotype. PAPUA NEW GUINEA: ♂, N. Guinea, Isola Yule, April 1875, L. M. D'Albertis; Type; *cinerascens* [replacement label in unknown handwriting, see *Adelocera acerbus* (Candèze) p. 189] (MCSN, Genoa).

Agrypnus cinnamomeus (Candèze) [p. 139]

A synonym of *Agrypnus argillaceus* (Solsky), see p. 208.

Agrypnus cithereus (Candèze) comb. n.

Lacon cithereus Candèze, 1893b : 9.

Adelocera cithereus (Candèze) Fleutiaux, 1926 : 76.

Syntypes examined. JAVA: 1 ♀, n. sp. *cithereus* F. Soerabaia [Cand., yellow border]; Collection E. Candèze; *Lacon cithereus* Cand. det. E. Candèze [IRSNB curatorial label]; length: 10 mm.

1 ♀, 1 ♂, labels as above but without Candèze's determination label and bearing IRSNB paratype labels; length: 11 mm and 9 mm (IRSNB, Brussels).

The published locality is Monts Tengger. This locality is about 40 miles south of Surabaja. Despite the discrepancy in the locality, I have no hesitation in accepting these specimens as syntypes.

In all three specimens the metathorax is reduced in length and the wings do not extend beyond the posterior margin of the second visible abdominal sternite.

Agrypnus coarctatus (Candèze) [p. 140]

Syntype examined. HIMALAYA: 1 ex., Himalaya; coarctatus Cdz. Himalaya [Cand., yellow border]; Collection E. Candèze; Lacon coarctatus Cand., det. E. Candèze [IRSNB curatorial label] (IRSNB, Brussels).

The description is based on an unrecorded number of specimens in the Janson collection. No specimens of this species have been found in the BMNH. It is possible that Candèze did not return the material to Janson (see Hayek, 1973 : 271).

Agrypnus coctus (Candèze) [p. 140]

Additional paralectotypes examined. BURMA: 2 ex., Rangoon; Collection E. Candèze; Lacon coctus Cand., det. E. Candèze [IRSNB curatorial label]. One specimen bears Candèze's yellow bordered label: coctus Cdz. Rangoon (IRSNB, Brussels).

Agrypnus coenosus (Hope) [p. 140]

This species was omitted from the Junk catalogue.

The lectotype is 14·5 mm long compared with the published length of $6\frac{1}{2}$ lines (if English lines = 13·5 mm). The Hope Department of Entomology, Oxford possesses a male with a yellow label: coenosus [? Hope] Gen. Hardwicke [printed]. However, as it is 16 mm long I do not consider it to be part of Hope's original series. It is conspecific with the lectotype.

Agrypnus collisus (Candèze) [p. 141]

Syntypes examined. BURMA: 1 ex., Carin Cheba 900–1100 m. L. Fea v.xii.88; collisus Cand. Birmanie, L. Fea [Cand., yellow border]; Collection E. Candèze; Lacon collisus Cand. det. E. Candèze [IRSNB curatorial label] (IRSNB, Brussels). 1 ex., Carin Cheba 1000–1100 m. L. Fea v.xii. 88; Type collisus Cand. [replacement label in unknown handwriting, see *Adelocera acerbus* (Candèze) p. 189] (MCSN, Genoa).

The description is based on two examples from 'Montagnes de Carin, detroit des Cheba (900–1000) metres'. Designation of the lectotype is deferred until the specimens have been critically examined.

Agrypnus colonicus (Candèze) [p. 141]

Lacon colonicus Candèze, 1882 : 8 [not 1881].

Lacon taciturnus Candèze, 1874 : 60 pars.

LECTOTYPE (present designation). VIETNAM: ♂, Cochinch, illegible word [possibly an abbreviation of Mniszech]; n. sp. colonicus Cdz. Cochinch. [Cand., yellow border]; Collection E. Candèze; Lacon colonicus Cd. det. E. Candèze [IRSNB curatorial label] (IRSNB, Brussels).

The two syntypes of *Lacon taciturnus* Candèze recorded by Hayek (1973 : 219) are conspecific with *Agrypnus colonicus* (Candèze), but not with the lectotype of *Lacon taciturnus* Candèze (see p. 241).

Agrypnus communis (MacLeay) comb. n.

Lacon communis MacLeay, 1888 : 1238.

Lacon communis MacLeay; Neboiss, 1956 : 6.

LECTOTYPE (present designation). AUSTRALIA: ♂, N.W. Austr.; *Lacon communis* MacL. N.W. Austr. [MacLeay]; *Lacon communis* MacL. Syntype det. Neboiss 1969 (ANIC, Canberra).

Paralectotype. AUSTRALIA: 1 ♀, N.W. Austr. (ANIC, Canberra).

The description was published in a paper on the insects collected by Froggatt in the vicinity of King's Sound. Of the other *Lacon* species (e.g. *fasciolatus*) described in the paper, one specimen of each of MacLeay's series bears in addition to the specific name the name of the locality (either King's Sound or Barrier Range) on the determination label. This is not so in the case of *communis*. Whether this is due to an oversight or because the locality was unknown to MacLeay is not known. There are no subsequent records of *communis*.

Agrypnus commutabilis (Elston) [p. 142]

Additional syntypes examined. 3 ex., Noonkanbah; NV. Austr. Mjoberg: Mjoberg; *commutabilis* Elston Co-type (NR, Stockholm).

Agrypnus compactus (Candèze) comb. n.

Lacon compactus Candèze, 1882 : 10.

Lacon compactus Candèze; Neboiss, 1956 : 6.

LECTOTYPE (present designation). AUSTRALIA: Australie septentrionale; n. sp. *compactus* Cdz. Austr. sept. [Cand., red border]; Collect. Monchicourt; Collection E. Candèze; *Lacon compactus* Cand., det. E. Candèze [IRSNB curatorial label] (IRSNB, Brussels).

The description is based on an unrecorded number of specimens in the Monchicourt collection, which was acquired by Candèze (see Hayek, 1973 : 271).

Agrypnus comptus (Candèze) [p. 142]

Additional syntype examined. THAILAND: 1 ♀, *comptus* Cdz. Siam [Cand., yellow border]; Collection E. Candèze; *Lacon comptus* Cand., det. E. Candèze [IRSNB curatorial label]. 1 ex., Siam; with collection and IRSNB curatorial label as above (IRSNB, Brussels).

Agrypnus consors (Candèze) [p. 142]

Paralectotype. INDIA: 1 ex., Madras; *consors* Cdz. Madras [Cand., yellow border]; Collection E. Candèze; *Lacon consors* Cand. det. E. Candèze [IRSNB curatorial label] (IRSNB, Brussels).

Agrypnus conspurcatus (Candèze) [p. 143]

Additional paralectotypes examined. MADAGASCAR: 1 ♂, 1 ex., Madagascar Diego Suarez 17 Ch. Alluaud 1893; Collection E. Candèze; *Lacon conspurcatus* Cand., det. E. Candèze [IRSNB curatorial label]. The male also bears Candèze's blue-bordered label: n. sp. *conspurcatus* Cand. Mt d'Ambre and a label with the word 'type' in an unknown hand.

The description is based on a number ('plusieurs') of specimens collected by Alluaud 'sur la Montagne d'Ambre, non loin de baie de Diego Suarez'.

Agrypnus corvinus (Candèze) comb. n.

Lacon corvinus Candèze, 1882 : 12.

Lacon corvinus (Candèze; Neboiss, 1956 : 6.

LECTOTYPE (present designation). AUSTRALIA (Western Australia): Swan River; n. sp. *corvinus* Cdz. Swan River Bad [Cand., red border]; Collection E. Candèze; *Lacon corvinus* Cand., det. E. Candèze [IRSNB curatorial label] (IRSNB, Brussels).

Agrypnus costicollis (Candèze) [p. 144]

Agrypnus (Paralacon) costicollis (Candèze) Ohira, 1971d : 205. [First publication of new combination.]

Candèze based the description on a single specimen measuring 16 mm from 'des Indes-Orientales' submitted by Deyrolle. Up to the present time I have been unable to locate a specimen of this size or any other specimen which could be the holotype. Fortunately the species is very distinctive and easily recognized from Candèze's figure. The species occurs in N. India and North Vietnam.

Agrypnus cotesi (Candèze) comb. n.

Lacon cotesi Candèze, 1889 : 73.

Adelocera cotesi (Candèze) Fleutiaux, 1926 : 96.

The description is based on an unrecorded number of specimens from 'Bengale'.

Syntype-material. Not located in IRSNB, Brussels or BMNH.

The generic attribution is based on Candèze's comment that the species resembles *piger* Candèze and *truncatus* Herbst which are both now included in *Agrypnus* (Hayek, 1973 : 198 and 223).

Agrypnus crassus (Candèze) comb. n.

Lacon crassus Candèze, 1874 : 88.

Lacon crassus (Candèze); Neboiss, 1956 : 7.

The description is based on an unrecorded number of specimens from AUSTRALIA (Queensland): Cape York in the v. Bruk [sic] collection. According to Horn & Kahle (1935 : 38) the E. von Bruck collection was acquired by The University Museum, Bonn in 1882. It seems probable that the collection was lost in the 1939–45 war.

The generic attribution is based on the following specimens: AUSTRALIA: 1 ex., Australia, Somerset, L. M. D'Albertis; [Cand. 1878 : 103 locality], *crassus* Cdz. Brisb. C.G. [Cand., red border]; Collection E. Candèze; *Lacon crassus* Cand., det. E. Candèze [IRSNB curatorial label]; 1. 1 ex., Brisbane; Collection E. Candèze; *Lacon crassus* Cand., det. E. Candèze [IRSNB curatorial label]; 2 (IRSNB, Brussels). Candèze's determination label has obviously been attached to the wrong specimen.

Agrypnus cruentatus (Elston) comb. n.

Lacon cruentatus Elston, 1927 : 351.

Lacon cruentatus Elston; Neboiss, 1956 : 7.

The description is based on an unrecorded number of specimens from AUSTRALIA: S. Australia, Lake Callabona (A. Zietz), Oodnadatta. Elston states that the type is in the SAM, Adelaide but he does not record its locality. Neboiss (1956 : 7) records a paratype in the AM, Sydney. See also Hayek (1973 : 274).

The generic attribution is based on the description and Elston's comments that the species bears a certain resemblance to *pictipennis* Candèze and *guttatus* Candèze. Both these species are now included in *Agrypnus* (Hayek, 1973 : 197 and 161).

Agrypnus davidis (Fairmaire) [p. 147]

LECTOTYPE (present designation). CHINA: ♂, Chine Centrale; *Lacon davidi* [sic] Fairm. [Fairm.]; Collection E. Candèze; *Lacon davidis* Fairm. Rev. E. Candèze [IRSNB curatorial label] (IRSNB, Brussels).

The original spelling is *davidis*. The handwriting on the specimen recorded in Hayek (1973) is not that of Fairmaire. Since there is no means of knowing whether Fairmaire had this specimen before him at the time of the description it should be excluded from the syntype-series.

Agrypnus davidis (Fairmaire) is not conspecific with *Agrypnus argillaceus* (Solsky).

Agrypnus dealbatus (Candèze) [p. 147]

Additional syntypes examined. AUSTRALIA: 1 ex., Cape York; n. sp. *dealbatus* Cdz. Cap York [Cand., red border]; Collection E. Candèze; Lacon *dealbatus* Cand., det. E. Candèze [IRSNB curatorial label]. 1 ex., 1 ♀ with the same labels but without Candèze's determination label. The specimens are numbered 1, 2 and 3 (IRSNB, Brussels).

Agrypnus decoratus (Candèze) [p. 148]

Syntypes examined. MADAGASCAR: 2 ex., Madagascar: Collection E. Candèze; Lacon *decoratus* Cand. det. E. Candèze [IRSNB curatorial label]. One specimen bears in addition: n. sp. *decoratus* Cand. Madag. [Cand., blue border] (IRSNB, Brussels).

Agrypnus defectus (Candèze) [p. 148]

Syntypes examined. BURMA 1 ♀, Tenasserim, Thagata Fea Apr. 1887; TYPE; *defectus* [replacement label in unknown handwriting, see *Adelocera acerbus* (Candèze) p. 189] (MCSN, Genoa). 1 ex., Tenasserim, Kawkareet Fea Maggio 1887; Lacon *defectus* Cand. [unknown handwriting]; *defectus* Cand. Tenasserim [Cand., yellow border]; Collection E. Candèze; Lacon *defectus* Cand., det. E. Candèze [IRSNB curatorial label] (IRSNB, Brussels).

Agrypnus delesserti (Candèze) [p. 148]

LECTOTYPE (present designation). INDIA: Neelgh.; n. sp. *delesserti* Cdz. Neelgheeries [Cand., yellow border]; Lacon *delesserti* Cand., det. E. Candèze [IRSNB curatorial label] Collection E. Candèze (IRSNB, Brussels).

Agrypnus denticollis (Fleutiaux) [p. 148]

See *Agrypnus tellini* (Fleutiaux) p. 241.)

Agrypnus deyrollei Hayek [p. 149]

The combination *Agrypnus coenosus* (Candèze) was first published by Ohira (1971d : 205).

Agrypnus discedens (Candèze) [p. 150]

Syntypes examined. INDONESIA: 1 ex., 2; Ternate Beccari 1875 (MCSN, Genoa). The specimen lacks a determination label but stands beside a specimen bearing a replacement determination label (see *Adelocera acerbus* (Candèze) p. 189). 1 ex., Ternate Beccari 1875; *discedens* Cdz. Ternate [Cand., yellow border]; Collection E. Candèze; Lacon *discenens* Cand., det E. Candèze [IRSNB curatorial label] (IRSNB, Brussels).

The MCSN, Genoa contains in addition two specimens with the following labels: 1; Molluche, Ternate, Coll. Bruijn 1875; Type; *discedens* Cand. [unknown hand, similar to labels known to replace Candèze's original labels, see *Adelocera acerbus* (Candèze) p. 189]; Lectotype Van Zwaluwenburg and 3; Molluche, Ternate, Coll. Bruijn 1875. The IRSNB, Brussels also possesses a specimen with the same locality with the Candèze collection and IRSNB curatorial determination labels. The numbers 1–3 were almost certainly affixed by Van Zwaluwenburg but he did not publish a lectotype designation for this species.

A. A. Bruijn accompanied Beccari on his collecting trip aboard the Dutch warship *Soerabaja* in 1875–76 (Gestro, 1876 : 512).

In my opinion neither the Laglaise (Hayek, 1973 : 150) or Bruijn specimens should be regarded as part of the syntype-series.

Agrypnus dorcinus (Candèze) [p. 150]

The combination was first published by Ohira (1972a : 40).

Syntypes examined. PHILIPPINES: 2 ex., 1 ♀, Bohol; Collection E. Candèze; *Lacon dorcinus* Cand., det. E. Candèze [IRSNB curatorial label]. One specimen bears Candèze's yellow-bordered label: *dorcinus* Bojol [sic] Cdz. (IRSNB, Brussels).

Agrypnus elongatus (Carter) comb. n.

Mymodes (?) *elongatus* Carter, 1939 : 302.

Myrmodes (?) *elongatus* Carter; Neboiss, 1956 : 15.

Holotype. AUSTRALIA: ♂, Clermont 12/30. Queensland, K. K. Spence; Holotype; ? *Myrmodes elongatus* Cart. [Carter] (AM, Sydney).

Carter records that Spence gave him three specimens, but whether this number includes the type is not clear.

The AM, Sydney possesses two specimens from the same locality and with the same date, and a third from the same locality but with the date 1. 29. and Carter's determination label. All bear paratype labels, but I suspect that only the first two are true paratypes. The ANIC, Canberra collection should also be examined (see note on Carter collection, p. 248) in case it contains specimens with a better claim to paratype status.

This species bears a close resemblance to *A. rubiginosus* (MacLeay). In both species the terminal segment of the labial palps is much enlarged.

Agrypnus fairmairei (Candèze) [p. 152]

Syntype examined. MADAGASCAR: 1 ex., Madagascar; *fairmairei* Cand. Mad., Type [Cand., blue border]; Collection Fairmaire; Collection E. Candèze; *Lacon fairmairei* Cand., det. E. Candèze [IRSNB curatorial label] Type ? (IRSNB, Brussels).

Agrypnus farinosus (Candèze) [p. 153]

Syntypes examined. TOGO: 3 ex., Togo; Collection E. Candèze, *Tilotarsus farinosus* Cand. det. E. Candèze [IRSNB curatorial label]. One specimen bears Candèze's blue-bordered label; n. sp. 94 [sic] *farinosus* Cand. Togo, Kr. and a label with the word 'Type' (IRSNB, Brussels).

Agrypnus fasciolatus (MacLeay) comb. n.

Lacon fasciolatus MacLeay, 1888 : 1239.

Lacon fasciolatus MacLeay; Neboiss, 1956 : 8.

LECTOTYPE (present designation). AUSTRALIA: ♂, N.W. Austr.; *Lacon fasciolatus* MacL. King's Sound N.W. Austr. [MacL.] (ANIC, Canberra).

Agrypnus fex (Candèze) [p. 155]

Syntype examined. WEST MALAYSIA: 1 ex., Singapour; *fex* Cdz. Singap. [Cand., yellow border]; *Lacon fex* Cd. det. E. Candèze (IRSNB curatorial label); Collection E. Candèze (IRSNB, Brussels).

The specimen agrees well with the description. It would appear that Candèze retained the specimen instead of returning it to Janson.

Agrypnus fictus (Candèze) [p. 155]

Lacon fictus Candèze, 1878b : LIII (7) [not 1868b].

