

TABANIDAE OF THE TENNESSEE VALLEY WATERSHED<sup>1</sup>

W. E. SNOW, EUGENE PICKARD AND J. B. MOORE

Malaria Control Branch, Division of Health and Safety, Tennessee Valley Authority,  
Wilson Dam, Alabama

A survey of insects of public health significance occurring in the vicinity of TVA reservoirs was undertaken in fiscal years 1953 and 1954. Included in this survey were mosquitoes, punkies, deer flies, horse flies, blackflies, and stable flies. It is the purpose of this paper to present information on the distribution and biology of the deer flies and horse flies encountered in this survey as well as records from incidental collections prior to 1953. The first and only extensive collections in the Valley before the 1953-1954 survey were made in north Alabama by Dr. John N. Belkin in 1941 and 1942 while on the TVA staff. We are indebted to him for the use of these records in this paper.

Although the Tennessee River watershed extends into seven Southeastern States, its main reservoirs are largely confined to Alabama and Tennessee. The majority of the collections was made in forested and pastured portions of the floodplain in these states. In several instances populations of tabanids were sampled along tributary streams in mountainous areas of the watershed included in the Cherokee National Forest. At Greenbrier, Alabama, deer flies were observed in a tupelo gum swamp maintained at more or less constant pool level by beaver dams. Heavy concentrations of deer flies were also noted in sandy creek bottoms near Bruceton and Paris, Tennessee, where highway and railroad construction has caused marshy and swampy situations to develop. Records of species

caught in connection with observations on biting Diptera in a cypress forest at Reelfoot Lake, Tennessee, are also included.

Since the tabanids do not generally constitute a source of annoyance to man and animals in reservoirs of the Tennessee River Valley, no extended efforts were made to determine larval breeding situations. Larvae and pupae of *Leucotabanus annulatus* Say were collected on several occasions from moist tree cavities in connection with studies on larval breeding sites of punkies. In one instance, a tabanid larva, presumed to be *Tabanus atratus* Fab., was taken while actively moving just beneath the surface of a large sulphate waste basin near Calhoun, Tennessee.

Adult populations were sampled while on animal hosts, in natural resting sites, parked and moving cars, light traps, rotary trap, on windows, and by net sweeping. Black panel trucks with fairly deep (2½"-3") side window casings were especially suited to the detention of tabanids entering through the rear door when the vehicles were parked along pastured reservoir margins. The following combinations of letters are employed in the distribution records to indicate the method or conditions pertaining to the collection: BC (biting a cow), BH (biting a horse), BM (biting a man), BP (biting a pig), BU (biting a mule), C (interior of car or truck) LT (light trap), RT (rotary trap), and S (net sweeping).

The distribution records presented in this paper include 51 species and 7 subspecies in the following genera: *Chrysops* (22), *Hamatabanus* (1), *Leucotabanus* (1), and *Tabanus* (34). The genus *Chlorotabanus* is very probably present in the Valley since Pechuman (1954) records a collection of *C. crepuscularis* (Bequ.) by

<sup>1</sup> Acknowledgment is made to Dr. Gordon E. Smith, Chief Biologist, Division of Health and Safety, for his guidance and helpful suggestions during the course of this survey. Special thanks are due Dr. Alan Stone, Bureau of Entomology and Plant Quarantine, U. S. Department of Agriculture, for identification of specimens and checking the manuscript list of species.

Benesh at Burrville, Tennessee, in the nearby Cumberland watershed. Of the 1,160 specimens collected, the majority (773) were deer flies (*Chrysops* spp.). This plurality of *Chrysops* suggests that deer flies are more anthropophilic and hence are more frequently encountered, that they are more restricted in the environment and show greater numbers in localized situations, or perhaps indicate a greater reproductive potential. The 387 horse flies were distributed as follows: *Hamatabanus* (2), *Leucotabanus* (15), and *Tabanus* (370).

*Chrysops beameri* Bren. TENNESSEE: Hollow Rock, VIII-21-53 (C-1).

*Chrysops brimleyi* Hine TENNESSEE: Newport, V-11-54 (BH-1).

