

## Notes on a Small Collection of Philippine Weevils That Feed in the Fleshy Receptacles or "Fruits" of Wild Figs

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(Presented at the meeting of July 2, 1931)

While in the Philippine Islands in 1920-1922, the writer made a study of native fig trees (*Ficus* spp.) particularly on Mt. Makiling, Los Baños, Luzon, a region notably rich in these plants. Many insects were found in more or less close association with these *Ficus*, being attached chiefly to their fleshy receptacles or "fruits".

Among the insects bred from, or found on, or in fig receptacles in the Mt. Makiling region were species of weevils—some of which seem to favor certain groups or types of figs rather than species of them. One or more weevil larvae may be found in a single receptacle which eventually falls to the ground. As a rule, these weevils leave the fig as full-fed larvae, pupate in the soil and issue some weeks later; it is certain, however, that other fig weevils complete their transformations within the receptacles.

A number of the *Ficus* were determined some years ago by Dr. E. D. Merrill, one-time director of the Philippine Bureau of Science, Manila.

Thanks are due to Dr. G. A. K. Marshall, Director of the Imperial Bureau of Entomology, London, and to Dr. K. M. Heller\* of Dresden, for the determination of the collection of weevils, all from Mt. Makiling, and on which some notes are now presented.

1. ***Balaninus ascendens*** Heller. Reared from the furry receptacle of *Ficus xavieri* Merrill, a strangling fig, or "banyan"; Mt. Makiling, lower forest, Feb. 1921. Another specimen labelled: "examining 1/3-size fruit of *Ficus nota* (Blanco)"—"Apr. 1921"—, a dioecious tree not of the banyan type.

This weevil is blackish with a transverse and longitudinal pattern in white scales.

2. ***Balaninus basilaris*** Heller. Reared from the receptacle of *Ficus indica* Linn., Feb. 1921 and Nov. 1921.

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\* See Studien zur *Balaninini*, II, Stett. Ent. Zeit., 88, 175-287, 2 pls., 1927.

Proc. Haw. Ent. Soc., VIII, No. 1, Nov., 1932.

3. **Balaninus cinnamomeus** Heller. From *Ficus pubinervis* Blume (labelled *F. crassitora* Elmer) in the lower Makiling forest, March, 1921. This tree, though not of strangling habit, is monoecious.

4. **Balaninus coturnix** Heller. From the receptacles of *Ficus payapa* Blanco (labelled *F. auranticarpa*) a banyan in the lower Makiling forest, and the orange-yellow receptacles of which are covered with rather irritating, appressed whitish hairs. April, 1921.

The weevil is brownish black with an extensive pattern of golden brown scales. Reported also from Mindanao, the large southern island of the Philippine group.

5. **Balaninus cruciatus** Heller. Reared from receptacles of the banyan, *Ficus camarinensis* Merrill, May, 1921. Taken also on Mindanao (Baker). The brown color of this weevil is interrupted on the elytra by a cross-like design of golden scales.

6. **Balaninus leptoclavatus** Heller. From *Ficus indica* Linn., (Jan. 1921). Taken also on Mt. Banahao, Luzon (Baker). A rather small dark weevil with a V-like pattern of white scales at the base of the elytra, and a slim white band across the elytra at their middle length.

7. **Balaninus ornaticollis** Heller. From *Ficus payapa* (labelled *F. auranticarpa*), April, 1921. Rich brown with sides of pronotum and two proximate elytral stripes, of golden scales.

8. **Balaninus varians** Heller. From the receptacles of *Ficus calophylloides* Elmer, a very large and handsome forest banyan, April, 1921.

9. **Balaninus williamsi** Heller. From the receptacle of *Ficus palawanensis* Merrill, *payapa* Blanco, *retusa* Linn., and *forstenii* Miq., all banyans or strangling figs, January, March, April, May, 1921. The beetle is blackish marked with pale scales.

10. **Balaninus (Carponinus) axillaris** Fst.; (det. G. A. K. Marshall). Reared from receptacle ("fruits") of *Ficus hauili* Blanco, *F. nota* (Blanco) and *F. integrifolia* Elmer; adult weevils also found resting on the receptacles of *F. nota*. From low elevations to 3,000 feet in the mossy forest of Mt. Makiling. These *Ficus* hosts are small to moderate-sized trees of non-strangling habit that bear the male and female receptacles on separate plants, as in the common edible fig of commerce. October, 1920; January, February, March, 1921.

This weevil is a large, generally light golden brown species.

11. **Metarchus latifrons** Heller. From receptacles of *Ficus indica*, December, 1930.

A compact, rather short-snouted brown weevil that apparently pupates in mummified figs instead of entering the ground to transform.

12. **Pleurotyges tagalus** Heller. From receptacles of *Ficus* (collector number 808) related to *calophylloides* Elmer. April, 1921. Also a compact brown insect.

In addition, the weevil **Phylaitis V-alba** Pasc. (det. G. A. K. Marshall) was taken resting on the stem of the lowland *Ficus ulmifolia* Lam., a small tree whose fruits are more or less edible, April, 1921.

**Mecopus hopei** Boh. (det. G. A. K. Marshall), another weevil with a fig-feeding facies was also collected.

Of **Balaninus bomfordi** Fst., an Indian species, H. Maxwell-Lefroy (Indian Insect Life, p. 388, 1909) says in part, "... the adult eats the unopened buds of the banyan tree and feeds on the inside ..." "The larvae are found in the fleshy receptacles of the fig, which they destroy so that the fig falls off."

A large number of other fig-feeding weevils, particularly *Balaninus* occur in the Philippines.