

AN ANNOTATED LIST  
OF TRICHOPTERA (CADDISFLIES) OF TENNESSEE

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ABSTRACT

Distributional records for 298 species of caddisflies (Trichoptera), representing all North American families except Beraeidae, are given. Previously no comprehensive list existed for species occurring in Eastern Tennessee. This, therefore, represents the first attempt to list caddisflies for the entire state. Published records considered questionable are also given. References to illustrations and keys to adult males and larvae are included for each species.

INTRODUCTION

The first concentrated attempts to define the Trichopteran fauna of Tennessee were by Edwards (1956b and 1966) in which species from Middle and West Tennessee were annotated. Although undescribed species and new records from Tennessee will continue to be found for many years, we feel that a combination of recent collections and literature references, and a lack of a published annotated list from East Tennessee allows us to present at this time a useful list of all known Tennessee Trichoptera.

Edwards (1966) listed 112 species from Middle and West Tennessee. Recent collections have added a number of species for these geographical areas, and with the inclusion of East Tennessee the total number of species presented here is 298. With the exception of the Beraeidae, all North American caddisfly families are represented. Considering the fact that there are approximately 1200 species in North America north of Mexico, (Wiggins, 1977) Tennessee must rank as one of the most excellent geographic areas to conduct studies on caddisflies.

Species considered have been collected in Tennessee or in counties (from adjacent states) bordering Tennessee. Each entry is followed by a reference to an illustration of the male genitalia if the species was not figured in Ross (1944). Species records are listed by counties, and it can be assumed adults are available throughout the warmer months unless otherwise indicated. More precise distributional and emergence data are given for infrequently collected species. Unless otherwise indicated, records are based on adult males. A summary of current knowledge of larval forms is given for each genus. Larvae of all Tennessee genera are keyed and illustrated in Wiggins (1977).

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FAMILY PHILOPOTAMIDAE

CHIMARRA

Ross (1944) allows identification of all Tennessee larvae with the exception of *C. augusta* Morse.

*Chimarra aterrima* Hagen. East and Middle Tennessee.

*C. augusta* Morse. Morse, 1971. Conasauga River, Bradley County, 1 July.

*C. obscura* (Walker). East and Middle Tennessee.

*C. socia* Hagen. Bradley and Monroe Counties, June - 9 August.

DOLOPHILOIDES

Ross (1944) illustrates the larvae of *distinctus*; The larvae of *major* is unknown.

*Dolophilodes distinctus* (Walker). As *Trentonius* in Ross, 1944. East and Middle Tennessee.

*D. major* (Banks). Ross, 1949, 1956. Polk and Sevier counties, 6-12 May.

WORMALDIA

Larvae of *moesta* and *shawnee* are differentiated in Ross, 1944. If Denning's (1950a) assumption is correct, the unknown larvae of *thyria* will be more similar to the latter.

*Wormaldia moesta* (Banks). As *Dolophilus* in Ross, 1944. East and Middle Tennessee.

*W. thyria* Denning. Denning, 1950a; Ross, 1956. Fentress County, 30 May-20 June.

FAMILY PSYCHOMYIIDAE

LYPE

The single North American species, *Lype diversa* (Banks), occurs in East and Middle Tennessee. See Flint (1959) or Wiggins (1977) for description of the larva.

PSYCHOMYIA

The larvae of the two Tennessee species are described and keyed in Flint (1964).

*Psychomyia flavida* Hagen. East and Middle Tennessee.

*P. nomada* (Ross). Edwards (1966) recorded this species from Dickson Co. The type locality is Cherokee, North Carolina. 17 April-17 June.

FAMILY POLYCENTROPODIDAE

CYRNELLUS

*Cyrnellus fraternus* (Banks), the only species, occurs in the largest rivers throughout the state. Illustrated as *C. marginalis* (Banks) in Ross, 1944. Flint (1964) described the larva.

NEURECLIPSIS

*Neureclipsis crepuscularis* (Walker) is the only species known from Tennessee. Cheatham, Fentress, Wayne, and Wilson counties.

NYCTIOPHYLAX

The larval stages of *N. nephophilus*, *N. celta* (as *vestitus*), and *N. moestus* (as sp. A) were described by Flint (1964). Males of all species are illustrated in Morse, 1972.

*Nyctiophylax affinis* (Banks). Cumberland, Fentress, Monroe, Robertson, and White counties.

*N. banksi* Morse. Cumberland and Fentress counties, 19 June-15 July.

*N. celta* Denning. Fentress County, 24 May-7 July.

*N. denningi* Morse. Sevier Co., 30 May-19 July.

- N. moestus* Banks. Cumberland and Fentress counties, 19 June-20 July.  
*N. nephophilus* Flint. Recorded from mountainous regions of Ga., N.C., S.C., and Va., 6 June-1 July.  
*N. uncus* Ross. Fentress County, 19-28 June.

**PHYLOCENTROPUS**

Although larvae of all three Tennessee species have been figured (see Wiggins, 1977), diagnostic differences, if present, have not been published.

- Phylocentropus carolinus* Carpenter. Flint, 1966. Cumberland Co., 6 Apr.-25 July.  
*P. lucidus* (Hagen). Ross, 1944, recorded this species from Tennessee.  
*P. placidus* (Banks). Benton, Blount, Cheatham, McNairy, Monroe, and Polk counties.

