Two New Species of Thief Ants (*Solenopsis*) From Puerto Rico (Hymenoptera: Formicidae)

by

Roy R. Snelling[1]

ABSTRACT

Two new species of thief ants are described from Puerto Rico. All three castes of *Solenopsis torresi* are described, based on a sample collected on Mona Island; additional material is cited from localities on Puerto Rico proper. *Solenopsis maboya* is described from workers and gynes collected at Guaynabo, Puerto Rico. Pertinent features of each species are illustrated by line drawings. A key is provided to separate the workers and gynes of the Puerto Rican thief ants in order to more readily distinguish these species from others on the Island.

INTRODUCTION

The following new species of minute *Solenopsis*, the so-called "thief ants" are described at this time in order to make their names available for several forthcoming papers.

Both new species belong to the varied assemblage that had been placed in the subgenus *Diplorhoptrum* Mayr (1855), a taxon synonymized with *Solenopsis* Westwood (1840) by Ettershank (1966). Workers and gynes of this erstwhile subgenus are mostly subterranean ants, characterized by: (1) small to minute size, (2) 10-segmented antennae, in the worker with the third and fourth segments usually broader than long or only slightly longer than broad, (3) the presence of paired clypeal carinae, (4) the eyes of the worker minute (no more than 15 facets) to absent, (5) the node of the postpetiole (in dorsal view) not notably broader than that of the petiole, and (6) workers monomorphic or nearly so in most species.

There are about 180 species described worldwide, with an additional 75 or so "subspecies" (Bolton 1995). Most of these species were described many years ago from limited material and the original descriptions are now inadequate to permit certain recognition of the taxa from the descriptions alone. The difficulty is exacerbated by the poor condition of much of the original material. Previously described species known to occur in Puerto Rico are: *S. azteca* Forel 1883, *S. corticalis* Forel 1881 and *S. pygmaea* Forel 1901.

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In addition to the *Diplorhoptrum*-type thief ants there are two additional minute species of *Solenopsis* in Puerto Rico. One of these is *S. globularia* (F. Smith 1958), a common circum-Caribbean species. It is a member of the *globularia* group (= subg. *Euophthalma* Creighton 1930). Workers have relatively large eyes, with 12 or more facets; in both workers and queens A3 and A4 are at least as long as broad and the postpetiolar node is massive, 0.60-0.65 x the width of T1. Other species in this group occur in South America.

The second species is *S. succinea* Emery 1890, the sole representative of the *succinea* group (= subg. *Diagyne* Santschi 1923). In this group the clypeal carinae of the two female castes are evanescent and greatly divergent below; the clypeal margin is transverse and both submedian and sublateral teeth are absent; the dorsal margin of the petiole is continuous with the anterior slope so that there is no evident anterior peduncle. In the queens the propodeal profile is a continuous oblique slope, with no suggestion of basal and posterior faces. This species is known from Central America, Costa Rica to Mexico, and from Puerto Rico. It is probably more widely distributed.

Because these ants are so small (workers usually less than 2.0mm long) and differentiating features between species are often dismayingly subtle, the taxonomy of this group is difficult. In preparation for a forthcoming paper on the ants of Puerto Rico (Snelling and Torres, in preparation), I have examined type material of many of the thief ant species known from the islands of the Greater Antilles and the adjacent mainland and thus feel reasonably confident of identifications of the described thief ants of this region.

MATERIALS AND METHODS

The specimens on which these descriptions are based were collected on Puerto Rico and adjacent smaller islands, mostly by Juan Torres, during various years. Primary types, and most paratypes, are deposited in the collections of the Natural History Museum of Los Angeles County (LACM); additional paratypes are deposited in the collections of the Agricultural Experiment Station, Universidad de Puerto Rico, Rio Piedras (UPRC), the Museum of Comparative Zoology at Harvard University, Cambridge (MCZC), the Natural History Museum, London (BMNH), and the United States National Museum of Natural History, Washington (USNM), as well as other institutions to be determined later.

The following acronyms are used for various morphological features in the descriptions to follow.

An (Antennal segment *n*, with the scape counting as A1, the pedicel A2, etc.)

