

ARTIGO / ARTÍCULO / ARTICLE

Contribution to the knowledge of the weevil fauna of the island of Gavdos (Greece), with description of two new species (Coleoptera: Curculionoidea).

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Abstract: This note deals with the weevil fauna (Coleoptera: Curculionoidea) of the small Greek island of Gavdos, 40 km south of Crete and the southernmost point of Europe, from where only one species of this family of coleopterans was previously known. Twenty-four species belonging to 3 families and 16 genera were collected and identified, being all but one new records for the island. Two new species are described: *Styphlus (Styphlus) fontis* n. sp., very similar to the Sicilian *S. vidanoi* Osella & Zuppa, 1994, and *Coenopsimorphus europaeus* n. sp., the first European species of this North African genus, close to *C. desbrochersi* Pic, 1904 from Algeria and very similar also to *C. porculus* Desbrochers, 1897 from Algeria, Libya and Tunisia.

Key words: Coleoptera, Curculionoidea, Gavdos, Greece, new species, faunistics.

Resumen: Contribución al conocimiento de la fauna de gorgojos de la isla de Gavdos (Grecia), con descripción de dos nuevas especies (Coleoptera: Curculionoidea). Este trabajo trata sobre la fauna de gorgojos de la pequeña isla griega de Gavdos, a unos 40 km al sur de Creta y punto más meridional de Europa, y de la cual sólo se conocía una especie de esta familia de coleópteros. Se capturaron e identificaron 24 especies pertenecientes a 3 familias y 16 géneros, todas primeras citas para la isla menos una. Se describen dos nuevas especies: *Styphlus (Styphlus) fontis* n. sp., muy parecida a *S. vidanoi* Osella & Zuppa, 1994 de Sicilia, y *Coenopsimorphus europaeus* n. sp., la primera especie europea del género, próxima a *C. desbrochersi* Pic, 1904 de Argelia y muy semejante también a *C. porculus* Desbrochers, 1897 de Argelia, Libia y Túnez.

Palabras clave: Coleoptera, Curculionoidea, Gavdos, Grecia, nuevas especies, faunística.

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Introduction

Gavdos, located some 40 km south of Crete (Fig. 1), is an island of 33 km² with a maximum elevation of 348 m a.s.l., and its southernmost point (34.48.03 N 24.07.20 E) is also that of Europe (Broggi 2014). To author's knowledge, only two papers (Voss 1948, Pelletier 2003) ever indicated a Curculionoidea from Gavdos, namely *Achradidius insularis* (Voss, 1948). The present paper deals with the weevils collected during two visits, the first one on October 2-11, 2014 and the second one on April 20-27, 2015. Twenty-four species belonging to 16 genera and 3 families of Curculionoidea were collected and identified, including the finding of two new species. All species are reported for the first time from Gavdos, *Achradidius insularis* excepted.

Material and methods

Specimens were collected by sweeping, beating tray, hand-picking under stones, barks or plant rosettes, and sifting leaf-litter. For each species is provided locality and date of collecting, number of

