



Notas / Notes

Some additions and corrections to the Coleoptera fauna of the Canary Islands

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ABSTRACT

Two endomychid species described from El Hierro (Canary Islands) are removed from the Canarian fauna: *Dapsa hierrensis* Franz, 1976 is a synonym of *Archipines intricata* (Gorham, 1889), **nov. syn.**, and the single specimen (holotype) was probably collected in Central America. *Dapsa curta* Franz, 1976 is also poorly described and based on a single female. Without a male it is not possible to assess with full confidence if it belongs to the African genus *Danae* or more probably to the Oriental genus *Tragoscelis*, and to which species. It is for sure not a *Dapsa* and its Canarian origin relates probably to another labeling error of the author, who also collected in Borneo, where this latter genus is present with 5 species. Consequently, *Dapsa curta* Franz, 1996 is proposed as **nomen dubium**. Furthermore, three genera are recorded for the Canaries for the first time: *Silpha puncticollis* Lucas, 1854 (Silphidae), the coffee bean borer *Araecerus fasciculatus* (DeGeer, 1775), and *Bruchela rufipes* (Olivier, 1790) both Anthribidae. Only the latter species can be considered as native; the other two are introduced recently and the Coffee bean weevil could become a pest.

Keywords: New synonym; *Nomen dubium*; Canary Islands; Endomychidae; Silphidae; Anthribidae; Coffee bean weevil; Introduced species.

RESUMEN

Algunas adiciones y correcciones a la fauna de coleópteros de las islas Canarias

Dos especies de endomíquidos descritos de El Hierro (islas Canarias) se eliminan de la fauna canaria: *Dapsa hierrensis* Franz, 1976 es una sinonimia posterior de *Archipines intricata* (Gorham, 1889), **nov. syn.**, y el único ejemplar conocido (holotipo) fue colectado probablemente en América Central. La descripción de *Dapsa curta* Franz, 1976 es muy pobre y se basa en una única hembra. Sin conocer el macho es imposible determinar con garantías si se trata del género *Danae* o, lo más probable, del género oriental *Tragoscelis*, o a cuál de sus especies pertenece, si no es nueva. Es seguro que no se trata de una *Dapsa* y el presunto origen canario radica seguramente en otro error de etiquetado del autor, que también colectó en Borneo, donde se conocen cinco especies de *Tragoscelis*. En consecuencia, se propone *Dapsa curta* Franz, 1996 como **nomen dubium**. Por otra parte, *Silpha puncticollis* Lucas, 1854 (Silphidae), y dos Anthribidae: el gorgojo del café *Araecerus fasciculatus* (DeGeer, 1775), y *Bruchela rufipes* (Olivier, 1790) son especies y géneros que se citan por primera vez para las Canarias. Solo la segunda de las especies puede considerarse nativa, mientras que las otras dos son introducciones recientes, y el gorgojo del café podría convertirse en una plaga.

Palabras clave: Nueva sinonimia; *Nomen dubium*; Islas Canarias; Endomychidae; Silphidae; Anthribidae; Gorgojo del café; Especies introducidas.

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The genus *Dapsa* Latreille, 1829 is known from the western Canary Islands with single-island vicariant endemics: *Dapsa edentata* Wollaston, 1864 on Tenerife, *Dapsa grancanariensis* Palm, 1974 on Gran Canaria, *Dapsa palmaensis* Franz, 1979 on La Palma, and a new species pending description by R. García, on the island of La Gomera. In 1996, Dr. Herbert Franz (1908-2002) published the results of his many years of collecting coleoptera on the island of El Hierro, where he lived during the winter in his later years. In this compilation work he described, among others, two new species of *Dapsa* based on a single specimen each: *Dapsa hierrensis* Franz, 1996 and *Dapsa curta* Franz, 1996, presumably collected in El Golfo, Mirador de Jinama (25-2-1994) and in Arenas Blancas (14-2-1995), respectively. Since that date nobody has found *Dapsa* on El Hierro, and one locality (Arenas Blancas) a sandy area at the coast, was at least suspicious for a fungivorous insect often found in forest (Shockley *et al.*, 2009a).