Syntype examined. MADAGASCAR: ♀, Madagascar; *fictus* Cdz. Mad.; *Lacon fictus* Cd., det. E. Candèze [IRSNB curatorial label]; Collection E. Candèze (IRSNB, Brussels).

Agrypnus froggatti (MacLeay) comb. n.

Lacon froggatti MacLeay, 1888 : 1234.

Lacon froggatti MacLeay; Neboiss, 1961 : 8.

LECTOTYPE (present designation). AUSTRALIA: ♀, N.W. Aust. *Lacon froggatti* MacL. Barriar Range N.W. Aust. [MacLeay] (ANIC, Canberra).

For a note on the locality see *Agrypnus atricolor* (MacLeay) p. 209.

Agrypnus gabonensis Hayek [p. 158]

Syntype examined. GABON. 1 ex., Gabon; n. sp. *reductus* Cdz. Gabon. C. [Cand., blue border]; *Lacon reductus* Cd. det. E. Candèze [IRSNB curatorial label]; Collection E. Candèze (IRSNB, Brussels).

Agrypnus geminatus (Candèze) [p. 158]

Additional syntypes examined. AUSTRALIA: 3 ex., Australie; *Lacon geminatus* Cd., det. E. Candèze [IRSNB curatorial label]; Collection E. Candèze. One specimen bears Candèze's red-bordered label: *geminatus* Cdz. Austr. (IRSNB, Brussels).

Agrypnus gibbosus (Schwarz) comb. n.

Lacon gibbosus Schwarz, 1903b : 379.

Adelocera gibbosus (Schwarz) Fleutiaux, 1926 : 96.

LECTOTYPE (present designation). AUSTRALIA: ♂, N. Queensland E. Weiske; Coll. Schwarz; Typus (DEI, Eberswalde). Length 10 mm.

Paralectotype. ♀, with the same labels as the lectotype (DEI, Eberswalde). Length 9 mm.

Neither specimen bears a Schwarz determination label but I have no doubt that these specimens are part of the original series. As the size range is given as 10–14 mm there may be additional paralectotypes elsewhere.

Agrypnus gibbus (Candèze) [p. 159]

Syntype examined. AUSTRALIA (Queensland): 1 ex., Cleveland Bay; n. sp. *gibbus* Cdz. Aust. Sept. [Cand., red border]; Collection E. Candèze; *Lacon gibbus* Cand. det. E. Candèze [IRSNB curatorial label] (IRSNB, Brussels).

Agrypnus girardi nom. n.

Archontas pauliani Girard, 1970 : 28.

Agrypnus pauliani (Girard) Hayek, 1973 : 197. [Junior secondary homonym of *Agrypnus pauliani* (Fleutiaux, 1941).]

Agrypnus glirinus (Candèze) [p. 159]

Lacon glirinus Candèze, 1865 : 11.

Lacon stricticollis Fairmaire, 1881 : 226. Syn. n.

Agrypnus stricticollis (Fairmaire) Hayek, 1973 : 216.

Lacon stricticollis Fairmaire. LECTOTYPE (present designation). FIJI Is.: ♀, Viti 81 : 51 [BMNH registration number=purchased of Godeffroy Museum, Hamburg, 1881]; *Lacon sticticollis* [sic] Fairm. (unknown handwriting) (BMNH).

Paratypes. FIJI Is.: 1 ♂, Viti : 81 : 50 (BMNH). 1 ♀, C. Fairm.; *Lacon stricticollis* Fairm. I. Viti [? Fairm.]; *Lacon stricticollis* Frm. E. Fleutiaux vid. 1932; *stricticollis* Frm. Viti [Cand., red border] (IRSNB, Brussels).

Agrypnus goudotii (Candèze) [p. 159]

Syntype examined. MADAGASCAR: 1 ♀, Madagascar; *goudotii* Cdz. Mad. [Cand., blue border]; Collection E. Candèze; *Lacon goudotii* Cand. det. E. Candèze [IRSNB curatorial label] (IRSNB, Brussels). The specimen is 25 mm long. The IRSNB collection also contains 3 ♀ from the Candèze collection measuring 21, 22 and 23 mm. No males from the Candèze collection have been located.

Agrypnus gracilentus (Schwarz) [p. 160]

LECTOTYPE (present designation). SOLOMON Is.: ♂, Tulagi Salomon Is.; Coll. Bennigsen (DEI, Eberswalde).

Paratypes. SOLOMON Is.: 1 ♀, Tulagi, Salomon Is.; Coll. v. Bennigsen. 1 ♂, 1 ♀, Tulagi Salomon Is., Coll. Schwarz. The female bears Fleutiaux' label '? type de *gracilentus*=*gracilis* Cand. (DEI, Eberswalde).

None of the specimens bear Schwarz's determination label but as all bear the red 'Typus' labels characteristic of the Schwarz collection I have no hesitation in accepting them as Schwarz's original material.

Whether the locality Tulagi refers to the town on Nggela in the Floral Island group or to the island of that name lying off the south coast of Nggela is not known.

Van Zwaluwenburg (1947 : 110), discussing *gracilis* Candèze, refers to the 'synonymous *gracilentus*' but to the best of my knowledge this synonymy has not been confirmed. Fleutiaux seems to have been undecided on whether the species are conspecific.

Examination of the syntype-series and specimens standing as *gracilis* in the BMNH and other collections suggests that this species shows a wide range of variation not only in external appearance but also in the shape of the aedeagus. Until this problem has been resolved I believe that *gracilentus* Schwarz should be treated as a good species.

Agrypnus gracilis (Candèze) [p. 160]

Compsolacon gracilis var. *specularis* Van Zwaluwenburg, 1947 : 109.

Lacon gracilis Candèze. Additional syntypes examined. PAPUA NEW GUINEA: 1 ♀ N. Guin. Allemande. Also 2 ♂, 1 ♀ Nouvelle Guinée and 1 ♂, 1 ♀ N. Guinea, Amberbaki [position unknown]. All the specimens bear, in addition to the IRSNB curatorial and determination labels; *Lacon gracilis* det. E. Candèze and *Lacon gracilis* Cd. rev. E. Fleutiaux (IRSNB, Brussels). Despite the fact that the specimens lack Candèze's determination labels I have no doubt that they formed part of his original series.

This species seems to show a wide range of variation. See also the comments under *A. gracilentus* Schwarz above.

Compsolacon gracilis specularis Van Zwaluwenburg, 1947 : 109. Holotype. WEST IRIAN: ♀, Hollandia, Dutch New Guinea, April (*Borys Malkin*) (USNM, Washington, type no. 58272). Not examined.

Paratypes. 5 ♀ (probable) same data as type (USNM, Washington). Not examined.

The 1972 amendment to the ICZN Article 45(e)(i) requires that the term variety used before 1961 be interpreted as denoting subspecific rank.

Examination of the syntype and other specimens standing as *gracilis* in the BMNH collections (a number bear Van Zwaluwenburg's determination labels) suggests that *gracilis* in its present

interpretation is a very variable species or possibly a group of sibling species. The status of *specularis* can probably be elucidated only in the course of a thorough study of the New Guinea *Agrypnus* species.

Agrypnus granulatus (MacLeay) [p. 161]

Lacon granulatus MacLeay, 1872 : 251.

Lacon insignitus Candèze, 1874 : 89. **Syn. n.**

Agrypnus insignitus (Candèze); Hayek, 1973 : 168.

Lacon granulatus MacLeay. LECTOTYPE (present designation). AUSTRALIA: ♀, K 32790; *Lacon granulatus* MacL. W. Gayndah [MacLeay] (AM, Sydney).

Paralectotypes. 1 ♀, K 32790 (AM, Sydney). 3 ♂, 1 ♀ on one card, Gayndah, *Lacon granulatus* MacL. Gayndah [MacLeay]. 1 ♀, same labels; on permanent loan from MacLeay Museum, University of Sydney (ANIC, Canberra). This specimen is not recorded by Hahn.

Agrypnus guttatus (Candèze) [p. 161]

Lacon guttatus Candèze, 1857 : 151.

Lacon maculatus MacLeay, 1872 : 251. [Synonymized by Lea, 1920 : 397.] [Synonymy confirmed.]

Agrypnus maculosus (MacLeay); Hayek, 1973 : 180. [Incorrect subsequent spelling.]

Lacon maculatus MacLeay. LECTOTYPE (present designation). AUSTRALIA: ♀, 32791; *Lacon maculatus* Mch. W. Gayndah [MacLeay]; Syn. of *guttatus* Cand. 1d. by A.M. Lea [lea] (AM, Sydney).

Agrypnus gypsatus (Candèze) [p. 162]

Additional syntypes examined. BURMA: 4 ♀, 1 ♂, Carin Cheba, 900–1100 m. L. Fea v xii 88. One female bears in addition: Typus; *gypsatus* Cand. [replacement label in unknown handwriting, see *Adelocera acerbus* (Candèze) p. 189]. (MCSN, Genoa). 1 ♀, same locality; L. *gypsatus* Cdz. sp. n. [Candèze], 1 ♂ same locality (MNHN, Paris), 1 ♀, 1 ♂ same locality; Collection E. Candèze; *Lacon gypsatus* Cd. det. E. Candèze [IRSNB curatorial label] (IRSNB Brussels).

Agrypnus hackeri (Elston) comb. n.

Lacon hackeri Elston, 1927 : 357.

Lacon hackeri Elston; Neboiss, 1956 : 9.

The description is based on an unrecorded number of specimens from AUSTRALIA: Queensland, Stradbroke Island (*H. Hacker*); New South Wales, Sydney.

Syntype-material (see Hayek, 1973 : 274). QM, Brisbane, AM, Sydney.

The generic attribution is based on the description and Elston's comment that the species resembles *pleureticus* Candèze (= *Agrypnus*, Hayek, 1973 : 200).

Agrypnus hamatus (Candèze) comb. n.

Lacon hamatus Candèze, 1893b : 8.

Adelocera hamatus (Candèze) Fleutiaux, 1926 : 96.

Syntypes examined. MADAGASCAR: 1 ♂, 1 ex., Madagascar; Collection E. Candèze; *Lacon hamatus* Cand. det. E. Candèze [IRSNB curatorial label]. The male, which is 12 mm long compared to the published length of 9 mm, also bears the following labels: *hamatus* Cand., Madagascar [Cand., blue border]; Type [manuscript] (IRSNB, Brussels).

Agrypnus hexagonus (Candèze) [p. 163]

Syntypes examined. MADAGASCAR: 6 ex., Tananarivo; Collection E. Candèze; *Tilotarsus hexagonus* Cand. det. E. Candèze [IRSNB curatorial label]. One specimen bears the following addi-

tional labels: Type hexagonus Cand. Tananarivo [Cand., blue border]; Type (IRSNB, Brussels). The published length is 12 mm. The specimen with Candèze's determination label is 13 mm long, the others vary between 11·5 mm and 13 mm. The published locality is Antananarivo. Tananarivo is an alternative spelling.

Agrypnus himalayanus (Jagemann) comb. n.

Compsolacon himalayanus Jagemann, 1944 : 335.

LECTOTYPE (present designation). CHINA. ♀, Poo [position unknown]; West.-Hym. Coll. Splichal; *Compsolacon himalayanus* Jg. det. Jagemann. Typus; [Jagemann] (NM, Prague). Length 15·5 mm.

Paralectotype. ♀, same locality and determination label as lectotype (NM, Prague). Length 14 mm.

Agrypnus holosericeus (Candèze) [p. 164]

Additional syntypes examined. INDIA. 2 ♂, 5 ex., Kanara; Collection E. Candèze; *Lacon holosericeus* Cand. det. E. Candèze [IRSNB curatorial label]. One specimen bears an additional label: n. sp. 1893 *holosericeus* Bombay Andr. [Cand., yellow border] (IRSNB, Brussels). 1 ex., Kanara; *holosericeus* Cand. [Andrews] co-type [BMNH curatorial] (NR, Stockholm).

Agrypnus hunti nom. n.

Lacon farinosus Elston, 1927 : 355.

Lacon farinosus Elston; Neboiss, 1956 : 7.

Agrypnus farinosus (Elston) comb. n. [Junior secondary homonym of *Agrypnus farinosus* (Candèze, 1895).]

Type-material (see Hayek, 1973 : 274). SAM, Adelaide, AM, Sydney.

Syntype examined. AUSTRALIA: 1 ♂, Port Darwin, N. Territory; *Lacon farinosus* Elston Co-Type [Elston]: A. H. Elston Collection (AM, Sydney).

Agrypnus hydropictus (Fairmaire) comb. n.

Lacon hydropictus Fairmaire, 1880 : 283.

Adelocera hydropictus (Fairmaire) Fleutiaux, 1926 : 96.

LECTOTYPE (present designation). REUNION: ♀, Ile Reunion; C. Fairm.; *Lacon hydropictus* Fairm. [Fairm.]; *hydropictus* Fairm. Reunion [Cand., blue border] Type; Collection E. Candèze; *Lacon hydropictus* Fairm. det. Fairmaire [IRSNB curatorial label]; Type unique de *Lacon hydropictus* Fairm. Fleut. vidit. 1920 [Fleut.] (IRSNB, Brussels). Fairmaire did not record the number of specimens on which he based his description.

Agrypnus impressus (Candèze) [p. 166]

Lectotype (designated by Van Zwaluwenburg, 1959 : 353). WEST IRIAN: ♂, N. Guinea, Andai Beccari 1875; Type. *impressus* Cand. [replacement label in unknown handwriting, see *Adelocera acerbus* (Candèze) p. 189]; Lectotype, Van Zwaluwenburg (MCSN, Genoa).

Paralectotype. 1 ♂, same locality as lectotype (MCSN, Genoa).

The lectotype is 12·5 mm long and the paralectotype 13·5 mm long compared with the published length of 15 mm.

Agrypnus inaequalis (Fleutiaux) [p. 166]

Additional paralectotype examined. MADAGASCAR: 1 ♀, Fianarantsoa, Madagascar; Collection Fleutiaux; *Adelocera inaequalis* Fleut. [Fleutiaux] (IRSNB, Brussels).

Agrypnus incultus (MacLeay) comb. n.

Lacon incultus MacLeay, 1888 : 1235.

Lacon incultus MacLeay; Neboiss, 1961 : 8.

LECTOTYPE (present designation). AUSTRALIA: ♀, N.W. Aust.; *Lacon incultus* MacL. Syntype det. Neboiss [Neboiss]; *Lacon incultus* MacL. King's Sound, N.W. Aust. [MacLeay] (ANIC, Canberra).

Paralectotype. AUSTRALIA: ♀, N.W. Aust.; *Lacon incultus* MacL. Syntype det. Neboiss [Neboiss] (ANIC, Canberra).

The third specimen recorded by Hahn (1962 : 81) has not been found.

Agrypnus inductus (Candèze) [p. 167]

Holotype. BURMA: sex undetermined. Bhamo, Birmania Fea vi. 1885; *inductus* Cand. [replacement label in unknown handwriting, see *Adelocera acerbus* (Candèze) p. 189] (MCSN, Genoa).

Agrypnus indutissimus (Candèze) [p. 167]

Holotype. ENGGANO: ♀, Engano, Kifu – juc v. [sic] Modigliani 1891; Type; *indutissimus* Cand. [replacement label in unknown handwriting, see *Adelocera acerbus* (Candèze) p. 189] (MCSN, Genoa).

Agrypnus inflatus (Candèze) [p. 168]

Syntypes examined. INDIA: 2 ♀, illegible round label [? Davis, Inde]; Mysore; Collection E. Candèze; *Lacon inflatus* Cand., det. E. Candèze [IRSNB curatorial label]. One specimen bears in addition: n. sp. 1893 *inflatus* Cand. Indus [?] [Cand., yellow border] (IRSNB, Brussels). It seems reasonable to regard the specimen in the MNHN, Paris as a syntype (Hayek, 1973 : 168).

Agrypnus insignitus (Candèze) [p. 168]

See *Agrypnus granulatus* (MacLeay) p. 221.

Agrypnus insulsus (Candèze) [p. 169]

Candèze does not record a locality for this species. The paper is based mainly on material collected by Alluaud around Diego Suarez and on Mont d'Ambre but as other localities are also recorded it seems reasonable to accept the following specimens as syntypes.

Syntypes examined. MADAGASCAR: 1 ex., Tananarivo [2 mss. labels]; n. sp. 1893 *insulsus* Cand. Tananarivo [Cand., blue border]. Type; *Lacon insulsus* Cd., det. E. Candèze [IRSNB curatorial label]; Collection E. Candèze, 7 ex., same labels but without Candèze determination label (IRSNB, Brussels).

Agrypnus jansoni (Fairmaire) [p. 171]

Syntype examined. MADAGASCAR: 1 ex., Madagascar [? Coquerel] *Lacon jansoni* Fairm., Madag. [Fairm.]; C. Fairm.; *jansoni* Fairm. Madag. [Cand., blue border]; Type; Collection E. Candèze; *Lacon jansoni* Fairm. det. Fairmaire [IRSNB curatorial label] (IRSNB, Brussels).

Agrypnus kawamurae (Miwa) comb. n.

Lacon kawamurae Miwa, 1929 : 230.

Syntypes. TAIWAN: 2 ♂, 2 ♀, Horisha, v–viii (*H. Kawamura*) (? Taiwan Ag. Research Institute, Taipei). Not examined.

The generic attribution is based on the following specimen determined by Dr H. Ohira and kindly presented by him to the BMNH: 1 ♂, Formosa, Nanshanoi 15.v.1971 (C. Tou).

