

**Two new species  
of *Ooencyrtus* (Hym. Encyrtidae)  
parasitic in *Othreis fullonia* (Clerck)  
(Lep. Noctuidae) from  
New Caledonia and western Samoa**

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RÉSUMÉ

Deux nouvelles espèces de *Ooencyrtus* (Encyrtidae), parasites des œufs du Lépidoptère suceur de fruits, *Othreis fullonia*, sont décrites. L'espèce *cochereaui* provient d'œufs récoltés en Nouvelle-Calédonie et l'espèce *crassulus* d'œufs ramenés de Pago Pago, îles Samoa.

MOTS-CLÉS : Hyménoptères — Parasitisme — Encyrtidae — *Ooencyrtus cochereaui* — *Ooencyrtus crassulus* — Noctuidae — *Othreis fullonia* — Nouvelle-Calédonie — Ile Samoa.

ABSTRACT

Two new species of *Ooencyrtus* Ashmead are described, namely *cochereaui* from the eggs of the fruit-sucking moth, *Othreis fullonia*, from New Caledonia and *crassulus* from eggs of the same species on Pago Pago, western Samoa.

KEY WORDS : Hymenoptera — Parasitism — Encyrtidae — *Ooencyrtus cochereaui* — *Ooencyrtus crassulus* — Noctuidae — *Othreis fullonia* — New Caledonia — western Samoa.

The two species described as new in this paper were submitted for determination by M. Paul Cochereau, Office de la Recherche Scientifique et Technique Outre-Mer (ORSTOM), Noumea, New Caledonia, who encountered them as egg parasitoids in the course of his studies on fruit-sucking moths in the area. We have not been able to place these species among those described from south-east Asia (Ferrière, 1931), Australia (Ferrière, 1947) or Islands in the Pacific (Timberlake, 1941), and because names are required by M. Cochereau (Fabres *in litt.* 1976) the species are named and described here.

The two new species are very similar. The one from New Caledonia was determined as *O. malayensis* Ferrière in the United States National Museum, Washington, in 1971, but comparison with a "co-type" of that species received in an exchange with the British Museum (Natural History), London, revealed differences which we regard to be plainly of specific value. Both the new species are small (less than 1,0 mm in length) and apparently differ from described species by the altogether pale legs, including the coxae (except in *sphingidarum* Timberlake, known from the Marquesas

Islands), the squat, compact shape of the body, and the proportions of the antennal funicle in both sexes.

Holotypes and paratypes to be deposited in the ORSTOM collection at Bondy; paratypes in Plant Protection Research Institute, Pretoria.

*OOENCYRTUS COCHEREAUI* sp. n. (figs. 1-4)

FEMALE

Length: about 0,8 mm. Colour: head and body black or dark blackish blue, somewhat shiny, the following parts otherwise: lower part of head including ventral parts of scrobes and of interscrobal prominence and genae, refringent; scutellum dorsally black but with a deep purplish refringence in certain plays of light, laterally polished, gleaming blue-green; gaster blackish brown; antenna brownish white, the scape and pedicel dark brown, each fading slightly at apex; wings hyaline; legs, including coxae yellowish white.

Head a little less than 4,0 times as wide as fronto-vertex, in dorsal view (occiput perpendicular) with anterior margin semicircular, fronto-occipital margin slightly concave, acute; ocelli large, placed in an acute-angled triangle, the lateral pair separated from each other by about twice, and removed from the eye margins by about one-half, an ocellar diameter; head, in frontal view, a little wider than high, the eyes large, longer than malar space; antennal sockets placed below lower level of eyes, removed from mouth margin by about one-half, from each other by about twice, and from eyes by less than twice their greatest diameter; scrobes shallow, polished, convergent but not confluent dorsally, separated by the broadly convex interscrobial prominence. Antenna with scape long and slender, subcylindrical, about five times as long as its greatest width; pedicel more than twice as long as apical width, plainly longer than basal funicle segment; funicle segments each a little longer than wide, I-III of smaller size than IV-VI, subequal; club with three subequal segments, their septa transverse, the whole about as long as funicle segments III-VI together and slightly wider than VI, broadly rounded apically; rhinaria present on funicle segments IV-VI, sometimes also on III, and on all club segments. Mandible (fig. 4) with two teeth, the upper one broadened as a cutting edge. Sculpture of head raised, cellulate-reticulate; eyes densely and finely pubescent.

