

**FIRST RECORDS OF *DICHOCERA* (DIPTERA: TACHINIDAE)
REARED FROM *CEUTHOPHILUS*
(ORTHOPTERA: RHAPHIDOPHORIDAE)
HOSTS IN NEVADA AND NEW YORK**

JETT S. CHINN¹ AND PAUL H. ARNAUD, JR.²

¹Department of Biology, San Francisco State University,
San Francisco, California 94132

²California Academy of Sciences, Golden Gate Park,
San Francisco, California 94118

Abstract.—*Dichocera* sp. was reared from the camel cricket *Ceuthophilus utahensis* Thomas collected in 1990 in Nevada; its puparium is described. La Rivers' speculation on the likelihood of *C. utahensis* occurring in Nevada is substantiated. In 1968, a *Dichocera* sp. probably *lyrata* Williston was reared from *Ceuthophilus guttulosus guttulosus* Walker in New York.

Key Words.—Insecta, Tachinidae, *Dichocera*, Rhaphidophoridae, *Ceuthophilus*, parasitoid, puparium

We present two rearings of the tachinid genus *Dichocera* from the raphidophorid genus *Ceuthophilus* made over 20 years apart and from opposite sides of the North American continent. Nevada is newly included in the range of *Ceuthophilus utahensis* Thomas.

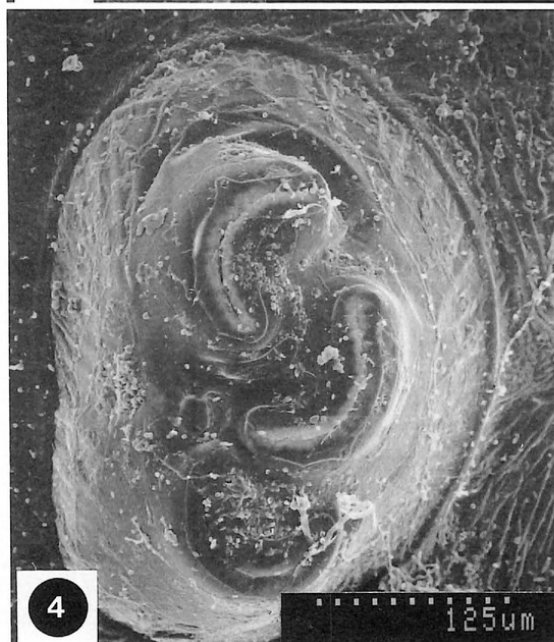
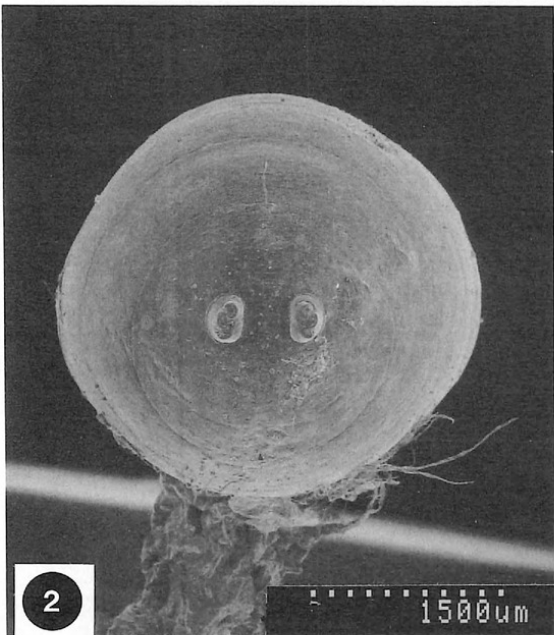
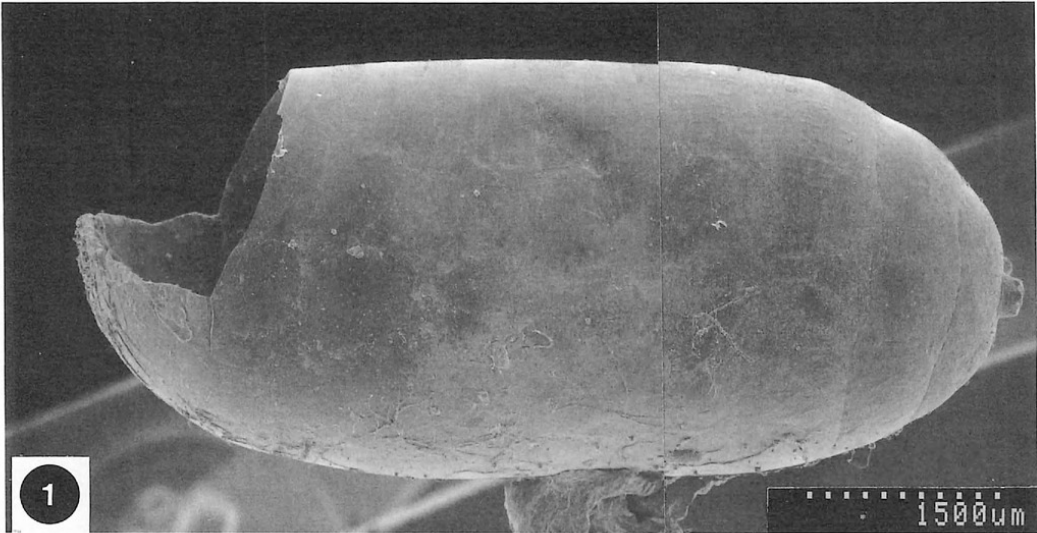
Current records of tachinids reared from the Rhaphidophoridae in North America include: *Meigenielloides cinereus* Townsend from *Gammarotettix bilobatus* (Thomas) in California (Arnaud 1973: 82), *Dichocera orientalis* (Coquillett) from cave crickets (Wood 1987: 1198), and *Anisia flaveola* (Coquillett) from *Ceuthophilus latibuli* Scudder in Florida. The *A. flaveola* was cited as *Oedematocera flaveola* (Coquillett) (Hubbell 1936: 507, Arnaud 1978: 607); Wood (1985: 20) synonymized *Oedematocera* with *Anisia*. We confirm that *Dichocera* and *Ceuthophilus* are sympatric.

