

A new Cetoniinae for the French Polynesia fauna (Coleoptera, Scarabaeidae)

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Abstract. – The Cetoniinae fauna of French Polynesia was restricted until now to a single introduced species, *Protaetia fusca* (Herbst, 1790). A second species is here reported from Tahiti, *Glycyphana stolata* (Fabricius, 1781). *P. fusca* is also reported from the Marquesas Islands for the first time.

Résumé. – Une nouvelle Cétoïne pour la faune de Polynésie française (Coleoptera, Scarabaeidae). La faune des Cetoniinae de Polynésie française, qui ne comprenait jusqu'à présent qu'une espèce introduite, *Protaetia fusca* (Herbst, 1790), compte désormais une seconde espèce, connue en Polynésie pour l'instant de Tahiti seulement, *Glycyphana stolata* (Fabricius, 1781). *P. fusca* est également citée pour la première fois des Marquises.

Keywords. – *Glycyphana stolata*, *Protaetia fusca*, Cetoniini, French Polynesia.

Until now only one species of Cetoniinae was known in French Polynesia, *Protaetia fusca* (Herbst, 1790) (PAULIAN, 1998). This species was reported only from the Society Islands, and it appears that it is also present in the Marquesas Islands.

A second Cetoniinae, *Glycyphana stolata* (Fabricius, 1781), has been collected recently on Tahiti. It seems that *G. stolata* is now settled in French Polynesia and will probably spread in the different archipelagoes.

Abbreviations. – CTR, Thibault Ramage's personal collection, Concarneau ; MNHN, Muséum national d'Histoire naturelle, Paris.

Family **Scarabaeidae** Latreille, 1802

Subfamily **Cetoniinae** Leach, 1815

Tribe **Cetoniini** Leach, 1815

Genus ***Glycyphana*** Burmeister, 1842

Glycyphana (Glycyphaniola) stolata (Fabricius, 1781)

Cetonia stolata Fabricius, 1781 : 58.

Material examined. – **French Polynesia** : 1 ♀, Tahiti, Mahina, Mahinarama, 09.XII.2013, leg. P. Bacchet (CTR) ; 1 ♀, Tahiti, Papeete, Ste Amélie, XII.2013, leg. F. Jacq (CTR) ; **Australia** : 1 specimen, "Museum Paris Collection Léon Fairmaire 1906" / "Euryoma *Glycyphana* Schaum. *brunnipes* Schaum. *conspersus* G et P. N. Holl." / "*Glycyphana stolata* (F.) M. E. Bacchus det. 1972" (MNHN).

Distribution. – Australia (Queensland, New South Wales, Tasmania) (native range), French Polynesia (introduced range).

Biology. – This species is floricolous in the adult stage. In Australia, *G. stolata* has been observed feeding in flowers of 16 species from 6 families (Myrtaceae, Asteraceae, Caprifoliaceae, Combretaceae, Pittosporaceae and Euphorbiaceae) (HAWKESWOOD, 2002).

Observations in French Polynesia. – This species has been collected on Tahiti for now, but as *P. fusca*, it may spread in the Society Islands and on the other archipelagoes in the next decades with the transport of fruits, plants and soil.

Genus *Protaetia* Burmeister, 1842*Protaetia fusca* (Herbst, 1790)*Cetonia fusca* Herbst, 1790 : 257.

Material examined. – 3 ♀, Moorea, 2013, leg. M. Charleux (CTR) ; 1 ♂, Tahiti, 2009 (CTR) ; 2 ♀ and 2 ♂, Tahiti, Punaauia, IX.2012 (CTR) ; 1 ♀, Taha'a, 29.IX.2012 (CTR) ; 1 ♀, Raiatea, Uturoa, 1.X.2012 (CTR) ; 1 ♀, Tahiti, Mahina, Mahinarama, 26.XI.2013, leg. P. Bacchet (CTR) ; 1 ♀, Tahiti, Papeete, Sainte-Amélie, XII.2013, leg. F. Jacq (CTR) ; 1 ♀, Nuku Hiva, XII.2011, leg. F. Jacq (CTR) ; 1 ♀, Tahuata, Vaitahu, 5.IX.2012, leg. F. Jacq (CTR).

Distribution. – China, India, South East Asia, Mauritius, Australia, Micronesia, Guam, New Caledonia, French Polynesia (CARTWRIGHT & GORDON, 1971; DUMBLETON, 1954; PAULIAN, 1991).

Biology. – This species is known to be a pest of mango in Guam (DUMBLETON, 1954) and of hives of honey bees in which it feeds of honey (PAULIAN, 1991). Its larva is also known to be a pest of the roots of some cultivated plants (PAULIAN, 1991).

Observations in French Polynesia. – *P. fusca* has been observed attacking different kinds of fruits in the Society Islands, such as “Barbadine” (*Passiflora quadrangularis* L., 1759) (pers. obs.).

DIAGNOSTIC CHARACTERS

In French Polynesia, *Glycyphana stolata* and *Protaetia fusca* can be easily distinguished one from each other by their habitus and especially the pattern of whitish spots on the pronotum and elytrae (compare fig. 1 and 2). In addition, the brush-like fringe formed by the posterior and lower rows of setae on the hind tibiae at once separate *G. stolata* from all other *Glycyphana* species (BACCHUS, 1974; MIKŠIĆ, 1971).

