

## South Carolina Mayflies (Ephemeroptera)

W. P. McCafferty and M. D. Meyer

[WPM] Department of Entomology, Purdue University, West Lafayette, IN 47907  
[MDM] Department of Biology, Chemistry, and Environmental Science, Christopher Newport University, Newport, VA 23606

### ABSTRACT

An extensive review of published record data, and the amassing of new collection data from the study of numerous collections and surveys has led to the accounting of 182 species of Ephemeroptera from the state of South Carolina. Previous listings are corrected, and all species are supported by previously available or, for the most part, new collection data. Twenty-two species are listed for the state for the first time, and supporting data are provided for the first time for another 39 species. Three species previously listed for South Carolina are discounted. Over 1000 new county records are given for 160 of the species and all 46 state counties.

### INTRODUCTION

New study and documentation of the Ephemeroptera fauna of South Carolina was undertaken as a by-product of the recent South Carolina Comprehensive Wildlife Conservation Strategy (<http://www.dnr.sc.gov/cwcs/>) to document the biota of South Carolina and establish species of environmental concern. McCafferty (2006) provided an example of the outcome of this program with regards to a particular species of mayfly of concern in South Carolina.

Although a list of South Carolina mayflies was first attempted by Unzicker and Carlson (1982) and again as recently as 1999 by Pescador et al. (1999), these compilations are problematic and of limited use. In the case of Pescador et al. (1999), this is primarily because of the absence of supporting data for those species listed and the non-stated extensive use of unpublished accounts, most of which we discovered also did not contain specific substantiating data. A summary of the problems with the most recent previous account of South Carolina mayflies is given below, as is the basis of the present study and additional information generated by our study regarding South Carolina mayflies. The precise details and references for such are documented within the Faunal Account that follows.

Although prior to the our accounting there were only 118 valid species of mayflies identified accurately from South Carolina that were accompanied by substantiating record data in published or unpublished works, Pescador et al. (1999) listed 170 species of mayflies for South Carolina. Of those 170, 18 are synonyms of other species contained within the list. Of the 152 valid species listed, two species were included based on misidentifications (*Brachycercus flavus* Traver) or erroneous data (*Baetisca gibbera* Berner). Forty-four species were included based on their listing in unpublished accounts, and of those only 10 had specific collection data associated with them in the unpublished accounts, and of the other 34, five did have published data associated with them that were apparently unknown to Pescador et al. (1999). Pescador et al. (1999) also noted 17 species as

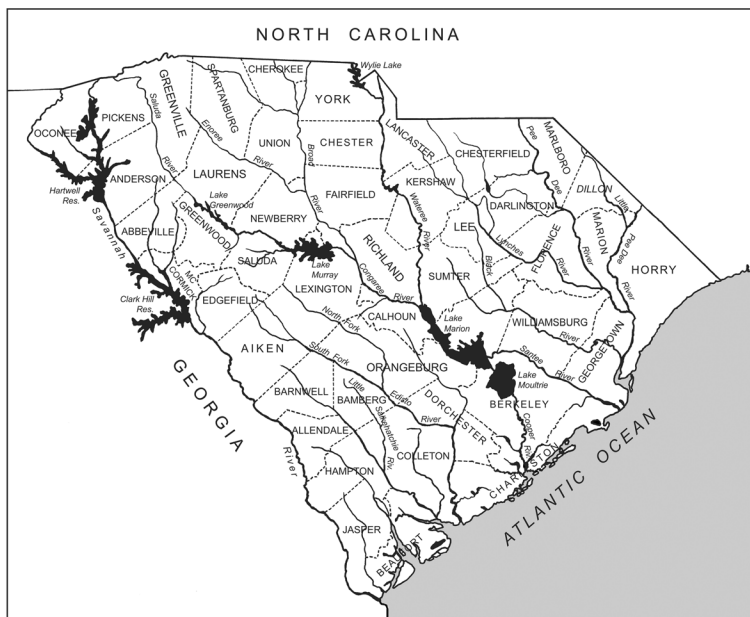


Fig. 1. South Carolina counties and major waterways.

new state records, but six were not new because they had already been documented in the literature by that time, including *Dipheter hageni* (Eaton), *Baetis flavistriga* McDunnough, *Plauditus cestus* (Provonsha & McCafferty), *Heptagenia pulla* (Clemens), *Stenacron pallidum* (Traver), *Paraleptophlebia debilis* (Walker), and the remaining 11 were not accompanied by any substantiating collection data, as required to establish accountable distribution records (McCafferty 2000). In addition to these problems, there were seven species known by 1999 from South Carolina that were not included in the Pescador et al. (1999) listing, including *Plauditus gloveri* McCafferty & Waltz, *Brachycercus bernerii* Soldán, *Eurylophella temporalis* (McDunnough), *Heptagenia dolosa* Traver, *Leucrocuta junco* (McDunnough), *Maccaffertium mediopunctatum* (McDunnough), and *M. smithae* (Traver).

Published since Pescador et al. (1999) but previous to the present study, are additional South Carolina species with substantiating data, or substantiating data for previously listed species (\*) that had lacked such data, including \**Heterocloeon amplum* (Traver), \**Baetis intercalaris* McDunnough, *Apobaetis etowah* (Traver), *Pseudocloeon dardanium* (McDunnough), *Serratella serrata* (Morgan), *Amercaenis cusabo* Provonsha & McCafferty, *Cercobrachys pomeiok* Sun & McCafferty, \**Drunella allegheniensis* (Traver), \**D. lata* (Morgan), and \**Ephemerella hispida* Allen & Edmunds.

The present study is based on a thorough examination of literature data pertaining to South Carolina, and examination and documentation of South Carolina materials from the Purdue Entomological Research Collections (PERC), the Clemson University Arthropod Collection (CLEM), Colorado State University

Insect Collection (CSU), University of Calgary Insect Collection (CALG), collections of the South Carolina Department of Health and Environmental Control (DHEC), collections of Carolina Power and Light (CPL), and the Illinois Natural History Survey (INHS). Both previous available data and new data (and their sources) are given as applicable in the Faunal Account for all species that we have been able to confirm from South Carolina. County names are given in higher case, as are the acronyms of collections. Older equivalent names used for species, under which previous data may have been recorded, can be found at Mayfly Central (McCafferty 2008). New data are based primarily on larval samples; for those data based on alate stages, the designation (A) is given. Other abbreviations are standard.

In all, 182 species of Ephemeroptera are accounted for herein. Twenty-two of these species have never been listed previously for the state, including *Anthopotamus distinctus* (Traver), *Baetisca becki* Schneider & Berner, *Centropitulum album* McDunnough, *C. triangulifer* (McDunnough), *Epeorus fragilis* (Morgan), *E. subpallidus* (Traver), *Ephemerella subvaria* McDunnough, *Heterocloeon petersi* (Müller-Liebenau), *Homoeoneuria cahabensis* Pescador & Peters, *Isonychia sicca* (Walsh), *Iswaeon anoka* (Daggy), *I. davidi* Waltz & McCafferty, *Leucrocota minerva* (McDunnough), *Maccaffertium pulchellum* (Walsh), *Paracloeodes minutus* (Daggy), *Paraleptophlebia moerens* (McDunnough), *Plauditus cingulatus* (McDunnough), *P. virilis* (McDunnough), *Procloeon rufostrigatum* (McDunnough), *Procloeon* sp. A (undescribed n. sp.), *Sparbarus maculatus* (Berner), and *Tricorythodes allectus* (Needham). Almost all valid but unsubstantiated species listed in Pescador et al. (1999) are confirmed with data presented herein for the first time (see exceptions below), and in the few instances where specific data were available previously only in unpublished sources, those data are also included here for the first time in published form. Over 1000 new county records are established for 160 of the species. All 46 South Carolina counties (Fig. 1) are represented with mayfly records. Nevertheless, it was impractical to include all available collection data for every South Carolina species because of sheer volume. Thus, with respect to relatively widespread and ubiquitous species within the state, only voucher records for counties where they are found are given herein, so that at least known county distributions are current for every South Carolina species at this point.

Among valid species previously listed for South Carolina, *Spinadis simplex* (Walsh) or *Raptoheptagenia cruentata* (Walsh) (with which the former has been historically confused) and *Siphonurus marginatus* Traver could not be confirmed with actual data and thus are discounted in the current treatment. *Spinadis simplex*, which has been taken in Georgia, could possibly occur in the Savannah River or its South Carolina tributaries. *Raptoheptagenia cruentata*, listed as "*Anepeorus simplex*" and as potentially occurring in South Carolina, by Unzicker and Carlson (1982), is far less likely to be found in South Carolina, with its nearest known range from the Ohio and Mississippi River drainage systems. *Siphonurus marginatus* is a suspect species, and materials listed as *S. marginatus* in the Clemson University collection are applicable to *S. mirus* (Eaton). Of the previous erroneous inclusions of *Brachycercus flavus* and *Baetisca gibbera*, as noted above, only the former is discounted (see Sun and McCafferty 2008), being that we have discovered new supporting data for *B. gibbera*.

