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NOTES ON CALIFORNIAN COCCIDAE II

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Erium lichtensioides Ckll.

This scale (Figures 16 and 17) occurs in considerable numbers on the stems and twigs of *Artemisia californica* in the wastes about Claremont. It is separated from *Pseudococcus* because of its globular form and the large fluffy, cottony sac

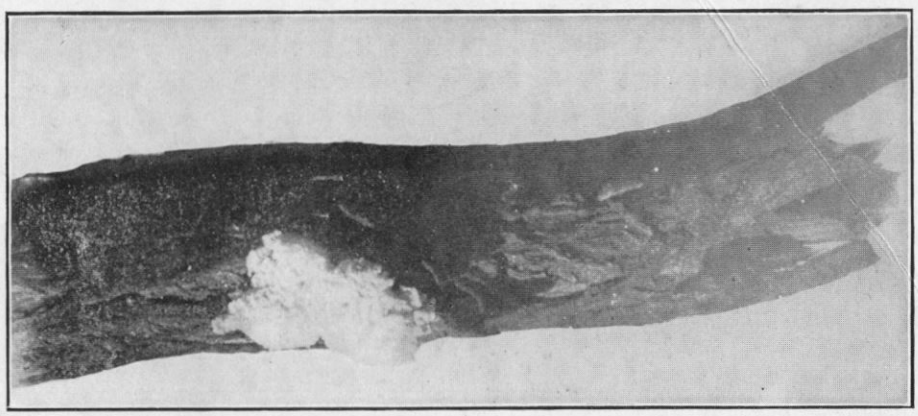

Figure 16. Erium lichtensioides

which encloses the scale body. The body is nearly round, smooth, and of a very dark purple color, as is also the body juice. The antennae are 7-articled and slightly hairy. The articles are short, the first and last being longest. The legs are very short and abortive.

So far as is known this scale has not been reported from this section before. It is easily recognized by the very large snow-white globular body-sac, which stand out in sharp contrast to the dark color of *Artemisia californica*.

Coccus longulus Dougl.

(Figure 21)

LONG SCALE.

Like many of the scales, this one has existed here for many years unnoticed, until of late its spreading has alarmed many of the citrus growers in this district. On March 26th, the College inspectors reported this scale in the orchard of Mr. W. Jones, but in no very great numbers. At the present date it is estimated that it has multiplied nearly 100% and is still increasing. The young forms have generally been confused with Soft Brown Scale, and were reported as such. The

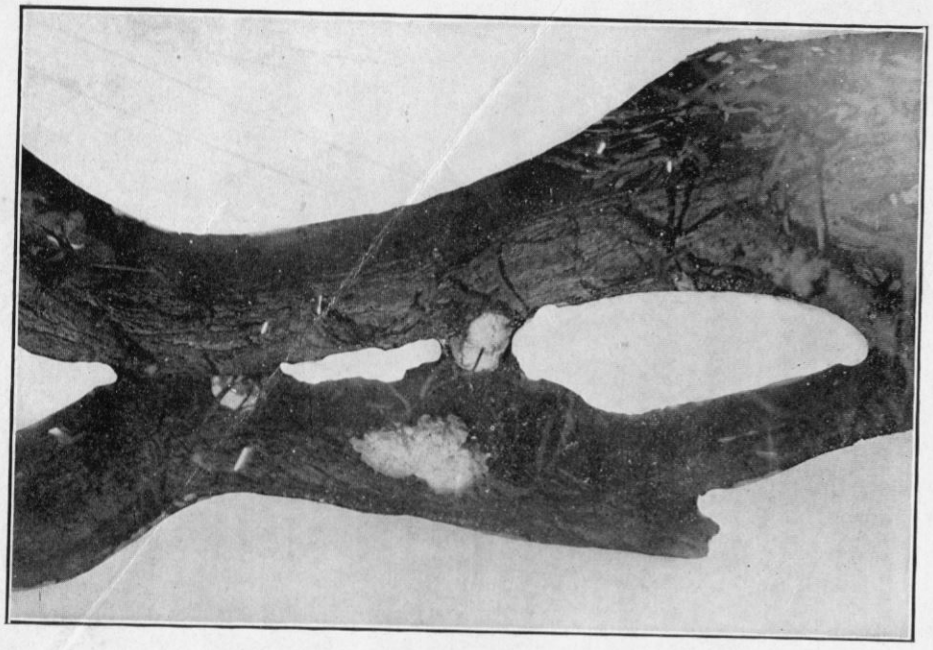

Figure 17. Erium lichtensioides

external appearance (Figure 21) is as follows: on the dorsum is a distinct light-colored line, on either side of which and parallel to it, is a less distinct line.