CI (Cephalic Index, HW/HL x 100);

EL (Eye Length, sexual forms only: the greatest measurable length of the compound eye in lateral view);

EW (Eye Width, sexual forms only: the distance across the compound eye in lateral view);

HL (Head Length, with the head in full face view, the greatest measurable distance from the dorsal margin or vertex to the lowermost point of the clypeal carinae);

HW (Head Width, the greatest measurable width across the head in frontal view, exclusive of the compound eyes);

IOD (sexual forms only: Interocellar Distance, the minimum distance between the lateral, or dorsal, ocelli);

IOW (sexual forms only: Interocular Width, the minimum distance between the compound eyes in frontal view);

OD (sexual forms only: Ocellar Diameter, the maximum diameter of the middle, or ventral, ocellus);

OI (Ocular Index, EL/HL x 100);

OMD (sexual forms only: Oculomandibular Distance, the least distance between the lower margin of the compound eye and the base of the mandible);

OOD (sexual forms only; Ocellocular Distance, the least distance between the upper margin of the compound eye and nearest lateral ocellus.

POD (sexual forms only; Postocellar Distance, the least distance between the lateral, or dorsal, ocelli and the preoccipital margin of the vertex);

SI (Scape Index, SL/HL x 100); PD (puncture diameter, the diameter of a puncture in the area cited);

SL (Scape Length, the straight-line length of the antennal scape, exclusive of the basal condyle);

TL (Total Length, the sum of HL + WL + length of petiole & postpetiole + length of gaster; because this measurement cannot be precise, it is given only to tenths of a mm);

TOD (Sexual forms only; Transocellar Distance, in dorsal view, the distance between the outer margins of the lateral ocelli.

T1 (First gastral tergum);

WL (Weber's Length, the diagonal length of the mesosoma in profile, from pronotal collar to propodeal valvules.

Solenopsis torresi Snelling, new species

Figs. 1-7

DIAGNOSIS

Worker: Submedian and sublateral clypeal teeth not notably prominent and acute; metanotal suture deeply impressed; petiole node cuneate in profile; side of head with few overlapping hairs in frontal view. *Gyne*: frons smooth and shiny between minute punctures that are separated by 4-6 PD; CI less than 84; lateral ocelli separated from middle ocellus by about diameter of latter.

Male: ocelli relatively large, OD subequal to OOD; head brownish, body yellow; mandibles normal.

DESCRIPTION

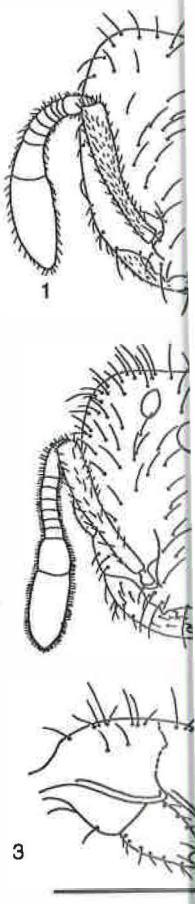
WORKER, *measurements* (mm): HL 0.38-0.39; HW 0.29-0.30; WL 0.38-0.40; TL 1.4-1.5. *Indices*: CI 76-77; SI 63.

Head (Figs. 1-2): distinctly longer than broad in frontal view; sides gently convex, more narrowed at vertex than at mandibular insertions; dorsal margin transverse to slightly and broadly concave. Eyes minute, with 2-3 facets in greatest diameter and OMD little, if any, greater than EL. Scape short and, when laid back along front of head, short of vertex margin by about one-third its length; combined lengths of A3-A8 about half as long as A9+A10. Clypeal carinae moderately divergent, terminating in a pair of small acute submedian teeth, margin between them shallowly concave to transverse; sublateral teeth obtuse to subacute. Margin of mandible with three teeth basad of apical tooth, innermost smallest and distinctly offset.

Mesosoma (Fig. 3): pronotum evenly curving up from neck to promesonotal dorsum; promesonotal dorsum broadly and evenly curved back to metanotal impression; metanotal groove shallow but distinct across dorsum. Propodeum only slightly covex in profile, without distinct basal and posterior faces.