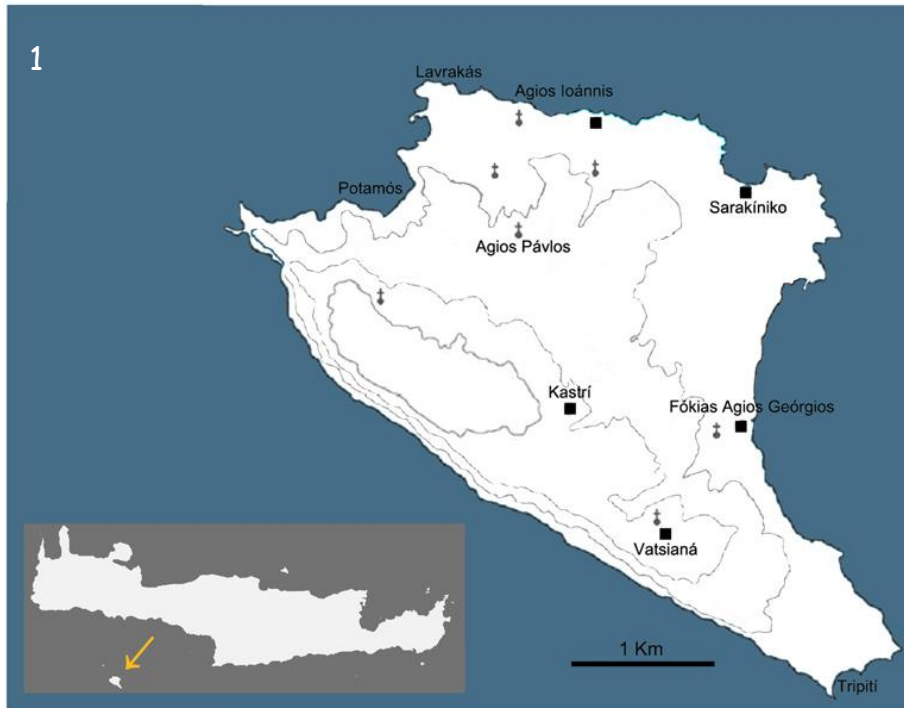


Fig. 1. - Map of Gavdos with the surveyed localities; bottom left its geographic position south of Crete.

specimens in brackets, known distribution including information on its presence on Crete, and ecological data. Labels of the new species described are quoted as written (locality transliterated from Greek), a slash separating lines on the same label. Measurements of the specimens were taken using a micrometer associated to a Wild M5 microscope. Total length is that from base of rostrum to tip of elytra, and rostral, pronotal and elytral length and width are the maximum ones, respectively. Genitalia are embedded in DHMF or glued dry on the same label bearing the specimen. Pictures were taken partly by Francesco Sacco with a Nikon D90 camera provided with an AF Micro Nikkor 60 mm lens, and partly by Maurizio Gigli with a Canon 550D camera. Photos were then elaborated with the programs Helicon Focus 5 and Adobe Photoshop PS4 to slightly enhance their quality.

The arrangement of families is according to Alonso-Zarazaga & Lyal (1999). Nomenclature of subfamilies (Phytonominae excepted, see Ghahari & Colonnelli 2015), tribes and species follows the recent catalogues by Löbl & Smetana (2011, 2013). Tribes, genera and species of the recorded insects are listed in alphabetical order, whereas the order of subfamilies also follows Löbl & Smetana (2011, 2013). Types of the new species are preserved in the author's collection, Rome, Italy.

Results

APIONIDAE Schoenherr, 1823

Apioninae, Apionini Schoenherr, 1823

Aspidapion (Aspidapion) radiolus radiolus (Marsham, 1802)

Material examined. Sarakíniko, 27.IV.2015 (2).

Distribution. Western Palaearctic, central Asia, Erythrea; the subspecies *chalybeipenne* (Wollaston, 1854) is known from Azores, Madeira and Canary Islands (Alonso-Zarazaga 2011). Recorded from Crete (Bahr *et al.* 2011).

Collecting circumstances. On Malvaceae.

***Aspidapion (Koestlinia) aeneum* (Fabricius, 1775)**

Material examined. Sarakíniko, 27.IV.2015 (1).

Distribution. Western Palaearctic, central Asia (Alonso-Zarazaga 2011).

Collecting circumstances. On Malvaceae.

***Kalcapion semivittatum semivittatum* (Gyllenhal, 1833)**

Material examined. Kastrí, m 200, 21.IV.2015 (2).

Distribution. Western Palaearctic, central Asia; the subspecies *sagittiferum* (Wollaston, 1854) lives in Madeira, whereas the subspecies *fortunatum* (Roudier, 1963) occurs in the Canary Islands (Alonso-Zarazaga 2011). Recorded from Crete (Bahr *et al.* 2011).

Collecting circumstances. On *Mercurialis*.