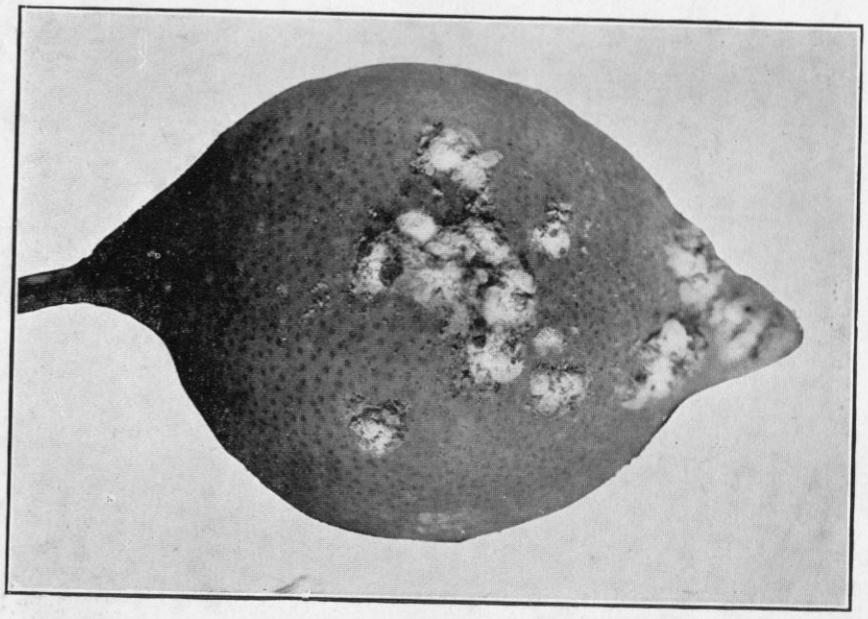

Figure 18. Parlartoria pergandii

Around the margins of the body is quite a wide colorless band extending half-way from the margin to the light median line on the dorsum. The general background color is a gray. The bodies are rather long, and may be so thick on the branches as to overlap so as to completely hide the surface of the branch. The antennae are 7-articled and small, as are also the legs.

The scale multiplies with wonderful rapidity, and so far as our examination goes, they are nearly free from parasites. They attack principally the younger shoots. Soft Brown Scale seems to limit its attacks by preference to the young trees, but this scale works as successfully on the old trees as on the young, but generally on the new growth. So far, it has been reported in only two orchards in any considerable numbers. Due to the fact that it is an unarmored scale, and so soft, it will probably not require any special fumigation dosage to rid the orchards of it. An ordinary Black-Scale dosage will do the work. But because of its ability to increase in such enormous numbers, care must be taken to rid the orchards of it before a great deal of damage has been done. Like most imported scales it has probably been struggling under changed climatic conditions, and is just beginning to thrive.

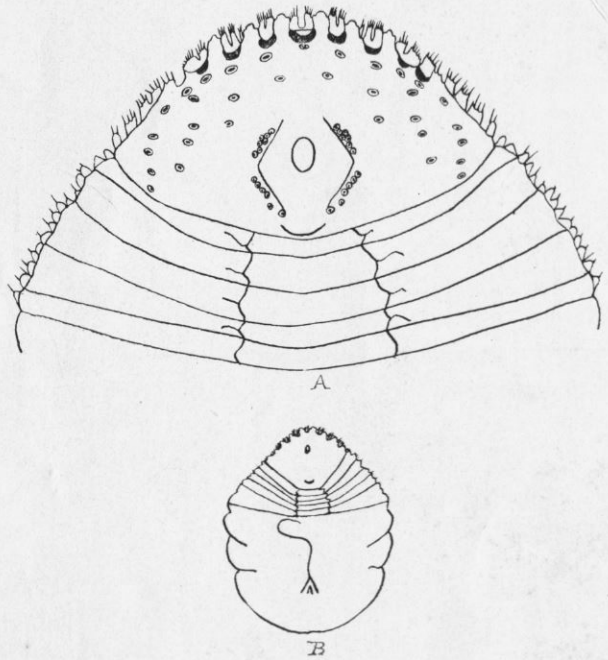

Figure 19. Parlatoria pergandii

Parlatoria pergandii, Comst.

