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AN ANNOTATED LIST OF THE TRICHOPTERA OF MIDDLE AND WEST TENNESSEE

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The literature on the caddisfly fauna of Tennessee is relatively sparse. In 1834, Isaac Lea, the noted conchologist, collected specimens of what he called *Valvata arenifera*, "from the Cumberland River near Nashville" (Lea 1834). The error of identifying these Trichoptera as snails was corrected by Hagen (1866) who recognized them as larval stages of *Helicospyche borealis*. In an ecological survey of the bottom fauna of some small streams in the Nashville area, Hunt (1930) mentioned the presence of quantities of hydropsychid larvae on bed-rock bottoms. In an unpublished thesis on animal societies in springs and spring branches, Wyatt (1927) reported the presence of larvae, identified only as *Rhyacophila* sp., in 27 collections from the vicinity of Nashville. In similar ecological studies, Bedwell (1927) and Jackson (1930) found only the larvae of *Hydropsyche* sp. in collections made from several streams in the Nashville basin. F. W. Carpenter (1933) collected 23 species of Trichoptera from the Smoky Mountains, some of them new species for Tennessee. A. C. Cole mentioned several genera of caddisflies in his paper "Insect Collecting in the Great Smoky Mountains National Park, Tennessee" (1938). In an unpublished thesis titled "Some Trichoptera of the Nashville Region," Jackson (1939) listed six families, eight genera, and sixteen species, all of them larvae, collected from sixteen stations. The late Mike Wright, then of Tusculum College, during his peregrinations in search of Odonata, frequently collected various developmental stages of Trichoptera and sent them to H. H. Ross at the Illinois Natural History Survey. Several of the specimens proved to be new species from Tennessee. With the exception of certain articles published while the writer was at Vanderbilt University, (Edwards 1955, 1956a, 1956b) the above mentioned papers comprise the main body of knowledge of the Tennessee fauna of caddisflies. There are, of course, many scattered references to Trichoptera of the state embedded in papers dealing with other regions as, for example, Flint's work (1960) on the nearctic limnephilid larvae of the Eastern United States.

Except where otherwise noted the specimens taken during the course of this study were preserved in 70% ethyl alcohol and are in the writer's possession.

Sincere appreciation is due James J. Friauf of Vanderbilt University who provided the initial impetus for this study and who was a constant and constructive critic. Gratitude is also due H. H. Ross of the Illinois Natural History Survey who, with unfailing kindness examined and commented on various specimens.

FAMILY RHYACOPHILIDAE

Rhyacophila fenestra Ross

Rhyacophila fenestra Ross (1938, p. 102)

In Tennessee, this species is fairly common, occurring in eleven counties where larvae, pupae, and adults were collected in numbers. No generalization can be drawn concerning its habitat in Tennessee, for it has been collected from permanent mountain streams, temporary streams, and in sluggish, shallow streams. On one occasion it was collected from a spring. This species was reported by Ross (1944) to be known only from Illinois where, with one exception, it occurred in the Ozarkian Uplift in clear, rapid streams which, in the main, flowed only in spring and winter. The single exception to this was a single colony in a small temporary stream at Oakwood, Illinois. It has also been collected by this writer in Macon Co., N.C., Clay Co., N.C., and Oconee Co., S.C.

Collection records: CUMBERLAND CO., Cr. across U.S. 70 E. of Crab Orchard, IV-1-55, 4 larvae; III-20-55, cr. 3 miles W. Crossville, 11 pupae, 7 larvae; cr. 3.5 miles W. Crab Orchard, IV-5-55, 4 larvae; cr. S. of Clarkrange, IV-5-55, 3 larvae; 5 pupae; DAVIDSON CO., Wilkerson Cr., Brentwood, V-2-53, 3 pupae; Eaton Cr., V-1-53, 3 larvae, many pupae; South Nashville, V-10-53, 4 males; V-17-53, 1 male V-20-53, 3 males; V-27-53, 1 male, J. J. Friauf, col.; Hamilton Cr., Couchville Pike, V-23-53, 3 males, III-5-55, 8 larvae; IV-17-55, 2 males, seepage area, Whites Cr. Pike; Little Harpeth R., Edwin Warner Park, IV-7-53, 3 pupae; cr. at Newsom Station Rd., III-28-55, 9 larvae; Otter Cr. at Radnor Dam, IV-9-53, 4 larvae; spring at entrance to Percy Warner Park, IV-9-53, 1 pupa; FENTRESS CO., brook across Tenn. 89, S.E. of Wilder, IV-5-55, 3 larvae; FRANKLIN CO., Estill Spr., VI-27-55, 5 males; HUMPHREY CO., Trace Cr., W. of McEwen, IV-1-55, 1 larva; MAURY CO., Bedford Cr., V-10-53, 1 pupa; MONTGOMERY CO., Dawson Cr., II-27-55, 1 larva; SMITH CO., cr. at Defeated, III-20-55, 3 larvae, 1 pupa; cr. across U.S. 70 E. of Rome, IV-5-55, 3 larvae, 2 pupae; WILLIAMSON CO., cr. at Cowles Chapel Church, II-8-53, 2 larvae; cr. 5 miles S. Franklin on Tenn. 106, IV-15-53, 4 larvae.

***Rhyacophila glaberrima* Ulmer**

Rhyacophila glaberrima Ulmer (1907, p. 85); *Rhyacophila fairchildi* Banks (1930, p. 130); *Rhyacophila andrea* Betten (1934, p. 127).

The main focus of this species is in the Appalachian States, and it is known from Massachusetts, New York, North Carolina, Virginia, Tennessee, and Nova Scotia.

Collection records: CUMBERLAND CO., cr. 3.5 miles E. Crab Orchard, III-20-55, 2 pupae.

***Rhyacophila ledra* Ross**

Rhyacophila ledra Ross (1939a, p. 65)

Aside from two mature male pupae collected in Union Springs, near Alto Pass in Southern Illinois, this species was known only from the type material collected in Tennessee. The male holotype was taken at Jasper, Tennessee while the female allotype, along with paratypes, was collected from Martin Springs in Marion Co. (Ross, 1939).

Collection records: RHEA CO., brook across Tenn. 30, 13.3 miles E. Pikeville, VI-19-55, 1 male, 1 female, 2 pupae, 15 larvae; SEQUATCHIE CO., spr. 1.5 miles N.W. Travis Mills, VI-19-55, 8 pupae, 2 larvae.

***Rhyacophila lobifera* Betten**

Rhyacophila lobifera Betten (1934, p. 131)

In Tennessee, this species has been collected in a small river, mountain streams, and in temporary streams. Present records of the species include Indiana, Ohio, Oklahoma, and Illinois.

Collection records: CUMBERLAND CO., cr. 11 miles S. Clarkrange, III-20-55, 1 larva; cr. 3.2 miles N. Crab Orchard, III-20-55, 2 pupae; cr. on Tenn. 28, S. Clarkrange, IV-5-55, 4 pupae; DAVIDSON CO., Stones R. at Couchville Pike, IV-25-54, 1 male; Little Harpeth R. at Edwin Warner Park, IV-26-54, 2 males; Stones R., Couchville Pike, IV-17-55, 5 males, IV-24-54, 1 males; Hamilton Cr., III-5-55, 4 pupae, 2 males.

***Rhyacophila torva* Hagen**

Rhyacophila torva Hagen (1861, p. 296)

This species occurs in great numbers in a small spring in Franklin Co., Tennessee where the larvae and pupae abound on the vertical face of a relatively thin (4 feet) stratum of limestone over which runs a constant trickle of water.

Collection records: FRANKLIN CO., Wellington Mills, IV-19-55, 3 males, 1 female; IV-25-55, 1 larva, 1 pupa; IV-30-55, 4 females, 1 male; VIII-13-55, 1 larva, 1 pupa; V-31-55, 6 pupae, 3 males, 4 females; VI-29-56, 1 male.

***Rhyacophila vibox* Milne**

Rhyacophila vibox Milne (1936, p. 101)

This species is chiefly northern in distribution, having been recorded from Quebec, Ontario, and from one location in Illinois. Its occurrence in Tennessee represents a considerable southward extension of its range.

Collection records: SEQUATCHIE CO., Spring 1.5 miles N.W. Travis Mills, 8 larvae; VI-19-55.

***Glossosoma americanum* Banks**

Glossosoma americanum Banks (1897, p. 31)

This is one of the most common species in Tennessee and may be collected in almost any cold, clear, gravel-bottom stream.

Collection records: CHEATHAM CO., Cave Spr., Pegram, II-19-55, many pupae and larvae; III-29-55, 4 larvae, 12 pupae; CUMBERLAND CO., cr. 2 mi. E Crab Orchard, IV-5-55, 2 pupae; VI-18-55, 2 pupae; DAVIDSON CO., Stones R., Couchville Pike, XI-14-53, 1 male (emerged in laboratory II-24-54); DICKSON CO., stream at entrance of Montgomery Bell State Park, IV-17-56, 1 pupa; FRANKLIN CO., Estill Spr., IV-29-55, 1 male; HUMPHREY CO., Hurrican Cr., IV-1-55, 1 female pupa; IV-1-55, Trace Cr., 5 pupae; MONTGOMERY CO., Louise Cr., III-14-55, 4 larvae; PERRY CO., spring-fed brook 9.8 miles N. Linden, IV-1-55, 1 larva, 1 pupa; SEQUATCHIE CO., Travis Mills, VI-19-55, 1 pupa, 1 larva; STEWART CO., Spring Grill, 2 miles W. Dover, IV-3-55, 4 pupae; VI-1-55, many larvae, pupae.

***Glossosoma intermedium* (Klapalek)**

Mystrophora intermedia Klapalek (1892, p. 19)

In Tennessee, this species was collected only from cold springs in counties located on the Highland Rim.

Collection records: CHEATHAM CO., Cave Spr., Pegram, IX-10-52, many larvae, pupae, J. Givens, col.; MONTGOMERY CO., Trehan Spr., Porters Bluff, XII-23-54, 3 pupae, F. M. Ford col.

***Agapetus diacanthus* Edwards**

Agapetus diacanthus Edwards (1956a, p. 4)

This species was described from mature male and female pupae taken in Sequatchie Co., Tennessee.

Collection records: SEQUATCHIE CO., 1.5 miles N.W. Travis Mills, VI-23-53, 10 pupae, 1 larva; VI-19-55, many males and females, 5 larvae, 8 pupae.

***Agapetus avitus* Edwards**

Agapetus avitus Edwards (1956b, p. 17)

The larvae, pupae, and adults of this species were collected in Bedford Co., Tennessee, where they occurred in a cold spring branch in great numbers.

Collection records: BEDFORD CO., cr. across U.S. 41A, 6 miles N.W. Tullahoma, IV-30-55, many larvae, pupae, and adults; COFFEE CO., Duck R. at Manchester, IV-19-55, 3 larvae; PERRY CO., spr. beside Tenn. 13. 9.8 miles N. Linden, IV-1-55, many larvae, pupae.