Agrypnus lachrymosus (Candèze) [p. 173]

Additional paralectotypes examined. AUSTRALIA (Victoria): 3 ex., Melbourne; Collection E. Candèze; *Lacon lachrymosus* Cand., det. E. Candèze (IRSNB curatorial label). One specimen, which has lost its abdomen, bears Candèze's blue bordered label: *lachrymosus* Cdz. Melb. (IRSNB, Brussels).

Agrypnus latiusculus (Candèze) [p. 175]

Syntype examined. MADAGASCAR: 1 ♂, Madagascar; n. sp. *latiusculus* Cdz. Madag. [Cand., blue border]; Collection E. Candèze; *Lacon latiusculus* Cand., det. E. Candèze; Type (IRSNB, Brussels).

Agrypnus laxatus (Candèze) [p. 176]

Additional paralectotypes examined. MADAGASCAR: 2 ex., Madagascar Diego Suarez 7 Ch] Alluaud. 1893; *Lacon laxatus* Cand. det. E. Candèze (IRSNB curatorial label); Collection E. Candèze. One specimen bears Candèze's blue bordered determination label: n. sp. 1894 [sic. *laxatus* Cand., Mad., All. (IRSNB, Brussels).

The date on Candèze's determination label on the lectotype is 1895, not 1893.

Agrypnus lecordieri (Girard) comb. n.

Lobotarsus lecordieri Girard, 1971 : 566, figs 12, 14.

Holotype. IVORY COAST : ♂ Lamto I., 5.4–25.5.1965, Ch. Lecordier, à la lumière (MNHN, Paris). Not examined. The generic attribution is based on the figure and Girard's comment that it may be compared with *simplex* Candèze (= *Agrypnus*, see Hayek, 1973 : 212).

Agrypnus leucaspis (Candèze) [p. 176]

Additional syntypes examined. WEST MALAYSIA: 2 ex., Malacca; *Lacon leucaspis* Cand., det. E. Candèze; Collection E. Candèze. One specimen bears Candèze's yellow-bordered determination label: *leucaspis* Cdz. Malac. (IRSNB, Brussels). 1 ♀, standing as *leucaspis*: Malacca; D. Candèze (MCSN, Genoa).

Agrypnus libellus (Candèze) comb. n.

Lacon libellus Candèze, 1893c : 170.

Adelocera libellus (Candèze) Fleutiaux, 1926 : 96.

Holotype. INDIA (Mysore): ♂, Mars 1893 *libellus* Cand. Kanara; *Lacon libellus* Cand. det. E. Candèze (IRSNB, curatorial label); Collection E. Candèze; Type (IRSNB, Brussels).

Agrypnus limosus (Candèze) [p. 177]

Syntypes examined. NEW GUINEA: 2 ex., Nouvelle Guinea; *Lacon limosus* Cand., det. E. Candèze [IRSNB curatorial label]; Collection E. Candèze. One specimen bears Candèze's yellow bordered label: n. sp. *limosus* Cdz. Nov. Guin. (IRSNB, Brussels).

Candèze gives the locality as 'Nouvelle-Guinée' without further details.

Agrypnus lindensis (Blackburn) [p. 177]

Additional paralectotype examined. 1 ex., standing over a label: lindensis Blackb. D. Blackb. 93. with the number 891 on the card mount (MCSN, Genoa).

The IRSNB, Brussels collection contains a specimen with the following labels: lindensis Blackb. Adelaide [Cand., red border]; Blackburn; Type; Collection E. Candèze; Lacon lindensis Bl. det. Blackburn (IRSNB curatorial label). As Adelaide is some distance from Port Lincoln, the published locality, this specimen is not accepted as a syntype.

Agrypnus lineatellus (MacLeay) comb. n.

Lacon lineatellus MacLeay, 1888 : 1236.

Lacon lineatellus (MacLeay); Neboiss, 1961 : 9.

LECTOTYPE (present designation). AUSTRALIA: ♀, N.W. Aust.; *Lacon lineatellus* MacL. Barriar [sic] Range, N.W. Aust. [MacLeay] (CSIRO, Canberra). Length 10.8 mm.

Paralectotype. AUSTRALIA: 1 ♂, N.W. Aust. (CSIRO, Canberra). Length 9 mm compared with the published length of 5 lines (=10.6 mm). For a note on the locality see *Agrypnus atricolor* (MacLeay) p. 209.

Agrypnus litigiosus (Candèze) comb. n.

Lacon litigiosus Candèze, 1874 : 73.

Adelocera litigiosus (Candèze) Fleutiaux, 1926 : 96.

Syntype examined. WEST MALAYSIA: 1 ex., Malacca; *litigiosus* Cdz. Malac. [Cand., yellow border]; Collection E. Candèze; *Lacon litigiosus* Cand., det. E. Candèze [IRSNB curatorial label] (IRSNB, Brussels). The abdomen and right elytron are missing.

The description is based on an unrecorded number of specimens in the Janson collection. As no specimen can be found in the BMNH, it must be assumed that Candèze did not return the material to Janson.

Agrypnus longicollis (Heller) comb. n.

Lacon longicollis Heller, 1914 : 640, pl. 16, fig. 3.

Adelocera longicollis (Heller); Fleutiaux, 1926 : 96.

The description is based on 11 specimens (Heller, 1914 : 618) collected in WEST IRIAN: Merauke in 1904-5 by the Netherlands Expedition to New Guinea.

Syntypes. ? ZM, Amsterdam, not confirmed.

The generic attribution is based on the description and figure.

Agrypnus luctuosus (Candèze) comb. n.

Lacon luctuosus Candèze, 1893c : 171.

Adelocera luctuosus (Candèze); Fleutiaux, 1926 : 96.

Holotype. INDIA (Mysore): ♀, Kanara; Mars 1893, *luctuosus* Cand. Kanara A. [Cand., yellow border]; Collection E. Candèze; *Lacon luctuosus* Cand., det. E. Candèze; Type (IRSNB, Brussels).

Agrypnus lustratus (Candèze) [p. 179]

Additional syntype examined. INDIA: 1 ex., Nagpoor; n. sp. *lustratus* Cand., Beng. P. Cand. [Cand., yellow border]; Collection E. Candèze; *Lacon lustratus* Cand., det. E. Candèze [IRSNB, curatorial label] (IRSNB, Brussels).

Agrypnus macleayi (Candèze) comb. n.

Lacon macleayi Candèze, 1882 : 11.
Lacon macleayi Candèze; Neboiss, 1956 : 10.

The description is based on an unrecorded number of specimens from AUSTRALIA: Queensland, Port Denison.

No syntype-material has been found in the BMNH or IRSNB, Brussels (see Hayek, 1973 : 271).

The generic attribution is based on Candèze's comment that the species resembles *princeps* Candèze (= *Agrypnus*, Hayek, 1973 : 201).

Agrypnus maculatus (MacLeay) [p. 180]

Agrypnus maculosus (MacLeay); Hayek, 1973 : 180. [Incorrect subsequent spelling.] See *Agrypnus guttatus* (Candèze) p. 221.

Agrypnus maculipennis (Schwarz) comb. n.

Lobotarsus maculipennis Schwarz, 1903a : 361.

Syntypes examined. MADAGASCAR: 1 ♂, 1 ♀ Madagascar; Coll. Schwarz; *maculipennis* Schw. [Schwarz]; cotype. The ♂ bears an additional label: *suboculatus* Cand. [Fleut.] (DEI, Eberswalde). The synonymy has not been published and in my opinion is not justified.

Agrypnus maculosus (Candèze) [p. 180]

Agrypnus maculatus (Candèze); Hayek, 1973 : 180. [Incorrect subsequent spelling.]

Agrypnus madurensis (Candèze) comb. n.

Lacon madurensis Candèze, 1893c : 171.
Adelocera madurensis (Candèze) Fleutiaux, 1926 : 96.

Holotype. INDIA: ♂, Madura [Madurai]; n. sp. 1893 *madurensis* Cand. Madura, Andr. [Cand., yellow border]; Collection E. Candèze; *Lacon madurensis* Cd. det. E. Candèze [IRSNB curatorial label] (IRSNB, Brussels).

Candèze records that the specimen was found by C. Somers-Smith. This gentleman was a private collector who gave material to his friend H. E. Andrews (Andrews, 1929 : vii). This may explain why Candèze's label bears the name 'Andr.'.

Agrypnus mansuetus (Blackburn) [p. 180]

The IRSNB, Brussels contains a specimen from the Blackburn collection bearing Candèze's red-bordered determination label and a type label. As this specimen bears the locality Adelaide (in S. Australia, about 750 miles SW. of the published locality Narrabri) it cannot be accepted as part of Candèze's original material.

Agrypnus marginatus (Candèze) [p. 181]

Additional paralectotype examined. AUSTRALIA (New South Wales): 1 ex., Clarence River; D. Candèze (MCSN, Genoa). The specimen lacks a determination label but stands under *marginatus* Candèze in the collection.

Agrypnus marginipennis (Schwarz) comb. n.

Lacon marginipennis Schwarz, 1903b : 380.
Lacon marginipennis (Schwarz); Neboiss, 1956 : 10.

The description is based on an unrecorded number of specimens from 'Sud Australian'.

Type-material. DEI, Eberswalde according to Neboiss (loc. cit.).

The generic attribution is based on Schwarz's comment that the species is related to *pleureticus* (Candèze) (= *Agrypnus*, see Hayek, 1973 : 200).

Agrypnus marmoratus (Candèze) [p. 181]

Paralectotypes. AUSTRALIA: 1 ex., marmoratus Cdz. A. Queensl. [Cand., red border]; Collection E. Candèze; Lacon marmoratus Cand., det. E. Candèze [IRSNB curatorial label]. 2 ex., Queensland; Collection E. Candèze; Lacon marmoratus Cand., det. E. Candèze [IRSNB curatorial label] (IRSNB, Brussels).

Agrypnus miser (Schwarz) comb. n.

Lobotarsus miser Schwarz, 1905b : 281.

Syntype examined. GABON. 1 ♀, Gabon; coll. Schwarz; Cotypus; miser Schwarz [Schwarz] (DEI, Eberswalde).

Agrypnus mixtus (Candèze) [p. 183]

Holotype. BURMA: sex undetermined, Tenasserim, Kawkareet, Fea, Maggio 1887; Typus; mixtus Cand. [replacement label in unknown handwriting, see *Adelocera acerbus* (Candèze) p. 189] (MCSN, Genoa).

Agrypnus miyamotoi (Nakane & Kishii) [p. 183]

Colaulon (*Cryptolacon*) *miyamotoi ihai* Ohira, 1967b : 104.

Agrypnus miyamotoi (Nakane & Kishii); Hayek, 1973 : 183. [Incorrect subsequent spelling.]

Colaulon (*Cryptolacon*) *miyamotoi ihai* Ohira. Holotype. JAPAN Ryuku Islands: ♀, Ie-jima near Okinawa, 10–11 1956, K. Iha (Ohira collection). Not examined.

Agrypnus mjobergi (Elston) [p. 184]

LECTOTYPE (present designation). AUSTRALIA: sex undetermined, Cedar Creek, Queens. Mjoberg; Type; mjobergi Elston, Type (NR, Stockholm).

Paralectotype. 1 ex., Cedar Creek; Queensl. Mjoberg; mjobergi Elston Co-type (NR, Stockholm).

Agrypnus modestus (Candèze) [p. 184]

Lacon modestus var. *major* Fleutiaux, 1889 : 139. [Synonymized by Fleutiaux, 1927 : 26.]

Lacon modestus var. *major* Fleutiaux. LECTOTYPE (present designation). VIETNAM (SOUTH): ♀ Tr; 13; *Lacon modestus* v. *major* Tourane Annam; *modestus* v. *major* Fleut. Ann. Soc. Ent. Fr. 89: 139 [Fleut.]; *modestus* vu coll. Cand. Bruxelles 1923 [Fleut.] (MNHN, Paris).

The published locality and collector is Tourane, Perraudiere.

Agrypnus molitor (Candèze) [p. 185]

Syntypes examined. PHILIPPINES: 2 ♂, Mindang [illegible]; Collection E. Candèze; *Lacon molitor* Cd. det. E. Candèze [IRSNB, curatorial label] (IRSNB, Brussels). These two specimens are 15 mm long, the published length. Candèze's yellow-bordered label 'molitor Cdz. Mindan.' is attached to a female measuring 21 mm bearing the locality label 'Palawan Strand'. It seems reasonable to assume that it was transferred to this specimen by mistake.

Agrypnus monachus (Candèze) comb. n.

Lacon monachus Candèze, 1882 : 12.

Lacon monachus Candèze; Neboiss, 1956 : 10.

Syntypes examined. AUSTRALIA (New South Wales): 1 ex., Australia, Mt. Victoria, N.S. Wales, D'Albertis, 73; n. sp. *monachus* Cdz. M. Victoria [Cand., pink border]; *Lacon monachus* Cand., det. E. Candèze [IRSNB curatorial label]; Collection E. Candèze; Type (IRSNB, Brussels). 1 ex., same locality, also labelled type; *monachus* Cand. [replacement label in unknown handwriting, see *Adelocera acerbus* (Candèze) p. 189] (MCSN, Genoa).

Agrypnus montanus (Miwa) comb. n.

Lacon montanus Miwa, 1929 : 229.

Syntypes. TAIWAN: 1 ♂, Shinchiku, 1–vii, 1918 (*J. Sonan & K. Miyake*). 1 ♀, Baibara, 15–viii, 1926 (*Miwa*). Not examined.

Dr Ohira has informed me (pers. comm., February, 1975) that he was unable to locate the type-material in the Taiwan Agricultural Research Institute, Taipei where much of Miwa's material is preserved. The generic attribution is based on the following specimen: 1 ♀, Formosa, Kappanzan vi. 20. 1941. K. Ohbayashi (Ohira collection).

Agrypnus morosus (Candèze) comb. n.

Tilotarsus [sic] *morosus* Candèze, 1895a : 48.

Lobotarsus *morosus* (Candèze); Schwarz, 1906 : 30.

Syntypes examined. TOGO: 1 ♂, 2 ex., Togo; Collection E. Candèze; *Tilotarsus morosus* Cand., det. E. Candèze [IRSNB curatorial label]. The male also bears Candèze's blue bordered label; n. sp. 94 *morosus* Cand., Togo and a label with the word 'Type' in an unknown hand (IRSNB, Brussels).

Agrypnus multipunctatus (Elston) comb. n.

Lacon multipunctatus Elston, 1927 : 358.

Lacon multipunctatus Elston; Neboiss, 1956 : 10.

The description is based on an unrecorded number of specimens from AUSTRALIA: Northern Territory, Port Darwin (*W. K. Hunt*).

Syntype-material (see Hayek, 1973 : 274), SAM, Adelaide, AM, Sydney.

Syntype examined. AUSTRALIA: 1 ♀, N. Territory; *Lacon multipunctatus* Elston, Co-Type [Elston]; A. H. Elston Collection (AM, Sydney).

Agrypnus murinus (Linnaeus) [p. 186]

Elater rufipes DeGeer, 1774 : 150 pars. [Synonymized by Goeze, 1777 : 557.]

Elater nebulosus Razoumowsky, 1789 : 161. [Synonymized by Schoenherr, 1817 : 279.]

Lacon kokeili Kuester, 1845 : No. 6. [Synonymized by Candèze, 1857 : 113.] [Synonymy confirmed.]

Elater rufipes DeGeer. No syntypes have been found but it is clear from the description that DeGeer had before him a mixed series of *Prosternon tessellatum* (Linnaeus) and *Agrypnus murinus* (Linnaeus). See also p. 187.

Elater nebulosus Razoumowsky. Razoumowsky seems to have based his description on material in the various collections to which he had access (Razoumowsky, loc. cit. xi) but apart from M. Desruines he does not record to whom these collections belonged.

Type-material. Assumed to be lost.

The description, which compared the colour of the beetle to that of certain birds of prey or old birch bark, suggests that Schoenherr's synonymy is justified.

Elater kokeilii Kuester. Kuester's collection was broken up and the fate of the Elateridae is unknown (Horn & Kahle, 1935 : 114). From the description there is little doubt that Kuester had before him a large female *Agrypnus murinus* (Linnaeus).

Agrypnus muscerda (Candèze) [p. 187]

Additional syntypes examined: SOUTH AFRICA: 1 ex., muscerda Cdz. Cap. [Cand., blue border]; Collection E. Candèze; Lacon muscerda Cand., det. E. Candèze [IRSNB curatorial label]. 1 ex., Cap; with IRSNB curatorial label and Candèze collection label (IRSNB, Brussels). It seems reasonable to regard the 3 specimens in the BMNH (Hayek, 1973 : 187) as part of the syntype series. 1 ex., Cap. B. Sp.; D. Candèze (MCSN, Genoa).

Agrypnus muscosus (Candèze) [p. 187]

Additional syntypes examined. INDIA: 2 ex., Kanara; Collection E. Candèze; Lacon muscosus Cand., det. E. Candèze [IRSNB curatorial label]. One specimen bears Candèze's yellow-bordered label: n. sp. 1893 muscosus Cand. Bombay Andr. 1 ex., Belgaum S, other labels as above but without Candèze's determination label (IRSNB, Brussels).

Agrypnus nigrescens (MacLeay) comb. n.

Lacon nigrescens MacLeay, 1888 : 1234.

Lacon nigrescens MacLeay; Neboiss, 1961 : 8.

LECTOTYPE (present designation). AUSTRALIA: ♀, N.W. Aust.; *Lacon nigrescens* MacL. Barriar [sic] Range N.W. Aust. [MacLeay] (ANIC, Canberra).

