

## On some West Indian *Mimetus* and *Lyssomanes* (Araneae: Mimetidae, Salticidae)

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### Summary

A male *Mimetus* from Antigua is considered the hitherto unknown male of *M. dimissus* Petrunkevitch, 1930 (stat.nov.); this taxon, described as a local race of *M. interfactor* Hentz, 1850, deserves specific rank. The American *Mimetus* belong to at least three species-groups, each of which may in future deserve generic rank; most non-American *Mimetus* are misplaced. *Lyssomanes portoricensis* Petrunkevitch, 1930 is newly recorded from Antigua and Martinique; *L. michae* n.sp. from Montserrat, very close to *L. portoricensis*, is described.

### Introduction

The material described here was collected by me and my wife during two short research trips to the West Indies in 1973 and 1981 in which we visited the islands of Puerto Rico, Antigua, Montserrat, St Martin, Guadeloupe and Martinique. Very little is known on the spiders of most small Caribbean islands; it should be noted that, at least in those I saw, the environment has been badly damaged, apparently mostly in ancient times. The extensive sugar cane plantations of old are now mostly abandoned and substituted by often overgrazed pastures. In St Martin it was practically useless to collect; in Antigua we found only very meagre and scattered remains of natural (?) vegetation; in Montserrat things were a little better, but owing to lack of roads, it was difficult to reach the small remains of woods. All the material described here is preserved in my collection.

### Family Mimetidae

*Mimetus dimissus* Petrunkevitch, 1930 (stat.nov.) (Fig. 1)

*Mimetus interfactor dimissus* Petrunkevitch, 1930a: 349, f. 239, 240 (♀).

### Material examined

Antigua, surroundings of Nelson's Dockyard, 9 July 1981, P. Brignoli leg., 1 ♂ (beaten from a tree).

### Description of male

Corresponding in most respects to the description given by Petrunkevitch (1930a); in particular the prosomal pattern is identical with that of fig. 239 by Petrunkevitch (op.cit.), the dorsal abdominal pattern is also identical, with six pairs of small black spots in two converging rows, and the curved black lines which run from each spot toward the middle, etc. The eye ratios are as in the original description, but the PLE are a little closer to the PME than reported by Petrunkevitch. There is also the small black spot at the base of the chelicerae. ♂

The only conspicuous difference, which is possibly sex-linked, is the absence in this specimen of the small thorns and stiff bristles on femora I. Male palp: Fig. 1. Measurements (mm): prosoma 1.32 long, 0.98 wide; abdomen 1.38 long. Total length: 2.70 (♀: 4.75 mm).

Leg	Fe	Pa	Ti	Mt	Ta	Total
I	2.50	0.60	2.35	2.12	1.12	8.69 (♀: 12.38)
II	1.82	0.48	1.55	1.67	0.78	6.30 (♀: 9.09)
III	1.10	0.32	0.75	0.82	0.50	3.49 (♀: 5.33)
IV	1.45	0.38	1.15	1.18	0.52	4.68 (♀: 7.34)

### Discussion

Judging by its pedipalp this specimen is close to (but evidently different from) *M. hispaniolae* Bryant, 1948 from S. Domingo. It is not easy to match males and females in the Mimetidae, but both from the general similarity in colouration and for geographical reasons, I prefer to attribute this specimen provisionally to *M. dimissus* Petrunkevitch, 1930a, described from Puerto Rico only on the female as a "local race" of *M. interfactor* Hentz, 1850. The epigyne of *dimissus* is quite distinctive; it was not given specific status by Petrunkevitch because the differences in the structure of the male palp and of the female epigyne (used by Chamberlin, 1923, for distinguishing five North American species of *Mimetus*) were "of little value unless supported by other characters" (sic!). Only one other mimetid is known from the West Indies, *M. portoricensis* Petrunkevitch, 1930, also described from Puerto Rico

and not recorded from any other island; these two species seem not to be closely related.