*Chrysops brunnea* Hine TENNESSEE: Samburg, VI-15-51 (C-1) (BM-4), VI-16-51 (C-3), VI-14-52 (BM-2), VI-16-52 (BM-2), VI-17-52 (BM-2), VI-18-52 (BM-2), VIII-22-52 (BM-2), VIII-23-52 (BM-1), VII-22-54 (BM-54) (C-51), VII-23-54 (LT-1). Adults of *C. brunnea* have been frequently observed biting man during the daylight hours in and along the margin of a cypress swamp on Bayou du Chien near Samburg at Reelfoot Lake, Tennessee. Feeding on man in the forest has been most pronounced in the late afternoon just before dusk, particularly in the shrub layer of vegetation.

*Chrysops callida* O. S. TENNESSEE: Camden, VI-9-53 (BM-1), VI-23-53 (C-1), VII-6-53 (BM-1), V-18-54 (BM-2), VII-7-54 (BM-2), VII-29-54 (C-1). ALABAMA: Decatur, V-28-41 (4), VI-9-41 (21), VI-21-41 (4); Mooresville VI-3-41 (1); Town Creek, V-29-41 (2); Triana, VI-9-41 (9), V-28-42 (1); Greenbrier, VI-19-41 (1); Florence, VII-1-41 (12); Wilson Dam, V-27-42 (1), VI-15-42 (3), VI-26-42 (1), VII-1-42 (4); Whiteside, V-28-42 (1); Rogersville, VII-2-54 (BM-1). NORTH CAROLINA: Bryson City, VII-1-53 (C-1).

*Chrysops carbonaria* Walk. TENNESSEE: Sugar Tree, V-14-52 (C-1); Parksville, V-24-54 (C-1).

*Chrysops cursim* Whit. TENNESSEE: Paris, VI-22-54 (C-1).

*Chrysops dacne* Philip TENNESSEE: Camden, VII-6-53 (BM-3), VII-7-53 (BM-2), V-10-54 (C-1), VII-1-54 (C-1), VII-7-54 (C-1); Paris, VI-3-54 (C-2), VI-23-54 (S-23) (BM-21); Hollow Rock, VI-22-54 (BM-4), VII-8-54 (S-2); Springville, VI-22-55 (C-1); Lake City, VII-14-55 (BM-1). ALABAMA: Decatur, VI-9-41 (16), VI-11-41 (16), VI-21-41 (3), VI-26-41 (1); Greenbrier, VI-20-55 (C-2).

*Chrysops flava* Wied. TENNESSEE: Oak Ridge, VII-23-49 (S-1); Delano, IV-18-52 (S-1); Paris, VI-3-53 (BM-1); Pickwick Dam Village, VI-23-53 (BM-1); Camden, VI-24-53 (C-1), VII-6-53 (BM-1), VII-7-53 (BM-3), VIII-3-53 (BM-3), VIII-14-53 (C-2), VIII-15-53 (C-3) (BM-3), VIII-16-53 (BM-2), VIII-22-53 (C-4), VI-22-54 (C-1), VII-1-54 (C-1), VII-29-54 (C-1), VIII-26-54 (C-12), IX-10-54 (C-1); Hustburg, VII-20-53 (LT-1), VIII-17-53 (LT-1), VI-18-54 (LT-1); Samburg, VIII-16-53 (BM-2), VII-22-54 (BM-2); Eva, VI-23-54 (C-1); Faxon, VI-24-54 (C-1); McKinnon, VI-24-54 (C-1), VI-28-54 (C-1). ALABAMA: Decatur, VI-3-41 (1), VI-11-41 (65), VI-21-41 (1); Wilson Dam, VII-1-42 (1), VI-16-54 (BM-1); Rogersville, VII-2-54 (BM-3), VII-9-54 (BM-3), VII-16-54 (BM-3); Florence, VII-13-54 (C-1); Sheffield, VII-14-54 (C-1); Madison, VIII-25-54 (C-5); Greenbrier, V-6-55 (BM-1), VI-20-55 (C-4), VII-15-55 (C-4), VII-18-55 (RT-1), VII-24-55 (C-1), VII-26-55 (C-3), VII-27-55 (C-2), VIII-9-55 (C-1), VIII-10-55 (C-1), VIII-18-55 (RT-1), VIII-19-55 (C-1.) This species was the most pestiferous deer fly observed in north Alabama. It was particularly abundant in tupelo gum swamps from June to August. In Tennessee, it was commonly encountered with *Chrysops wiedemanni* along reservoir margins colonized by buttonball (*Cephalanthus occidentalis*).