For a note on the locality see *Agrypnus atricolor* (MacLeay) p. 209.

Agrypnus opacus (Candèze) comb. n.

Tilotarsus [sic] *opacus* Candèze, 1900 : 78.

Lobotarsus *opacus* (Candèze); Schwarz, 1906 : 30.

LECTOTYPE (present designation). 1 ♂, Guinée; n. sp. 98 *opacus* Cdz. Guinée [Cand., blue border]; Collection E. Candèze; *Tilotarsus opacus* Cand., det. E. Candèze [IRSNB curatorial label]; Type (IRSNB, Brussels). The specimen is 9 mm long and 3 mm wide compared with the published measurements of 7.5 and 2 mm.

At the time at which Candèze was working the term Guinée was often used for the west coast of Africa from Cape Negro, 15°45' S to Cape Verga 10°18' N. I have not seen any specimens with a more precise locality.

Agrypnus ornatellus (Candèze) [p. 193]

Syntype examined. MADAGASCAR: 1 ex., Madagascar; n. sp. *ornatellus* Cdz. Madag. [Cand., blue border]; Collection E. Candèze; *Lacon ornatellus* Cand. det. E. Candèze [IRSNB curatorial label]; Type (IRSNB, Brussels).

Agrypnus ornatus (Candèze) [p. 193]

Syntypes examined. JAVA: 1 ♀, *ornatus* Cdz. Java. C.Mn. [Cand., yellow border]; Collection E. Candèze; *Lacon ornatus* Cand., det. E. Candèze [IRSNB curatorial label]. 1 ♂, Cand. type [unknown handwriting]; Candèze collection and IRSNB curatorial determination label. 8 ex., Java, Candèze collection and IRSNB curatorial labels (IRSNB, Brussels).

Agrypnus orthoderus (Elston) comb. n.

Lacon orthoderus Elston, 1924 : 204.

Lacon orthoderus Elston; Neboiss, 1956 : 11.

The description is based on an unrecorded number of specimens from AUSTRALIA: Northern Territory (Blackburn collection).

Syntype-material (see Hayek, 1973 : 274). SAM, Adelaide, AM, Sydney.

The generic attribution is based on Elston's comment that the species is near *productus* Elston (= *Agrypnus*, see p. 233).

Agrypnus paenulatus (Bohemian) [p. 193]

Additional paralectotype. SOUTH AFRICA: 1 ex., Caffraria; J. Wahlb.; *paenulatus* Boh. Caffr. [Cand., blue border]; Collection E. Candèze; *Lacon paenulatus* Cd. det. E. Candèze [IRSNB curatorial label] (IRSNB, Brussels).

Agrypnus palliatus (Candèze) [p. 194]

Syntype examined. MADAGASCAR: 1 ex., Madagascar; *palliatus* Cand. Madag. Andrangoloaca [Cand., blue border]; Collection E. Candèze; *Lacon palliatus* Cd. det. E. Candèze [IRSNB, curatorial label] (IRSNB, Brussels).

Agrypnus palpalis (Candèze) [p. 195]

Lectotype (designated by Van Zwaluwenburg, 1959 : 354). AUSTRALIA: sex undetermined, Coll. Monchict; Collection E. Candèze; *Lacon palpalis* Cd. det. E. Candèze [IRSNB curatorial label]; Lectotype Van Z. 1957 [Van Zwaluwenburg] (IRSNB, Brussels).

Paralectotype. 1 ♂, Australie septentrionale; n. sp. *palpalis* Austr. Sept. [? Cand.]; Collection E. Candèze; *Lacon palpalis* Cd. det. E. Candèze [IRSNB curatorial label] (IRSNB, Brussels).

A third specimen (presumably one of Van Zwaluwenburg's 'two additional specimens') standing under the name in the IRSNB, Brussels bears the locality Cape York and in my opinion cannot be regarded as part of the original syntype-series.

Agrypnus parallelus (Candèze) [p. 196]

LECTOTYPE (present designation). AUSTRALIA: ♂, N. Holl. C. Cdze; Janson coll. ex. Candèze, 1903 : 130; *Lacon parallelus* Cdz. n. sp. N. Austr. Th. [Cand.]; *Lacon parallelus* Cand. type [Gahan] (BMNH). Length 10·5 mm.

There are 3 specimens (1 ♂, 2 ♀) from Port Denison [Queensland] in the IRSNB. One female bears Candèze's red-bordered determination label. These specimens measure between 11 and 13 mm in length compared with the published length of 10·5 mm. It seems probable that Candèze acquired these specimens some time after making the description.

The MCSN, Genoa also possesses one specimen from the same locality.

Agrypnus pardalinus (Candèze) comb. n.

Lacon pardalinus Candèze, 1882 : 9.

Adelocera pardalinus (Candèze); Fleutiaux, 1926 : 96.

LECTOTYPE (present designation). INDIA: ♀, Himalaya; n. sp. *pardalinus* Cdz. Himalaya [Cand.]; Collection E. Candèze; *Lacon pardalinus* Cd. det. E. Candèze [IRSNB curatorial label] (IRSNB, Brussels).

The description is based on an unrecorded number of specimens from Darjeeling. As Darjeeling is in the Himalaya region and as the specimen agrees well with the description I consider it not unreasonable to accept it as a syntype.

Agrypnus parvulus (MacLeay) comb. n.

Lacon parvulus MacLeay, 1888 : 1239.

Lacon parvulus MacLeay; Neboiss, 1956 : 11.

LECTOTYPE (present designation). AUSTRALIA: ♂, N.W. Austr.; *Lacon parvulus* MacL. King's Sound, N.W. Austr. [MacLeay] (ANIC, Canberra).

Paralectotype. 1 ♀, N.W. Austr. (ANIC, Canberra).

Agrypnus pauliani (Fleutiaux) comb. n.

Lobotarsus pauliani Fleutiaux, 1941d : 38.

Holotype. CAMEROUN: ♀, Mt Cameroun, 900–100 m versant sud-est; Museum Paris P. Lepesme. R. Paulian A. Villiers Cameroun, 1939; *Lobotarsus pauliani* type [Fleut.] (MNHN, Paris).

The metathorax is very short and the specimen appears to be wingless. The scutellum is strongly transverse and resembles that of the figure of *Archontoides pretoriensis* Cobos, 1966 (= *Agrypnus paenulatus* (Boheman, 1851)).

Agrypnus pauliani (Girard) [p. 197]

See *Agrypnus girardi* nom. n. p. 219.

Agrypnus pauper (Candèze) [p. 197]

Syntypes examined. JAVA: 2 ex., Giava, Teibodas Ott. 1874 O. Beccari. One specimen bears in addition two labels: 'type' and 'pauper Cand.' [replacement label in unknown handwriting, see *Adelocera acerbus* (Candèze) p. 189] (MCSN, Genoa).

Agrypnus pecirkai (Jagemann) stat. n., comb. n.

Lacon schwarzii var. *pecirkai* Jagemann, 1944 : 333.

LECTOTYPE (present designation). CHINA. ♂, Thibet, Le Moult; *Lacon schwarzii* a. *pecirkai* Jg. Typus. Det. Jagemann [Jagemann]; Type (NM, Prague).

This species differs from *A. schwarzii* Jagemann in that the mesosternal groove is oblique and not distinctly angled.

Agrypnus perplexus (Elston) [p. 197]

Additional syntype examined. AUSTRALIA: ♀, Fortescue R. Hammersley Range, NWA. W. D. Dodd; *perplexus* Elston, Co-type (NR, Stockholm).

Agrypnus pictilis (Schwarz) [p. 197]

LECTOTYPE (present designation). TANZANIA: ♂, D. Ost Afr. v. Bennigs.; coll. Schwarz; *pictilis* n. sp. Schw. [Schwarz]; (DEI, Eberswalde).

Paralectotypes. 1 ♂, labels as lectotype but without Schwarz's determination label. 3 ♂, Ost Africa, Coll. v. Bennigsen; Typus. One specimen bears in addition a label in an unknown hand: *Lacon pictilis* Schwarz n. sp. Ost Africa (DEI, Eberswalde).

Schwarz comments that *pictilis* is related to *foedus* Candèze. The two species do bear a certain resemblance to one another but *pictilis* has simple tarsi whereas those of *foedus* are distinctly lobed.

Agrypnus pictus (Candèze) comb. n.

Lacon pictus Candèze, 1878b : LIII (6).

Adelocera picta (Candèze); Fleutiaux, 1926 : 96.

Syntype examined. MADAGASCAR: 1 ♀, Madagascar; n. sp. *pictus* Cdz. Mad. [Cand.]; *Lacon pictus* Cd. det. E. Candèze [IRSNB curatorial label]; Collection E. Candèze (IRSNB, Brussels).

Agrypnus piger (Candèze) [p. 198]

Syntypes examined. INDIA: 1 ♀, Bengale; n. sp. *piger* Cdz. Bengale [Cand.]; *Lacon piger* Cd. det. E. Candèze [IRSNB curatorial label]; Collection E. Candèze. 14 ex., same locality and collection labels but without determination labels (IRSNB, Brussels). 1 ♀, Tetara; L. *piger* nov. spec. fascicule iv. p. 7 [Cand.] (MNHN, Paris).

The published locality is Tetara, Bengale. Experience has shown that very often only one specimen of a series was labelled with the full locality and the rest only with an indication of the general region.

Agrypnus pinguis (Candèze) [p. 198]

Syntype examined. AUSTRALIA: 1 ex., Cooktown; n. sp. *pinguis* Cdz. Cooktown St.; [Cand., red border]; *Lacon pinguis* Cd. det. E. Candèze [IRSNB curatorial label]; Collection E. Candèze; Type (IRSNB, Brussels).

Agrypnus pipitzi (Candèze) [p. 199]

Syntypes examined. 1 ex., MADAGASCAR: Madagascar; *pipitzi* Cdz. Madag. Pip. [Cand., blue border]; *Lacon pipitzi* Cd. det. E. Candèze [IRSNB curatorial label]; Collection E. Candèze. 3 ex., same locality and collection labels but without Candèze's determination label (IRSNB, Brussels).

Agrypnus pistorius (Candèze) [p. 199]

Additional syntypes examined. INDIA: 12 ex., Kanara; Mars 1893 *pistorius* Cand. Kanara A. [Cand., yellow border]; *Lacon pistorius* Cd. det. E. Candèze [IRSNB curatorial label]; Collection E. Candèze. 1 ex., same locality and collection labels, but without Candèze's determination label (IRSNB, Brussels).

Agrypnus plagiatus (Candèze) [p. 199]

Syntypes examined. AUSTRALIA: 1 ex., Collect. Monchicourt; n. sp. *plagiatus* Cdz. Pt. Denis. [Cand., red border]; *Lacon plagiatus* Cd. det. E. Candèze [IRSNB curatorial label]; Collection E. Candèze. 1 ex., Port Denison, *Lacon plagiatus* Cd. det., E. Candèze [IRSNB curatorial label]; Collection E. Candèze (IRSNB, Brussels). A third specimen bears two locality labels, Port Denison and Cooktown. As it measures 12.5 mm compared to the published length of 9 mm it has been excluded from the syntype-series.

Agrypnus planatus (Candèze) [p. 199]

Syntype examined. MADAGASCAR: 1 ex., Tananarivo; n. sp. iii 1893 *planatus* Cand. Tananarivo [Cand., blue border]; *Lacon planatus* det. E. Candèze [IRSNB curatorial label]; Collection E. Candèze (IRSNB, Brussels).

The published locality is Imerina. Tananarivo lies at the centre of the district of Imerina which was once an independent state. The description was not published until 1895.

Agrypnus pleureticus (Candèze) [p. 200]

Additional syntypes examined. AUSTRALIA: 3 ex., Australie; *Lacon pleureticus* Cd. det. E. Candèze [IRSNB curatorial label]; Collection E. Candèze. One specimen bears Candèze's red-bordered label: *pleureticus* Cdz. Austr. (IRSNB, Brussels).

The published localities are Queensland, Rockhampton and Brisbane but up till now no specimens bearing these localities have been discovered.

Agrypnus principatus (Schwarz) comb. n.

Lacon principatus Schwarz, 1905a : 259.

Adelocera principatus (Schwarz); Fleutiaux, 1926 : 96.

LECTOTYPE (present designation). SRI LANKA: ♀, Kandy; Coll. Schwarz; Typus; *principatus* Schw. [Schwarz] (DEI, Eberswalde).

The description is based on an unrecorded number of specimens.

Agrypnus procellosus (Candèze) [p. 201]

Syntypes examined. MADAGASCAR: 1 ex., n. sp. iii 1893 *procellosus* Cand., Tananarivo S. [Cand., blue border]; *Lacon procellosus* Cd. det. E. Candèze [IRSNB curatorial label]; Collection E. Candèze. 2 ex., Tananarivo, remaining labels as previous specimen but without Candèze's determination label.

The 'S' on Candèze's determination label probably stands for Sikora, the collector. The published locality is Imerina, see note on this locality under *A. planatus* (Candèze) p. 232.

Agrypnus productus (Elston) comb. n.

Lacon productus Elston, 1924 : 203.

Lacon productus Elston; Neboiss, 1956 : 12.

The description is based on an unrecorded number of specimens from AUSTRALIA: Northern Territory, Darwin (*W. K. Hunt*).

Syntype-material (see Hayek, 1973 : 274). SAM, Adelaide, AM, Sydney.

The generic attribution is based on the description and Elston's comment that the species bears some resemblance to *caliginosus* Guérin-Méneville (= *Agrypnus*, see Hayek, 1973 : 134).

Agrypnus pujoli (Girard) comb. n.

Lobotarsus pujoli Girard, 1969 : 223, fig. 5.

Holotype. CENTRAL AFRICAN REPUBLIC: ♂, La Maboké, près Bangui 10.1.1967 (R. Pujol) (MNHN, Paris). Not examined.

Paratype. 1 ♀, same data (MNHN, Paris). Not examined.

The generic attribution is based on the description and figures.

Agrypnus pulvereus Candèze [p. 202]

Lobotarsus ambiguus Schwarz, 1905b : 279. Syn. n.

Lobotarsus ambiguus Schwarz. Syntypes examined. MADAGASCAR: 1 ♀, Madagascar; Coll. Schwarz; Cotypus; *Ambiguus* Schw. [Schwarz]; *pulvereus* Cand. [Fleut.]. 2 ♀, 1 ex. (without abdomen), same locality & collection labels (DEI, Eberswalde). As far as I am aware Fleutiaux did not publish the synonymy.

Agrypnus pupillus (Candèze) [p. 203]

Lectotype (designated by Van Zwaluwenburg, 1959 : 354). PAPUA NEW GUINEA: ♀, N. Guinea, Dilo Loria vi-vii 90; Typus; pupillus Cand. [replacement label in unknown handwriting; see *Adelocera acerbus* (Candèze) p. 189]. Lectotype, Van Zwaluwenburg (MCSN, Genoa).

Paralectotypes: 4 ex., same locality as lectotype (MCSN, Genoa); 5 ex., same locality as lectotype (IRSNB, Brussels). 1 ♂, 1 ex., N. Guinea, Ighibirei [sic] Loria vii-viii 90 (MCSN, Genoa); 4 ex., same locality. One bears Candèze's determination label: n. sp. 1892 pupillus Cand. N. Guinea (IRSNB, Brussels).

Candèze records the localities as Dilo, Hula, Iguibirei, etc. According to Salvadori (1891 : 798) Dilo and Igibirei [sic] are on the River Kemp Weltch [Wanigela R. 10°03' S, 147°43' E]. The location of Hula is not mentioned by Salvadori.

Agrypnus rectangulus (Schwarz) comb. n.

Lacon rectangulus Schwarz, 1903b : 378.

Adelocera rectangulus (Schwarz) Fleutiaux, 1926 : 96.

LECTOTYPE (present designation). PAPUA NEW GUINEA: ♀, D. N. G.; Coll. Schwarz; *rectangulus* Schw. [Schwarz] (DEI, Eberswalde).

The description is based on an unrecorded number of specimens from 'Deutsch Neu Guinea', a former German possession in N.E. New Guinea.

Agrypnus recticollis (Elston) [p. 204]

LECTOTYPE (present designation). AUSTRALIA: sex not determined, Malanda; Queensl. Mjoberg; *recticollis* Elston Type (NR, Stockholm).

Paralectotypes. 2 ex., Malanda; Queensl. Mjoberg; *recticollis* Elston Co-type (NR, Stockholm).

Agrypnus reductus (Candèze) [p. 205]

Syntypes examined. SUMATRA: 2 ex., Sumatra, *Lacon reductus* Cd. det. E. Candèze [IRSNB, curatorial label]; Collection E. Candèze (IRSNB, Brussels). One specimen bears Candèze's yellow-bordered determination label: n. sp. *reductus* Cdz. sumatra Dn.

Agrypnus reticulatus (Elston) [p. 205]

LECTOTYPE (present designation). AUSTRALIA: ♂, Kimberley district; N.V. Austr.; Jan; *reticulatus* Elston Type (NR, Stockholm).

Paralectotypes. 1 ex., Kimberley district; N.V. Austr. Mjoberg; Nov. Elston, Co-type. 1 ♂, Noonkanbah; dec.; *reticulatus* Elston Co-type (NR, Stockholm).

Agrypnus robustus (Schwarz) comb. n.

Lacon robustus Schwarz, 1903b : 377.

Adelocera robusta (Schwarz) Fleutiaux, 1926 : 96.