**POLYCENTROPUS**

- Larvae are not separable at present.  
*Polycentropus barri* Ross and Yamamoto. Ross and Yamamoto, 1965. Fentress County, 20 May - 14 July.  
*P. blicklei* Ross and Yamamoto. Ross and Yamamoto, 1965. Greene County, June.  
*P. carolinensis* Banks. Greene and Johnson counties, 1 June-11 July.  
*P. centralis* Banks. Cheatham and Robertson counties.  
*P. chelatus* Ross and Yamamoto. Ross and Yamamoto, 1965. Decatur Co., Ky., near Kentucky Reservoir, 5 May.  
*P. cinereus* Hagen. Cheatham, Cumberland, Davidson, Fentress, Franklin, Greene, Johnson, Maury, and Rutherford counties.  
*P. colei* Ross. Ross, 1941, listed the type locality as "Glum Cave Trail." Dr. Arthur C. Cole, after whom the species is named, assured us that "Glum" should be "Alum." Great Smokies, Sevier County, 17 June.  
*P. confusus* Hagen. East and Middle Tennessee.  
*P. crassicornis* Walker. Cheatham, Cumberland, Franklin, Knox, and Obion counties.  
*P. elarus* Ross. Cumberland County.  
*P. interruptus* (Banks). Maury and Robertson counties, 23-29 April.  
*P. maculatus* Banks. Chimneys Campground, Great Smokies, Sevier County, 14 June-16 July.  
*P. pentus* Ross. Cumberland County, 23 April-9 June.  
*P. rickeri* Yamamoto. Yamamoto, 1966, Great Smokies, Sevier County, 11 July.

**FAMILY HYDROPSYCHIDAE****APHROPSYCHE**

*Aphropsyche doringa* (Milne). Ross, 1944, as *A. aprilis*. Our data supports Wiggins' (1977) description of the probable larva. Cumberland, Fentress, Polk, and Sevier counties, 21 Apr. -13 May.

**ARCTOPSYCHE**

Flint (1961) illustrated the larva of the only eastern species, *Arctopsyche irrorata* Banks. Milne and Milne (1938) and Schmid (1968), illustrated the male genitalia. Sevier County, mid April-June.

**CHEUMATOPSYCHE**

- Larvae not separable at present. Gordon (1974) should be used for identification of adults.  
*Cheumatopsyche aphantia* Ross. Cheatham, Cumberland, and Montgomery counties, April-June.  
*C. burksi* Ross. Jackson, Knox, Madison, and Obion counties.  
*C. campyla* Ross. Statewide.  
*C. ela* Denning. Blount, Cumberland, Hickman, and Knox counties, 30 May-15 August.  
*C. etrona* Ross. Polk County, 21 April-30 June.  
*C. geora* Denning. Resh (1975) recorded this species from Trigg County, Kentucky, in the Land Between the Lakes area, 23-24 June.  
*C. gracilis* (Banks). Recorded from Macon County, North Carolina.  
*C. gyra* Ross. Madison County, North Carolina, 15 August.  
*C. hardwoodi* Denning. East and Middle Tennessee.

- C. helma* Ross. Gatlinburg, Sevier County, 11-24 June.  
*C. minuscula* (Banks). Cocke, Johnson, Polk and Williamson counties.  
*C. oxa* Ross. East and Middle Tennessee.  
*C. pasella* Ross. Statewide.  
*C. pettiti* (Banks). Statewide. (Formerly listed as *C. analis*.)  
*C. pinaca* Ross. Fentress and Johnson counties, 29 June-18 July.  
*C. sordida* (Hagen). Johnson County, 30 April-11 July.  
*C. speciosa* (Banks). Williamson County, 8 July.  
*C. wrighti* Ross. Greene, Johnson, and Union counties, 14 May-18 July.

**DIPLECTRONA**

Larvae of both Tennessee species are characterized in Ross (1944) and Wiggins (1977). Ross (1970) pointed out that "Hydropsychid Genus A" represented the larva of an undescribed species, *D. metaqui*, described and diagnosed in that paper.  
*Diplectrona metaqui* Ross. Blount, Lincoln, Polk, and Sevier counties, 12 April-7 June.  
*D. modesta* Banks. East and Middle Tennessee.

**HYDROPSYCHE**

Larvae are characterized in Schuster (1976), and in Schuster and Etnier (in press). The *H. bifida* species group has been removed to the genus *Symphitopsyche* by Ross and Unzicker (1977).

- Hydropsyche betteni* Ross. East and Middle Tennessee.  
*H. carolina* Banks. Flint, 1966, known from high elevations in western North Carolina and north Georgia. May-June.  
*H. cuanis* Ross. Davidson, Smith, and Wilson counties.  
*H. demora* Ross. Ross, 1941. Polk, Blount, and Bradley counties, July-August.  
*H. depravata* Hagen. Cumberland, Davidson, Greene, and Knox counties.  
*H. dicantha* Ross. Cumberland and Fentress counties.  
*H. fattigi* Ross. Ross, 1941. Johnson County, 21 April-12 June.  
*H. frisoni* Ross. Cumberland County.  
*H. hageni* Banks. Clinch River, Hancock County.  
*H. incommoda* Hagen. Cumberland, Fentress, and Robertson counties, April-late August.  
*H. mississippiensis* Flint. Flint, 1972. Conasauga River, Bradley County, May-August.  
*H. orris* Ross. Statewide.  
*H. patera* Schuster and Etnier, Schuster and Etnier, 1978. Harpeth River, Cheatham county.  
*H. phalerata* Hagen. Cocke, Greene, Knox, and Sevier counties.  
*H. rotosa* Ross. Ross, 1947. Still known only from the type locality at Tusculum College, Greene County, 20 April-8 August.  
*H. scalaris* Hagen. Knox and Obion counties, April.  
*H. simulans* Ross. Statewide.  
*H. venularis* Banks. Ross, 1938b. Blount, Bradley, Cocke, Fentress, Greene, Loudon, and Polk counties.