***Agapetus crasmus* Ross**

Agapetus crasmus Ross (1939a, p. 66)

Originally described from Martin Springs by Ross (1939). The writer has collected this species only at this one site, where the larvae and pupae literally covered the submerged rocks.

Collection records: MARION CO., Martin Spr., 6 miles S.E. Mont-eagle, VIII-1-55, 10 females, 2 males.

***Agapetus vireo* Ross**

Agapetus vireo Ross (1941b, p. 43)

The writer has collected this species at only one station in Tennessee, that being a cold upland stream on the Cumberland Plateau. At this site, the stream runs under a concrete bridge and the writer collected considerable numbers of adults from the numerous spider webs under the bridge. With but rare exceptions, caddisflies were the only insects caught in these webs, and *A. vireo* was the most numerous of these.

Collection records: CUMBERLAND CO., stream across U.S. 70, 2 miles E. Crab Orchard, VI-18-55, 2 males, 8 females.

***Protophila maculata* (Hagen)**

Bereae? *maculata* Hagen (1861, p. 296)

Protophila lloydii Mosely (1934, p. 151)

This species has not been collected in quantity in Tennessee and has appeared only in the Nashville Basin.

Collection records: CHEATHAM CO., Harpeth R., at Kingston Spr., VIII-2-54, 1 male; DAVIDSON CO., Stones R., Couchville Pike, V-23-53, 2 males; VII-26-54, many males and females; IX-27-54, 1 male; Old Hickory Blvd. and Chadwell Pike, VI-16-55, 2 males.

FAMILY PHILOPOTAMIDAE

Wormaldia moestus (Banks)

Paragapetus moestus Banks (1914, p. 202)

Dolophilus breviatus Banks (1914)

Dolophilus moestus Ross (1944, p. 47)

The distribution of this species is widespread with records from Illinois, Indiana, Wisconsin, New York, Ohio, Virginia, West Virginia, North Carolina, Georgia and Ontario. In Tennessee, the species has been collected from mountain streams and from several streams in the Nashville Basin.

Collection records: CUMBERLAND CO., cr. 11 miles E. of Clark range, IV-5-55, 1 larva; cr. 3.3 miles W. of Crossville, IV-5-55, 2 larvae; DAVIDSON CO., Little Marrowbone cr. at Eaton Cr. Road, V-8-53, 6 males; FRANKLIN CO., Wellington Mills, X-3-55, 2 males, 1 female; RHEA CO., brook 10.3 miles E. of Pikeville on Tenn. 30, VI-19-55, 1 male.

Wormaldia shawnee (Ross)

Dolophilus shawnee Ross (1938, p. 133)

This species does not appear to be common in Tennessee, having been collected only in Davidson and Macon counties. It has been recorded from Illinois, where it is common, and from Hopkinsville, Kentucky. The writer also has collected specimens in three counties of North Carolina.

Collection records: DAVIDSON CO., Eaton Cr., V-1-53, 1 larva; MACON CO., Salt Lick Cr., Red Boiling Spr., VII-26-53, 1 larva.

Trentonius distinctus (Walker)

Philopotamus distinctus Walker (1852, p. 104)

Philopotamus americanus Banks (1895, p. 316)

Collection records: CUMBERLAND CO., stream at Crab Orchard, VI-18-55, 1 pupa, 3 larvae, 1 male; DAVIDSON CO., Little Marrowbone Cr., V-8-53, 8 larvae; FRANKLIN CO., Little Hurrican Cr., VIII-5-52, Tennessee Game and Fish Commission bottom sample #34,¹ 1 larva; Estill Spr., VI-29-55, 2 males, 1 female.

Chimarra aterrima (Hagen)

Chimarra aterrima Hagen (1861, p. 297)

This species is quite common in Tennessee where the larvae are generally to be found in clear, cool streams. The species is abundant throughout the eastern states.

Collection records: BEDFORD CO., cr. across U.S. 41A, 6 miles N.W. Tullahoma, IV-30-55, 1 male, 1 female; VIII-13-55, many larvae; BLOUNT CO., Little Pigeon R., VII-28-53, 1 larva; CHEATHAM CO., T.G.F.C. #40, Turnbull Cr., VI-17-52, 2 larvae; Big Marrowbone Cr., V-7-54, 1 male; CLAY CO., Trace Cr. W. of Hermitage Spr., VII-27-53, 1 larva, 1 pupa; CUMBERLAND CO., Crab Orchard, 1 larva, 1 pupa, 1 male; Daddy's Cr., VII-4-52, many larvae; 2 miles E. of T.G.F.C. #90, Daddy's Cr., VIII-26-52, 25 larvae; DAVIDSON CO., Daddy's Cr., VIII-26-52, IV-14-54, 8 larvae; IV-15-54, 1 male, 1 female; XI-21-53, 11 larvae; VII-12-53, 2, males, 2 females, 9 larvae; V-8-53, 3 males, 1 female;

¹ In March, 1953, a series of bottom samples collected by the Tennessee Game and Fish Commission from Middle Tennessee streams was turned over to the writer for identification of the Trichoptera contained therein. These records are identified as T.G.F.C., and have a number which identified them in the writer's collection.

DICKSON CO., stream at entrance to Montgomery Bell State Park, III-17-55, 7 larvae, 3 males; VI-17-55, Acorn Lake, 3 females, 2 males; IV-18-55, 1 male, 1 female; FRANKLIN CO., Little Hurricane Cr., VIII-5-52, 4 larvae; Wellington Mills, IV-26-55, 3 larvae; VI-29-55, 1 male, 1 female; HUMPHREY CO., Trace Cr., W. of McEwen, IV-1-55, many adults, 3 pupae; cr. 12.8 miles S. Waverly, IV-1-55, 6 pupae, 4 larvae; MACON CO., Hungry Cr., Red Boiling Spr., VII-26-53, 2 pupae, 3 larvae; MONTGOMERY CO., Red Boiling Cr., VII-24-53, 1 male, 3 larvae; Louise Cr., III-14-55, 1 pupa; PERRY CO., T.G.F.C. #61, Bluebuck Cr., VI-17-52, T.G.F.C. #77, 1 larva; brook beside Tenn. 13, 9.8. miles N. Linden, IV-1-55, 4 males, 1 female; PICKETT CO., T.G.F.C. #5, Crooked Cr., VI-24-55, 4 larvae; SEVIER CO., Little Pigeon R., VI-24-55, 1 male; SUMNER CO., T.G.F.C. #89, Byrds Cr., VIII-16-52, 1 larva; VAN BUREN CO., Cane Cr. in Caney Gulf, Falls Creek Falls State Park, IX-6-52, 2 larvae; WILLIAMSON O., VII-8-53, Leipers Fork Cr., 1 larva; Little Harpeth R., VII-19-53, 2 pupae; cr. 5 miles S. Franklin, IV-15-53, 2 larvae; Little Harpeth R., II-8-53, 1 larva, 1 pupa.

Chimarra obscura (Walker)

Beraea² obscura Walker (1852, p. 121)

Wormaldia plutonis Banks (1911, p. 358)

Chimarra lucia Betten (1934, p. 175)

This species is common through the eastern states including Tennessee. The adults have been collected in this state as early as March 15.

Collection records: CHEATHAM CO., Big Marrowbone Cr., V-2-54, many adults; VII-27-54, many adults; V-3-54, many adults; V-20-53, 2 females, 3 males; Little Marrowbone Cr., VII-12-53, 2 pupae, IV-14-54, 3 males, 2 females; CUMBERLAND CO., T.G.F.C. #97, VIII-26-52, 1 larva; DICKSON CO., Acorn Lake outlet, V-27-54, 1 male, III-15-54, Trace Cr., many larvae; MAURY CO., Duck R. at Columbia, VII-7-53, 1 male, 1 larva; MONTGOMERY CO., Passenger Cr., VII-24-53, 2 pupae; SUMNER CO., Red. R. at bridge on Rural Road #6124, VII-27-53, 1 larva.

FAMILY PSYCHOMYIIDAE

Phylocentropus placidus (Banks)

Holocentropus placidus Banks (1905, p. 15)

Phylocentropus maximus Vorhies (1909, p. 711)

This species has not been reported previously in Tennessee where it is scarce. It has been collected by the writer in Macon County, North Carolina, and is reported to have a wide distribution in the northeastern states.

Collection records: CHEATHAM CO., Cumberland R., Ashland City, VII-12-53, 2 males.

Neureclipsis crepuscularis (Walker)

Brachycentrus crepuscularis Walker (1852, p. 87)

Neureclipsis parvula Banks (1907, p. 163)

This species was not collected in numbers in Tennessee, although it is a common species in the southern and northeastern states.

Collection records: CHEATHAM CO., Cumberland R., N.W. of Ashland City, VII-12-53, 1 male; WILSON CO., Cumberland R. at Woods Ferry, V-30-54, 2 males.

Polycentropus cinereus Hagen

Polycentropus cinereus Hagen (1861, p. 293)

Tennessee records of this species are limited to five counties, three in Nashville Basin, and the remaining two located on the Highland Rim and the Cumberland Plateau. The range of this species includes the eastern, northeastern and northwestern states.

Collection records: CHEATHAM CO., Big Marrowbone Cr., V-14-55, 2 pupae; CUMBERLAND CO., stream 2 miles E. Crab Orchard, VI-18-55, 1 male; DAVIDSON CO., Stones R. at Couchville Pike, IX-16-54, 1 male; Little Harpeth R., Edwin Warner Park, IV-26-54, many adults; VI-14-54, 1 male V-29-54, 1 male; VIII-3-54, 1 female; Little Harpeth R. on Franklin Road, VII-29-54, 1 male; FRANKLIN CO., Estill Spr., VI-29-55, 1 female; RUTHERFORD CO., Stones R. at Murfreesboro, VII-2-53, 1 larva.

***Polycentropus centralis* Banks**

Polycentropus centralis Banks (1914, p. 258)

Collection records: CHEATHAM CO., Big Marrowbone Cr., V-20-55, 4 males, 2 females; V-14-55, 1 larva.

***Polycentropus confusus* Hagen**

Polycentropus confusus Hagen (1861, p. 293)

This species has been collected in Tennessee at only two widely separated stations. Its range includes the northeastern states and as far south as Arkansas and Tennessee.

Collection records: WILLIAMSON CO., Leipers Fork Cr., VII-8-53, 2 males; SEVIER CO., Little Pigeon R., VI-24-55, 2 males.

***Polycentropus crassicornis* Walker**

Polycentropus crassicornis Walker (1852, p. 101)

Of the two records of this species in Tennessee, one is from a marsh-swamp region of Reelfoot Lake (Edwards 1955, 1956b) while the other is from a small, gravel-bottom creek in the Nashville Basin. It had not been previously reported from Tennessee.

This is a common species from Florida to Canada along the East Coast. Of the four records available from Illinois, two are from a marsh area (Ross 1944).

Collection records: CHEATHAM CO., Big Marrowbone Cr., V-9-53, 1 male; OBION CO., Bayou du Chien, Reelfoot Lake, V-22-54, 1 male; IV-22-55, many adults.