## FAUNISTIC ACCOUNT

## ACANTHAMETROPODIDAE

*Acanthametropus pecatonica* (Burks), 1953

*Previous data.*—Edmunds et al. (1963) as *A. sp.*: NO COUNTY INDICATED (Savannah R).

*New data.*—BARNWELL: Savannah R, at Academy of Natural Sciences of Philadelphia Savannah River Project #4, station #3 (mile 157 from mouth), 15-V-1952 [PERC].

## AMELETIDAE

*Ameletus cryptostimulus* Carle, 1978

*New data.*—GREENVILLE: Matthews Cr, Asbury Youth Camp, 10-IV-1997, Spichiger [CLEM]. OCONEE: trib Long Cr, off Hwy 76, 15-VI-1987, Kondratieff (A) [CSU]; Crane Cr, Rt 107, 25-III-, 15-IV-1997, & Cherokee Rd, 25-III-1997, Spichiger [CLEM]; Crane Cr, Tamasee Rd 3.8 mi E Rt 107, 27-II-1987, Watson [CLEM]; East Fork Chattooga R, US Fish Hatchery, 13-III-1987, Watson [CLEM]. PICKENS: Cane Cr, Horse Pasture Rd, 4-IV-, 16-V-1997, Spichiger [CLEM]; Wildcat Cr, 6, 11-IV-1968 (A), & S Saluda R, at Hwy 101, 24-IV-1971, Carlson [CALG].

*Remarks.*—The [CALG] data given above is that which was simply referenced as South Carolina, with no other data, by Zloty (1996).

*Ameletus lineatus* Traver, 1932

*New data.*—CHESTER: trib Hooper Cr, at Hwy 9, 10-IV-2001 [DHEC]. CHESTERFIELD: Fork Cr, 150 m upstream confl Little Fork Cr, & Little Fork Cr downstream addition Brewers Gold Mine, 28-IV-1999 [DHEC]. EDGEFIELD: Rd 625, 22-VI-1993, & Rd 625 nr Hwy 68, 23-VII-1993, & Rd 632A, 22-VI-1993, Monroe [CLEM]. LAURENS: Rd 334, 2-II-1994, Monroe [CLEM]. MCCORMICK: Cedar Springs Cr, at CR 138, 17-III-1984, Kondratieff (A.L) [PERC]; Rd 437E, 20-V-1993, 20-II-1994, & Rd L283-3, 2-IV-1994, Monroe [CLEM]. OCONEE: Coley Cr, 16, 17-XI-1987, 24-III-1988, JJJ, & 19-I-1988, TCF [CLEM]; Coneross Cr, below Rt 59, 15-X-1982, Missimer [CLEM]; Thompson R, 19-I-1988, TCF [CLEM]; East Fork Chattooga R, US Fish Hatchery, 13-III-1987, Mellichamp [CLEM]; Crane Cr, at Winding Stairs Rd, 20-VII-1993 [DHEC]. PICKENS: Wildcat Cr, 14-II-1991, DeLong, & 27-VIII-1992, Gilbert [CLEM]. UNION: Rd E100-2, 6-II-1994, Monroe [CLEM].

## ARTHROPLEIDAE

*Arthroplea bipunctata* (McDunnough), 1924

*Previous data.*—Schultz (1973): OCONEE (Boone Cr).

## BAETIDAE

*Acentrellaalachua* (Berner), 1940

*Previous data.*—Unzicker and Carlson (1982): HORRY.

*New data.*—EDGEFIELD: Rd 625, 26-II-1994, Monroe [CLEM]. OCONEE: Rd 2253 at Hwy 196, 20-IV-1994, Monroe [CLEM]. YORK: Calabash Br, at S46-414, 2.5 mi SE Clover [CLEM].

*Acentrella parvula* (McDunnough), 1932

*Previous data.*—Berner (1977): EDGEFIELD; FAIRFIELD; GREENVILLE; LAURENS; NEWBERRY. McCafferty et al. (2004): BARNWELL (Steel Cr).

*New data.*—BARNWELL: Meyers Br, SRP Rd B6.2, 21-IV-1984, Kondratieff (A) [PERC]. CHESTERFIELD: Fork Cr, 150 m downstream confl Little Fork Cr, 7-IV-1994 [DHEC]. LANCASTER: Lynchess R, at SC 265, 7-IV-1994 [DHEC]. ORANGEBURG: North Fork Edisto R, at S-38-39, WSW Rowesville, 5-VII-1979 [CLEM].

*Acentrella turbida* (McDunnough), 1924

*New data.*—AIKEN: Upper Three Runs Cr, at SC SR 113, 18-VI-1996 [DHEC]. CHESTERFIELD: Fork Cr, 150 m upstream confl Little Fork Cr, IV-10-1996 [DHEC]. LANCASTER: Lynchess R, at SC 265, 15-IX-1995 [DHEC]. OCONEE: Chattooga R, at Burrells Ford, 10-VII-1996, McElveen [CLEM]; Little R, at Old SC Rt 11, 27-VIII-1982, Back [CLEM]. PICKENS: Little R, 26-IX-1985, Hoffman [CLEM].

*Acerpenna macdunnoughi* (Ide), 1937

*New data.*—ABBEVILLE: SCDHEC Stn SV-082, 11-VI-1980 [CLEM]. ANDERSON: trib Toogaloo Cr, W S-4-141, ca 4.5 mi NE Starr, 21-XII-1978, Carlson, Younginer [CLEM]. CHESTER: trib Hooper Cr, at Hwy 9, 10-IV-2001 [DHEC]. DARLINGTON: Swift Cr, at CR 13 ca 5 mi W Darlington, 20-V-1980 [CLEM]. EDGEDFIELD: Sleepy Cr, at SR 24, 24-VII-2001 [DHEC]. LEXINGTON: unnamed trib, above Governor's Grans Subdivision off Old Chapin Rd, 5-IV-1996 [DHEC]. MCCORMICK: 547J, II-13-1994, & Rd 547E, II-20-1994, Monroe [CLEM]. UNION: Rd E100-2, 6-II-1994, Monroe [CLEM].

*Acerpenna pygmaea* (Hagen) 1861

*Previous data.*—Berner (1977) as *Baetis spiethi*: AIKEN; LEXINGTON; ORANGEBURG.

*New data.*—AIKEN: McTier Cr, at SR 209, 19-VI-1997 [DHEC]. ALLENDALE: Briar Cr, at S-102, 15-II-2000 [DHEC]. ANDERSON: Six and Twenty Cr, at SR 174, 20-VII-1994 [DHEC]. BAMBERG: Savannah Cr, at SR 83, 5-III-1996 [DHEC]. BARNWELL: Yarrow Br, at SR 161, 20-II-1997 [DHEC]. CALHOUN: Sandy Run Cr, at US Hwy 176, 11-II-1995 [DHEC]. CHESTERFIELD: Lynchess R, 2.3 mi downstream confl Fork Cr, 26-IX-1996 [DHEC]. DARLINGTON: Pee Dee R, at US 401, 2-II-1999 [DHEC]. EDGEFIELD: Horn Cr, at SR 143, 21-VII-2000 [DHEC]. FAIRFIELD: Beaver Cr, at SR 95, 6-VII-1995 [DHEC]. GREENVILLE: Matthews Cr, Watson Heritage Preserve, 24-VI-1997, Spichiger [CLEM]. JASPER: Cypress Cr, at SC 3, 14-III-1996 [DHEC]. KERSHAW: Kelly Cr, at S-28-367, 2.9 mi SE Elgin [CLEM].

LEXINGTON: Savannah Br, at SR 72, 24-VII-2001 [DHEC]. MCCORMICK: Stevens Cr, at SC 23, 3-VII-1996 [DHEC]. NEWBERRY: trib L Murry, at Sr 408, 30-III-1995 [DHEC]. OCONEE: East Fork Chattooga R, 600 m downstream hatchery, 16-VIII-2000 [DHEC]. ORANGEBURG: Bull Swamp Cr, at SR 189, 13-VII-1994 [DHEC]. RICHLAND: Cedar Cr, at SR 734, 14-III-1996 [DHEC]. SALUDA: Big Cr, at SR 122, 9-VII-1997 [DHEC]. WILLIAMSBURG: Black R, at S-45-35, 8.6 mi NW Kingstree, 30-VI-1978 [CLEM].

***Apobaetis etowah*** (Traver), 1935

*Previous data.*—Meyer and McCafferty (2003): FLORENCE (Pee Dee R); MARION (Pee Dee R).

