

eral beetles in a cage containing growing peas in which the seeds were about one half grown. Dec. 10, several eggs were laid on the outside of one pod in the same manner as upon the dry seeds. No eggs were laid upon any other pods although there were several in the cage; and as time passed and the eggs that were laid did not hatch, I began to think that they must have been unfertilized. But as they held their shape and color I left them, and how wonderful has been the result! The pod ripened, turned yellow, and the vine was nearly killed by plant-lice and mealy-bugs. Finally, in the latter part of January, 1893, I picked the pod and placed it in a box to wait events. After it had been in the box for about a week, I examined it and what was my surprise to find that the brown heads of the larvae were plainly visible through the shells of several eggs. The eggs were hatching! The pod and its seeds were quite hard and nearly ripened. Fifty days had elapsed since these eggs were laid; and we have seen that ordinarily on dry seeds the eggs hatch in less than twenty days.

What unseen hand was it that held in abeyance the development of the embryo in the egg until the pea had reached the ripening stage—the only stage

when it seems to be fit for the food of the larva? How interesting and wonderful are Nature's ways as revealed in the lives of some of the tiniest of her creatures!

#### EXPLANATION OF PLATE 16.

Fig. 1.—*Bruchus obtectus* Say.

- a*, Beetle, enlarged; antenna and leg still more enlarged. (Original.)
- b*, Egg, greatly enlarged. (Original.)
- c*, First larval stage, much enlarged; with leg still more enlarged. (Adapted from Riley.)
- d*, Mature larva, enlarged. (Adapted from Marlatt.)
- e*, Front view of head of mature larva, greatly enlarged. (Original.)
- f*, Pupa, enlarged. (Adapted from Marlatt.)
- g*, Infested bean, natural size. (Original.)

Fig. 2.—*Bruchus quadrimaculatus* Fabr.

- a*, Beetle, enlarged; antenna and leg still more enlarged. (Original.)
- b*, Egg, greatly enlarged. (Original.)
- c*, Basal aspect of egg, greatly enlarged. (Original.)
- d*, Leg of post-embryonic larva, greatly enlarged. (Original.)
- e*, Front view of head of mature larva, greatly enlarged. (Original.)
- f* and *g*, Right wing covers of beetle, showing the variation in size of the adult. (Original.)
- g* to *n* inclusive, Right wing covers enlarged, showing variation and gradation in coloration. (Original.)

HYMENOPTERA OF MADAGASCAR.—A notable contribution to entomological literature has just reached this country in the volume treating of the Hymenoptera, forming a part of Grandidier's immense work on the physical and natural history of Madagascar, of

which it forms vol. xx. The first part is contributed by Dr. H. de Saussure and makes a quarto volume of more than 600 pp. and 27 exquisitely finished plates; the second by Dr. A. Forel on the ants alone, a volume of about 250 pp. and 7 plates.



1893. "Hymenoptera of Madagascar." *Psyche* 6, 449–449.  
<https://doi.org/10.1155/1893/41451>.

**View This Item Online:** <https://www.biodiversitylibrary.org/item/47616>

**DOI:** <https://doi.org/10.1155/1893/41451>

**Permalink:** <https://www.biodiversitylibrary.org/partpdf/182092>

#### **Holding Institution**

Smithsonian Libraries and Archives

#### **Sponsored by**

Smithsonian

#### **Copyright & Reuse**

Copyright Status: Public domain. The BHL considers that this work is no longer under copyright protection.

This document was created from content at the **Biodiversity Heritage Library**, the world's largest open access digital library for biodiversity literature and archives. Visit BHL at <https://www.biodiversitylibrary.org>.