### The American *Mimetus*

Some preliminary results of my researches on this subject may be of interest. If we consider the structure of the male genitalia of the species included in *Mimetus*, we must conclude that this genus is a dump-heap of unrelated species. There are still some problems on the identity of the type-species (*M. syllepsicus* Hentz, 1832) as shown by Bryant (1946), but I doubt whether anyone would be against the inclusion of this species in what may be called the "*interfector*-group". This species-group was implicitly recognised and well illustrated by Chamberlin (1923); to it belong the five species recognised by that author (three described by him: *M. hesperus*, *M. puritanus* and *M. notius*, and two older ones: *M. interfector* Hentz, 1850 and *M. epeiroides* Emerton, 1882 which is usually con-

sidered a synonym of *M. interfector*) and some other North and Central American species (*M. aktius* and *M. eutypus*, both described by Chamberlin & Ivie, 1935, *M. haynesi* Gertsch & Mulaik, 1940 and *M. verecundus* Chickering, 1947). All share a strongly modified cymbium, which bears short, but normal, spines and denticles, and a long embolus. I would unite in a "*rapax*-group" some species distributed from Mexico to (probably) Brazil, with a smaller cymbium and a long, coiled, embolus (*M. rapax* O. Pickard-Cambridge, 1899, *M. banksi* Chickering, 1947, *M. rusticus* Chickering, 1947 and perhaps *M. brasiliensis* Keyserling, 1886, at least if the male illustrated by Mello-Leitão, 1929, belongs to this species). Finally in Central America and the West Indies there lives a third group ("*variegatus*-group"), rather similar by the cymbium to the *interfector*-group, but with no normal spines or denticles and usually with the curious modified spines shown in Fig. 1; to this group belong *M. dimissus*, *M. hispaniolae* and *M. variegatus* Chickering, 1956: a common

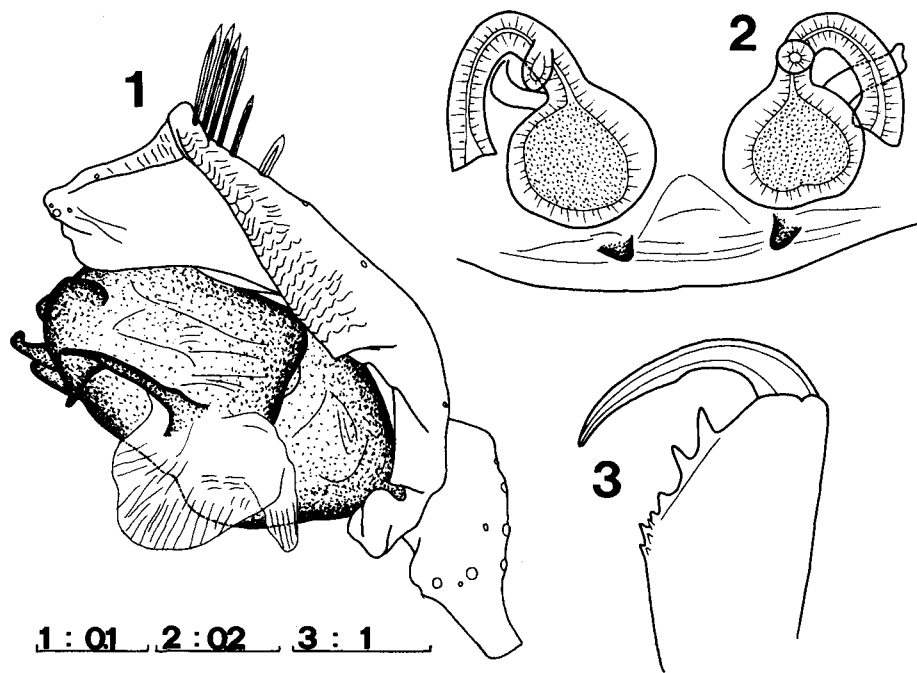


Fig. 1: *Mimetus dimissus* Petrunkevitch, 1930, male pedipalp, lateral view.

Figs. 2-3: *Lyssomanes michae* n.sp. 2 vulva; 3 chelicera. Scales in mm.

character appears to be the shortness of the embolus (not visible in Fig. 1).