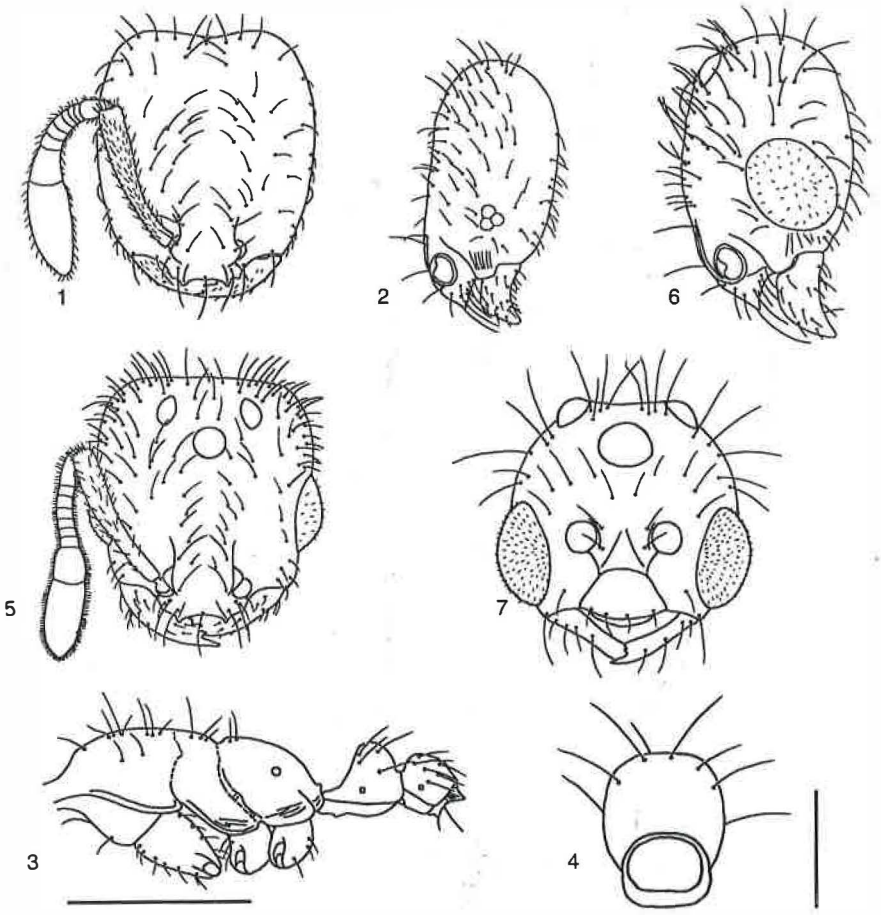
Anterior peduncle of petiole (Fig. 3) short and poorly defined, curving abruptly into anterior face of node; node broadly conoid in profile, dorsal margin rounded; summit of node, in posterior view (Fig. 4), broadly rounded; anteroventral tooth low and broadly obtuse. Node of postpetiole nearly vertical in front, broadly rounded into posterior slope; in dorsal view, about 1.25 x as wide as petiole node and about 0.40 x as wide as T1.

Head and body smooth and shiny between scattered minute piligerous punctures and only slightly larger than hairs arising from them; mandibles smooth and shiny between sparse punctures.



Figs. 1-7, *Solenopsis* A10); **2**, worker, latera **4**, worker, posterior vi shown on A2-A10); **6**, 1-3, 5-7) = 0.25mm; f

Pilosity unifo hairs (mostly o vertex little lon hairs along side scape with num hairs. Mesosom erect hairs. Peti erect hairs.



Figs. 1-7, *Solenopsis torresi*. 1: worker, frontal view of head (only peripheral pilosity shown on A2-A10); **2**, worker, lateral view of head; **3**, worker, lateral view of mesosoma, petiole and postpetiole; **4**, worker, posterior view of petiole node; **5**, queen, frontal view of head (only peripheral pilosity shown on A2-A10); **6**, queen, lateral view of head; **7**, male, frontal view of head. Scale line (figs. 1-3, 5-7) = 0.25mm; fig. 4 = 0.12mm.

Pilosity uniformly yellowish. Front of head with numerous short hairs (mostly on lower two-thirds) and sparse longer hairs; hairs on vertex little longer than those along frontal carinae; in frontal view, hairs along side of head short and mostly not overlapping; antennal scape with numerous short subdecumbent hairs and a few longer erect hairs. Mesosomal dorsum with sparse short hairs and scattered long erect hairs. Petiole, postpetiole and gaster with sparse long suberect to erect hairs.