*Chrysops flava celata* Pech. ALABAMA: Decatur, VI-11-41 (3).

*Chrysops flava reichertii* Fair. TENNESSEE: Samburg, VIII-23-41 (1), VI-15-51 (BM-4), VI-16-51 (C-3), VI-17-51 (BM-8), VI-18-51 (BM-1), VI-15-52 (BM-1), VI-17-52 (BM-22), VI-18-52 (BM-1), VIII-20-52 (BM-4), VIII-21-52 (BM-2), VIII-25-52 (BM-1). ALABAMA: Triana, VI-9-41 (2); Decatur, VI-11-41 (6), VI-21-41 (1); Wilson Dam, VI-15-42 (9). Along with *Chrysops brunnea*, this species was annoying to man along the margins of Bayou du Chien at Reelfoot Lake, Tennessee. In addition to bald cypress the bayou is margined with dense stands of giant sawgrass (*Zizaniopsis miliacea*).

*Chrysops geminata* Wied. TENNESSEE: Hollow Rock, VI-22-54 (BM-1); Parksville, VI-23-54 (BM-1). NORTH CAROLINA: Andrews, VII-7-54 (C-1).

*Chrysops moecha* O. S. TENNESSEE: Paris, VII-29-53 (C-1), VI-7-54 (C-3); Camden, V-10-54 (C-1), VI-11-54 (C-1); Gallatin, VI-11-54 (C-1). ALABAMA: Mooresville, VI-9-41 (1).

*Chrysops montana* O. S. ALABAMA: Decatur, V-28-41 (1), V-28-42 (4).

*Chrysops nigra* Macq. TENNESSEE: Sugar Tree, V-14-52 (BM-2), V-23-53 (BM-1), V-25-53 (BM-1); Camden, V-21-53 (BM-11); VI-8-53 (BM-2) (C-1), VI-9-53 (BM-3), V-28-54 (C-2), VI-18-54 (C-1), VII-7-54 (C-1); Englewood, IV-30-54 (BM-2); Tellico Plains, IV-30-54 (BU-1); Big Sandy, V-11-54 (C-1); Hollow Rock, V-17-54 (C-1); Carderville, VI-9-54 (BH-1). ALABAMA: Decatur, V-28-41 (1); Florence, V-23-54 (C-1); Fort Payne, VI-22-54 (BM-1); Town Creek, IV-29-55 (BM-2). Adults of *C. nigra* were especially numerous in a black willow-cattail bottom near Camden, Tenn.

*Chrysops parvula* Daecke. TENNESSEE: Paris, VI-23-54 (S-1). NORTH CAROLINA: Hayesville, VI-24-54 (BH-1).

*Chrysops pikei* Whit. TENNESSEE: Camden, VII-2-54 (C-1), VII-7-54 (C-1). ALABAMA: Mooresville, V-9-41

(1); Decatur, VI-11-41 (1); Greenbrier, VI-18-41 (1); Wilson Dam, VI-15-42 (1); Florence, V-28-53 (C-1).

*Chrysops pudica* O. S. TENNESSEE: Camden, VI-18-54 (C-1), VII-7-54 (C-1). ALABAMA: Somerville, VI-10-42 (1); Wilson Dam, VI-15-42 (1).

*Chrysops striata* O. S. TENNESSEE: Big Sandy, VII-28-54 (C-1); Paris, VIII-26-54 (S-1).

*Chrysops univittata* Macq. TENNESSEE: Paris, VI-12-51 (C-2), VI-17-54 (BU-1), VI-24-54 (C-1); Carderville, VI-16-53 (BM-1); Pickwick Dam Village, VI-23-53 (BM-1); Hustburg, VI-23-54 (C-1); Faxon, VI-24-54 (C-1); McKinnon, VI-24-54 (C-1); Camden, VII-2-54 (C-1). ALABAMA: Somerville, VI-10-42 (1); Rogersville, VI-4-54 (BM-1). NORTH CAROLINA: Hayesville, VI-24-54 (BH-2); Andrews, VII-7-54 (S-2). Of all deer flies considered in this report, *C. univittata* showed the widest range of habitat conditions. In the tributaries of the storage reservoirs up to 2,000' in the Smoky Mountains, females were taken along mountain streams where mountain laurel and rhododendron were common plant species. In west Tennessee characteristic habitats appeared to be along gravel bottom streams in low hill country.