***Nyctiophylax vestitus* (Hagen)**

Polycentropus vestitus (Hagen (1861, p. 293)

In this genus, one species, *N. unicus*, is described by Ross (1944) from New York; the other, *N. vestitus*, is widespread throughout the northeastern and southern states. As in similar forms, this species was largely restricted to the Nashville Basin.

Collection records: CHEATHAM CO., Big Marrowbone Cr., V-20-55, 1 male; DAVIDSON CO., Stones R. at Couchville Pike, VI-12-54, 1 male; V-24-54, 2 males; WILSON CO., Kirkpatrick's Lake, V-30-54, 1 male, 2 females.

***Cyrnellus marginalis* (Banks)**

Nyctiophylax marginalis Banks 1930, p. 231)

Although this is the only known species for the genus, it is one of the most abundant caddisflies in Tennessee where it is associated with the larger streams.

Collection records: BENTON CO., Tennessee R., New Johnsonville, VI-21-54, 4 males, 1 female; CHEATHAM CO., Cumberland R., W. of Ashland City, VII-12-53, 1 male; Harpeth R. at Kingston Spr., VIII-2-54, 3 males, 6 females; DAVIDSON CO., Stones R., Couchville Pike, VII-17-54, 1 male, 4 females; VIII-6-53, 2 males; VIII-13-54, 3 females, 2 males; Little Harpeth R., Edwin Warner Park, VI-14-54, 1 male; VIII-3-54, 3 males, 1 female; VII-26-53, 4 females; Cumberland R., Bordeaux, VII-16-54, many males, females; Cumberland R. at Nashville, VI-20-54, many adults. Collected at lights, Nashville, VI-7 and VI-18-53, 2 males, J. J. Friauf, col.; DE KALB CO., Center Hill Reservoir, Sligo Dock, VI-27-54, 1 male; HENRY CO., Kentucky Lake, Paris Landing, VI-20-54, 1 male, 10 females; HICKMAN CO., Duck R. at Centerville, VII-7-54, many adults; LAKE CO., Lid's Pocket, Reelfoot Lake, VI-2-54, 1 male;

MAURY CO., Duck R. at Columbia, VII-7-54, 1 female; OBION CO., Reelfoot Lake, Bayou du Chien, VI-8-54, many adults; VI-9-54, many adults; Upper Blue Basin, many adults; VI-15-54, many adults; Upper Blue Basin, many adults, VI-15-54; Upper Blue Basin, VI-1-54, many adults; Upper Blue Basin, V-22-54, many adults, V-6-54, many adults; WILLIAMSON CO., Leipers Fork Cr., VII-8-53, 2 males; WILSON CO., Kirkpatrick's Lake, V-30-54, many adults; Caney Fork Cr., Tuckers Crossroads, VII-9-53, 1 male.

***Lype diversa* (Banks)**

Psychomyia diversa Banks (1914, p. 253)

Collection records: BEDFORD CO., cr. across U.S. 41A, 6 miles W. Tullahoma, IV-30-55, 1 male; CUMBERLAND CO., stream 3 miles E. Crab Orchard, VI-18-56, 4 males, 1 female; FRANKLIN CO., Wellington Mills, IV-30-55, 1 male, 3 females; Estill Spr., VI-29-55, 4 males, 2 females; MARION CO., Martin Spr., VIII-1-55, 4 females, 1 male.

***Psychomyia flavida* Hagen**

Psychomyia flavida Hagen (1861, p. 294)

The genus was originally described without a genotype being designated. The first included species, *P. annulicornis* Pictet (1834), has been designated the genotype by Ross (1944). Records of this species are available from several states in the Central and Eastern States.

Collection records: BEDFORD CO., cr. across U.S. 41A, 6 miles N. of Tullahoma, IV-30-55, many adults; IX-3-55, 3 males, 1 female; CHEATHAM CO., Sycamore Cr., VII-12-53, 8 males, 8 females; CUMBERLAND CO., stream 3 miles E. Crab Orchard, VI-18-55, 2 males, 2 females; MONTGOMERY CO., West Fork Ringgold Cr., VIII-24-53, 11 pupae.

***Psychomyia nomada* Ross**

Psychomyiella nomada Ross (1938a, p. 138)

This caddisfly was collected by Ross from Cherokee, N.C., along a branch of the Little Tennessee River, June 14, 1938. It has been collected in only one county in Tennessee.

Collection records: DICKSON CO., stream at entrance to Montgomery Bell State Park, IV-17-55, 1 male; IV-18-55, 6 males, 2 females; VI-17-55, 5 males, 1 female.

FAMILY HYDROPSYCHIDAE

***Diplestrona modesta* Banks**

Diplestrona modesta Banks (1908, p. 266)

This species, while of wide distribution in the southern and eastern states, was collected in Tennessee only in cold, clear, highland streams with but one exception.

Collection records: CHEATHAM CO., Big Marrowbone Cr., V-14-56, 1 pupa; FENTRESS CO., cr. 0.8 miles S. Clarkrange, IV-6-55, 1 larva; FRANKLIN CO., Wellington Mills, IV-19-55, many larvae; IV-26-55, 1 male, many larvae, 2 pupae, 1 male emergence in lab, V-2-55; IV-30-55, 7 larvae, 1 male, 1 female; V-31-55, 10 pupae, many larvae; Winchester Spr., many larvae, IV-19-55; IV-30-55, 1 larva; Estill Spr., VIII-13-55, 1 male MONTGOMERY CO., Trehan Spr., XII-23-54, many larvae; IV-17-55, 1 pupa.

***Smicridae fasciatella* McLachlan**

Smicridae fasciatella McLachlan (1871, p. 134)

The range of this species is not wide, but it is found commonly in Texas and Oklahoma.

Collection records: MONTGOMERY CO., Trehan Spr., XII-23-54, 2 larvae.

Potamyia flava (Hagen)*Macronema flava* Hagen (1861, p. 285)

In Tennessee, this species has been noticeably restricted to large streams or rivers, although great numbers were not encountered in these places. This also is true in the case of Illinois streams according to Ross (1944).

Collection records: CHEATHAM CO., Harpeth R., Kingston Spr., IV-7-54, 1 male; VII-1-54, many adults; DAVIDSON CO., Cumberland R., City Water Works, VIII-21-53, 2 males; Stones R., Couchville Pike, IV-17-54, 1 male, 3 females; Little Marrowbone Cr., IV-15-54, 1 female; HICKMAN CO., Duck R. at Centerville, VII-7-54, 3 males, 2 females; OBION CO., V-7-55, Reelfoot Lake, Bayou du Chien, 1 male; RUTHERFORD CO., Stones R., Barfield Community, VII-2-53, 1 male; WILLIAMSON CO., West Harpeth R., Forrest, VII-8-52, T.G.P.C. #83, many larvae.

Hydropsyche betteni Ross*Hydropsyche betteni* Ross (1938a, p. 146)

In Tennessee, this species is common, although restricted to riffles and rapids of small streams. It extends through several of the northeastern states and to Georgia in the south.

Collection records: CHEATHAM CO., Big Marrowbone Cr., V-7-54, 4 larvae; VII-8-52, 1 larva, J. J. Friauf, col.; VIII-12-53, 1 male, 1 larva; DAVIDSON CO., Little Marrowbone Cr., V-8-53, 1 larva; Whites Cr., VI-24-53, 7 larvae; Little Marrowbone Cr., XI-27-52, 2 larvae; V-2-55, 1 male; DICKSON CO., stream at entrance to Montgomery Bell State Park, VIII-24-53, 16 larvae, J. J. Friauf, col.; IV-18-55, 1 male; FRANKLIN CO., Winchester Spr., IV-26-55, 1 larva; Wellington Mills, IV-30-55, 1 larva; HUMPHREY CO., Trace Cr., IV-1-55, many larvae; MONTGOMERY CO., West Fork, Ringgold Cr., VII-24-53, many larvae; PERRY CO., Brook 9.8 miles W. Linden, IV-1-55, 1 larva; SEQUATCHIE CO., Sequatchie R., V-1-53, 1 larva; TROUSDALE CO., Little Skillet Br., VII-10-53, 1 larva; WILLIAMSON CO., cr. across Tenn. 106, 7 miles W. of Franklin, IV-15-53, 4 larvae.

Hydropsyche bifida Banks*Hydropsyche bifida* Banks (1905, p. 15)

The range of this species is widespread through several northeastern states although not previously reported from Tennessee. The larvae frequent the shallow, rapid portions of small streams.

Collection records: CHEATHAM CO., Big Marrowbone Cr., VII-12-53, 4 larvae; Little Marrowbone Cr., VIII-8-52, 4 larvae, J. J. Friauf, col.; Turnbull Cr., T.G.F.C. #42, VI-17-52, 8 larvae; T.G.F.C. #48, VI-17-52, 1 larva; T.G.F.C. #49, VI-17-52, 1 larva; T.G.F.C. #52, VI-17-52, 2 larvae; T.G.F.C. #83, VI-17-52, 2 larvae; T.G.F.C. #64, VI-17-52, 7 larvae; T.G.F.C. #70, VI-17-52, 1 larva; T.G.F.C. #66, VI-17-52, 1 larva; T.G.F.C. #98, VI-17-52, many larvae; CHESTER CO., Swan Cr., T.G.F.C. #19, VIII-17-52, 1 larva; Swan Cr., T.G.F.C. #20, VIII-17-52, 1 larva; Swan Cr., T.G.F.C. #22, VIII-17-52, 4 larvae; Swan Cr., T.G.F.C. #23, VIII-17-52, 6 larvae; Swan Cr., T.G.F.C. #24, VIII-17-52, 3 larvae; DAVIDSON CO., Little Marrowbone Cr., VI-13-53, 1 larva; HARDIN CO., Indian Cr., T.G.F.C. #18, VI-27-52, 12 larvae; HICKMAN CO., Beaverdam Cr., VIII-20-53, 1 larva; Beans Cr., VII-24-52, T.G.F.C. #12, 1 larva; HUMPHREYS CO., Big Chief Cr., VII-14-52, 11 larvae; LINCOLN CO., Elk R., T.G.F.C. #57, VI-7-52, 6 larvae; Elk R., T.G.F.C. #62, VI-8-52, 2 larvae; Elk R., T.G.F.C. #99, VI-8-52, many larvae; Elk R., T.G.F.C. #85, VI-8-52, 1 larva; MACON CO., Hungry Cr., Red Boiling Spr., VII-27-53, 1 larva; MONTGOMERY CO., Passenger Cr., VII-24-53, 1 larva; West Fork, Ringgold Cr., VII-24-53, many larvae; PERRY CO., Hurricane Cr., V-4-52, T.G.F.C. #34, 9 larvae; Swan Cr., T.G.F.C. #2, VIII-6-52, many larvae; Bluebuck Cr., T.G.F.C. #38, VI-20-52, many larvae; Bluebuck Cr., T.G.F.C. #55, VI-20-52, 6 larvae; Bluebuck Cr., T.G.F.C. #78, VI-17-52, 2 larvae; ROBERTSON CO., Red River, VII-25-53, 6 larvae; Sulfur Fork Cr., VII-25-53, 8 larvae, 1 pupa; Boiling Fork Cr., VI-14-53, T.G.F.C. #75, 2 larvae; SEQUATCHIE CO., Sequatchie R., F.G.F.C. #103, VII-7-52, 1 larva; WILLIAMSON CO., Little Harpeth R., II-8-53, 1 larva.

