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Revision of the genus *Pelecinobaccha* Shannon, description of *Relictanum* gen. nov., and redescription of *Atylobaccha flukiella* (Curran, 1941) (Diptera: Syrphidae)

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Abstract

Recent phylogenetic analyses of *Ocyptamus* Macquart, 1834 (Diptera, Syrphidae) confirmed the paraphyly of this genus and provided evidence to divide it into several monophyletic subgroups, of which the largest is the clade traditionally treated as the *Ocyptamus tristis* species group. This group is here redefined, divided into the genera *Pelecinobaccha* Shannon, 1927 and *Relictanum* **gen. nov.**, and revised along with the closely related and newly resurrected genus *Atylobaccha* Hull, 1949. Twenty-four new species (22 in *Pelecinobaccha* and two in *Relictanum*) are described and 35 species (27 in *Pelecinobaccha*, seven in *Relictanum* and *Atylobaccha flukiella* Curran, 1941) are redescribed. *Pelecinobaccha* is divided into four species groups (*P. adspersa* species group, *P. brevipennis* species group, *P. peruviana* species group and *P. susio* species group). An identification key, illustrations and distribution maps for all species from this study are also presented.

Key words: systematics, taxonomy, flower flies, hover flies

Introduction

Ocyptamus Macquart, 1834 is the second most speciose genus (~300 spp.) of Syrphidae in the Neotropical Region [the first being *Copestylum* Macquart, 1846 (~320 spp.)] (Thompson 1999) and is closely related to the genera *Eosalpingogaster* Hull, 1949a and *Toxomerus* Macquart, 1855 (Mengual *et al.* 2008; Mengual & Thompson 2011). Some recent phylogenetic studies place *Eosalpingogaster* and *Toxomerus* within *Ocyptamus*, rendering the latter paraphyletic (Mengual *et al.* 2008; Mengual *et al.* 2011; Miranda 2005; Miranda 2011) and thus indicating that the definition of the genus *Ocyptamus* should be re-evaluated. The paraphyly could be resolved by either expanding *Ocyptamus* to include *Eosalpingogaster* and *Toxomerus*, or by breaking *Ocyptamus* into smaller monophyletic genera and narrowing *Ocyptamus sensu stricto* to a defined clade. This paper is a step in the latter direction.

We recognize three monophyletic groups that can be logically separated from the paraphyletic *Ocyptamus* and treated as named genera. One of these (*Pelecinobaccha* Shannon, 1927) is made up of species with highly modified female genitalia, one (*Atylobaccha* Hull, 1949a) is a monotypic group of flies with no facial tubercle and one (*Relictanum* gen.nov.) is made up of small dark petiolate species with setulose female cerci. Even with the removal of these three taxa, *Ocyptamus* remains a paraphyletic assemblage and will remain so until the formal recognition of further former *Ocyptamus* subgroups as separate taxa in a forthcoming paper.

Ocyptamus currently includes most of the New World species previously allocated to the genus *Baccha* Fabricius, 1805 (Thompson *et al.* 1976), except for *Baccha elongata* (Fabricius, 1775) and *Pseudodoros clavatus* (Fabricius, 1794). Hull (1943a, 1949a) suggested an outline of sub-generic divisions and depicted a 'putative evolutionary development scheme' based on abdominal characters. The only subsequent paper dealing with generic/subgeneric classification of *Ocyptamus* is Thompson & Zumbado's (2000) treatment of the subgenus *Mimocalla* Hull, 1943a. Among the species group of Hull's *Baccha sensu stricto*, we chose to revise Hull's *O. tristis* group (= *Pelecinobaccha* Shannon and *Relictanum* Miranda **gen. nov.**) along with the superficially similar, and closely related (Miranda 2011), *Atylobaccha*.

***Relictanum shropshirei* (Curran, 1930) comb. nov.**
Map 1. Figure 45 (f–h).

Baccha shropshirei Curran, 1930.—Curran, 1930: 7. Type locality: Panama, Canal Zone. Holotype female AMNH. Hull, 1949a: 241 (fig. 231, abdomen), 283 (fig. 386, wing)
Ocyptamus shropshirei. Thompson *et al.*, 1976: 27 (catalog citation).

Male. Male unknown.

Female: As in *R. braziliensis* but wing entirely microtrichose and dark on basal ½ (dark on cells bc, c, sc, r, bm, cu*p*, most of anal lobe, most of cua_1, basal ½ of r_1, basal ¼ of r_{2+3}, base of r_{4+5} and basal ⅓ of dm). The female 7th sternite is distinctly sclerotized, the 8th tergite is narrower, and the 10th tergite is narrow, strongly convex posteriorly and with fewer setulae.

Length. 6.5–7mm; wing 5–5.5mm.

Distribution. Mexico (Veracruz), Panama (Canal Zone), Venezuela (Zulia).

Material examined. MEXICO. Veracruz, Acayucan, Frank M. Hull Collection C.N.C. 1981, 23 Oct 1957, R. & K. Dreisbach (1 ♀, CNC Diptera 161210). PANAMA. Canal Zone, Corozal, Type Baccha shropshirei Curran [red label], 16 Jan 1929, C. H. Curran (1 ♀, holotype *Baccha shropshirei*, AMNH). VENEZUELA. Zulia, El Tucuco (45 km SW of Machiques), 5–6 Jun 1976, A. S. Menke & D. Vincent (1 ♀, USNM ENT 00257662); ..., Los Angeles del Tucuco, 15–16 Apr 1981, A. S. Menke & L. Hollenberg (1 ♀, USNM ENT 00257665).

Comments. The wing differences between the types of *B. braziliensis* and *B. shropshirei* were noted by Reemer (2010) as well, where he stated on page 186 that "These specimens were compared with the holotype of *B. braziliensis* [...] However the following differences were noted (in parentheses the character state in the Mapane specimens): wing with bare areas on cells r, bm and cu*p* (entirely microtrichose), wing with vague yellowish anteromedial blotch (infuscated on basal half), pterostigma clearly darker than 2nd costal cell (pterostigma and 2nd costal cell of same yellowish brown colour). [...] they are identified as *O. shropshirei*, with which they agree quite well".

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