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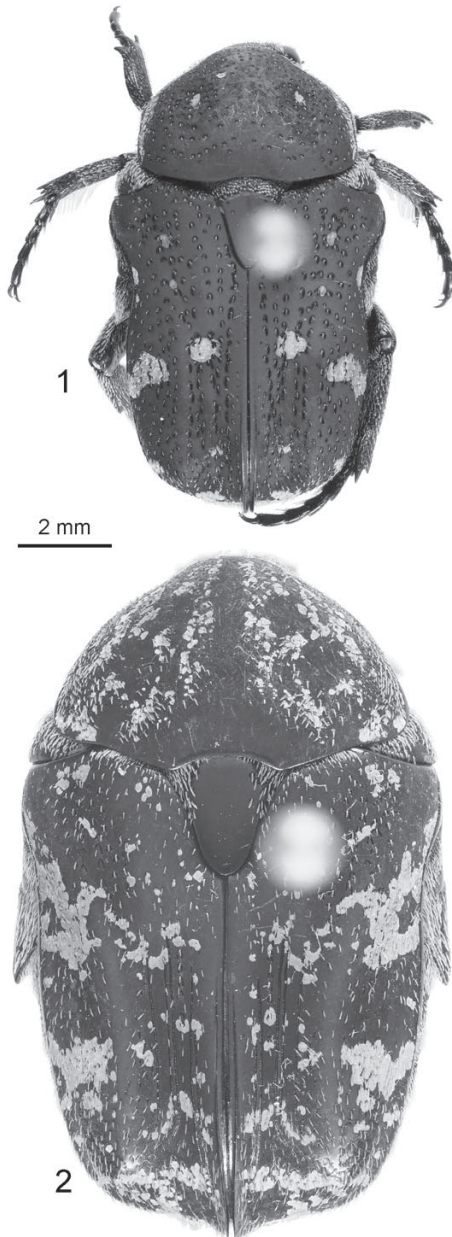


Fig. 1-2. – Cetoniinae of French Polynesia, habitus (♀). – 1, *Glycyphana stolata* (Fabricius). – 2, *Protaetia fusca* (Herbst). (Photos : Th. Ramage).

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Stéphane BOUCHER. – Passalidae of the Mission Vellard to Goiás, Brazil, 1929, with the discovery of *Passalus lunaris* Kaup, living in termite nests (Coleoptera, Scarabaeoidea)

During operations realized in the department of Coleoptera, at the Muséum national d'Histoire naturelle (MNHN), in Paris (2009-2011), I was able to examine samples of the “*Mission du Dr J. Vellard à Goyaz, 1929*”. Jehan Albert Vellard (1901-1996), renowned naturalist and ethnologist, travelled on this occasion in Central Brazil, especially in the State of Goiás, about five months, between July and December (RIVET, 1930; VELLARD, 1931). With his team he stayed at Viannopolis, Goyaz, Leopoldina, Bananal Island on the Araguaya River and Conceição. He reached finally Belém de Pará before returning to Rio de Janeiro.

The mission had for main object “the study of the variations of the fauna” and numerous samples of Zoology were brought back. However, since then there was no registered entomological material in the MNHN. This for a simple fact: the parcel of insects and other terrestrial arthropods, arrived in Entomology in 1931, has never been opened. For unknown reasons, samples were carefully put aside, and then they fell into oblivion, among collections in alcohol.

The small wooden crate labelled “n° 2, Brésil, Région de l’Araguaya, Dr. J. Vellard, Ambassade de France au Brésil” contained several hundred insects of various orders. The updated set is in an average state, especially dry specimens. There are also about twenty alcoholic flasks engraved “Butantan”, the name of the big museum in São Paulo. Three of them contained Passalids, in perfect condition. Two are labelled “region of middle Araguaya”, with the Passalini *Passalus interruptus* (Linnaeus, 1758) [13 ex.], *P. coniferus* Eschscholtz, 1829 [2 ex.], *Toxeutotaenius peruvianus* Kuwert, 1898 [1 ex.] and the Proculini *Veturius sinuosus* (Drapiez, 1820) [2 ex.]. Passalini are classic species for this area, including *T. peruvianus*, which has been mixed up for a long time with other species of the genus (revalided by BOUCHER, 2015), or other genera. The exception is thus *V. sinuosus*, the distribution of which in Goiás being previously unknown. The species is of Guyano-Amazonian origin and penetrates profoundly southward through the Paraguayan Corridor and the gallery forests (BOUCHER, 2006), or “wooded corridors” of VELLARD (1931). The third flask is more interesting as it is labelled “Viannopolis, in termites nest”, with one *Passalus lunaris* Kaup, 1869 (and two instar larvae of 3rd stage) and one Elateridae (and one instar larva of 3rd stage), *Compsoplinthus ruber* (Candèze, 1878). J. Chassain, to whom I owe the last identification, indicates that the species, predatory, can be in termite nests.

P. lunaris is a rather widely distributed species in South America, from the South of the Amazonian Hylaea and from the East of the Andes, but it remains uncommon. The dissection of one of the two larvae from Viannopolis shows that the alimentary canal contains a substratum distinct from that usually found in the family. Particles are not of wood, but are of organic structures close to those of detritus, including carton or likened, of termite nests. The information, crossed with the presence of adult and larva of *C. ruber*,