***Baetis brunneicolor*** McDunnough, 1925

*Previous data.*—Unzicker and Carlson (1982): PICKENS.

*New data.*—CHEROKEE: Kings Cr, at S-11-209, 3 mi W Smyrna, 25-VII-1995 [DHEC]. CHESTERFIELD: Lunches R, at Hwy 9, 25-VII-2001 [DHEC]. EDGEFIELD: Sleepy Cr, at SR 24, 29-V-1997 [DHEC]. FAIRFIELD: Beaver Cr, at SR 95, 6-VII-1995 [DHEC]. FLORENCE: Pee Dee R, ca 800 m upstream of Hwy 76/301 bridge nr Florence, 1999, Smith [CPL]. GREENVILLE: Matthews Cr, Asbury Youth Camp, 18-VII-1997, & Matthews Cr, Watson Heritage Preserve, 4-VI-1997, Spichiger [CLEM]. LANCASTER: Lynches R, at Sc 265, 26-IX-1996 [DHEC]. MARION: Pee Dee R, ca 800 m upstream of Hwy 76/301 bridge, nr Florence, 1999, Smith [CPL]. NEWBERRY: Crims Cr, at SC 213, 22-VII-2003 [DHEC]. OCONEE: Coley Cr, XI-16-1987, JJH, & 11-IV-1987, Watson [CLEM]; Crane Cr, at Tamasee Rd, 3.8 mi E SC 107, 27-II-1987, Watson, & 28-II-1991, DeLong, & Crane Cr, Rt 107, 9,23-V-, 29-VII-1997, Spichiger [CLEM]; East Fork Chattooga R, Rt 107, 1 km S NC border, & upstream of Chattooga confluence, VI-16-, 3-X-1997, Spichiger [CLEM]. PICKENS: Estatoe Cr, Roy Jones Hwy, 15-VII-1998, Spichiger [CLEM]; Todd's Cr, at Brookbend, 10-I-1991, DeLong [CLEM]. RICHLAND: Big Cedar Cr, at SC 215, 28-VI-1995 [DHEC]. SALUDA: Big Cr, at SR 122, 9-VII-1997 [DHEC].

***Baetis flavistriga*** McDunnough, 1921

*Previous data.*—Morse et al. (1989): OCONEE (Coley Cr, Thompson R).

*New data.*—ABBEVILLE: Calhoun Cr, at SR 40, 23-VIII-2000 [DHEC]. ANDERSON: Little Generositee Cr, at SC 184, 26-VII-1996 [DHEC]. BAMBERG: Little Salkehatchie R at SR 41, 8 mi S Bamberg, 5-VII-2000 [DHEC]. CHEROKEE: Cherokee Cr, at SC 329, 10-VIII-1999 [DHEC]. CHESTER: Rocky Cr, at SR 335, 20-VI-2002 [DHEC]. CHESTERFIELD: Fork Cr, 150 m upstream confl Little Fork Cr, VII-25-2001 [DHEC]. DARLINGTON: Pee Dee R, at US 401, 2-II-1999 [DHEC]. EDGEFIELD: Sleepy Cr, at dire rd nr SR 21?, 29-V-1997 [DHEC]. FLORENCE: Pee Dee R, ca 800 m upstream of Hwy 76/301 bridge nr Florence, 1999, Smith [CPL]. GEORGETOWN: Pee Dee R, at US 701, 2.75 mi NE Yanhannah, 9-VII-1980 [CLEM]. GREENVILLE: Matthews Cr, Asbury Youth Camp, 19-VI-1997, Spichiger [CLEM]. HORRY: Pee Dee R, at US 701, 2.75 mi NE Yanhannah, 9-VII-1980 [CLEM]. LANCASTER: Little Lynches R, at SR 88, 30-VII-2003 [DHEC]. LAURENS: Mountain Cr, at SR 32, 9-VIII-2001 [DHEC]. LEXINGTON: Kinley Cr, at St. Andrews Rd, 27-VII-2001 [DHEC]. MARION: Pee Dee R, ca 800 m upstream of Hwy 76/301 bridge, nr

Florence, 1999, Smith [CPL]. MCCORMICK: trib Baker Cr, at SR 21, 16-VII-2003 [DHEC]. NEWBERRY: E107-2, 17-IV-1993, Monroe [CLEM]. OCONEE: East Fork Chattooga R, upstream of Chattooga confluence, 3-X-1997, Spichiger [CLEM]. PICKENS: Cane Cr, Cleo Chapman Hwy, 10-X-1997, & Estatoe Cr, Laurel Valley Rd, VI-09-, 19-VIII-1997, & Estatoe Cr, Roy Jones Hwy, IV-17-, 9-VI-1997, Spichiger [CLEM]. RICHLAND: Cane Cr, at US 321, VIII-20-1999 [DHEC]. SALUDA: Moores Cr, at Hwy 178, 3-VIII-2001 [DHEC]. SPARTANBURG: Maple Cr, at CR 644, 22-VIII-1983 [CLEM]. YORK: Fishing Cr, at SR 347, 30-VII-1998 [DHEC].

***Baetis intercalaris*** McDunnough, 1921

*Previous data.*—McCafferty et al. (2004): BARNWELL (Meyers Br, Pen Br, Steel Cr).

*New data.*—ABBEVILLE: Calhoun Cr, at SC 28, 7-VII-2001 [DHEC]. AIKEN: Savannah R, at Lock and Dam, & Horse Cr, at SC 125, 1.5 mi SW Clearwater, 5-VIII-1982, & Savannah R, at SC 28, 1.6 mi NNW Beach Island, 22-VII-1981 [CLEM]. ALLENDALE: Jackson Cr, at S-18, 26-II-1996 [DHEC]. ANDERSON: Broadway Cr, at US 321, 3.1 mi S Clover, 30-VIII-1982 [CLEM]; Rock Cr, nr S-4-670, 25-VI-1979, Weaver/Taylor [CLEM]. BAMBERG: Halfmoon Br, SC 32, SW Bamberg, & Grapevine Cr, at SC 32, SW Bamberg, 13-VI-1980 [CLEM]. BARNWELL: Savannah R, SRS, 27-XI-1990, Wohl [CSU]. CALHOUN: Congaree R, at US601, VII-1978 [CLEM]; Warley Cr, at SC 267, ca 10 mi E St Matthews, 25-VI-1980 [CLEM]. CHEROKEE: Thickety Cr, at SC 211, 10-VIII-1999 [DHEC]. CHESTER: Hooper Br, 5.8 mi ENE Chester, 24-VI-1980, & Broad R at SC 72/215/121, 3 mi E Carlisle, 20-VIII-1980 [CLEM]. CHESTERFIELD: Pee Dee R, ca 300 m upstream US Hwy 1 bridge nr Chersaw, 1999, Smith [CPL]. DARLINGTON: Pee Dee R, ca 800 m downstream of Hwy 15/401 bridge nr Society Hill, 1999, Smith [CPL]; Lynches R, at S-28-15, 4.5 mi SE Bethune, 6-VII-1982 [CLEM]. DORCHESTER: creek, downstream of Johnson Bronze, 21-XII-1982 [CLEM]. EDGEFIELD: Cheves Cr, at SR 34, 20-VII-2000 [DHEC]. FAIRFIELD: Jackson Cr, at S-20-54, 5 mi W Winnsboro, 8-VIII-2001 [DHEC]. FLORENCE: Pee Dee R, ca 800 m upstream of Hwy 76/301 bridge nr Florence, & upstream of entrance Staples Lake Landing nr Johnsonville, 1999, Smith [CPL]. GEORGETOWN: Pee Dee R, at US 701, 2.75 mi NE Yanhannah, 9-VII-1980 [CLEM]. GREENVILLE: headwater L Lanier, above Landrum intake, 22-V-1995 [DHEC]. GREENWOOD: Ninety Six/Wilson Cr, at SR 702, 21-VIII-2000 [DHEC]. HAMPTON: Sanders Br, at CR 50, 9-X-1991, Heyn/Bouknight [CLEM]. HORRY: Pee Dee R, at US 701, 2.75 mi NE Yanhannah, 9-VII-1980 [CLEM]. KERSHAW: Lynches R, at S-28-15, 4.5 mi SE Bethune, 6-VII-1982 [CLEM]. LAURENS: Durbin Cr, at Co Rd ca 4.5 mi NE Fountain Inn, 27-V-1980, & Durbin Cr, at SC Hwy 101, ca 7.5 mi ENE Fountain Inn, 17-IV-1980 [CLEM]; Enoree R, S-42-118, SW Woodruff, 20-XI-1979, II-28-, IV-30-1980, & Enoree R, at US Hwy 221, 18-XII-1979 [CLEM]. LANCASTER: Sugar Cr, at SC 160E, 20-VIII-2000 [DHEC]. LEXINGTON: Six Mile Cr, at US 27, 2-VII-1997 [DHEC]. MARION: Pee Dee R, ca 800 m upstream of Hwy 76/301 bridge nr Florence, & upstream of entrance Staples Lake Landing nr Johnsonville, 1999, Smith [CPL]. MARLBORO: Pee Dee R, ca 300 m upstream US Hwy 1 bridge nr Chersaw, & Pee Dee R, ca 800 m downstream of Hwy 15/401 bridge nr Society Hill, 1999, Smith [CPL]. MCCORMICK: Stevens Cr, at SR 22 10-VI-