*Chrysops epsilon* Philip. ALABAMA: Decatur, VI-9-41 (12), VI-11-41 (15), VI-21-41 (9), VI-26-41 (1), VII-9-41 (3), VII-13-41 (4); Florence, VII-1-41 (1); Greenbrier, VII-26-55 (C-1), VIII-5-55 (C-1), VIII-19-55 (C-2).

*Chrysops vittata* Wied. TENNESSEE: Englewood, VII-9-52 (BM-3); Chattanooga, VI-2-53 (BM-1), VI-7-54 (BM-1); Paris, VI-23-54 (S-2), VII-8-54 (S-14), VIII-26-54 (S-27); Big Sandy, VIII-5-54 (C-1). ALABAMA: Decatur, VI-9-41 (3), VI-11-41 (6), VI-21-41 (3), VI-26-41 (1). NORTH CAROLINA: Hayesville, VI-24-54 (BH-5). In the mountainous area around Hayesville, N. C., deer flies have been considered a major pest to man and livestock in June. Adults of *C. vittata* were especially active along the wooded hill tops rather than in

pastured valleys. Near Paris, Tenn., this species was very abundant in a sandy creek bottom which had become swampy and colonized by alder (*Alnus rugosa*) due to interruption of drainage by highway construction.

*Chrysops wiedemanni* Kr. TENNESSEE: Bristol, VIII-9-51 (C-1); Camden, VI-23-53 (C-3), VIII-3-53 (BM-3), VIII-14-53 (C-1), VIII-15-53 (C-1), VII-1-54 (C-1), VII-2-54 (C-1), VII-7-54 (C-4), VII-27-54 (C-1), VIII-25-54 (C-1), VIII-26-54 (S-2) (C-1); Eva, VII-30-53 (BM-2); Hollow Rock, VIII-21-53 (C-2); Big Sandy, VII-28-54 (C-1); Paris, VIII-26-54 (S-1), IX-9-54 (S-1). ALABAMA: Decatur, VI-9-41 (4), VI-11-41 (3), VI-26-41 (1); Florence, VII-1-41 (2); Greenbrier, VI-20-55 (C-1), VII-14-55 (RT-1), VII-26-55 (C-1), VII-27-55 (C-1). MISSISSIPPI: Iuka, IX-22-52 (BM-1). This species was commonly found biting man in the major reservoir bottoms in north Alabama and West Tennessee with *C. flava*.

*Hamatabanus carolinensis* (Macq.). TENNESSEE: Camden, V-10-54 (C-1). ALABAMA: Wilson Dam, VI-6-41 (1).

*Leucotabanus annulatus* (Say). TENNESSEE: Hustburg, VII-2-53 (LT-1); Parksville, VIII-27-53 (C-1); Tallassee, VII-6-54 (C-1); Tazewell, VII-6-54 (C-1); Camden, VII-7-54 (C-2); Knoxville, VII-15-55 (C-1). ALABAMA: Riverton, XII-1-54 (Larva-tree cavity-1), V-24-55 (Larvae-tree cavity-1); Waterloo, IV-7-55 (Larva-tree cavity-1), IX-5-55 (Larva-stump-1); Town Creek, VI-1-55 (Larvae-stump-3), VII-8-55 (pupa-stump-1). Adults of this species are active during the day and at night. Larvae and pupae were collected in the field from tree cavities and stump holes. Only one or two individuals were found in the cavity at one time. The larvae appeared more frequently in the moist wall of the cavity than in open water.

*Tabanus americanus* Forst. TENNESSEE: Camden, VII-29-54 (C-1). ALABAMA: Waterloo, VII-19-54 (C-1).

*Tabanus atratus* Fab. TENNESSEE: Dentville, VII-7-52 (BC-1); Camden, VII-7-

53 (BM-1); Newport, IX-2-54 (BC-1); Lake City, VIII-8-55 (Barn-1); Hustburg, IX-15-55 (C-1). ALABAMA: Athens, VII-6-41 (1), VII-9-41 (2); Wilson Dam, VIII-2-41 (1); Sheffield, VII-11-53 (window-1); Rogersville, VIII-10-55 (C-1).

