

**A NEW *HAPLIDIA* HOPE, 1837 FROM NISYROS ISLAND  
(DODECANESE, GREECE)  
WITH A CATALOGUE OF THE GENUS  
(Coleoptera: Melolonthidae)**

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**Abstract.** The description of *Haplidia chloes* n. sp. from Nisyros Island (Dodecanese, Greece) is given. The new taxon belongs to the *transversa*-group. Some zoogeographical aspects related to its distribution are discussed. Besides, a catalogue of the species of the genus is given.

**Keywords.** Coleoptera, Melolonthidae, *Haplidia*, new species, Greece.

The main centre of speciation of the genus *Haplidia* Hope, 1837 lies in the Eastern Mediterranean area, particularly in the Anatolian region (CARPANETO et al., 2000). This genus includes some insular endemics, localised in the major islands of the eastern and central Mediterranean (Cyprus, Crete and Sicily) (PETROVITZ, 1971; BARAUD, 1975; 1992; KEITH, 2002). Contrarywise, no endemic species have been so far described from small islands, such as the countless Greek and Turkish islands of the Aegean Sea. However, it could be due to research fault, considering that the knowledge on the Coleopteran faunal assemblages of these islands results nowadays scarce. The Island of Nisyros, in the archipelago of Dodecanese, may offer a good example of this scenario. The data available for this island concern mainly other families of Coleoptera (GRIDELLI, 1929; KÜHNELT, 1965; LO CASCIO & SCUPOLA, 2004), while the scarab beetles have never been investigated. During recent faunal investigations, it was possible to collect several specimens of a *Haplidia* Hope, 1837, the further examination of which revealed their belonging to a new species. The description of the new taxon and some zoogeographical considerations are given in the present paper.

The island of Nisyros is located between 36°37'-36°30' N and 27°07'-27°13' E, 18Km off the Datça peninsula (Turkey); its surface extends over 41.2 Km<sup>2</sup> and its maximum altitude reaches 698 m a.s.l. Nisyros is a volcanic island, emerged about 200,000 years ago (VOUGIOKALAKIS, 1992), whose current volcanic activity is represented by some hot springs and two phreatic craters. The annual rainfall is about 600 mm. The vegetation consists mainly of a mixed acidophile maquis-phrygana, which covers densely the whole island. Patchy remains of older formations with *Quercus coccifera* L. and *Quercus ithaburensis* ssp. *macrolepis* (Kotschy) Hedge & Yalt are also present at the boundaries of cultivated lands (BURTON, 1991). In respect to other islands of the Dodecanese, Nisyros is characterised by a moderate level of anthropic influence (agricultural use, goat grazing) which did not affect significantly the vegetation. Its early history is not well known: this island seems to be colonized in the third millennium B.C., while more certain evidences of a Late Aegean Neolithic settlement were found in the close islet of Yali (CHERRY, 1990). Currently, about 1,000 people live in the main village of Mandraki and in few smallest.

**Acronyms used in the text:**

DKCC: Denis Keith coll., Chartres, France. MNHN: National Museum of Natural History, Paris, France. MZUF: Museo Zoologico « La Specola », Firenze, Italy. PLCI: Pietro Lo Cascio coll., Lipari, Italy. ZMUA: University of Athens, Zoological Museum, Athens, Greece

***Haplidia chloes* sp. nov.**

**Holotype:** 1 male, Greece, Nisyros Island, surrounding of Mandraki, 28.IV-3.V.1999, P. Lo Cascio & C. Moreno Camacho leg. (MNHN). **Paratypes:** 6 males, 8 females, same data as holotype; 1 female, Greece Nisyros Island, O. Mammoliti & T. Watson leg; (MZUF, PLCI, DKCC, ZMUA).



**Description of the male:** Length 13 mm. Upper side dark to light reddish brown; underside, tarsi and antennae lighter; head and pronotum not very shiny, elytra dull, slightly pruinose.

Clypeus feebly reflexed, with two ill defined depressions inside the lateral lobes, anterior margin emarginate, punctuation strong and connivent; clypeo-frontal suture ill defined; carina on vertex strong and continuous.

Pronotum transverse, two times wider than long, widest behind middle; sides straight anteriorly; lateral margin evidently crenulate; punctuation mid-sized, very dense to connivent, ocellate, sparser laterad, especially near medio-lateral pit; integument feebly micropunctate; anterior and posterior margins with series of coarse ocellate points. Pilosity clearly double: one erected, yellowish to brownish, long, somewhat shorter on posterior margin, sparse to very sparse on disk; another reclined, short, whitish, less thick, much denser, nearly hiding integument. In some specimens, a smooth median line on basal half is present.

Scutellum with narrow unpunctate area on base, punctuation coarser than on pronotum, dense, sometimes confluent; pilosity adpressed, as thick and short as the reclined one on pronotum.