Color uniformly yellow; mandible margins and some sutural areas reddish.

GYNE, *measurements* (mm): HL 0.49; HW 0.41; SL 0.15; WL 0.95; TL 2.8-2.9. *Indices*: CI 84; OI 63; SI 63.

Head (Figs. 5-6): distinctly longer than broad in frontal view, broadest above eyes and narrowest at level of mandibular insertions; dorsal margin weakly concave. Eye prominent, about 1.8 x as long as wide in lateral view, OMD about 0.09-0.11 x EL; IOW 0.90-0.91 x EL. Ocelli relatively large, IOD about 2.0 x OD; POD about 1.75 x OD. Scape short and, when laid back along front of head, reaching level of upper margin of lateral ocellus; segments A3-A8 a little broader than long, their combined lengths distinctly less than that of A10, about 2.7 x as long as wide. Clypeal carinae moderately divergent below and terminating as acute submedian teeth, clypeal margin between them transverse to slightly concave; sublateral teeth broadly obtuse. Mandible with three distinct teeth above apical tooth; uppermost tooth smallest and distinctly offset.

Mesosoma: pronotum, in profile, rising steeply behind neck and continuous with anterior face of mesoscutum, which is broadly curved into dorsal face; mesoscutum 1.65-1.70 x as long as wide in dorsal view; mesoscutum and scutellum each slightly convex, those not forming a continuous flat surface, posterior slope of scutellum forming a continuous curve with metanotum and propodeum, latter broadly rounded into short, vertical posterior face.

Anterior peduncle of petiole broadly curving into anterior face of node and poorly defined; node thick and broadly rounded in profile; summit broadly convex in posterior view; anteroventral tooth absent. Postpetiole node subhemispherical in profile; in dorsal view about 1.3 x as wide as petiole node and about 0.4 x as wide as T1.

Front of head polished between fine punctures that are hardly greater in diameter than hairs arising from them, punctures separated by 3-5 PD, even in area between eyes and frontal carinae; malar area roughened; mandibles smooth and shiny between sparse punctures. Mesosoma smooth and shiny; punctures of mesoscutum about equal to those of frons, widely scattered; mesepisternum with a few scattered punctures. Propodeum smooth and shiny, obscurely roughened only around metasternal bulla. Nodes of petiole, postpetiole and gastral dorsum smooth and shiny between sparse to scattered minute piligerous punctures.

Pilosity everywhere yellowish. Front of head in profile with numerous mixed long and short, suberect to erect hairs, longest hairs on vertex about equal to minimum diameter of eye; scape with mostly short hairs

but with scattered longer hairs about equal to scape width; eyes with short stiff hairs. Body with numerous suberect to erect hairs, long hairs predominating, hairs much less abundant on side of mesosoma.

Color yellowish, head more reddish and gastral terga broadly tinged with pale brownish; various sutural areas more reddish to brownish.

MALE, *measurements* (mm): HL 0.42; HW 0.37; PW 0.36; WL 0.95; wing length 2.0; TL 2.8-2.9. *Indices*: CI 88; SI 2; OI 54-56.

Head (Fig. 7): slightly broader than long in frontal view, upper margins evenly convergent toward vertex and the TOD (in frontal view) subequal to IOW. Eye large and occupying more than half of side of head, EL 1.2 x EW; malar space absent; IOW 1.1 x EL; ocelli large, IOD 1.63 x OD, POD less than OD; OOD subequal to OD. Antennal segments, except scape and A2, longer than broad, scape about as broad as long, A2 globose.

Mesoscutum, in dorsal view, about 1.1 x as long as wide and about 2.2 x as long as scutellum, latter about as wide as long; scutellum posteriorly slightly overhanging the narrow, straplike metanotum. Propodeum broadly and evenly curved in profile.

Node of petiole low and broadly coniform, its anterior slope broadly continuous with dorsal margin of peduncle; dorsal margin transverse in posterior view; anteroventral tooth absent. Postpetiole node low-convex in profile; dorsal margin transverse in posterior view, about 1.1-1.2 x width of petiole node.

Head and body shiny between sparse to scattered minute piligerous punctures.

