

# The *Aplocnemus* Stephens, 1830, of Greece (Coleoptera, Cleroidea, Dasytidae). A contribution to their knowledge

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**Abstract** - The first part of the paper includes an overview of genus *Aplocnemus* and a discussion of the related subgenera; as a result one of them is placed in synonymy: *Holcopleura* Schilsky, 1894 = *Aplocnemus* (*Aplocnemus*) Stephens, 1830.

The second part deals with the 16 *Aplocnemus* species found to live in Greece. Out of these, 9 are fully discussed, with descriptions and drawings of dissected structures (median lobe, tegmen, last sternite). The remaining 7 have been already – and rather recently – considered and illustrated in previous papers: for them only new taxonomic and/or distributional information are herewith supplied.

One new taxon is described: *Aplocnemus henrici* sp. n from northern Greece and Bulgaria. 9 new synonymies, at species level, are proposed: *A. macedonicus* Pic, 1922 = *A. (Aplocnemus) basalis* (Küster, 1849); *A. pristocerus* Kiesenwetter, 1859 = *A. (Aplocnemus) caelatus* (Brullé, 1832); *A. brevissimus* Pic, 1908 = *A. (Aplocnemus) quercicola* Mulsant & Rey, 1968; *A. kiesenwetteri* Schilsky, 1897 = *A. (Aplocnemus) rufipes* Miller, 1862; *A. turcicus* Schilsky, 1897 = *A. (Aplocnemus) reitteri* Schilsky, 1894; *A. cribripennis* Pic, 1921 = *A. (Aplocnemus) serratus* (Brullé, 1832); *A. latior* Pic, 1908, *A. thessalicus* Pic, 1908 and *A. atricornis* Pic, 1921 = *A. (Diplambe) abietum* Kiesenwetter, 1859.

**Key words:** Balkan Peninsula, taxonomy, new species, synonymies, Bulgaria, Croatia, Montenegro, Turkey.

**Riassunto** - *Aplocnemus* Stephens, 1830, della Grecia (Coleotteri, Cleroidea, Dasytidae). Un contributo alla loro conoscenza.

La prima parte dell'articolo include una panoramica del genere *Aplocnemus* e una discussione sui relativi sottogeneri; come risultato, uno di essi è posto in sinonimia: *Holcopleura* Schilsky, 1894 = *Aplocnemus* (*Aplocnemus*) Stephens, 1830.

La seconda parte del lavoro tratta delle 16 specie di *Aplocnemus* la cui presenza in Grecia ha potuto essere verificata. Di queste, 9 vengono pienamente discusse, con descrizioni e disegni di parti anatomiche (lobo mediano, tegmen, ultimo sternite). Le rimanenti 7 sono già state considerate e illustrate - piuttosto recentemente - in lavori precedenti: per essi vengono qui fornite solo ulteriori nuove informazioni tassonomiche e/o distributive.

Viene descritto un nuovo taxon: *Aplocnemus henrici* n. sp. dalla Grecia settentrionale e dalla Bulgaria. Si propongono 9 nuove sinonimie a livello di specie: *A. macedonicus* Pic, 1922 = *A. (Aplocnemus) basalis* (Küster, 1849); *A. pristocerus* Kiesenwetter, 1859 = *A. (Aploc-*

*nemus) caelatus* (Brullé, 1832); *A. brevissimus* Pic, 1908 = *A. (Aplocnemus) quercicola* Mulsant & Rey, 1968; *A. kiesenwetteri* Schilsky, 1897 = *A. (Aplocnemus) rufipes* Miller, 1862; *A. turcicus* Schilsky, 1897 = *A. (Aplocnemus) reitteri* Schilsky, 1894; *A. cribripennis* Pic, 1921 = *A. (Aplocnemus) serratus* (Brullé, 1832); *A. latior* Pic, 1908, *A. thessalicus* Pic, 1908 e *A. atricornis* Pic, 1921 = *A. (Diplambe) abietum* Kiesenwetter, 1859.

**Parole chiave:** Penisola balcanica, tassonomia, nuove specie, sinonimie, Bulgaria, Croazia, Montenegro, Turchia.

## INTRODUCTION

Following Mayor (2007) genus *Aplocnemus* belongs to family Dasytidae, subfamily Rhadalinae, tribe Aplocnemini. Family rank for Rhadalinae has been recently suggested by Bocakova *et al.* (2011) based on a molecular phylogenetic analysis of the whole Melyridae group (Dasytidae, Malachiidae, Mauroniscidae, Melyridae, Prionoceridae, Rhadalidae) and, as a matter of facts, Rhadalinae appear rather different from the other Dasytidae. Whatever it could be, the Rhadalinae rank is not really relevant to the purpose of this paper.

Genus *Aplocnemus* is Palaearctic and its known distribution ranges from the Atlantic coasts of France to the Altai Mountains Range in central Asia, at latitudes approximately included between 30° and 55° (see also Mayor, 2007). It is a large genus: in his Catalog, Mayor (2007) lists nearly 150 valid taxa. Out of them, 16 species are known for Greece and are here included.

In recent years *Aplocnemus* has been the subject of several papers (Majer, 1982, 1985; Peacock, 1987; Liberti, 1995; Liberti & Zinetti, 2009; Constantin, 2005, 2007) mainly dealing with species of central Europe and western Mediterranean area (France, Spain and Italy). On the other hand, the knowledge of *Aplocnemus* species living in north Africa, eastern Mediterranean Countries (the Balkan Peninsula, Turkey, Middle East), eastern Europe and other Asiatic countries still is poor and mainly based on the Kiesenwetter (1859, 1863) and Schilsky (1894a, 1897) papers, more than one century old. The present work aims at partially filling this gap, reviewing the *Aplocnemus* species of southern Balkans.

*Aplocnemus* are usually good flyers and can be found by beating trees and shrubs or sweeping grass. Certain species appear to be rare or very rare although trap (flight

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interception, Malaise etc.) collection may, at times, suggest they might be more frequent than expected. Their biology is rather unknown although, for several species, there is evidence of saproxylic behaviour (Russo, 1938; Prota, 1966); information and bibliography relating to *Aplocnemus* biology and larval anatomy can be found in Constantin & Klausnitzer (1996). Adults usually appear in spring or early summer, depending on altitude, but certain species may disclose in late autumn or in winter (Russo, 1938; Liberti, 2009).

This paper is based both on materials personally collected by the writer in several entomological trips to Greece (1997, 1998, 2001, 2005, 2006, 2007), Croatia and Montenegro (2002, 2003, 2004, 2008) and Turkey (2010, 2011) and on materials kept in several private and public collections (see list of depositories). The types of many species, although not all, have been retrieved and studied as below detailed.

## MATERIALS AND METHODS

### Territory

Included in this paper are only those species for which a clear evidence of their presence in Greece has been found. For them, collection localities in other Balkanic countries, Romania and Turkey are also reported, if any.

The Countries abbreviations used in the text are listed below, under “Lists and Abbreviations”.

All Greek localities, as reported under “Materials studied”, are grouped by administrative provinces (nomos). To ease understanding their location, a sketch of the administrative structure of Greece, taken from the below mentioned “Euro Atlas”, is supplied in Fig. 1.

### Materials, dissections and drawings

The materials actually studied, well in excess of one thousand specimens, are in the writer’s collection or have been borrowed from several collections, either of public access (Museums) or private, listed under “Lists and Abbreviations”.

All dissections have been carried out working (in water) under a stereomicroscope (at variable magnifications, usually from 15x to 30 x) with the thinnest micropins found on the market (0.1 mm), suitably hooked at the sharp extremity and fitted with a wooden handle at the other. The insects have been softened by immersion in a solution of ethyl-alcohol in water (5-10%) for many hours (not less than 10-12) and the abdomen carefully detached. Afterwards the abdomen only has been further softened by 1-2 minutes boiling in dilute potassium hydroxyde solution (1-2%), its dorsal integument opened, the whole content (inclusive of both last sternite and tergite) draw out and boiled again 1-2 minutes in the same KOH solution (the empty abdomen has been glued on the insect cardboard). Eventually the sclerotized components – namely median lobe [with its internal structure named dorsal lever (see below under “Meaning of some terms used in descriptions”)], tegmen, spicular fork, pygidium and last sternite – have been separated from each other and mounted in

DMHF [using a DiMethyl-Hydantoin-Formaldehyde solution made up with 60 % weight DMHF plus 40% weight of a water based solvent – 40% volume water + 60% volume propylenglycol-monomethylether – whose manufacturing procedure has been described, in details, elsewhere (Liberti, 2005)] on a small transparent cellulose acetate label pinned under the insect cardboard.

This rather cumbersome procedure is necessary to keep the insect undamaged and to allow the dorsal lever (of median lobe) to remain well visible after mounting.

All drawings have been made with the aid of a calibrated grid mounted on the ocular lens of a stereomicroscope, at variable magnifications.

Photographs have been taken by means of a camera placed on the video tube of the same stereomicroscope and the multiple focus frames combined with Helicon Focus 6 software.

### Note on explicit indication of subgenera

Throughout the text subgenera have been often declared, as suggested by the code (ICZN 1999: art. 6.1), by interpolation in parentheses between generic and specific names, at times abbreviated. However, in captions, subgenera have been omitted when the species belongs to *Aplocnemus* subgenus *Aplocnemus*. That does not cause any loss of clarity and – taking into account that the great majority of the Greek species belong to subgenus *Aplocnemus* – results in easier reading and shorter captions.

### Notes to “Systematics”

Meaning of terms used throughout the paper can be found in Cooter (2006: 413, Glossary). Information on, and meaning of, a few more terms are here below reported. Abbreviations used in descriptions are listed below.

### Meaning of some terms used in descriptions

Aedeagus: the assembly of tegmen and median lobe (with dorsal lever) (Figs. 17, 18, 20).

Dimensions: when dimensions are supplied as simple intervals (for example: TL = 5.8-6.5 mm) it means that the reported numbers are the maximum and minimum values actually measured on the specimens available for study. When dimensions are supplied as average plus a confidence interval (for example TL = 6.12 ± 0.26 mm), both have been evaluated on 5 measures (unless otherwise stated) and, the latter, by t-test at 95% probability level, selecting the specimens from different localities (whenever possible).

Balanced: length and width approx. equal.

Dorsal lever: a term introduced by Majer (1982: 422) to designate the sclerotized process of the internal sac (of median lobe) approximately shaped as a hook (and present in all *Aplocnemus* species) which bears important diagnostic characters, at least in subgenus *Aplocnemus*. This same process was named “dorsal appendage” or “dorsal sclerite” by Peacock (1987: 130, Fig. 7).



- |              |                |                      |               |                 |
|--------------|----------------|----------------------|---------------|-----------------|
| 1: Kerkira   | 17: Drama      | 27: Karditsa         | 36: Evvia     | 45: Rethimno    |
| 2: Lefkada   | 18: Kavala     | 28: Larissa          | 37: Ahaia     | 46: Iraklio     |
| 3: Kefalonia | 19: Xanthi     | 29: Magnissia        | 38: Korinthia | 47: Lassithi    |
| 4: Zakintos  | 20: Rodopi     | 30: Etolia Akarnania | 39: Iliia     | 48: Lesvos      |
| 5: Kastoria  | 21: Evros      | 31: Evritania        | 40: Arkadia   | 49: Hios        |
| 6: Florina   | 22: Thesprotia | 32: Fthiotida        | 41: Argolida  | 50: Samos       |
| 7: Grevena   | 23: Preveza    | 33: Fokida           | 42: Messinia  | 51: Kiklades    |
| 8: Kozani    | 24: Ioannina   | 34: Viotia           | 43: Lakonia   | 52: Dodekanissa |
| 9: Pela      | 25: Arta       | 35: Atiki-Pireas     | 44: Hania     |                 |
| 10: Imathia  | 26: Trikala    |                      |               |                 |

Fig. 1 - The greek provinces [taken, with modifications, from the "Euro Atlas" of Greece, scale 1: 3000,000 (see under "Notes to discussion of the species")].



Elongate: longer than wide.

Parameres: the couple of sclerotized “lateral processes” of tegmen, joined to each other both basally and apically (Fig. 46).

Phallobase: the basal part of tegmen, more or less loosely connected (by a membrane) with the median lobe base (Figs. 22, 27, 30, see also Fig. 20).

Spicular fork: the bilobate process connecting last sternite and tergite with aedeagus and hind-intestine (Figs. 15, 16, 45, 49).

Transverse: wider than long.

#### Note on median lobe drawings

The terms “lateral view” and “ventral view”, used to qualify median lobe drawings, may seem incorrect and must be explained. Indeed, on dissection, the *Aplocnemus* (*Aplocnemus*) aedeagi appear often placed as shown in Fig. 16 so that, instead of “lateral view”, use of “sternal view” would seem better. But, in fresh (recently dead) specimens the median lobe appears 90° rotated opposite to the reader, with convexity and “dorsal lever” on dorsal side (namely concavity on sternal side).

#### Notes to “Discussion of the species”

The list of bibliographical references reported for each species is largely incomplete before the year 1937, publication date of the Pic’s “Junk Catalog” (Pic, 1937); please refer to it for a complete record.

A detailed description, with drawings, is here provided only for those species that are not included in Liberti (1995) and/or in Constantin (2007).

Under “Materials studied” records are compacted and reported as “locality name” followed by collector’s name, collecting year (collection day and month have been felt unnecessary because, for all the species here discussed, adults appear in spring or early summer depending on altitude) and depository in brackets. Lacking data are replaced by question marks. Greek and Turkish locality names are grouped by provinces and listed in alphabetical order. Other Countries localities are simply listed in alphabetical order (unless differently stated). To avoid unnecessary repetitions, for some widespread species [those already included in Liberti (1995) and/or in Constantin (2007)] only records from the Balkan Peninsula Countries, Romania and Turkey are reported; for these same species further records relating to central and western Europe may also be found in Majer (1982) and Liberti & Zinetti (2009).

For each species only reliable collection localities are reported. Materials have been usually studied by the writer, however also data supplied by R. Constantin (private communications) have been included (these marked by an asterisk: see abbreviations). Localities names appear either in the relevant “Euro Atlas” published by RV Verlag (Greece 1:300.000; Turkey 1:800.000; Dalmatia, Istria 1:100.000; Croatia, Slovenia, Bosnia I Hercegovina 1:300.000) or in the “Osteuropa Compact” Atlas 1:700.000 published by Freytag & Berndt.

## LISTS AND ABBREVIATIONS

### Depositories of materials studied

- BMNH = British Museum, Natural History, London, England  
 CAn = Collection Fernando Angelini, kept at the Natural History Museum, Florence, Zoological Department “La Specola”, Italy  
 CBU = Collection Hervé Brustel, Toulouse, France  
 CCo = Collection Robert Constantin, Saint Lô (Manche), France  
 CEg = Collection Manfred Egger, Wattens (Tyrol), Austria  
 CFr = Collection Mario E. Franciscolo (†), now at MSNG  
 CGz = Collection Tomasz Gazurek, Warsaw, Poland  
 CKn = Collection Ondrej Konvička, Zlin, Czech Republic  
 CKo = Collection Andreas Kopetz, Amt Wachsenburg, Germany  
 CLi = Collection Gianfranco Liberti, Uboldo (Varese), Italy  
 CMg = Collection Enrico Migliaccio, Roma, Italy  
 CPI = Collection Isidor Plonski, Wien, Austria  
 CPn = Collection Philippe Ponel, Pourcieux (Var), France  
 CRe = Collection Karel Rébl, Praha, Czech Republik  
 CSI = Collection Lucio Saltini, Carpi (Modena), Italy  
 CTd = Collection Michele Tedeschi, Milan, Italy  
 CWh = Collection Paul Whitehead, Pershore, United Kingdom  
 CWo = Collection Thomas Wolsch, Berlin, Germany  
 CZi = Collection Wolfgang Ziegler, Hamburg, Germany  
 MNH = Hungarian Natural History Museum, Budapest, Hungary  
 MNHNP = Museum National d’Histoire Naturelle, Paris, France  
 MRSN = Museo Regionale di Scienze Naturali, Torino, Italy  
 MSNG = Museo Civico di Storia Naturale “Giacomo Doria”, Genova, Italy  
 MSNM = Museo di Storia Naturale, Milano, Italy  
 MZF = Finnish Museum of Natural History, Helsinki, Finland  
 NHMB = Naturhistorisches Museum, Basel, Switzerland  
 NHMW = Naturhistorisches Museum, Wien, Austria  
 SMNS = Museum für Naturkunde, Stuttgart, Germany  
 ZMB = Museum für Naturkunde, Humboldt Universität, Berlin, Germany  
 ZMLU = Museum of Zoology, Lund University, Sweden

### Countries abbreviations

- AL = Albania  
 BG = Bulgaria  
 CH = Switzerland  
 HR = Croatia  
 CY = Cyprus  
 F = France  
 GR = Greece  
 H = Hungary

I = Italy  
 MK = Makedonia  
 MNE = Montenegro  
 RO = Romania  
 SLO = Slovenia  
 TK = European Turkey  
 TR = Asiatic Turkey

### Other abbreviations

approx. = approximately  
 coll. = collection  
 EL = elytral length  
 EW = elytral width  
 hw = handwritten  
 hwA = handwritten by the species Author  
 Is. = Island  
 loc. typ. = typical locality  
 max. = maximum  
 Mts. = Mountains  
 nr. = number(s)  
 Pen. = Peninsula  
 PL = pronotum length  
 pr. = printed  
 prov. = province  
 prr. = printed on red paper (or cardboard)  
 PW = pronotum width  
 TL = total length (measured from labium to elytral apex)  
 up. = unpublished (applies to certain typical specimens bearing type designation labels not supported by subsequent publication)  
 ? = lacking entry in locality records (only under "Materials studied")  
 / (within the text of a label) = end of a line  
 ° = locality already reported in Liberti (1995)  
 °° = locality already reported in Liberti & Zinetti (2009)  
 \* = R. Constantin personal communication (only when found under "Materials studied")  
 (T) = Topotypes  
 (F) = females only (determinations may not be 100% sure)

### DISCUSSION OF *APLOCNEMUS* SUBGENERA

Genus *Aplocnemus* was established by Stephens (1830) for *Crioceris impressa* Marsham, 1802 and the use of this name, instead of *Elicopis* Stephens, 1829 has been recently explained (Peacock, 1987; Liberti, 1995). The spelling *Haplocnemus* is an unjustified emendation introduced by Agassiz (1846: 172).