A detailed study of the structure of the bulbus is still needed; only in this way shall we be able to appreciate the real value of the modifications of the cymbium, which exist also in a few non-American species, as, for instance, *M. laevigatus* (Keyserling, 1863) of the Mediterranean and *M. testaceus* Yaginuma, 1960 (male illustrated by Paik, 1967) from Japan and Korea. Most African and Australian *Mimetus* seem to have a "normal" cymbium.

In any case, it is well known that in other spider families much smaller differences are sufficient for splitting genera.

### Family Salticidae

*Lyssomanes portoricensis* Petrunkevitch, 1930 (Figs. 5-6, 8-9)

*Lyssomanes portoricensis* Petrunkevitch, 1930b: 112, f. 91-96 (♂♀).

#### Material examined

Antigua, surroundings of Nelson's Dockyard, 9 July 1981, P. Brignoli leg., 1 ♂ (beaten from a tree).

Martinique, Morne Rouge, 24 August 1973, P. Brignoli leg., 1 ♂ (beaten from a bush).

#### Discussion

These specimens correspond well to the redescription of this species given by Galiano (1980); the chelicerae are simple, with no retromarginal boss or tooth; the male from Antigua has a grey streak dorsally on the abdomen.

This species was known previously only from Puerto Rico; no *Lyssomanes* had been recorded until now from the smaller Caribbean islands.

*Lyssomanes michae* n.sp. (Figs. 2-4, 7)

#### Material examined

Montserrat, Soufrière, 11 July 1981, P. Brignoli & M. El Helou leg., 1 ♂ (holotype), 1 ♀ (paratype); both obtained by beating bushes.

Montserrat, northwestern coast of the island, a few km from Plymouth, 12 July 1981, P. Brignoli leg., 1 ♀ (paratype).

### Description

Male and female similar; whole body green in life and yellowish in alcohol. White hairs on clypeus, around AME and between eyerows 2-4; red hairs between eyerows 1-2, around ALE, PLE, PME, behind PLE and on sides of PME; eye sizes: AME: ALE/PLE:PME = 45:24:5; length of ocular area 1.17 mm. Chelicerae with no retromarginal boss or tooth. Male palp with exceptionally long cymbium, terminally club-shaped. Vulva with very short ducts, not coiled. Measurements (mm): Male: prosoma 2.62 long, 1.88 wide; abdomen crushed, not measurable.

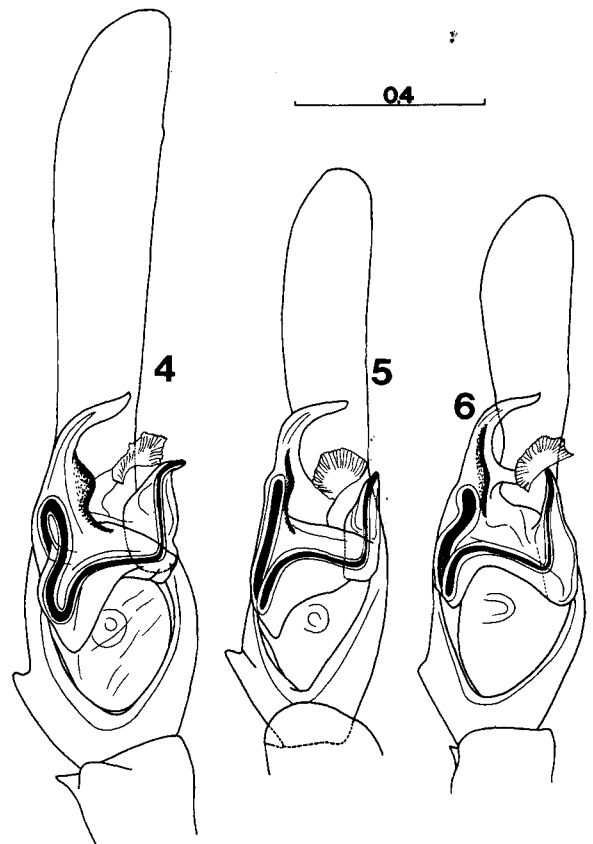


Fig. 4: *Lyssomanes michae* n.sp., male pedipalp, ventral view.