Pilosity everywhere abundance and yellowish; consisting of mixed short and long suberect to erect hairs, longer hairs predominating in most areas; eyes with numerous very short, stiff erect hairs.

Color mostly pale yellowish, but head, except lower frons, clypeus and appendages, contrasting brown. Wings whitish, stigma and veins mostly whitish.

TYPE MATERIAL

Holotype worker: near airstrip, Mona Island, PUERTO RICO, 13 November 1992 (R. R. Snelling and J. A. Torres, RRS 92-76), ex old termite galleries in dead branch of *Leucaena leucocephala*. Paratypes: numerous specimens of all castes, same data as holotype; additional workers, also collected on Mona Island, 29 October 1991 (R. R. Snelling and J. A. Torres, RRS 91-34). Holotype in LACM; paratypes in BMNH, LACM, MCZC, UPRC, and USNM.

ETYMOLOGY

This species is dedicated to my colleague, Dr. Juan A. Torres, with

thanks for his friendship and enthusiastic support for our project on the ants of Puerto Rico.

ADDITIONAL MATERIAL (not paratypes)

PUERTO RICO: workers, Bo. Maguayo (Cabo Rojo), 6 Nov. 1992 (R. R. Snelling and J. A. Torres, RRS 92-58); workers, Guánica Forest (Guánica), 7 Apr. 1982 (J. A. Torres, #301); workers, same except 8 June 1991 (#595); workers, same except 30 May 1993 (J. Longino, #3491); numerous alate __, same except various months, (M. Canals), at light trap; workers, Salinas, 28 Apr. 1988 (J. A. Torres, #518). BRITISH VIRGIN ISLANDS: alate _, plantation, Guana Island, 16-20 Oct. 1992 (R. R. Snelling), in Malaise trap.

DISCUSSION

Until all the Caribbean and Central American thief ant species are examined and compared with one another it is presently impossible to distinguish this from many other, poorly described species. Within the fauna of the Greater Antilles, both workers and queens are distinctly yellow (brown or bicolored in most species) and the cephalic punctures are fine and sparse, hardly greater in diameter than the hairs arising from them. Erect pilosity is sparse on both head and mesosoma and the metanotal suture is deeply impressed. Queens and males are both further characterized by the relatively large ocelli, as noted above.

This species has so far been collected only in dry subtropical forest and appears to be exclusively arboreal. Alates of both sexes have been collected most months of the year in light traps at Guánica forest.

