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Solution to the Problem of *Tetramorium lucayanum* (Hymenoptera: Formicidae)

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Of the six species of *Tetramorium* that have been reported as inhabiting the New World, the status and provenience of five have been dealt with in my paper entitled, "Is the ant genus *Tetramorium* native to North America?" (Brown, 1957, Brev. Mus. Comp. Zool. Harvard No. 72). *T. guineense*, *T. similinum*, and *T. pacificum*, as has long been recognized, are tramp species of Old World origin (the first two are almost certainly African), and *T. caespitum* is believed to be a post-Columbian immigrant from Europe. The fifth species, *T. rugiventris*, was eliminated from consideration because it was found to belong, not to *Tetramorium*, but to the Holarctic genus *Myrmica*. Subsequent assignment of *rugiventris* to the weak satellite genus *Paramyrmica* seems to me to have been ill-advised, but in any case the ant is definitely not a *Tetramorium*.

The single American species of *Tetramorium* remaining was *T. lucayanum* Wheeler, originally described from the Bahamas, but since reported from the following countries:

CUBA: Cienfuegos, Guantanamo, Cristo (all W. M. Mann leg.)

PUERTO RICO: Mayagüez (M. R. Smith leg.)

JAMAICA: Kingston (E. A. Chapin leg.), Mill Gully, Green Mts. (? leg.)

VIRGIN ISLANDS: St. Croix (W. F. Buren leg.)

A variety was also described from specimens taken in Dublin greenhouses (see below).

In my 1957 paper (p. 6), I stated my opinion that *T. lucayanum*, despite its wide distribution in the West Indies, must be a post-Columbian immigrant to the New World, and that it most likely came from Africa. Repeated attempts to match its types with Old World *Tetramorium* species represented in

American museum collections all led to failure; though *T. lucayanum* did seem to be more or less closely related to certain African *Tetramorium*, it was apparently not conspecific with any available samples from the Old World.

In 1963, when I had an opportunity to visit the classical European ant collections, I took along digms of *T. lucayanum* (from Jamaica) in the hope that I would be able to make their match. I am pleased to report that the search was successful. The type of *T. camerunense* var. *waelbroeki* turns out to be the African representative of *T. lucayanum*, and the following synonymy is in order:

Tetramorium lucayanum

Tetramorium lucayanum Wheeler, 1905, Bull. Amer. Mus. Nat. Hist. 21: 100, fig. L, worker. Type locality Nassau, Bahamas. Syntype in American Museum of Natural History, New York.

Tetramorium camerunense var. *Waelbroeki* Forel, 1909, Ann. Soc. ent. Belg. 53: 53, worker. Type locality "Kinchassa" [Kinshasa], Congo. Holotype in Coll. Santschi, Naturhistorisches Museum, Basel; examined 1963. New synonymy.

Tetramorium camerunense var. *Woelbroecki* (!), Santschi, 1914, Boll. Lab. Zool. Portici 8: 367, fig. 29, worker; Lagos, Nigeria.

Tetramorium lucayanum var. *sexdens* Forel, 1915, Bull. Soc. vaud. Sci. nat. 50: 357, worker. Type locality Dublin, Ireland, in greenhouse. Holotype in Muséum d'Histoire Naturelle, Geneva, examined 1963. New synonymy.

Tetramorium rectinodis (!) Menozzi, 1942, Zool. Anz. 140: 176, fig. 2B, worker. Type locality Fernando Po. Types presumably in Istituto di Entomologia della Università, Bologna; not seen. Eidmann, 1944, Zool. Jahrb. Syst. 76: 454, fig. 13, worker (good figures). Provisional new synonymy.

So far as one can tell from the material currently available, *T. camerunense* and *T. lucayanum* are separate species. *T. lucayanum* has a longer, lower petiolar node with slightly con-

vex dorsum; a sharp transverse carina separates the dorsum of the node from its anterior face. (The carina is not shown in Wheeler's figure, which is rather sketchy where details are concerned.) The *T. camerunense* samples I have seen, including the type, all have the petiolar node shorter and higher, and more "blocky" as seen from the side. I took what I believe to be *T. camerunense* sympatrically in the Banco Forest Reserve, near Abidjan, Ivory Coast, with two slightly different kinds of what I refer to *T. lucayanum*. One of these (A-109) is very like the West Indian *lucayanum*, except that the postpetiolar costulae are distinct and crowded, giving the appearance of coarse striation; this series came from a nest in a tall red-rotten tree stump, about 2 m above the ground. The other form was collected twice in the Banco Reserve (A-71, A-76), both times as strays in the leaf litter; its petiolar node is slightly higher, without distinct cross-costulation as in the West Indian and A-109 examples, and its postpetiole has no distinct longitudinal costulae and is predominantly smooth and shining discad. This second form might even eventually prove to be a sibling species, but the African *Tetramorium* vary so much that it seems more likely at the moment that these variants from Banco are just different forms of one species.

Wheeler gave 5 as the number of mandibular teeth in his types, but the number is 6 or 7 if one counts all of the irregular denticles on the basal half of the masticatory margins; these small teeth are difficult to see.

A specimen of *T. lucayanum* has also been seen from Monrovia, Liberia (E. S. Ross leg.), showing that this species is widespread in West and Central Africa. It may be that the West Indian stock arrived in ballast or timber, or perhaps with the slave trade, in a ship from Africa during the early days of New World colonization. At any rate, it is now clear that Africa was its original home.

This paper is a by-product of work done in West Africa and in Europe during 1963 toward a reclassification of family Formicidae, sponsored by the National Science Foundation (Grant G-23680).