Hydropsyche cuanis Ross*Hydropsyche cuanis* Ross (1938a, p. 147)

In Tennessee, this species is abundant at one station on Stones River in Davidson Co., but it has been captured nowhere else in the state. Previously it had been reported only from Illinois, Indiana, and Michigan.

Collection records: DAVIDSON CO., Stones R., at Couchville Pike, V-24-54, 4 males, 3 females; IV-25-54, many females, 2 males; VI-28-54, 2 males; VII-26-54, 4 males, 1 female; III-15-54, 1 male; VIII-21-54, 8 females; IV-4-55, 2 males, 8 females; V-1-55, 4 males; IV-17-55, many adults; IV-21-55, 1 male; IX-16-54, 1 male; IX-27-54, many adults.

Hydropsyche depravata Hagen*Hydropsyche depravata* Hagen (1861, p. 290)

In Tennessee, the writer's collection of this species was limited, with the exception of a spring in Stewart County on the Highland Rim, to two stations in the Nashville Basin.

Collection records: DAVIDSON CO., Nashville, V-17-53, 1 male, J. J. Friauf, col.; V-4-53, many adults, J. J. Friauf, col.; VIII-19-53, many adults, J. J. Friauf, col.; Little Harpeth R., VIII-6-53, 1 male; STEWART CO., Spring Grill 2 miles W. Dover, IV-3-55, many larvae, pupae; WILLIAMSON CO., Little Harpeth R., Franklin, VI-19-53, 1 male.

Hydropsyche orris Ross*Hydropsyche orris* Ross (1938d, p. 121)

Most collections in Tennessee have been along rivers, usually the large ones.

Collection records: CHEATHAM CO., Harpeth R., Kingston Spr., VIII-2-54, 1 female; DAVIDSON CO., Nashville, V-18-53, 3 males, J. J. Friauf, col., porchlight; V-30-53, 1 male, J. J. Friauf, col.; City Water Works, Cumberland R., V-14-53, many males; VIII-23-53, 11 males; Little Harpeth R., VI-17-53, 2 males; Stones R., Couchville Pike, IV-2-53, 5 males; Neelys Bend, Cumberland R., VI-17-53, 2 males; LAKE CO., Mississippi R. at Tiptonville Ferry, VII-15-54, many adults; Lids Pocket, Reelfoot Lake, VI-2-55, 2 males, 2 females; OBION CO., Bayou du Chien, Reelfoot Lake, VI-8-54, 3 males; VII-13-54, many adults; V-7-55, 1 male; WILLIAMSON CO., Little Harpeth R., Franklin, VI-19-53, 1 male.

Hydropsyche placoda Ross*Hydropsyche placoda* Ross (1941b, p. 87)

While common in north-central states, this species has been collected in Tennessee only at Stones River in Davidson County.

Collection records: DAVIDSON CO., Stones R., Couchville Pike, IV-14-55, 1 male, 5 females.

Hydropsyche scalaris Hagen*Hydropsyche scalaris* Hagen (1861, p. 286)

This species had not been previously reported from Tennessee, having been collected in Georgia, Indiana, Missouri, Oklahoma, Wisconsin and Ontario.

Collection records: OBION CO., Bayou du Chien, Reelfoot Lake, IV-16-55, 1 male, many females.

Hydropsyche simulans Ross*Hydropsyche simulans* Ross (1938a, p. 139)

This is a typical large species and has been captured in most of the central states. It is moderately common in Tennessee.

Collection records: DAVIDSON CO., Cumberland R., City Water Works, VIII-21-53, 1 male; DICKSON CO., Montgomery Bell State Park, VIII-24-53, 2 larvae, J. J. Friauf, col.; FRANKLIN CO., Little

Hurricane Cr., VIII-5-52, 1 larva; HICKMAN CO., Duck R., Centerville, VII-7-54, 1 male; OBION CO., Bayou du Chien, Reelfoot Lake, VI-8-54, 1 male; PERRY CO., Hurricane Cr., VII-17-52, 2 larvae; WILSON CO., Cedar Cr., VII-10-53, many larvae.

Hydropsyche slossonae Banks

Hydropsyche slossonae Banks (1905b, p. 14)

Although reported through the northeastern states, this species was not common in Tennessee.

Collection records: COFFEE CO., spr. on Tenn. 55, 3 males, 3 miles N. Tullahoma, IV-19-55, 1 larva; FRANKLIN CO., Wellington Mills, IV-30-55, many larvae; HUMPHREYS CO., Trace Cr., IV-1-55, 3 larvae; MONTGOMERY CO., Louise Cr., III-14-55, 5 larvae; SEQUATCHIE CO., cr. across Tenn. 106, near Pikeville, VI-23-53, 1 pupa, many larvae; Sequatchie R., VII-6-53, many larvae; SUMNER CO., Buffalo Br., VII-26-53, 1 larva.

Cheumatopsyche analis (Banks)

Hydropsyche analis Banks (1903, p. 243)

This species has proved to be one of the most widespread and common in Tennessee. At some stations, it appeared in such numbers as to be a definite nuisance.

Collection records: CHEATHAM CO., Big Marrowbone Cr., V-2-54, 1 male; DAVIDSON CO., Nashville, VI-18-53, 2 males, 1 female, V-30-53, 2 males; VI-18-52, 1 female, 2 males; VI-1-53, 5 males, 4 females; V-29-53, 1 male; V-27-53, 6 males, 4 females; VIII-29-53, 1 male; VI-3-53, 2 males; V-20-53, 7 males, many females; VI-14-53, 11 males, many females; J. J. Friauf, col., porch-light; store windows in Belmont, V-21-53, 1 male, 2 females; Little Harpeth R., IV-10-53, 6 females, 1 male; III-18-53, many adults; VI-17-53, many adults; VI-18-54, 4 males, VIII-2-54, 3 males, 1 female; VI-9-54, many adults; VII-29-54, 2 males; DICKSON CO., Montgomery Bell State Park, IV-18-55, 1 male; MONTGOMERY CO., Cumberland R., 15 miles S.E. Clarksville, VI-19-54, 2 males; OBION CO., Bayou du Chien, Reelfoot Lake, IV-16-54, 1 male, 2 females; RUTHERFORD CO., Stones R., Barfield Community, VII-11-53, 1 male; VII-11-53, Middle Fork, Stones R., 2 males, 2 females; TROUSDALE CO., Rocky Cr., VII-10-53, 1 pupa; WILLIAMSON CO., Harpeth R., VI-19-53, 1 male; creek 3 miles S.E. Franklin, Tenn. 106, IV-15-53, 4 pupae; WILSON CO., Caney Fork Cr., VII-9-53, 1 female, 1 male; Spring Cr., VII-9-53, 1 male; Caney Fork Cr., 2 miles S. Tuckers Crossroads, VII-9-53, 1 male, 1 female; stream 5 miles N.E. Lebanon, VII-6-54, 1 male.

Cheumatopsyche aphantia Ross

Cheumatopsyche aphantia Ross (1938a, p. 151)

This species is not common in Tennessee and has been collected but rarely in only three counties.

Collection records: CHEATHAM CO., Cave Spr., Pegram, III-28-55, 2 pupae; CUMBERLAND CO., stream across U.S. 70, 2 miles E. Crab Orchard, VI-18-55, 2 males; MONTGOMERY CO., Cumberland R., 15 miles S.W. Clarksville, VI-19-54, 1 male.

Cheumatopsyche burksi Ross

Cheumatopsyche burksi Ross (1941b, p. 83)

No generalization regarding range can be made concerning this species, since it was described from the Spoon River, Illinois, and the only other records are from Tavares, Florida, and for the one station in Tennessee.

Collection records: OBION CO., Bayou du Chien, Reelfoot Lake, VI-2-54, 1 male.

Cheumatopsyche campyla Ross

Cheumatopsyche campyla Ross (1938a, p. 152)

Collection records: CHEATHAM CO., Harpeth R., Kingston Spr., IV-17-54, 3 males, 1 female; VIII-2-54, 8 females; DAVIDSON CO., Cumberland R., City Water Works, V-18-53, 2 males; Mill Cr., V-12-53, 1 male; Stones R., Couchville Pike, VI-2-53, 1 male; VI-17-53, many adults; IX-16-54, 1 male; III-15-55, 4 males, 4 females; Little Harpeth R., VI-17-54, 1 male; VI-14-54, many adults; VI-22-54, 1 male; FRANKLIN CO., Little Hurricane Cr., VIII-5-52, 4 females,

2 males; HICKMAN CO., Duck R. at Centerville, VII-7-54, 6 males; MAURY CO., Duck R. at Columbia, VII-7-54, 1 male; MONTGOMERY CO., Cumberland R., 15 miles S.W. Clarksville, VI-19-54, 2 males; RUTHERFORD CO., Middle Fork Stones R., VII-11-53, 1 male; TROUSDALE CO., Big Goose Cr., VII-10-53, 1 male.

Cheumatopsyche ela Denning

Cheumatopsyche ela Denning (1942, p. 50)

Collection records: HICKMAN CO., Duck R., Centerville, 3 males.

Cheumatopsyche miniscula (Banks)

Hydropsyche miniscula Banks (1907a, p. 130)

This species has been reported from some of the central states. Although not previously recorded from Tennessee, it was collected in one county in the Nashville Basin.

Collection records: WILLIAMSON CO., creek on Tenn. 106, 5 miles S. Franklin, IV-15-53, 3 pupae.

Cheumatopsyche oxa Ross

Cheumatopsyche oxa Ross (1938a, p. 155)

Collected from some of the central and southern states, this species is not uncommon in Tennessee.

Collection records: BEDFORD CO., cr. across U.S. 41A, 6 miles N.W. Tullahoma, IV-30-55, 1 male; DAVIDSON CO., Little Harpeth R., VI-22-54, many adults; DICKSON CO., stream at entrance to Montgomery Bell State Park, IV-18-56, 4 males; HUMPHREYS CO., cr. 12.8 miles E. Waverly, IV-1-56, 2 males; MONTGOMERY CO., Louise Cr., III-14-55, 1 pupa.

Cheumatopsyche speciosa (Banks)

Hydropsyche speciosa Banks (1904, p. 214)

Another species with a wide range, this species has been reported in many of the central and northeastern states. It is not common in Tennessee.

Collection records: WILLIAMSON CO., West Harpeth R., Forrest Homes, VII-8-53, 2 males, 6 females.

Macronemum zebratum (Hagen)

Macronema zebratum Hagen (1861, p. 285)

This large and showy caddisfly has a range throughout most of the northeastern states with reports as far south as Georgia. It is common in Tennessee and may be collected along the larger streams.