Thorax gently convex from side to side, the axillae not elevated; mesoscutum about twice as wide as long, its posterior margin with a broad median salient entirely obscuring the mesal union of axillae; the latter in cleared slide-mounted specimens separated by a sulcus; scutellum broader than long; sculpture of mesoscutum finely cellulate-reticulate, the cells of mesoscutum and scutellum dorsally hardly different, as shown in fig. 1; posterolateral parts of scutellum polished, smooth; mesonotum evenly and fairly densely setose, the setae strong; scutellum without setae in about apical one-third except for the suberect apical pair.

Fore wing with marginal vein short, about twice as long as wide, slightly shorter than postmarginal, the latter shorter than and not reaching as far towards wing apex as stigmal; proximal one-half or so of basal triangle of wing disc devoid of setae except for a single row below submarginal vein, and another along caudal wing margin; the triangle setose distad; speculum entire except for a few setae near stigmal vein; wing disc otherwise densely setose to wing apex; marginal fringe with longest cilia about one-half as long as longest setae on marginal vein. Hind wing evenly setose from near base to apex. Legs not especially modified, the middle leg with tibial spur shorter than basal tarsal segment.

Gaster short and broad, heart-shaped in relaxed, slide-mounted specimens; ovipositor (fig. 3) more than one-half as long as gaster, hardly or not extruded at apex, longer than middle tibia (about 9 : 7), about 5,3 times as long as gonostyli, the latter subequal to middle tibial spur.

#### MALE

Colour : as in female. Differs structurally from female as follows : head about 2,5 times as wide as fronto-vertex; ocelli in a strongly obtuse-angled triangle, the lateral pair separated by more than twice and removed from eye margins by less than an ocellar diameter; toruli higher on face, their upper edges above level of lower eye margins; scrobes short, broadly impressed, not confluent dorsally. Antenna (fig. 2) with funicle segment I the shortest, about twice as long as wide, V the longest, slightly longer than VI; club slightly shorter than V and VI together; flagellum with long, slightly curved setae, the longest longer than funicle segment V.

#### MATERIAL EXAMINED

Female holotype, 35 female, 17 male paratypes (National Collection of Insects, Plant Protection Research Institute, accession number T 3803) with the following data : New Caledonia : Sarraméa, iv. 1971, P. Cochereau, ex eggs of *Othreis fullonia* (Clerck). The following additional series has not been included in the type material : same data except locality : Oui Poin, 22 female, 11 males (T 3813).

This species is named for M.P. Cochereau, ORSTOM, who collected the material.