1980 [CLEM]. NEWBERRY: Enoree R, 3.5 mi above Jct Broad R, 18-XII-1979, V-28-, 20-VIII-1980, & Bush Cr, at SC 560 S Joanna, 11-VI-1980 [CLEM]. ORANGEBURG: North Fork Edisto R, at SR 39, 28-VIII-2001 [DHEC]. OCONEE: Little R, at old SC Rt 11, 27-VII-1982, Back, & 26-IX-1985, Chambers [CLEM]. PICKENS: Estatoe R, Roy Jones Hwy, 15-VII-1997, 19-IX-1998, Spichiger [CLEM]. RICHLAND: Congaree R, at US 601, VII-1978 [CLEM]; Wateree R, at US 76 & 378, 4-VIII-1982 [CLEM]. SALUDA: Cloud Cr, at US 178, 9-VII-1997 [DHEC]. SPARTANBURG: Enoree R, S-42-118, SW Woodruff, 20-XI-1979, 28-II-, 30-IV-1980, & Enoree R, at US Hwy 221, 18-XII-1979 [CLEM]. SUMTER: Wateree R, at US 76 & 378, 4-VIII-1982 [CLEM]. UNION: Broad R, at SC 72/215/121, 3 mi E Carlisle, 20-VIII-1980, & Tyger R, at SC 72, 5.5 mi SW Carlisle, 30-VIII-1982 [CLEM]. YORK: Allison Cr, at Us 321, 3.1 mi S Clover, 12-VI-1980, & Steele Cr, at S-46-270, 22-VII-1981 [CLEM].

***Baetis pluto*** McDunnough, 1925

*New data.*—ABBEVILLE: Big Curly Tail Cr, at US For Serv Rd 509, 22-VIII-2000 & Double Br, at SR 35, 9-VII-1996 [DHEC]. AIKEN: Shaw Cr, at SC 191, 2-VIII-2002 [DHEC]. ALLENDALE: Davis Br, at Seboard Coastline RR Track, 13-I-1979 [DHEC]. ANDERSON: Trib Toogaloo Cr, W S-4-141, ca 4.5 mi NE Starr, 28-XI-1978, Carlson, Younginer [CLEM]; Brown Cr, 25-IX-1979 [CLEM]. CHEROKEE: Kings Cr, at S-11-209, 10-VIII-1999 [DHEC]. CHESTER: Hooper Br, 5.8 mi ENE Chester, 24-VI-1980 [CLEM]. CHESTERFIELD: Deep Cr, 2.9 mi NW Chesterfield, 24-VI-1980 [CLEM]. DARLINGTON: Pee Dee R, ca 800 m downstream of Hwy 15/401 bridge nr Society Hill, 1999, Smith [CPL]. EDGEFIELD: Cheves Cr, at SR 34, 20-VII-2000 [DHEC]. FAIRFIELD: Jackson Cr, at S-20-54, 8-VIII-2001 [DHEC]. GREENVILLE: Big Durbin Cr, ca 2 mi N Fountain Inn, 17-XII-1979, V-17-1980, & Little Durbin Cr, ca 2.5 mi NE Fountain Inn, 18-VII-1979 [CLEM]; Matthews Cr, Asbury Youth Camp, 18-VII-1997, Spichiger [CLEM]. KERSHAW: Grannies Quarter Cr, at SR 58, 8-VIII-1995 [DHEC]. LANCASTER: Lynches R, at SC 265, 2-VII-1998 [DHEC]. LAURENS: Enoree R, at US 221, 30-IV-1980 [CLEM]. LEE: Lynches R, at US401, 1-IX-1998 [DHEC]. LEXINGTON: Red Bank Cr, at rd connecting SR 1260 and SR 243, 27-VII-2001 [DHEC]. MARLBORO: Pee Dee R, ca 800 m downstream of Hwy 15/401 bridge nr Society Hill, 1999, Smith [CPL]. MCCORMICK: trib Baker Cr, at SR 21, 16-VII-2003 [DHEC]. NEWBERRY: Duncan Cr, at US 176, SE Whitmore, 24-VII-2001 [DHEC]. OCONEE: Little Longnose Cr, at CR 48, 28-X-1980 [CLEM]. PICKENS: Todd's Cr, Clemson, 15-X-1980, Taylor [CLEM]; Cane Cr, Cleo Chapman Hwy, 1.21-V-, 5-IX-1997, & Estatoe Cr, Roy Jones Hwy, 15-VII-1997, Spichiger [CLEM]; Widlcat Cr, Clemson For, 7-III-1987, Mellichamp [CLEM]; RICHLAND: Crane Cr, at US 321, 29-VI-1995 [DHEC]. SALUDA: Morres Cr, at Hwy 178, 8-VII-1997 [DHEC]. SPARTANBURG: Enoree R, at US 221, 30-IV-1980 [CLEM]. UNION: Tinker Cr, at S-44-278, 1-VII-1999 [DHEC]. YORK: Allison Cr, at US 321, 3.1 mi S Clover, & Allison Cr, at SC Hwy 49, ca 7 mi SE Clover, & Calabash Br, 2.5 mi SE Clover, 12-VI-1980 [CLEM].



***Baetis tricaudatus*** Dodds, 1923

*Previous data.*—Daniels and Morse (1992): PICKENS (Wildcat Cr).

*New data.*—GREENVILLE: Matthews Cr, Watson Heritage Preserve, VI-VI-1997, Spichiger [CLEM]. KERSHAW: Kelly Cr, 2.9 mi SE Elgin, 27-V-1980, [CLEM]. OCONEE: Chattooga R, I-27-, 16-III-1999, S Palmer [CLEM]; Crane Cr, at Cherokee Rd, 25-III-, 15-IV-, 9,23-V-1997, & East Fork Chattooga R, upstream Chattooga confluence, 1,22-IV-, 19-V-, 16-VI-, 5-VIII-1997, Spichiger [CLEM]; East Fork Chattooga R, & Crane Cr, 16-III-1999, MSP [CLEM]. PICKENS: Estatoe Cr, Laurel Valley Rd, 27-III-, 17-IV-1997, Spichiger [CLEM].

***Barbaetis benfieldi*** Kennedy, 1985

*New data.*—AIKEN: Cedar Cr, at SR 79, 18-VII-2000 [DHEC]. PICKENS: Cane Cr, Cleo Chapman Hwy, 21-V-1997, Spichiger [CLEM]. YORK: Wildcat Cr, at SR 998, 28-VIII-2000 [DHEC].

***Callibaetis floridanus*** Banks, 1900

*New data.*—AIKEN: New Ellenton, at light, 13-IV-1985, Kondratieff (A) [PERC]. ALLENDALE: SC Rt 125, 13-IX-1984 Kondratieff (A) [PERC]. CHARLESTON: Charleston at light, 19-VI-1984, Kondratieff (A) [CSU]. DORCHESTER: Tom/Kates Br, Dire Rd off sec Rd 89, 26-VII-1988 [CLEM]. FLORENCE: Lake City at Lynches L, 19-X-1990, Kelly/Rastampour [CLEM]. LEE: Sucklow Swamp, 15-IX-1965, McCaskill [CLEM]. ORANGEBURG: NF Edisto R, downstream Glover St, Orangeburg, 30-IX-1991, Heyn et al [CLEM]. SUMTER: Touchberry Cr, at GSX Pinewood Landfill, 27-IX-1991, Heyn et al [CLEM].

***Callibaetis fluctuans*** (Walsh), 1862

*Previous data.*—Unzicker and Carlson (1982): ANDERSON; HORRY; ORANGEBURG.

*New data.*—AIKEN: Savannah R Plant, Flamingo Bay, 1.8 km SE SR 2, 29-VI-1989, McClure (A) [CLEM]. BAMBERG: Cathedral Bay, 0.8 km NW US 302 & SC 64, 15-IX-1989, McClure (A) [CLEM]. BARNWELL: Savannah R Plant, Craig's Pond, 29-IV-1989, & Ashleigh Bay, 0.6 km W Ashleigh, Ch & SC 3, 21-VII-1989, McClure (A) [CLEM].