*Aplocnemus* was split into four subgenera by Schilsky (1894b: 234):

*Aplocnemus (Aplocnemus)*; type species *Crioceris impressa* Marsham, 1802, by original designation (see also Peacock, 1987: 152).

*Aplocnemus (Diplambe)*; type species *A. (Diplambe) montivagus* Rosenhauer, 1856, designated by Peacock (1987: 152).

*Aplocnemus (Holcopleura)*; type species *A. (Holcopleura) reitteri* Schilsky, 1894, by monotypy (Schilsky, 1894b: 234).

*Aplocnemus (Ischnopalpus)*; type species *A. (Ischnopalpus) subcostatus* Schilsky, 1894, by subsequent designation (Schilsky, 1894a: 62).

Shortly afterwards Pic (1896: 47) added a fifth subgenus:

*Aplocnemus (Pseudaphictus)*; type species *A. tournieri* Pic, 1896 by monotypy (see also Peacock, 1987: 152).

These five subgenera have been accepted by Schilsky (1897), Pic (1937) and Peacock (1987). The paper of Peacock (1987) is a nice revision of the whole subfamily Rhadalinae with excellent illustrations, however she does not discuss the *Aplocnemus* subgenera and lists all the species together in alphabetical order.

A couple of decades later Constantin (2005: 219) synonymized *Aplocnemus (Pseudaphictus)* with *Aplocnemus (Aplocnemus)*, a proposal fully shared by the writer because the subgenus was created only based on elytral shape – namely humeral callous reduced to absent, elytra rounded and widened in the middle – which is not structural but simply linked to apterism (or to reduced wings).

*Aplocnemus (Diplambe)* has been defined (Schilsky, 1894b: 234) on the ground of the lateral elytral border appearing double [due to the presence of a "sublateral carina in basal half, forming a double elytral edge" (Peacock, 1987: 136)]: a well evident character shared with *Rhadalus* LeConte, 1852 (Peacock, 1987: Fig. 16). Furthermore in *A. (Diplambe)* phallobase and parameres are not fused together and appear connected by membranous tissues (Fig. 50; see also Majer, 1987: Fig. 212), a character shared by genus *Trichoceble* Thomson, 1859 (Liberti, 2012: Figs. 8, 28, 39, 43).

*Aplocnemus (Ischnopalpus)* has been defined mainly on the ground of maxillary palps last article which is spindle shaped instead of being securiform (Peacock, 1987: Figs. 31, 32). Schilsky (1897: 34BB) also suggests a couple of further characters: dorsal surface black and strongly punctuate and longer epipleura, but these are not always fully valid [as for example *A. (Ischnopalpus) gracilicornis* Schilsky, 1897]. However the validity of *Ischnopalpus*, possibly up to generic level, is also supported by the aedeagus shape, characterized by an overdeveloped tegmen enveloping a smaller median lobe (Figs. 15, 17, 18; see also Majer, 1987: Fig. 205) while in *A. (Aplocnemus)* the tegmen is placed astride a well developed median lobe (Figs. 16, 20). Also note the *Ischnopalpus* spicular fork apically strongly bent dorsally, against the *Aplocnemus* one which is moderately bent.

On the other hand *A. (Holcopleura)*, established by Schilsky (1894b: 234, 1897: 34BBB) for *A. reitteri*, was based on just one character: the propleura ("Pleuren des Halsschildes") fitted with a transverse impression ("querfurche"); namely the front legs coxal grooves extend, although with reduced depth, nearly up to the lateral sides. But this character is often unclear, difficult to appreciate and can be (more or less) detected only in *A. reitteri*. In Greece three more species resembling *A. reitteri* can be found: *A. caelatus*, *A. cribrarius* and *A. henrici*. These four species show evident similarities and compose a homogeneous group: in spite of that the writer was not able to find any definite, clear cut differential character common only to these species, to support the *Holcopleura*

subgenus validity (the Schilsky's "querfurche" appears, to the writer, inadequate; see also the discussion below). For this reason, the synonymy with *A. (Aplocnemus)* is here proposed:

*Aplocnemus* subgenus *Holcopleura* Schilsky, 1894 = *Aplocnemus* subgenus *Aplocnemus* Stephens, 1830 **syn. n.**

*Aplocnemus (Aplocnemus)* are characterized (Schilsky, 1897: 34BB) by variable, more or less securiform, truncated last article of maxillary palpi (Peacock, 1987: Fig. 31) and simple elytral lateral border.

Considering the maxillary palpi last article, in its present meaning subgenus *Aplocnemus* includes species with apical edge longer than internal edge (largely securiform) as well as others where apical edge is as long as (or even shorter than) internal edge (less evidently hatchet shaped); a number of species also have (males) with a round, finely pubescent impression on first and (often) second visible sternites (Constantin, 2005: Fig. 6). These two characters are (to some extent) related: species with the round impression on sternites also show clearly securiform last palpi article; on the other hand species with sim-

ple sternites also have last palpi article "less securiform" (namely longer with shorter apical edge). The latter case include our four species: *A. caelatus*, *A. cribriarius*, *A. henrici* and *A. reitteri*, together with many others (as, for example, *A. cylindricus* Kiesenwetter, 1863, *A. angelinii*, *A. jejusus* and others). It might be that, in the future, subgenus *Aplocnemus* could be split taking these characters into account (in the writer's opinion these criteria are, anyway, well outside the definition of the Schilsky's subgenus *Holcopleura*).

As a conclusion, three out of the four Schilsky's subgenera, namely *A. (Aplocnemus)*, *A. (Diplambe)* and *A. (Ischnopalpus)* show good differential external characters as well as important aedeagical differences: they are deemed to be valid and are here accepted. Whether they should be considered subgenera, or should be raised to good genera, is beyond the scope of the present paper.

Table 1 summarizes the main differences between the three valid subgenera: *A. (Aplocnemus)*, *A. (Diplambe)* and *A. (Ischnopalpus)* (however please note that no *Ischnopalpus* lives in the territory here considered).

Tab. 1 - Main differential characters between *Aplocnemus* subgenera.

\* = *A. (Ischnopalpus) subcostatus* Schilsky, 1894, type species of this subgenus, has been here chosen as representative. It is very common in Morocco, from the sea level to over 2000 m elevation (original, unpublished data). But taxonomy is uncertain [it might be a possible synonym of *A. (Ischnopalpus) morio* (Schöner, 1817)] and this name may turn out, in the future, as incorrect.

	<b>subg. <i>Aplocnemus</i></b>	<b>subg. <i>Diplambe</i></b>	<b>subg. <i>Ischnopalpus</i>*</b>
Median lobe shape	Tubular, approx. same thickness in lateral and ventral views; in lateral view more or less, but always clearly, arched (namely bent sternally at base and/or at apex: see, for example, Fig. 20).	Tubular, in lateral view thinner, flattened, either bent (basally and/or apically) or more or less straight; in ventral view wider, elongate, sub-elliptical (Figs. 47, 48).	Dorsally open, in lateral view rather thin, straight or slightly convex on sternal side; in ventral view elongate, more or less sub-elliptical (Figs. 15, 17, 18).
Tegmen	Flat, obliquely encircling median lobe (Figs. 16, 20). Phallobase and parameres fused together (Figs. 22, 27, 30). Sclerotized border of parameres narrow (Fig. 46).	Flat, obliquely encircling median lobe (as in Fig. 16). Phallobase and parameres not fused but connected by a membrane (Fig. 50). Sclerotized part of parameres rather wide (Fig. 50).	Approx. tubular (open tergally), fully enveloping the median lobe (Figs. 17, 18). Phallobase and parameres fused together (Fig. 17). Nearly entirely sclerotized (Figs. 17, 18).
Central process of last sternite	More or less evident: very short to well developed.	Short or very short (Fig. 51).	Rudimentary to very short (Fig. 15).
Elytral lateral side	Simple	Appearing double at least in basal half	Simple
Palpi	Securiform to sub-elliptical, apically widely truncated.	Sub-elliptical, apically evidently truncated.	Fusiform, apically very shortly truncated.

THE *APLOCNEMUS* SPECIES OF GREECE

## Checklist

Species	Distribution	Typical locality
<i>Aplocnemus (Diplambe) abietum</i> Kiesenwetter, 1859 = <i>A. thessalicus</i> Pic, 1908 ( <b>syn. n.</b> ) = <i>A. atricornis</i> Pic, 1921 ( <b>syn. n.</b> ) = <i>A. latior</i> Pic, 1908 ( <b>syn. n.</b> )	RO, MK, BG, GR, TR (?)	Oros Parnitha near Athens (GR)
<i>Aplocnemus (A.) angelinii</i> Liberti, 1995	I, AL, GR (Corfù)	Policoro (Basilicata, I)
<i>Aplocnemus (A.) basalis</i> (Küster, 1849) = <i>A. macedonicus</i> Pic, 1922 ( <b>syn. n.</b> ) = <i>A. basalis</i> var. <i>distinctipes</i> Pic, 1908	HR, MNE, GR, TR	Trogir (HR)
<i>Aplocnemus (A.) caelatus</i> (Brullé, 1832) = <i>A. pristocerus</i> Kiesenwetter, 1859 ( <b>syn. n.</b> )	GR	Peloponnesus
<i>Aplocnemus (A.) corcyricus</i> Miller, 1866	I, GR	Kerkyra Island (GR)
<i>Aplocnemus (A.) cribrarius</i> (Brullé, 1832)	GR	Peloponnesus
<i>Aplocnemus (A.) henrici</i> <b>sp. n.</b>	BG, GR	Mount Vitoscia near Sofia (BG)
<i>Aplocnemus (A.) integer</i> Baudi, 1874	F, I, CH, H, RO, BG, GR, TR	Pavia (I)
<i>Aplocnemus (A.) jejunus</i> Kiesenwetter, 1863	F, I, SLO, HR, BG, GR, TR	southern France
<i>Aplocnemus (A.) marginatus</i> Rottenberg, 1871	I (Sicily), GR	Catania (Sicily, I)
<i>Aplocnemus (A.) nigricornis</i> (Fabricius, 1792)	All Europe, TR	Sweden
<i>Aplocnemus (A.) pertusus</i> Kiesenwetter, 1859 = (?) <i>A. libanicus</i> Pic, 1901	GR, TR, CY	Napflio (GR)
<i>Aplocnemus (A.) quercicola</i> Mulsant & Rey, 1869 = <i>A. brevissimus</i> Pic, 1908 ( <b>syn. n.</b> )	F, I, GR	Beaujolais et Lyon area (F)
<i>Aplocnemus (A.) reitteri</i> Schilsky, 1894 = <i>A. turcicus</i> Schilsky, 1897 ( <b>syn. n.</b> )	GR, BG, TK, TR	Izmir (TR)
<i>Aplocnemus (A.) rufipes</i> Miller, 1862 = <i>A. kiesenwetteri</i> Schilsky, 1897 ( <b>syn. n.</b> ) = <i>A. rufipes</i> var. <i>taygetana</i> Pic, 1908 = <i>A. rufipes</i> var. <i>semicaeruleus</i> Pic, 1922	GR, TR	Enos Oros on Kefallonia Island (GR)
<i>Aplocnemus (A.) serratus</i> (Brullé, 1832) = <i>A. cribripennis</i> Pic, 1921 ( <b>syn. n.</b> )	HR, GR	Peloponnesus

For all the above listed taxa, reliable evidence of their presence in Greece has been found. But at least three further species, present in the northern part of the Balkans, might be found in this Country:

*Aplocnemus (A.) chalconatus* (Germar, 1817): similar to *rufipes* for general appearance and colour, known of Slovenia, Croatia (Istria, Dalmatia) and Montenegro (Majer, 1982; Liberti, 1995).

*Aplocnemus (A.) pulverulentus* (Küster, 1849): belonging to the *reitteri* group, known of Slovenia, Croatia and Montenegro (Liberti, 1995).

*Aplocnemus (A.) serbicus* Kiesenwetter, 1863: similar to *rufipes* but darker, known of Serbia, se-

veral central European localities and the Russian southern Territories. A likely synonym of *Aplocnemus (A.) virens* Suffrian, 1843 from western Europe, its systematic position will be discussed in a future paper.

Their descriptions and drawings can be found in Majer (1982) and in Liberti (1995).

**Determination key (males only) for the Greek species**

This key includes 15 species of *Aplocnemus (A.)* plus one of *A. (Diplambe)*. No *A. (Ischnopalpus)* is known from Greece.



The key uses, among others, male antennal characters: for this reason it is only applicable to males. Males can be recognized, from females, mostly for stronger antennae and, often, for elytral apical half parallel or only slightly widened; in the “*reitteri* group” the elytral apex is shortly and slightly flattened compared to females (namely less regularly rounded off).

