

mate as determined by examination of the spermathecae.

LARVAL HABITAT. *C. territans* larvae were collected from permanent, small pools with slightly acidic water (pH 6) at the edge of Lake Costello in Algonquin Park, Ontario. *Culex restuans* (Theo.) was the mosquito species most commonly associated with *C. territans*. The dominant plants in the area were blue-joint grass, *Calamagrostis canadensis* (Michx.) Beauv.; speckled alder, *Alnus rugosa* (Du Roi); fireweed, *Epilobium angustifolium* L.; and meadow-sweet, *Spiraea alba* Du Roi.

ADULT BEHAVIOR. The females readily bloodfed on the leopard frog, *Rana pipiens* Schreber; the bullfrog, *R. catesbeiana* Shaw; the pickerel frog, *R. palustris* LeConte; and the green frog, *R. clamitans* Latreille. The frogs were suspended from the cage ceiling in a nylon stocking. The mosquitoes made no attempt to feed on a human who spent long periods of time in the cage.

Qualitative records were kept for several weeks of the mosquitoes' activity cycle. *C. territans* is crepuscular with the most intense activity just at the end of dusk and the beginning of dawn. The length of the inactive period during mid-day varied with the temperature.

Various oviposition sites were available in the cage—white enamel pans with filtered lake water, with filtered lake water plus small brown stones, and with the water from which adults had emerged containing the larval food and exuviae. Position of the pans was changed daily to eliminate bias. All egg rafts were found in the pan containing filtered lake water and dark stones, showing that even though chemical factors may be of importance in oviposition site selection (Gjullin *et al.*, 1965; Hazard *et al.*, 1967; Hudson and McLintock, 1967), a dark background is more important. The desirability of dark backgrounds for oviposition sites has been shown for *C. restuans* (Belton, 1967) and for *C. tritaeniorhynchus* Giles (Field and Matusi, 1965). Several rafts which were still white were collected during the late morning, indicating that *C. territans* does not oviposit exclusively in the dark. The time(s) of maximum oviposition was not determined.

On numerous occasions the ant, *Lasius neoniger* Emery, was observed preying on both sexes of mosquitoes. An ant would grasp the mosquito's leg in its mouth and would back away dragging the struggling mosquito. Although the captured mosquitoes may not have been as hearty as the ones which avoided capture, they did resist vigorously. In one instance a female was able to fly about 2 inches with the ant attached. Several of the captured mosquitoes were examined and none had missing appendages.

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INTERSEX OF *Culicoides circumscriptus* KIEFFER

(CERATOPOGONIDAE:DIPTERA)¹

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A number of intersexes in *Culicoides* has been reported. (Callot and Kremer 1963, Dzshafarov 1960, Smith 1966, Smith and Perry 1967). This paper describes an intersex of *C. circumscriptus* Kieffer which heretofore has been undescribed. This specimen was collected in a light trap in September 1967 in Karaj, Iran.

This specimen is mounted on a slide in phenol-balsam.

DESCRIPTION:

Head—Eyes separate as in female, with superior transverse suture; antennae with last five segments elongate as in female but number of antennal hairs more than that of female but less than that of male; maxillary palps typically female.

Wings—Size smaller than that of female, length 1.31 mm., width 0.48 mm. (average of 30 females, length 1.43 mm., width 0.61 mm.); color of spots as in male.

Terminalia (Fig. 1)—Male-like but with spermatheca; ninth tergite similar to male but smaller with no apico-lateral process, with parameres not expanded in middle like normal male; instead, gradually tapering from base to apex; aedeagus with body narrower than normal; basistyle and

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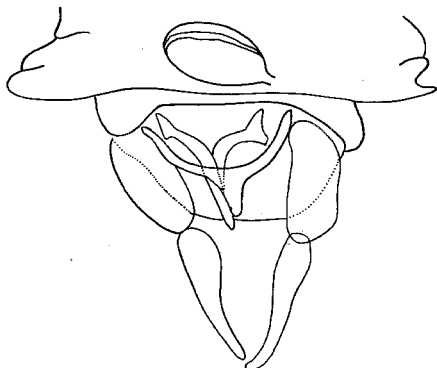


FIG. 1.—Terminalia of intersex of *Culicoides circumscriptus* Kieffer.

OCCURRENCE OF *Culex pipiens quinquefasciatus*
SAY IN NEVADA

H. C. CHAPMAN¹ AND R. C. BECHTEL²

Culex pipiens pipiens L., and *C. pipiens quinquefasciatus* Say have previously been reported from 23 and 24 states, respectively, within the continental United States. Thus, the complex is known from 46 of the 48 continental states but has not been reported from either West Virginia or Nevada (Carpenter and LaCasse, 1955; Carpenter, 1968). Chapman (1966) reported 30 species and one subspecies from Nevada but failed to collect any representatives of the *pipiens* complex.

Recently, the authors identified 23 larvae in 5 of 64 larval collections from southern Nevada containing *C. tarsalis* Coquillett as *C. p. quinquefasciatus*. These collections were obtained from five

style narrower than normal, basistyle without ventral root.

Neither parasite nor blood was found in the gut.

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sites in the water runoff in ditches or ponds containing various combinations of bermudagrass, salt cedar, tules, and trash.

Nevada Records

CLARK COUNTY: *Las Vegas*, VII-65 (D. D. Milner); VII-5-67 (L. Hennig and D. McCoy); VII-25-67 (R. Hicks and D. McCoy); VII-25-68 (R. Hicks); *North Las Vegas*, VII-18-67 (R. Hicks).

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