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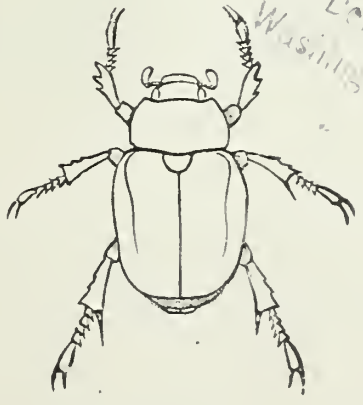
INSECT LIFE.

DEVOTED TO THE ECONOMY AND LIFE-HABITS OF INSECTS, ESPECIALLY IN THEIR RELATIONS TO AGRICULTURE, AND EDITED BY THE ENTOMOLOGIST AND HIS ASSISTANTS.



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SPECIAL NOTES.

Australian Entomology.—We are pleased to notice that the *Garden and Field*, published monthly at Adelaide, is devoting more and more space to pure and applied science. Mr. J. G. O. Tupper is contributing a series of articles under the caption "Common Native Insects," and usually occupies all of the first page of this octavo journal. He gives popular descriptions of these insects, and names their habits.

The second page is usually occupied by Mr. Frazer S. Crawford, under the department heading "Notes on Garden Pests, etc., during the Month," and the third page is devoted to the reports of the meetings of the microscopical section of the Royal Society of South Australia.

In the April number Mr. Crawford occupies considerable space in a consideration of the statement by Mr. Skuse to the effect that the Lestophonus on Icerya and Monophlœbus is divisible into two species, and concerning which we have already published an article by Dr. Williston in No. 11 of INSECT LIFE. It seems that Mr. Skuse is now engaged upon a monograph of the Australian Diptera.

Mr. Crawford also devotes some space to a consideration of the Oyster-shell Bark-louse of the Apple (*Mytilaspis pomorum*), which it seems is abundant in certain sections of Australia. He also attacks our remark in No. 7 of INSECT LIFE (page 230) in which we expressed ourselves as being a little incredulous concerning his statement that infested leaves fall from the effects of an application of the resin-soap solution, while healthy leaves are not affected. Our incredulity was based upon our own experience, which is to the effect that healthy leaves are quite as badly damaged by most insecticides as leaves infested with scales.

The proposed Entomologists' Union.—As we have previously stated, the replies to our request for expressions of opinion in regard to the proposed general organization of economic entomologists have not been numerous up to date, but those which we have received have expressed so much enthusiasm in the plan that it begins to look like a matter of ultimate accomplishment. Mr. James Fletcher, Dominion Entomologist and president of the Entomological Club of the American Association

its breeding season. At the date of observation, January 28, these Scymni were nearly all pairing, and quite a large number of very young larvæ were afterwards observed in a box of twigs of Eucalyptus, infested by the scale, and which were collected at the time of observation.

So far as chronic depredators on farm crops are concerned, about the same state of affairs seems to exist in Australia as in the United States. White Grubs get in their work after the most approved American plan. A species of Migratory Locust originates in the interior and overruns considerable areas of farming country. A species of Caterpillar, with habits strangely like those of our Army Worm, marches through fields of grain, leaving destruction in its wake. I was informed that this pest was more liable to occur immediately following a wet winter, late sown oats being especially subject to attack. The Grain Moth, *Gelechia cerealella*, and the Rice Weevil, *Calandra oryzæ*, cause serious damage to stored grain.

Early in February it was stated that in the vicinity of Caisus, Queensland, "millions of caterpillars were clearing all vegetation before them."

TWO NEW SPECIES OF SCYMNUS.

By Dr. David Sharp, *Wilmington, England.*

[Note.—The Australian and New Zealand Coccinellids which were imported by Mr. Koebele to California in the hope that they will become acclimatized and feed upon the Fluted Scale were sent to Dr. Sharp for determination. As he finds among them an interesting new species, and as this is perhaps the most prominent of the species brought over, he has sent us a detailed description, which we publish below, together with one of a closely allied species which he had formerly received from New Zealand.—Eds.]

Scymnus restitutor n. sp.

Major, ovalis, niger, cinereo-pubescens, prothoracis margine anteriore utrinque antennis que pallide testaceis, illis apicem versus fuscescentibus subtus abdomine pectoreque sordide testaceis. Long. 4½mm.

The upper surface is closely and rather finely punctured, the pubescence suberect, a little curled; the thorax is rather narrow, so that the outline is discontinuous to a greater degree than is usual in the genus. The under surface is of a sordid yellow or pale red color, more or less infuscate at the sides and in front; the tarsi are fuscous red, and the claws are all simple, neither toothed nor lobed. The prosternal lines are rather long, and not at all curved in front; moderately distant at the front margin they continue in slightly divergent directions to the hind margin. The epipleuræ are unusually broad. Claws of the hind feet simple, those of the middle and front feet feebly lobed at the base.

Found in Australia.

This species does not resemble any other Scymnus known to me at all closely, except an undescribed species from New Zealand, which, owing to this circumstance, it may be well to characterize.

Scymnus circularis n. sp.

Rotundatus, convexus, nigerrimus, pube longiore pallide-grisescente irregulariter vetilus, fortiter punctatus ; abdomine rufescente, antennis tarsisque flavis, ad apices fuscis. Long., 3mm.

Thorax sparingly punctured, with a very small flavescent mark on the anterior margin on each side. Elytra rather coarsely and not closely punctured, bearing a fine, rather long, almost white pubescence; this pubescence is not depressed, and the individual hairs do not take a straight or parallel direction. Prosternal lines subparallel, slightly curvate at the anterior margin, and slightly sinuate behind. Metasternum sparingly and rather coarsely punctate ; hind coxæ very widely separated. Front and middle claw with a long appendage extending the greater part of the length of the claw, and with free sharp extremity, so that the claw appears bidentate ; claw of hind foot with shorter lobe.

This species has been found by Mr. Richard Helms, in 1884, at Picton, South Island, New Zealand. A species smaller in size, but very similar in color and outline, has been found by Captain Broun on *Fagus cunninghami* in the North Island.

S. circularis is smaller and of much more circular form than *S. restitutor*, and differs in the structure of the claws and other important particulars.

A CASE OF LACHNOSTERNA DAMAGE.

In the August number of INSECT LIFE, pp. 58 and 59, we noted the defoliation of young plum and cherry trees in an orchard belonging to Mr. J. Luther Bowers, of Herndon, Va., occasioned by the attacks of the Twelve-spotted Diabrotica. This very unusual habit of the Diabrotica was accounted for in the article referred to by the fact that the trees had been planted on land that had been in melons the previous year, and we then felt little hesitancy in predicting that this beetle had not formed a new food habit and would not again be thus troublesome. We instructed Mr. Bowers to be on the lookout for it this spring, however, and on May 9 we received a telegram from him which read, "The bugs are destroying everything." This, while somewhat indefinite, from the previous experience with the Diabrotica, led to the inference that this beetle had re-appeared in force.

We immediately sent one of our assistants, Mr. C. L. Marlatt, to Herndon with spraying appliances, to learn the exact nature of the present outbreak, and to use such measures as would be advisable to prevent further injury. The following facts are gathered from his report:

Examination of the orchard, on the afternoon of May 9, showed that for the Plums and Cherries the amount of injury had not been overstated by Mr. Bowers. Certain varieties of the trees mentioned were entirely defoliated and nearly all were more or less injured, the outer half of the branches having been especially attacked. At this time, 6.30 P. M., the trees were comparatively free of insects; a single specimen of