- 1 Elytral lateral border appearing double (at least in basal half) due to the presence of an elytral lateral carina close to the epipleuron (subgen. *Diplambe*). TL = 4.5-5.0 mm. A common species all over the southern part of the Balkan peninsula ..... **abietum**
- Elytral lateral border simple (subgen. *Aplocnemus*) ..... **2**
- 2 Dorsal appearance variable: brown, greenish-grey, bluish or blackish; rather bright; moderately rough (Figs. 4-5). Pronotum and elytra roughness different; pronotum punctures from light to deep and strong, rather sparse, distance between punctures larger than their diameter, surface between punctures smooth and bright; elytral surface variably punctured or rugged. Antennae feebly serrate (nearly moniliate, Fig. 6), serrate (Fig. 7) or pectinate in males (Figs. 8-10) and serrate (from feebly to strongly) in females. Last palpi article securiform (hatchet shaped), truncated (apical side longer than, or equal to, inner side) ..... **3**
- Dorsal appearance deep black, dull, very rough (Fig. 3), at most with green reflections. Both pronotum and elytra very rough; pronotum punctures deep and strong, very dense, distance between punctures smaller than their diameter, surface between punctures more or less alutaceous or dull; elytral surface rough, with punctures at times coalescing into each other. Antennae serrate (Figs. 11-14), only slightly more evidently in males than in females. Last palpi article sub-elliptical, truncated (apical side slightly shorter than inner side) ..... **13**
- (Couplets 13 to 16 include five species: *angelinii*, *caelatus*, *cribrarius*, *henrici* and *reitteri*. *A. angelinii* is well characterised by its approximately cylindrical shape and brighter appearance and *A. caelatus* shows green reflections. The other 3 are really similar to each other and are difficult to recognize on external characters only. In all cases sexual differences are reduced: males differ only slightly from females for stronger antennae and elytral very apex feebly flattened).
- 3 ♂ antennal articles 4 and 5 more or less triangular, narrower than 6-10; antennae strongly serrate or pectinate, with at least articles 6 and/or 7 either concave, S-shaped or approximately straight at inner side (Figs. 7-10) ..... **4**
- ♂ antennal articles 4-10 similar to each other; antennae moderately or feebly serrate (to moniliate), article 6 and 7 convex at inner side (Fig. 6) ..... **10**
- 4 Pronotum transverse; feebly convex; approximately rectangular; lateral sides only feebly rounded: pronotum width in the middle slightly exceeding anterior and posterior sides; not (or very feebly) crenulated on lateral sides. Colour dark grey-green, elytral pubescence – at least in part – whitish gray. ♂ anten-

- nae pectinate: articles 6–7 longer than wide, concave on inner side (Fig. 10). TL = 5.5-6.0 mm. A rare species spread in southern France, in Italy and probably all over the Balkans (possible presence in Turkey) ..... **jejunus**
- Pronotum more or less transverse, evidently convex, lateral sides more or less rounded (namely anterior and posterior sides shorter, max. width in the middle), lateral sides smooth or finely crenulated. Colour metallic blue, brown, dark greenish brown, bluish-black or blackish. Elytral pubescence blackish to pale brown, often with pale grey setae near lateral border. ♂ antennae serrate to pectinate with articles 6-7 either straight or S-shaped on inner side ..... **5**
  - 5 Dorsal integuments blackish (often with greenish or bluish reflections) or metallic blue. Dorsal pubescence blackish. Legs black. First two visible sternites simple ..... **6**
  - Dorsal integuments dark-brown to greenish-brown. Dorsal pubescence often with pale setae close to elytral border (except in *basalis* where dorsal setae are black). Legs usually yellow at least in part. At least first visible sternite with a pubescent round impression in the middle (except in *basalis* where first and second visible sternites are simple) ..... **8**
  - 6 Antennae serrate with internal border of articles 6-9 nearly straight. Antennae often with articles 1 to 4 more or less spotted yellow. Size smaller. TL = 4.0-5.0. Known from Croatia and Greece ..... **serratus**
  - Antennae strongly serrate to pectinate with internal border of articles 6-9 clearly S-shaped. Antennae entirely black. Size larger (TL = 4.7-7.0 mm) ..... **7**
  - 7 Dorsal colour metallic blue. Antennae longer: article 3 triangular elongate, articles 6-9 approximately balanced. TL = 5.0-7.0 mm. Central Europe, peninsular Italy, Balkans; (possible presence in Turkey) ..... **integer**
  - Dorsal colour blackish with greenish reflections. Antennae shorter: article 3 triangular balanced, articles 6-9 transverse. TL = 4.7-6.3 mm. Known of Kerkyra island in Greece, southern Italy and Sicily ..... **corcyricus**
  - 8 Elytral pubescence entirely black. Dorsal surface dark brown. First two visible sternites simple. Size smaller. TL = 4.2-5.0 mm. Croatia, Montenegro, Greece, Turkey ..... **basalis**
  - Elytral pubescence at least in part (close to elytral border) paler, whitish gray. Dorsal surface either brown or dark greenish. At least first sternite with a pubescent round impression in the middle. Size larger (TL = 4.8-5.9 mm) ..... **9**
  - 9 Dorsal punctuation rather light, colour greenish. First two visible sternites with a round, pubescent impression in the middle. TL = 4.8-5.9 mm. Greece, Turkey ..... **rufipes**
  - Dorsal punctuation strong, colour brown. First visible sternite only with a round, pubescent impression in the middle. TL = 4.8-5.5 mm. Greece, Turkey, Cyprus ..... **pertusus**
  - 10 Entirely black, legs and antennae included. Body shape elongate, approx. cylindrical with head only

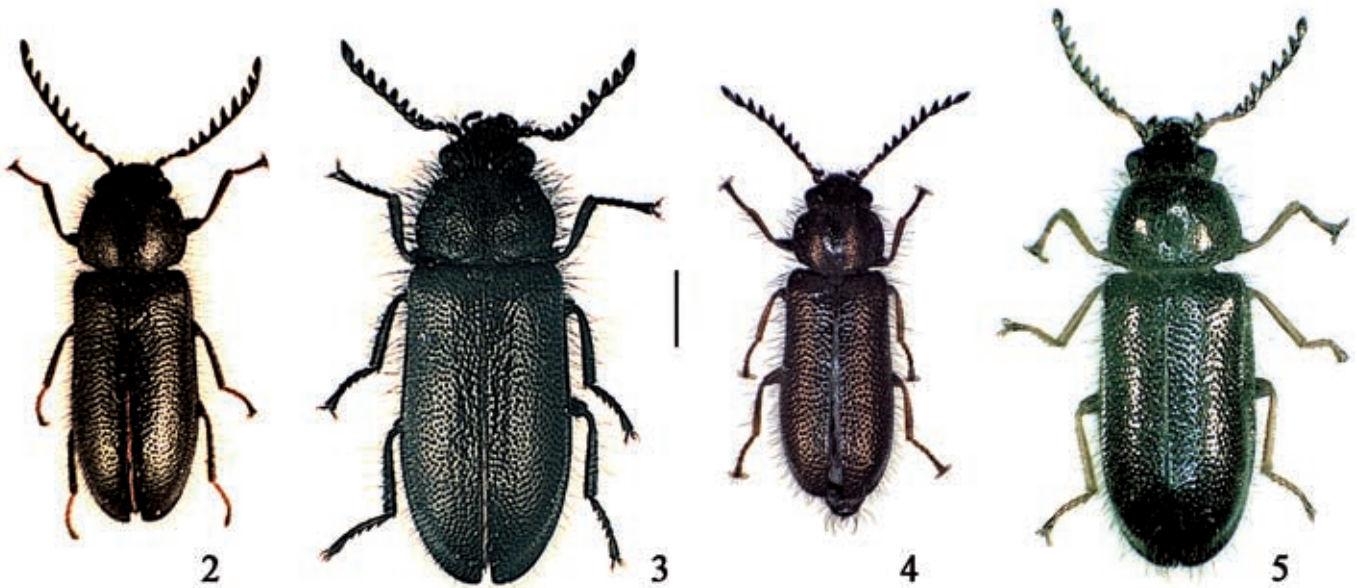


- slightly narrower than pronotum (in its max. width). Size larger. TL = 6.8-7.5 mm. Southern Italy, Albania, Kerkyra island in Greece ..... *angelinii*
- At least tibiae yellowish or reddish. Body shape sub-oval with head clearly narrower than pronotum (in its max. width). Size smaller (TL < 5 mm) ..... **11**
- 11 Pronotum very convex, not bordered on lateral sides. Elytra punctuation rather light and superficial, mainly in apical half. TL = 3.7-4.1 mm. A rare, relictual species of France, Italy and Greece ..... *quercicola*
- Pronotum moderately convex and clearly bordered on lateral sides, at times such border paler than dorsal integuments (yellowish to brown). Elytra punctuation strong with deep and sparse points, this character evident on the whole elytral surface ..... **12**
- 12 Pronotum and elytra clearly crenulated on the whole lateral sides. Colour brown, pronotum lateral borders yellowish. 1<sup>st</sup> and 2<sup>nd</sup> sternites fitted with a pubescent, round impression. TL = 4.3-4.9 mm. Known from Sicily and Greece ..... *marginatus*
- Pronotum weakly crenulated and elytra nearly smooth on lateral sides. Colour dark greenish brown. 1<sup>st</sup> and 2<sup>nd</sup> sternites simple, without round impression. TL = 4.5-4.7 mm. All over Europe ..... *nigricornis*
- 13 Body shape elongate, approx. cylindrical; head only slightly narrower than pronotum. Dorsal integuments moderately bright. TL = 6.8-7.5 mm. Southern Italy, Albania, Kerkyra island in Greece ..... *angelinii*
- Body shape oval, head clearly narrower than pronotum. Dorsal integuments dull ..... **14**
- 14 Colour black with green reflections, rather dull. Antennae longer, antennal articles 6-9 similar to each other, triangular, rather large and wide; articles 4-5 also triangular but smaller, shorter and narrower (Fig. 11). Median process of last sternite ♂ very short (Fig. 38). TL = 5.5-6.8 mm. Greece ..... *caelatus*
- Colour deep black, dull. Antennae shorter, antennal articles triangular, more or less gradually widened from 4 to 9. Median process of last sternite ♂ from very short to moderately developed ..... **15**
- 15 Pronotum lateral sides nearly smooth or slightly irregular, at most granulose. Median process of ♂ last sternite rudimentary to very short. TL = 4.7-6.4 mm. East Bulgaria, north-east Greece, Turkey ..... *reitteri*
- Pronotum finely but clearly crenulated on lateral sides. Median process of ♂ last sternite rudimentary to moderately developed ..... **16**
- 16 Size smaller: TL = 4.3-4.9 mm. Antennal article 3 narrower than 4 (Fig. 12). Median process of last sternite ♂ embryonic or very short. Greece...*cribrarius*
- Size larger: TL = 5.6-6.0 mm. Antennal article 3 nearly as wide as 4 (Fig. 14). Median process of last sternite ♂ moderately developed (Fig. 41). Bulgaria, northern Greece ..... *henrici*

#### Common description of the *A. reitteri* group

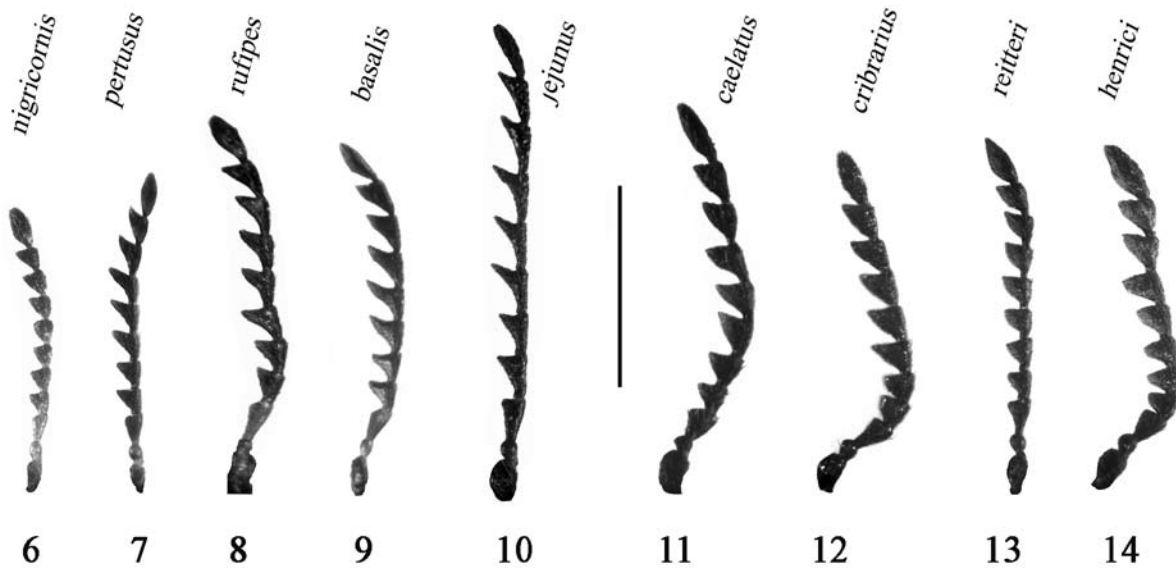
The *Aplocnemus reitteri* group of species (points 14-16 of the above key), including *caelatus*, *cribrarius*, *henrici* and *reitteri*, is very homogeneous. A short common description is here reported to avoid repetitions (but further specific characters will be supplied for each species):

♂. Entirely deep black (only one species – *caelatus* – shows green reflections) including antennae and legs, but legs at times blackish or dark brown. Dorsal integuments very rough, more or less dull, strongly and densely punctuate. Body shape sub-oval: elytra, in their max. width (slightly behind the middle) wider than pronotum (in its max. width) which, in turn, is wider than head (including eyes). Pronotum convex, transverse; more or less rounded on lateral sides; posterior border longer than an-



Figs. 2-5 - Habiti, ♂♂.

2) *A. basalis* (Küster, 1849) (from Budva, MNE). 3) *A. henrici* n. sp (paratypus from Pissoderi, Florina, GR). 4) *A. pertusus* Kiesenwetter, 1859 (from Girne, CY). 5) *A. rufipes* Miller, 1862 (from Stavrodromi, Ahaia, GR). Scale: 1 mm.



Figs. 6-14 - Right antennae, ♂♂.

6) *A. nigricornis* (Fabricius, 1792) (from Aragnouet, Hautes Pyrenées, F). 7) *A. pertusus* Kiesenwetter, 1859 (from Girne, CY). 8) *A. rufipes* Miller, 1862 (from Stavrodromi, Ahaia, GR). 9) *A. basalis* (Küster, 1849) (from Budva, MNE). 10) *A. jejunus* Kiesenwetter, 1863 (from Castelfranco di Sopra, Arezzo, I). 11) *A. caelatus* (Brullé, 1832) (from Agios Nicolaos, Lakonia, GR). 12) *A. cribrarius* (Brullé, 1832) (from Kalanistra, Ahaia, GR). 13) *A. reitteri* Schilsky, 1894 (from Yenice, Çanakkale, TR). 14) *A. henrici* n. sp. (paratype from Pissoderi, Florina, GR). Scale: 1 mm.

terior; max. width slightly behind the middle; surface very densely punctate; distance between punctures smaller than their diameter; surface between punctures alutaceous, rather dull. Elytra as rough and dull as pronotum but more wrinkled and with punctures often merging into each other. Antennae thick, strongly serrate. Median process of last sternite usually underdeveloped or short (as, for example, in Fig. 38) but in one species – *henrici* – rather well developed (Fig. 41). Dorsal lever of median lobe often minutely denticulate on dorsal side.

♀. Closely resembling male: antennae bear the only sexual difference rather easily noticeable: thinner and less strongly serrate in females than in males. A difference can also be found (but sometimes hardly visible) in body shape which is slightly more convex in females, with elytral apex more regularly curved down (in males elytral apices are often shortly and slightly flattened).

## DISCUSSION OF THE SPECIES

### *A. (Diplambe) abietum* Kiesenwetter, 1859 (Figs. 47-52)

*Haplocnemus abietum* Kiesenwetter, 1859: 160, 171, loc. typ. Oros Parnitha (near Athens); Schilsky, 1894a: 60; Pic, 1937: 30; Peacock, 1987: 153; Mayor, 2007: 412; Liberti, 2009: 346.

= *Haplocnemus latior* Pic, 1908: 50 [syn. n.], loc. typ. Euboea; Pic, 1937: 36; Mayor, 2007: 411.

= *Haplocnemus thessalicus* Pic, 1908: 49 [syn. n.], loc. typ. Thessalia; Pic, 1937: 42; Mayor, 2007: 413.

= *Haplocnemus atricornis* Pic, 1921a: 3 [syn. n.], loc. typ. Kefallonia; Pic, 1937: 32; Mayor, 2007: 412.

The Kiesenwetter's types of *A. abietum* are probably lost. However only one *Diplambe* species is known of the

Balkan peninsula and 2 topotypes, ♂♂, are available (see below under Material studied), well in agreement with the original description.

2 Syntypes ♂♂ of *H. latior*, both dissected by R. Constantin, are in Pic collection, at MNHNP, respectively labeled "Eubée, Bey Kyronurus [difficult to read]" hwa; "type" hwa; "latior Pic" hwa; "TYPE" prr. and "Eubée" hwa; "type" hwa. Both bear a further label "Syntype / *Aplocnemus / latior / Pic 1908 / MNHN Paris, coll. Pic*" prr., added by R. Constantin. They don't show any meaningful difference with the common and widespread *A. (Diplambe) abietum*.

2 Syntypes, ♀♀, of *H. thessalicus*, originally pinned on the same pin, are in Pic collection, at MNHNP, labelled: "Thessalia" pr., "Diplambe sp. n." hwa, "type" hwa, "Type" prr. (in one of the two the labels have been transcribed by R. Constantin). Although ♀♀ no meaningful difference with *A.(D.) abietum* has been detected.

2 Syntypes, 1 ♂ and 1 ♀, of *H. atricornis* are in Pic collection, at MNHNP, labeled:

1 ♂: "Graecia, Kephallenia" pr.; "type" hwa; "atricornis Pic" hwa; "TYPE" prr.