#### *OOENCYRTUS CRASSULUS* sp. n. (figs. 5-7).

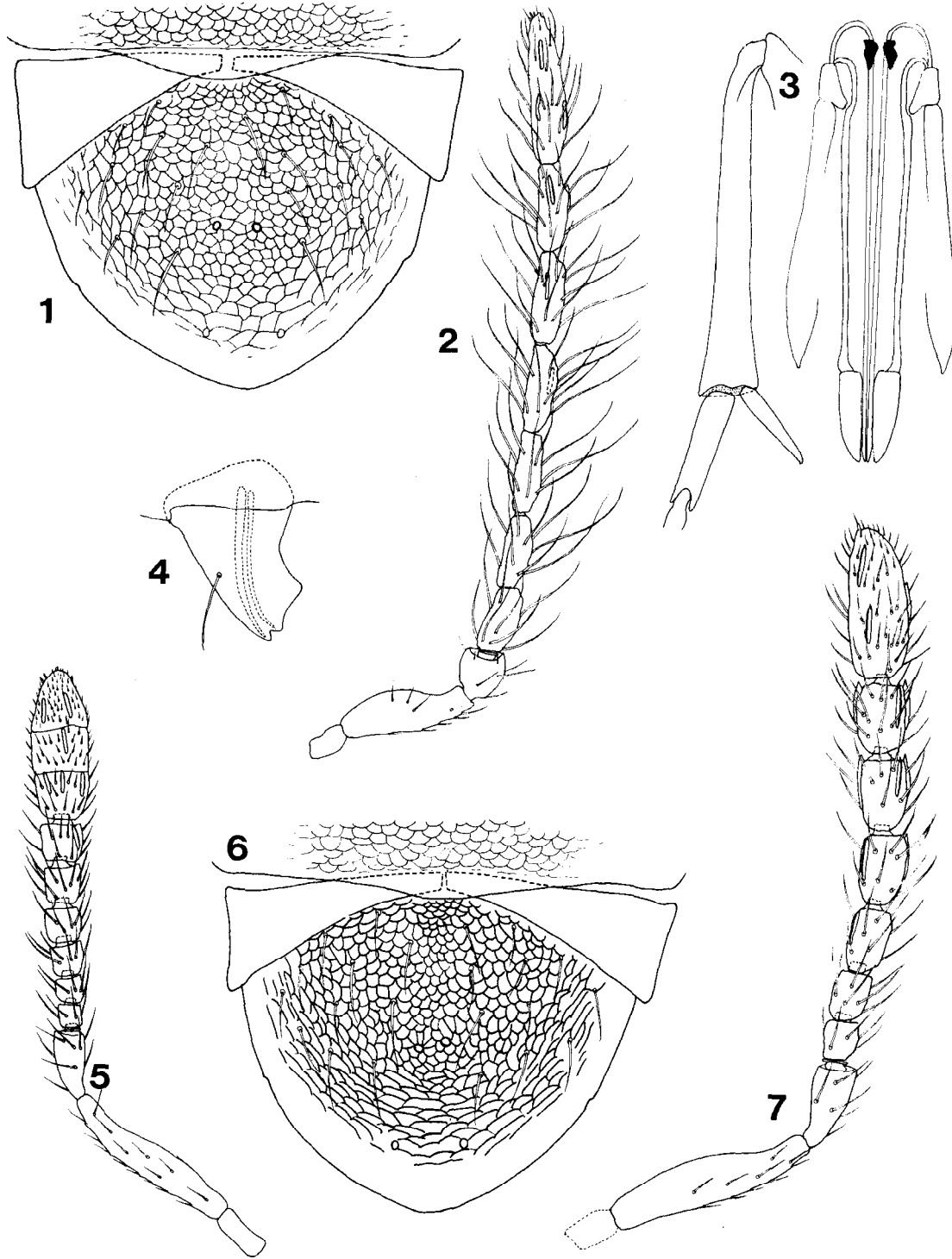
This species resembles *O. cochereau* sp. n. very closely, differing chiefly in mesonotal sculpture and in the proportions and setation of the segments of the male antennal funicle. *O. crassulus* is here described with reference to *O. cochereau*.

#### FEMALE

Colour : head and body black with blue refringence in certain plays of light. Length : 0,8 mm.

Structurally very similar to *cochereau*; antenna as shown in fig. 5; scutellum (fig. 6) with sculpture

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Figs 1-7. — *Ooencyrtus* spp. 1-4. *O. cochereaui* sp. n., paratypes: 1. Scutellum and apex of mesoscutum, showing sculpture, female (T 3803-2); 2. Antenna, male (T 3803-6); 3. Ovipositor and middle tibia, drawn to the same scale, female (T 3803-2); 4. Mandible, female (T 3803-1). 5-7. *O. crassulus* sp. n., paratypes: 5. Antenna, female (T 5092-3); 6. Scutellum and apex of mesoscutum, showing sculpture, female (T 5092-2); 7. Antenna, male (T 5092-4).

raised, giving a plainly shagreened effect at 100 X magnification, contrasting with mesoscutum of which the surface is shiny like that of head. Gaster short and broad with ovipositor in relaxed slide-mounted specimens extending from the level of about apical one-third of scutellum, slightly extruded caudally, longer than middle tibia (8 : 7), about 5,3 times as long as gonostyli, the latter subequal to middle tibial spur.

#### MALE

Colour as in female. Differing structurally from the male of *O. cochereaui* in mesonotal sculpture and antenna. Antenna (fig. 7) with basal funicle segments generally shorter, I and II each slightly longer than wide, III-VI subequal, approximately 1,5 times as long as wide; funicle with setae stronger and distinctly shorter, not as long as the longest funicle segment.

#### MATERIAL EXAMINED

Female holotype, 62 female, 24 male paratypes (T 5092) with the following data : Samoa : Taputimu, iii. 1975, I. Swan, ex eggs of *Othreis fullonia* (Clerk).

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