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Article in *Zootaxa* · June 2008

DOI: 10.11646/zootaxa.1781.1.6

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A new synonym and new records of Tychiini (Coleoptera, Curculionidae) from Madeira Archipelago and Selvagens Islands

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Tychius bicolor Brisout, 1862 and *Sibinia arenariae* Stephens, 1831 are reported from the Archipelago of Madeira, respectively Madeira and Porto Santo, for the first time. Two additional specimens of *T. filirostris* Wollaston, 1854, known previously from only two specimens from Porto Santo, were examined. Following the study of these specimens and others from the Canary Islands (Tenerife, La Palma) and Selvagen Pequena, *T. colonnellii* Caldara, 1991 from Tenerife is proposed as a junior synonym of *T. filirostris*.

The archipelagos of Macaronesia (Madeira, Azores, Selvagens, Canary Islands and Cape Verde Islands) represent one of the richest areas for endemic species in Europe. Although some genera, especially of beetles, have there undergone considerable radiation, the tribe Tychiini, which in the Palaearctic region comprises about 250 species, is poorly represented in Macaronesia. Its archipelagos harbour only 13 species belonging to the only two genera known in the Palaearctic region, *Tychius* Germar, 1817 and *Sibinia* Germar, 1817. Among these species only three are endemic, the others being mainly of European, Mediterranean and North African distribution. Up to now, in the Macaronesian archipelagos Tychiini are unknown from the Cape Verde Islands and Selvagens, whereas the group has its largest number of species in the Canaries (10), followed by the Azores (2) and Madeira (1). The only species of Tychiini reported so far from Madeira is *T. filirostris* Wollaston, 1854, which was only known from two females collected on the island of Porto Santo and is seemingly endemic to this archipelago.

This study reports new material of *T. filirostris* and two new species records from the Madeira archipelago: *Tychius bicolor* Brisout, 1862 from Madeira and *Sibinia arenariae* Stephens, 1831 from Porto Santo. In addition, examination of Wollaston's holotype and two new specimens of *T. filirostris* and their comparison with the holotype, paratypes and other specimens of *T. colonnellii* Caldara, 1991 from the Canary Islands (Tenerife, La Palma) and Selvagen Pequena (new record) have led to the establishment of a new synonymy. Thus, *T. colonnellii*, considered endemic to the Canary Islands archipelago, is sunk into synonymy with *T. filirostris*. A checklist of all the species of Tychiini present in the archipelagos of Macaronesia is presented.

Tychius filirostris Wollaston

Tychius filirostris Wollaston, 1854: 346; 1857, 111; Caldara 1990: 142.

Tychius colonnellii Caldara, 1991: 185 **syn. n.**

Material examined. Porto Santo, Campo de Cima, 3.vi.2000, leg. D. Agúin Pombo, 1 male, 1 female (coll. University of Madeira).

The two new specimens differ a little from each other, since the male is characterized by elongate subrectangular elytra and a dorsal vestiture of nearly unicolorous whitish-grey scales, whereas the female has shorter, oval elytra and the dorsal vestiture medially with reddish brown scales and laterally with whitish ones. Due to these characters, the female is very similar to the holotype of *T. filirostris* as redescribed by Caldara (1990), whereas the male seems intermediate between the holotype of *T. filirostris* and that of *T. colonnellii*, a taxon described from Teno at Tenerife and collected on *Lotus glaucus* Aiton (Caldara 1991). The same variability was found in other short series of specimens from the Canary Islands examined after the description of *T. colonnellii*; those collected in Tenerife (Lomo del Mormillo, on *Lotus* sp., leg. M.G. Morris) are similar to the holotype of *T. filirostris* whereas those collected at La Palma Island (Tagoja Mt., on

Lotus campylocladus Webb & Bert., leg. M.G. Morris) are more similar to the type series of *T. colonnellii*. Due to a lack of differences other than the shape of the elytra and the colour of the dorsal vestiture, we interpret all these specimens as belonging to a single variable taxon, the holotypes of *T. filirostris* and *T. colonnellii* representing the two extremes of the range of its variability. We therefore conclude that *T. colonnellii* is a junior synonym of *T. filirostris*. Moreover, it is noteworthy that we examined also one male *Tychius* specimen collected on Selvagen Pequena Island (leg. A. Serrano), from where no species of *Tychius* were previously reported; this specimen has a very dense elytral vestiture but is otherwise similar to the holotype of *T. filirostris*.