LECTOTYPE (present designation). PAPUA NEW GUINEA: ♀, Simbang [6°33' S, 147°48' E] D. N. G.; Coll. Schwarz; Typus; *robustus* Schw. [Schwarz] (DEI, Eberswalde). The specimen measures 16.5 mm in length compared with the published length of 18 mm.

A second female, also labelled 'Typus' but without a locality label, stands beside the lectotype in the collection. As it is only 15.6 mm long and does not agree well with the description in such particulars as the puncturation of the pronotum I do not consider it to be part of Schwarz's original series.

Agrypnus rubescens (MacLeay) comb. n.

Lacon rubescens MacLeay, 1888 : 1234.

Lacon rubescens MacLeay; Neboiss, 1961 : 9.

LECTOTYPE (present designation). AUSTRALIA: ♂, N.W. Aust. (ANIC, Canberra). Length 10·5 mm.

Paralectotype. ♂, N.W. Aust. *Lacon rubescens* MacL. Barrior [sic] Range N.W. Aust. [MacLeay]; det. (ANIC, Canberra). Length 11 mm.

The specimen without MacLeay's determination label has been selected as the lectotype as it agrees more closely with the published length of 5 lines (=10·6 mm). Certain details in the description show that there can be no doubt that MacLeay had both specimens in front of him when he wrote it.

For a note on the locality see *Agrypnus atricolor* (MacLeay) p. 209.

Agrypnus rubicundulus (MacLeay) comb. n.

Lacon rubicundulus MacLeay, 1888 : 1237.

Lacon rubicundulus (MacLeay); Neboiss, 1961 : 9.

LECTOTYPE (present designation). AUSTRALIA: ♀, N.W. Austr.; *Lacon rubicundulus* MacL. King's Sound, N.W. Aust. [MacLeay] (ANIC, Canberra).

Agrypnus rufopiceus (MacLeay) comb. n.

Lacon rufopiceus MacLeay, 1888 : 1235.

Lacon rufopiceus MacLeay; Neboiss, 1961 : 9.

LECTOTYPE (present designation). AUSTRALIA: ♂, N.W. Aust.; *Lacon rufopiceus* MacL. Syntype det. A. Neboiss 1968 [Neboiss] (ANIC, Canberra). Length 10 mm.

Paralectotypes. 2 ♀, with the same labels as the lectotype. One (length 12 mm) bears MacLeay's determination label: *Lacon rufopiceus*, Barrior Range [sic] N.W. Aust. [MacLeay]. The other measures 11 mm.

The male without MacLeay's determination label has been selected as the lectotype as it agrees more closely with the published length of 4 lines (=10 mm).

For a note on the locality see *Agrypnus atricolor* (MacLeay) p. 209.

Agrypnus rufulus (Elston) comb. n.

Lacon rufulus Elston, 1927 : 361.

Lacon rufulus Elston; Neboiss, 1956 : 12.

The description is based on an unrecorded number of specimens from AUSTRALIA: N.W. Australia, Fortescue River, Hammersley Range (*W. D. Dodd*).

Syntype material. SAM, Adelaide, AM, Sydney.

The generic attribution is based on the description and Elston's comments that the species resembles *laticollis* Candèze (= *Agrypnus*, see Hayek, 1973 : 174).

Agrypnus rusticus (Candèze) [p. 206]

Syntype examined. MADAGASCAR: 1 ♀, Madagascar; n. sp. 1892 *rusticus* Cand. Madag. Branc. [Cand., blue border]; *Lacon rusticus* Cd. det. E. Candèze [IRSNB curatorial label]; Collection E. Candèze. 2 ex., same labels but without Candèze's determination label (IRSNB, Brussels).

The published locality is Nossi Be. No specimens with this locality have been found. 'Branc.' on Candèze's determination label is believed to stand for Brancsik of Trencsin from whom Candèze received the material.

Agrypnus sauteri (Ohira) comb. n.

Adelocera (Sabikikorius) sauteri Ohira, 1970b : 208.

Holotype. TAIWAN: ♂, Kanshirei, 1908, H. Sauter (TM, Budapest). Not examined.

Paratype. TAIWAN: 1 ♂, Kosempo 908 vi; Formosa, Sauter; *Adelocera sauteri* det. Ohira 1971 [Ohira] (Ohira coll.).

The published locality of the paratype is the same as that of the type. Whether this is an oversight on the part of the author, or whether the wrong label has been attached to the specimen is unknown.

Agrypnus schwarzi (Jagemann) comb. n.

Lacon schwarzi Jagemann, 1944 : 333.

LECTOTYPE (present designation). CHINA: ♀, Thibet, Coll. Le Moult; *Lacon schwarzi* nov. sp. mihi prope *macroderus* Candèze [Jagemann]; Typus (NM, Prague).

Paralectotype. ♀, with the same labels as the lectotype (NM, Prague).

The mesosternal groove is distinctly angled, a characteristic also found in *A. costicollis* (Candèze) and *A. fulvastra* (Fleutiaux).

This species does not bear a particularly close resemblance to *A. macroderus* (Candèze) (cf. Jagemann, loc. cit.).

Lacon schwarzi var. *pecirkai* Jagemann (see p. 231), in which the mesosternal groove is oblique as in the majority of species, is not conspecific with *A. schwarzi* (Jagemann).

Agrypnus sculptus (Candèze) [p. 209]

Syntypes examined. AUSTRALIA (New South Wales): 4 ex., Raroo [sic] River; *Lacon sculptus* det. E. Candèze [IRSNB curatorial label]; Collection E. Candèze. One specimen, which has lost its abdomen, bears in addition two labels: Riv. Paroo; *sculptus* Cd. Paroo riv. [Cand., red border]. 1 ex., Riv. Darling; *Lacon sculptus* Cd. det. E. Candèze [IRSNB curatorial label]; Collection E. Candèze (IRSNB, Brussels). It seems reasonable to include the 7 specimens in the BMNH recorded previously in the syntype series. 1 ex., Darling R. D. Candèze (MCSN, Genoa).

Agrypnus scutellaris (Candèze) [p. 209]

Agrypnus scutellaris hamai Ohira, 1967 : 99.

Lacon scutellaris Candèze. Syntype examined. JAPAN (Ryukyu Retto Archipelago): 1 ♀, Oshima, Liu-ku, n. sp. iv. 1891 *scutellaris* Cand. Japan Schönf. [Cand., yellow border]. *Lacon scutellaris* Cd. det. Candèze [IRSNB curatorial label]; Collection E. Candèze (IRSNB, Brussels).

The BMNH collection contains a number of male and female *fuliginosus* (Candèze) from the Lewis collection from Yokohama. I suspect that these may be the specimens which Lewis (1896 : 336) believed to be *scutellaris* Candèze.

Female *scutellaris* differ from *fuliginosus* in that they possess a raised shiny area on the last abdominal sternite and short polished transverse lines on either side of the mid line on the posterior third of the pronotum. No male *scutellaris* are known to me, but Ohira (1967b : fig. 5) gives a figure of his interpretation of *scutellaris*.

Agrypnus scutellaris hamai Ohira. Holotype. JAPAN (Ryukyu Retto Archipelago): ♂, Iriomote (Hoshidate), 21-V.1963, Y. Hama (Ohira collection). Not examined.

Paratype. ♀, Iriomote (Riv-Urauchi), 31-VII 1964, M. Yasui (located in one of the collections recorded by Ohira, 1969 : 95). Not examined.

Agrypnus scutellatus (Candèze) [p. 209]

Additional syntypes examined. JAVA: 1 ?♂, Java; *scutellatus* Cd. Malacc. [Cand., yellow border]; Cand. type; *Lacon scutellatus* Cd. det. E. Candèze [IRSNB curatorial label]; Collection E. Can-

dèze. 1 ♂, 1 ♀, Malacca; *Lacon scutellatus* Cd. det. E. Candèze [IRSNB curatorial label]; Collection E. Candèze (IRSNB, Brussels).

It would appear that Candèze's determination label has been affixed to the wrong specimen.

Agrypnus sericans (Candèze) comb. n.

Lacon sericans Candèze, 1857 : 112.

Adelocera sericans (Candèze) Fleutiaux, 1926 : 96.

The description is based on an unrecorded number of specimens from 'des Indes Orientales' [see Hayek, 1973 : 271] in the Dohrn collection. Candèze (1891 : 23) records the locality as Ceylon.

Type-material. ? IZPAN, Warsaw.

The generic attribution is based on the following specimen: 1 ex., Ceylon; *sericans* Cand. Ceylan F1. [Cand., yellow border]; *Lacon sericans* Cd. det. E. Candèze [IRSNB curatorial label]; Collection E. Candèze. This may be the specimen from which Candèze obtained the locality for his 1891 catalogue.

Agrypnus serricollis (Candèze) [p. 210]

Additional paralectotype examined. JAVA. 1 ex., *serricollis* Cdz. Java [Cand., yellow border]; *Lacon serricollis* Cd. det. E. Candèze [IRSNB curatorial label]; Collection E. Candèze; Cand. type (IRSNB, Brussels).

Agrypnus setosulus (Schwarz) comb. n.

Lacon setosulus Schwarz, 1903b : 377.

Adelocera setosula (Schwarz) Fleutiaux, 1926 : 96.

The description is based on an unrecorded number of specimens from PAPUA NEW GUINEA: 'Deutsch Neu-Guinea'.

Type-material. ? DEI, Eberswalde.

The generic attribution is based on the description and Schwarz's comment that the species resembles *limosus* [Candèze] (= *Agrypnus*, see Hayek, 1973 : 177).

Agrypnus setulosus (Candèze) [p. 211]

Lectotype (van Zwaluwenburg, 1959 : 352). LESSER SUNDA ISLANDS: Sumbawa Colffs.; n. sp. *setulosus* Cdz. Sumbawa Lsb. [Cand., yellow border]; *Lacon setulosus* Cd. det. E. Candèze [IRSNB curatorial label]; Collection E. Candèze; Lectotype van Zwaluwenburg 1957 (IRSNB, Brussels).

Paralectotypes. 1 ex., same locality and collection labels but without Candèze's determination label (IRSNB, Brussels). 4 ex., recorded by Hayek (1973 : 211) (MNHN, Paris). The collector was Colffs not Coiffs. No specimens from Flores have been located.

Agrypnus shirakii (Matsumura) comb. n.

Lacon shirakii Matsumura, 1910 : 39, pl. 27, fig. 24.

Adelocera shirakii (Matsumura) Fleutiaux, 1926 : 96.

Colaulon (Cryptolacon) shirakii (Matsumura) Ohira, 1972 : 25.

The description is based on a single female specimen collected on sugar cane by Mr T. Shiraki in Taihok, Formosa.

Holotype. Taiwan Agricultural Research Institute, Taiwan or Hokkaido University, Japan (pers. comm. from Dr H. Ohira).

The generic attribution is based on a female from Formosa, Chippon determined by Dr H. Ohira and kindly presented by him to the BMNH.

The date of publication of this species is generally given as 1911, but the description and a figure appeared in Matsumura's 1910 work which seems to have been overlooked probably because in his preliminary list of sugar cane insects (1910a : 139) Matsumura announces that the description of the new species will appear 'gleichzeitig' in the 'Annales' of the Société Entomologique de Belgique. The descriptions, but not the figures, were published in 1911, *Mém. Soc. r. ent. Belge* 18 : 129–150. Matsumura (1911 : 146) records the specimen as a male. It is not possible to confirm the sex from the figure.

Agrypnus simplex (Candèze) [p. 212]

Additional syntypes examined. GABON: 3 ex., Gabon; *Lacon simplex* Cd. det. E. Candèze [IRSNB curatorial label]; Collection E. Candèze. One specimen bears two additional labels: *simplex* Cdz. Gabon [Cand., blue border]; Collection Fairmaire (IRSNB, Brussels).

Agrypnus sinensis (Candèze) [p. 212]

Lacon sinensis Candèze, 1857 : 139.

Compsolacon tonkinensis Jagemann, 1944 : 334. **Syn. n.**

Compsolacon tonkinensis Jagemann. LECTOTYPE (present designation). VIETNAM: ♂, Laos, Tonkin: *Compsolacon tonkinensis* Jg. Jagemann det. Typus [Jagemann]; Collection Dr. E. Jagemann, Moravské Museum, Brno; Transcriptio. *Compsolacon tonkinensis* sp. n. E. Jagemann det; Syntypus (MM, Brno).

Paralectotypes. 1 ♀, Laos, Tonkin; *Compsolacon tonkinensis* Jg. Jagemann det. Typus [Jagemann] (NM, Prague).

Agrypnus spinifer (Candèze) [p. 214]

Syntype examined. MADAGASCAR: 1 ex., Madagascar; mss [?] *spinifer* Cdz. Madagascar [Cand.]; Type; *Lacon spinifer* Cd. det. E. Candèze [IRSNB curatorial label]; Collection E. Candèze (IRSNB, Brussels).

As the specimen agrees well with the description it seems more probable that it is the one on which Candèze bases his description rather than the one labelled 'spinipes' in the MNHN, Paris. Candèze did not publish a description of 'spinipes'.

Agrypnus spissicollis (Candèze) [p. 214]

Syntypes examined. MADAGASCAR: 2 ex., Tananarivo; *Lacon spissicollis* Cd. det. E. Candèze [IRSNB curatorial label] Collection E. Candèze. One specimen bears in addition: n. sp. *spissicollis* Cand. Tananarivo, Sik. [Cand., blue border]; Type (IRSNB, Brussels).

The published locality is Antananarivo. Tananarivo is an alternative spelling.

Agrypnus spretus (Candèze) **comb. n.**

Lacon spretus Candèze, 1882 : 8.

Adelocera spretus (Candèze) Fleutiaux, 1926 : 96.

Syntype examined. BORNEO: 1 ex., Schwaner, Borneo; n. sp. *spretus* Cdz. Borneo [Cand., yellow border]; Type; *Lacon spretus* Cd. det. E. Candèze [IRSNB curatorial label]; Collection E. Candèze (IRSNB, Brussels).

Agrypnus spurcus (Candèze) **comb. n.**

Lacon spurcus Candèze, 1865 : 11.

Adelocera spurcus (Candèze) Fleutiaux, 1926 : 96.

LECTOTYPE (present designation). PHILIPPINES: ♀, Cuming, Ins. Phi. (RNH, Leiden). The description is based on an unrecorded number of specimens from 'Luçon'. The specimen stands beside Snellen van Vollenhoven's det. label (Krikken, pers. comm.). Snellen van Vollenhoven is known to have removed the original determination labels and replaced them by his own.

Agrypnus squalescens (Fairmaire) [p. 214]

Syntypes examined. MADAGASCAR: 1 ♀, Madag.; Tilotars. squalescens Fairm. Madag. [? Fairm.]; Collection Fairmaire; squalescens Frm. Madag. Frm. [Cand., blue border]; Type; Lacon squalescens Frm. det. E. Candèze [IRSNB curatorial label]; Collection E. Candèze (IRSNB, Brussels). 1 ex., Madag.; Museum Paris Madagascar Collection Leon Fairmaire 1906; Tilotarsus squalescens Frm. Cand. det. [unknown handwriting]; Type squalescens Fairm. Mus Bruxelles [Fleut.] (MNHN, Paris).

Agrypnus sticticus (Candèze) [p. 215]

Lacon sticticus Candèze, 1895b : 56.

Adelocera sticticus (Candèze) Fleutiaux, 1926 : 96.

Agrypnus stictus (Candèze); Hayek, 1973 : 215. [Incorrect subsequent spelling.]

Candèze does not record a locality for this species. The paper deals mainly with material collected by Alluaud around Diego Suarez and Mont d'Ambre, but as other localities and collectors are recorded I feel justified in regarding the following specimen as a syntype.

Syntype. MADAGASCAR: 1 ex., Madagascar; n. sp. sticticus Cand. Madag. [Cand., blue border]; Collection E. Candèze (IRSNB, Brussels).

Agrypnus stricticollis (Fairmaire) [p. 216]

A synonym of *Agrypnus glirinus* (Candèze). See p. 219.

Agrypnus subcompactus (Elston) comb. n.

Lacon subcompactus Elston, 1927 : 356.

Lacon subcompactus Elston; Neboiss, 1956 : 13.

The description is based on an unrecorded number of specimens from AUSTRALIA: New South Wales, Glenn Innes (C. Deane).

Syntype-material (see Hayek, 1973 : 274). AM, Sydney.

The generic attribution is based on the description and Elston's comment that the species resembles *compactus* Candèze (= *Agrypnus*, see p. 215).

Agrypnus submarmoratus (Elston) [p. 217]

Additional syntypes examined. 2 ♀, Cairns dist. AM, Lea; submarmoratus Elston Co-type; Paratypus (NR, Stockholm). The specimens were presumably acquired by presentation or exchange.

Agrypnus subocellatus (Candèze) [p. 217]

Syntypes examined. MADAGASCAR: 1 ex., Nossi Bé reçu du Boyer; n. sp. subocellatus Cdz. Nossi Bé [Cand., blue border]; Lacon subocellatus Cd. det. E. Candèze [IRSNB curatorial label]; Collection E. Candèze; Type (IRSNB, Brussels). 1 ♂, Nossi Bé, reçu du Boyer; Lacon subocellatus Cdz. type [Cand.] (MNHN, Paris).

Agrypnus suboculatus (Candèze) [p. 218]

Syntypes examined. MADAGASCAR: 1 ♀, 2 ex., Madagascar; *Lacon suboculatus* Cd. det. E. Candèze [IRSNB curatorial label]; Collection E. Candèze. One specimen bears Candèze's blue-bordered label: n. sp. *suboculatus* Cdz. Mad. (IRSNB, Brussels).