***Callibaetis pretiosus*** Banks, 1914

*New data.*—AIKEN: Thermal Effects Lab, at light, 2-IV-1984, Kondratieff (A) [PERC]. ANDERSON: 3 and 20 Cr, 5-IX-1978, Burne [CLEM]. BAMBERG: Cathedral Bay, 0.8 km NW US 301 & SC 64, 27-X-1989, McClure [CLEM]. DORCHESTER: McAlhany's Oxbow, 0.2 mi N Cattle Cr, & Edisto R, 24-III-1989, McClure [CLEM]. FLORENCE: Pee Dee R, upstream of entrance to Staples Lake Landing nr Johnsonville, 19-V-, 9-XI-1999, Smith [CPL, PERC]. MARION: Pee Dee R, upstream of entrance to Staples Lake Landing nr Johnsonville, 19-V-, 9-XI-1999, Smith [CPL, PERC]. MCCORMICK: Steven's Cr, Hamilton Branch St Prk, 25-V-1988, Young [CLEM]. ORANGEBURG: Edisto R, downstream Glover St, Orangeburg, 30-IX-1991, Heyn et al [CLEM].

***Centroptilum alamance*** (Traver), 1932

*New data.*—ANDERSON: Richland Cr, above US 29 20 m above Badische discharge, 1-VI-1979 [DHEC]. CHEROKEE: Canoe Cr, 5 mi upstream Blacksburg WWTP discharge, 29-VI-, 21-XII-1994 [DHEC]. CHESTERFIELD: Fork Cr, at SR 151, 1-V-1996 [DHEC]. YORK: trib Taylors Cr, at CR 245 1.5 mi S Rock Hill, 21-V-1982.

***Centroptilum album*** McDunnough, 1926

*New data.*—YORK: Taylor Cr, at SC 72, 21-V-1982 [DHEC]

***Centroptilum triangulifer*** (McDunnough), 1931

*New data.*—ANDERSON: 3 and 20 Cr, Pendelton Swamp, Rt 115, 18-I-1995, Napolitana [CLEM]. CHESTER: tributary Rocky Cr, at S-12-335, ca 4 mi E Chester & tributary of Rocky Cr, at S-12-689, 3 mi E Chester, 21-XI-1978, Carlson, Youngier [DHEC]. EDGEFIELD: Double Br, at SR 237, 31-I-1996 [DHEC]. PICKENS: Estatoe Cr, at SR 237, 31-V-1983 [DHEC]; N trib, Willards Pond, 29-I-1995, Napolitana [CLEM]. UNION: Tinker Cr, at SR 24 & Tinker Cr at unnamed rd, 0.9 mi downstream SC 215, 13-VI-1984 [DHEC]; Tosch's Cr, at SR 76, 29-VIII-1983 [DHEC].

***Dipheter hageni*** (Eaton), 1885

*Previous data.*—Carlson (1971, unpublished) as *Baetis* species novum 1: PICKENS: Wildcat Cr, .75 mi from mouth, 790', 1968. Morse et al. (1989): OCONEE (Coley Cr).

*New data.*—ANDERSON: first unnamed trib to Neshit Cr nr OCF landfill, 28-III-1981 [CLEM]. EDGEFIELD: Rd 625 nr Hwy 68, 26-II-1994, Monroe [CLEM]. NEWBERRY: E107-2, 17-IV-1993, Monroe [CLEM]. PICKENS: Cane Cr, Horse Pasture Rd, 16-V-1997, & Estatoe Cr, Roy Jones Hwy, 13-V-, 9-VI-1997, Spichiger [CLEM].

***Heterocloeon amplum*** (Traver, 1932)

*Previous data.*— Carlson (1971, unpublished): PICKENS: Wildcat Cr, 0.75 mi from mouth, 790', 1968. Daniels and Morse (1992): PICKENS (Wildcat Cr). McCafferty et al. (2004): MCCORMICK (Cedar Springs Cr).

*New data.*—ANDERSON: Nesbit Cr, downstream Co Rd 141, 28-III-1981 [DHEC]. CHESTERFIELD: Pee Dee R, ca 300 m upstream US Hwy 1 bridge nr Chersaw, 1999, Smith [CPL]. EDGEFIELD: Sleepy Cr, at SR 24, 1-24-1996 [DHEC]. GREENVILLE: Matthews Cr, Asbury Youth Camp, IV-10-, 21-V-, 16-VI-, 18-VII-, 12-IX-1997, & Matthews Cr, Watson Heritage Preserve, 7-V-, 4,24-VI-1997, Spichiger [CLEM]. GREENWOOD: Saluda R, at US 25 bypass, 1.5 mi ESE Ware Shoals, 27-VIII-1979 [CLEM]. LANCASTER: Lynches R, at SC 265, 15-IX-1995 [DHEC]. LAURENS: Durbin Cr, at SC Hwy 101, ca 7.5 mi ENE Fountain Inn, 17-IV-1980, & Durbin Cr, ca 4.5 mi NE Fountian Inn, 27-V-1980 [CLEM]; Saluda R, at US 25 bypass, 1.5 mi ESE Ware Shoals, 27-VIII-1979 [CLEM]. MARLBORO: Pee Dee R, ca 300 m upstream US Hwy 1 bridge nr Chersaw, 1999, Smith [CPL]. OCONEE: Coley Cr, 12-V-1988, JJH [CLEM]; Thompson R, 19-I-, 24-III-1988, JJH [CLEM]; Changa R, at 748-D, 16,18-III-1999, MSB [CLEM]; Crane Cr, Cherokee Rd, 9-V-, 27-VI-, 27-VII-, 16-IX-1997, & Crane Cr, at Rt 107, 15-IV-, 9-V-1997, Spichiger [CLEM]; East Fork Chattooga

R, Rt 107, 1 km S NC border, 19-V-, 16-VI-, 8-VII-1997, & East Fork Chattooga R, upstream Chattooga confluence, 16-VI-1997, Spichiger [CLEM]. PICKENS: Cane Cr, Cleo Chapman Hwy, 1-V-1998, & Cane Cr, Horse Pasture Rd, 16-V-1997, Spichiger [CLEM]; Estatoe Cr, Laurel Valley Rd, 17-IV-, 13-V-, 9-VI-, 15-VII-, 19-IX-1997, Spichiger [CLEM]; Willards Pond, Clemson Dairy, 30-I-1987, Pinson [CLEM].

***Heterocloeon berneri*** (Müller-Liebenau), 1974

*New data.*—OCONEE: Flat Shoals R, at SR 129, 3-VIII-2000 [DHEC]; Little R, at old SC Rt 11, 26-IX-1985, Chambers [CLEM].

***Heterocloeon curiosum*** (McDunnough), 1923

*Previous data.*—Berner (1977): SPARTANBURG.

*New data.*—OCONEE: Brasstown Cr, at SR 48, 25-VIII-1987 [DHEC]; Little R, at old SC Rt 11, 13-IX-1978, Burne, & 9-IX-1980, Hamilton, & 11-IX-1980, Morse, & 28-VIII-1986, Missimer, & VIII-1983, Baughman, & 2-IX-1983, Nolan [CLEM]; Coneross Cr, below SC 59, 15-X-1982, Missimer [CLEM].

***Heterocloeon petersi*** (Müller-Liebenau), 1974

*New data.*—OCONEE: Changa R, at SR 230, 10-VIII-2002 [CLEM].

***Iswaeon anoka*** (Daggy), 1945

*New data.*—AIKEN: Savannah R, at Lock and Dam, 4-VIII-1980, 22-VII-1981, & Savannah R, at SC 28, 1.6 mi NNW Beach Island, 5-VII-1979 [CLEM]. BAMBERG: South Fork Edisto R, at S-38-39 bridge, 23-IX-1981 [CLEM]. ORANGEBURG: South Fork Edisto R, at S-38-39 bridge, 23-IX-1981 [CLEM]. RICHLAND: no other specific locale, 31-VII-1980 [CLEM].

***Iswaeon davidi*** (Waltz and McCafferty), 2005

*New data.*—AIKEN: Savannah R, at SC 28, 1.6 mi NNW Beach Island, 22-VII-1981 [CLEM]. BAMBERG: Edisto R, at S-38-39 bridge, 21-IX-1982 [CLEM]. KERSHAW: Kelly Cr, at S-28-367, 2.9 mi SE Elgin, 27-V-1980 [CLEM]. ORANGEBURG: Edisto R, at S-38-39 bridge, 21-IX-1982 [CLEM]. RICHLAND: CSB-001, 21-VIII-1979, 24-VII-1981 [CLEM].