BRACHYCERIDAE Billberg, 1820**Brachycerinae, Brachycerini Billberg, 1820*****Brachycerus aegyptiacus* Olivier, 1807**

Material examined. Vatsianá, m 200, 4.X.2014 (remains); Fókias-Agios Geórgios, 25/27.IV.2015 (2); Kastrí, m 200, 21.IV.2015 (1).

Distribution. Eastern Mediterranean (Friedman & Sagiv 2010, Colonnelli 2011). Recorded from Crete (Bahr *et al.* 2011).

Collecting circumstances. Under stones.

***Brachycerus lutosus* Gyllenhal, 1833**

Material examined. Agios Geórgios, m 40, 21.IV.2015 (1).

Distribution. France, Italy, southeastern Europe, Turkey (Colonnelli 2011). Recorded from Crete (Zumpt 1937).

Collecting circumstances. Under stones.

***Brachycerus muricatus* Olivier, 1790**

Material examined. Sarakíniko, 20.IV.2015 (2); Fókias-Agios Geórgios, 25/27.IV.2015 (1).

Distribution. Southern Europe, western North Africa, Turkey (Colonnelli 2011). Recorded from Crete (Zumpt 1937).

Collecting circumstances. Under stones.

CURCULIONIDAE Latreille, 1802**Curculioninae, Mecinini Gistel, 1848*****Mecinus pyraaster* (Herbst, 1795)**

Material examined. Kastrí, m 200, 24.IV.2015 (1).

Distribution. Holarctic and Congo (Caldara & Fogato 2013). Recorded from Crete (Bahr *et al.* 2011).

Collecting circumstances. Sweeping *Plantago*.

***Mecinus simus* (Mulsant & Rey, 1858)**

Material examined. Kastrí, m 200, 24.IV.2015 (2).

Distribution. Mediterranean (Caldara & Fogato 2013). First record for Cretan area.

Collecting circumstances. Sweeping *Plantago*.

Curculioninae, Smicronychini Seidlitz, 1891***Smicronyx (Smicronyx) jungermanniae* (Reich, 1797)**

Material examined. Kastrí, m 200, 24.IV.2015 (1).

Distribution. Western Palaearctic, central Asia (Caldara 2013). Recorded from Crete (Bahr *et al.* 2011).

Collecting circumstances. Beating *Cuscuta*.

***Smicronyx (Smicronyx) pauperculus* Wollaston, 1864**

Material examined. Korfós, m 50, 20.IV.2015 (1); Kastrí, m 200, 24.IV.2015 (1).

Distribution. Italy, Spain, northern Africa, Arabian Peninsula (Caldara 2013), Sudan, Cameroon, Congo (Magnano *et al.* 2009).

Collecting circumstances. Beating *Cuscuta*.

***Smicronyx (Smicronyx) syriacus* Faust, 1887**

Material examined. Korfós, m 50, 20.IV.2015 (14); Kastrí, m 200, 24.IV.2015 (3).

Distribution. Western Palaearctic, central Asia (Caldara 2013).

Collecting circumstances. Beating *Cuscuta*.

Curculioninae, Styphlini Jekel, 1861***Styphlus (Styphlus) fontis* n. sp. (Fig. 2)**

Diagnosis. A species close to the Sicilian *S. vidanoi* Osella & Zuppa, 1994 from which differs by the plumper elytral outline, different funicular segments ratio, more impressed elytral striae, strikingly more narrowed rostral base.

Type material. "ELLAS - Nísos Gávdos / Fókia - Agios Geórgios - m 25 / N 34.49.48 E 24.06.27 / 25/27.IV.2015 - E. Colonnelli", 1♀ holotype (ECRI).

Description.