The published locality is Antananarivo. No specimens with this locality have been found.

Agrypnus subreductus (Girard) comb. n.

Lobotarsus subreductus Girard, 1971 : 565, figs 13, 15.

Holotype ♂, paratypes 1 ♂, 1 ♀. IVORY COAST: Lamto, entre le 10 et le 29.2.1968. The holotype was bred, the paratypes caught at night. (Holotype, MNHN, Paris. Paratypes, location unknown.) Not examined. The generic attribution is based on the description and Girard's comment that the species resembles *reductus* Candèze (= *Agrypnus gabonensis* Hayek, see Hayek, 1973 : 158).

Agrypnus subsericeus (Candèze) [p. 218]

Holotype. WEFT IRIAN: ♂, New Guinea, Hatam VII, Beccari, 1875; Typus; *subsericeus* Cand. [replacement label in unknown handwriting, see *Adelocera acerbus* (Candèze) p. 189] (MCSN, Genoa).

Hatam is at an altitude of 1520 m in the Arfak Mountains. See Beccari (1924).

Agrypnus subtilis (MacLeay) comb. n.

Lacon subtilis MacLeay, 1888 : 1236.

Lacon foveicollis MacLeay, 1888 : 1237. **Syn. n.**

Lacon subtilis MacLeay; Neboiss, 1961 : 9.

Lacon subtilis MacLeay. LECTOTYPE (present designation). AUSTRALIA: ♂, N.W. Aust.; *Lacon subtilis* MacL. King's Sound, N.W. Aust. [MacLeay] (ANIC, Canberra).

Lacon foveicollis MacLeay. LECTOTYPE (present designation). AUSTRALIA: ♀, N.W. Aust.; *Lacon foveicollis* MacL. King's Sound, N.W. Aust. [MacLeay] (ANIC, Canberra).

The only difference between the two specimens is the presence of a distinct pair of depressions at the base of the prothorax of *foveicollis*. Faint traces of these depressions are present in *subtilis*.

Agrypnus subtuberculatus Schwarz [p. 218]

Syntype examined. CAMEROUN: ♂, Kameroun, Conradt; Coll. Schwarz; *Tylotarsus subtuberculatus* Schw. [Fleut.]; Paralectotype; *Lobotarsus subtuberculatus* Schw. C. Girard vid. [Girard] (MNHN, Paris).

As far as I am aware a lectotype designation has not been published. The remaining material is almost certainly in the DEI, Eberswalde.

Agrypnus tabularius (Candèze) comb. n.

Lacon tabularius Candèze, 1892c : 483.

Adelocera tabularia (Candèze) Fleutiaux, 1926 : 96.

Syntypes examined. INDIA: 1 ♀, Bengale; n. sp. 1892 *tabularius* Cand. Bengale, Barwai P. C. [Cand., yellow border]; *Lacon tabularius* Cd., det. E. Candèze [IRSNB curatorial label]; Collection E. Candèze. 1 ♀, 1 ex. without abdomen, labels as above but without Candèze's determination label. 1 ♂ with similar labels is not here included in the syntype-series as it measures only 14 mm in length compared to the published length of 18–20 mm.

The published locality is Chota Nagpore (see Hayek, 1973 : 273).

Agrypnus taciturnus (Candèze) [p. 219]

LECTOTYPE (present designation). LAOS: ♂, Laos; Collection E. Candèze; Lacon taciturnus Cd., det. E. Candèze [IRSNB curatorial label] (IRSNB, Brussels).

The lectotype is not conspecific with the two syntypes in the BMNH recorded by Hayek (1973). It is selected as the lectotype despite the fact that it lacks a determination label in Candèze's handwriting as it agrees slightly better with the description as regards the length (11.8 mm) and the proportions of the prothorax. The two syntypes are conspecific with *Agrypnus colonicus* (Candèze) q.v. p. 214.

Agrypnus tellini (Fleutiaux) [p. 220]

Lacon denticollis Fleutiaux, 1918b : 237. **Syn. n.**

Agrypnus denticollis (Fleutiaux) Hayek, 1973 : 148.

Agrypnus thomasi Hayek [p. 221]

Homeolacon gracilis Blackburn. Paralectotype examined. 1 ex., 2800 N.T. [on card mount, see Hayek, 1973 : 270]; Adelaide, G. *Homeolacon gracilis* Bl. Adelaide [Cand., red border]; Blackburn; *Lacon gracilis* Bl. det. Blackburn [IRSNB curatorial label]; Collection E. Candèze (IRSNB, Brussels).

The published locality is 'N. Territory of S. Australia'. The locality Adelaide probably refers to Adelaide River, Northern Territory and not Adelaide, S. Australia. No additional specimens of this species are known to me.

Agrypnus tonkinensis (Fleutiaux) [p. 221]

Additional paralectotypes examined. 2 ♀, Lac Tho, Hoa Binh, A de Cooman; *Lacon tonkinensis* Fleut. [Fleut.]; Don. E. Fleutiaux; *Lacon tonkinensis* Fleut. det. E. Fleutiaux [IRSNB curatorial label]. 1 ex., same locality with Fleutiaux's determination label; Collection E. Fleutiaux (IRSNB, Brussels).

Agrypnus triangularis (Schwarz) comb. n.

Lobotarsus triangularis Schwarz, 1903a : 362.

LECTOTYPE (present designation). CAMEROUN: ♂, Camerun; Sjostedt; Coll. Schwarz; Typus; *triangularis* Schw. [Schwarz] (DEI, Eberswalde).

Agrypnus triplehornorum (Knull) comb. n.

Colaulon triplehornorum Knull, 1973 : 39.

Holotype. U.S.A.: ♂, Texas, Monahans Sand Hills State Park, Ward. Co. 16.vii.1972 (W. E., B. W. & C. A. Triplehorn) (Ohio State University collection).

Allotype and paratypes. 1 ♀, 13 ex., from the type-locality, same date and collectors. 6 ex., same locality and collections, 8.vii.1968 (Ohio State University and author's collection).

The generic attribution is based on 1 ♂, 1 ♀ from the type-locality, 28.vii.1973 (W. E. & C. A. Triplehorn) determined by Professor Knull (BMNH). The wings of both specimens are reduced in length; they extend only a short distance beyond the posterior margin of the second abdominal sternite.

Agrypnus truquii (Candèze) [p. 223]

Additional paralectotype examined. 1 ex., Oaxaca; Mexico, Salle Collection truquii Cand. Oaxaca Ch. [Cand., green border]; *Lacon truquii* Cand. Salle coll. 1424; *Lacon truquii* Cd. det. E. Candèze [IRSNB curatorial label]; Collection E. Candèze (IRSNB, Brussels).

Agrypnus tuberculipennis (Miwa) comb. n.

Lacon tuberculipennis Miwa, 1929 : 230.

Holotype. TAIWAN: ♂ Baibara 15.vii.1926 (*Miwa*). Not examined.

Dr H. Ohira (pers. comm.) reports that he was unable to find the type in the Taiwan Agricultural Research Institute in which most of Miwa's types are preserved.

The generic attribution is based on the description and Miwa's comment that the species resembles *montanus* Miwa (= *Agrypnus*, see p. 228).

Agrypnus uncatus nom. n.

Lobotarsus hamatus Schwarz, 1903a : 360.

Agrypnus hamatus (Schwarz) comb. n. [Junior secondary homonym of *Agrypnus hamatus* (Candèze, 1893).]

Syntype examined. MADAGASCAR: 1 ♀, Madagascar; coll. Schwarz; Cotypus; *hamatus* Schw. [Schwarz]; *spinifer* Cand. [Fleut.] (DEI, Eberswalde).

The description is based on an unrecorded number of specimens from Madagascar.

To the best of my belief Fleutiaux did not publish the synonymy with *spinifer* Candèze. Only a comparison of the type-material will show whether his belief was justified.

Agrypnus uraiensis (Miwa) comb. n.

Lacon uraiensis Miwa, 1929 : 231.

Holotype. TAIWAN. ♀, Urai, 8–iv. 1926 (*M. Kato*). Not examined.

Dr Ohira (pers. comm.) tells me that he has not been able to examine the type which should be in the Taiwan Agricultural Research Institute where the majority of Miwa's types are preserved.

The generic attribution is based on the description.

Agrypnus validus (Elston) comb. n.

Lacon validus Elston, 1924 : 203.

Lacon validus Elston; Neboiss, 1956 : 13.

The description is based on an unrecorded number of specimens from AUSTRALIA: Queensland, Bowen (*A. Simpson*).

Syntype-material (see Hayek, 1973 : 274). SAM, Adelaide, AM, Sydney.

The generic attribution is based on the description and Elston's comparison with *crassus* Candèze (= *Agrypnus*, see p. 216).

Agrypnus variatus (Candèze) [p. 227]

LECTOTYPE (present designation). INDIA: ♂, Coll. R. I. Sc. N. B. Inde-Bengal coll. Candèze (ex coll. P. Cardon); cf. Bull. Mus. Inst. Nat. Belge 1890 p. CXLVIII; *Lacon variatus* Cd. det. E. Candèze [IRSNB curatorial labels] (IRSNB, Brussels).

Paralectotype. 1 ♂, same labels as the lectotype (IRSNB, Brussels).

The IRSNB, Brussels collection contains another male and a female specimen with the same labels. The male bears in addition Candèze's yellow-bordered label: n. sp. *variatus* Cand. Beng. P. Card. There is no doubt that these specimens are part of the syntype-series but they are not conspecific with the lectotype. They belong to a species at present unknown to me. It is not known whether the female in the MNHN, Paris recorded by Hayek (1973 : 228) is conspecific with the lectotype. A specimen without Candèze's determination label has been selected as the lectotype because it agrees better with the description than the one with the label, and it is known that in the course of curation labels have been transferred from one specimen to another by mistake.

Agrypnus variolus (Candèze) [p. 228]

Paratypes examined. 1 ex., Queensland; Lacon variolus Cd., det. E. Candèze (IRSNB curatorial label); Collection E. Candèze. 1 ex., Queensland; Collection E. Candèze; variolus Cand. ? Fleutiaux vid [Fleut.]; Lacon variolus Cd. det. E. Fleutiaux [IRSNB curatorial label] (IRSNB, Brussels).

Agrypnus zanzibaricus Hayek [p. 230]

The MCSN, Genoa collection contains a single male specimen with the following labels: Mombas. Viag. Raff. Acq. E. Deyrolle; Typus; marmoratus Cand. [replacement label in unknown handwriting, see *Adelocera acerbus* (Candèze) p. 189].

Whether this is the specimen to which Candèze refers is uncertain. The fact that the locality label refers to 'Mombas' rather than Zanzibar (see *Elasmosanus raffrayi* (Candèze), Hayek, 1973 : 107) prevents me from accepting it as the type without further investigation.

MERISTHUS Candèze [p. 231]

Subgenus *Sulcimerus* Arnett, 1955 : 617. Type-species: *Meristhus quadripunctatus* Candèze, by original designation.

Dr E. C. Becker (pers. comm.) is of the opinion, with which I agree, that as Fleutiaux did not designate a type-species for *Sulcimerus*, *Sulcimerus* Fleutiaux is invalid (I.C.Z.N. Art. 13(b)) and the genus must be credited to Arnett.

There are unfortunately several errors in the second part of the generic diagnosis. This should read: prothorax not constricted behind the anterior angles; lateral carinae attain the anterior margins; propleurae without (*Meristhus* s. str.) or with (subgenus *Sulcimerus*) depressions for the reception of the anterior tarsi; scutellum with distinct median longitudinal carina; tarsi simple, without ventral lobes.

The relationships of the genus are discussed in the Appendix (p. 251).

SPECIES INCLUDED IN THE GENUS [p. 232]. The generic attribution of *indecorus* Candèze and *ornatus* Candèze have been confirmed. *Meristhus erinaceous* Candèze and *longicollis* Candèze are transferred to *Rismethus*. The genus includes 10 species.

Meristhus (Meristhus) angulicollis Fairmaire [p. 232]

Syntypes examined. MADAGASCAR: ♀, Madag. Perrier; *Meristhus angulicollis* Frm. n. sp. Madag. [Fairm.]; Type; *Tilotarsus angulicollis* Fairm. det. Fairmaire [IRSNB curatorial label] (IRSNB, Brussels). In my opinion the 5 specimens recorded previously (Hayek, 1973 : 323) should be regarded as syntypes.

Meristhus (Meristhus) squameus Candèze [p. 233]

Syntypes examined. ZAIRE: 2 ex., Boma, Congo; Collection E. Candèze; *Meristhus squameus* Cd. det. E. Candèze [IRSNB curatorial label]. One specimen bears in addition: Type; n. sp. *squameus* Cand. Boma Tschof. [Cand., blue border] (IRSNB, Brussels).

Meristhus (Sulcimerus) indecorus Candèze

Meristhus indecorus Candèze, 1892c : 485.

Syntypes examined. INDIA: 1 ♀, 1 ex., Bengale, Barwai; Collection E. Candèze; *Meristhus indecorus* Cd., det. E. Candèze [IRSNB curatorial label]. The ♀ bears in addition: n. sp. 1892 *indecorus* Cand. Bengal, Barwai P. C. [Cand., yellow label] (IRSNB, Brussels). The description is based on two specimens collected in Chota Nagpore (see Hayek, 1973 : 273) by Cardon.

Meristhus (Sulcimerus) ornatulus Candèze

Meristhus ornatulus Candèze, 1897 : 11.

Syntypes examined. INDIA: 1 ex., Barwai, Bengale; n. sp. 1893 *ornatulus* Cand. Barwai Bengale [Cand., yellow border]; Collection E. Candèze; *Meristhus ornatulus* Cd. det. E. Candèze [IRSNB curatorial label]. The abdomen is missing. 2 ex., Barwai; Collection E. Candèze; *Meristhus ornatulus* Cd. det. E. Candèze. One specimen lacks the abdomen (IRSNB, Brussels).

***RISMETHUS* Fleutiaux [p. 235]**

The relationships of the genus are discussed in the Appendix (p. 251).

SPECIES INCLUDED IN THE GENUS [p. 235]. Six species are transferred to the genus which now includes 17 species.

***Rismethus ceylonensis* (Ohira) comb. n.**

Meristhus ceylonensis Ohira, 1973c : 28, figs 1A & B.

Holotype. SRI LANKA: ♂, Prov. of Uva, Westminster Abbey, 25 mi ESE Bibile, 7.111.1962. Loc. 119 : 11. Sieved from debris (UZI, Lund). Not examined.

Paratypes. 7 ex., same locality (location not recorded).

Material examined. Paratype ♂, Ceylon, Prov. Uva Westminster Abbey 25 mls. ESE Bibile 7.iii.62. Loc 119 : 111 [sic]; sieved in debris; Lund University Ceylon Expedition 1962. Brink-Anderson-Cederholm (Ohira collection). 1 ♂ same locality (BMNH). This specimen does not bear Ohira's determination label but may nevertheless be part of the paratype series.

The wings are reduced to minute flaps and the metathorax is very short as in *squamiger* (Champion).

***Rismethus diodesmoides* (Motschulsky) [p. 236]**

Meristhus biguttatus Candèze, 1893b : 30. Syntypes examined. WEST MALAYSIA: 3 ex., Perak; Collection E. Candèze; *Meristhus biguttatus* Cd., det. E. Candèze [IRSNB curatorial label]. One specimen bears two additional labels: *biguttatus* Cand. Perak St. [Cand., yellow border] (IRSNB, Brussels).

As there is no real evidence that the material from Perak in the BMNH was ever examined by Candèze it is not here included in the syntype series.

***Rismethus echinus* nom. n.**

Meristhus erinaceus Candèze, 1897 : 11.

Rismethus erinaceus (Candèze) comb. n. [Junior secondary homonym of *Rismuthes erinaceus* (Candèze, 1874).]

LECTOTYPE (present designation). BORNEO: ♂, Brunei Borneo; n. sp. 1895 *erinaceus* Cand. Borneo [Candèze, yellow border]. Collection E. Candèze; *Meristhus erinaceus* Cd. det. E. Candèze [IRSNB curatorial label] (IRSNB, Brussels).

Candèze's second syntype, a male from Kina Balu [sic] (IRSNB, Brussels) is not conspecific with the lectotype. It is *R. erinaceus* (Candèze, 1874).

***Rismethus longicollis* (Candèze) comb. n.**

Meristhus longicollis Candèze, 1897 : 11.

Syntypes examined. INDIA: 1 ex., Bengale; n. sp. 1893 *longicollis* Can [illegible] Bengale [Cand., yellow border]; Type; Collection E. Candèze; *Meristhus longicollis* Cd. det. E. Candèze [IRSNB curatorial label]. 1 ex., Barwai 1893; Collection E. Candèze; *Meristhus longicollis* Cd. det. E. Candèze [IRSNB curatorial label] (IRSNB, Brussels). The species was not described in 1893.

Rismethus lotharensis (Ohira & Becker) comb. n.

Meristhus lotharensis Ohira & Becker, 1973 : 464.

Holotype. NEPAL: ♂, Can. Nepal Exped. nr Birganj, Lothar, 450 ft, 8.ix.1967 (CNC, Ottawa, type no. 12916).

Paratypes. 21 ex., same locality as holotype, 8–12.ix.1967 (CNC, Ottawa and Aichi University Collection); 1 ex., same locality as holotype, 8.ix.1967; Brit. Mus. 1973 : 303 (BMNH).