REARING IN NEVADA

This rearing involves an adult male gracilifemoral "*utahensis*" phase (not robustifemoral "*uniformis*" phase) of *C. utahensis* (Hubbell 1936: 68–80) collected by Graeme Lowe (see material examined), and given to JSC for identification and observation. Several days later, JSC transferred the camel cricket to a covered plastic container provided with water, rolled oats, and rabbit feed pellets. At 1430 h (PDT) on 27 Aug 1990, the camel cricket was observed to be grossly debilitated with a large opening on the left side of its thorax, its left middle and hind legs severed at the coxae, and its abdomen hollowed. On the floor of the container was a white dipterous larva. The larva completed pupariation within three hours, gradually changing from white to red-brown.

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Figures 1–5. Puparium of *Dichocera* sp. Figure 1. Lateral view. Figures 2, 3. Posterior views. Figure 4. Left posterior spiracular plate. Figure 5. Superior spiracular slit on left posterior spiracle.



The puparium was placed about 1 cm from a small piece of moistened tissue inside a clean covered plastic container. In this artificial environment, an adult female fly emerged at approximately 1000 h (PDT) on 29 Sep 1990. It remained teneral for three days, with its wings not fully expanded when killed. PHA subsequently identified it as *Dichocera* sp. Description of the puparium is as follows: length 8.5 mm, diameter 3.0 mm, smooth, subshining, red-brown; 10 segments subtly delineated but distinctly discernable (Fig. 1); faint depression on caudal segment around spiracular plate (Figs. 2, 3); posterior spiracles protuberant (height approximately 0.2 mm), conical, shiny black (Fig. 1), and approximately 0.36 mm apart at base (Figs. 2, 3); three crescent-shaped slits on each spiracle (Figs. 4, 5).

Material Examined.—*Ceuthophilus utahensis*, NEVADA. LINCOLN CO.: Rainbow Canyon near Elgin, 18 Aug 1990, G. Lowe.

REARING IN NEW YORK

Correspondence in 1968 and 1969, between Robert E. Silberglied and PHA, concerning several tachinid rearings included a specimen of *Dichocera*. At that time PHA was preparing a manuscript on the hosts of North American Tachinidae, and Silberglied generously gave him permission to include the rearings in the host catalog. Because unpublished rearings could not be included in the catalog, we present this *Dichocera* record here.

In 1967, at Ithaca, Tompkins County, New York, Silberglied reared *Dichocera* probably *lyrata* Williston, determined by Curtis W. Sabrosky, from a nymphal *Ceuthophilus guttulosus guttulosus* Walker.

DISCUSSION

La Rivers' (1948: 708) conjecture that *C. utahensis* would likely occur in Nevada is confirmed by Lowe's collection of the host and by the collection of a series of six additional specimens (five females, one male) of the gracilifemoral "*utahensis*" phase made concurrently at the same locality by Stanley C. Williams, Lowe, and JSC. The male and two females of this series were parasitized by mites. The collection site was a habitat of thickets at the base of Rainbow Canyon near Meadow Valley Wash, along Route 317 (el. 1100–1200 m). This habitat, range, and spotty distribution are consistent with those mentioned by Hubbell (1936: 68–80) and La Rivers (1948: 708).

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