Holotype. Length mm 2.86. Ferrous-red, pronotum and femora reddish-brown. Dorsal clothing on head and pronotum formed by sparse comma-like and subspatulate half-recumbent golden scales, being the subspatulate ones a little denser on pronotal sides and along the midline of pronotum. Elytral intervals with a quite regular row of curved spatulate golden scales, denser and thicker on odd-numbered ones. Striae bare. Legs and antennae with lifted golden setae which are almost straight on antennae, and curved and intermingled with some thin subspatulate ones on femora and tibiae. Underside with sparse recumbent golden hairlike scales. Rostrum 0.83 as pronotum, 2.43 as long as wide, subparallel-sided, moderately curved except at base where it is somewhat crooked, quite abruptly narrowed at the extreme base in dorsal view. Antennae rather elongate, scape moderately clubbed and setose at apex, first funicular segment wider and about twice longer than the second which is subcylindrical and twice as long as wide, 3-7 moniliform, the third about as long as wide, 4-7 progressively more transverse, club large, fusiform and a trifle longer than the four preceding segments. Interocular space transversely impressed, so that in lateral view the base of rostrum appear separate from head by a quite deep sulcus. Head widely subsphaerical, eyes subrectangular, longitudinally very elongate and moderately convex, their base rather abruptly separate from head convexity from a kind of narrow sulcus, interocular distance the same of that of narrowed base of rostrum and about the same of the greater diameter of an eye. Prothorax as wide as long, sides moderately rounded and with feeble subapical constriction at apical fourth, maximum width a little basad of middle, anterior margin about as wide as base. Pronotal punctures rather coarse, intervals between them subgranulate. Elytra oval-elongate, 1.59 times as long as wide and 2.59 times longer than pronotum, maximum width at apical third, base barely concave, scutellum so

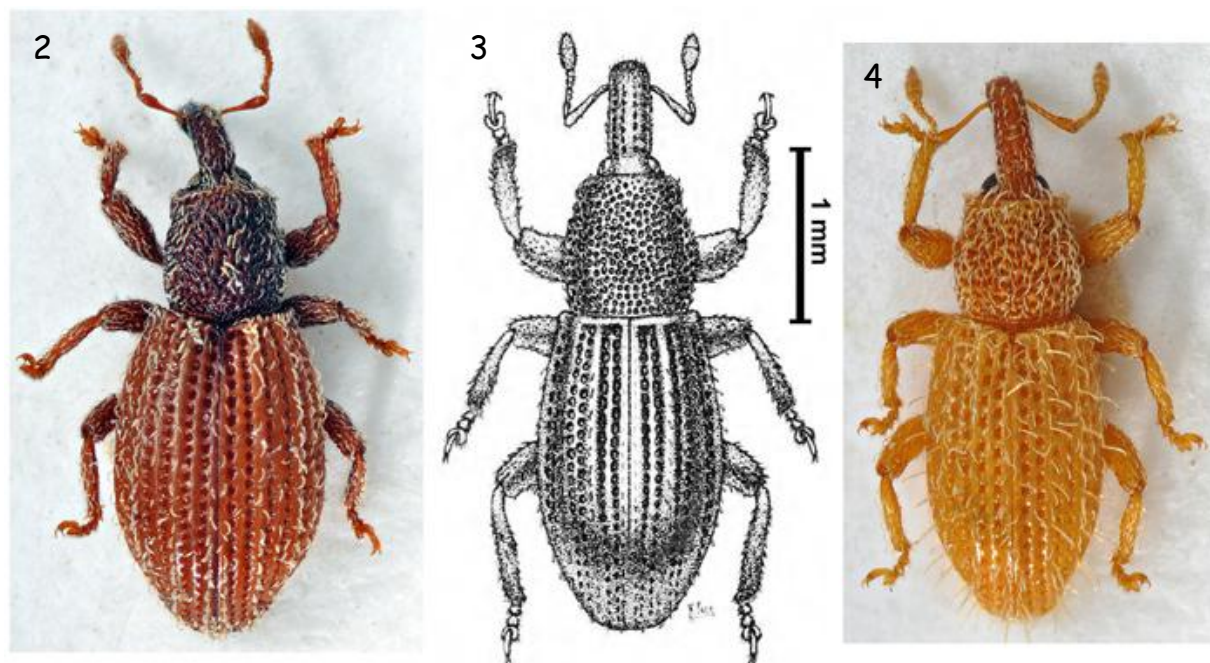


Fig. 2.- *Styphlus (Styphlus) fontis* n. sp., habitus of the holotype. Fig. 3.- *S. (Styphlus) vidanoi* Osella & Zuppa, 1994, habitus of the holotype from Osella & Zuppa (1994). Fig. 4.- *S. (Styphlus) syriacus* Stierlin, 1881, habitus of a female from Israel, Golan, Ha Yarden Park. Photos by Francesco Sacco.