In order to clarify the mystery of these two *Dapsa*, Dr. Harald Schillhammer from the Naturhistorisches Museum in Wien kindly arranged a loan of the holotypes which are kept in the Franz Collection. The results of our study are presented in this short note as well as notice of three species recently collected in the archipelago: one silphid and two anthribids, belonging to three different genera, which are recorded in the Canary Islands for the first time.

***Dapsa hierrensis* Franz, 1996**

The original description by Franz is very poor and limited to comparing some characters with those of the other Canarian *Dapsa*. Measurements or images were not provided. The holotype and single specimen known (length = 4.1 mm; right antenna missing), proved to be a female of *Archipines intricata* (Gorham, 1889), **nov. syn.**, according to the detailed description included in the review of this genus by Tomaszewska (2002). This species is a member of the subfamily Lycoperdinae known from Colombia, Guatemala, Honduras, Panama and Mexico. At the very least Franz collected in Colombia and Mexico, and we obviously face a labelling error, which unfortunately was not infrequent in the last years of the aged Austrian entomologist. The synonymy is confirmed and the species has to be removed from the catalogue of the Canarian fauna.

***Dapsa curta* Franz, 1996**

The original description fits the holotype well except for the body measurements. The maximum length and width are 2.8 and 1.3 mm, respectively, and not 1.20 and 0.25 mm as stated by the author. Franz places his species in the genus *Dapsa* without mentioning the ventral

characters (prosternal process, for instance), the presence of wings, or the proportions of the antennomeres which contradict this assignment. In endomychid Lycoperdinae, the male is usually the bearer of good diagnostic characters and since the holotype of *Dapsa curta*, is a female and the only known specimen, I was unable to identify the genus. The ventral structures pointed to the vicinity of *Danae* Reiche, 1847, but the pronotum does not have long pilosity or lateral raised and broadly bordered margins, which is the normal case. Thus, I forwarded the holotype to Dr. Wioletta Tomaszewska (Museum and Institute of Zoology of the Polish Academy of Sciences, Warszawa), specialist of the group, who pointed to the genus *Tragoscelis* Strohecker, 1953, but not fully closing the possibility of it being a *Danae* (both are Stenotarsinae). There are 8 species of *Tragoscelis* known to date, all from the Oriental Region: 5 of them were described from Borneo, one from Mindanao (PI), one from Malaysia and one from Myanmar (Shockley *et al.*, 2009b). Without having a male specimen, it is almost impossible to ascertain to which species it belongs, if it is a new one, or even an abnormal *Danae*. These uncertainties justify proposing *Dapsa curta* Franz, 1996 as **nomen dubium** under Art. 75.5 of the ICZN, and it also has to be removed from the catalogue of the Canary Island fauna. Franz collected in Borneo and the probability of facing another labeling error is high.

***Silpha puncticollis* Lucas, 1846**

Since 2010, the presence of *Silpha puncticollis* in the city of La Laguna and surroundings, on the island of Tenerife, suggest that this species has been introduced recently and has successfully settled. Until now, large Silphidae were represented in the archipelago (La Palma and Tenerife) by three species of the endemic genus *Heterotemna* Wollaston, 1854. *Silpha puncticollis* is easy to distinguish from them by its dense, fine and uniformly punctured pronotum with thick and reflexed borders, and the absence of protuberances or carina on its disk.

MATERIAL EXAMINED: Tenerife, La Laguna, 600 m, 1 ex 25-5-2010 leg. A. Machado; Guamasa 6 exx 10-3-2011 leg. A. Machado; Cercado Mesa (La Laguna) 1 ex 20-6-2011 leg. P. Oromí ; Avda. La Trinidad (La Laguna) 2 exx 20-3-2011, Barrio del Coromoto (La Laguna), 1 ex 25-5-2011 leg. R. García; Instituto de Productos Naturales (La Laguna), 1 ex 8-5-2012 leg. H. López. El Cardonal (Taco) 1 ex 25-3-2012 leg. E. Morales. The specimens have been collected in the streets or inside houses, as well as from gardens and fields in a suburban environment.

