NOTES

HOSTS OF TUCKERELLA PAVONIFORMIS (EWING) AND TUCKERELLA ORNATA (TUCKER) IN FLORIDA (ACARINA: TUCKERELLIDAE):—

The genus *Tuckerella* has but two known species, *pavoniformis* and *ornata*, both of which are bizarre in form. Baker and Pritchard (1953)[1] record *pavoniformis* only from Australia, Hawaii, and California and from a limited number of hosts, but during 1954 the writer found this species in the Miami area and on many hosts. The following list gives these hosts and for completeness includes the hosts and localities given by Baker and Pritchard. Their records are indicated by being enclosed in parentheses.

Apocynaceae:	Allamanda cathartica
Araceae:	Caladium bicolor
Araliaceae:	Polyscias Guilfoylei
Caricaceae:	(Carica Papaya; Hawaii)
Compositae:	Flaveria trinervia
Lauraceae:	Persea americana
Loganiaceae:	Buddleia madagascariensis
Malvaceae:	(Hisbiscus sp.; California, Hawaii)
	Hibiscus Rosa-sinensis
Meliaceae:	Swietenia Mahogani
	Khaya nyassica
Myrtaceae:	(Eucalyptus sp., Cypress pine; Australia)
	Psidium Guajava
Oleaceae:	(Privet; Hawaii, Australia)
	Jasminum Sambac, Ligustrum japonicum
Proteaceae:	Grevillea robusta
Rosaceae:	Licania rigida
Rutaceae:	(Citrus sp.; Australia)
Sapindaceae:	Litchi chinensis
Sapotaceae:	Achras zapota
Solanaceae:	Cestrum diurnum
	Solandra guttata
Verbenaceae:	Vitex trifolia

Tuckerella pavoniformis breeds chiefly on those parts of woody stems where most of the outer tissues have turned corky, but where areas of live tissue are still present. It has also been found breeding on the fruit of avocado and mahogany. The writer has never observed any stage on leaves.

Tuckerella ornata appears to be somewhat more restricted in its host range than *T. pavoniformis*. Below is a list of the hosts in the Miami area from which the writer has collected *T. ornata*. Included in the list and set off by parentheses are the records given by Baker and Pritchard for this species.

Anacardiaceae:	Schinus terebinthifolius
Apocynaceae:	Carissa grandiflora
Aquifoliaceae:	Ilex Cassine
Burseraceae:	Bursera Simaruba

[1] Baker, E. W., and A. E. Pritchard. 1953. The family categories of tetranychoid mites, with a review of the new families Linotetranidae and Tuckerellidae. Ent. Soc. Amer., Annals 46: 243-258.

Euphorbiaceae:	(Hevea sp.; Florida)
Guttiferae:	(Mammea americana; Guatemala)
Lauraceae:	Persea americana
Leguminosae:	(Bauhinia sp.; Florida)
	Tamarindus indica
Myrtaceae:	Psidium Guajava
Orchidaceae:	(Phalaenopsis sp.; Philippines)
Rutaceae:	Citrus mitis, Citrus maxima
Sapotaceae:	Achras zapota

The habits of *T. ornata* are similar to those of *T. pavoniformis*. On guava and sapote both species have been taken from the same twig. Although they may at times damage avocado fruit neither species appears to be of present economic importance.

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HELOCHARES SALLAEI IN THE EVERGLADES (COLEOPTERA: HYDROPHILIDAE):—

Helochares (*s. str.*) *sallaei* Sharp (=*Philhydrus estriatus* Blatchley) seems to be a very rare insect in collections. Until recently, it was apparently known from Florida only on the basis of Blatchley's types of *estriatus* from Dunedin (*Can. Ent.*, 49: 139, 1917). *H. sallaei* was originally based on a single specimen collected at Cordova, Mexico, by Sallé (Biologia Centrali-American, 1 (2): 75,1882). The rarity of the species in Florida caused me to conclude that it was a waif introduced by shipping from Mexico (*Univ. Florida Biol. Sci. Ser.*, 5 (1):31, 174, 1954).

To my chagrin, I now find that I have had at least seven specimens of *H. sallaei* in my collection for over a decade. They were recently discovered in a large jar of beetles and other insects taken in a light trap at Pahokee, Florida, on Jan. 20, 1941 (U. S. Department of Agriculture). The jar was given to me in 1942 by Dr. A. N. Tissot of the Florida Agricultural Experiment Station. The species will probably be found to be abundant in the Everglades when its habitat is discovered.

H. sallaei superficially resembles a large *Enochrus*, but can be distinguished by the non-laminate mesosternum, complete lack of sutural striae on the elytra, and by the very long maxillary palpi of which the pseudobasal segments are curved with the convexities toward the rear, the reverse of the condition in *Enochrus*. From the only other Floridian species of *Helochares*, *H.* (*Hydrobaticus*) *maculicollis* Mulsant, it is immediately distinguished by the darker color and complete lack of impressed striae on the elytra. The male genitalia of *sallaei* are remarkable in having the aedeagus deeply bifurcate and the parameres broadly overlapping at the base.

Specimens will be deposited in the University of Michigan Museum of Zoology, the Florida State Museum, the United States National Museum, and the American Museum of Natural History. Two cotypes of *estriatus* are now in the W. S. Blatchley Collection at Purdue University, Lafayette, Indiana.

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