***Paracloeodes minutus*** (Daggy), 1945

*New data.*—EDGEFIELD: Horn Cr, at SR 143, 21-VII-2000, Glover et al. [DHEC]. GREENWOOD: Ninety Six/Wilson Cr, at SR 702, 21-VIII-2000 [DHEC]. LANCASTER: Sugar Cr, at gravel rd off SR 64, 14-VIII-1998 [DHEC]. LAURENS: Durbin Cr, at SC 101, 15-V-1981 [DHEC]. NEWBERRY: Bush R, at SR 244, 7-VII-1997 & Indian Cr, at US176, 18-VII-1995 [DHEC]. UNION: Tosch's Cr, at SR 607, 29-VIII-1983 [DHEC].

***Plauditus bimaculatus*** (Berner), 1946

*Previous data.*—Berner (1977): EDGEFIELD; LEXINGTON. Morse et al. (1980): AIKEN (Upper Three Runs Cr). Morse et al. (1989): OCONEE (Thompson R).

***Plauditus cestus*** (Provonsha and McCafferty), 1982

*Previous data.*—Lugo-Ortiz and McCafferty (1998): EDGEFIELD (Double Br of Horn Cr); GREENVILLE (Big Durbin Cr); SPARTANBURG (Maple Cr); UNION (Henry Cr); YORK (Allison Cr, Calabash Cr).

*New data.*—LAURENS: Cane Cr, at Sec Rd 19, 8-VIII-2001 [DHEC]. SPARTANBURG: North Pacolet R, at SR 128, 14-VII-2004, Glover [PERC].

***Plauditus cingulatus*** (McDunnough), 1931

*New data.*—CHESTERFIELD: Pee Dee R, ca 300 m upstream US Hwy 1 bridge nr Chersaw, 1999, Smith [CPL]. MARLBORO: Pee Dee R, ca 300 m upstream US Hwy 1 bridge nr Chersaw, 1999, Smith [CPL].

***Plauditus dubius*** (Walsh), 1862

*New data.*—CHESTERFIELD: Lynches R, 2.3 mi downstream confl Fork Cr, 7-IV-1994 [DHEC]. GREENVILLE: Matthews Cr, Asbury Youth Camp, 12-IX-1997, Spichiger [CLEM]. LANCASTER: Lynches R, at SC 265, 7-IV-1994 [DHEC]. PICKENS: Cane Cr, Cleo Chapman Hwy, 4-IV-, 1,21-V-, 15-IX-, 10-X-1997, Spichiger [CLEM]; Estatoe Cr, Laurel Valley Rd, 27-III-1997, & Estatoe Cr, Roy Jones Hwy, 27-III-, 17-IV-, 13-V-, 9-VI-, 19-IX-1997, Spichiger [CLEM].

***Plauditus gloveri*** McCafferty and Waltz, 1998

*Previous data.*—McCafferty and Waltz (1998): CHEROKEE (Kings Cr); FAIRFIELD (Little R).

*New data.*—ANDERSON: Mountain Cr, at SR 158, 30-V-1983 & Rocky Cr, at SC 413, 21-VII-2000 [DHEC]. EDGEFIELD: Horn Cr, at SR 143, 21-VII-2000 [DHEC].

***Plauditus punctiventris*** (McDunnough), 1923

*Previous data.*—Berner (1977): EDGEFIELD; GREENVILLE; ORANGEBURG; RICHLAND.

*New data.*—CHESTERFIELD: Lynches R, 2.3 mi downstream confl Fork Cr, 9-IV-1997 [DHEC]. LANCASTER: Lynches R, at SC 265, 10-IV-1996 [DHEC]. LAURENS: Enoree R, S-42-118, 15-V-1981 [CLEM]. SPARTANBURG: Enoree R, S-42-118, 15-V-1981 [CLEM].

*Remarks.*—It is not clear whether any of the previous records of *P. punctiventris* by Berner (1977) are actually applicable to *Iswaeon anoka*.

***Plauditus virilis*** (McDunnough), 1923

*New data.*—PICKENS: Twelve Mile Cr, at S-39-273, 2.8 mi SSW Pickens, 21-VIII-1980 [CLEM].

***Procloeon* sp. A**

*New data.*—ANDERSON: Brown Cr, at SR 208, 17-V-, 25-IX-1978 & Lake Broadway, 26-VI-1980 & Trib Toogaloo Cr, W S-4-141, ca 4.5 mi NE Starr, 28-XI-1978 [DHEC]. CHEROKEE: Gilkey Cr, S-11-231, 9 mi SE Gaffney, 25-VII-1995 [DHEC]. SPARTANBURG: Maple Cr, upstream Greer STP outfall, 30-V-1983 [DHEC].

*Remarks.*—This species is in the process of being described by Wiersema and McCafferty.

***Procloeon bellum*** (McDunnough), 1924

*Previous data.*—Carlson (1971, unpublished): PICKENS: Wildcat Cr, 0.75 mi from mouth, 790', 1968. Daniels and Morse (1992): PICKENS (Wildcat Cr).

***Procloeon quaesitum*** (McDunnough), 1931

*Previous data.*—Carlson (1971, unpublished): PICKENS: Wildcat Cr, 0.75 mi from mouth, 790', 1968. Daniels and Morse (1992): PICKENS (Wildcat Cr).

***Procloeon rivulare*** (Traver), 1935

*Previous data.*—Carlson (1971, unpublished): PICKENS: Wildcat Cr, 0.75 mi from mouth, 790', 1968. Morse et al. (1989): OCONEE (Thompson R). Daniels and Morse (1992): PICKENS (Wildcat Cr).

*New data.*—ABBEVILLE: Parker Cr, upstream tribs draining Bechwith Dumps, 3-IX-1981 [DHEC]. LAURENS: Durbin Cr, at SR 101, 15-V-1981 [DHEC]. YORK: Taylor's Cr, at SR 245, 21-V-1982 [DHEC].

***Procloeon rubropictum*** (McDunnough), 1923

*Previous data.*—Carlson (1971, unpublished): PICKENS: Wildcat Cr, 0.75 mi from mouth, 790', 1968. Daniels and Morse (1992): PICKENS (Wildcat Cr).

***Procloeon rufostrigatum*** (McDunnough), 1924

*New data.*—ANDERSON: Big Generostee Cr, at SR 412, 30-V-1983 & Big Generostee Cr, downstream confluence 5 Mile Cr and 3 Mile Cr, 31-V-1983 & Lake Broadway, 26-VI-1980 & Mountain Cr, at SR 158, 30-V-1983 [DHEC]. DARLINGTON: ca 800 m downstream of Hwy 15/401 bridge nr Society Hill, 12-XI-2001, Smith [CPL, PERC]. FLORENCE: upstream of entrance to Staples Lake Landing nr Johnsonville, 15-XI-2001, Smith [CPL, PERC]. MARION: upstream to Staples Lake Landing nr Johnsonville, 15-XI-2001, RW Smith [CPL, PERC]. MARLBORO: ca 800 m downstream of Hwy 15/401 bridge nr Society Hill, 12-XI-2001, Smith [CPL, PERC]. NEWBERRY: Bush Cr, at SC 560 S Joanna, 11-VI-1980, & Enoree R at S-36-45, 28-V-1980 [CLEM]. YORK: Allison Cr, at US 321, 3.1 mi S Clover, 12-VI-1980 [CLEM]. UNION: Henry Cr, at SR 24, 13-VI-1983 [DHEC].

***Procloeon viridoculare*** (Berner), 1940

*Previous data.*—Unzicker and Carlson (1982): ANDERSON; HORRY; ORANGEBURG.

*New data.*—DARLINGTON: Pee Dee R, ca 800 m downstream Hwy 15/401 bridge nr Society Hill, 18-V-1999, Smith [CPL, PERC]. FLORENCE: Pee Dee R, upstream of entrance to Staples Lake Landing nr Johnsonville, 9-XI-1999, Smith [CPL, PERC]. MARION: Pee Dee R, upstream of entrance to Staples Lake Landing nr Johnsonville, 9-XI-1999, Smith [CPL, PERC]. MARLBORO: Pee Dee R, ca 800 m downstream Hwy 15/401 bridge nr Society Hill, 18-V-1999, Smith [CPL, PERC]. NEWBERRY: Bush Cr, at SC 560, S Joanna, 11-VI-1980 [CLEM]. SPARTANBURG: Middle Tyger R, below Starter Mill effluent, 13-VI-1983 & South Tyger R, at dirt rd off CR 908 & South Tyger R, at dirt rd off Sc 290, 22-VIII-1983 & South Tyger R at SR 242 & South Tyger R, at US29, 22-VIII-1983 [DHEC].

*Pseudocloeon dardanium* (McDunnough), 1923

*Previous data.*—McCafferty et al. (2004): KERSHAW (Wateree R).

*New data.*—HORRY: Lumber R, at US 76 at Nichols, 9-VII-1980 [CLEM]. MARION: Lumber R, at US76 at Nichols, 9-VII-1980 [CLEM]. ORANGEBURG: Edisto R, at S-38-39, WSW Rowesville, 4-IX-1986 [CLEM].