*Tabanus calens* L. TENNESSEE: Camden, VIII-14-53 (C-2), VIII-15-53 (C-2); Hollow Rock, VIII-21-53 (C-3); Paris, VIII-21-53 (BC-2); Perryville, VIII-19-55 (C-1). ALABAMA: Florence, VIII-27-41 (1); Greenbrier, VIII-29-55 (C-1) (BU-1).

*Tabanus cinctus* Fab. TENNESSEE: Tellico Plains, VI-25-52 (BC-1); Parksville, VI-24-54 (BU-3).

*Tabanus cymatophorus* O. S. TENNESSEE: Sugar Tree, VII-30-53 (C-1).

*Tabanus difficilis* Wied. TENNESSEE: Oak Ridge, VII-23-49 (S-1); Carderview, VI-9-54 (BH-3); Tazewell, V-31-55 (C-2).

*Tabanus equalis* Hine. TENNESSEE: Samburg, VI-18-52 (C-1); Hustburg, VIII-2-53 (LT-1); Camden, VII-7-54 (C-1).

*Tabanus fulvulus* Wied. TENNESSEE: Camden, VI-10-51 (C-2), VI-11-51 (C-1), V-10-54 (C-1); Samburg, VI-18-52 (C-1); Athens, VI-24-52 (C-1); McKinnon, VI-24-54 (C-1); Parksville, VI-24-54 (BU-1). ALABAMA: Wilson Dam, V-28-41 (2); Somerville, VI-10-41 (1). NORTH CAROLINA: Hayesville, VI-24-54 (BH-1). Not observed feeding on man in the original studies, but one of the authors later (June 12, 1956) captured a specimen at Florence, Alabama, while it was attempting to feed on his arm.

*Tabanus fulvulus pallidescens* Philip. TENNESSEE: Camden, VI-15-51 (C-1), VII-6-53 (C-2); Parksville, VI-24-54 (BU-2). ALABAMA: Wilson Dam, V-22-41 (4), VI-6-41 (3), VI-15-41 (2); Somerville, VI-10-41 (1); Greenbrier, VI-26-41 (2).

*Tabanus lasiophthalmus* Macq. TENNESSEE: Samburg, VI-18-52 (C-1); Bristol, VI-10-54 (C-1). ALABAMA: Wilson Dam, V-22-41 (2), VI-11-41 (1); Decatur, V-27-41 (1).

*Tabanus lineola* Fab. TENNESSEE: Oak Ridge, VII-29-49 (S-1); Camden, VI-10-51 (C-1), VI-14-51 (C-11), VI-15-51 (C-2), VI-16-51 (Tent-10), V-21-53 (C-1), VI-9-53 (C-2), VII-6-53 (C-6), VIII-3-53 (C-1), VIII-14-53 (C-2), VIII-22-53 (C-1), IX-3-53 (C-1), VI-22-54 (C-1), VII-7-54 (C-1), VII-29-54 (C-1), VIII-26-54 (C-3), IX-10-54 (C-1); Sugar Tree, V-29-53 (C-1), VI-17-54 (C-1), VII-8-54 (C-1), VI-24-55 (C-1); Hustburg, VII-7-53 (LT-2), VII-14-53 (LT-1), VII-16-53 (LT-2), VII-30-53 (LT-1), VIII-1-53 (LT-1), VIII-6-53 (LT-5), VIII-11-53 (LT-1), VIII-19-54 (C-1), VIII-27-54 (C-1); Newport, VIII-14-53 (LT-1); Linden, V-20-54 (BU-1); McKinnon, VI-24-54 (C-2); Paris, VI-24-54 (C-1), VII-20-54 (C-1); Samburg, VII-22-54 (C-2), VII-23-54 (LT-1). ALABAMA: Decatur, V-27-41 (1); Wilson Dam, VI-9-41 (2); Somerville, VI-10-41 (1); Greenbrier, VI-18-41 (1); Florence, VII-15-53 (C-5); Rogersville, VII-2-54 (C-1); Madison, VIII-25-54 (C-1). This was the most common horse fly attacking livestock in the main reservoir bottoms of the Tennessee Valley.

*Tabanus lineola scutellaris* Walk. TENNESSEE: Oak Ridge, VII-23-49 (S-1).