Collection records: CHEATHAM CO., Harpeth R., VIII-24-52, 12 larvae, J. J. Friauf, col., Harpeth R., Kingston Spr., VIII-2-54, 1 male; DAVIDSON CO., Stones R., Couchville Pike, XI-14-53, many larvae; VI-2-53, many adults; XII-5-53, 1 larva; VI-1-54, 1 male; V-24-54, 2 females; VI-2-54, 1 larva; I-28-54, 2 females; VII-26-54, 3 males; V-17-55, 1 male, 1 female; V-23-53, 1 female; IX-16-54, 3 females; PICKETT CO., Crooked Cr., T.G.F.C. #5, VII-26-52, 7 larvae; RUTHERFORD CO., North Fork Stones R., X-13-52, many larvae, S. Kadis, col.; Stones R., VII-8-53, 2 pupae; VII-11-53, many larvae, 6 pupae; WILLIAMSON CO., Little Harpeth R., Franklin, XI-8-53, 1 larva.

FAMILY HYDROPTILIDAE

Dibusia angata Ross

Dibusia angata Ross (1939, p. 66)

Very spotty in distribution from extant records, this species has been collected in Oklahoma, North Carolina, and New Hampshire. It had not been reported previously from Tennessee.

Collection records: DAVIDSON CO., Little Harpeth R., IV-24-54, 1 male; Hamilton Cr., Couchville Pike, IV-4-55, many males, 3 females; Stones R., Couchville Pike, IV-14-55, 2 males; IV-21-55, 1 male.

Agraylea multipunctata* CurtisAgraylea multipunctata* Curtis (1834, p. 217)

Widely distributed elsewhere, this species has been collected in Tennessee from a spring in one county.

Collection records: CHEATHAM CO., Cave Spr., Pegram, III-28-55, many larvae; II-19-56, many larvae.

Ochrotrichia arva* (Ross)Polytrichia arva* Ross (1941b, p. 58)

Originally described from Martin Springs in Marion County (Ross 1941).

Collection records: DAVIDSON CO., Nashville, V-10-53, 4 males; J. J. Friauf, col., porchlight.

Ochrotrichia eliaga* (Ross)Polytrichia eliaga* Ross (1941b, p. 57)

This species is known at present from only two states, Illinois and Tennessee.

Collection records: DAVIDSON CO., Nashville, V-10-53, 2 males; IV-20-53, 1 male, J. J. Friauf, col., porchlight; Eaton Cr., V-1-53, many larvae; Little Harpeth R., IV-21-55, 1 male; FRANKLIN CO., Wellington Mills, IV-30-55, 1 male, IV-26-55, many larvae and pupae; MAURY CO., Bedford Cr., V-10-53, many larvae.

Ochrotrichia shawnee* (Ross)Polytrichia shawnee* Ross (1938a, p. 120)

The original type collection is from Herod, Illinois, heretofore the only known locality for this species. In Tennessee, it has been collected from one county.

Collection records: CHEATHAM CO., Big Marrowbone Cr., V-20-56, 1 male; Cumberland R., 1 mile W. Ashland City, V-20-55, 6 males, 3 females.

Ochrotrichia riesi* RossOchrotrichia riesi* Ross (1944, p. 132)

Tennessee collections of this species are sparse, and it had not been collected previously outside of Illinois.

Collection records: DAVIDSON CO., Eaton Cr., V-8-53, many larvae and pupae; Little Marrowbone Cr., VI-27-53, 4 larvae; II-27-55, 12 larvae; FRANKLIN CO., Wellington Mills, IV-26-55, many larvae and pupae.

Ochrotrichia unio* (Ross)Polytrichia unio* Ross (1941b, p. 56)

Another species which has not previously been collected in Tennessee, this form is known elsewhere only from Illinois. In Tennessee, it is fairly common in springs and spring-fed brooks.

Collection records: CHEATHAM CO., Redford Cr., V-10-53, many larvae and pupae; Cave Spr., Pegram, III-28-55, 16 larvae; DAVIDSON CO., Eaton Cr., V-1-53, many larvae; Hamilton Cr., III-5-56, many larvae; DICKSON CO., stream at entrance to Montgomery Bell State Park, IV-17-55, 1 larva; MAURY CO., Redford Cr., V-10-53, many larvae and pupae.

Ochrotrichia xena* (Ross)Polytrichia xena* Ross (1938a, p. 122)

Previously known only from a few scattered sites in Illinois, this species has been collected in Tennessee in one county in the Nashville Basin.

Collection records: DAVIDSON CO., Little Harpeth R., IV-31-55, 2 males.

Oxyethira serrata* RossOxyethira serrata* Ross (1938a, p. 117)

Previously reported from Illinois, New York, and Wisconsin, little can be said concerning the range of this species. In Tennessee, it proved rare.

Collection records: DAVIDSON CO., Little Harpeth R., IV-31-55, 1 male, 1 female.

Orthotrichia americana* BanksOrthotrichia americana* Banks (1904b, p. 116)

Although not a common species, it had been reported from half a dozen central and northeastern states.

Collection records: OBION CO., Bayou du Chien, Reelfoot Lake, V-8-54, 1 male; Upper Blue Basin, Reelfoot Lake, V-7-53, 2 larvae; Glover Arm, Reelfoot Lake, V-7-55, 6 larvae; many adults; WILSON CO., Kirkpatrick's Lake, II-5-53, many larvae.

Hydroptila albicornis* HagenHydroptila albicornis* Hagen (1861, p. 275)

Reported through several states, as well as Ontario, this species has not previously been reported in Tennessee.

Collection records: DAVIDSON CO., Stones R., Couchville Pike, V-1-55, 1 male, 3 females.

Hydroptila armata* RossHydroptila armata* Ross (1938a, p. 123)

From point of numbers, this species is one of the most common of the Hydroptilidae in Tennessee, regardless of its collection in only one county. Not previously reported in Tennessee, Ross (1944) has remarked that its range seems to follow the edge of the oak-hickory forest.

Collection records: DAVIDSON CO., Stones R., Couchville Pike, IX-27-54, many adults; III-15-55, many adults; IV-5-55, many adults; IV-21-56, 4 males, 2 females; IV-17-55, 1 male; V-4-55, 2 males, many females.

Hydroptila consimilis* MortonHydroptila consimilis* Morton (1905, p. 65)

Holarctic in distribution, this species has been collected in one county in Tennessee.

Collection records: DAVIDSON CO., Nashville, V-10-53, 2 males; J. J. Friauf, col., porchlight.

Hydroptila xella* RossHydroptila xella* Ross (1941b, p. 65)

This species was described from and is known only from central Tennessee.

Collection records: DAVIDSON CO., Hamilton Cr., IV-17-55, 4 females, 2 males.

FAMILY PHRYGANEIDAE

Ptilostomis ocellifera* (Walker)Neuronia ocellifera* Walker (1852, p. 8)

A species of widespread distribution, this form has been taken at but one locality in Tennessee, a cold, mountain stream at an elevation of 2000 feet.

Collection records: VAN BUREN CO., Piney Cr., Falls Creek Falls, III-21-53, 2 pupae.

Ptilostomis postica (Walker)*Neuronia postica* Walker (1852, p. 9)

Only three specimens of this species have been collected in this state by the writer, and these under unique circumstances (Edwards 1955).

Collection records: OBION CO., Bayou du Chien, Reelfoot Lake, V-14-54, 2 males, 1 female.

FAMILY LIMNEPHILIDAE

Astenophylax argus Harris*Astenophylax argus* Harris (1869, p. 375)

Collection records: CHEATHAM CO., Cave Spr., Pegram, III-28-55, 1 larva; Marks Cr., VIII-12-53, 2 larvae; CUMBERLAND CO., stream 2 miles E. Crab Orchard, IV-8-55, 12 larvae; DAVIDSON CO., Little Harpeth R., IV-14-54, 1 larva; DICKSON CO., Montgomery Bell State Park, III-14-55, 4 larvae; IV-17-55, 1 larva; FENTRESS CO., stream 0.8 miles S. Clarkrange, IV-5-55, 1 larva; HUMPHREYS CO., Trace Cr., IV-1-55, 15 larvae; STEWART CO., Spring Grill, IV-2-55, 3 larvae; VAN BUREN CO., Cane Cr., VI-22-53, 5 larvae; III-21-53, Rockhouse Br., 4 larvae; Piney Cr., III-21-53, 3 larvae.

Pycnopsyche luculenta (Betten)*Stenophylax luculentus* Betten (1934, p. 345)

Recorded previously from Indiana, New York, and North Carolina, this species has been collected at one station in Tennessee.

Collection records: CHEATHAM CO., Cave Spr., Pegram, II-19-55, 3 pupae.

Neophylax autumnus Vorhies*Neophylax autumnus* Vorhies (1909, p. 669)

This species is common in cold, swift streams in Tennessee. It has not been previously reported from the state, although its range includes most of the northeastern states. For an interesting discussion of the habits and taxonomy of this species, the reader is referred to Ross (1944, pp. 203-205).

Collection records: CHEATHAM CO., Cave Spr., Pegram, III-28-55, 7 larvae; CLAY CO., Trace Cr., Hermitage Spr., VII-26-53, 2 pupae, 1 larva; CUMBERLAND CO., stream 2 miles E. Crab Orchard, III-20-55, 5 larvae; DAVIDSON CO., Little Marrowbone Cr., X-27-53, 5 larvae; II-27-55, many larvae; IV-14-54, many larvae; Newsom Station Road, III-28-55, larva; DICKSON CO., stream at entrance to Montgomery Bell State Park, III-14-55, 8 larvae; HUMPHREYS CO., Trace Cr., IV-2-55, 6 larvae; SMITH CO., Cub Cr., III-20-55, 2 larvae; SUMNER CO., Red R., VII-27-53, 1 larva; Whitson Cr., VII-26-53, 2 pupae.

Neophylax concinnus McLachlan*Neophylax concinnus* McLachlan (1871, p. 111)

A not uncommon species in Tennessee, the similarity of this to *N. autumnus* is confusing. The writer made use of the descriptions published by Lloyd (1921) in separating the larvae of the two.

Collection records: BEDFORD CO., cr. 6 miles N.W. Tullahoma on U.S. 41A, IV-30-55, 2 larvae; CHEATHAM CO., Cave Spr., Pegram, III-19-55, 12 larvae; COFFEE CO., springs on Tenn. 55, 3 miles N. Tullahoma, IV-9-55, 7 larvae; CUMBERLAND CO., cr. 2 miles E. Crab Orchard, III-20-55, 11 larvae; IV-5-55, 14 larvae; DICKSON CO., stream at entrance to Montgomery Bell State Park, IV-17-55, 4 larvae; FENTRESS CO., cr. 10 miles S.E. Wilder, IV-5-55, 13 larvae; III-30-55, 5 larvae, F. M. Ford, col.; MONTGOMERY CO., Spring Cr., VII-24-53, 3 larvae; Dawson Cr., II-27-55, 7 larvae; SUMNER CO., Buffalo Br., VII-26-53, 3 larvae; VAN BUREN CO., Piney Cr., Falls Creek Falls, III-21-53, 11 larvae; School Forest, Spencer, III-15-52, many larvae; WILLIAMSON CO., Leipers Fork Cr., VI-15-54, 6 larvae.