*Pseudocloeon ephippiatum* (Traver), 1935

*Previous data.*—Berner (1977): AIKEN; DARLINGTON. Morse et al. (1980): AIKEN (Upper Three Runs Cr).

*New data.*—ABBEVILLE: Little R, at SR 308, 5-VIII-2002 [DHEC]. AIKEN: Hollow Cr, off Rt 57, 1-V-1985, Kondratieff (A) [PERC]; Savannah R, SRS, 25-V-1993, Sildorff [CSU]; Upper Three Runs at SRP 8-1, 28-VI-, 8-VII-1977, Herlong/Prichard [CLEM]. ANDERSON: trib Boad Mouth Cr, at Sec Rd 205, 15-VIII-1997 [DHEC]. BAMBERG: South Edisto R, at SR 20, 4-IX-2001 [DHEC]. BARNWELL: Steel Cr Swamp, Steel Cr Delta, 20-VI-, 8-XI-1984 Kondratieff (A) [PERC]. CHESTERFIELD: Lynches R, 2.3 Mi downstream confl Fork Cr, 15-IX-1995 [DHEC]. CALHOUN: Sandy Run Cr, at US 176, 20-VII-2001 [DHEC]. CHEROKEE: Thickety Cr, at SC 18, 25-VII-1995 [DHEC]. DARLINGTON: Boggy Swamp, at SR 50, 13-VIII-2002 [DHEC]. FLORENCE: Black Cr, at SC 327, 1-IX-1998 [DHEC]. EDGEFIELD: Cheves Cr, at SR 34, 20-VII-2000 [DHEC]. GREENVILLE: Reedy Cr, at Sec Rd 68, 17-VIII-2001 [DHEC]. KERSHAW: Beaver Dam Cr, at SR 59, 15-VII-1998 [DHEC]. LANCASTER: Lynches R, at SC 265, 15-IX-1995 [DHEC]. LAURENS: Rabon Cr, at Sec Rd 54, 17-VII-1997 [DHEC]. LEE: Lynches R, at US 401, 1-IX-1998 [DHEC]. LEXINGTON: Black Cr, at SR 278, 20-VI-1997 [DHEC]. MCCORMICK: Long Cane Cr, at Sr 117, 8-VII-1996 [DHEC]. NEWBERRY: Duncan Cr, at US 176, 1-VII-1999 [DHEC]. OCONEE: Choestoea Cr, at SR 49, 27-VIII-1996 [DHEC]. ORANGEBURG: North Fork Edisto R, at SR 39, 2-IX-1997 [DHEC]. PICKENS: Estatoe Cr, Laurel Valley Rd, 9-VI-1997, Spichiger [CLEM]. RICHLAND: Cedar Cr, at SR 66, 20-VII-2001 [DHEC]. SPARTANBURG: South Tyger R, at SR 86, 5-VIII-1999 [DHEC].

*Remarks.*—Certain of the few previous records of this species that were based on identifications made prior to 1995 may be attributable to *P. dardanium* (McCafferty et al. 2004).

*Pseudocloeon frondale* (McDunnough), 1925

*Previous data.*—Berner (1977) as *Baetis australis*: AIKEN.

*New data.*—ABBEVILLE: Little R, at SR 308, 5-VIII-2002 [DHEC]. AIKEN: Upper Three Runs, SRP Rd S-1, 7-IV-1984, Kondratieff (A) [PERC]. ALLENDALE: Jacson Cr, at S-18, 26-II-1996 [DHEC]. ANDERSON: Hen Coop Cr, at SR 244, 9-VIII-2000 [DHEC]. BAMBERG: Georges Cr, at S-5-232, ca 11 mi SE Bamberg, 16-XI-1978, Carlson/Younginer [CLEM]. BARNWELL: Pen Br, nr Stove I., Savannah R, 4-V-1992 [CSU]; Steel Cr, nr confl Meyers Br, 17-II-, 25-IV-1984, & Steel Cr Swamp, 6-IV-, 8-XI-1984, Kondratieff (A) [PERC]. CHESTERFIELD: Big Black Cr, at Sr 683, 18-VIII-2003 [DHEC]. CLARENDON: Pudding Swamp, at US 301, 11-II-2003 [DHEC]. COLLETON: Ireland Cr, at SR 116, 13-III-1996 [DHEC]. DARLINGTON: Bellyache Cr, at CR 580, 1-VII-1982 [CLEM]. DILLON: Catfish Canal, at bridge at US 301, 1.6 mi SW Latta, 4-V-1980 [CLEM]. DORCHESTER: Cattle Cr, at SR 19, 6-III-



1997 [DHEC]. FLORENCE: trib Jeffries Cr, Florence, 4-VII-1982 [CLEM]. HORRY: Kingston Lake Swamp, at SR 139, 19-II-2003 [DHEC]. JASPER: Cypress Cr, at SC 3, 14-III-1996 [DHEC]. KERSHAW: Tiber Cr, at S-28-19, nr Lee Co line, 19-XII-1978, Younginer/Gaymon [CLEM]. LANCASTER: Lynches R, at SC 265, 29-VII-2003 [DHEC]. LAURENS: Enoree R, at SC 418, 4-VIII-1999 [DHEC]. LEE: Black R, at US 76, 1.5 mi NE Mayesville, 16-V-1980 [CLEM]. LEXINGTON: Congree Cr, at SR 34, 23-VII-1997 [DHEC]. MCCORMICK: Long Cane Cr, at SR 117, 7-VIII-2000 [DHEC]. ORANGEBURG: Grambling Cr, at SR 154, 19-VII-2001 [DHEC]. PICKENS: Twelve Mile Cr, at SR 137, 10-VIII-2000 [DHEC]. RICHLAND: Cedar Cr, at SR 72, 1-VII-1997 [DHEC]. SUMTER: Black R, at US 76, 1.5 mi NE Mayesville, 16-V-1980 [CLEM]. WILLIAMSBURG: Ox Swamp, at US 52, 3-II-2003 [DHEC].

*Pseudocloeon propinquum* (Walsh), 1863

*Previous data.*—Bernier (1977) as *Baetis spinosus*: AIKEN; ALLENDALE; EDGEFIELD; LANCASTER; LEXINGTON; ORANGEBURG; PICKENS. Bernier (1977): DARLINGTON. Morse et al. (1980): AIKEN (Upper Three Runs Cr).

*New data.*—ABBEVILLE: Little R, at SR 308, 5-VIII-2002 [DHEC]. AIKEN: Savannah R Plant, Tinker Cr, at SRP 8-1, 1, 13-VI-1977, Herlong/Prichard [CLEM]. ALLENDALE: Wells Br at SC 300, 2-VIII-2002 [DHEC]. ANDERSON: Broadway Cr, Watershed, West trib Watermelon Cr, 0.25 mi N SR S-4-148, 25-VI-1979, Weaver/Taylor [CLEM]. BAMBERG: Little Salkehatchie R, at SC 70, 5-VII-2000 [DHEC]. BARNWELL: Steel Cr Swamp, Steel Cr Delta, 20-VI-1984, & Steel Cr nr confl Meyers Br, 25-IV-1984, & Steel Cr at Cypress Bridge, 11-X-1984, & Steel Cr, 750 m upstream SRP Rd A, 3-VI-1982, & Beaver Dam Cr swamp, 7-XI-1984, Kondratieff (A) [PERC]; Savannah R Plant, Lower Three Runs Cr, nr SRP Rds 8 & 8-8, 17-III-1980, Kelley [CLEM]. CALHOUN: Warley Cr, at SC Hwy 267, ca 10 mi E St. Matthews, 25-VI-1980 [CLEM]. CHEROKEE: Thickety Cr, at SC 211, 10-VIII-1999 [DHEC]. CHESTER: Fishing Cr, downstream chemical dump, 13-XI-1980 [CLEM]. CHESTERFIELD: Westfield Cr, at US 52, 20-VIII-2003 [DHEC]. DARLINGTON: Boggy Swamp, at SR 50, 13-VIII-2003 [DHEC]. EDGEFIELD: Ceves Cr, at SR 34, 20-VII-2000 [DHEC]. FAIRFIELD: Beaver Cr, at SR 95, 6-VII-1995 [DHEC]. GREENVILLE: Vaughn Cr, nr Lake Lanier, 22-V-1995 [DHEC]. GREENWOOD: Coronaca Cr, at SC 221, 19-VII-1997 [DHEC]. KERSHAW: Beaver Cr, at SR 13, 1-VII-1998 [DHEC]. LANCASTER: McAlpine Cr, at SR 64, 19-VII-2002 [DHEC]. LAURENS: Enoree R at US 221 [CLEM]. LEXINGTON: Six Mile Cr, at US 21, 2-VII-1997 [DHEC]. MCCORMICK: Stevens Cr, at SC 23, 3-VII-1996 [DHEC]. NEWBERRY: Indian Cr, at US 176, 18-VII-1995 [DHEC]. OCONEE: Long Cr, at Hwy 538, 13-VI-2002 [DHEC]. ORANGEBURG: Bull Swamp Cr, at SR 189, 19-VII-2001 [DHEC]. PICKENS: Oolenoy R, at SR47, 22-VIII-2001 [DHEC]. RICHLAND: Cane Cr, at US 321, 29-VI-1995 [DHEC]. SALUDA: Moores Cr, at Hwy 178, 3-VIII-2001 [DHEC]. SPARTANBURG: Enoree R, at US 221 [CLEM]. SUMTER: Beech Cr, US 30, Shaw effluence, 17-IV-1995 [CLEM]. UNION: Henry Cr, at Rd 24, 13-VI-1983 [CLEM]; Tinker Cr, at unnamed rd, 0.9 mi downstream SC 215, 13-VI-1983 [DHEC]. YORK: Clark Cr, at SR 63, 15-VI-1999 [DHEC].