Rismethus minusculus (Candèze) [p. 236]

Lectotype (designated by Hayek, 1973 : 236). BORNEO: ♀, Borneo Sarawak, 1865–66, Coll. G. Doria; Typus; minusculus Cand. [replacement label in unknown handwriting, see *Adelocera acerbus* (Candèze) p. 189] (MCSN, Genoa).

Paralectotype. 1 ex., same locality as lectotype but without determination label (MCSN, Genoa).

Rismethus nepalensis (Ohira & Becker) comb. n.

Meristhus nepalensis Ohira and Becker, 1973 : 462.

Holotype. NEPAL: ♂, Can. Nepal Exped. Birganj, Lothar 450 ft. 12.ix.1967 (CNA, Ottawa type no. 12915).

Paratypes. 7 ex., same data as holotype; 2 ex., same locality, 8.ix.1967 (CNC, Ottawa and Aichi University Collection). 1 ex., same data as holotype. Brit. Mus. 1973 : 303 (BMNH).

Rismethus nigritulus (Candèze) [p. 237]

Lectotype (van Zwaluwenburg, 1959 : 355). SUMATRA: Giesbeni [? illegible] Lahat, Palemb. 18 24/4 74; n. sp. nigritulus Cand. Sumatra [Cand., yellow border]; Type; Collection E. Candèze, 1 Meristhus nigritulus Cd. det. E. Candèze [IRSNB curatorial label] (IRSNB, Brussels).

Paralectotypes. 1 ex., Sumatra; Collection E. Candèze; Meristhus nigritulus Cd. [IRSNB curatorial label]; 3. 1 ex., Sumatra, Palembang (MNHN, Paris).

The third specimen in the IRSNB, Brussels collection recorded by van Zwaluwenburg and labelled '2' by him is not part of the syntype-series. It seems to be one of the specimens from tobacco recorded by Fleutiaux (1895b : 167).

Rismethus sarawakensis (Ohira) comb. n.

Meristhus (Meristhus) sarawakensis Ohira, 1973a : 109.

Holotype. BORNEO: ♂, Sarawak, Bau District, Lake Area 30.viii.1959 (T. C. Maa) (BPBM, Honolulu). Not examined.

Paratype. 1 ex., same locality as holotype, 2.ix.1958 (T. C. Maa) (Ohira Coll.). Not examined.

The generic attribution is based on the following specimen kindly sent for examination by Dr Ohira: 1 ♂, Borneo, Sarawak, Kepit District, Merirai Valley 28–31.vii.1958 (T. C. Maa) (Ohira collection).

Rismethus squamiger (Champion) [p. 239]

Additional paralectotypes examined. 2 ex., Duenas, Guatemala G. C. Champion. Meristhus squamiger Champ. det. Champion (IRSNB curatorial label); BCA coll. III (1) Meristhus [printed] squamige [Champ.]; Biol. C. Amer. Don Godman & Salvin (IRSNB, Brussels).

The wings are reduced to minute flaps and the metathorax very short as in *ceylonensis* (Ohira).

TRIERES Candèze [p. 240]

Trieres Candèze, 1900 : 78 (3). Type-species: *Trieres ramitarsus* Candèze, by monotypy.
Triers Hayek, 1973 : 239. [Incorrect subsequent spelling.]

The relationships of the genus are discussed in the Appendix, p. 251.

Trieres ramitarsus Candèze [p. 240]

LECTOTYPE (present designation). AUSTRALIA: ♂, Australia; n. sp. 1892 ramitarsus Cdz. Austr. [Cand., red border]; Collection E. Candèze; *Trieres ramitarsus* Cd. det. E. Candèze [IRSNB curatorial label]; Lectotype v. Zwal. 1957 (IRSNB, Brussels).

Van Zwaluwenburg did not publish the lectotype designation.

LANELATER Arnett [p. 240]

The genus contains 80 species. The relationships of the genus are discussed in the Appendix, p. 251.

Lanelater fuscipes [p. 249]

Elater fuscipes Fabricius, 1775 : 211.

Agrypnus fuscipes subspecies *gigas* Fleutiaux, 1918d : 182 footnote. **Syn. n.**

Agrypnus fuscipes subspecies *convexicollis* Fleutiaux, 1918d : 182 footnote. **Syn. n.**

Elater fuscipes Fabricius. LECTOTYPE (present designation). INDIA: ♀ *fuscipes* [Fabricius] (Keil Collection, UZM, Copenhagen).

Paralectotype. 1 ♂ without labels standing beside the lectotype (Kiel Collection, UZM, Copenhagen). The head is missing and has been replaced by that of an *Onthophagus* Latreille (Scarabaeidae, Coprinae).

Fleutiaux (1918d) footnote runs as follows: 'Présente plusieurs formes, notamment deux à Ceylan, dont l'une, de grand taille, est presque terne, avec le pronotum fortement ponctué et les elytres distinctement striés (*gigas*) et l'autre, de taille moindre, brillante, à pronotum assez convexe (*convexicollis*)'.

The DEI, Eberswalde contains 3 male *fuscipes* specimens from 'Sud Ceylon' determined as *Agrypnus fuscipes* v. *convexicollis* by Fleutiaux. Up to the present I have not seen any specimens determined as *gigas* by Fleutiaux.

As *L. fuscipes* (Fabricius) varies considerably in length, degree of convexity and puncturation of the prothorax and the striation of the elytra, I feel fully justified in the synonymy.

Lanelater gestroi (Candèze) [p. 249]

Lectotype. PAPUA NEW GUINEA: ♂, Nuova Guinea Fly River, L. M. D'Albertis 1876–77; Typus; ♂ 22; *gestroi* Candèze [replacement label in unknown hand, see *Adelocera acerbus* (Candèze) p. 189] (MCSN, Genoa). Length 24·5 mm.

Paralectotype. 1 ♂, PAPUA NEW GUINEA: Nuova Guinea Fly River, L. M. D'Albertis 1876–77; *Agrypnus gestroi* Cand., det. E. Candèze [IRSNB curatorial label]; Collection E. Candèze (IRSNB, Brussels). Length 22 mm.

The exact locality is uncertain. D'Albertis went ashore at various points in the course of his two voyages up the Fly River (D'Albertis, 1877; 1880) but where the specimens were collected is not recorded. They may have been collected at any point between the mouth of the Fly River and about 5°30' S, 141°30' E, the highest point up the river which was reached on June 25th 1876. No additional specimens of *gestroi* are known to me.

Lanelater resectus (Candèze) [p. 261]

Holotype. NEW GUINEA: ♀ C. M. Type [indicates ex coll. Mnischek]; *resectus* Cdz. N. Guinea [Cand. yellow border]; *Agrypnus resectus* Candèze det. E. Candèze [IRSNB curatorial label]; Collection E. Candèze; Type; cf. Cand. Mon. 1. 1857 p. 45 (IRSNB, Brussels).

The specimen is 34 mm long compared with the published length of 36 mm, but otherwise it agrees well with the description. It is probable that the label bearing the name '*Agrypnus australasiae* Dup.' recorded by Candèze has been lost. As Candèze (1874 : 12) states that this is not an Australian species and that he has examined many specimens from New Guinea and the Moluccas I believe that the original locality, Australia, was erroneous and was based on Mnischek's name *australasiae*. *L. resectus* (Candèze) occurs throughout the islands of New Guinea and Moluccas.

Lanelater substriatus (Candèze) [p. 265]

Elater glabratus Gyllenhal, 1817 : 129, No. 175.

Agrypnus substriatus Candèze, 1857 : 25. **Syn. n.**

Elater glabratus Gyllenhal. LECTOTYPE (present designation). SIERRA LEONE: ♂, S. Leone Afzelius (NR, Stockholm). The specimen stands in the Schoenherr collection under the label: *glabratus* Gyllen. Syn. 1 No. 34.

To the best of my belief the name *glabratus* has never been used in any subsequent publication. It does not appear in the Junk Catalogue (1925). The most recent use of *substriatus* was by Girard (1971 : 560). The case should be referred to the International Commission on Zoological Nomenclature for a decision under the Plenary Powers.

OCTOCRYPTUS Candèze [p. 266]

Re-examination of the *Octocryptus cardoni* Candèze material in the BMNH collection has shown that tibial spurs are present.

Crowson (1977) states that *Octocryptus* appears to have a close affinity to *Drapetes* Dejean. It is true that both genera possess unusually long trochanters on the front legs, but there it would seem the resemblance ends. *Drapetes* species do not have deep impressions on the metasternum for the reception of the middle tarsi. Deep grooves for the reception of the middle and hind tarsi similar to those of *Octocryptus* are found in *Aulonothroscus* Horn and *Pactopus* LeConte (Throscidae (Trixagidae)). The structure of the middle coxal cavity of *Octocryptus* differs from that of *Drapetes* in that the mesepimeron does not form part of the margin of the mid coxal cavity. The structure of the prosternopleural suture of the two genera also differs. In *Octocryptus* the posterior portion is open to accommodate the anterior tarsi while in *Drapetes* the anterior portion is open to receive the rolled antennae as in *Adelocera* and many *Agrypnus* species.

Unlike Crowson I do not believe that the absence of styli on the ovipositor is characteristic of the Agrypninae. In the majority of *Lacon* species examined (see p. 253) styli are present on the ovipositor.

In my opinion the systematic position of *Octocryptus* remains an enigma.

Octocryptus cardoni Candèze [p. 267]

Additional syntype-material examined. INDIA: 2 ♀, Barwai; Collection E. Candèze; *Octocryptus cardoni* Cd. det. E. Candèze [IRSNB curatorial label]. One specimen bears in addition: n. sp. 1892 *cardoni* Barwai Bengale P. Cand. [Cand., yellow border] (IRSNB, Brussels).

The location of the remaining two specimens is unknown.

Octocryptus coomani Fleutiaux [p. 267]

Additional paralectotype examined. VIETNAM: 1 ex., Tonkin, Lac Tho, Hoa Bin A. de Cooman; Collection Fleutiaux; *Octocryptus cardoni* Fleut. [Fleut.]; Cotype (IRSNB, Brussels).

Octocryptus radula Candèze [p. 267]

LECTOTYPE (present designation). SUMATRA: sex undetermined, Sumatra Padang; n. sp. *radula* Cand. Sumatra Pad. [Cad., yellow border]; Collection E. Candèze; *Octocryptus radula* Cdz. det. E. Candèze [IRSNB curatorial label]; Type; vii.1943 Fleutiaux vid. [Fleut.] (IRSNB, Brussels).

Acknowledgements [p. 269]

In addition to the many individuals mentioned in the first part of this work who have continued to render valuable assistance in the preparation of these additions and corrections, I should also like to thank the following for their help:

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Some notes on the collections consulted [p. 270]

Carter, Herbert James (1858–1940). First collection to NM, Melbourne. Types from second collection to AM, Sydney (McKeown, 1936 : 54) and the collection in his possession at the time of his death to ANIC, Canberra (Anderson, 1941 : ii).

Froggatt, W. W. (1858–1937). Collection now incorporated in the ANIC, Canberra (E. B. Britton, pers. comm.). The type-material of the species described by MacLeay (1888) is in the MacLeay collection in the ANIC, Canberra.

Guérin-Méneville, Félix Edouard (1799–1874). Elateridae to F. Monchicourt. Monchicourt's collection was acquired by R. de Bonnevill who retained some (unspecified material) and dispersed the rest via E. Deyrolle. Candèze (q.v.) acquired the Elateridae.

MacLeay, Sir William John (1820–1891). He published his papers under the name William MacLeay or sometimes William MacLeay Junior. On his determination labels and in letters he wrote his name Macleay. His collection was in the MacLeay Museum, University of Sydney but is now on permanent loan to the ANIC, Canberra. Hahn (1962) published a list of the designated type-specimens in the MacLeay Museum.

MacLeay (1872) published descriptions of new species based on specimens collected by Mr Masters, assistant Curator of the Australian Museum [Sydney] at Gayhdah, Queensland. Syntype-specimens of these species are preserved in the MacLeay and AM, Sydney collections.

Masters, G. (1837–1912). See MacLeay.

Miwa, Y. (Active between 1927 and 1940.) Type-material now in Taiwan Agricultural Research Institute, Taipei, Taiwan (H. Ohira, pers. comm.).

Panzer, Georg Wolfgang Franz (1755–1829). According to Eisinger (1919 : 91) nothing definite is known of the fate of Panzer's library and extensive collection of insects. Hieke (pers. comm.) states that some of Panzer's specimens, which do not have any distinctive label, may have been incorporated in the general collection of the NMHU Berlin when it was reorganized by Gerstaeker (see Hayek, 1973 : 275) or possibly F. A. F. Karsch.

Westermann, Bernt Wilhelm (1781–1868). In about 1805 he travelled to South Africa and Bengal and Java. His collection is in the UZM, Copenhagen. See Dohrn (1968).

Corrigenda to Hayek (1973)

Page 7 line 8	for 'TRIERS' read 'TRIERES'
21	for '(Text-fig. 13)' read '(Text-fig. 11)'
28	for 'Triers' read 'Trieres'

- Page 8 6 for '**OPATELUS**' read '**OPTALEUS**'
 18 for '(p. 190)' read '(p. 90)'
 22 6 for 'Nearctic' read 'Neotropical'
 23 after line 6 insert '*Brachylacon aethiopicus* (Candèze) Cobos, 1964 : 586'
 28 line 36 delete 'Kishii (1961 : 25)'
 for 'Ohira (1934 : 10)' read '(1954a : 10)'
 37 for '1969' read '1969a'
 39 39 for 'Candèze, 1878a' read 'Candèze, 1878b'
 40 28 for '**nebulosa**' read '**nebulosus**'
 80 4 after '(1857 : 18' insert '& 47'
 82 23 for 'vhr.' read 'var.'
 83 30 after 'Candèze, 1874 : ' insert '15 &'
 after line 30 insert '*Lacon tenebrionoides* (Candèze) Fleutiaux, 1926 : 95.'
 line 31 for '♀' read '♂'
 84 16 for 'Candèze' read '(Candèze)'
 21 for '1877' read '1887'
 27 for '1926 : 93' read '1926 : 94'
 91 throughout for '**OPATELUS**' read '**OPTALEUS**'
 92 line 28 for '1784' read '1874'
 97 4 for 'Arancanorum' read 'Araucanorum'
 99 22 for 'p. 000' read 'p. 275'
 104 4 for '*Dilobitarsus*' read '*Dilobitarsus*'
 110 18 for '1898a : 183' read '1898a : 129'
 119 15 for '405' read '413'
 120 5 for 'Kalimpeza' read 'Kalimfeza'
 121 4 after 'Moupin' insert 'A. David'
 123 14 for '(Candèz)' read '(Candèze)'
 125 25 after '1942 : 1' insert 'fig. 1'
 128 32 for '**Lacon**' read '**Agrypnus**'
 133 6 for '*Adeleocera*' read '*Adelocera*'
 134 24 after 'BCA Col.' insert 'III'
 138 line 24 for '1956' read '1895b'
 31 for 'Erichson' read '(Erichson)'
 139 3 for 'MADASCAR' read 'MADAGASCAR'
 12 for '1879a' read '1878a'
 141 21 for '1881' read '1882'
 144 1 delete '**comb. n.**'
 after line 3 insert '*Agrypnus (Paralacon) costicollis* (Candèze) Ohira,
 1971d : 205'
 147 lines 5, 6, 17 for '*davidi*' read '*davidis*'
 149 line 32 delete '**comb. n.**' and insert 'Ohira, 1971d : 205.'
 152 lines 10 to 20 for '*eximus*' read '*eximius*' throughout
 155 line 26 for '1868b' read '1878b'
 168 31 for 'Janson ms.' read 'Janson mss.'
 170 30 for '1826' read '1926'
 174 29 for 'to Plason by Vienna' read 'by Plason of Vienna'
 180 1 for '**maculosus** (Macleay)' read '**maculatus** (MacLeay)'
 2 for 'Macleay' read 'MacLeay'
 10 for '**maculatus** (Candèze)' read '**maculosus** (Candèze)'
 190 7 for '**comb. n.**' read '**nom. n.**'
 194 30 for '*tubidus*' read '*turbidus*'
 200 17 for 'Klug, 1835' read 'Klug, 1833'
 205 16 for 'Nomkanbah' read 'Noonkanbah'
 206 10 for '*Tilostarsus*' read '*Tilotarsus*'