*Tabanus longiusculus* Hine. TENNESSEE: Hollow Rock, VIII-21-53 (C-1); Camden, VIII-23-53 (C-1).

*Tabanus melanocerus* Wied. TENNESSEE: Camden, VII-50 (C-1), VII-6-53 (C-3), VI-14-54 (C-1), VII-7-54 (C-1); Parksville, VI-24-54 (BU-1); Paris, VII-20-54 (C-1); Sugar Tree, VI-24-55 (C-1). ALABAMA: Waterloo, VII-19-54 (C-1). GEORGIA: Blairsville, VI-17-55 (C-1).

*Tabanus molestus* Say. TENNESSEE: Samburg, VI-15-51 (C-1), VI-18-52 (C-1); Tellico Plains, VI-25-52 (BC-1); Paris, VI-24-54 (C-1). ALABAMA: Wilson Dam, VI-16-41 (1), VII-12-42 (1).

*Tabanus molestus mixis* Philip. TENNESSEE: Camden, VI-15-51 (C-1), VI-19-51 (C-2); Paris, VI-3-54 (C-1), VI-24-54 (C-1); Parksville, VI-24-54 (BU-1). ALABAMA: Wilson Dam, V-24-

53 (window-1). NORTH CAROLINA: Cherokee, V-25-54 (BU-1).

*Tabanus mularis* Stone. TENNESSEE: Paris, VI-12-51 (C-1); Chattanooga, VI-2-53 (C-1); Camden, VI-9-53 (C-1), VIII-14-53 (C-4), VIII-15-53 (C-1), VIII-22-53 (C-1); Sugar Tree, VII-3-53 (C-1); Big Sandy, VI-8-54 (window-1). ALABAMA: Decatur, VII-30-41 (1); Florence, VI-12-53 (C-4), VI-29-54 (C-1); Rogersville, VI-18-54 (C-1); Town Creek, VII-9-55 (C-1).

*Tabanus nigrescens* P. de B. ALABAMA: Scottsboro, VII-20-54 (C-1).

*Tabanus nigripes* Wied. TENNESSEE: Erwin, VII-7-54 (BH-1).

*Tabanus petiolatus* Hine. TENNESSEE: Camden, VI-22-54 (C-1), VIII-26-54 (C-1). ALABAMA: Decatur, VI-11-41 (1).

*Tabanus proximus* Walk. TENNESSEE: Sugar Tree, VIII-15-53 (C-1). ALABAMA: Greenbrier, VIII-29-55 (C-1).

*Tabanus pumilus* Macq. TENNESSEE: Oak Ridge, VII-23-49 (S-1); Sugar Tree, V-29-53 (C-1); Springville, V-25-55 (Helicopter-1).

*Tabanus quinquevittatus* Wied. TENNESSEE: Camden, VI-14-51 (C-1), VIII-3-53 (BM-1), VIII-6-53 (C-3), VIII-14-53 (C-11), VIII-15-53 (C-1), VIII-22-53 (C-3), VII-29-54 (C-1), VIII-4-54 (C-1); Sugar Tree, VI-14-53 (C-1), VI-24-53 (C-1); McKinnon, VII-30-53 (C-1), VIII-4-53 (BM-1); Big Sandy, VIII-5-54 (C-1); Hustburg, VIII-19-54 (C-1). Of the 36 species of horse flies taken in the field, only *T. quinquevittatus* was found actually feeding on man (but see note on *T. fulvulus*). They appeared in west Tennessee along flat reservoir margins where buttonball was the dominant plant species.

*Tabanus reinwardtii* Wied. TENNESSEE: Carderview, VII-16-52 (C-1).

*Tabanus sackeni* Fair. TENNESSEE: Carderview, VII-16-52 (Under Bridge-1); Camden, VIII-15-53 (C-1).

*Tabanus sparus* Whit. ALABAMA: Wilson Dam, V-27-42 (1); Triana, V-28-42 (1).

