# CARPOPHILUS LONGIVENTRIS IN SAGUARO BLOSSOMS (COLEOPTERA: NITIDULIDAE)

# By F. G. WERNER University of Arizona, Tucson

The common Nitidulid in saguaro blossoms is not Carpophilus pallipennis (Say), as is the case with other common cacti in southern Arizona, but C. longiventris Sharp. Adults reach the flower early in the morning of the one day they are open and swarm over the inside of the perianth, at the base of the stamens. By noon, elongate (1.06) -1.34 x 0.22-0.25 mm.) white eggs have been deposited just under the lining of the perianth, parallel to the surface. These must hatch within 24 hours, because small larvae can be found the next day. The perianth and style gradually wither and usually drop from the developing fruit within four or five days. By this time the larvae are mature. They change from white to pinkish-white and finally to tannish-white as they develop, probably partly because of the changing color of their food, pollen and probably other tissue, as decay progresses. The contents of the digestive tract show through the translucent body. Dead flowers on the ground rarely contain larvae, which must therefore leave soon after the flower has dropped, or even before, presumably to pupate in the ground. The larvae do not enter the developing fruit and so probably have no effect on them.

The adults are in most cases easily distinguishable from pallipennis by their dark elytra, but some small individuals have the elytra pale. In that case, they can be distinguished by the lack of small tubercules on the middle part of the hypopygidium, much sparser and less decumbent pubescence on the pygidium and by the secondary sexual characters given by Parsons (1943, Bull. M. C. Z., 92: 166-9). The large larvae are almost identical with those of C. floralis Er., as described and figured by Connell (1956, Delaware Agr. Exp. Sta. Bull., 318: 17-21). They appear to differ only as follows: prothoracic plates with about 10 setae around the edge and about 8 small pits alternating with them, plus 1-2 setae and 1-2 pits on the disc; caudal plate with indefinite margins, almost identical but with 2-3 small pits on each side; setae on caudal plate, and to a lesser extent on the dorsum of the thorax, slightly thickened apically, elsewhere tapering to a fine point. The differences are not great, and a comparison of specimens would be required to pick out those of diagnostic importance.

Parsons (loc. cit.) states that this species has been collected on Yucca elata. Saguaro (Cereus giganteus) is certainly the principal host plant in the Tucson area. We have never taken the species in other blossoms. C. pallipennis frequents saguaro blossoms only in small numbers.

MELSHEIMERI (LEC.) IN EMELINUS ARIZONA (COLEOPTERA: ADERIDAE). — This species has not been recorded from west of Illinois and would be expected to occur only in the mesophytic portions of the Northeast and Midwest. Leng's record from Florida may refer to a misdetermined E. ashmeadi. A single male, collected at light by Anthony Ross, of the Department of Entomology, University of Arizona, in Pinery Canyon, W. slope Chiricahua Mts., July 11, 1958, agrees perfectly with the male from Illinois mentioned previously (Werner, 1956, Psyche 63: 32). This brings the total of described species known from Arizona to three. A small portion of the fauna of the Chiricahua Mts. appears to have been derived from that of the Midwest or at least from the same source. I. W. Green has recently identified a specimen of the lycid Caenia dimidiata (Fab.) from Pinery Canyon, July 9, 1955, Butler and Werner collectors. He expressed some surprise at its occurrence there, since it was previously known from only as far west as Arkansas. — F. G. WERNER, University of Arizona.



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