1 ♀: "Graecia, Kephallenia" pr.; "type" hwa; "TYPE" prr.

Both specimens probably collected by Paganetti between 1899 and 1914. Here again, no meaningful difference with *A.(D.) abietum* has been detected.

**Description** - ♂. Antennae evidently pectinate; articles 4-10 transverse or very transverse. Integuments blackish-brown, not very bright; legs and antennae dark brown with tarsi more or less pale brown; mouthparts and palpi brownish; pubescence pale brown. Pronotum convex, max. width close to posterior border, rather lightly and sparsely

punctured. Elytra very convex; lateral border double in basal half; sparsely punctured; surface between punctures moderately convex; elytral apices jointly rounded; apical angle rather well defined, right or slightly obtuse. Abdomen first and second visible sternites simple; fifth sternite straight or slightly convex on posterior side. Last sternite median process short (Fig. 51). Fallobase and parameres unconnected (not fused together) (Fig. 50).

♀. Antennae serrate; elytra slightly more convex in apical half.

Dimensions in mm. TL: ♂♂ 4.5-5.0; ♀♀ 4.7-5.5.

♂♂. TL = 4.74±0.24, PL = 1.00±0.08, EL = 3.52±0.10, PW = 1.62±0.05, EW = 1.92±0.10.

♀♀. TL = 5.16±0.37, PL = 1.10±0.11, EL = 3.78±0.25, PW = 1.74±0.13, EW = 2.10±0.11.

**Distribution and comments** - *A. (Diplambe) abietum* is the only known representative, in the Balkans, of this rather large and widespread subgenus; it is common and widespread throughout the whole southern part of the Peninsula. It is probably present in Turkey as well, at least in the European provinces, however, being *Diplambe* a rather difficult group, future studies will better clarify its presence in this Country.

#### Materials studied

Romania

Baile Herculane (Deubel, ?, MSNM).

Makedonia

Struga (Schönhofer, 2006, SMNS).

Bulgaria

Katunci (Langourov, 2002, CMg; Migliaccio, 2002, CMg); Mikrevo (Langourov, 2002, CMg; Lazarov, 2002, CMg); Petric (Migliaccio, 2004, CMg).

Greece

Lefkada prov.: Agios Nikitas (Angelini, 2005, CAn); Eglouvi (Angelini, 2005, CAn).

Kastoria prov.: Nestorio (Angelini, 2007, CAn).

Florina prov.: Simos Ioannidis near Florina (Liberti, 2005, CLi)(F).

Grevenà prov.: Anoixis (Konvička, 2009, CKn).

Serres prov.: Rodopoli (Angelini, 2007, CAn).

Evros prov.: Mega Derio (Angelini, 2007, CAn); Melia (Cocquempot, 2004, CLi)(F).

Ioannina prov.: Timfi, Farangi Vikou (Doguet, 1997, CCo)\*.

Larissa prov.: Ossa (Egger, 1988, CEg; Saltini, 1998, CSI; Schülke, 1998, CPI; Ziegler, 2006, CZi); Spilià (Angelini, 2005, CAn).

Viotia prov.: Arahova (Liberti, 1997, CLi); Sarandavli (Angelini, 2005, CAn).

Atiki-Piréas prov.: Oros Parnitha: 2♂ (Liberti, 1997, CLi) (T)

Ahaïa prov.: Ano Diakoptò (Liberti, 1998, CLi); Aroania Ori (Rébl, 2010, CRe); Diakoftò (Angelini, 1998, CAn); Flamboura (Liberti, 1998, CLi); Kalavrita (Angelini, 1998, 1999, 2004, CAn; Cocquempot, 2004, CLi; Ziegler, 2010, CZi); Kalentzi (Angelini, 2004, CAn); Kastelli (Angelini, 2004, CAn); Lagouvouni (Liberti, 1998, CLi); Mega Spileo (Ponel, 1996, CPn; Angelini, 1999, CAn); Stavrodromio (Angelini, 1999, CAn); Tripotama (Liberti, 1998, CLi).

Korinthia prov.: Bouzi (Angelini, 1999, CAn); Lafka (Angelini, 1999, CAn); Messinò (Ziegler, 2010, CZi); Mossia (Angelini, 2004, CAn); Nemea (Wittmer, 1971, CCo)\*; Riza (Teunissen, 1998, CCo)\*; Stilia (Saltini, 1994, CSI); Stimpfalia (Angelini, 2004, CAn).

Ilia prov.: Katotari (Angelini, 2004, CAn); Olimbia (Angelini, 1999, CAn).

Arkadia prov.: Alonistena (Saltini, 2016, CSI); Dafni (Ziegler, 2010, CZi); Dimitsana (Doguet, 1995, CCo)\*; Kandila (Angelini, 2004, CAn); Kardaras (Angelini, 2004, CAn); Panagitsa (Konvička, 2009, CKn); Pigadakia (Angelini, 2004, CAn); Stavrodromio (Angelini, 1999, CAn); Tripoli (Angelini, 1999, CAn); Vitina (Ziegler, 2007, 2010, CZi).

Argolida prov.: Ahladokambos (Angelini, 2004, CAn); Mili (Angelini, 1999, CAn).

Lakonia prov.: Anavriti (Konvička, 2009, CKn); Alepohori (Doguet, 1995, CCo)\*; Gorani (Angelini, 2004, CAn); Kastania (Constantin, 1997, CCo)\*; Toriza (Rébl, 2010, CRe); Vasiliki (Angelini, 2004, CAn).

#### *Aplocnemus (Aplocnemus) angelinii* Liberti, 1995

Russo, 1938: 115 (*Haplocnemus* sp.); Schatzmayr, 1943: 117 (*Haplocnemus cylindricus*).

*Aplocnemus angelinii* Liberti, 1995: 162, loc. typ. Policoro (Basilicata, Italy); Liberti & Zinetti, 2009: 46.

For this species, description and drawings can be found in Liberti (1995: 192, Figs. 19-21).

**Distribution and comments** - Very close to *A. (A.) cylindricus* Kiesenwetter, 1863, of which it might be considered a subspecies, it lives in peninsular Italy and in south-west of the Balkan Peninsula: records are known from Albania, Kerkyra Island (Liberti, 1995) and Ahaïa.

*A. (A.) angelinii*, although similar to the *reitteri* group of species (see common description above), is easily recognized for pronotum less convex and approx. square shaped, as wide as elytral max. width so to give the body a cylindrical appearance, and for the space between punctures appearing brighter.

#### Materials studied

Albania

Berat° (Boldori, 1941, MSNM)(F).

Greece

Kerkyra prov.: Kerkira° (Champion, 1927, BMNH).

Ahaïa prov.: Metochi (Rébl, 2007, CRe)(F).

This species is also present in central and southern Italy: please refer to Liberti (1995) and Liberti & Zinetti (2009) for the known localities in this Country.

#### *Aplocnemus (Aplocnemus) basalis* (Küster, 1849)

(Figs. 2, 9, 32-33)

*Dasytes basalis* Küster, 1849: 19, loc. typ. Trogir (Croatia); Pic, 1937: 32; Kaszab, 1955: 107; Majer, 1982: 430, 444, Figs. 4, 20; Peacock, 1987: 153; Mayor, 2007: 409; Liberti, 2009: 345.

= *Haplocnemus basalis* var. *distinctipes* Pic, 1908: 50, loc. typ. Kerkyra [synonymized by Majer, 1982: 430].



= *Haplocnemus macedonicus* Pic, 1922: 17, loc. typ. Mount Athos (Halkidiki) [syn. n.]; Pic, 1937: 37; Peacock, 1987: 155; Mayor, 2007: 411.

The types have been probably lost but the identification of this species, as proposed by Majer (1982), is here shared: it is common all over the Dalmatian coast and several topotypes are available.

A syntypus, ♂, of *Aplocnemus basalis* var. *distinctipes* Pic is at MNHNP in collection Pic, labelled: "Corfou" hw, "2 gardés Schilsky" hwa, "basalis, gardé par Schils 2" hwa, "basalis ou sp. près" hwa, "type" hwa, "basalis var. distinctipes Pic" hwa, "var. distinctipes" hwa, "TYPE" prr. (possibly added by Villiers), "Holotypus / *Aplocnemus basalis* / v. *distinctipes* Pic / vidit Liberti III.2007" prr. It shows no meaningful differences from the Trogir topo-typical population sample.

The typical series of *Aplocnemus macedonicus* Pic is made up by 12 syntypes, 11 (5 ♂♂ and 6 ♀♀) kept at MNHNP, 1 (♂) at MSNM (1 further ♂, MNHNP, has been set off the typical series because it bears a label "H. pertusus" handwritten by Pic: evidently the Author had doubts on it).

The syntypes are labelled as follows:

1 ♂ (MNHNP): "Athos, (Macedonien), Schatzmayr" pr.; "801" hw; "voir basalis" hwa; "type" hwa; "TYPE" prr. probably added by Villiers; "Syntypus, *Aplocnemus macedonicus* Pic, vidit Liberti III.2007" prr.

1 ♀ (MNHNP): "Athos, (Macedonien), Schatzmayr" pr.; "type" hwa; "macedonicus Pic" hwa; "TYPE" prr. probably added by Villiers; "Syntypus, *Aplocnemus macedonicus* Pic, vidit Liberti III.2007" prr.

All others (MNHNP, MSNM) bear two labels: "Athos, (Macedonien), Schatzmayr" pr.; "Syntypus, *Aplocnemus macedonicus* Pic, vidit Liberti III.2007" prr.

They show no meaningful differences from the Trogir topo-typical population.

**Description** - ♂. Antennae pectinate; articles 4 and 5 triangular, trasverse, inner side straight in 4, straight or feebly S-shaped in 5; 6-9 of increasing length; 7 and 8 clearly S-shaped on inner side (although in certain populations the inner side is nearly straight, as happens on Sveti Klement islet near Hvar). Integuments brown to dark brown, rather bright; antennae brown with basal articles variably paler (at least article 2 pale); femora brown, trochanters, tibiae and tarsi variably pale to brown (at least the first tarsal article yellowish); mouth parts and palpi brown. Pronotum convex, trasverse, max. width behind the middle, finely punctuate; punctures rather dense (a somewhat variable character), space between punctures wider than their diameter, bright, lateral sides granulose to finely crenulated. Elytra punctuation rather strong; space between punctures convex, bright; elytral apices separately rounded; apical angle undefined. Abdomen first and second visible sternites simple; fifth visible sternite moderately emarginated on posterior side; last sternite median process long. Basal undivided part of tegmen short (less than ¼ of total length).

♀. As the male but antennae serrate and elytral apical half slightly widened.

Dimensions in mm. TL: ♂♂ 4.2–5.0; ♀♀ 4.0–5.0.

♂♂. TL = 4.56±0.37, PL = 0.96±0.10, EL = 3.14±0.24,

PW = 1.38±0.13, EW = 1.66±0.06.

♀♀. TL = 4.68±0.47, PL = 0.96±0.06, EL = 3.32±0.31, PW = 1.46±0.13, EW = 1.72±0.15.

**Distribution and comments** - This species lives in the southern part of the Balkans and is common in Dalmatia, where it has been collected, in spring, beating several kind of blossoming trees and shrubs (as, for example, *Pauliurus* sp.). It is probably present in the whole of Turkey as well, although apparently rare.

### Materials studied

Croatia (localities listed from north to south)

Simuni, on Pag Is. (Liberti, 2004, CLi); Sukosan, near Zadar (Liberti, 2004, CLi); Dugopolje (Liberti, 2004, CLi); Donji Seget, near Trogir (Liberti, 2002, CLi)(T); Vinisce near Trogir (Liberti, 2004, CLi)(T); Split (Karaman, approx. 1900, CCo)\*; Liuka, on Solta Is. (Liberti, 2002, CLi); Bol, on Brac Is. (Liberti, 2004, CLi); Drvenik, near Makarska (Liberti, 2004, CLi); Sveti Klement Is. near Hvar (Liberti, 2002, CLi); Vis town, on Vis Is. (Liberti, 2002, CLi); Slano (Herrmann, 1998, CPI); Ston (Poot, 1988, CCo)\*; Mljet Is. (Gobanz, ?, MSNM); Pomena, on Mljet Is. (Boness, 1985, SMNS).

Montenegro

Bar (Liberti, 2008, CLi); Budva (Liberti, 2008, CLi); Kolasin (Constantin, 1998, CCo)\*; Rastane (Liberti, 2008, CLi).

Greece

Halkidiki prov.: Sarti (Constantin, 1987, CCo)\*.

Agios Oros prov.: Athos (Schatzmayr, ?, MSNM).

Serres prov.: Therma (Bense, 1990, SMNS).

Kavala prov.: Nea Iraklitsa (Bense, 1990, SMNS).

Preveza prov.: Parga (Danielsson, 1997, ZMLU).

Ioannina prov.: Papigko on Timfi Mts. (Liberti, 2005, CLi).

Larissa prov.: Ossa (Ziegler, 2006, CZi).

Ahaia prov.: Kalavrita (Angelini, 1998, CAn; Malkin, 1977, Co\*); Kalogria (Angelini, 1999, CAn); Kato Vlassia (Malkin, 1977, CCo)\*; Limanaki (Ziegler, 2010, CZi); Vouraikos Gorge (Ponel, 1996, CPn).

Korinthia prov.: Kaliani (Angelini, 1996, 1998, CAn); Kiato (Angelini, 1998, CAn); Oros Killini (Saltini, 1998, CSI); Perahora (Ziegler, 2010, CZi).

Ilia prov.: Olimbia (Frisch, 1987, ZMB).

Lakonia prov.: Taigetos (Pesarini, 1986, CLi).

Lesvos prov.: Olimpos, Lesvos Is. (Biström, 2005, MZF; Silfverberg, 2005, MZF).

Dodekanissa prov.: Kamiros, Rodos (Schmalfluss, 1992, SMNS).

Turkey

Bolu prov.: Aband near Bolü (Klapperich, 1965, CCo)\*.

Zonguldak prov.: Ahmetusta Gecidi (Angelini, 2009, CAn)(F); Bartin (Angelini, 2009, CAn) (F); Karli (Angelini, 2009, CAn)(F).

Cankiri prov.: Ilgazdagi Gecidi (Angelini, 2009, CAn) (F).

Ordu prov.: Persambe (Angelini, 2009, CAn)(F).

Tokat prov.: Resadiye (Angelini, 2009, CAn, CLi).

Gümüşhane prov.: Gümüşhane (Angelini, 2009, CAn) (F).

Isparta prov.: Isparta (Coiffait, 1954, CCo)\*.



***Aplocnemus (Aplocnemus) caelatus* (Brullé, 1832)**

(Figs. 11, 36-38)

*Dasytes caelatus* Brullé, 1832: 150, pl. 37 fig. 2, loc. typ. Peloponnesus; Kiesenwetter, 1859: 174; Pic, 1937: 32; Peacock, 1987: 153 [*Aplocnemus*]; Mayor, 2007: 410.

= *Haplocnemus pristocerus* Kiesenwetter, 1859: 170, loc. typ. Nafplio, Athina [syn. n.]; Pic, 1937: 39; Mayor, 2007: 413 [*Aplocnemus*].

**Types** - Two syntypes are at MNHNP ("general collection"): one of them, ♂, labelled "224" hw; "Dasytes / caelatus / Morée / M. Brullé" hw, this second label pinned on the box floor. The second syntype is in very bad conditions (only elytra and abdomen remaining) and is labelled "Dasytes caelatus Brullé" hw. The original description is rather accurate and make reference to the dark green overall colour which allows the (easy) recognition of this species.

The Kiesenwetter types of his *Haplocnemus pristocerus* have been lost but the description seems to be sufficient to allow an identification, so that little doubts remain on this synonymy. Kiesenwetter himself states that, probably, Brullé's *Dasytes caelatus* (and *D. cribrarius*, both unknown to him) could be placed "in the same systematic position" ("hierher zu beziehen") of his *H. pristocerus*.

**Description** - This species belonging to the "reitteri group", the above general description (under "Systematics") applies. Easily recognizable from all other *Aplocnemus* species for rough, dull appearance and green reflections.

