

The opinion which, for many years past, I have persistently advocated, as regards the study of Coccidæ, is that it is always better to base distinctions, where possible, upon anatomical characters of the insects themselves, rather than upon external features of the coverings, waxy or cottony, or otherwise, under which they are sheltered. These coverings may vary so much according to accidental circumstances that I think they should be considered as of secondary, or even less, importance. In the case of the two insects of which I am now treating, I am sorry to say that I did not adhere strictly enough to my own rule. Size, colour, form of the scale, food-plant, and such like things, have been so greatly insisted upon, as I find, in all the accounts of *ASPIDIOTUS PERNICIOSUS*, that I have perhaps attached too much importance to them, and, consequently, it is possible that my identification of *AONIDIA FUSCA* is erroneous.

All the authors who describe *ASP. PERNICIOSUS* give the following characters of it :—

1. The scale is "gray"; the pellicles "yellow or reddish-yellow," "sometimes black."
2. When on twigs, "the wood beneath the bark is stained red"; "the cambium layer of wood is stained purplish"; the "peculiar reddening effect on the skin is a very characteristic feature"; "the cambium layer frequently becomes deep red or purplish"; "if the twig be scraped with the finger-nail, a yellowish oily liquid will appear."
3. The diameter of the female puparium, or scale, is given by Comstock as about one 13th inch. I do not find it in other writers.
4. The principal food-plant, as mentioned above, is the pear; when the peach is mentioned it is only incidentally, or as very slightly attacked.
5. No mention is made by authors of the second female pellicle as being any larger than the adult female.

Now, in all the foregoing characters, the specimens on which I founded my *AONIDIA FUSCA* differ from *ASP. PERNICIOSUS*; and if one might accept as positively final the statement in "Insect Live" (Vol. VIII., p. 289), that "the San José scale differs from all others in the peculiar reddening effect which it produces," then there would be no more to be said; for *AONIDIA FUSCA* produces, as far as I know, no such effect. In size, *A. FUSCA* is much smaller, the female puparium having a diameter of one 35th inch. In colour it is "very dark brown or dull black;