Solenopsis maboya Snelling, new species

Figs. 8-13

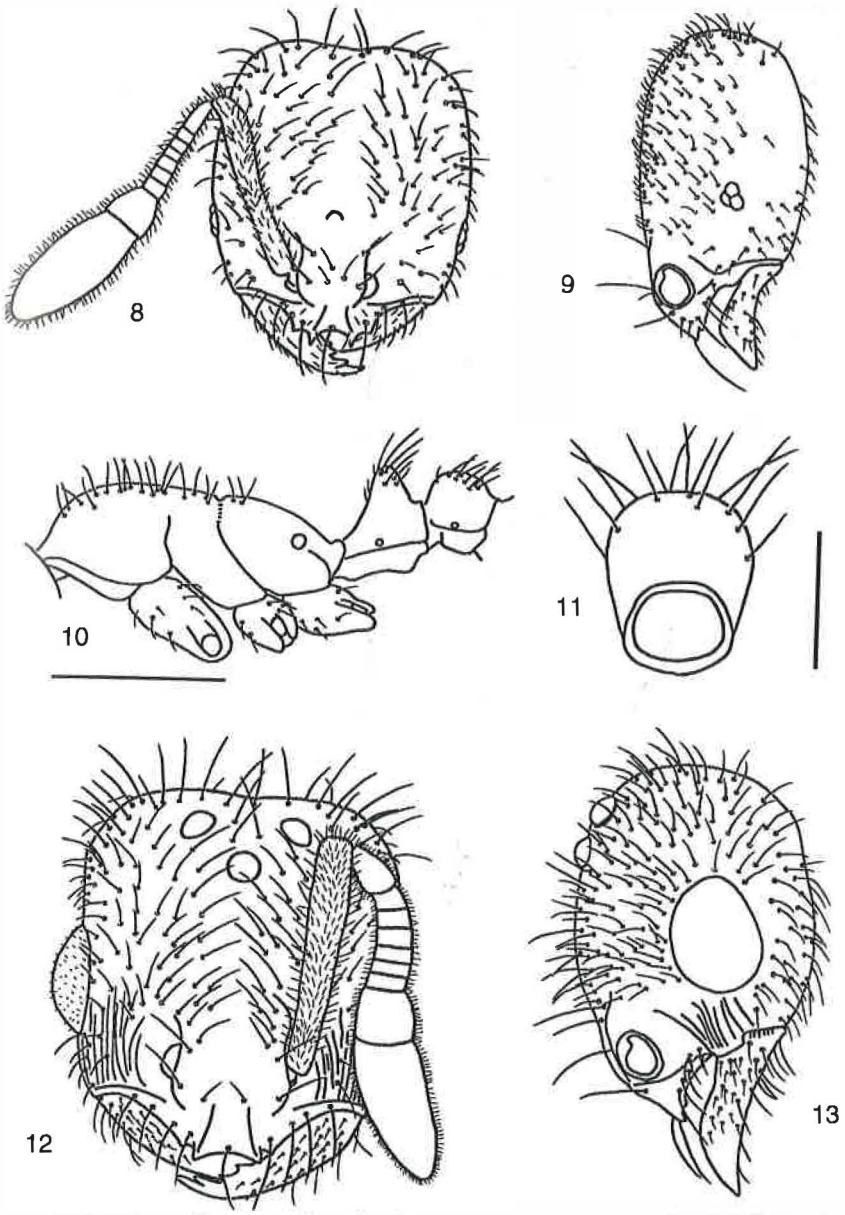
DIAGNOSIS

Worker: Submedian teeth of clypeal margin prominent and conspicuously larger than sublateral teeth; eye minute, with 2-3 facets; metanotal suture deeply impressed in lateral view; propodeum evenly and broadly curved from base to valvules; petiole with neither defined anterior peduncle nor anteroventral tooth; pilosity of mesosomal dorsum consisting of mixed short and long hairs. *Gyne*: Sublateral clypeal teeth broadly obtuse; eye and ocelli relatively large; punctures of frons greater in diameter than hairs arising from them and 2-3 PD apart. *Male* unknown.

WORKER, *measurements* (mm): HL 0.35-0.37; HW 0.28-0.31; SL 0.22-0.24; WL 0.35-0.38; TL 1.2-1.4. *Indices*: CI 77-80; SI 60-63.

Head (Figs.8-9): longer than broad in frontal view; sides nearly

Figs. 8-13,
A2-A10); 9
postpetiole
peripheral
13) = 0.25



Figs. 8-13, *Solenopsis maboya*: **8**, worker, frontal view of head (only peripheral pilosity shown on A2-A10); **9**, worker, lateral view of head; **10**, worker, lateral view of mesosoma, petiole and postpetiole; **11**, worker, posterior view of petiole node; **12**, queen, frontal view of head (only peripheral pilosity shown on A2-A10); **13**, queen, lateral view of head. Scale line (figs. 8-10, 12-13) = 0.25mm; fig. 11 = 0.12mm.

straight and weakly convergent below; dorsal margin weakly concave in middle. Eye minute, with 2-3 facets and OMD about twice EL. Scape shorter than either HL or HW and, when laid back along front of head, short of vertex margin by about one-third its length; combined lengths of segments 3-9 less than one-half as long as 10+11. Clypeal carinae moderately divergent and terminating in a pair of prominent teeth that are conspicuously longer than sublateral teeth. Cutting margin of mandible transverse and quadridentate, uppermost tooth only slightly offset.

Mesosoma (Fig. 10): pronotum rising steeply from anterior neck and abruptly rounded onto dorsum; promesonotal dorsum nearly flat in profile; metanotal groove present across dorsum, sharply V-shaped in profile. Propodeum only slightly convex in profile, without obvious basal and posterior faces.

Anterior peduncle of petiole not defined, evenly curving into anterior face of node; node subtruncate in profile, apex narrowly rounded; summit of node, in posterior view, broad and weakly convex (Fig. 11); anteroventral tooth absent. Node of postpetiole strongly convex in profile; in dorsal view about 1.2 x as wide as petiole node and about 0.40 x greatest width of T1.