Elytra microreticulate, with mid-sized ocellate punctuation, slightly pruinose; integument very feebly transversally irregular; pilosity adpressed to reclined, as long or longer as interval between two points, with long yellowish hairs on base, as long as those on pronotal base.

Pygidium dull, with dense punctuation, ocellate, coarse; pilosity erect, short, thick, somewhat longer on apex.

Ventrites with mid-sized, not very dense punctuation.

Antennal club as long as funicle without scape.

Protibiae with middle tooth narrower to apical one.

Metafemora with coarse and rather dense punctuation on anterior and posterior margin but nearly smooth on disk.

Aedeagus of the *transversa*-type: fig. 1-2.

**Description of the female:** similar to male, with the usual sexual dimorphism: antennal club shorter, punctuation on pronotum slightly finer and denser, elytra very shiny with punctuation deeper and more conspicuous, and longer setation, pygidium with denser punctuation.

**Discussion:** the new taxon belongs to the *transversa*-group (sensu BARAUD, 1988). Because of its pronotal and elytral base with long erect hairs, antennal club shorter than funicle, it should be compared to *H. pruinosa* Baudi, 1870, *H. ciliciensis* Baraud, 1988, *H. iranica* Petrovitz, 1970 and *H. montreuili* Keith, 2000 (SABATINELLI, 1991 removed *H. janczyki* Baraud, 1988, originally placed there, from this group and showed that it actually belongs to the *nitidula*-group).

A clear discrimination of the new taxon is possible by means of its genitalia, which differ significantly from those of the aforementioned species and is in fact very close to those of *transversa* (Fabricius, 1801). Furthermore, it differs from *H. pruinosa* by the coarser punctuation on pronotum, lateral sides of pronotum not subsinuate, longer elytral pilosity and pilosity on scutellum adpressed; from *H. ciliciensis* and *H. iranica* by denser punctuation on pronotum, erect pilosity on pronotum sparser, adpressed pilosity denser, nearly hiding integument, anterior margin of clypeus less reflexed; from *H. montreuili* by its size, denser and coarser punctuation on pronotum, erect pilosity on pronotum and elytra sparser.

**Derivatio nominis:** we are glad to dedicate the new species to the colleague Chloe ADAMOPOULOU, who is one of the most active protagonist of the researches on the knowledge and the conservation of the Greek islands' faunas.

**Ecological notes:** all the examined specimens were collected in the twilight hours on *Quercus coccifera* L. and *Pistacia terebinthus* L., during their mating activity.

**Zoogeographical remarks:** the distribution of *Haplidia chloes* seems limited to the island of Nisyros. The occurrence of an endemic species in a small and relatively recent island represents a peculiarity within the zoogeographical patterns of the genus *Haplidia*. However, the affinities among the new species and some other ones (*H. ciliciensis* and *H. iranica*) distributed in Southern Anatolia, to which Nisyros belongs from a geographical point of view, suggest the active colonisation of this island by *propagulae* coming from the adjacent Turkish coast. It is important to remark that, in addition to its relatively recent age, the island has been interested by several catastrophic events, related to some phases of its volcanic activity (VOUGIOKALAKIS, 1992). These events have represented a real problem for the surviving of faunal elements, but at the same time could have produced several and repeated "bottleneck" effects which could have quickened the speciation of *H. chloes*.

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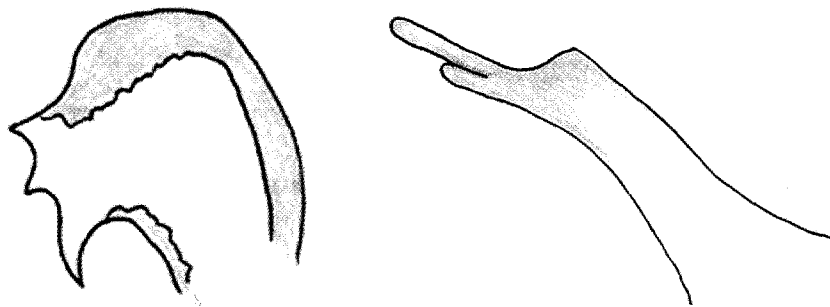
### Catalogue of the Genus *Haplidia* Hope, 1837 (grouped after BARAUD, 1988)