*Tabanus sparus milleri* Whit. TEN-

TENNESSEE: Oak Ridge, VII-23-49 (S-1); Camden, VI-8-53 (C-1), VII-6-53 (C-1), VIII-3-53 (C-1), VI-22-54 (C-1), VII-7-54 (C-1), V-25-55 (C-1); Norris, VI-19-53 (C-1); Parksville, VI-19-53 (C-1); Eva, VII-30-53 (C-1); McKinnon, VI-24-54 (C-1), VI-28-54 (C-1); Sugar Tree, VII-8-54 (C-1); Springville, V-25-55 (Helicopter-3); Jasper, VI-17-55 (C-1). ALABAMA: Decatur, VI-11-41 (2), VI-26-41 (1), VII-20-54 (Helicopter-1); Athens, VII-6-41 (1). NORTH CAROLINA: Hayesville, VI-24-54 (BH-1); Andrews, VII-7-54 (C-2).

*Tabanus stygius* Say. ALABAMA: Wilson Dam, VII-1-41 (1), V-26-42 (1).

*Tabanus sulcifrons* Macq. TENNESSEE: Oak Ridge, VII-15-49 (S-1); Camden, VI-14-51 (C-1), VII-7-53 (BM-1), VIII-14-53 (C-1), VIII-15-53 (C-1), VIII-22-53 (C-6) (Log-1), VII-29-54 (C-2), VIII-19-54 (C-1); Bristol, VIII-9-51 (C-1); Tellico Plains, VI-25-52 (BC-1); Newport, VII-1-53 (Culvert-2), VII-14-53 (Slough Bank-1), VII-9-54 (C-3), IX-2-54 (BC-1); Sugar Tree, VII-3-53 (C-1); Paris, VIII-22-53 (C-1), IX-3-53 (BC-1), VIII-19-55 (C-1); Parksville, VIII-27-53 (C-1), VI-24-54 (BU-10); Lobelville, VI-24-54 (BU-1); Erwin, VII-7-54 (BH-1); McKinnon, VII-14-54 (C-1); Big Sandy, VII-28-54 (C-1); Pickwick Dam Village, VIII-4-54 (C-1); Rogersville, IX-24-54 (BH-1); Lake City, VII-14-55 (C-1),

VII-29-55 (C-1); New Tazewell, VII-25-55 (Barn-1). ALABAMA: Triana, VIII-29-41 (2); Wilson Dam, VI-26-42 (1), VI-30-53 (Window-2), IX-10-53 (C-1), VI-25-54 (BM-1); Florence, VIII-20-53 (C-1), VIII-12-54 (C-1); Waterloo, IX-18-53 (BU-1). NORTH CAROLINA: Bryson City, VII-1-53 (C-1). This species is widespread in the Tennessee Valley and commonly encountered in the river bottoms.

*Tabanus trimaculatus* P. de B. TENNESSEE: Oak Ridge, VII-23-49 (S-1); Camden, VI-14-51 (C-1), VI-22-54 (C-1), VII-7-54 (C-1); Sugar Tree, V-29-53 (C-1); Paris, V-28-54 (C-1), V-26-55 (C-1); Athens, VI-16-55 (C-1). ALABAMA: Wilson Dam, VI-15-42 (1); Rogersville, VI-18-54 (C-1).

*Tabanus trispilus* Wied. TENNESSEE: Tellico Plains, VI-25-52 (BC-3).

*Tabanus turbidus* Wied. TENNESSEE: Perryville, V-25-55 (C-1); Hustburg, VI-22-55 (C-6) (BP-4); Springville, VI-22-55 (C-2). ALABAMA: Wilson Dam, V-26-41 (1); Sheffield, VII-13-54 (C-1).

*Tabanus venustus* O. S. TENNESSEE: Perryville, VII-12-55 (C-1).

*Tabanus vittiger schwartzi* Philip. TENNESSEE: Samburg, VIII-23-41 (2); Perryville, VII-12-55 (C-1). ALABAMA: Decatur, VIII-13-41 (1); Leighton, VIII-18-41 (1).

#### Reference

PECHUMAN, L. L. 1954. Seasonal distribution of some Tennessee Tabaninae (Diptera, Tabanidae). Bull. Brook. Ent. Soc. 49(5):128-130.

#### PLEASE CORRECT

On the cover of Vol. 16, No. 4 (December 1956), of *Mosquito News* in the Table of Contents, the senior authorship of the paper, "A Population Study of the *Culicoides* Midges of the Edwards Plateau Region of Texas," was wrongly ascribed to W. W. Smith. We regret this error and take this opportunity to call attention to the fact that the names of the authors should read "W. W. Wirth and L. J. Bottimer." The authorship is correctly stated where the paper appears in the text.