**MACRONEMA**

Larvae were characterized in Ross, 1944. Only *M. zebratum* (Hagen) is known from Tennessee. Cheatham, Davidson, Hancock, Johnson, Pickett, Rutherford, and Williamson counties, 12 June-11 July.

**OROPSYCHE**

Wiggins (1977) illustrates the probable larva. The only species, *Oropsyche howellae* Ross, has been taken in Jackson County, North Carolina, and larvae are available from Lost Creek, White county. June.

**PARAPSYCHE**

Larvae of both our species are differentiated in Flint, 1961. *Parapsyche apicalis* (Banks). Betten, 1934. High elevations, Sevier County  
*P. cardis* Ross. Ross, 1938c. Polk, Sevier, and Unicoi counties.

**POTAMYIA**

Considerable confusion concerning the larva of this species has resulted from Ross (1944) separating them from *Hydropsyche* and *Cheumatopsyche* on the basis of a non-forked fore trochantin (stridulator *sensu* Ross, 1944). *Potamyia* larvae typically have the fore trochantin forked. Diagnostic characters for the larva appear in Wiggins, 1977. The single North American species, *P. flava* (Hagen), is statewide in big rivers.

**SYMPHITOPSYCHE**

We follow Ross and Unzicker (1977) in considering the former "*Hydropsyche bifida* group" as a distinct genus. Larvae of most species can be identified in Schuster (1977) or Schuster and Etnier (in press).  
*Symphitopsyche alhedra* (Ross). Ross, 1939. Blount, Cumberland, and Sevier counties, 24 April-25 July.  
*S. bronta* (Ross). Blount, Sevier, and Johnson counties, April-late August.  
*S. cheilonis* (Ross). Cumberland and Knox counties.  
*S. etnieri* (Schuster and Talak). Schuster and Talak, 1977. Buffalo Springs, Grainger County, 13-18 September.  
*S. macleodi* (Flint). Flint, 1965. Blount, Greene, Sevier, and Unicoi counties, April-July.  
*S. morosa* (Hagen). Blount, Cocke, Greene, Johnson, and Sevier counties.  
*S. slossonae* Banks. East and Middle Tennessee, May-August.  
*S. sparna* (Ross). East and Middle Tennessee.  
*S. ventura* (Ross). Ross, 1941. Campbell, Fentress, Scott, and White counties.

**FAMILY RHYACOPHILIDAE****RHYACOPHILA**

Flint (1962b) provides descriptions of the larvae of *amicus*, *atrata*, *banksi*?, *carolina*?, *carpenteri*?, *fenestra* and *ledra*, *fuscula*, *glaberrima*, *lobifera*, *melita*, *minora*, *mycta*?, *nigrita*, *torva*, and *vibox*. Sherberger and Wallace (1971b) described the larva of *vuphipes*. Neves (1977) associated Flint species 2 and 5. Species 2 is *acutiloba* not *carpenteri* as Flint postulated and species 5 is *carolina* confirming Flint's supposition. We have larvae of *parantra*, which key to *nigrita* in Flint (1962), but they have a yellow rather than a "blackish or golden brown" head.  
*Rhyacophila accola* Flint. Flint, 1972. Smokemont, Great Smokies, North Carolina, 11-14 May.  
*R. amicus* Ross. Ross, 1956. Western North Carolina.  
*R. appalachia* Morse and Ross. Morse and Ross, 1971. Johnson and Sevier counties, mid April-mid June.  
*R. atrata* Banks. Ross, 1938b. Known from Highlands and Black Mountain, North Carolina, May.  
*R. banksi* Ross. Cumberland and Putnam counties, 22 May-6 June.  
*R. carolina* Banks. Ross, 1939; Schmid, 1970. Cumberland, Johnson, and Sevier counties.  
*R. fenestra* Ross. East and Middle Tennessee, late March-late June.  
*R. fuscula* (Walker). East and Middle Tennessee.  
*R. glaberrima* Ulmer. Cumberland, Fentress, Madison, and Sevier counties.  
*R. ledra* Ross. Cumberland, Fentress, Franklin, Knox, Marion, Sequatchie, and Wilson counties.  
*R. lobifera* Betten. Schmid, 1970. Cumberland, Davidson, and Maury counties, 5 March-late May.  
*R. minora* Banks. Ross, 1956. Larvae only, Roan Mountain State Park. Resh (1975) reported the species from McCreary County, Kentucky, 17 April-12 May.  
*R. montana* Carpenter. Ross, 1956; Schmid, 1970. Newfound Gap, Great Smokies, Sevier County, 23 August-3 September.  
*R. mycta* Ross. Ross, 1941. Clingman's Dome, Great Smokies, Sevier County, 9-18 June.

- R. nigrata* Banks. Schmid, 1970. Polk and Sevier counties, mid April-late June.  
*R. otica* Etnier and Way. Etnier and Way, 1973. Cumberland and Fentress counties, early June-mid July.  
*R. parantra* Ross. Ross, 1948a. 1956. Morgan and White counties, 20 May-9 June.  
*R. teddyi* Ross. Schmid, 1970. Polk and Sevier counties, mid May-mid June.  
*R. torva* Hagen. Ross, 1956; Schmid, 1970. Franklin and Sevier counties, April-July.  
*R. vibox* Milne. Schmid, 1970. Edwards (1966) reported larvae from Sequatchie County.  
*R. vuphipes* Milne. Schmid, 1970. Larvae only, East Tennessee.