FAMILY MOLANNIDAE

Molanna blenda Sibley*Molanna blenda* Sibley (1926, p. 105)

Previously recorded from Illinois, New York and Wisconsin, this species has been collected from a spring in a single county in Tennessee.

Collection records: FRANKLIN CO., Estill Spr., VI-29-55, 1 male.

Molanna uniophila Vorhies*Molanna uniophila* Vorhies (1909, p. 705)

The larvae of this species were collected from eddies of a very rapidly flowing, cold, mountain stream, 2000 feet elevation.

Collection records: VAN BUREN CO., Rockhouse Br., Falls Creek Falls, III-21-53, 3 larvae.

FAMILY ODONTOCERIDAE

Psilotreta frontalis Banks*Psilotreta frontalis* Banks (1899, p. 213)

Collection records: DAVIDSON CO., Little Marrowbone Cr., IV-14-54, many larvae; IV-14-55, 1 female; V-2-55, 1 female; DICKSON CO., stream at entrance to Montgomery Bell State Park, IV-17-55, 1 larva; SEQUATCHIE CO., Sequatchie R., VII-26-53, 3 larvae; WILLIAMSON CO., Leipers Fork Cr., VII-24-53, 3 larvae.

Psilotreta labida Ross*Psilotreta labida* Ross (1944, p. 287)

Originally described from New York (Ross 1944), this species had not previously been collected in Tennessee.

Collection records: CHEATHAM CO., Big Marrowbone Cr., V-2-54, 2 males; DAVIDSON CO., Little Marrowbone Cr., IV-15-54, many adults; V-2-56, 1 male; DICKSON CO., stream at entrance to Montgomery Bell State Park, IV-18-55, 1 male; MARION CO., Martin Spr., VIII-1-55, 3 males, 6 females, 1 larva.

Psilotreta rufa (Hagen)*Molanna rufa* Hagen (1861, p. 276)

Collection records: FRANKLIN CO., Wellington Mills, IV-26-55, 2 males; IV-19-55, 1 male; IV-30-55, 1 male.

FAMILY CALAMOCERATIDAE

Anisocentropus pyraloides (Walker)*Notidobia pyraloides* Walker (1852, p. 90)

One of two species in the eastern states, this species has been collected in Tennessee in two counties, both stations being large springs.

Collection records: FRANKLIN CO., Estill Spr., VI-29-56, 2 males; MARION CO., Martin Spr., VIII-1-55, 1 larva.

FAMILY LEPTOCERIDAE

Leptocerus americanus (Banks)*Setodes americanus* Banks (1899, p. 215)

Collected in great numbers around Reelfoot Lake in Obion County, this species is typically found around marsh areas and the slow streams that are found around them.

Collection records: DAVIDSON CO., Nashville, V-16-53, 1 female, J. J. Friauf, col., porchlight; OBION CO., Bayou du Chien, Reelfoot Lake, VI-9-54, 2 males, 1 female; IV-2-55, many larvae; V-7-55, 1 male, many larvae and pupae; north end of Upper Blue Basin, V-22-55, many adults; Upper Blue Basin, VII-21-54, many larvae; south end of Eastridge Arm, May V-8-55, 1 male, 4 females, 3 larvae; west side Glover Arm, VI-1-55, many adults; Lids Pocket, VI-2-55, 4 males.

Leptocella exquisita (Walker)

Leptocerus exquisita Walker (1852, p. 72)

This species is widely distributed throughout the southern and the northeastern states. It was common in Tennessee.

Collection records: CHEATHAM CO., Big Marrowbone Cr., V-20-55, 6 females, 2 males; DAVIDSON CO., Stones R., Couchville Pike, V-18-54, many adults; VI-2-53, 1 male; V-17-55, 4 females; V-24-54, many adults; I-28-54, 1 male; V-23-54, many adults; Little Harpeth R., III-6-53, 1 male, 1 female; Hamilton Cr., Couchville Pike, V-6-53, many adults; DICKSON CO., Acorn Lake, Montgomery Bell State Park, V-27-54, many adults; OBION CO., Upper Blue Basin, Reelfoot Lake, VII-13-54, 3 males; V-7-55, 2 males; VI-1-55, 2 males; VI-1-55, many adults; WILLIAMSON CO., West Harpeth R., Forrest Homes, VII-8-53, 1 female.

Leptocella pavid (Hagen)

Setodes pavid Hagen (1861, p. 282)

This species is not common in Tennessee.

Collection records: DAVIDSON CO., Nashville, V-30-53, 1 male, J. J. Friauf, col., porchlight; DICKSON CO., Acorn Lake, Montgomery Bell State Park, V-27-54, many adults; MAURY CO., Duck R., Columbia, VII-7-54, 1 male, 2 females; OBION CO., Bayou du Chien, Reelfoot Lake, VI-8-54, 6 females, 2 males.

Athripsodes ancylus (Vorhies)

Leptocerus ancylus Vorhies (1909, p. 691)

Not previously reported from Tennessee, this species has a wide range throughout the eastern and north-eastern states.

Collection records: DAVIDSON CO., Little Harpeth R., VI-14-54, 2 males.

Athripsodes angustus (Banks)

Leptocerus angustus Banks (1914, p. 263)

Not previously reported from Tennessee, this species is common along the smaller rivers in the Nashville Basin.

Collection records: CHEATHAM CO., Harpeth R., Kingston Spr., VII-1-53, 2 males; VIII-2-54, 1 male, 1 female; DAVIDSON CO., Mill Cr., V-12-53, 1 female, 1 male; XI-28-52, 1 male; IX-27-54, 1 male; Little Harpeth R., VI-14-54, 1 male; VI-22-54, 1 male; Stones R., Couchville Pike, VI-28-54, 1 male; VII-26-54, 1 male.

Athripsodes cancellatus (Betten)

Leptocerus cancellatus Betten (1934, p. 256)

Distributed widely throughout the eastern and north-eastern states, this species is common in Middle Tennessee.

Collection records: CHEATHAM CO., Cumberland R., Ashland City, VII-12-53, 1 male; V-20-55, 4 males; Harpeth R., Kingston Spr., VII-1-53, 6 males, 2 females; VIII-2-54, 3 females; Big Marrowbone Cr., V-20-55, 1 male; DAVIDSON CO., Stones R., Couchville Pike, VI-2-53, many adults; V-24-54, many adults; Cumberland R., City Water Works, VIII-21-53, 1 male; Cumberland R., Ashland City, VII-17-54, 2 males; V-4-55, many adults; Stones R., Couchville Pike, VI-1-54, many adults; VI-28-54, many adults; V-17-55, 7 males, 1 female; MONTGOMERY CO., Cumberland R., 15 miles S.E. Clarksville, VI-19-54, 4 males; WILSON CO., Cumberland R., Woods Ferry, V-30-54, 1 male.

Athripsodes flavus (Banks)

Leptocerus flavus Banks (1904, p. 212)

Not previously collected in Tennessee, this species and its larvae have been collected in numbers in the Nashville Basin.

Collection records: DAVIDSON CO., porchlight, Nashville, V-30-53, 1 male; VI-4-53, 1 male; VI-5-53, 2 males, J. J. Friauf, collected all of the preceding; Stones R., Couchville Pike, XII-5-53, 1 larva; VI-1-54, 1 male; V-4-55, 3 males, 1 female, 6 larvae; Little Harpeth R., V-29-54, 2 males; WILSON CO., Cumberland R., at Woods Ferry, V-30-54, 3 males.

Athripsodes improcerus Edwards

Athripsodes improcerus Edwards, (1956b, p. 15)

Described from Cheatham Co., Tennessee, this species has been collected nowhere else. The description was made originally from a mature male pupa (Edwards, 1956b). The single collection is a result of a dredging by the Cheatham County Highway Department.

Collection records: CHEATHAM CO., Big Marrowbone Cr., V-14-55, 4 pupae, 8 larvae, S. Cox and E. McCain, cols.

Athripsodes nephus Ross

Athripsodes nephus Ross (1944, p. 230)

Common at Reelfoot Lake, Obion County, the only station in Tennessee where it has appeared. Many females, yet unidentified, have been collected at this spot, one of which may be the yet unknown female of this species.

Collection records: OBION CO., Bayou du Chien, Reelfoot Lake, V-14-54, many males; V-7-55, Reelfoot Lake Biological Station, 2 males; V-15-54, 8 males; Lids Pocket, Reelfoot Lake, V-7-55, 5 males.

Athripsodes punctatus (Banks)

Mystacides punctatus Banks (1894, p. 180)

Known previously from Arkansas, Illinois, Kansas, and Maine, this species has been collected in two counties in Tennessee, where it was not uncommon.

Collection records: CHEATHAM CO., Harpeth R., Kingston Spr., VIII-2-54, 2 males; OBION CO., Bayou du Chien, Reelfoot Lake, VI-9-54, 2 females; VI-2-54, 8 females, 4 males; VI-8-54, 4 males; VI-1-54, 2 males, 1 female.

Athripsodes resurgens (Walker)

Leptocerus resurgens Walker (1852, p. 70)

This species has been reported in most of the north-eastern states, as well as Ontario, Saskatchewan and Quebec. Illinois records are restricted to the shore of Lake Michigan where the larvae are presumed to live (Ross, 1944). During the course of this study, the larvae described by Ross (1944) as *Athripsodes* Species A were reared and found to be the larval stages of *A. resurgens*.

Ross (1944, p. 233) remarks, concerning the larva designated as Species A, that "this species makes a short horn case using fragments of fresh-water sponges in its construction so that it appears irregular, soft, and fuzzy." The larvae collected in Tennessee were invariably found to be covered almost entirely by an unbroken sheet of sponge indicating an unusual lack of mobility for a larva of this genus, but they did not

include sponge spicules in their cases. Their cases were of two types, one with a lateral flange and one without such a flange, (Figs. 1 and 2).

Collection records: DAVIDSON CO., Stones R., Couchville Pike, XI-14-53, 3 larvae; XII-5-53, 3 larvae, 4 pupae; V-1-54, 1 male emerged in lab.; IV-8-54, 1 male emerged in lab.; IV-25-54, 1 male; IV-21-55, many adults; IV-17-55, many adults; VI-22-54, 2 larvae, 1 pupa; Middle Fork Stones R., VII-18-53, 1 pupa, emerged in lab. on VII-22-53, 1 male; West Fork, Stones R., X-13-53, 4 larvae, S. Kadis, col.; Old Hickory Blvd., Chadwell Pike, VI-16-55, 1 male.

Athripsodes submacula (Walker)

Leptocerus submacula Walker (1852, p. 70)

Not of wide distribution, this species has been collected mainly from Lake Erie. It was not reported from any of the central states until several specimens were taken during this study. All of the specimens were captured on cold nights when no other insects were flying.

Collection records: DAVIDSON CO., Stones R., Couchville Pike, IV-14-53, 3 males; IV-17-55, 3 males, 2 females.

Athripsodes tarsi-punctatus (Vorhies)

Leptocerus tarsi-punctatus Vorhies (1909, p. 694)

A common and widespread form in Tennessee, this species has been collected in most of the central and eastern states.