minute as to be hardly visible. Striae catenulate, formed by large round punctures and well impressed up to apical margin. Interstriae quite flat, unpunctured, one and a half wider than striae. Legs robust; femora clubbed, edentate; tibiae slightly curved inwards on apical fifth and thinly and acutely mucronate on inner apical margin; tarsi short, their second segment much wider than long, claws rather thin and edentate. First ventrite longer than second which is about as long as 3+4 together. Habitus as in Fig. 2.

Differential diagnosis. According to the latest revision by González (1967) completed with regard to genera and subgenera by Osella & Zuppa (1994), the new species belongs to the nominotypical subgenus which includes 7 species distributed in the Mediterranean and Caucasus (Caldara 2013). All of them, apart *S. vidanoi* from Sicily, have erect setae on elytra and cannot be confused with *S. fontis* (Figs. 2 and 4). On the other hand, *S. vidanoi*, a montane species endemic of Sicily and very similar to the new one, can be distinguished from *S. fontis* by its denser and coarser pronotal punctures, rostrum barely instead of strongly narrowing at base, first funicular segment almost 3 times instead of twice longer than the second, this just a little instead than twice longer than wide, eyes oval instead of subrectangularly elongate and not protruding from head convexity, elytra more elongate and less widening at apical third, and striae becoming less impressed towards apex (Figs. 2 and 3).

Etymology. The new species is named after the spring near which it was found, the genitive of the Latin word fons (= source).

Collecting circumstances. Beating weedy plants at twilight.

Cossoninae, Onycholipini Wollaston, 1873

Brachytemnus porcatus (Germar, 1824)

Material examined. Fókia Agios Geórgios, m 25, 25/27.IV.2015 (1 dead specimen).

Distribution. Euromediterranean (Hlaváč & Maughan 2013). Recorded from Crete (Folwaczny 1973).

Collecting circumstances. Found under bark of *Pinus brutia* Ten.

Ceutorhynchinae, Ceutorhynchini Gistel, 1848

Ceutorhynchus pallidactylus (Marsham, 1802)

Material examined. Sarakíniko, 27.IV.2015 (3).

Distribution. Subcosmopolitan (Colonnelli 2013). Recorded from Crete (Bahr *et al.* 2011).

Collecting circumstances. On *Cakile maritima* Scop.

Cryptorhynchinae, Cryptorhynchini Schoenherr, 1825

Dichromacalles (*Dichromacalles*) *creticus* (Reitter, 1916)

Material examined. Sarakíniko, m 20, 20/25.IV.2015 (3).

Distribution. Hitherto known only from Crete (Stüben & Alonso-Zarazaga 2013).

Collecting circumstances. Walking on a wall outside a house.

Notes. The pattern of the three Gavdos specimens slightly differs from that of the typical ones from Crete figured by Bahr (2001) in being much darker as to be difficult to clearly see the paler stripes of elytra. It is noteworthy that also in Crete can be found specimens similar to those from Gavdos among those with striking pale bands (pers. obs.)

Entiminae, Brachyderini Schoenherr, 1826

Achradidius insularis (Voss, 1948)

Material examined. Sarakíniko, m 25, 10.X.2014 (1 dead specimen); Fókia-Agios Geórgios, m 25, 25/27.IV.2015 (18 + several remains).

Distribution. Gavdos and Crete (Voss 1948, Pelletier 2003).

Collecting circumstances. Living specimens under *Sarcopoterium spinosum* (L.) Spach., and dead ones under stones.