**FAMILY GLOSSOSOMATIDAE****AGAPETUS**

Larvae not separable at present.  
*Agapetus avitus* Edwards. Edwards, 1956a. Bedford, Coffee, and Perry counties, late April.  
*A. crasmus* Ross. Martin Springs, Marion County.  
*A. diacanthus* Edwards. Edwards, 1965a. Sequatchie County, 19 June.  
*A. hessi* Leonard and Leonard. Leonard and Leonard, 1949. Wayne County, Kentucky, 19 May.  
*A. illini* Ross. Christian County, Kentucky (Resh, 1975).  
*A. minutus* Sibley. Betten, 1934. Quinn Springs Campground, near Hiwassee River, Polk County, mid May. (Identification confirmed by O. S. Flint, Jr.)  
*A. pinatus* Ross. Ross, 1938a. Elkmont, Sevier County, 12 June.  
*A. rosi* Denning. Denning, 1941. Blount County, May.  
*A. spinosus* Etnier and Way. Etnier and Way, 1973. Fentress County, 23 May.  
*A. tomus* Ross. Ross, 1941. Blount and Morgan counties, 26 April-21 May.  
*A. vireo* Ross. Ross, 1941. Bradley and Cumberland counties, May-June.

**GLOSSOSOMA**

Larvae not separable at present.  
*Glossosoma nigrior* Banks. Denning, 1942 (as *Eomystra unica*). East and Middle Tennessee. Since Edwards (1966) did not report this species, we regard his records of *G. intermedium* as questionable.

**MATRIOPTILA**

The immature stages are described by Flint (1962a).  
*Matrioptila jeanae* (Ross). Ross, 1938a (as *Protoptila*). Conasauga and Little Tennessee rivers, Bradley and Loudon counties, May and June.

**PROTOPTILA**

Larvae not separable at present.  
*Protoptila maculata* (Hagen). Nashville Basin.  
*P. palina* Ross. Greene County.

**FAMILY HYDROPTILIDAE****AGRAYLEA**

*Agraylea multipunctata* Curtis was recorded from Cheatham County, by Edwards, 1966.

**DIBUSA**

*Dibusa angata* Ross, the only species, has been collected in Davidson and Polk counties, 4 Apr.-12 May.

**HYDROPTILA**

Larvae not separable at present.  
*Hydroptila albicornis* Hagen. Edwards (1966) recorded from Davidson County, 1 May.  
*H. amoena* Ross. Polk County, 21 April-17 May.  
*H. armata* Ross. Bedford, Davidson, Jefferson, Johnson, and Knox counties.  
*H. consimilis* Morton. Davidson, Loudon, and Robertson counties, 10 May-14 June.  
*H. decia* Etnier and Way. Etnier and Way, 1973. Ten Mile Creek, Knox County, 13 April-17 June.  
*H. delineata* Morton. Greene, Monroe, and Polk counties.  
*H. hamata* Morton. Cumberland, Greene, and Polk counties.  
*H. remita* Blicke and Morse. Blicke and Morse, 1954. Polk County, Coker Creek near Hiwassee River, 21 April.

- H. spatulata* Morton. Tailwaters of Cherokee Reservoir, 20 April.  
*H. nuscolum* Ross. Ross, 1947. Tusculum College, Greene County, is the type locality, 8 August.  
*H. vala* Ross. Franklin County, 7 May.  
*H. virgata* Ross. Franklin County, 7 May.  
*H. waskesia* Ross. White County, 6 June.  
*H. xella* Ross. Martin Springs, Marion County and Hamilton Creek, Davidson County, 17-25 April.

## LEUCOTRICHIA

*Leucotrichia pictipes* (Banks) occurs in East and Middle Tennessee, and is the only eastern species in the genus.

## MAYATRICHIA

*Mayatrachia ayama* Mosely, the only eastern species, has been taken in Bradley and Monroe counties, 29 June-1 July.

## NEOTRICHIA

At present only *N. vibrans* Ross is known from Tennessee, from the Conasauga River, Polk and Bradley counties, 1 July-9 August. Four additional species are known from Kentucky. (Resh, 1975) and may be expected in Tennessee. Larvae are not separable at present.

## OCHROTRICHIA

- Larvae not separable at present.  
*O. arva* Ross. Ross, 1941. Anderson, Blount, Davidson, Marion, and Putnam counties, 23 April-6 June.  
*O. confusa* (Morton). Ross (1944) listed this species as occurring in Tennessee.  
*O. eliaga* (Ross). Davidson, Franklin, Humphreys, Marion, Maury, Robertson, Warren, and Wilson counties, 17 April-1 June.  
*O. riesi* Ross. Edwards (1966) recorded larvae and pupae of this species from Davidson and Franklin counties. Pupae were recorded from 26 April-18 May.  
*O. shawnee* (Ross). Cheatham and Robertson counties, 20 May-16 June.  
*O. unio* (Ross). Edwards (1966) reported larvae and pupae from Cheatham, Davidson, Dickson, and Maury counties. Pupae found on 10 May.

## ORTHOTRICHIA

- Larvae not separable at present.  
*Orthotrichia aegerfasciella* (Chambers). Ross, 1944 (as *O. americana*). Robertson, and Wilson counties.  
*O. cristata* Morton. Ross (1944) reported this species from Tennessee.

## OXYETHIRA

- Larvae not separable at present.  
*Oxyethira dualis* Morton. Stroud Spring, Northshore Drive, Knox County, 25 June.  
*O. forcipata* Mosely. Cumberland County, 1 September.  
*O. grisea* Betten. First rock face stream below Coker Creek, at Hiwassee River, Polk County, 21 April.  
*O. rivicola* Blickle and Morse. Blickle and Morse, 1954. Polk County, 21 April-9 August.  
*O. rossi* Blickle and Morse. Blickle and Morse, 1957. Coker Creek and first rock face stream below, near Hiwassee River, Polk County, 21 April.  
*O. serrata* Ross. Little Harpeth River, Davidson County, 31 April (Edwards, 1966).  
*O. zeronia* Ross. Cumberland County, 17-25 July.