Head and body smooth and shiny between sparse to scattered minute piligerous punctures that are only slightly greater in diameter than hairs arising from them; mandibles smooth and shiny with scattered punctures.

Front of head, in profile, with numerous short hairs and scattered slightly longer hairs, hairs longer on vertex; hairs abundant on scape, many equal in length to longest hairs on frons. Mesosomal dorsum with sparse mixed short and longer hairs. Petiole, postpetiole and gaster with more numerous longer hairs.

Color yellow, vertex and gaster slightly brownish; mandibular teeth reddish brown.

GYNE, *measurements* (mm): HL 0.51; HW 0.46; SL 0.33; PW 0.28; WL 0.95; TL 2.7. *Indices*: CI 88-90; SI 63-65; OI 37-38.

Head (Figs. 12-13): slightly longer than broad in frontal view, broadest above eyes, narrowing slightly toward mandibular insertions; dorsal margin straight to slightly concave in middle. Compound eye prominent, about 1.25 x as long as wide in lateral view, OMD about 0.33 x EL; IOW 2.0-2.1 x EL. Ocelli small; IOD about 2.75 x OD; POD about 2 x OD. Scape short and, when laid back along front of head, ending at level of middle ocellus; segments A3-A9 conspicuously broader than long, their combined lengths distinctly less than that of A11, A11 about 2.7 x as long as wide. Clypeal carinae moderately divergent below and

terminating on margin as broadly triangular submedian teeth; sublateral teeth minute. Mandible with three prominent teeth above apical tooth, uppermost tooth distinctly offset.

With mesosoma in profile, pronotum rising vertically behind neck and continuous with anterior face of mesoscutum; mesoscutum about 1.3 x as long as wide in dorsal view; discs of mesoscutum and scutellum continuous, nearly flat; scutellum slightly longer than wide and sharply declivitous behind. Metanotal profile oblique to mesoscutum+scutellum and continuous with basal face of propodeum, latter broadly rounded into vertical posterior face.

Petiole with weakly defined anterior peduncle, broadly rounded into anterior face of node; node cuneate in profile, summit narrowly rounded; summit, in posterior view, transverse, usually slightly depressed in middle; anteroventral tooth absent. Postpetiole node almost hemispherical in profile; in dorsal view, about 1.3 x width of petiole node and about 0.4 x width of T1.

Front of head smooth and shiny between fine punctures mostly separated by about 2-3 PD, punctures a little coarser and closer in area between eye and frontal carinae; malar area roughened and only slightly shiny; mandibles smooth and shiny between sparse punctures. Mesosoma smooth and shiny; punctures of mesoscutum slightly finer than those of frons, mostly separated by 2-3 PD; mesepisternum with a few widely scattered coarser punctures. Side of propodeum, below spiracle, roughened and only slightly shiny; ventral half of posterior face with fine transverse roughening. Nodes of petiole and postpetiole shiny, smooth between fine piligerous punctures. T1 smooth and shiny between sparse fine piligerous punctures and numerous irregularly distributed ultraminute punctures.

Pilosity everywhere yellowish and abundant, in most areas mixed short and long suberect to erect hairs; uniformly short and subappressed on scapes; eyes with numerous short erect hairs; hairs on mesosomal dorsum and sides mostly erect, more uniform in length than on frons and less abundant.

Color reddish brown, scapes, mandibles and legs more yellowish.

MALE: unknown.

TYPE MATERIAL

Holotype worker: Guaynabo, PUERTO RICO, 14 February 1999 (J. A. Torres, #82). Paratypes: numerous workers and dealate gynes, same data as holotype. Holotype in LACM, paratypes in BMNH, LACM, MCZC, UPRC, and USNM.

ETYMOLOGY

The name *maboya* is the Taino (Arawak) word for a perverse spirit, and seemed appropriate, given the challenging nature of the taxonomy of this group of ants; the name is a noun in apposition.

DISCUSSION

This species is one of many uniformly brownish species of thief ants in the Caribbean Region. Queens and workers have relatively coarse and dense cephalic punctures that are clearly larger in diameter than the hairs arising from them. They are, thus, similar to those of *S. corticalis*, a common and widely distributed Caribbean species (although many records attributed to *S. corticalis* are based on misidentifications).