Notes. Voss (1948) described this species from a locality at high elevation on the northern slope of the Lefka Mountains of Crete, and from the island of Gavdos. According to Pelletier (2003), the specimens from Crete differ from those occurring in Gavdos in their smaller size, and there is also some uncertainty about the relationship of *A. insularis* with *A. syriacus* (Boheman, 1843). As a matter of fact, wingless brachyderines are often difficult to discriminate one another, particularly when dealing with insular populations.

Entiminae, Holcorhinini Desbrochers, 1898

Coenopsimorphus europaeus n. sp. (Figs. 5 and 7)

Diagnosis. A species close to *C. desbrochersi* Pic, 1904 from Algeria, differing from it by the plumper body, shorter erect scales on elytra and much less convex eyes.

Type material. "ELLAS - Nísos Gávδος / Fókia - Agios Geórgios - m 25 / N 34.49.48 E 24.06.27 / 25/27.IV.2015 - E. Colonnelli", 1 almost complete, dead specimen holotype (ECRI). Same locality and date, 1 incomplete specimen paratype (ECRI), and 1 abdomen paratype (ECRI).

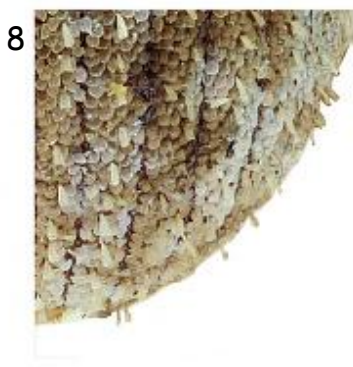
Description.

Holotype. Length mm 4.5, maximum elytral width mm 2.77. Pitchy-brown, antennae and legs reddish-brown. Dorsal clothing formed by rather dense roundish longitudinally striate recumbent whitish, golden and brownish scales forming the pattern of Fig. 5, and by erect whitish hairlike scales with subtruncate apex having all about the same length; recumbent scales on sides of pronotum are slightly larger than those on pronotal disc, head and elytra. Underside with recumbent



Fig. 5.- *Coenopsimorphus europaeus* n. sp., habitus of the female holotype.

Fig. 6.- *Coenopsimorphus porculus* Desbrochers, 1897, habitus of a female from Tunisia, Medenine.



Figs. 7-8.- Detail of elytral scales.

7.- *C. europaeus* n. sp., holotype.

8.- *C. porculus* Desbrochers, 1897 from Tunisia, Medenine.

Photos by Maurizio Gigli.

moderately dense from lanceolate to hairlike scales. Rostrum as wide as long, subparallel-sided, scaled and with erect setae along lateral margins. Epistome V-shaped, dorsally slightly convex, its anterior margin weakly so. Epifrons with parallel sides and a broad sulcus on midline. Base of rostrum separated from head by a deep slightly arched sulcus. Scape rectilinear, only slightly clubbed at apex and with erect setae. Head 1.7 wider than long, scaled and with erect setae above eyes, these barely oval, moderately convex; interocular distance almost the same of that of epifrons between antennae and slightly less than twice the diameter of an eye. Eyes slightly convex and barely protruding from head. Prothorax 1.7 times as wide as long, sides moderately rounded, maximum width basad of middle, anterior margin narrower than base. Pronotal punctures coarse, concealed by scales throughout. Elytra broadly oval, 1.25 times as long as wide, maximum width at middle, base subtruncate, scutellum invisible. Striae thin. Interstriae flat, much wider than striae, with a row of erect seta-like scales. Legs robust; femora clubbed, edentate; tibiae slightly curved inwards on apical fourth and mucronate on inner apical margin. Anterior coxae contiguous, mesocoxae separated by a distance equal to their diameter, the distance separating metacoxae twice the diameter of one of them. First ventrite slightly longer than the second which is as long as 3+4. Anterior and middle left legs, antennal funicles, and tarsi beyond first or second tarsomere missing. Habitus as in Fig. 5.

Paratypes. A specimen eaten by a spider of which remain prothorax, abdomen and two broken legs is similar to the holotype, except for its elytra more globular, pronotum with more rounded sides and 1.4 times wider than long with an almost uniform rather dense vestiture formed by whitish and golden scales. Length of its prothorax and abdomen: mm 3.83 (that of the holotype: mm 4.00). The abdomen of another specimen, whose length is mm 3.50, is almost identical to that of the holotype.