## PALAEOGAPETUS

The single eastern species, *P. celsus* (Ross), is known from Indian Gap, Great Smokies, Sevier County, 7 June-1 July.

## STACTOBIELLA

- Larvae not separable at present.  
*Stactobiella delira* (Ross). Ross, 1944 (as *Tascobia*). Monroe and Polk counties, 17 April-17 May.  
*S. marytnovi* Blickle and Denning. Blickle and Denning, 1977. Type locality is Greenbrier Cove, Great Smokies, Sevier County, 26 May.  
*S. palmata* (Ross). Jefferson County, 23 May-21 July.

## FAMILY PHRYGANEIDAE

## AGRYPNIA

- Larvae of the Tennessee species are characterized in Wiggins, 1960.  
*Agrypnia improba* (Hagen). Milne, 1931. Recorded from North Carolina (Wiggins, 1960).  
*A. vestita* (Walker). Cumberland, Fentress, Jefferson, Knox, Maury, and Madison counties.

## OLIGOSTOMIS

Larvae not separable at present. *Oligostomis ocelligera* (Walker) is known from the spring tributary to W. Fk. Hickory Creek at Tennessee 56, Summitville, Coffee County, 1 April.

## PHRYGANEA

Larvae not separable at present. *Phryganea sayi* Milne, the only Tennessee species, is known from Cumberland and Fentress counties, 28 July-19 September.

## PTILOSTOMIS

- Larvae not separable at present.  
*Ptilostomis ocellifera* (Walker). Cumberland and VanBuren counties, late May-21 August.  
*P. postica* (Walker). Blount, Cumberland, Fentress, Giles, and Obion counties, 1 May-21 September.  
*P. semifasciata* (Say). Resh (1975) reported this species from the Cumberland Gap region, Kentucky, 14 June-28 August.

## FAMILY BRACHYCENTRIDAE

## BRACHYCENTRUS

Larvae of Tennessee species (except *B. spinae*) are characterized by Ross (1944), Wallace (1971) and Wiggins (1977). We have associated the larva of *B. spinae*, which is similar to that of *numerosus* and *etowahensis* in color pattern. It differs from the latter in having only three stout bristles on the middle and hind femora (see Wallace, 1971), and from both of these larvae in having the posterior portion of the frontoclypeus much lighter in color than the black bands on the adjacent portions of the head. Legs seem less bicolored than in *numerosus*, and are almost uniformly dark in our material. The larval case is similar to that which is typical for the genus; composed of plant material, quadrate and tapering posteriorly. However, the last instar larva has approximately twice the total length of *numerosus*, so consequently the cases are also much larger and very conspicuous on the rocks to which they are attached.

- Brachycentrus americanus* (Banks). Edwards (1966) reported larvae from Louise Creek, Montgomery County.  
*B. etowahensis* Wallace. Wallace, 1971. Lower Hiwassee and lower Little Tennessee rivers, Loudon and Polk counties.  
*B. lateralis* (Say). Blount, Davidson, and Monroe counties, April-early May.  
*B. numerosus* (Say). Known from Kentucky and North Carolina.  
*B. spinae* Ross. Ross, 1948b. Blount and Greene counties, 9 April-13 May.

## MICRASEMA

Although not available at present, study by Jay

Chapin, Clemson University, will soon allow larval identification.

- Micrasema burksi* Ross and Unzicker. Ross and Unzicker, 1965. Parksville, Polk County, 25 April-22 May.  
*M. charonis* Banks. Blount, Dickson, and Franklin counties, 17 April-13 August.  
*M. rickeri* Ross and Unzicker. Ross and Unzicker, 1965. Habersham County, Georgia, 3 April.  
*M. rusticum* (Hagen). Knox, Monroe, and Polk counties, 1 April-18 May.  
*M. scotti* Ross. Ross, 1947. Franklin, Johnson, and White counties, 26 April-15 June.  
*M. wataga* Ross. Coffee and Polk counties, 19 April-9 August.

## FAMILY LIMNEPHILIDAE

## APATANIA

- Larvae not separable at present.  
*A. praevolans* (Morse). Morse, 1971 (as *Radema*). Chimneys Campground, Great Smokies, Sevier County, 30 March-21 April.  
*A. rossi* (Morse). Morse, 1971 (as *Radema*). Type locality is in McDowell County, North Carolina, 26 March.

## GOERA

- Flint (1960) has characterized the larvae of the Tennessee species.  
*Goera calcarata* Banks. Ross, 1947. Anderson, Blount, Johnson Knox, Monroe, and Sevier counties.  
*G. fuscula* Banks. Ross, 1947. Blount and Sevier counties, April-mid May.  
*G. stylata* Ross. Known from McCreary County, Kentucky, 12 May.

## GOERITA

- Wiggins (1973) characterized the larvae and adults of the only two species.  
*Goerita betteni* Ross. Ross, 1962. Franklin, Putnam, and White counties.  
*G. semata* Ross. Indian Gap, Great Smokies. Wiggins (1973) pointed out that Edwards' (1966) records from Franklin County were based on *G. betteni*.

## HYDATOPHYLAX

The only eastern species, *H. argus* (Harris), occurs throughout Middle Tennessee, 25 May-13 July. Betten (1934) and Schmid (1950) illustrated the adult male. Flint (1960) keyed and illustrated the larva.

## IRONOQUIA

- Larvae not separable at present.  
*Ironoquia kaskaskia* (Ross). Flint, 1972 (as *I. brysoni*). Cumberland, Hardin, and Madison counties, 10 September-27 October.  
*I. punctatissima* (Walker). Cumberland, Madison and Knox counties, 7 September-11 October.