Rather large, black with green reflections; legs and antennae black. Antennae (Fig. 11) rather elongate: article 3 triangular, elongate, slightly narrower than 4; 4-6 transverse, 4 and 5 shorter and narrower than 6-9; 7-9 balanced and very slightly S-shaped on inner side. Pronotum lateral sides finely crenulated, mainly on basal half. Elytral apices separately rounded. Penultimate sternite straight or very feebly emarginated on rear border; last sternite median process very short (Fig. 38).

Dimensions in mm. TL: ♂♂ 6.0-6.7; ♀♀ 5.1-6.2.

♂♂. TL = 6.10 ± 0.67, PL = 1.12 ± 0.10, EL = 4.12 ± 0.38, PW = 1.76 ± 0.19, EW = 2.24 ± 0.28.

♀♀. TL = 5.80 ± 0.67, PL = 1.13 ± 0.13, EL = 4.05 ± 0.43, PW = 1.85 ± 0.24, EW = 2.33 ± 0.31 (4 measures).

**Distribution and comments** - Apparently an endemic of southern continental Greece, where it is rather commonly found by grass sweeping.

**Materials studied**

Greece

Fthiotida prov.: Domokos (Krätschmer, 1980, SMNS).

Viotia prov.: Analipsi near Livadia (Liberti, 1998, CLi);

Arahova (Doguet, 1996, CCo)\*.

Atiki-Piréas prov.: Erithres (Liberti, 1998, CLi)(F).

Ahaïa prov.: Kalavrita (Teunissen, 1987, CCo\*; Angelini, 1999, CAn).

Korinthia prov.: Agios Patapiou (Ziegler, 1996, SMNS); Bouzi (Angelini, 1999, CAn); Galatas (Köstlin, 1976, SMNS and CCo); Kaliani (Ziegler, 2010, CZi); Klitoria (Saltini, 2014, CSI)(F); Lafka (Angelini, 1999,

CAn); Oros Killini (Saltini, 1998, CSI); Riza (Teunissen, 1988, CCo)\*; Sofikò (Angelini, 1999, CAn); Stilia (Saltini, 1994, CSI); Stimpfalia (Angelini, 2004, CAn, CLi; Saltini, 2014, CSI); Zemenò (Ziegler, 2010, CZi).

Arkadia prov.: Agiorgitika (Doguet, 1995, CCo)\*; Kardaras (Angelini, 2004, CAn); Levidi (Saltini, 2016, CSI); Panagitsa (Konvička, 2009, CKn); Paradisia (Saltini, 2015 e 2016, CSI); Pigadakia (Angelini, 2004, CAn); Stavrodromio (Angelini, 1999, CAn, CLi); Vitina (Ziegler, 2010, CZi).

Argolida prov.: Ahladokambos (Angelini, 2004, CAn); Epidauros (Angelini, 1999, CAn); Mili (Angelini, 1999 and 2004, CAn); Mykenai (Malkin &amp; Riedel, 1981, CCo\*; Frisch, 1987, ZMB); Skotini (Ziegler, 2007, CZi).

Messinia prov.: Kalamata (Köstlin, 1982, CCo)\*.

Lakonia prov.: Agios Nikolaos (Angelini, 2004, CAn, CLi); Areopoli (Ziegler, 1996, SMNS); Arhontikò (Angelini, 2004, CAn); Arna (Angelini, 2004, CAn); Elafonissi (Schmalfuss, 1987, SMNS); Gerolimenas (Riedel, 1987, SMNS); Githio (Angelini, 2004, CAn); Gorani (Angelini, 2004, CAn); Kastania (Angelini, 2004, CAn); Polovitsa (Doguet, 1995, CCo\*; Angelini, 2004, CAn); Melissa (Angelini, 2004, CAn); Melitini (Angelini, 2004, CAn); Mistras (Ziegler, 2011, CZi); Monemvassia (Rieger, 1987, SMNS; Constantin, 1997, CCo\*); Skoura (Angelini, 2004, CAn); Taigetos (Sabella, 1984, CLi; Reichel, 1989, CCo\*; Ziegler, 2007, CZi); Vasiliki (Angelini, 2004, CAn).

***Aplocnemus (Aplocnemus) corcyricus* Miller, 1866**

*Haplocnemus corcyricus* Miller, 1866: 818, loc. typ. Kerkyra; Pic, 1937: 33; Peacock, 1987: 154 [*Aplocnemus*]; Liberti, 1995: 181; Mayor, 2007: 410; Liberti & Zinetti, 2009: 47.

The lectotypus of this species has been recently defined (Liberti & Zinetti 2009: 47): a female specimen believed to be part of the Miller's typical series. A full description, with drawings, of *A. (A.) corcyricus* can be found in Liberti (1995: 181, Figs. 10, 47, 48).

**Distribution and comments** - A trans-Ionian species, only known of Kerkyra Island in Greece and southern Italy, Sicily included. It is characterised by the clearly pectinate antennae, the size and the pitchy black colour of the whole body, legs and antennae included. The similar *A. (A.) serratus*, which can be found on Kerkyra as well, is smaller, with antennae strongly serrate (or feebly pectinate), body colour bluish-black and the basal antennal articles often more or less reddish.

**Materials studied**

Greece

Kerkyra prov.: Kerkyra (Hicker, ?, NHMB; Miller, ?, NHMW; Polatschek, ?, NHMW; Woerz, ?, CLi; Köstlin, 1985, CCo\*); Gastouri (Winkler, ?, NHMB); Mount Deka (Woerz, ?, NHMB); Potamos (?, ?, NHMB).

This species is also present in southern Italy and in Sicily. The known localities in these Countries can be found in Liberti (1995) and in Liberti & Zinetti (2009).

***Aplocnemus (Aplocnemus) cribrarius* (Brullé, 1832)**  
(Figs. 12, 34, 35)

*Dasytes cribrarius* Brullé, 1832: 151, pl. 37 fig. 2, loc. typ. Peloponnesus (?); Kiesenwetter, 1859: 174; Heyden *et al.*, 1906: 308 [*Haplocnemus*]; Winkler, 1925: 546; Pic, 1937: 33; Peacock, 1987: 154 [*Aplocnemus*]; Mayor, 2007: 410.

**Types** - The types of this species have not been found at MNHNP. Brullé described his *Dasytes cribrarius* on specimen(s) from the collection Laporte de Castelnau, part of which is now at the Melbourne Museum, but no types have been found there either (S. Hinkley, Melbourne Museum, private communication February 8<sup>th</sup>, 2010). For the time being, the types of this species should be considered lost. Also the typical locality might be doubtful because the Brullé species – when not collected by the “Expédition scientifique de la Morée” people – might come from elsewhere.

Brullé (1832) supplies a rather detailed description of *Dasytes cribrarius*, comparing it with the related, very similar *D. caelatus*: the descriptions are indeed similar and Kiesenwetter (1859: 174) even advanced the possible synonymy between them. On the other hand, in the catalogue of Heyden, Reitter & Wise (1906: 308) the name *cribrarius* is listed as a variety of *Aplocnemus cylindricus*, as well as in the Winkler (1925: 546) catalogue where this conjecture is accepted (here listed as aberration).

But these Authors could not know that, in the Peloponnese, actually two similar species can be found: the above reported *A. (A.) caelatus* and the species here discussed and deemed to be the true *A. (A.) cribrarius* Brullé. This species rather well corresponds to Brullé’s description, as detailed in Table 2.

The only disagreement between Brullé description and actual species is in the tarsi colour (which is a rather variable character in genus *Aplocnemus*) but the agreement of the other five characters can be considered reasonably good. After all, proposing this species as the true *Dasytes cribrarius* Brullé might be regarded as sufficiently safe, at least until the type(s) will, if ever, be found.

**Description** - This is the smallest species in the “*reiteri* group”, whose common description is reported above, under “Systematics”. Entirely black without reflections; legs and antennae black although, in one specimen, legs are dark brown to blackish. Antennae thick and rather long; articles 4-8 triangular and slightly transverse, convex at inner side but article 8 very feebly S-shaped in some specimens; articles 4, 5 shorter and narrower than 6-9; article 3 triangular elongate but of variable size: either nearly as wide as, or clearly narrower than, 4. Pronotum lateral sides granulose. Elytral apical angle rather well defined, obtuse (but a variable character). Penultimate sternite straight to slightly emarginated on rear border; last sternite median process underdeveloped or very short.

Dimensions in mm. TL: ♂♂ 4.3-4.9; ♀♀ 4.2-4.9.

♂♂. TL = 4.60±0.29, PL = 0.94±0.10, EL = 3.18±0.27, PW = 1.66±0.49, EW = 1.72±0.13.

♀♀. TL = 5.06±0.75, PL = 1.00±0.14, EL = 3.52±0.52, PW = 1.60±0.23, EW = 2.00±0.31.

**Distribution and comments** - An apparently rare species, only known from a few localities in southern and central Greece. Collected by grass-sweeping.

Tab. 2 - Critical comparison between *A. caelatus* and *A. cribrarius*. The differences, between the two species, reported by Brullé (1832) are compared with the differences actually found (to support the interpretation of the name *cribrarius* here proposed).

Brullé’s differential diagnosis between <i>A. caelatus</i> and <i>A. cribrarius</i>		Actual comparison between the two species	
<i>A. caelatus</i>	<i>A. cribrarius</i>	<i>A. cribrarius</i> against <i>A. caelatus</i>	Comment
Punctuation deeper	Punctuation smaller and denser	Punctuation similar, slightly different on elytra (where, in <i>cribrarius</i> , it might be considered denser)	More or less in agreement
Pubescence not as dense, which allows better sight of surface punctuation	Black pubescence much more dense	Pubescence only slightly denser, on average, in <i>cribrarius</i>	More or less in agreement
Brighter colour (“couleur plus gaie”)	Body entirely black with an hint of violet	Good correspondence with the differential diagnosis	Full agreement
Antennae serrate	Antennae less serrate	Good correspondence with the differential diagnosis (comparing same sexes)	Full agreement
Pronotum transverse	Pronotum balanced (not wider than long)	Pronotum actually less transverse in <i>cribrarius</i> (but still transverse)	Possible agreement
Tarsi black	Tarsi reddish dark (rusty)	Tarsi black in both species	Disagreement

**Materials studied**

Greece

Fokida prov.: Amfissa (Saltini, 2014, CSI); Delphi (Frisch, 1987, ZMB).

Viotia prov.: Sarandavli (Angelini, 2005, CAn, CLi).

Ahaia prov.: Diakoftò (Liberti, 1998, CLi); Kalanistra (Liberti, 1998, CLi &amp; CCo).

***Aplocnemus (Aplocnemus) henrici* n. sp.**

(Figs. 3, 14, 39-41)

A species belonging to the *reitteri* group, deep black and rather large, living in Bulgaria and in northern Greece, whose typical locality is Mount Vitoscia, south of Sofia.

Dedicated to the friend Enrico Migliaccio, the name comes from "Henricus": an arbitrary latinization of his christian name (of german origin, probably derived from Heimrich).

**Types** - Holotype, ♂ (MSNM), labeled: "BG, Sofia, 1000-1250 m / Mt. Vitoscia vers. S / Strouma Valley, road / Bosnek – Chupetlovo / 16.VII.2005, Migliaccio".

Allotype, ♀ (MSNM), labeled as the holotypus but with a different date: "5.VII.2001".

3 Paratypes (1♂, 1♀: CLi; 1♀CMg), same locality labels as the allotypus.

1 Paratype, ♂ (CMg): "BG, M.ti Rodopi occ. / (Velinograd), Lago Batak / 1140 m, 28.VI.2002 / leg. E. Migliaccio".

1 Paratype, ♂ (CMg): "Bulgaria merid. / Rila Mountains (Samokov) / Treshtenik dint., 1600 m / 25.VII.2001, Migliaccio".

1 Paratype, ♂ (CLi): "BG, Maleshevska Pl. / S Gorna Ribnitsa vill. / 41°36'N 23°01'E / 1240 m, 22.VI.2007 / Ljubomirov".

1 Paratype, ♀ (CLi): "GR, prov. Seres / Mt. Vrontous, Lailias / W. Ziegler, 22.VII.2009".

2 Paratypes, ♀♀ (CLi and CZi): "GR, prov. Florina / Pissoderi / W. Ziegler, 28.VII.2009".

2 Paratypes, ♂♂ (CLi and CZi): "GR, prov. Pella / Mt. Voras / W. Ziegler, 29.VII.2009".

4 Paratypes, (1♂: CLi; 2♂, 1♀: CZi): "GR, prov. Drama / Mt. Fulakro bis 1600 m / W. Ziegler, 20.VII.2009".

2 Paratypes, ♂♂ (CLi and CAn): "Grecia, Florina / valico strada Pissoderi / Florina, 1400 m / 10.VI.2007, leg. Angelini".

1 Paratype, ♂ (CLi): "GR – 6; m 1450 / Pissoderi 2 Km E / 9.VI.2005, Liberti".

2 Paratypes (1♂, 1♀: CCo): "BULG. Rilagebirge / Maljowitzen 2600 m / 30.VI.1989, leg. Zeuner".

4 Paratypes (♂♂: CCo): "Bulgarie, Massif du Rila / 3 km N de Borouets / 17.VI.1996, G. Ledoux leg.".

1 Paratype (♀: CCo): "Greece, Florina, 1200 m / 20 km W Florina / pr. Pissoderi 2 km W/6.VIII.1987, R. Constantin".

All types bear a further label "Holotypus [or Allotypus or Paratypus where applicable] / *Aplocnemus / henrici* Liberti / (Lib. posuit, Gen. 2013)" prr.

**Description** - The above common description of the "*reitteri* group" species (please see under "Systematics") applies here.

Rather large, deep black without reflections; legs and antennae black but, in some specimens, legs may be dark

brown. Antennae rather short; articles 4-9 transverse, convex at inner side; articles 4-6 of gradually increasing size; article 3 just elongate, width similar to 4. Pronotum lateral sides finely granulose. Elytral apices separately rounded. Penultimate sternite straight on rear border. Last sternite median process well developed.

Dimensions in mm. TL: ♂♂ 5.9-6.2; ♀♀ 5.9-6.5.

♂♂. TL = 5.82±0.17, PL = 1.16±0.10, EL = 3.98±0.10, PW = 1.84±0.13, EW = 2.22±0.13.

♀♀. TL = 6.12±0.26, PL = 1.22±0.05, EL = 4.34±0.19, PW = 1.92±0.10, EW = 2.36±0.13.

**Distribution and comments** - *A. (A.) henrici* is known from Bulgaria and the north of Greece. The male specimen collected at Pissoderi by the writer was found by grass sweeping.

***Aplocnemus (Aplocnemus) integer* Baudi, 1874**

*Haplocnemus integer* Baudi, 1874: 302, loc. typ. Pavia (Lombardy, I); Pic, 1937: 36; Kaszab, 1955: 106; Allenspach & Wittmer, 1979: 100; Majer, 1982: 437 [*Aplocnemus*]; Peacock, 1987: 154; Liberti, 1995: 182; Kolibac *et al.*, 2005: 153; Constantin, 2007: 162; Mayor, 2007: 411; Constantin & Liberti, 2011: 52, 56, 134, 136, Fig. 99, pl. 19 fig. 76.

A syntype, ♂, of this species is in collection Baudi, at MRSN. The specimen is in rather bad conditions, abdomen lacking. However it is well recognizable by the blue integuments colour and the elongated body shape. The previous interpretations of this species (Majer, 1982; Liberti, 1995) are here confirmed. Description, drawings and further collection localities can be found in Majer (1982), Liberti (1995: 182, Figs. 49, 50), Constantin (2007) and Constantin & Liberti (2011).

**Distribution and comments** - An usually uncommon species (but, sometimes, found in numbers) living in central Europe, Corsica, the whole of Italy (not in Sicily and Sardinia) and the Balkans. Its presence in Turkey, witnessed only by one female specimen, should be confirmed.

**Materials studied**

Romania

Turda (Zoufal, ?, MSNM).

Greece

Imathia prov.: Kato Vermio (Schawaller, 1994, SMNS).

Thessaloniki prov.: Asprovalta (Wolsch, 2010, CWo).

Halkidiki prov.: Olimpiada (Riedel, 1990, SMNS); Stagera (Bergeal, 2001, CCo)\*.

Serres prov.: Kerkini (Umlauf, 2014, CKo)(F).

Kavala prov.: Hrissoypoli (Bense, 1994, SMNS).

Xanthi prov.: Nestos river mouth (Bense, 1990, SMNS).

Turkey

Manisa prov.: Akcakertikbeli Gecidi near Demirci: 1♀ (Angelini, 2011, CLi)(F).