***Araecerus fasciculatus* (De Geer, 1775)**

The coffee bean weevil/borer (Anthribidae: Choraginae), with the name *Araecerus fasciculatus* (De Geer, 1775) resurrected by Valentine (2005), is widely

distributed in the tropical and subtropical regions of the world, and a well-known pest of the coffee tree, whereas it feeds on many other species like corn, cocoa beans, legume seeds, tubercles and dry fruits (Childers & Woodruff, 1980; Valentine 1998). Two specimens of this species have been collected in Tenerife, in the Escuela de Capacitación Agraria (Agriculture Training School) at Valle de Guerra: one on corn (*Zea mais*) obtained at an experimental field in February 2012 (leg. A. Carnero), and the other one a month later found by myself in the same farm on a different field planted with several tropical trees. The weevil was in leaf-litter under a medium sized breadfruit tree (*Artocarpus altilis*, Moraceae). Swezey (1949) reported the coffee bean weevil as a pest of this species in Hawaii. Breadfruit trees are a curiosity in the Canary Islands and coffee is commercially cultivated only on the island of Gran Canaria. However, stored products could be a feasible target for this pest allowing it to spread in the islands, as well as corn or papaya, which seems to be also a valid host for the species as recently reported from the Philippines (Caasi-Lit & Lit, 2011). There are reasons for concern about this potential pest being settled in the Canary Islands, and contention measures should be taken at this initial phase of colonization. The lower parts of the Canary Islands have environmental conditions conducive to *Araecerus fasciculatus* completing its biological cycle outdoors.



Fig. 1.— *Araecerus fasciculatus* (De Geer, 1775).

Bruchela rufipes (Olivier, 1790)

According to available catalogues (Kocher, 1958; Alonso Zarazaga, 2013) there are 15 species of *Bruchela* Dejean, 1821 (Anthribidae) inhabiting Morocco, but the genus has not been cited from the Canary Islands. I have found *B. rufipes rufipes* (Olivier, 1790) on the two eastern islands in natural habitats: in a cliff on *Reseda luteola* (Resedaceae) in Lanzarote, and in the stony arid planes of the peninsula of Jandía, in Fuerteventura, on *Carrichtera annua* (Brassicaceae). In both cases the insect was abundant and feeding on pollen. The species has a Mediterranean distribution and has expanded to the north of Europe (Morris, 1990). It can fly actively and is known from Morocco. The distance from Fuerteventura to the coast of Africa is only 110 km. However, its abundance (every flowering *Carrichtera* was infested) and presence in different separate years suggest a sedentary population of native origin.

Bruchela rufipes is known to be somewhat variable, mainly in coloration. In the Canarian specimens the first articles of the antenna are reddish (the same as the clypeus), and the three last articles are more or less infuscated, only the last one being constantly dark; the front legs are uniformly reddish-testaceous (tarsi included), the middle legs are dark or at least partially blackish (particularly the femora), and the hind legs are completely or almost completely black. I have checked my specimens with abundant Central-European material kept in the National Museum in Prague, and the variation observed covers the mentioned details. The male genitalia is exactly as described and illustrated by Lyal & Barclay (2001), with long parameres, correcting the wrong and misleading drawings of Hoffmann (1945, figs. 303-304). It is also worth mentioning that the last abdominal ventrite of the male depicted by the French author (op. cit. fig. 274-275) seems to correspond to a different species, not to *B. rufipes*. My impression is that the separation of *B. rufipes rufipes* (Olivier, 1790) and *B. rufipes nigratarsis* (Reitter, 1916) as subspecies is not supported by constant characters.

MATERIAL EXAMINED: Lanzarote, Risco de Famara (north face) 300 m, 28 exx 15-4-1986 leg. A. Machado. Fuerteventura, Valle de los Mosquitos (Jandía) 50 m, 54 exx 6-3-2011 leg. A. Machado.

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