REDISCOVERY OF CHRYSOps (LIOCHRYSOps) HYALINUS AND NEW RECORDS OF C. ABATUS (DIPTERA: TABANIDAE)¹

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At the time the subgenus Liochrysops (Philip 1955), was erected for the deer fly, Chrysops hyalinus Shannon, many years had elapsed since the last specimen had been collected. There was concern that domestication of the only two bog areas in Maryland and North Carolina where this delicate, subshining black species with clear wings and peculiar habits had been found had extinguished this precinque species, of which a male had never been taken.

Surprisingly, within the past two years more specimens have been taken in early spring from each of two areas in northern Florida and southern Alabama than were taken by all diligent collecting in the previously known restricted areas of occurrence. Earlier observations on habits of the species can be augmented now. The male is described here for the first time from four males taken in Florida during 1964.

Male: Length, 6.5 mm. Except for the usual sex differences, males have the same subshining black appearance as the females and are readily associated with the opposite sex. As might be expected from the darkening of the wings of males in other species, there can be seen in certain lights a faint infuscation of the base of the wing. The outer margin of this infuscation crosses the radial and medial sectors just beyond the discal cell from the outer end of the pale yellow stigma and fades toward the apex of the cubital cell before the hind margin; the costal cell is a little more yellowish than in the females. This corresponds to what is more plainly seen, though still faint, on the wings of Chrysops nigribimbo Whitney, its closest relative. C. hyalinus lacks the facial pollinosity of C. nigribimbo. Head wider than the thorax, and enlarged facets occupying a little more than the upper half to two-thirds of the eye area. Ocelligerous tuberol brown, prominently raised above eye level, and with short inconspicuous black hairs. No vestiture along the wide black occipital margins behind the eyes; the only gray pollinose areas on the head are two patches below those margins and a narrow area around the antennal bases, as in the females; apex of the frontal triangle black. Facial bullae shining black and a little more prominent than in female, accentuating the apodemal pits. Antennae basally dull yellow, darkening toward the black flagellums, and with longer, sparse black hairs than in the females. Palpi black, blunt, cylindrical, and tapered apically. Notum with even fewer appressed metallic hairs.

On 13 April 1960, E. W. Holder, Jr., Florida Department of Agriculture, took five females of *C. hyalinus* from his car window at Glen St. Mary, Florida. On 3 April 1964, in the same locality, H. V. Weems, Jr. and C. F. Zeiger, the latter an official Collaborator of the Florida Department of Agriculture, collected four males and six females from flowers and foliage of wild cherry, *Prunus serotina* Ehrhart.

Both sexes of *Chrysops brimleyi* Hine, with contrasting wing pictures and other distinguishing characters, were taken on these blossoms by Weems and Zeiger at the same time in 1964.

The female eye pattern of *C. hyalinus* is rather heavy, nearest that figured by Daecke (1906) for *Chrysops hilaris* Osten Sacken (*= lateralis* Wiedemann), with short shafted “arrowhead” and the upper and lower frontal spots narrowly separated from the eye margin. However, the upper spot is not joined above to the occipital band as in *lateralis*. The eye pattern of *C. nigribimbo* Whitney, also figured by Daecke, is not as heavy and has a longer shaft. In six females of *C. hyalinus* the only variation in the pattern was that some lacked the connection between the arrowhead and midfrontal spot.

All Florida and Alabama records, the latter courtesy of Robert Watson of Auburn University, have been in April. The four Maryland syntypes and other topotypes were taken between 9 June and 6 July in different years. Two specimens were collected at Southern Pines, North Carolina, 14 May 1909, by A. H. Manee.

McAtee and Walton (1918) refer to the habits of *C. hyalinus* in Maryland as follows: “This species inhabits the peculiar Powdemark bogs and seems to spend all its time on grass and other vegetation only a few inches above the water surface. Its flight is slow and feeble, and its whole behavior differs widely from that of all other local species of the genus.” Mr. Watson (correspondence) is the only one who has observed the females attacking livestock. He collected 67 females from cows on 18-19 April 1964, near Seminole, Baldwin County, Alabama. His records suggest the female needs a blood meal to ovulate. Other females were taken in traps near Fish River in the same county, 3 to 25 April 1965.

Though many syrphids and other flies visited the wild cherry blooms during the day near Glen St. Mary, no specimens of *C. hyalinus* were seen until the afternoon of a partly overcast day. Flight of these specimens was characteristically weak. A wet area a quarter of a mile distant contained pitcher plants, *Sarracenia* sp., and may have provided a breeding environment comparable to Maryland bogs.

These new records emphasize that the species is a very precintive one. A few specimens have entered parked cars in both areas.

*Chrysops abatus* Philip

*Chrysops abatus* Philip is another deer fly that may have been missed because of precintive habits or early spring appearance on the wing. Though the type is labelled “Jacksonville, June 21,” the few subsequent records are for April. One female was recovered in quite fresh condition by Philip (1952) from a pitcher plant, *Sarracenia rubra* Walter, near Gulfport, Mississippi, 20 April 1952. Another female in the Florida State Collection of Arthropods was taken “biting man” ten miles northeast of Torreya State Park, Liberty County, 16 April 1953, by R. E. Woodruff.
Dr. L. L. Pechuman of Cornell University has sent us records of two additional specimens, one from the type locality without date or collector data, the other surprisingly from Elizabethtown, North Carolina, 30 April 1950, H. & M. Townes.

LITERATURE CITED


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