TABLE 1. Tychiini of Macaronesia archipelagos: distribution and references. Abbreviations: Madeira (Ma); Canary Islands (Ca); Selvagens (Sel); Azores (Az).

| Species | Ma | Ca | Sel | Az | Distribution | References |
|--|----|----|-----|----|-----------------------|--|
| <i>Tychius (Tychius) antoinei</i> Hustache, 1932 | | x | | | North-west African | Caldara, 1990 |
| <i>T. (T.) bicolor</i> Brisout, 1862 | x | | | | South Palaeartic | this work |
| <i>T. (T.) cuprifer</i> (Panzer, 1799) | | | | x | South-west Palaeartic | Borges <i>et al.</i> , 2006 |
| <i>T. (T.) depauperatus</i> Wollaston, 1864 | | x | | | North African | Wollaston, 1864; Caldara, 1990 |
| <i>T. (T.) elongatulus</i> Desbrochers, 1897 | | x | | | South Mediterranean | Caldara, 2007 |
| <i>T. (T.) filirostris</i> Wollaston, 1854 | x | x | x | | endemic | Wollaston, 1854, 1857 (Ma); Caldara, 1991 (Ca); this work (Ca, Ma, Sel) |
| <i>T. (T.) picirostris</i> (Fabricius, 1787) | | | | x | Holarctic | Borges <i>et al.</i> , 2006 |
| <i>T. (T.) stephensi</i> Schönherr, 1836 | | x | | | Holarctic | Machado & Oromi, 2000 |
| <i>T. (T.) striatulus</i> Gyllenhal, 1836 | | x | | | Mediterranean | Caldara, 1990 |
| <i>Sibinia (Dichotychius) albosquamosa</i> Pic, 1904 | | x | | | South Mediterranean | Caldara, 1979 |
| <i>S. (D.) planiuscula planiuscula</i> Desbrochers, 1873 | | x | | | Mediterranean | Caldara, 1979 |
| <i>S. (Sibinia) arenariae</i> Stephens, 1831 | x | x | | | South Palaeartic | Morris, 2007 (Ca); this work (Ma) |
| <i>S. (S.) sericea</i> Wollaston, 1864 | | x | | | endemic | Wollaston, 1864; Caldara, 1984 |

The two specimens from Porto Santo were collected on the north-eastern coast of the island on grasses growing on sandy ground near a cliff, at about 90 m altitude and close to a garbage station. Porto Santo is a tourism resort, mainly for habitants of Madeira, but recently there has been intensive construction to increase the number of hotels and other facilities (e.g., golf courses, roads, etc.) to attract foreign tourism. This has resulted in great modification of natural habitats. Coastal habitats, especially those of *T. filirostris*, are under great pressure and measures should be undertaken to avoid the loss of this species on this Island.

***Tychius bicolor* Brisout**

Tychius bicolor Brisout, 1862: 772; Caldara 1990: 178.

Material examined. Madeira, Ajuda, Funchal, 50 m, 18.v.2003, leg. R.A. Reis, 1 male (coll. University of Madeira).

This species has a large southern Palaeartic distribution, being known from the Iberian Peninsula and Morocco in the west to Afghanistan in the east (Caldara 1990). However, up to now it has never been reported from Macaronesia. In

France and Italy it lives on *Melilotus* spp., usually *M. officinalis* L. (Caldara 1990), but it has also been collected on *Astragalus monspessulanus* L. (Hoffmann 1954) in France. At the end of April 2007 we visited Ajuda and located several flowering plants of *M. officinalis*, but unfortunately without being able to collect any weevils on them.

Sibinia arenariae Stephens

Sibinia arenariae Stephens, 1831: 58; Caldara 1985: 74; 1987: 39; Morris 2007: 10.

Material examined. Porto Santo Island, Pico do Maçarico, 12.iii.2006, leg. M. Tedeschi, 2 females (coll. Tedeschi).

This species is widespread in the whole Palaearctic Region except for Japan (Caldara 1985, Caldara 1987) but has also never been reported from the Madeiran Archipelago. Morris (2007) recently re-examined specimens collected in the Canary Islands (Lanzarote) identified as *S. primita* (Herbst, 1795) and reported under this name in the checklist of Machado & Oromí (2000), and he concluded that they actually represent *S. arenariae*. In 1995 and 2005 he had collected other specimens of *S. arenariae* from a number of localities in Lanzarote. In Europe and North Africa this species lives on various species of *Spergularia* and *Spergula*. It was collected in the south-eastern part of Porto Santo near the coast on Pico Maçarico at 285 m altitude, by netting low grasses growing on sandy ground (Tedeschi pers. com.).

Acknowledgments

We wish to thank Michael G. Morris (Natural History Museum, London) and Michele Tedeschi (Milan) for allowing us to use their material and the former also for some corrections on the manuscript.

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