Collection records: BENTON CO., Tennessee R., New Johnsonville, V-21-54, 4 males; CHEATHAM CO., Big Marrowbone Cr., V-20-54, 1 male; Cumberland R., 1 mile W. Ashland City, V-20-55, 2 males; DAVIDSON CO., Nashville, V-30-53, 1 male, J. J. Friauf, col., porchlight; Stones R., Couchville Pike, VI-2-53, 3 males; V-23-53, 1 male; VI-22-54, 1 female, 1 male; V-24-54, 1 male; VI-28-54, 2 males; Cumberland R., Nashville, VI-20-54, 1 male, 4 females; DE KALB CO., Center Hill Reservoir, VI-27-54, 2 males; DICKSON CO., Acorn Lake, Montgomery Bell State Park, V-27-54, many adults; MAURY CO., Duck R., Columbia, VII-7-54, 1 male; MONTGOMERY CO., Cumberland R., 15 miles S.E. Clarksville, VI-19-54, 3 males; OBION CO., Bayou du Chien, Reelfoot Lake, VI-2-54, 6 males; V-22-54, 2 males; VI-1-55, West Side, Glover Arm, Reelfoot Lake, 2 males; WILLIAMSON CO., Leipers Fork Cr., V-8-53, 1 male; WILSON CO., Kirkpatricks Lake, V-30-54, 2 males.

Athripsodes transversus (Hagen)

Leptocerus transversus Hagen (1861, p. 279)

This species is widely distributed in the eastern half of the United States, and it is common in Tennessee.

Collection records: CHEATHAM CO., Cumberland R., 1 mile W. Ashland City, VII-22-53, 2 males; Big Marrowbone Cr., V-14-55, 1 female; DAVIDSON CO., Nashville, V-30-53, 2 males, J. J. Friauf, col., porchlight; Stones R., Couchville Pike, VII-26-54, many adults; DICKSON CO., Acorn Lake, V-27-54, 2 males, 1 female; LAKE CO., Lids Pocket, Reelfoot Lake, V-15-54, 4 males, 8 females; VII-12-54, many adults; VI-9-54, 4 females; MAURY CO., Duck R., Columbia, VII-7-54, 2 males.

Oecetis avara (Banks)

Setodes avara Banks (1895, p. 316)

This species is fairly common in Tennessee along larger bodies of water. Its range extends throughout most of the United States, Southern Canada, and Mexico.

Collection records: CHEATHAM CO., Harpeth R., Kingston Spr., VII-1-53, 2 females; VIII-2-54, many adults; Big Marrowbone Cr., VII-27-54, 3 males, 2 females; DAVIDSON CO., Stones R., Couchville Pike, V-18-54, 1 male, many females; IX-27-54, 1 male, 2 females; IX-16-54, 1 male; VI-12-54, many adults; V-24-54, many females; VI-1-54, many adults; VI-28-54, many adults; VII-16-54, many adults; VII-26-54, many adults; VIII-13-54, 2 males, 2 females; V-17-55, 4 males, 2 females; HENRY CO., Kentucky Lake, Paris Landing, VI-20-54, 3 females; OBION CO., Upper Blue Basin, Reelfoot Lake, V-22-54, 3 females; Bayou du Chien, Reelfoot Lake, VI-8-54, 1 female.

Oecetis cinerascens (Hagen)

Setodes cinerascens Hagen (1861, p. 282)

This is a widely distributed species which, in Tennessee, was usually collected in lakes where the larvae also were taken.

Collection records: OBION CO., Upper Blue Basin, Reelfoot Lake, V-15-54, many larvae, adults; VI-1-54, 2 males, 5 females; IV-17-55, many larvae; Glover Arm, V-7-55, 2 females; Bayou du Chien, Reelfoot Lake, VI-9-54, 4 males; VI-2-54, 2 males; VI-8-54, many adults; IV-2-55, 2 larvae; WILSON CO., Kirkpatricks Lake, II-8-53, 1 female; V-30-54, 1 larva, many adults.

Oecetis ochracea (Curtis)

Leptocerus ochracea Curtis (1825, p. 57)

Collection records: OBION CO., Bayou du Chien, Reelfoot Lake, V-8-54, 1 male, 2 females.

Oecetis eddlestoni Ross

Oecetis eddlestoni Ross (1938a, p. 160)

Not common in Tennessee, this species was collected only rarely at Reelfoot Lake. It has been reported from Oklahoma, Illinois, Pennsylvania, and Ohio.

Collection records: OBION CO., Upper Blue Basin, Reelfoot Lake, IV-17-55, 7 pupae, 3 larvae.

Oecetis inconspicua (Walker)

Leptocerus inconspicua Walker (1852, p. 71)

Its name notwithstanding, this species is common throughout the United States. In Tennessee, it is found through the entire state, often in such numbers as to be a nuisance to the collector. Adults appear in all the summer months. This was the sole species collected by the writer which was commonly parasitized by Hydracarinae.

Collection records: BLEDSOE CO., cr. 12 miles W. Pikeville, VI-22-53, 1 male; cr. 1 mile S.E. Pikeville, VI-22-53, 2 males, 5 females; CHEATHAM CO., Harpeth R., Kingston Spr., VII-1-53, 2 males; VIII-2-53, many adults; Cumberland R., Ashland City, VII-12-53, many adults; Big Marrowbone Cr., VIII-27-54, many adults; DAVIDSON CO., Cumberland R., Nashville, 2 males, VI-17-55, Cumberland R., Neelys Bend, 2 males, Stones R., Donelson, VI-17-54, 3 males, 4 females; Stones R., Couchville Pike, VI-28-54, many adults; VII-15-54, 2 males; VIII-16-54, 1 male, 4 females; VII-26-54, many adults; VIII-13-54, many adults; X-16-54, many adults; X-27-54, 2 males; porchlight, Nashville, IX-8-52, 1 male, 3 females; DE KALB CO., Center Hill Reservoir, VI-27-54, 2 males; DICKSON CO., Acorn Lake, Montgomery Bell State Park, V-28-54, 1 male; HENRY CO., Tennessee R., Paris Landing, VI-20-54, many adults; LAKE CO., Mississippi R., Tiptonville Ferry, VII-15-54, 1 male, 2 females; Lids Pocket, Reelfoot Lake, VI-2-56, 1 male; MAURY CO., Duck R., Columbia, VII-7-54, 2 males; OBION CO., Bayou du Chien, Reelfoot Lake, V-15-54, many adults; V-4-54, many adults; VI-9-54, 1 male; VII-12-54, many adults; IV-16-55, 1 male; IV-22-56, many adults; PICKETT CO., Obey R., S. of Byrdsville, II-26-53, many adults; RUTHERFORD CO., Stones R., Barfield Community, VII-11-53, 2 males; WILLIAMSON CO., Harpeth R., Forrest Homes, VII-8-53, 3 males; Leipers Fork Cr., VII-8-53, 2 males, 1 female; WILSON CO., Caney Fork Cr., VII-9-53, 1 male, 3 females; Spring Cr., VII-9-53, 1 female.

Oecetis persimilis (Banks)

Oecetina persimilis Banks (1907, p. 129)

This species has been collected in several of the central states, including Tennessee, but never in great numbers.

Collection records: CHEATHAM CO., Big Marrowbone Cr., VII-27-54, 3 males; DAVIDSON CO., Nashville, VI-18-53, 1 male, J. J. Friauf, col., porchlight.

Trianodes aba Milne*Trianode aba* Milne (1935, p. 20)

Not previously reported south of Wisconsin, this species appears in numbers at Reelfoot Lake, Obion County, the only place in Tennessee where it has been collected.

Collection records: OBION CO., Bayou du Chien, Reelfoot Lake, V-19-54, 6 males; V-22-54, 1 male, 1 female; VI-9-54, many adults; VI-2-54, many adults; VII-12-54, 1 male; V-7-55, many adults; Upper Blue Basin, 7-53, 2 males; V-6-55, many adults; Acorn Point, Snyder Basin, V-7-55, many adults; Eastridge Arm, V-8-55, many adults; Glover Arm, VI-1-55, many adults.

Trianodes ignita (Walker)*Leptocerus ignita* Walker (1852, p. 72)

Distributed unevenly over the eastern states, this species had been previously reported in Tennessee. The long, slender filaments of the tenth tergite are described by Ross (1944, p. 252) as "curving sharply to the left near the apex." In a majority of the specimens in the writer's collection, these filaments curve sharply to the right, and no other visible variation is observable. On examination of the specimens in the collection of Dr. Ross, it was found that almost half of the specimens possessed filaments bent to the right, while the remainder were as previously described.

Collection records: CHEATHAM CO., Harpeth R., Kingston Spr., VIII-2-54, 1 male; DAVIDSON CO., Stones R., Couchville Pike, VI-28-54, 1 male; V-4-55, 1 male; MONTGOMERY CO., Passenger Cr., VII-24-53, 1 male; OBION CO., Bayou du Chien, Reelfoot Lake, VI-8-54, 1 female; RUTHERFORD CO., VII-11-53, Middle Fork Stones, 6 females, 5 males; WILLIAMSON CO., Little Harpeth R., VI-19-53, 1 male.

Trianodes injusta (Hagen)*Setodes injusta* Hagen (1861, p. 283)

Not previously recorded from Tennessee or any of the south-central states, this species appeared in collections from one county in the Nashville Basin.

Collection records: DAVIDSON CO., Stones R., Couchville Pike, VI-2-53, 1 male; V-23-53, 1 female.

Trianodes perna Ross*Trianodes perna* Ross (1938a, p. 159)

The original collection of this species was made in Illinois, where the entire collection consisted of the type male and two females. Since the original collection, there are records of a male from Franklin County, Ohio, and a female from Broken Bow, Oklahoma. Tennessee collections have yielded many females of the species but not a single male.

Collection records: CHEATHAM CO., Big Marrowbone Cr., VII-27-54, 1 female; DAVIDSON CO., Little Harpeth R., Edwin Warner Park, VI-14-54, 9 females; VI-22-54, 10 females; Stones R., Couchville Pike, V-24-54, 1 female; DICKSON CO., Acorn Lake, Montgomery Bell State Park, V-27-54, 1 female; VI-17-55, 1 female; WILLIAMSON CO., Little Harpeth R., Franklin, VI-19-53, 2 females; Harpeth R., Forrest Homes, VII-8-53, 1 female.

Mystacides sepulchralis (Walker)*Leptocerus sepulchralis* Walker (1852, p. 70)

Widely distributed throughout the northeastern states and south to Georgia, this species was collected only

once in Tennessee, where it was not previously recorded.

Collection records: DAVIDSON CO., Stones R., Couchville Pike, XI-14-53, 4 larvae.

Setodes oligia (Ross)*Leptocerus oligia* Ross (1938a, p. 160)

Considered to be rare, this species has been recorded from Michigan, Ontario, and a single station in Illinois. In Tennessee, this species is common along Stones River, Davidson County.

Collection records: DAVIDSON CO., Stones R., V-18-54, many adults; V-24-54, many females; VI-1-53, 6 females; VI-28-54, 3 females, 1 male; IX-27-54, 1 female; Nashville, VI-1-53, 1 female, J. J. Friauf, col., porchlight.