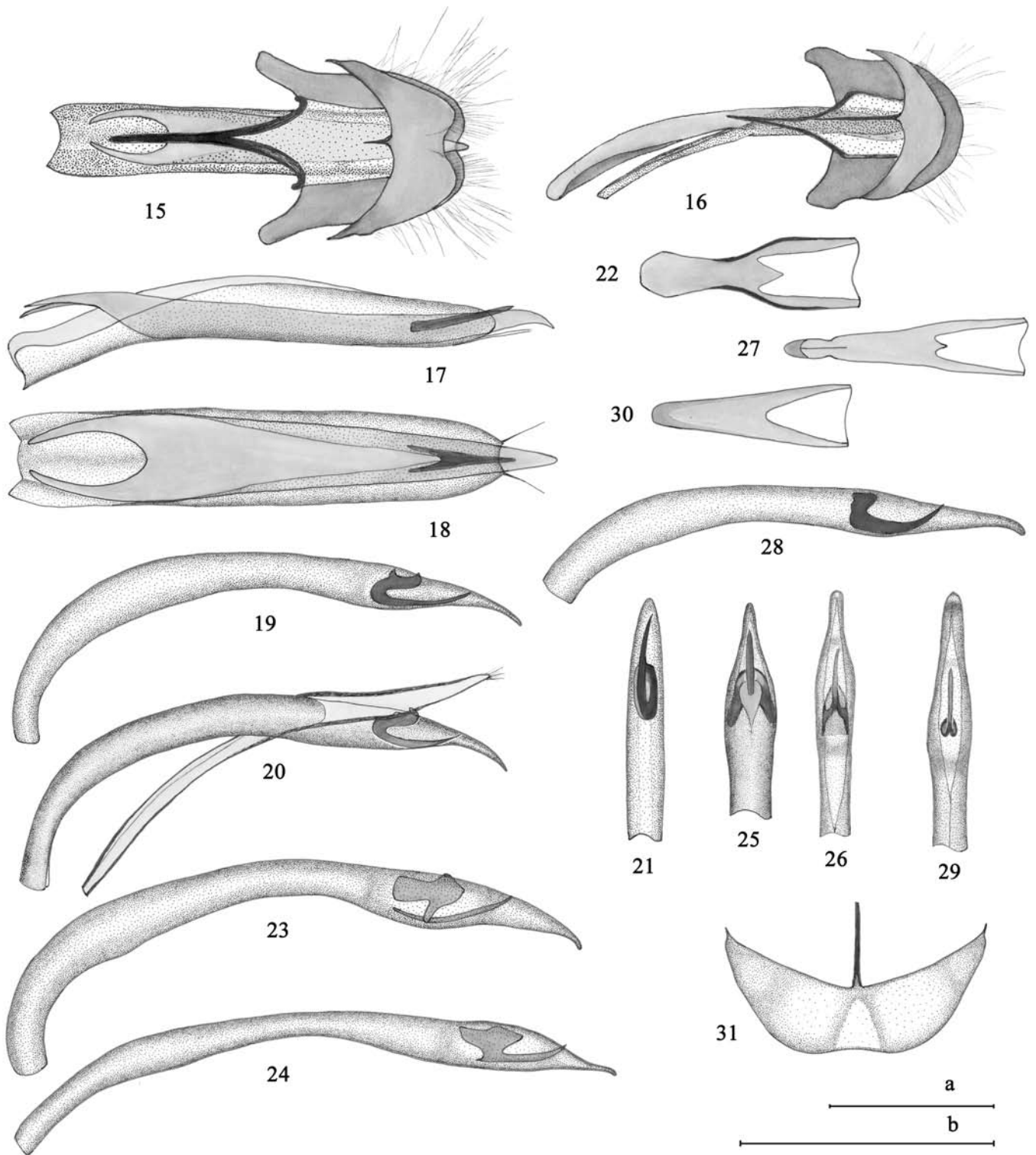
***Aplocnemus (Aplocnemus) jejunos* Kiesenwetter, 1863**

(Fig. 10)

*Haplocnemus jejunos* Kiesenwetter, 1863: 652, loc. typ. southern France; Pic, 1937: 35; Protá, 1966: 18, fig. III; Fiori, 1971: 56; Liberti, 1995: 167 [*Aplocnemus*]; Constantin, 2007: 161; Mayor, 2007: 411; Liberti, 2009: 369; Constantin & Liberti, 2011: 50, 56, 133, 135, fig. 109, pl. 19 fig. 75.

Although the types are probably lost, there has been general agreement on the interpretation of this species.



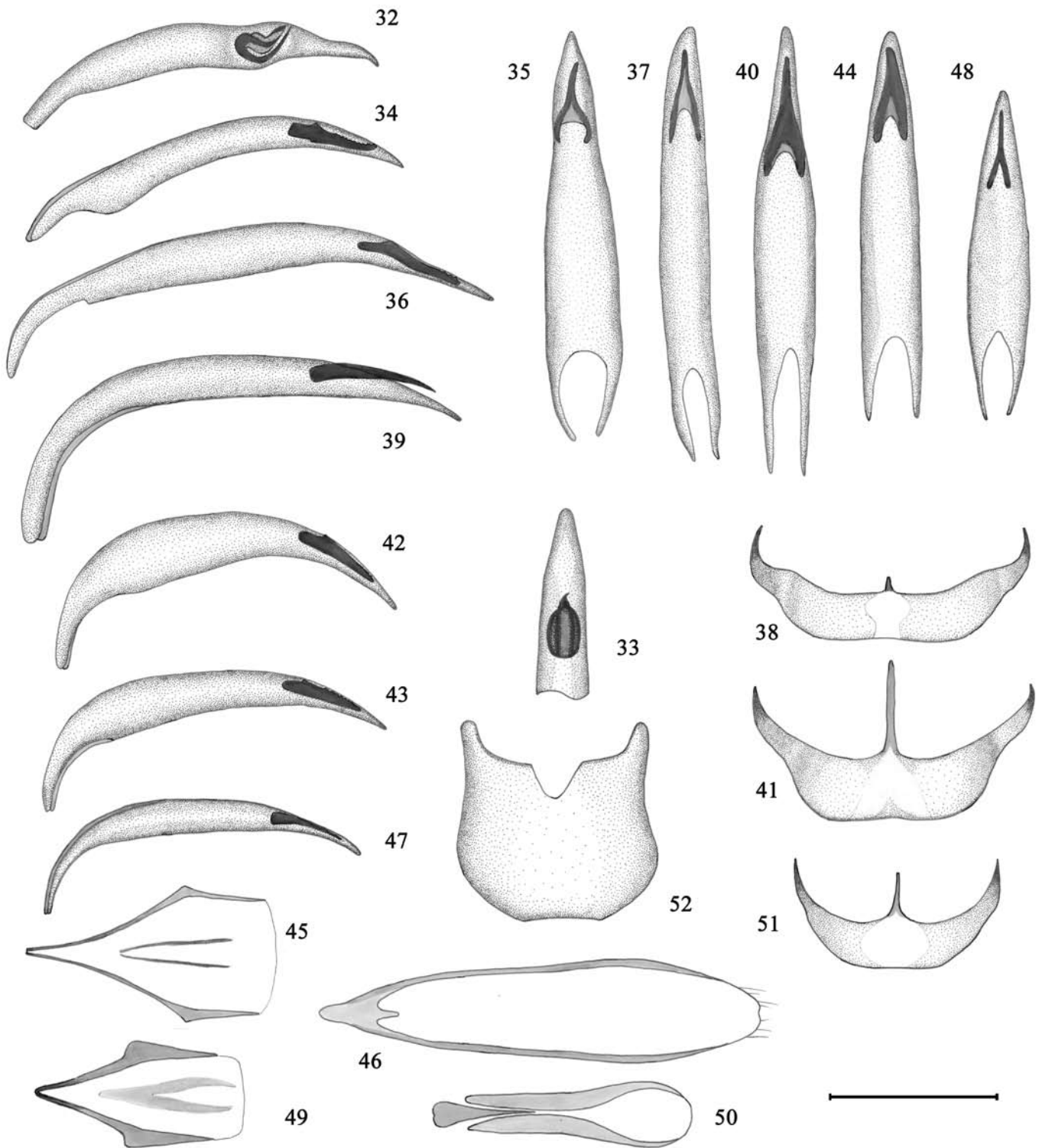


Figs. 15-31 - 15-16) Aedeagus, spicular fork and last ventrite (tergite and sternite) in sternal view, as they appear on dissection: all sternites and tergites – but the last ones – have been removed. 17) Aedeagus (median lobe with dorsal lever and tegmen), lateral view. 18) Aedeagus (median lobe with dorsal lever and tegmen), dorsal view. 20) aedeagus (median lobe with dorsal lever and tegmen), lateral view. 19, 23-24, 28) Median lobes, lateral view. 21, 25-26, 29) Median lobe apices, sternal view. 22, 27, 30) Basal half of tegmen. 31) Last sternite.

15) *A. (Ischnopalpus) subcostatus* Schilsky, 1894 from Tizi n'Test, 2000 m, Haut Atlas, Maroc. 16) *A. rufipes* Miller, 1862 from Anogia, Crete, GR. 17-18) *A. (Ischnopalpus) subcostatus* Schilsky, 1894 from Tizi n'Test, 2000 m, Haut Atlas, Maroc. 19-22) *A. serratus* (Brullé, 1832); 19) Karteri; 20-21) Vavouri near Tsamantas; 22) Agia Kiriaki all in Thesprotia, GR. 23-27) *A. rufipes* Miller, 1862; 23, 25) Lagavouni near Kalavrita, Ahaia GR; 24, 26) Anogia, Crete; 27) Hortiatis near Thessaloniki, GR. 28-31) *A. pertusus* Kiesenwetter, 1859; 28-30) Paliouri on Kassandra, Halkidiki, GR; 31) Silifke, Mersin, TR.

Scales: 0.5 mm. Scale a: Figs. 15, 16. Scale b: all others.





Figs. 32-52 - 32, 34, 36, 39, 42, 43, 47) Median lobes in lateral view. 33) Median lobe apex in sternal view. 35, 37, 40, 44, 48) Median lobes in sternal view. 46, 50) Tegmens. 45, 49) Spicular forks. 38, 41, 51) Last sternites. 52) Last tergite. 32-33) *A. basalis* (Küster, 1849); 32) Papigko on Timfi Mts., Ioannina, GR; 33) Vinisce near Trogir, HR). 34-35) *A. cribriarius* (Brullé, 1832) (both Kalanistra, Ahaia, GR). 36-38) *A. caelatus* (Brullé, 1832); 36) Stavrodromio, Arkadia, GR; 37-38) Agios Nikolaos, Lakonia, GR). 39-41) *A. henrici* n. sp. 39) Lake Batak near Velingrad, BG; 40) Bosnek-Chupetlovo near Mt. Vitoscia, BG; 41) Pissoderi, Florina, GR; all paratypes). 42-46) *A. reitteri* Schilsky, 1894. 42) Abant Gölü near Bolu, TR; 43-46) Dikili, Izmir, TR. 47-52) *A. (Diplambe) abietum* Kiesenwetter, 1859. 47, 49-52) Arahova, Ahaia, GR; 48) Oros Parnitha, Atiki, GR, topotype. Scale 0.5 mm.

Description and drawings can be found in Liberti (1995: 167, Figs. 28-29) and Constantin (2007).

**Distribution and comments** - An uncommon to rare species, sometimes collected in winter under barks of trees or, late autumn and spring, by means of Malaise (or similar) traps. Present in southern France, Corsica, Sardinia, the whole of Italy, the Balkans and, probably, Turkey.

#### Materials studied

Slovenia

Branik [Reifenberg Castle] (Springer, 1942, MSNM).

Croatia

Momian, Istra (Schurmann, 1966, CLi).

Bulgaria

Balcik (Ziegler, 2015, CZi)F; Batovo (Ziegler, 2015, CZi)F; Sabla (Ziegler, 2015, CZi); Studen Kladenets (Chobanov, 2006, CMg).

Greece

Grevena prov.: Anixi (Berger, 2006, CBu)(F).

Turkey (European)

Tekirdag prov.: Yenice (Angelini, 2011, CLi)(F).

Further localities, for other Countries, are reported in Liberti (1995), Constantin (2007) and Liberti (2009).

#### *Aplocnemus (Aplocnemus) marginatus* Rottenberg, 1871

*Haplocnemus marginatus* Rottenberg, 1871: 243, loc. typ. Catania (Sicily); Pic, 1937: 40 [synonym of *A. rufomarginatus* Perris, 1869]; Peacock, 1987: 156 [*Aplocnemus*; synonym of *A. rufomarginatus*]; Liberti, 1995: 184 [good species]; Mayor, 2007: 411; Liberti & Zinetti, 2009: 49. = *Haplocnemus impressipennis* Pic, 1921b: 5, loc. typ. Ficuzza (Palermo, Sicily) [synonymized by Liberti, 1995: 184].

No doubts on the identification of this species, as proposed by Liberti (1995), because it is well characterized and cannot be confused with any others in its typical locality (Sicily). Description and drawings can be found in Liberti (1995: 184, Figs. 2, 51-52).

**Distribution and comments** - A rare relictual, trans-Ionian species living in Sicily and in the west of Greece.

#### Materials studied

Greece

Kefallonia prov.: Skala<sup>oo</sup> (Whitehead, 1996, CWh).

Etolia Akarnania prov.: Paleros<sup>oo</sup> (Constantin, 2005, CCo).

Ahaia prov.: Kalavrita<sup>oo</sup> (Angelini, 1999, CAn); Kalentzi<sup>oo</sup> (Angelini, 2004, CAn).

Ilia prov.: Lalas (Schawaller, 2004, SMNS); Olimbia<sup>oo</sup> (Wittmer, 1971, CCo).

Messinia prov.: Mavrommati (Malkin, ?, CCo).

Several Sicilian localities for this species can be found in Liberti (1995) and Liberti & Zinetti (2009).

#### *Aplocnemus nigricornis* (Fabricius, 1792)

(Fig. 6)

*Lagria nigricornis* Fabricius, 1792: 81, loc. typ. Sweden; Küster, 1849: 20 [*Dasytes*]; Kiesenwetter, 1859: 173 [*Haplocnemus*]; Kiesenwetter, 1863: 655; Mulsant & Rey, 1868: 247; Schilsky, 1897: 48; Reitter, 1911: 289; Porta, 1929: 125; Pic, 1937: 37; Horion, 1953: 119; Kaszab, 1955:

105; Lohse, 1977: 180; Lohse, 1979: 73; Allenspach & Wittmer, 1979: 97; Majer, 1982: 430, Figs. 6-7, 22, 31 [*Aplocnemus*]; Majer, 1987: 745, Figs. 169-203, 392; Peacock, 1987: 156; Liberti, 1995: 168; Constantin, 2005: 207; Alexander, 2005: 36; Kolibac *et al.*, 2005: 152; Liberti & Focarile, 2005: 31; Constantin, 2007: 160; Mayor, 2007: 411; Constantin & Liberti, 2011: 54, 113, 135, Fig. 105, pl. 18 fig. 69; Booth, 2012: 69.

There is general agreement on the interpretation of this species which, in northern Europe, cannot be confused with any other. Description, drawings and a complete synonymic list are reported in Liberti (1995: 167, Figs. 3, 6, 30-31).

**Distribution and comments** - A widespread but usually uncommon species living in several northern European Countries, the whole of central and southern Europe, north-west Turkey (as below reported under "Materials studied").

#### Materials studied

Slovenia

Dutovlje (Schatzmayer, 1921, MSNM); Lipica Ergela (Schatzmayer, 1922, MSNM); Lokve Trnovski (Springer, 1917, MSNM; Alzona, ?, MSNG); Nova Gorica (Franciscolo, ?, CFr); Plesa (Schatzmayer, 1936, MSNM); Trnovski Godz (Franciscolo, 1994, CFr); Veliki Dol (Springer, 1916, MSNM); Vremscica (Springer, 1931, MSNM).

Croatia

Biokovo (?, ?, MSNM).

Serbia

Ruma (Schwieger, ?, MSNG).

Greece

Grevena prov.: Deskati (Konvicka, 2016, CKn).

Rodopi prov.: Nea Santa (Angelini, 2007, CAn).

Evros prov.: Leptokaria (Bense, 1990, SMNS).

Ioannina prov.: Fourka (Rébl, 2008, CRe).

Evritania prov.: Karpenissi (Ponel, 1996, CPn).