TAXA	DISTRIBUTION
<b><i>transversa-group</i></b>	
<i>H. aegyptiaca</i> Kraatz, 1882	Egypt
<i>H. andreasmuelleri</i> Keith, 2000	S Turkey (Adana)
<i>H. armeniaca</i> Baraud, 1990	Armenia (probably E Turkey)
<i>H. baraudi</i> Sabatinelli, 1991	Jordan
<i>H. baudii</i> Kraatz, 1882	Cyprus; Rhodos I.?, Israel ?, Lebanon ?, Syria ?
<i>H. bodemeyeri</i> Reitter, 1909	S Turkey (Mersin)
<i>H. caesarina</i> Reitter, 1902	central Turkey (Kayseri, Maras); Israel ?
<i>H. chloes</i> n. sp.	Greece (Nisyros Island)
<i>H. ciliciensis</i> Baraud, 1988	S Turkey (İçel, Adana, Iskenderun, Adiyaman)
<i>H. cypria</i> Kraatz, 1882	Cyprus
<i>H. dilatata</i> Reitter, 1902	W Turkey (Izmir)
<i>H. etrusca</i> Kraatz, 1882	central and S Italy
<i>H. graeca</i> Kraatz, 1882	Greece, Ionian Islands, Rhodos Island, Turkey
<i>H. hirticollis</i> Burmeister, 1855	Sardinia, Sicily, Aeolian Islands, S Italy (Calabria)
<i>H. iranica</i> Petrovitz, 1970	Iran, Iraq, SE Turkey (Mardin, Yesilli)
<i>H. massai</i> Baraud, 1975	Sicily
<i>H. migliaccioi</i> Baraud, 1988	central and S Turkey (Malatya, Nevşehir, Gaziantep)
<i>H. montreuili</i> Keith, 2000	Cyprus
<i>H. preissi</i> Keith, 2000	Cyprus
<i>H. pruinosa</i> Baudi, 1870	Cyprus; Turkey ?
<i>H. tarsensis</i> Kraatz, 1882	Syria, S Turkey (İçel, Adana)
<i>H. transversa transversa</i> (F., 1801)	S.E. Europe, Turkey
<i>H. transversa cretica</i> Petrovitz, 1971	Crete
<i>H. transversa peloponnisica</i> Pet. 1971	Greece (Peloponnese)
<i>H. turcica</i> Kraatz, 1882	Turkey (Istanbul, Manissa, Canakkale, Konya, Amasya, Tokat)
<i>H. villigera</i> Burmeister, 1855	Sicily
<i>H. werneri</i> Keith, 2000	Syria, S Turkey (Adana, Antakya)
<i>H. wewalkai</i> Petrovitz, 1971	central and S Turkey (İçel, Nevşehir, Maras)
<b><i>nitidula-group</i></b>	
<i>H. akbesiana</i> Petrovitz, 1971	Turkey (Hatay); Spain (probably introduced)
<i>H. besucheti</i> Baraud, 1988	Turkey (Antakya)
<i>H. janczyki</i> Baraud, 1988	Israel, Lebanon, Syria
<i>H. joannis</i> Baraud, 1988	Lebanon, Syria; Israel ?
<i>H. lizleri</i> Keith, 2000	Syria, S Turkey (Adana, Iskenderun)
<i>H. nitidula</i> Kraatz, 1882	Syria, S Turkey (Hatay, İçel, Adana); Egypt ? Israel ?
<i>H. petrovitzi petrovitzi</i> Baraud, 1988	Israel

- H. petrovitzi lassallei* Keith, 2000 S Turkey (Gaziantep)  
*H. pilicollis pilicollis* Petrovitz, 1967 S Turkey (Hatay)  
*H. pilicollis temperei* Baraud, 1988 Lebanon  
*H. rugicollis* Petrovitz, 1967 S Turkey (İçel, Adana, Hatay)  
***pubiventris*-group**  
*H. heinzorum* Baraud, 1990 S Turkey (Antalya)  
*H. lodosi* Baraud, 1988 Cent. & S Turkey (Antalya, Isparta, Konya, Iskenderun)  
*H. pamphyliensis* Baraud, 1988 SW Turkey (Antalya, Mugla)  
*H. pubiventris* Kraatz, 1882 Greece (Castelorizo Island), S Turkey (Antalya)  
***fissa*-group**  
*H. claudii* Baraud, 1988 S Turkey (Adana, Iskenderun)  
*H. chaifensis* Kraatz, 1882 Israel, Lebanon, Syria  
*H. endroedii* Baraud, 1988 Jordan  
*H. fissa* Burmeister, 1855 Cyprus, Israel, Lebanon, Syrie, Turkey  
*H. villosicollis* Kraatz, 1882 Israel, Lebanon  
***vagepunctata*-group**  
*H. sparsepunctata* Petrovitz, 1967 S Turkey (Antalya)  
*H. vagepunctata* Kraatz, 1882 S and SW Turkey (İçel, Antalya, Mugla, Adana)  
***species inquirenda***  
*H. attenuata* Reiche, 1862 Sardinia

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*Haplidia chloes* nov. sp. Fig. 1. Apex of the paramere. Fig. 2. Inner piece of the aedeagus