Setodes epicampes Edwards*Setodes epicampes* Edwards (1956a, p. 3)

This species was described from Stones R., Davidson County, where it occurred in company with *S. oligia*.

Collection records: DAVIDSON CO., Stones R., Couchville Pike, V-24-54, 9 males; VI-1-54, 2 males, 1 female; VII-26-54, 3 males; V-17-55, 3 males, 5 females; VII-16-54, 2 females; IX-16-54, 2 males.

FAMILY GOERIDAE

Goera calcarata Banks*Goera calcarata* Banks (1899, p. 211)

This species is common in Tennessee and may be collected from practically any cold, swift, clear stream.

Collection records: BEDFORD CO., cr. on U.S. 41A, 6 miles N. Tullahoma, IX-3-55, 1 larva, 3 males, 1 female; CUMBERLAND CO., cr. across U.S. 70, 2 miles E. Crab Orchard, IV-5-55, 6 larvae; VI-18-55, 1 pupa; FRANKLIN CO., Winchester Spr., IV-19-53, 2 larvae, 1 pupa; HICKMAN CO., Duck R., Centerville, VII-7-54, 3 females; HUMPHREYS CO., Trace Cr., IV-1-55, 2 larvae; MACON CO., Hungry Cr., VII-27-53, 6 larvae; MARION CO., Martin Spr., VIII-1-55, 6 males, 2 females; MONTGOMERY CO., Sheltons Br., I-17-54, 5 larvae.

Goerita semata Ross*Goerita semata* Ross (1938a, p. 172)

Collection records: FRANKLIN CO., Wellington Mills, IV-26-55, 3 males, many larvae and pupae; IV-30-53, many larvae, adults; VIII-13-55, 10 larvae, 1 pupa; IX-3-55, 4 males, 3 females; IX-23-55, many larvae and pupae; V-30-55, many larvae and pupae.

FAMILY LEPIDOSTOMATIDAE

Lepidostoma liba Ross*Lepidostoma liba* Ross (1941b, p. 120)

This is the only species of this genus to be collected in Tennessee during this study. It had not been previously reported outside of Illinois.

Collection records: CUMBERLAND CO., cr. 2 miles E. Crab Orchard, IV-5-55, 2 larvae; Daddy's Cr., IV-5-55, 1 larva; FENTRESS CO., brook across Tenn. 89, 10 miles S.E. Wilder, IV-5-55, 2 larvae.

Theliopsyche melas Edwards*Theliopsyche melas* Edwards (1956b, p. 16)

This species was described from Wellington Mills, Franklin County, where it occurred in considerable numbers at a small spring.

Collection records: FRANKLIN CO., Wellington Mills, IV-26-55, 1 male; IV-19-55, 1 male; IV-30-55, 5 females, 3 males; V-31-55, 3 males, 1 female.

FAMILY BRACHYCENTRIDAE

Micrasema charonis Banks*Micrasema charonis* Banks (1914, p. 266)

This species occurred in two counties in Tennessee where it was common within a circumscribed area.

Collection records: DICKSON CO., stream at entrance to Montgomery Bell State Park, IV-17-55, many adults; IV-19-55, 4 males; FRANKLIN CO., Estill Spr., VIII-13-55, 2 males.

Micrasema wataga Ross*Micrasema wataga* Ross (1938a, p. 178)

This species was collected in numbers at one station in Coffee County where the adults were netted from vegetation overhanging the water.

Collection records: COFFEE CO., Duck R., Manchester, IV-19-55, many adults.

Brachycentrus americanus (Banks)*Oligoptectrum americanus* Banks (1899, p. 210)

Collection records: MONTGOMERY CO., Louise Cr., II-27-55, 1 larva.

Brachycentrus lateralis (Say)*Phryganea lateralis* Say (1823, p. 161)

Collection records: DAVIDSON CO., Stones R., Couchville Pike, VI-22-54, 4 larvae.

FAMILY HELICOPSYCHIDAE

Helicopsyche borealis Hagen*Helicopsyche* Hagen (1866, p. 252) *Notidobia borealis* Hagen (1861, p. 271)

Collection records: BEDFORD CO., cr. 6 miles W. Tullahoma, IV-20-55, 13 larvae; CHEATHAM CO., Big Marrowbone Cr., VI-23-51, 1 pupa, V-9-53, 2 males, 1 female; VII-27-54, 8 females, 1 male; V-14-55, 1 larva; DAVIDSON CO., Nashville, V-17-53, 4 males, 2 females, J. J. Friauf, col., porchlight; Little Marrowbone Cr., IX-27-54, 1 female; V-2-55, many adults; Stones R., Couchville Pike, VI-12-54, 3 females; V-24-54, 2 females, many males; DICKSON CO., Montgomery Bell State Park, VIII-24-54, 4 larvae; FRANKLIN CO., Estill Spr., VI-29-55, 1 male; MACON CO., Hungry Cr., VII-27-53, 9 larvae; RUTHERFORD CO., Stones R., Barfield Community, VII-11-53, 1 male; Middle Fork Stones R., VII-11-53, 1 male; SMITH CO., Peyton Cr., VII-26-53, many larvae; SUMNER CO., Red R., VII-27-53, 3 larvae; Buffalo Br., VII-26-53, 3 larvae; WILLIAMSON CO., Leipers Fork Cr., VII-8-53, 1 male; WILSON CO., Cedar Cr., VII-10-53, 8 larvae.

During collections in very mountainous portions of Cumberland and Fentress counties, larvae of a distinctive form were taken in small numbers from a cold, clear, rapid stream at an elevation of about 1100 feet (Cumberland Co.) and from a rivulet draining a deep ravine and emptying into the East Fork of the Obey River. No pupae were taken, nor were any adults obtained. The larvae key easily to the genus *Diplectrona*. Their obvious and unique feature is an asymmetric frons. Upon examination of these larvae, Ross (personal communication) thought that they were either freaks or a new species of *Diplectrona*. Because these larvae were taken from two sites which were well separated geographically, and there were no morphological variations between the two populations, the writer finds it impossible to concede them either freaks. Following is a description of the larvae.

Diplectrona sp., length of larvae, 11 mm. Head convex, a clear, unmarked yellow. Apical border of frons

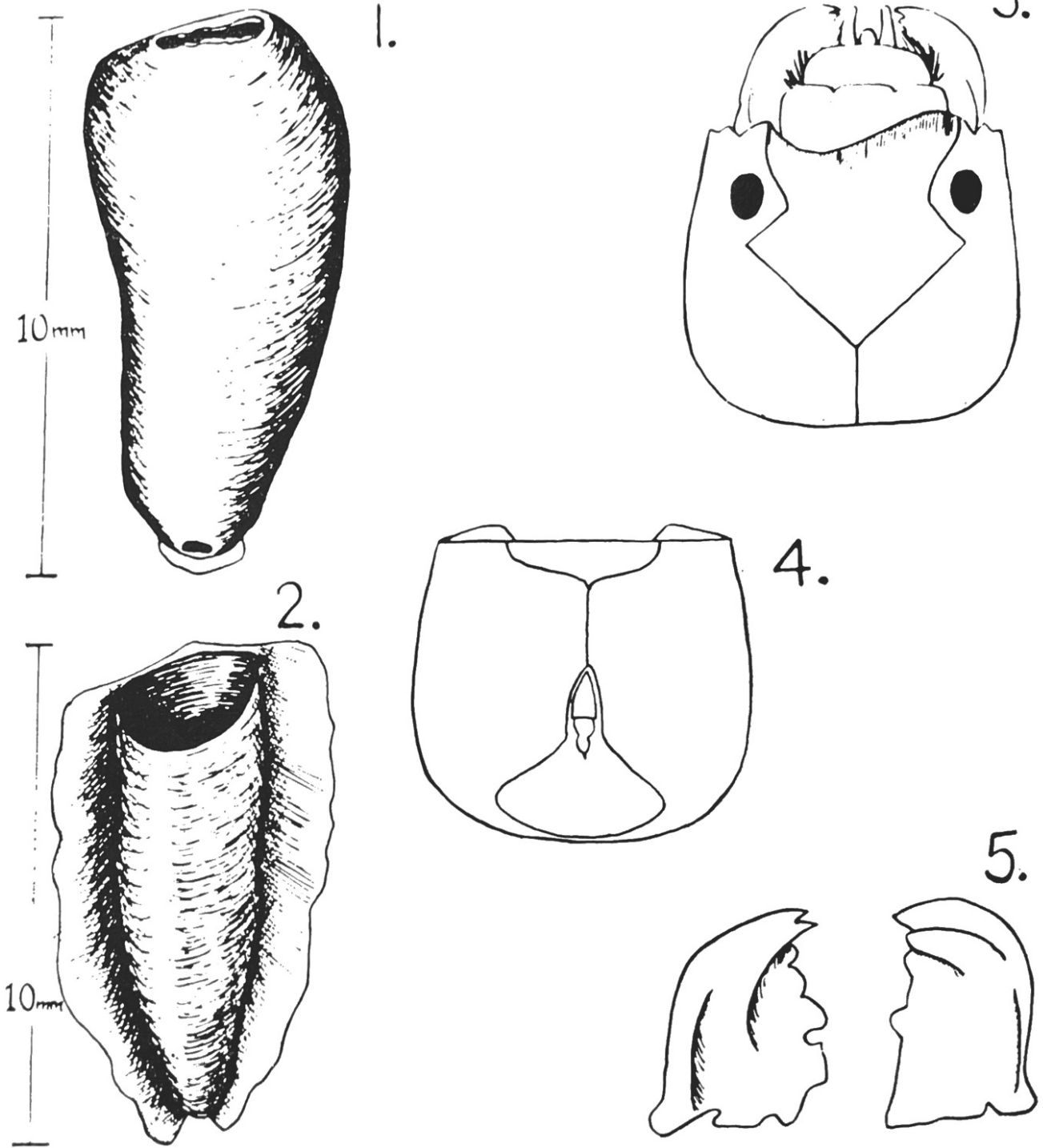
asymmetrical, bearing a deep, rounded indentation on the left side and a gently rounded lobe on the right side. Frons sharply constricted at the middle, the eyes being situated in the constriction, (figs. 3). Caudal half of the frons triangular in shape. Submentum subconical, not cleft. Gula short, (fig. 4). Mandibles sharp and stocky with no flanges on the lateral margins, and the teeth irregular in size and shape on both. The left mandible larger than the right as is typical in the Hydropsychidae (fig. 5). Dorsum of abdominal segments with a mixture of short appressed bristles and erect setae. Each segment with two additional tufts of setae close to the mid-line and two lateral to these, each tuft with 4-5 short bristles and a single long seta.

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EXPLANATION OF FIGURES

Fig. 1 *Anthripsodes resurgens*, dorsal view of unflanged larval case.
 Fig. 2 *Anthripsodes resurgens*, ventral view of flanged larval case.
 Fig. 3 *Diplectronea* sp., dorsum, larval head.

Fig. 4 *Diplectronea* sp., ventral, larval head.
 Fig. 5 *Diplectronea* sp., larval mandibles.