Figs. 5-6: *Lyssomanes portoricensis* Petrunkevitch, 1930, male pedipalps, ventral view, from Antigua (5) and Martinique (6). Scale in mm.

Leg	Fe	Pa	Ti	Mt	Ta	Total
I	3.75	1.20	3.82	2.62	0.55	11.94
II	2.75	0.95	2.50	2.62	0.55	9.37
III	2.37	0.88	1.95	2.50	0.55	8.25
IV	2.25	0.65	2.05	2.50	0.55	8.00

Female: prosoma 2.88 long, 2.20 wide; abdomen 4.75 long. Total length: 7.63.

Leg	Fe	Pa	Ti	Mt	Ta	Total
I	3.50	1.10	3.65	3.62	0.50	12.37
II	2.75	1.10	2.55	2.45	0.55	9.40
III	2.37	0.87	2.38	2.38	0.60	8.60
IV	2.20	0.80	1.95	2.62	0.60	8.17

#### *Derivatio nominis*

This species is dedicated to my wife Micha El Helou who collected the holotype.

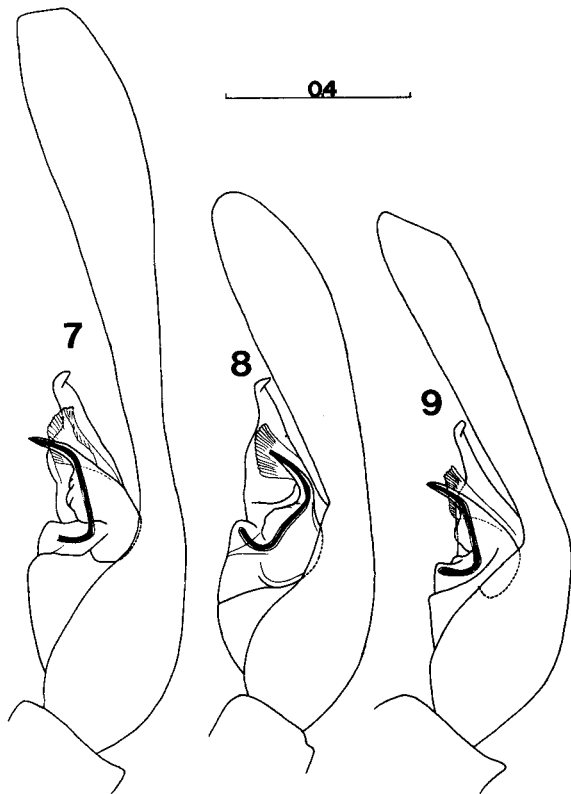


Fig. 7: *Lyssomanes michae* n.sp., male pedipalp, lateral view.

Figs. 8-9: *Lyssomanes portoricensis* Petrunkevitch, 1930, male pedipalps, lateral view, from Martinique (8) and Antigua (9). Scale in mm.

#### *Discussion*

By all characters this species may be considered the sister-species of *L. portoricensis*, from which it can be distinguished by the much longer cymbium, the embolus curved laterally, and the very short and uncoiled ducts of the vulva. From *L. antillanus* Peckham & Wheeler, 1889, known from S. Domingo, Haiti, Cuba and Jamaica, the other species of the *antillanus*-group (as limited by Galiano, 1980), it can be more easily distinguished, as this species (see also Galiano, 1962) has a differently shaped median apophysis, a much longer tip on the embolus, a retro-marginal tooth or boss on the chelicerae, and a vulva with much longer ducts.

*L. michae* and *L. portoricensis* should be derived from the same ancestor; the presence of *L. michae* in Montserrat and of *L. portoricensis* in Antigua and Martinique leads us to suppose that the latter islands were still connected with Puerto Rico at a time when Montserrat had already been separated from the other islands. It would be interesting to know what species live in the other southern islands of the Leeward group (Nevis, St. Kitts, St. Eustatius, etc.).

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