Differential diagnosis. Among the four North African species of *Coenopsimorphus* Desbrochers, 1897 hitherto described (Pelletier 2013), *C. europaeus* in very close only to *C. desbrochersi* Pic, 1904, an uncommon species thus far known upon just 3 examples (Pelletier 2008) from Algeria. However *C. europaeus* differs from *C. desbrochersi* by its slightly smaller size (4.5 instead of 4.7-5.5 mm), thinner and shorter elytral erect hairlike scales which do not become thicker toward apex, eyes feebly convex and hardly protruding instead of convex and clearly bulging from head, elytra obviously more elliptical (Pic 1904, Pelletier 2008). The other species are, according to Pelletier (2013), *C. tenietensis* Pic, 1904 from Algeria which is usually smaller (3.8-4.6 mm), with dark brown dorsal clothing and lifted setae on elytra thin and all clubbed, *C. vaulogeri* (Desbrochers, 1892) from Algeria and Tunisia whose elytra are much more elongate and provided with long erect hairs, and *C. porculus* Desbrochers, 1897 from Algeria, Tunisia and Libya, whose elytral intervals have a series of short clubbed scales (Figs. 6-8).

Etymology. This is the first species of this genus discovered in Europe, and the selected Latin name emphasizes that circumstance, since all its congeners are African.

Collecting circumstances. Found dead under stones.

Entiminae, Otiorhynchini Schoenherr, 1826

Otiorhynchus (Melasemnus) bisphaericus Reiche & Saulcy, 1858

Material examined. Lavrakás, m 5, 3/7.X.2014 (9).

Distribution. Greece and Turkey (Magnano & Alonso-Zarazaga 2013). Recorded from Crete (Bahr *et al.* 2011).

Collecting circumstances. Under *Atriplex*.

Notes. This is considered a single variable species, distributed from central Greece to Turkey (Magnano & Alonso-Zarazaga 2013). Judging by the material at hand from some regions of Greece, probably more accurate study in the future will reveal the presence of a number of distinct taxa today included under this name.

Otiorhynchus (Tournieria) brenskei Reitter, 1884

Material examined. Fókia-Agios Geórgios, m 25, 25/27.IV.2015 (27 + several abdomina); Tripití, 28.IV.2015 (several abdomina).

Distribution. Balkans and Turkey (Magnano & Alonso-Zarazaga 2013). First record for Cretan area.

Collecting circumstances. Living specimens under *Sarcopoterium spinosum* (L.) Spach., and dead ones sifting litter taken under bushes of *Pistacia lentiscus* L.

Notes. Another variable species surely worthy of a deeper study, widely distributed from northeastern Italy across the Balkans to western Turkey (Magnano & Alonso-Zarazaga 2013) but not recorded from Crete by Bahr *et al.* (2011).

Entiminae, Psallidiini Lacordaire, 1863

Psallidium (Coeliopus) spinimanum Reiche, 1861

Material examined. Agios Pávlos, m 80, 26.IV.2015 (1 + several remains).

Distribution. Greece and Israel (Yunakov 2013). Described from Crete (Reiche 1861).

Collecting circumstances. Under stones.

Notes. There is some confusion regarding this species, of which two subspecies are listed by Yunakov (2013). He recorded *P. spinimanum spinimanum* from "Greece", whereas Reiche (1861) described it from Crete, and *P. spinimanum kiesenwetteri* Faust, 1889 from Crete, Rhodes, and Israel. Being self-evident that two subspecies cannot live together on the same locality, it is better to consider both names as referring to the same taxon, particularly as the differences invoked by Faust (1889: 76) to distinguish his "variety" *kiesenwetteri* are quite subtle. *Psallidium spinimanum* is distributed in the Greek islands of Euboea, Kea, Ikaria, Crete, Rhodes, Karpenissos, Symi, and in Israel (Faust 1889, Fleischer 1914).