Workers are distinctive in the presence of a short anterior propodeal face (when the propodeum is viewed in profile); *S. corticalis* and other similar species have an evenly curved propodeal profile. The queens of *S. maboya* are distinctive in the orientation of the compound eye when viewed in profile: the midline drawn along the greatest length of the eye, if extended, will pass anterior to the lateral ocellus. In other species, such a line would pass through, or behind, the lateral ocellus.

This is a moist forest species that is probably more widespread in Puerto Rico than present information would indicate. It is a terrestrial species.

The following key will separate *S. torresi* and *S. maboya* from the Puerto Rican species belonging to the "*Diplorhoptrum*" group. One apparently undescribed species is designated "near *pygmaea*" below; it is currently known only from a few workers from Rio Piedras.

KEY TO PUERTO RICAN THIEF ANTS

1. Workers; ocelli absent and mesosoma without differentiated mesoscutum and scutellum 2
— Queens; ocelli present and mesosoma with differentiated mesoscutum and scutellum 7
2(1) Metanotal suture deeply impressed across dorsum of mesosoma; frons and dorsum of mesosoma with mixed long and short hairs; color various 3
— Metanotal suture weakly impressed; frons and dorsum of mesosoma with uniformly short hairs; minute, pale yellowish species 6
3(2) In profile, petiole node cuneate, anterior and posterior faces evenly convergent above, summit narrowly rounded; antennal scape long, SI over 60 4
— Petiole node robust, anterior and posterior faces not evenly conver-

gent above, summit subtruncate; antennal scape short, SI 48-52 . ..... *S. azteca* Forel

4(3) Submedian and sublateral clypeal teeth well defined, submedian pair prominent and acute; side of head, in frontal view, with many conspicuously overlapping hairs 5

— Submedian and sublateral clypeal teeth inconspicuous, submedian pair not notably acute; side of head with few overlapping hairs visible in frontal view ..... *S. torresi* Snelling

5(4) Propodeum, in profile, evenly convex; crest of petiole node, in posterior view, strongly convex ..... *S. corticalis* Forel

— Propodeum, in profile, with short anterior face and long straight, strongly sloping, posterior face; crest of petiole node weakly convex ..... *S. maboya* Snelling

6(2) Median impunctate strip of frons clearly defined, narrower than adjacent punctate areas on either side, punctures of lateral areas notably coarse and dense, especially above eyes; eye larger, 3-4 facets; petiole with distinct short anterior peduncle .... *S. pygmaea* Forel

— Median impunctate strip of frons poorly defined and about as broad as adjacent punctate areas, punctures of lateral areas fine and inconspicuous; eye smaller, 1 or 2 facets; petiole without distinct anterior peduncle ..... *S.* near *pygmaea*

7(1) Frons smooth and polished between minute punctures only slightly greater in diameter than hairs arising from them; punctures of face 4-6 PD apart, even in area between eye and frontal carina 8

— Frons smooth or superficially roughened between punctures that are conspicuously greater in diameter than hairs arising from them; punctures of face 2-3 PD apart, often closer in area between eye and frontal carina 9

8(7) Head subquadrate, CI over 86; as seen in frontal view, lateral ocelli separated from middle ocellus by less than diameter of middle ocellus; scape short and, when laid back along front of head, not reaching level of middle ocellus ..... *S. azteca* Forel

— Head more elongate, CI less than 84; as seen in frontal view, lateral ocelli separated from middle ocellus by about diameter of middle ocellus; scape longer, reaching level of upper margin of middle ocellus ..... *S. torresi* Snelling

9(7) As seen in frontal view, EL distinctly less than distance from upper eye margin to uppermost level of vertex 10

— As seen in frontal view, EL equals or slightly exceeds distance from upper eye margin to uppermost level of vertex ... *S. corticalis* Forel

10(9) With head in side view, a line drawn along the midlength of the eye

and extended to vertex would pass well behind lateral ocellus; HW ca. 1.5 x that of workers ..... S. *maboya* Snelling

—With head in side view, a line similarly extended would pass through the lateral ocellus; HW ca. 2.3 x that of workers .... S. *pygmaea* Forel

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