## LIMNEPHILUS

Although speciose in the northern United States, only one species, *L. submonilifer* Walker, is known from Tennessee—Madison County, 3 October. Flint (1960) illustrated the larva and the case of this species.

## NEOPHYLAX

- Larvae of many eastern species are keyed in Flint (1960). Since taxonomy of adults is still uncertain, we regard species identifications based on larvae as tentative.  
*Neophylax aniqua* Ross. Ross, 1947. Larvae agreeing with this species available from Spruce Flats Branch, tributary to Little River, Great Smokies, Sevier County.  
*N. concinnus* McLachlan. Ross, 1944 (as *N. autumnus*). We have adults from Cumberland County, 5-21 October. Edwards (1966) reported larvae and two pupae from Cheatham, Clay,

Cumberland, Davidson, Dickson, Humphreys, Smith, and Sumner counties.

- N. fuscus* Banks. We have a decomposed but mature male pupa from Crow Creek, Franklin County.  
*N. mitchelli* Carpenter. Banks (1943) illustrated this species. Mt. Mitchell, North Carolina, 1 September.  
*N. nacatus* Denning. Denning, 1941. Larvae presumably of this species are known from Blount and Sevier counties. Adults available from 15 September-1 October.  
*N. ornatus* Banks. Larvae identified as this species are available from Roan, Sevier, and Unicoi counties.

## PLATYCENTROPUS

The only Tennessee species, *P. radiatus* (Say), is known from Cumberland, Fentress, Knox, Johnson, and Unicoi counties, 26 May-9 July. Flint (1960) illustrated the larva and case of this species.

## PSEUDOSTENOPHYLAX

Larvae of both eastern species have been described (Flint, 1960; Wiggins, 1977). Only *P. uniformis* (Betten) (as *Drusinus* in Ross, 1944) has been taken in Tennessee; Pickett and Sevier counties, 1 May-8 June.

## Pycnopsyche

- Larvae of most of our species are identifiable in Flint, 1960, but undescribed and unassociated species should temper certainty of larval determinations. Betten (1950) should be referred to for adult identifications.  
*Pycnopsyche circularis* (Provancher). Cumberland and Madison counties, 21 September-14 October.  
*P. flavata* (Banks). The type locality is Pisgah National Forest, North Carolina.  
*P. gentilis* (McLachlan). Larvae Polk County. Adults Cumberland and Unicoi counties, 24 September-15 October.  
*P. guttifer* (Walker). Larvae Franklin County. Adults Cumberland County, 17-30 September.  
*P. indiana* (Ross). Madison County, 3 October.  
*P. lepida* (Hagen). Cumberland and Fentress counties, 29 August-30 September.  
*P. luculenta* (Betten). Immatures recorded from Cheatham (Edwards, 1966) and Blount (Flint, 1960) counties. Adults Cumberland and Madison counties, 17 September-19 October.  
*P. scabripennis* (Rambur). Cumberland, Fentress, Madison, and Sevier counties.  
*P. sonso* (Milne). Blount and Sevier counties, August-September.

## FAMILY LEPIDOSTOMATIDAE

## LEPIDOSTOMA

- Larvae not separable at present.  
*Lepidostoma americanum* (Banks). Ross, 1946. Known from Georgia, Highlands, North Carolina (29 June-3 July), and Virginia.  
*L. carrolli* Flint. Flint and Wiggins, 1961. Cumberland County, 16-17 September.  
*L. compressa* Etnier and Way. Etnier and Way, 1973. Cumberland County, 28 April-23 May.  
*L. excavatum* Flint and Wiggins. Flint and Wiggins, 1961. Indian Gap, Great Smokies, 3-13 September.  
*L. frosti* (Milne). Ross, 1946. Indian Gap, Great Smokies, 1 July-1 September.  
*L. griseum* (Banks). Ross, 1946. Cumberland and Sevier counties, 25 August-18 September.  
*L. latipennis* (Banks). Ross, 1946. Newfound Gap, Great Smokies; and western North Carolina June-16 September.  
*L. lydia* Ross. Ross, 1939. Polk and Sevier counties, 20 April-13 May.  
*L. mitchelli* Flint and Wiggins. Flint and Wiggins, 1961. Highlands and Mt. Mitchell, North Carolina, 1-16 September.  
*L. modestum* (Banks). Etnier and Way, 1973. Black Mountain, North Carolina, May.  
*L. ontario* Ross. Ross, 1941. Mouth of Coker Creek and first rock face stream below Coker Creek, Polk County, 21-22 April.  
*L. serratum* Flint and Wiggins. Flint and Wiggins, 1961. Crabtree

Meadows campground, Blue Ridge Parkway, North Carolina, 2-16 September.

*L. stylifer* Flint and Wiggins. Flint and Wiggins, 1961. Indian Gap, Great Smokies, 1 July.

*L. swannanoa* Ross. Ross, 1939. Polk County, 21 April-13 May.

*L. tibialis* (Carpenter). Ross, 1946. Polk and Sevier counties, 29 May-27 August.

*L. togatum* (Hagen). Betten, 1934. Cumberland, Fentress, Polk, and Sevier counties, 3 May-24 July.

*L. vernalis* (Banks). Ross, 1946. Known from Tryon, Polk County, North Carolina.

**THELIOPSYCHE**  
*Theliopsyche corona* Ross. Ross, 1938a. Andrews Bald, Great Smokies; and Gatlinburg, Sevier County, May.

*T. epilone* Ross. Ross, 1938a. Newfound Gap, Great Smokies, 13 June.

*T. melas* Edwards. Edwards, 1956b. Cumberland, Fentress, Franklin, and Putnam counties, 26 April-28 June.