Page		
	lines 31, 33	for 'sakaguchi' read 'sakaguchii'
207	line 1	for 'Fleuteaux' read 'Fleutiaux'
211	29	for 'Coiffs' read 'Colffs'
212	4	for 'sylvatica' read 'silvatica'
215	lines 21 to 23	for 'stictus' read 'sticticus' throughout
216	line 22	for 'Macleay, 1872' read '(MacLeay, 1872)'
223	15	for 'Adelocera truncatus (Candèze)' read 'Adelocera truncatus (Herbst)'
228	20	for 'Klug' read '(Klug)'
230	31	for 'Blackburn, 1985' read 'Blackburn, 1895'
231	13	for 'restricted' read 'constricted'
231	14	for 'with' read 'without'
	15	for 'without' read 'with'
	15	for 'tarsus' read 'tarsi'
236	10	for 'Candèze, 1893' read 'Candèze, 1893b'
237	10	for '(RSNB, Brussels)' read '(IRSNB, Brussels)'
239	throughout	for 'Triers' read 'Trieres'
	line 22	for 'ramitarsas' read 'ramitarsus'
249	line 25	for '(CMSN, Milan)' read '(MCSN, Genoa)'
251	lines 19, 21	for '(CMSN, Milan)' read '(MCSN, Genoa)'
257	line 13	for 'Fleutiaux (1911 : 475)' read 'Fleutiaux (1912 : 475)'
363	35	delete 'Lanelater scortecci (Binaghi) Arnett, 1952 : 105'
	38	for 'Confirmation of Arnett's' read 'The'
268	2	for 'OPATELUS' read 'OPTALEUS'
269	2	for 'TRIERS' read 'TRIERES'
285	after line 9	insert '—— 1781. <i>Species Insectorum</i> 1 vii + 552 pp.' Hamburgi et Kilonii.
286	line 2	for '1911' read '1912.' After 80 insert '(1911)'
290	35	after 'LANE, M. C.' insert '1953'
293	line 6	for '1972c' read '1971c'
	after line 6	insert '—— 1971d. A list of elaterid-beetles from South Asia preserved in the Hungarian Natural History Museum, Part VI (Coleoptera). <i>Annls hist. natn. hung.</i> 63 : 205–216.'
	after line 28	insert PERRIS, E. 1877. <i>Larves de Coléoptères</i> . 590 pp., 14 pls. Paris. This work was originally published in two parts; 1876, <i>Annls Soc. linn. Lyon</i> 22 : 269–418 (=pp. 1–160) and 1877, <i>loc. cit.</i> 23 : 1–430 and plates (=pp. 161–590).'
298	column 1	line 12 for '81' read '82'
	2	after line 31 insert 'aurorata LeConte, 80'
	2	line 32 delete '80'
		33 for '323' read '332'
		51 for 'beauchenii' read 'beauchenei.'
299	1	line 13 for '1885b' read '1895b'
	1	16 for '1905b : 276' read '1905b : 278'
		after line 18, canescens insert 'cantaloubei Girard, 1962 : 222, Sulcilacon'
	2	line 29 for 'Elaston' read 'Elston'
		36 for 'cejaki' read 'cejkai'
		47 for 'chrysoprasa' read 'chrysoprasus'
301	column 1	line 44 for 'eximus' read 'eximius'
302	2	7 for 'himalayensis' read 'himalayanus'
		40 after 'Candèze, 1892c' insert '485'
303	2	line 36 for 'litiginosus' read 'litigiosus'

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- 1 after line 28 insert major Fleutiaux, 1889 : 139, variety of modestus Candèze
 line 36 for '1903a' read '1903b'
 after line 42 insert 'massula Candèze, 1882 : 2, Adelocera'
- 2 after line 29 after 'modestus' insert 'var. major'
 after line 41 for 'Lobotarsus' read 'Tilotarsus'
- 305 1 line 8 for 'myamoti' read 'myamotoi'
 21 after 'nesiotes Van Zwaluwenburg' insert '141'
- 2 line 12 for '(Ohira)' read '(Miwa)'
 line 19 for 'Opatelus' read 'Optaleus'
 49 for 'Boheman, 42' read 'Boheman, 43'
- 306 2 after line 17 'pubescens' insert 'pujoli Girard, 1969 : 223,
 Lobotarsus'
- 307 1 line 7 for 'rectangularis' read 'rectangulus'
 39 for 'rufopictus' read 'rufopiceus'
 2 22 for 'Schazrz' read 'Schwarz'
 after line 45 insert 'setosulus Schwarz, 1903b : 378, Lacon'
- line 48 delete 'setulosus Schwarz, 1903b : 378, Lacon'
- 308 1 line 31 for 'stictus' read 'sticticus'
 38 for 'subaurorata' read 'subaurata'

Appendix

On the groups of genera within the Agrypninae and the relationship between *Lanelater* and *Pyrophorus* and its allies

Golbach's establishment of the genus *Stangellus* again draws attention to the difficulty, if not impossibility, of defining Elaterid genera by means of the classic external characteristics such as the relative sizes of the second and third antennal segments and the length of the antennal groove.

On the basis of these characteristics *Stangellus* falls between *Adelocera* and *Lacon*. The antennae resemble those of the former while the antennal grooves are similar to those of the latter. Examination of the available material of *Stangellus* has shown that the aedeagus and female genitalia are of the same type as those found in the *Lacon* species so far examined (see p. 253).

Dajoz (1965) divided the Agrypninae into two tribes on the basis of the structure of the bursa copulatrix. While I believe that Dajoz' second tribe, the Agrypnini, contains two very disparate genera (*Agrypnus* and *Lanelater* of the present work), his proposal is none the less of great interest as it suggests that the female genitalia may be of considerable value in the major classification of the Elateridae.

Dajoz' tribe Laconini, with the single genus *Lacon*, is characterized by the absence of a spermatheca and the presence in the walls of the bursa copulatrix of a large transverse plate bearing spines of various sizes. A second similar but much smaller plate may also be present (Dajoz, 1965 : figs 1a, 1b). At the present time the genus *Lacon* includes 125 species. The female genitalia of 14 species have been examined (see list on p. 253) and in all the bursa resembles that figured by Dajoz although there are interspecific differences. In the males of these species the lateral lobes (parameres) are as long or longer than the median lobe (penis). Fifty-seven other species have been examined (see list on p. 254) and have been found to have the same type of aedeagus. The genitalia of the remaining species are at present unknown to me. The same types of aedeagus and female genitalia are found in *Danosoma* (4 described species, males of 4 and females of 4 species examined), *Dilobitarsus* (23 described species, males of 19 and females of 5 species examined), *Optaleus* (4 described species, males of 3 and female of 1 species examined), and *Stangellus* (3 described species, males of 2 species and the female of an undetermined species examined). The genitalia of only one sex of *Eidolus* (2 described species, male of *linearis* (Candèze) examined), *Candanius* (1 described species, female examined) and *Acrocryptus* (1 described species, female examined) are known to me but in each case the genitalia are of the *Lacon* type and I have little doubt that when specimens of the opposite sex become available for study they also will be found to have genitalia similar to those of *Lacon*.

On the basis of the structure of the bursa copulatrix and the aedeagus the *Lacon*-group of genera includes the following genera as defined in Hayek (1973) and the present work. The term tribe is intentionally not used as the groups of genera now proposed are tentative and probably not of equal rank.

Lacon Castelnau, *Danosoma* Thomson, *Dilobitarsus* Latreille, *Optaleus* Candèze, *Eidolus* Candèze, *Candanius* Hayek, *Acrocryptus* Candèze, *Stangellus* Golbach.

In addition to the characteristic genitalia, these genera have in common the structure of the middle coxal cavity and the absence of tibial spurs. Dajoz states that in *Lacon* the valves of the ovipositor are always furnished with styli. This is true of all the species examined with the exception of *pollinaria* (Candèze) and *nobilis* (Fall) in which styli are entirely absent. Unlike the other species examined these two species have stout strongly thickened valves.

The eight genera can be distinguished from one another by the key on p. 184. At present it is possible to assign every known species to an appropriate genus. However, since many of the characters used (the lateral margin of the prothorax, the length and depth of the antennal grooves, the relative lengths of the second and third antennal segments and the presence or absence of lobes on the tarsi) are known to be very variable within the family it seems very probable that when more material becomes available for study it will not be possible to justify the retention of all the genera.

How far the difference between the adult *Lacon*-group species and the species belonging to other groups is reflected in the larvae cannot be estimated at present. Both Dolin (1964) and Ohira (1962) distinguish between the larvae of *Lacon* and *Agrypnus*, Dolin by means of the shape of the frons and the size of the paired anal hooks and Ohira by the presence or absence of a spiracular sclerite. Costa (1977 : 8) states that the larva of *Dilobitarsus quadrituberculatus* Candèze is closely related to that of *Lacon parallelus* (Lewis) described by Dolin (1964 : 54). Unfortunately Perris' (1877 : 169(9)) description of the larva of *Danosoma fasciata* (Linnaeus) is not sufficiently detailed to show whether or how closely it resembles the larvae of *Lacon* species. The descriptions of the larvae of *Lanelater* (under the name *Agrypnus*) by Fletcher (1919) and Illingworth (1921) are too poor to enable any comparison to be made. The larvae of *Adelocera* must be regarded as unknown at the present time, see p. 253.

The remaining genera treated in this work are tentatively grouped as follows. The groups are intentionally not given any particular rank.

1. *Agrypnus*-group. Mesepimeron not forming part of the margin of the mesocostral cavity (Hayek, 1973 : fig. 2). Tibial spurs absent. Spermatheca present. Bursa copulatrix bearing one or more rows of spines.

Agrypnus

and probably *Trieres*

Rismethus

Meristhus

} ♀ genitalia not examined

Of the 499 known species of *Agrypnus* the larvae of only 6 species (*binodulus*, *cordicollis*, *fuliginosus*, *miyamotoi*, *murinus*, *scrofa*) have been described. These larvae differ from those of *Lacon*. The larva of *Meristhus (Sulcimerus) nipponensis* Lewis described by Ohira (1962 : 32, pl. 7, figs E-G) resembles *Agrypnus* in that it lacks a spiracular sclerite but differs in the possession of a mandibular retinaculum. The larvae of *Trieres* and *Rismethus* are unknown.

2. *Adelocera*-group. Mesepimeron forming part of the margin of the mesocostral cavity (Hayek, 1973 : fig. 3). Tibial spurs absent. Spermatheca present. Bursa copulatrix with or without spines, etc. but never with a single large plate bearing spines.

Adelocera

Scaphoderus

Elasmosomus

Hemicleus

These four genera have the same mid coxal cavity structure as the *Lacon*-group but differ from it in possessing a spermatheca and in the shape of the chitinous structures in the bursa copulatrix. In the two *Adelocera* species examined (*demissus* (Candèze) and *aethiopicus* (Candèze)) the

walls of the bursa bear two irregularly shaped areas of spines. *Scaphoderus riehlii* Candèze seems not to have any kind of chitinous structures in the bursa. *Elasmosomus* (examined: 1 ♀, Ghana, 2.v.57 (V. F. Eastop) (BMNH)) and *Hemicleus* (examined: 1 ♀, Ngong, 6.43 (van Someren) (BMNH)) both possess a very distinctive palisade of short rods bearing spines encircling the bursa at about the middle of its length. The very different forms of the internal portion of the female genitalia suggest that this group should be regarded as no more than a convenient 'catch-all', the contents of which require further study to elucidate their true relationships.

The structure of the bursa seems to indicate that *Elasmosomus* and *Hemicleus* are more closely related to each other than to *Adelocera* and *Scaphoderus*.

The larvae of the *Adelocera*-group are unknown. Ohira (1962 : 32 [in Japanese but with a good figure]) described a ? *Brachylacon* larva which may be an *Adelocera* species but the determination is too tentative to allow any conclusions to be drawn.

3. *Lanelater*-group. Mesepisternum and mesepimeron forming part of the margin of the mesocoxal cavity (Hayek, 1973 : fig. 1). Tibial spurs present. Spermatheca present. Bursa copulatrix generally with one or more pairs of plates and rows of spines (see Dajoz, 1964 : figs 2a & 2b) but in some species these are reduced or absent.

Lanelater

The female genitalia of *Lanelater* are similar to those of *Pyrophorus* figured by Costa (1975) and show the same range of interspecific variation, from two pairs of plates and three long chains of spines to no plates or spines. Further studies may show that *Lanelater* is more closely related to *Pyrophorus* and allied genera than to the Agrypnine genera of this work. In my opinion this would not be surprising. The only characteristic common to all the genera up till now included in the Agrypninae is the prosterno-pleural sutural groove for the accommodation of the antennae. The length and depth of this groove are known to differ in otherwise very similar species in almost every genus (*Acrocryptus* and *Optaleus* are exceptions). Even in *Lanelater* several species are known in which the groove is very shallow (*infuscatus* (Klug), *longicornis* (Gahan)). The fact that the prosternopleural groove is grooved to a greater or lesser extent in many other genera (e.g. *Calais*, *Elius*, *Melanotus*, *Propsephus*) suggests that this feature may have appeared on a number of different occasions in the course of the evolution of the Elateridae.

The theory that *Lanelater* may be more closely related to *Pyrophorus* than to the Agrypninae of this work is supported by the fact that *Lanelater* shares with the former but differs from the latter in the possession of the following characteristics: the structure of the middle coxal cavity, the presence of tibial spurs and a vestiture of setae instead of scales.

Up to the present time I have not been able to examine any *Lanelater* larvae and the extant descriptions (Fletcher, 1919 and Illingworth, 1921) are too poor to enable any comparison to be made with the larvae of *Pyrophorus* species.

The genitalia of the following species have been examined

<i>Lacon atterimus</i> (Candèze)	♂	<i>drusa</i> (Marseul)	♂
<i>aureosquamosa</i> (Jagemann)	♂	<i>fairmairei</i> (Candèze)	♂
<i>auroratus</i> (Say)	♂	<i>fleutiauxi</i> (Schwarz)	♂
<i>aurulentus</i> (Candèze)	♂, ♀	<i>fulvipennis</i> Fleutiaux	♂
<i>balachowskyi</i> Girard	♂	<i>funebris</i> (Solsky)	♂
<i>boninensis</i> (Ohira)	♂	<i>geographicus</i> (Schwarz)	♂
<i>brasiliensis</i> (Castelnau)	♂	<i>graeca</i> (Candèze)	♂, ♀
<i>cantaloubei</i> (Girard)	♂	<i>grisea</i> (Schwarz)	♂
<i>chabannei</i> (Guérin-Méneville)	♂	<i>impressicollis</i> (Say)	♂
<i>chilensis</i> (Solier)	♂, ♀	<i>inflatus</i> (Candèze)	♂
<i>cinctus</i> (Candèze)	♂	<i>insularis</i> (Candèze)	♂, ♀
<i>coeca</i> Candèze	♂	<i>laticollis</i> (Candèze)	♂
<i>cibratus</i> (Candèze)	♂	<i>lepidopterus</i> (Panzer)	♂, ♀
<i>discoidea</i> (Weber)	♂	<i>limbatus</i> (Candèze)	♂
<i>dorsalis</i> (Candèze)	♂	<i>lithophilus</i> (Candèze)	♂

<i>longicornis</i> (Champion)	♂	<i>fasciata</i> (Linnaeus)	♂, ♀
<i>mekrani</i> (Candèze)	♂	<i>obtecta</i> (Say)	♂, ♀
<i>mexicanus</i> (Candèze)	♂		
<i>modestus</i> (Boisduval)	♂, ♀	<i>Dilobitarsus abbreviatus</i> Candèze	♂, ♀
<i>nobilis</i> (Fall)	♂ ♀	<i>bicornis</i> Candèze	♂
<i>palliatus</i> (Latreille)	♂	<i>bidens</i> (Fabricius)	♂, ♀
<i>pectinatus</i> (Candèze)	♂	<i>cariosus</i> Candèze	♂
<i>pectinicornis</i> (Champion)	♂	<i>columbianus</i> Candèze	♂
<i>pectoralis</i> (Fairmaire)	♂	<i>crux</i> (Philippi)	♂, ♀
<i>pictus</i> (Fleutiaux)	♂, ♀	<i>deyrollei</i> Candèze	♂
<i>pollinaria</i> (Candèze)	♂, ♀	<i>eloini</i> Candèze	♂
<i>punctatus</i> (Herbst)	♂, ♀	<i>inopinus</i> Candèze	♂, ♀
<i>pyrsolepis</i> (LeConte)	♂	<i>laconoides</i> (Fleutiaux)	♂
<i>quercus</i> (Herbst)	♂, ♀	<i>lignarius</i> Candèze	♂
<i>rurulenta</i> (Le Conte)	♂	<i>nubilus</i> Candèze	♂
<i>ruber</i> (Perty)	♂, ♀	<i>pendleburyi</i> Fleutiaux	♂
<i>salvazei</i> (Fleutiaux)	♂	<i>petiginosus</i> Germar	♂
<i>setosus</i> (Candèze)	♂	<i>quadrituberculatus</i> Candèze	♂
<i>sparsus</i> (Candèze)	♂, ♀	<i>subsulcatus</i> Candèze	♂
<i>spurcus</i> (Candèze)	♂	<i>sulcicollis</i> (Solier)	♂, ♀
<i>strangulatus</i> (Fleutiaux)	♂	<i>tessellatus</i> Candèze	♂
<i>subcostatus</i> (Candèze)	♂, ♀	<i>vitticollis</i> (Fairmaire & Germain)	♂
<i>subpectinicornis</i> (Schwarz)	♂		
<i>tenebrionoides</i> (Candèze)	♂	<i>Optaleus cribratus</i> (Blanchard)	♂
<i>unicolor</i> (Candèze)	♂	<i>limbatus</i> Candèze	♂, ♀
<i>viettei</i> Girard	♂	<i>paleolatus</i> Candèze	♂
<i>yayeyamana</i> (Miwa)	♂		
<i>Danosoma brevicornis</i> (Le Conte)	♂ ♀	<i>Stangellus bucheri</i> Golbach	♂
<i>conspersa</i> (Gyllenhal)	♂ ♀	<i>minutus</i> (Candèze)	♂
		undetermined ♀, Jatahy, Goyaz (MNHN, Paris)	

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The majority of references will be found in Hayek (1973). The following are additions, corrections or were omitted in error.

† indicates reference omitted from Hayek (1973).

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Beccari, O. 1924. This work lists many place names in West Irian which are not found in other gazetteers.

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For species treated for the first time in the text, only the original spelling is shown for adjectival specific names whose endings are liable to change according to the generic gender. Where it is necessary to distinguish between species with the same name published in the same year by the same author, the original generic attribution is also given. Invalid names are in *italics*. Where a name appears more than once in the text the main entry (if any) is given in **bold**.

† indicates that the name was omitted from Hayek (1973).

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