(CHAFF SCALE.)

The female scale is irregularly elongated about 1 mm. in length, gray with darker marginal exuviae. The female body has three pairs of well-developed anal lobes (Figure 19), and a less developed fourth lobe resembling a papilla. Between the lobes and extending along the lateral margins are numerous hairs which arise from well-defined lateral lobes. There are four groups of circumgenital pores, the two upper groups usually having six, the two groups near cauda having seven. The whole body shows the segmentation very plainly.

The scale of the male is narrow and much smaller than the scale of the female. In color it is considerably lighter, with marginal exuviae a littlel darker. (Figure 20.)

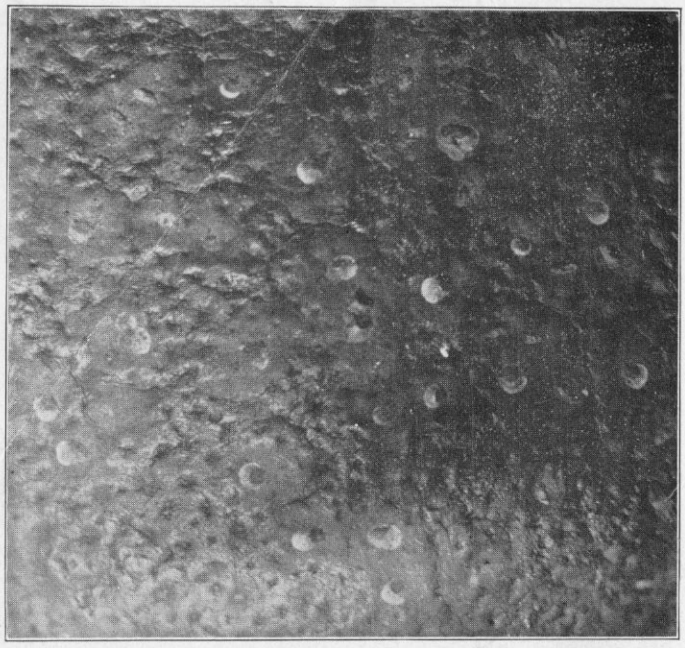

Figure 20. Parlatoria pergandii

This is more strictly a Florida scale, and is seldom found in California. Its color is so near that of the bark that infections are very difficult to find when only on the trunk or stems. However, it readily attacks the leaves and fruit so that it soon becomes very evident. Inspector C. H. Vary found this scale in great numbers infesting trunk (Figure 18), leaves, and fruit of a single orange tree in the very center of Pomona. It was promptly eradicated, for it was feared that it might do the damage here that it has done in Florida. Mr. E. K. Carnes reports this scale in only two districts in the State.

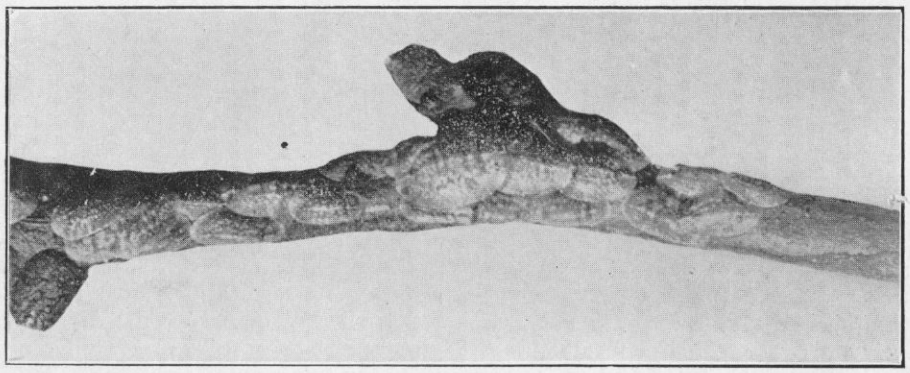

Figure 21. Coccus longulus.