Turkey

Kastamonu prov.: Daday (Assing, 2009, ZMB); Dom Kayatepe Gecidi (Wunderle, 2009, ZMB); Ilgaz Gecidi (Assing, 2009, ZMB).

Cankiri prov.: Eskipazar (Assing, 2010, ZMB).

This being a widespread European species, further localities in other countries can be found in Horion (1953), Allenspach & Wittmer (1979), Liberti (1995) and Constantin (2007).

#### *Aplocnemus (Aplocnemus) pertusus* Kiesenwetter, 1859

(Figs. 4, 7, 28-31)

*Haplocnemus pertusus* Kiesenwetter, 1859: 172, loc. typ. Nafplio (Greece); Schilsky, 1894a: 79; Schilsky, 1897: 34KK; Pic, 1937: 39; Peacock, 1987: 155 [*Aplocnemus*]; Liberti, 1988: 14; Schmalfluss, 1991: 103; Mayor, 2007: 411.

= *Haplocnemus pertusus* var. *adaliensis* Pic, 1908: 50 [synonymized by Mayor, 2007: 411], loc. typ. Antalya (Turkey).

= *Haplocnemus pertusus* var. *elongatior* Pic, 1902: 32 [synonymized by Mayor, 2007: 411], loc. typ. "Anatolie" [sic].

= (?) *Haplocnemus libanicus* Pic, 1901: 9 [a doubtful synonymy: see below], loc. typ. Beirouth: Betmeri (Liban).

The Kiesenwetter's types should be considered lost, however this species is rather well characterized and the original description is sufficient for a reasonably reliable identification.

At MNHNP, in collection Pic, box “*Aplocnemus* 5”, one ♂ specimen of *Aplocnemus pertusus* var. *elongatior* Pic has been found, labeled: “Asie min. / Anatolie / CD [Charles Delagrangé] 1888”, “161”, “61” and “v. elongatior Pic variation”, without any indication of typical status.

In the same box it is also kept one Syntypus, ♀, of *Aplocnemus pertusus* var. *adaliensis* Pic, labeled “Adalia [now Antalya] / 1886 Korb.” hw; “type” hwA, “TYPE” prr. “*pertusus* v. *adaliensis* Pic” hwA.

As Pic (1902, 1908) reports, both var. *elongatior*, described on male(s), and var. *adaliensis*, described on female(s), mainly differ from the typical form for the more or less pale (yellow to red) legs. But this character is very variable and nearly all specimens studied have legs, at least in part, yellowish to reddish.

In the same “*Aplocnemus* 5” box (collection Pic) 4 Syntypes of *Aplocnemus libanicus* Pic (2 ♂♂, 2 ♀♀) have been found. They are labeled:

1 ♀: “Betmeri [a suburb of Beirouth]” hwA; “type” hwA; “TYPE” prr.; “H. libanicus Pic” hwA.

1 ♂, 1 ♀: “Betmeri / Mai 99” hwA; “type” hwA; “TYPE” prr.; “H. libanicus Pic” hwA.

1 ♂: “Sirie / Pic 1899” pr.; “Betmeri” hwA; “VI” hwA; Haploc. n. sp.” hwA; “type” hwA; “H. libanicus Pic” hwA; “Syntypus / *Aplocnemus* / *libanicus* Pic / vidit Liberti 2008” prr.

The last specimen has been dissected. The here suggested synonymy with *A. pertusus* should be taken with care: the median lobes show no differences but *A. libanicus* looks smaller and brighter. More material should be available to understand whether it could be considered a valid subspecies.

**Description** - ♂. Antennae pectinate; articles 4 and 5 similar, straight or convex at inner side, 5 slightly larger than 4, both narrower than 6-9; articles 6 and 7 transverse; 8 and 9 more or less balanced. Integuments brown rather bright; antennae brown with basal articles paler: light brown to yellowish; femora usually darker than tibiae; mouth parts brown; palpi paler than integuments; pubescence brown with whitish setae intermingled on elytral sides and apex. Pronotum not very convex, transverse, max. width approx. in the middle; punctuation rather strong but variable from sparse to very dense: brightness varies accordingly and so does the space between punctures; lateral sides granulose to feebly crenulated. Elytra punctuation stronger than on pronotum, rather dense, surface between punctures convex and bright (but, as for pronotum, a variable character); elytral apices mostly jointly rounded; apical angle right to acute. Abdomen first visible sternite with a dull, setose, small round area in the middle (not a true depression); second sternite simple; penultimate (fifth visible) moderately emarginated on posterior border; median process of last sternite rather long (Fig. 31). Tegmen basal part, undivided, not exceeding  $\frac{1}{4}$  of total length.

♀. As the ♂ but antennae shorter, serrate; elytra moderately widened in apical half; first and fifth visible sternites simple. Pronotum brightness appearing more variable than in ♂♂.

Dimensions in mm. TL: ♂♂ 4.6-5.5; ♀♀ 4.8-6.0.

♂♂. TL = 5.12±0.30, PL = 1.00±0.08, EL = 3.72±0.22, PW = 1.54±0.13, EW = 1.86±0.13.

♀♀. TL = 5.30±0.55, PL = 1.06±0.13, EL = 3.72±0.33, PW = 1.56±0.17, EW = 2.00±0.31.

**Distribution and comments** - An east mediterranean species, found in Greece, Turkey and in the eastern Mediterranean Island (Cyprus, Crete, Rhodos), rather common. Its presence on Thira (Kiklades: see below) suggests a good dispersal ability, taking into account the big volcanic eruption that, a few thousands years ago, wiped all forms of life out of the Island (Liberti 1988; Schmalzfuss 1991).

## Materials studied

### Greece

Halkidiki prov.: Kriopigi (Köstlin, 1986, SMNS); Paliouri on Kassandra Peninsula (Berra, 1983, CLi).

Agios Oros prov.: Athos (Schatzmayr, ?, MSNM).

Serres prov.: Amfipoli (Berra, 1983, CLi).

Evros prov.: Melia (Cocquempot, 2004, CLi).

Atiki-Piréas prov.: Vouliagmeni (Hasselbarth, 1978, CCo)\*.

Ahaia prov.: Kalavrita (Malkin, 1977, CCo)\*.

Korinthia prov.: Akrokorinthos (Ziegler, 1996, SMNS); Zemenò (Ziegler, 2010, CZi).

Lakonia prov.: Monemvassia (Rieger, 1987, SMNS).

Hania prov.: Hania (Saltini, 1992, CSI); Kalives (Gillerfors, 1993, ZMLU); Korunas (Kriti) (Gillerfors, 1993, ZMLU); Lakki (Gillerfors, 1993, ZMLU); Plataniás (Gillerfors, 1993, ZMLU); Prasés (Migliaccio, 1996, CMg); Ramno (Ziegler, 2003, CZi); Vrises (Ziegler, 2011, CZi).

Rethimno prov.: Episcopi (Constantin, 1998, CCo)\*; Kato Moni Preveli (Migliaccio, 1996, CMg); Panormos (Constantin, 1998, CCo)\*; Perama (Ziegler, 2011, CZi); Plakias (Winkelmann, 1988, ZMB); Prinos (Fritzier, 1996, CCo)\*; Rethimno (Köstlin, 1979, CCo)\*.

Iraklio prov.: Agia Varvara (Constantin, 1993, CCo; Kopetz, 1998, CCo)\*; Agios Ioannis (Migliaccio, 1996, CMg); Malia (Kopetz, 1998, CCo)\*.

Lassithi prov.: Agios Nikolaos (Köstlin, 1975, CCo)\*; Ziegler, 2000, CZi); Kalo Horio (Ziegler, 2000, CZi); Kritsa (Ziegler, 2000, CZi); Lassithi (Köstlin, 1975, CCo)\*; Prina (Ziegler, 2000, CZi); Vai (Constantin, 1993, CCo)\*.

Lesvos prov.: Agios Paraskevi, Lesvos (Grimm, 1995, SMNS); Lesvos (Biström, 2009, MZF).

Kiklades prov.: Naxos Is. (Schatzmayr, 1909, MSNM); Profitis Ilias, Thira Is. (Baher, 1978, CSt)(F); Imrovigli, Thira Is. (Schlegel, 1979, CLi)(F).

Dodekanissa prov.: Embonas, Rodos (Grimm, 1996, SMNS); Kritinia, Rodos (Lange, 1990, SMNS); Profitis Ilias, Rodos (Lange, 1990, SMNS); Rodos (Schatzmayr, 1932, MSNM, Porta, 1942, MSNM; Franz, 1960, CCo)\*; Trianda, Rodos (Schatzmayr, 1932, MSNM); Agios Konstantinos, Samos Is. (Malkin, 1979, CCo)\*; Kokkari, Samos Is. (Burtscher, 1995, CCo)\*; Pithagorio, Samos Is. (Malkin, 1979, CCo)\*.

### Turkey

Izmir prov.: Bergama (Klapperich, 1967, CCo)\*; Güzelbahce (Diehr, 1993, ZMB).

Mugla prov.: Köycegiz (Ponel, 2005, CPn).

Antalya prov.: Beldibi (Kopetz, 1996, CCo)\*; Demirtas (Kopetz, 1996, CCo)\*; Dikmen (Ziegler, 2001, CZi, CLi); Antalya (Lubi, 1992, CEg; Ljubomirov, 2007,



CMg); Calkaya (Ziegler, 2002, CZi)(F); Gündogmus (Ziegler, 2001, CCo\*; Gillerfors, 2001, ZMLU)(F); Kas (Constantin, 2003, CCo)\*; Side (Ziegler, 2001, CZi)(F).

Mersin prov.: Silifke (Schurmann, 1967, CLi).

Hatay prov.: Harbiye (Saltini, 2000, CSI); Habibi Neccar near Hatay (Ljubomirov, 2007, CMg).

### *Aplocnemus (Aplocnemus) quercicola* Mulsant & Rey, 1868

*Haplocnemus quercicola* Mulsant & Rey, 1868: 243, loc. typ. Beaujolais and Lyon area (France); Pic, 1937: 40; Constantin, 2007: 160 [*Aplocnemus*]; Mayor, 2007: 412; Liberti & Zinetti, 2009: 51, Figs. 6, 7; Constantin & Liberti, 2011: 54, 114, 135, Fig. 102, pl. 18 Fig. 72.

= *Haplocnemus brevissimus* Pic, 1908: 50, note [syn. n.], loc. typ. Zakynthos and Olympia (Peloponnese); Pic, 1937: 32; Mayor, 2007: 410 [*Aplocnemus*].

= *Haplocnemus brevissimus* v. *holtzi* Pic, 1908: 50, note [synonymized by Mayor, 2007; a chromatic variety with darkened femora], loc. typ. Kambos, Messinia.

The types of *A. (A.) quercicola* have been described by Liberti & Zinetti (2009: 51) and are in collection Rey, at the Centre de Conservation et d'Etude des Collections, Musée des Confluences, Lyon. Drawings and further collection localities (French and Italian) can be found in Constantin (2007), Liberti & Zinetti (2009: 51, Figs. 6, 7) and Constantin & Liberti (2011).

3 Syntypes, ♀ ♀, of *Haplocnemus brevissimus* Pic, 1908, have been found in collection Pic, at MNHNP. They are labeled:

“Morée” pr.; “type” hwA; “sp.?” hw, grey; “43” hw; “SYNTYPE” prr.;

“Olympia” hwA; “43” hw; “anomalie antennaire” hwA;

“Zante” hwA; “type” hwA; “brevissimus Pic” hwA; “TYPE” prr.

The 3 specimens bear a further label “Syntype / *Aplocnemus* / *brevissimus* / Pic 1908 / MNHN Paris, coll. Pic” prr., added by R. Constantin. Although small differences between french and greek populations samples can be detected, it seems wise to avoid establishing subspecies because of the limited number of specimens seen. On the other hand, given that Lyon and Athens are nearly 1700 Km apart, finding small differences between local populations should be expected.

The Holotype, ♀, of *Haplocnemus brevissimus* var. *holtzi* Pic, 1908, is in collection Pic, at MNHNP. It is labeled: “Morea merid. / Kambos, Taygetos / VI.1901 Holtz” pr.; “rufipes var. / unique ?” hwA; “voir aussi / chalconatus” hwA; “type” hwA; “TYPE” prr.; “v. Holtzi Pic” hwA; “v. Holtzi Pic” hw on grey paper. The synonymy proposed by Mayor (2007) is here confirmed and justified.

**Distribution and comments** - A rare, relictual species present at least in Southern France, peninsular Italy, Greece and Crete (Liberti & Zinetti, 2009: 51).

### Materials studied

Greece

Larissa prov.: Ossa<sup>oo</sup> (Sama, 1987, CLi).

Messinia prov.: Agios Nikolaos near Kardamili<sup>oo</sup> (Constantin, 2005, CCo).

Hania prov.: Vrises<sup>oo</sup> (Gillerfors, 1993, ZMLU).

### *Aplocnemus (Aplocnemus) reitteri* Schilsky, 1894

(Figs. 13, 42-46)

*Haplocnemus (Holcopleura) reitteri* Schilsky, 1894a: 59, loc. typ. Izmir (Turkey); Schilsky, 1894b: 234; Schilsky, 1897: 34BB; Reitter, 1907: 209; Pic, 1937: 40; Peacock, 1987: 156 [*Aplocnemus (Holcopleura)*]; Mayor, 2007: 413.

= *Haplocnemus (Holcopleura) turcicus* Schilsky, 1897: 30, 34CC [syn. n.], loc. typ. Burgas (Bulgaria), Edirne (TK), Turkey; Pic, 1937: 43; Peacock, 1987: 157 [*Aplocnemus*]; Mayor, 2007: 413 [*Aplocnemus (Holcopleura)*].

**Types** - Two Syntypes are kept at ZMB and can be identified as follows:

1 ♂, dissected by Majer, labelled: “Smyrna / Reitter” hw by Schilsky; “Reitteri / Schils.” hw by Schilsky; a further red label “Holotypus”, possibly added by Majer.

1 ♀: “Smyrna” hw; “morio” hw; “Holcopleura / Reitteri / Schils.” hw by Schilsky; “*Aplocnemus* / *reitteri* / Schilsky 1894 / K. Majer det. 1996” pr.

6 Syntypes of *A. turcicus*, 3 ♂♂ and 3 ♀♀, are in collection Schilsky, at ZMB. They are labelled:

1 ♂ (dissected by K. Majer): “Apfelbeck / Burgas [BG]” pr.; “\* *turcicus* / Schils.” hw by Schilsky; “*Haplocnemus* / (*Holcopleura*) / *turcicus* / Schilsky 1897 / Lectotypus / Karel Majer design. 1996” prr., up.

1 ♂ (dissected by the writer) and 1 ♀ (dissected by K. Majer): “Adrianopol [now Edirne, TK] / Flach” hw by Schilsky; “*Haplocnemus* / (*Holcopleura*) / *turcicus* / Schilsky 1897 / Paralectotypus / Karel Majer design. 1996” prr., up.

1 ♂ (dissected by K. Majer) and 2 ♀♀: “Turcia / Merkl” hw by Schilsky; “*Haplocnemus* / (*Holcopleura*) / *turcicus* / Schilsky 1897 / Paralectotypus / Karel Majer design. 1996” prr., up.

All of them have been fitted with a further label: “Syntypus / not a Lectotype / *A. turcicus* Schilsky / Liberti, jan. 2015” prr.

The symbol “\*” often found on Schilsky handwritten name labels means new species. Such symbol does not (in the writer’s opinion) mean a holotype status for the relevant specimen. It is believed that such “\*” mark was simply pinned, by Schilsky, on the first specimen of a new species row.

Describing this species, the Author reports 5 ♀♀ from “Turkey, Burgas and Adrianopol”; given the similarity between sexes it is easy to believe that Schilsky did not recognize the males. No doubt these are all syntypes, they all belong to the same species and there is no need to select a lectotype.

*A. turcicus* perfectly corresponds to *A. reitteri*, both for external and for aedeagical characters.

**Description** - Please refer to the above description under “Systematics”. Rather variable in size, entirely black, legs and antennae included. Antennae rather short; articles 4-6 triangular, trasverse; 7-9 slightly trasverse to balanced; articles 4-6 gradually increasing in size; article 3 triangular, slightly narrower than 4. Pronotum lateral sides



finely crenulated, mainly in basal half. Elytral apices separately rounded although, at times, an obtuse angle may be perceived. Penultimate sternite straight on rear border; last sternite median process very short. The median lobe appears rather variable depending on populations as shown, as an example, in Figs. 42 and 43.