Lixinae, Cleonini Schoenherr, 1826

Pseudocleonus (Neopseudocleonus) grammicus (Panzer, 1789)

Material examined. Fókia Agios Geórgios, m 25, 25/27.IV.2015 (1 remain).

Distribution. Europe and Morocco (Meregalli & Fremuth 2013). Recorded from Crete (Bahr *et al.* 2011).

Collecting circumstances. Found dead under stones.

Phytonominae, Phytonomini Gistel, 1856

Brachypera (Antidonus) lunata (Wollaston, 1854)

Material examined. Fókia Agios Geórgios, m 25, 25/27.IV.2015 (1).

Distribution. Mediterranean and Canary Islands (Skuhrovec 2013). Recorded from Crete: Elasa Island (Dieckmann 1981), Askýfou plain and Psilorítis (pers. rec.).

Collecting circumstances. Under stones.

Hypera (Hypera) postica (Gyllenhal, 1813)

Material examined. Sarakíniko, m 0, 25.IV.2015 (2).

Distribution. Holarctic (Skuhrovec 2013). Recorded from Crete (Bahr *et al.* 2011).

Collecting circumstances: Sweeping weedy Fabaceae.

Hypera (Hypera) venusta (Fabricius, 1781)

Material examined. Kastrí, m 200, 24.IV.2015 (5).

Distribution: Western Palaearctic (Skuhrovec 2013). Recorded from Crete (Bahr *et al.* 2011).

Collecting circumstances. Sweeping weedy Fabaceae.

Discussion

After this paper the number of Curculionoidea recorded from Gavdos and belonging to three families increases from 1 to 24. Considering that so far 457 vascular plants have been indicated from this small island (Bergmeier *et al.* 1997), a greater number of Curculionoidea, all phytophagous, could be expected as living there. However, several of these plants have surely been introduced by man when Gavdos was rather densely populated and thus intensely cultivated. This is confirmed by the many abandoned terraces where farmers used to grow crops in the past, terraces now invaded by ephemeral weedy plants often unsuitable for a complete life cycle of weevils. Other plant families are not known as hosts of curculionids, whereas on some others, like e.g. the widespread *Pinus brutia* Ten. and *Juniperus* spp. no leaf-eaters have been found. In addition, no hygrophilous weevils were collected, in spite of the semi-permanent presence of ponds, and quite surprising was also the absence of sand-dwellers on the

large populations of suitable plants on the Agios Ioánnis, Lavrakás, and Sarakíniko beaches. Spring sifting of leaf litter primarily under *Pistacia* bushes yielded only remains of *Otiorhynchus brenskei* in Tripití, and litter taken under small bushes other than the introduced ones was unsuccessful for weevils, although some small tiny Coleoptera, mainly Tenebrionidae, were regularly collected in this kind of habitat.

It is worthy noting that in the still incomplete catalogue by Bahr *et al.* (2011) only 160 species of Curculionoidea are indicated from Crete whose surface is of 8261 km², more than 250 times that of Gavdos. Barclay (1986) listed for Crete 1586 vascular plants, number a little increased to around 1750 (doubtful records included and excluding ferns, on which are not known to develop Palaearctic curculionids) by Turland *et al.* (1993). One can envision that the present number of 163 Curculionoidea (Bahr *et al.* 2011, Białooki 2015, Germann & Colonnelli 2015) may represent around 70% of those actually living in this large and diverse island, however ratio between weevils and plants is quite low (0.09 weevil/plant species). The same ratio for Gavdos is much lower (0.05 weevil/plant species), and this can be easily explained taking into account the much less diverse habitats of Gavdos compared with those of Crete, the drier climate, and the considerable distance of Gavdos from the mainland of both Europe and North Africa. From the biogeographical point of view, the weevil fauna of Gavdos is essentially eastern Mediterranean. However, affinities between Gavdos and North Africa are testified by the presence of the wingless *Coenopsimorphus europaeus*, a weevil close to African species, and probably further researches in Gavdos will discover elusive curculionids related with other African elements.

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