

Short Note | Nota Breve

## A recent record of *Cymindis alutacea* Wollaston, 1867 (Coleoptera: Carabidae) from São Nicolau, Cape Verde Islands

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The ground beetle genus *Cymindis* is the most species rich amongst genera in the carabid subtribe Cymindidina (tribe Lebiini). Four subgenera are often recognized, i.e. *Cymindis* (*sensu stricto*) Latreille, *Afrotarus* Jeannel, *Taridius* Chaudoir and *Pinacodera* Schaum. *Cymindis* (*sensu stricto*) has a predominately

Holarctic distribution (Hunting 2013) and includes *Cymindis alutacea* Wollaston, *C. dohrnii* Wollaston and *C. anchomenoides* Wollaston (the last one sometimes placed in *Tarulus* Bedel, either ranked as a genus or a subgenus), all three endemic to the Cape Verde Islands (Geisthardt 1988, 1996).



Fig. 1. Satellite image with yellow marker indicating the site where the two specimens of *Cymindis alutacea* were collected in São Nicolau, providing some context of the locality with regard to altitude (Google Earth).

During ornithological research in the island of São Nicolau, Cape Verde Islands, two ground beetles (Carabidae) were collected from under stones in Parque Natural do Monte Gordo, ca. 1 km from the village of Cachaço (Fig. 1 & 4), 5 January 2014. The specimens (now deposited in the author's private collection; Fig. 3) were collected at approximately 16°37'11"N, 24°20'37"W by fellow research assistant Andrew Power and the author. The altitude of the location was subsequently determined to be 984 m, using the online resource Daft Logic <http://tinyurl.com/abv4lx>. Upon return to the United Kingdom, the specimens were taken to the Natural History Museum (BMNH) in London for identification. The collection of Thomas Vernon Wollaston forms the major catalogue of the coleopterous fauna from the Cape Verde Islands and the two specimens collected in January 2014 were compared to specimens from Wollaston's collection. These were collected by John Gray and the Rev. R. T. Lowe during a six weeks long sojourn in the Cape Verde Islands, from mid February to early April 1864, aboard

the yacht *The Garland*. Wollaston himself was in the Cape Verde Islands, together with Gray and Lowe and aboard the same yacht, in January and February 1866, but he did not visit São Nicolau.

The recent specimens were clearly similar to those of *Cymindis alutacea* in the Wollaston collection. Further comparison of the specimens collected in 2014 with Wollaston's specimens under a microscope revealed the following characters (the combination of which is considered diagnostic for *C. alutacea*) were identical: antennal segments 1 to 4 sparsely pubescent, segments 5 to 11 densely pubescent, antennal segments 5 to 11 slightly darker than segments 1 to 4, mandibles produced forward, two setae on the inner margin of each eye, 2 to 3 legions between the frons and each eye, light but dense punctuation in the pronotal foveae, front angles of the pronotum slightly produced, pronotum with visible microsculpture, pronotal hind angles slightly toothed, scutellum on the waist, shoulder of elytra evenly rounded, claws toothed internally, femora, tibia and tarsi unicolourous pale brown.



Fig. 2. Specimens of *Cymindis alutacea* in the Thomas Vernon Wollaston collection housed at the Natural History Museum (BMNH), London; the far left specimen is the type. Fig. 3. One of the specimens of *Cymindis alutacea* collected at Monte Gordo, São Nicolau, 5 January 2014, in the private collection of the author (photos by Joshua Jenkins Shaw).



Fig. 4. Habitat near the collecting site of *Cymindis alutaceus*, Parque Natural do Monte Gordo, São Nicolau, Cape Verde Islands, 5 January 2014 (photo by Joshua Jenkins Shaw).

In the Wollaston collection, *Cymindis alutacea* is labelled as *Cymindis alutaceus* under the following taxonomy: Subf. Lebiades.: Platytarus, Fairm.: Faminii, Dej.: *Tarus*, Clairv.: *Cymindis*, Latr. Five specimens of *C. alutacea* exist in Wollaston's collection, including the type specimen (Fig. 2). No other specimens of *C. alutacea* are catalogued in the collections of BMNH (Max Barclay *pers. comm.*). The five specimens were all collected in São Nicolau, as indicated by the presence of blue on the bottom right corner of the card on which the specimens are glued. Wollaston (1867: 8) stated about *Tarus alutaceus* n. sp. (= *Cymindis alutacea*): "Several examples of this fine *Tarus* were taken by Mr. Gray and the Rev. R. T. Lowe, from beneath stones, on Monte Gordo, the highest peak in S. Nicolau, during February 1864. Its large size, reddish-brown hue, and alutaceous (but almost unpunctulated) surface, combined with its rather wider and more margined prothorax, and the somewhat more obtusely rounded humeral angles of its slightly wider elytra, will readily separate it from the following two species." The 'two following species' Wollaston referred to are *Tarus dohrnii* Wollaston 1867 and *Tarus anchomenoides*

Wollaston 1867 (both of which are usually placed in *Cymindis* today), collected in Santo Antão and São Vicente, respectively, the former by Heinrich Dohrn of Stettin, who was in the Cape Verde Islands from December 1864 to March 1865 (Groh 2012), the latter by Gray and Wollaston during their visit to the Cape Verdes in 1866. As for *C. dohrnii*, Alluaud (1925: 87) remarked: "Probablement simple variété du précédent" (i.e. *C. alutacea*), but this view has not been endorsed by subsequent workers (cf. Mateu 1964, Geisthardt 1988, 1996). However, it should be noted that Wollaston (1867: 8-9) also reflected on the possibility that *C. dohrnii* "may represent but a permanent insular state of the preceding species [i.e. *C. alutacea*], peculiar to S. Antão", but having only a single specimen at his disposal did "not think it would be safe to treat it practically as such" and "therefore retained it as distinct". Mateu (1964) speculated that *C. alutacea* and *C. dohrnii* share a common ancestor that arrived in the archipelago relatively recently, with the populations in the islands of São Nicolau and Santo Antão only having differentiated after becoming settled on their respective islands.



*C. alutacea* appears to have not been collected or reported alive since Wollaston (1867) and its status was given as 'indeterminate' by Geisthardt (1996). The

specimens collected at Monte Gordo in January 2014 provide evidence that this endemic ground beetle persists at or very close to the type locality.

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