Dimensions in mm. TL: ♂♂ 4.9-6.8; ♀♀ 5.4-6.0.

♂♂. TL = 5.50±0.78, PL = 1.08±0.22, EL = 3.78±0.52, PW = 1.70±0.22, EW = 2.16±0.24.

♀♀. TL = 5.62±0.27, PL = 1.14±0.06, EL = 4.02±0.15, PW = 1.78±0.10, EW = 2.26±0.10.

**Distribution and comments** - A Turkish species, common in central and western Asiatic Turkey, also present in the European part of the Country and, marginally, in south-east Bulgaria. In Greece only on Lesbos. Can be found by grass sweeping.

### Materials studied

Bulgaria

Ahtopol (Gren, 2012, CGz); Burgas (see syntypes of *A. turcicus*).

Greece

Lesvos prov.: Agios Paraskevi, Lesbos (Erhard, 1995, SMNS); Antissa, Lesbos (Grimm, 1995, SMNS); Eressos, Lesbos (Erhard, 1995, SMNS); Filia, Lesbos (Mus. Helsinki, 2007, MZF); Loutrà, Lesbos (Biström, 2009, MZF); Mantamados, Lesbos (Erhard, 1995, SMNS) Mitilini, Lesbos (Grimm, 1995, SMNS).

Turkey (European)

Canakkale prov.: Eceabat (Liberti, 2010, CLi)(F); Gelibolu (Liberti, 2010, CLi).

Turkey (Asiatic)

Bolu prov.: Abant Gölü near Bolu (Saltini, 1997, CLi).

Corum prov.: Bogazkale (Malkin, 1979, CCo)\*.

Canakkale prov.: Ayvacik (Liberti, 2010, CLi); Yenice (Liberti, 2010, CLi, Angelini, 2011, CAn).

Balikesir prov.: Akbas (Liberti, 2010, CLi); Bandirma (Poot, 1989, CCo)\*; Gölcük (Angelini, 2011, CAn); Gönen (Wittmer, 1970, CCo; Kanaar, 1989, CCo)\*.

Bursa prov.: Kaynarca near Iznik (Wittmer, 1967, CCo)\*

Izmir prov.: Bergama (Klapperich, 1967, CCo; Malkin, 1981, CCo)\*; Dikili (Liberti, 2010, CLi).

Manisa prov.: Akcakertigbeli Gecidi near Demirci (Liberti, 2010, CLi).

Aydin prov.: Kocarli (Ponel, 2005, CPn).

Denizli prov.: Çivril (Angelini, 2011, CAn).

Isparta prov.: Sarki Karagaç (Angelini, 2011, CAn).

### *Aplocnemus (Aplocnemus) rufipes* Miller, 1862

(Figs. 5, 8, 16, 23-27)

*Haplocnemus rufipes* Miller, 1862: 345, loc. typ. Enos Oros, Kefallonia [the locality called by Miller "Monte Nero" being the ancient, Venetian name of Mount Enos on the island]; Schilsky, 1897: 51; Pic, 1937: 40; Peacock, 1987: 156 [*Aplocnemus*]; Mayor, 2007: 412.

= *Haplocnemus kiesenwetteri* Schilsky, 1897: 50 [**syn. n.**], loc. typ. Peloponnesus [the locality "Hagios Wlassis" reported by Schilsky, and visited by Brenske (the collector), might have been the village about 11 Km south of Kalavrita, or the Monastery of Panagia Vlassias in Corinthia, 31 Km east of Kalavrita, or else],

Atiki, Euboea; Pic, 1937: 36; Kaszab, 1955: 104; Majer, 1982: 441, Figs. 8, 23 [*Aplocnemus*]; Peacock 1987: 155; Mayor 2007: 411.

**Types** - 2 Syntypes, ♂ and ♀, of *A. rufipes*, both dissected by Majer, are at the Wien Museum, labelled:

♂: "42" hw, light blue; "Miller / 864" hw; "rufipes [hw] / det. Schilsky [pr.]"; "rufipes" hw by Schilsky; "*Haplocnemus / rufipes* Miller 1862 / Lectotypus / K. Majer desig. 1997" prr., up.

♀: "Miller / 1862" hw; "rufipes [hw] / det. Schilsky [pr.]"; "rufipes" hw by Schilsky; "*Haplocnemus / rufipes* Miller 1862 / Lectotypus / K. Majer desig. 1997" prr., up.

The proposed synonymy with *A. kiesenwetteri* (already observed by K. Majer in 1997 and privately communicated to R. Constantin and to the writer) is based on the Schilsky description, also taking into account that, in the typical localities, this species is well characterized and cannot be confused with any other. Needless to say, this interpretation of *A. kiesenwetteri* is in agreement with Majer (1982) who supplied a short but meaningful description together with excellent drawings.

**Description** - ♂. Antennae pectinate; article 4 triangular, balanced, straight or slightly convex at inner side; articles 5-9 of increasing length, S-shaped at inner side. Integuments colour green-brownish rather dark, bright; basal antennal articles, trochanters, tibiae and tarsi yellowish to reddish, femora more or less darkened; mouth parts partially yellowish, palpi yellowish with last article partly brown; pubescence brown with, here and there, paler setae (populations from Crete often are darker, with legs and antennae entirely brown). Pronotum transverse, convex, max. width well behind the middle; rather heavily punctuate, punctures small, sparse; surface between punctures much larger than their diameter, bright; lateral sides granulose. Elytra heavily (more than pronotum) but sparsely punctured; bright; elytral apices (more or less) jointly rounded; apical angle visible, right to obtuse. Abdomen with first and second visible sternites fitted with a small, round and setose depression in the middle; fifth visible sternite clearly emarginated on posterior border. Last sternite median process long. Basal undivided part of tegmen (fallobase plus parameres basal parts, joined together) long, approx. 1/3 of its total length.

♀. As the male but antennae serrate; elytra slightly widened in apical half; first, second and fifth sternites simple.

Dimensions in mm: TL: ♂♂ 4.8-5.9; ♀♀ 5.3-6.4.

♂♂. TL = 5.50±0.52, PL = 1.12±0.10, EL = 3.86±0.31, PW = 1.76±0.15, EW = 2.20±0.22.

♀♀. TL = 5.82±0.50, PL = 1.18±0.10, EL = 4.10±0.41, PW = 1.84±0.24, EW = 2.34±0.30.

**Distribution and comments** - A southern Balkans species, rather common in southern Greece and recently found in central Turkey. It has been repeatedly collected by beating blossoming hawthorn shrubs.

Populations from the west of Crete are darker, with legs and antennae entirely dark brown, also showing tiny differences in median lobe and, more noticeable, in dorsal lever (compare Figs. 23, 24 and 25, 26).

### Materials studied

Greece

Kerkyra prov.: Kerkira (? , ? , MNH).

Lefkada prov.: Kalamitsi (Consatntin, 2005, CCo)\*.

Thessaloniki prov.: Hortiatis (Constantin, 2005, CCo)\*; Liberti, 2005, CLi); Taxiarithis (Bergeal, 2001, CCo)\*; Thessaloniki (Schatzmayer, 1909, MSNM).

Halkidiki prov.: Holomon Oros, W of Arnea (Berra, 1983, CLi).

Agios Oros prov.: Athos (Schatzmayer, 1909, MSNM).

Trikala prov.: Afhin Kataras (Fabbri, 1995, MSNG); Meteora (Angelini, 2005, CAn).

Karditsa prov.: Lago Tavropou (Konvička, 2009, CKn); Neraida (Brustel, 2007, CBu).

Etolia Akarnania prov.: Paleros (Constantin, 2005, CCo)\*; Potamoula (Angelini, 2005, CAn).

Evrítania prov.: Karpenissi (Constantin, 2005, CCo)\*.

Fokida prov.: Itea (Liberti, 1998, CLi).

Ahaia prov.: Aroania Ori (Rébl, 2010, CRe); Kalavritza (Angelini, 1999, CAn; Ziegler, 2010, CZi); Kalentzi (Angelini, 2004, CAn); Kastelli (Angelini, 2004, CAn); Lagouvouni (Liberti, 1998, CLi); Stavrodromio (Angelini, 1999, CAn).

Iliia prov.: Katotari (Angelini, 2004, CAn).

Arkadia prov.: Agios Petros (Hebauer, 1987, CCo)\*; Dimitsana (Doguet, 1995, CCo)\*; Dirrahi (Angelini, 2004, CAn); Kastanitsa (Rébl, 2010, CRe); Pigadakia (Angelini, 2004, CAn); Stavrodromio (Angelini, 1999, CAn); Tripoli (Angelini, 1999, CAn); Vitina (Angelini, 1999, CAn; Ziegler, 2010, CZi).

Argolida prov.: Ahladokambos (Angelini, 2004, CAn); Mili (Angelini, 1999, CAn).

Messinia prov.: Artemissia (Angelini, 2004, CAn); Exohori (Ziegler, 2011, CZi); Prosilio (Ziegler, 2011, CZi).

Lakonia prov.: Anavriti (Konvička, 2009, CKn); Arna (Angelini, 2004, CAn); Githio (Frisch, 1989, ZMB); Gorani (Angelini, 2004, CAn); Kastania (Constantin, 1997, CCo)\*; Taigetos (Köstlin, 1982, CCo; Doguet, 1995, CCo)\*; Toriza (Rébl, 2010, CRe); Vasiliki (Angelini, 2004, CAn).

Hanià prov. (Kriti): Omalos (Egger, 2009, CEg).

Rethimno prov. (Kriti): Anoghia (Liberti, 2006, CLi; Schülke, 2006, ZMB); Rethimno (Köstlin, 1979, CCo) (F)\*.

Iraklio prov. (Kriti): Agia Varvara (Constantin, 1993, CCo)\*.

Lassithi prov. (Kriti): Agios Nikolaos (? , 1976, ZMB); Armeni (Kopetz, 1998, CCo)\*; Dikteon Antron (Malkin, 1977, CCo)\*; Exo Moulia 4 Km W (Constantin, 1993, CCo)\*; Handras (Kopetz, 2000, CCo)\*; Ierapetra (Köstlin, 1979, CCo)\*; Kato Horio (Constantin, 1993, CCo)\*; Kritsa (Constantin, 1993, CCo; Assing, 2012, ZMB)\*; Stavrochori 3 Km N (Kopetz, 2000, CCo)\*; Vai (Constantin, 1993, CCo)\*.

Kyklades prov.: Vourkoti, Andros Is. (Liberti, 2007, CLi) (F).

Turkey

Isparta prov.: Bagkonak (Angelini, 2011, CAn); Yukangökdere near Egirdir (Jansson, 2007, CCo)\*.

Antalya prov.: Belpinar Gecidi (Angelini, 2011, CAn) (F).

Konya prov.: Igdeören (Angelini, 2011, CAn, CLi).

***Aplocnemus (Aplocnemus) serratus (Brullé, 1832)***  
(Figs. 19-22)

*Dasytes serratus* Brullé, 1832: 152, loc. typ. Peloponnesus; Pic, 1937: 41 [*Haplocnemus*]; Peacock, 1987: 156 [*Aplocnemus*]; Mayor, 2007: 412.  
= *Haplocnemus cribripennis* Pic, 1921a: 3 [syn. n.], loc. typ.

Kefallonia; Pic, 1937: 33; Peacock, 1987: 154 [*Aplocnemus*]; Mayor, 2007: 410.

1 Syntype, ♂, of *A. serratus* is at MNHNP, labelled “226” hw and “*Dasytes serratus* / Morée, M. Brullé”, hwa, on the box floor.

2 Syntypes, both ♀♀, of *A. cribripennis* are at MNHNP, respectively labelled:

1 ♀: “Kephallenia, Paganetti” pr.; “type” hwa; “cribripennis Pic” hwa; “TYPE” prr.

1 ♀: “Kephallenia, Paganetti” pr.; “type” hwa.

Both bear a further red label “Syntype / *Aplocnemus* / *cribripennis* / Pic 1921 / MNHN Paris, coll. Pic” printed (but one partly hw.) added by R. Constantin (the 2 specimens were probably collected between 1899 and 1914). Although females, no doubt they belong to the same species called *serratus* by Brullé.

**Description** - ♂. Antennae strongly serrate or pectinate; articles 4 and 5 triangular, balanced or slightly transverse, their inner sides feebly convex; articles 6-9 gradually increasing length; 6 and 7 more or less transverse; 8 and 9 more or less balanced to elongate, feebly S-shaped or slightly convex on inner side. Integuments black, bright, with bluish reflections; antennae either entirely black or with basal articles yellow (north west Greece); legs black but, often, apical part of tibiae and tarsi paler; mouth parts and palpi dark brown to black; pubescence blackish to dark brown. Pronotum transverse, rather convex, max. width behind the middle; puncturation strong, sparse to rather dense (a variable character) but never very dense; space between punctures wider than their diameter, bright; lateral sides granulose to nearly smooth. Elytra punctuation stronger than on pronotum, spaces between punctures more or less convex, bright; elytral apices separately rounded; apical angle undefined. Abdomen first and second visible sternites simple; fifth visible sternite emarginated at rear border; central process of last sternite long. Basal undivided part of tegmen normal (approx. ¼ of total length).

♀. As the male but antennae serrate; elytral apical half moderately widened; elytral apical angle more or less visible, acute.

Dimensions in mm. TL: ♂♂ 4.0-5.1, ♀♀ 4.8-5.2.

♂♂. TL = 4.60±0.49, PL = 0.92±0.10, EL = 3.10±0.30, PW = 1.36±0.13, EW = 1.66±0.13.

♀♀. TL = 5.00±0.18, PL = 0.98±0.05, EL = 3.38±0.10, PW = 1.50±0.08, EW = 1.88±0.13.

**Distribution and comments** - The known distribution range of this species includes western and southern Greece and Dalmatia. Although often uncommon, at times it has been collected in numbers in certain places as, for example, the Igoumenitsa area (Thesprotia) by the writer, beating blossoming *Phlomis* sp. shrubs.

**Materials studied**

Croatia (localities listed from north to south)  
Prezid Pan near Gracak (Liberti, 2005, CLi); Zedno (Konvička, 2009, CKn); Mosor (? , 1911, MSNM); Sveti Jure near Makarska (Liberti, 2008, CLi).

Greece

Kerkyra prov.: Anaharavi (Göllner, 1996, ZMB); Kerkyra Island (Jünger, 1976, CCo)\*; Köstlin, 1985, SMNS and CCo; Whitehead, 1993, CLi).

Lefkada prov.: Agios Nikitas (Angelini, 2005, CAn); Eglouvi (Angelini, 2005, CAn); Kalamitsi (Constantin, 2005, CCo)\*.

Grevenà prov.: Deskati (Konvicka, 2016, CKn & CLi).

Thesprotia prov.: Agia Kiriaki (Liberti, 2005, CLi); Ambelon (Liberti, 2005, CLi); Igoumenitsa (Doguet, 1997, CCo)\*; Karteri (Constantin, 2005, CCo)\*; Liberti, 2005, CLi); Mavroneri (Constantin, 2005, CCo)\*; Sagiada (Liberti, 2005, CLi); Vavouri near Tsamantas (Liberti, 2005, CLi).

Preveza prov.: Parga (Poot, 1998, CCo)\*.

Etolia Akarnania prov.: Paleros (Constantin 2005, CCo)\*; Sardinia (Poot, 1998, CCo)\*.

Fthiotida prov.: Parnassos (Liberti, 2001, CLi).

Korintia prov.: Galatas (Köstlin, 1976, CCo)\*.

Arkadia prov.: Paradisia (Saltini, 2015, CSI).

Messinia prov.: Exohori (Ziegler, 2011, CZi; Saltini, 2015, CSI); Kalamata (Köstlin, 1982, CCo)\*; Kardamili (Constantin, 2005, CCo)\*; Mavrommati (Malkin, 1979, CCo)\*; Stavropigi (Frisch, 1987, ZMB).

Lakonia prov.: Areopoli (Doguet, 1995, CCo)\*; Drialos (Constantin, 2005, CCo)\*; Drimos (Constantin, 2005, CCo)\*; Kelefa (Konvicka, 2009, CKn); Kokkala (Bergeal, 2000, CCo)\*; Melitini (Angelini, 2004, CAn); Taigetos (Ziegler, 2007, CZi); Vahos (Doguet, 1995, CCo)\*.

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