#### FAMILY SERICOSTOMATIDAE

##### AGARODES

Larvae not separable at present.

*Agarodes distinctum* (Ulmer). Ross and Scott, 1974. Cumberland County, 3 July.

*A. georgia* Ross and Scott. Ross and Scott, 1974. Burke and Richmond counties, Georgia.

*A. stannardi* (Ross). Ross, 1962 (as *Sericostoma*). Types are from Wall Doxy State Park, near Holly Springs, Marshall County, Mississippi, 21 May.

*A. tetron* (Ross). Ross, 1948b (as *Sericostoma*). Types are from English Creek at Carson's Spring, near Newport, Cocke County, 3-8 June.

##### FATTIGIA

The only species, *F. pele* (Ross), is known from high elevation seepage areas in the Great Smokies. Ross (1938a) illustrated the male (as *Notidobia*). Adults 14 June. The larva was first illustrated by Ross and Wallace (1974).

#### FAMILY ODONTOCERIDAE

##### PSEUDOGOERA

The only species, *P. singularis* Carpenter, occurs in the Great Smokies in North Carolina. Wallace and Ross (1971) described the larva.

##### PSILOTRETIA

Although the larvae are not separable at present, associated material here (UT), at the Royal Ontario Museum, University of Georgia, and elsewhere is probably sufficient to allow identification of most species.

*Psilotretia amera* (Ross). Polk and Sevier counties, late April-May.

*P. frontalis* Banks. Edwards (1966) recorded larvae and/or females from Davidson, Dickson, Sequatchie, and Williamson counties. Monroe, Carter, and Unicoi counties, late April-13 June.

*P. labida* Ross. Cheatham, Davidson, Dickson, Pickett, and Sevier counties, 15 April-1 August.

*P. rossi* Wallace. Wallace, 1970b. Types are from Coweeta Hydrological Laboratory, Macon County, North Carolina, 15 June.

*P. rufa* (Hagen). Edwards (1966) recorded this species from Wellington Mills, Franklin County, 19-30 April.

#### FAMILY MOLANNIDAE

##### MOLANNA

Sherberger and Wallace (1971a) characterized the larvae of all Tennessee species except *M. musetta*.

*Molanna blenda* Sibley. Cumberland, Franklin, and Sevier counties, 1 May-14 July.

*M. musetta* Betten. Cumberland County, 1-5 July.

*M. tryphaena* Betten. Sherberger and Wallace (1971) reported larvae from Mossy Creek, Houston County; and Little McBean Creek, Richmond County, Georgia.

#### FAMILY HELICOPSYCHIDAE

##### HELICOPSYCHE

The only eastern species, *H. borealis* (Hagen), is widespread in Middle Tennessee. The unique cases of this species have also been collected from Crooked Creek in Blount County in eastern Tennessee; however, no larvae or adults have yet been taken.

#### FAMILY CALAMOCERATIDAE

##### ANISOCENTROPUS

The only North American species, *A. pyraloides* (Walker), was illustrated by Betten and Mosely, 1940. Wallace and Sherberger (1970) illustrated the larva. Estill Springs, Franklin County; Martin Springs, Marion County; and Minnewauga Creek, Polk County.

##### HETEROPLECTRON

The only eastern species, *H. americanum* (Walker), is known from Murray Lake, Murray Co., Georgia. Betten and Mosley (1940) illustrated the adult male, and Lloyd (1921) illustrated the larva and case.

#### FAMILY LEPTOCERIDAE

##### CERACLEA

Morse (1975) should be used for identification of adults, but most common species are adequately illustrated in Ross (1944). Resh (1976) has described the larvae of most eastern species. Until recently, these species were placed in the genus *Athripsodes*.

*Ceraclaea ancylus* (Vorhies). Cumberland, Davidson, and Fentress counties, 7 May-2 July.

*C. cancellata* (Betten). Cheatham, Cumberland, Davidson, Fentress, Johnson, Montgomery, and Wilson counties, 13 May-18 August.

*C. diluta* (Hagen). Cumberland and Fentress counties, 3 May-24 June.

*C. flava* (Banks). Cumberland, Davidson, Fentress, Maury, Monroe, Wayne, and Wilson counties, 30 May-17 July.

*C. improcera* (Edwards). Morse (1975) reduces this nominal Tennessee species to a junior synonym of *C. cancellata* (Betten).

*C. maculata* (Banks). As *Athripsodes transversus* in Ross, 1944. Statewide.

*C. neffi* (Resh). Maury County, 1-14 June.

*C. nepha* (Ross). Obion County, 7-15 May (Edwards, 1966).

*C. protonepha* Morse and Ross. Cumberland and Greene counties, 23 April-June.

*C. punctata* (Banks). Cheatham and Obion counties, 1 June-2 August, (Edwards, 1966).

*C. resurgens* (Walker). Davidson and Fentress counties, 8 April-22 July.

*C. submacula* (Walker). Stones River at Couchville Pike, Davidson County, 14-17 April (Edwards, 1966).

*C. tarsipunctata* (Vorhies). Statewide.

*C. transversa* (Hagen). As *Athripsodes angustus* in Ross, 1944. Cheatham, Davidson, Fentress, Johnson, Maury, Rutherford, and Williamson counties.

##### LEPTOCERUS

The only North American species, *L. americanus* (Banks), is known from Cumberland, Fentress, and Obion counties, 2 April-23 July.

##### MYSTACIDES

Only one of the three North American species, *M. sepulchralis* (Walker) occurs in Tennessee—Blount, Bradley, Cumberland, Davidson, Fentress, and Monroe counties, May-3 August.

##### NECTOPSYCHE

Until recently these species were placed in the genus *Leptocella* (Flint, 1974). Larvae are characterized by Haddock, 1970 and 1977.

*Nectopsyche candida* (Hagen). Haddock (1970, 1977) included Tennessee in the range.

*N. exquisita* (Walker). Bradley, Cheatham, Davidson, Dickson, Polk, and Williamson counties.

*N. pavida* (Hagen). Cumberland, Davidson, Dickson, Maury, and Obion counties, 13 June-7 July.

##### OECETIS

Larvae not separable at present.

*Oecetis avara* (Banks). Bradley, Cheatham, Davidson, Fentress, Henry, Monroe, and Obion counties, 17 June-27 September.

*O. cinerascens* (Hagen). Blount, Cumberland, Fentress, Lake, Maury, Obion, and Wilson counties.

*O. ditissa* Ross. Ross, 1966. Blount, Fentress, Franklin, Greene, Knox, Lawrence, Madison, Monroe, and Robertson counties.

*O. inconspicua* (Walker). Statewide.

*O. nocturna* Ross. Ross, 1966. Decatur, Madison, and Robertson counties.

*O. ochracea* (Curtis). Reelfoot Lake, Obion County, 8 May (Edwards, 1966).

*O. persimilis* (Banks). Bradley, Cheatham, Davidson, Fentress, Monroe, and Wayne counties, 6 June-16 August.

*O. sphyra* Ross. Ross, 1941. Conasauga River, Bradley County, 8 June-1 July.

##### SETODES

Larva not separable at present.

*Setodes epicampes* Edwards. Edwards, 1956a. Stones River at Couchville Pike, Davidson County, 24 May-16 September.

*S. incerta* (Walker). Resh (1975) records from Pineville, Bell County, Kentucky, 24 June-28 August.

*S. oligia* (Ross). Stones River, Davidson County, 18 May-28 June (Edwards, 1966).

*S. stehri* (Ross). Ross, 1941. Citico Creek, Monroe County, 29 June.

##### TRIAENODES

Larvae not separable at present.

*Triadenodes abus* Milne. Reelfoot Lake, Obion County, 6 May-12 July (Edwards, 1966).

*T. connatus* Ross. Ross, 1959. Resh (1975) records from Pineville Bell County, Kentucky, 24 June-14 September.

*T. cumberlandensis* Etnier and Way. Etnier and Way, 1973. Cumberland County, 24 June-27 July.

*T. flavescens* Banks. Resh (1975) records from Trigg County, Kentucky, in the Land Between the Lakes area, 23 June.

*T. ignitus* (Walker). Blount, Cheatham, Cumberland, Davidson, Fentress, Montgomery, Obion, Rutherford, and Williamson counties, 4 May-2 August.

*T. injustus* (Hagen). Cumberland, Davidson, and Maury counties, 24 March-26 June.

*T. marginatus* Sibley. Conasauga River, Polk County, 9 August.

*T. ochracea* (Betten and Mosely). Betten and Mosely, 1940. Cumberland and Fentress counties, 13 June-3 July.

*T. taeniatus* Ross. Ross, 1938a. Types are from Gatlinburg, Sevier County, 12 June.

*T. tardus* Milne. Cumberland County.

#### DUBIOUS RECORDS

The following species were listed from the state, and for the various reasons listed below, we feel these records are questionable.

*Apatania incerta* (Banks). Ross, 1938b (as *Radema*). Flint (1960) recorded this species from Highlands and Mt. Mitchell, North Carolina, on the basis of larvae.

*Hydropsyche placoda* Ross. Edwards (1966) reported this species on the basis of a single male and five females from the Stones River, Dickson County. In personal communication Edwards states: "I did compare most of my material with types in Ross's collections at Urbana, Ill. and both he and I did note that the forms I was calling *H. placoda* were not precise fits with his." We think it likely that this record was based on an undescribed species, common in the Harpeth River. Unfortunately, Edwards' specimens are not available for further study.

*O. edlestoni* Ross. Edwards' (1966) Obion County records are based on larvae.

*Smicridea fasciatella* McLachlan. Edwards (1966) reported larvae of this species from Trehan Spring, Montgomery County, on the basis of two larvae. Until this record can be substantiated we prefer to list it as questionable.

*Symphitopsyche bifida* (Banks). Edwards (1966) records are all based on larvae. It is more likely that these specimens represented either *S. cheilensis* or *S. morosa*.

*Glossosoma intermedium* (Klapalek). Edwards (1966) listed this species from throughout Middle Tennessee on the basis of larvae. No adults of this species have yet been taken, and for this reason we consider these records questionable. It is more likely that these larvae were *G. nigrior*.

*Lepidostoma liba* Ross. As with the previous three species, Edwards (1966) records are based on larvae. The genus *Lepidostoma* contains approximately 65 species occurring in North America north of Mexico, and presently almost nothing is known regarding larval taxonomy (Wiggins, 1977). Therefore, the Tennessee records of this Illinois species cannot be accepted.

*Molanna uniophila* Vorhies. Sherberger and Wallace (1971a) were the first to present a reliable key to the larvae of this genus. Since Edwards (1966) reported this species from VanBuren County, on the basis of larvae, these records must be regarded as questionable until additional material is available for study.

*Pycnopsyche subfasciata* (Say). Carpenter's (1933) records from Newfound Gap probably refer to the very similar *P. lepida*.

*Triaenodes pernuss* Ross. Edwards (1966) records from Cheatham, Davidson, Dickson, and Williamson counties are based on females.

*W. shawnee* (Ross). As *Dophrilus* in Ross, 1944. Edwards' (1966) records from Davidson and Macon counties are based on larvae, and could represent this species or *W. thyrta*.

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