## BAETISCIDAE

***Baetisca becki*** Schneider and Berner, 1963

*New data.*—LEE: Lynches R, Lee St Prk, I-11-2001, Knight [CLEM].

***Baetisca carolina*** Traver, 1931

*Previous data.*—Carlson (1971, unpublished): ANDERSON: Milwee Cr, ca 6 mi E Pendleton, 1968; GREENVILLE: Upper Fork Greenville Reservoir, & Terry, Cr, 2 mi N Hwy 25, & Buckhorn Cr nr Paris Mountain St Prk, & Trib of Saluda R at Hwy 42 nr Old Indian, 1968; OCONEE: Little R, dam at Hwy 130, & Chattooga R at Burrels Ford, & unnamed creek, 3<sup>rd</sup> bridge on Hwy 59, 3 mi N Walhalla, & Cleveland cr at Hwy 59, ca 1 mi NW Fairplay, & Choestoea Cr ca 7 mi W Oakway, & Snow Cr at Hwy 59 ca 1 mi NE Tokeena, & Chattogga R at Hwy 59, 1968; PICKENS: Wildcat Cr, .75 mi from mouth, 790', & Longbranch Cr .25 mi S Lake Issaqueena, & Lake Issaqueena, at mouth of Six Mile Cr, 1968. Daniels and Morse (1992): PICKENS (Wildcat Cr). Pescador and Berner (1981): ANDERSON (Broadway Cr, Rock Cr); GREENVILLE (Greenville/Pickens county line); OCONEE (Chattooga R, Choestee Cr, High Water Falls, Little R, Fall Cr, cr nr Walhalla, Seneca Cr); PICKENS (Six Mile Cr, Wildcat Cr, Greenville/Pickens county line).

*New data.*—ANDERSON: Three and Twenty Cr downstream Michelin Tire, IV-20-1980 {DHEC}. CHEROKEE: Suck Cr at Walter Rd, VIII-11-1999 [DHEC]. GREENVILLE: Matthews Cr, United Methodist Youth Camp, V-21-1997, Spichiger (A) [CLEM]. OCONEE: Cedar Cr, III-19-1999, Palmer [CLEM]; Crane Cr, Tamasee Rd, 3.8 mi E SC 107, II-06-1987, Morse [CLEM]; Coneross Cr, below SC Rt 59, X-15-1982, Back/Neveaver [CLEM]; N fork Toxaway Cr at SC Rt 48, X-22-1982, Missimer [CLEM]; S Fork Toxaway Cr, CR 48 II-09-1989, Chen [CLEM]; Brasstown Cr, at Brasstown Falls IV-16-1991, Floyd [CLEM]; Chattooga R at SC Rt 28, III-27-1987, Missimer, & II-16-1989, McClure, & Chattogga R nr Elliot's Rock, X-26-1979, Burke/Weaver [CLEM]. ORANGEBURG: Goodland Cr at SC 4, III-12-1997 [DHEC]. PICKENS: Cane Cr, Cleo Chapman Hwy, IX-15-, X-10-1997, Spichiger [CLEM]; Todd's Cr, at Brookbend, I-10-1991 [CLEM]; Seneca Cr, Clemson, II-20-1963, Payne [CLEM]; Willard's Pond, Clemson Dairy Farm, I-30-1987, Pinson [CLEM]. SPARTANBURG: Spivey Cr at SR 209, VIII-24-1999 [DHEC].

***Baetisca gibbera*** Berner, 1953

*New data.*—COLLETON: Edisto R at SC 61, IX-12-2001 {DHEC}. EDGEFIELD: Horn Cr at SR 143, VII-21-2000 [DHEC]; Turkey Cr, Co Rt 51, IV-12-1985, Kondratieff [PERC]. LEE: Lynches R, Lee St Prk, I-11-2001, Knight [CLEM]. OCONEE: Chattooga R, II-16-1989, Chen [CLEM]. ORANGEBURG: South Fork Edisto R at SR 39, VIII-28-1988 [DHEC]. PICKENS: Rocky Bottom Cr at US 178, VII-21-2000 [DHEC].

*Remarks.*—Berner (1977) incorrectly indicated a North Anna River record in Virginia as South Carolina, and this was evidently the basis of the previous listing for South Carolina in Pescador et al. (1999).

***Baetisca obesa*** (Say), 1839

*Previous data.*—Berner (1977): AIKEN; CHESTERFIELD; ORANGEBURG. Morse et al. (1980): AIKEN (Upper Three Runs Cr). Pescador and Berner (1981): ORANGEBURG (N Edisto R, Orangeburg).

*New data.*—DARLINGTON: Society Hill Cedar Cr, V-04-1944 [INHS]. DORCHESTER: McAlkary's Oxbow, 0.2 mi N Cattle Cr/Edisto R, III-24-1989, McClure [CLEM]; OCONEE: Chattooga R at SC Rt 28, X-09-1982, Robertson [CLEM].

***Baetisca rogersi*** Berner, 1940

*Previous data.*—Berner (1977): AIKEN, LEXINGTON. Morse et al. (1980): AIKEN (Upper Three Runs Cr). Pescador and Berner (1981): AIKEN (Jackson-Hollow Cr, Upper Three Runs Cr); LEXINGTON; OCONEE (Chattooga R, Little R).

*New data.*—MCCORMICK: Turkey Cr at Rt 227, III-17-1984, Kondratieff [CSU].

## BEHNINGIIDAE

***Dolania Americana*** Edmunds and Traver, 1959

*Previous data.*—Edmunds and Traver (1959): AIKEN (Savannah R, Upper Three Runs Cr); ALLENDALE (Savannah R); BARNWELL (Savannah R). Patrick et al. (1967): ALLENDALE (Savannah R); BARNWELL (Savannah R). Harvey et al. (1979): AIKEN (Upper Three Runs Cr). Fink et al. (1991): AIKEN (Upper Three Runs Cr). Sweeney and Funk (1991): AIKEN (Upper Three Runs Cr).

## CAENIDAE

***Amercaenis cusabo*** Provonsha and McCafferty, 2006

*Previous data.*—Provonsha and McCafferty (2006): AIKEN (Savannah R); ALLENDALE (Savannah R); BARNWELL (Savannah R).

*New data.*—FLORENCE: Pee Dee R, approximately 800 m upstream of Hwy 76/301 bridge nr Florence, VIII-7.9-2001 [CPL, PERC]. MARION: Pee Dee R, approximately 800 m upstream of Hwy 76/301 bridge nr Florence, VIII-7.9-2001 [CPL, PERC].

***Brachycercus bernerii*** Soldán, 1986

*Previous data.*—Berner (1977) as *B. sp. A*: AIKEN.

*Remarks.*—Sun and McCafferty (2008) discuss the rather confusing history of this species.

***Brachycercus nitidus*** (Traver), 1932

*Previous data.*—Soldán (1986): AIKEN (Upper Three Runs); BEAUFORT (Sawmill Cr); EDGEFIELD (Murphy); OCONEE (Chattooga R); PICKENS (Six Mile Cr).

*New data.*—AIKEN: Upper Three Runs, SRP Rd C, VI-03-1984, Kondratieff (A) [PERC]. GREENVILLE: Matthews Cr, Asbury Youth Camp, VII-18,19-1997, Spichiger [CLEM]. LAURENS: Burnt Mill Cr at CR 42, VI-27-1983 & Durbin

Cr at SR 101, V-15-1981 & unnamed trib Little R at US 76B, VI-28-1983 [DHEC]. OCONEE: Little R, IX-13, 1978, Burne [CLEM]. PICKENS: Cane Cr, Cleo Chapman Hwy, VII-18-1997, & Estatoe Cr, Roy Jones Hwy, VI-09-1997, Spichiger [CLEM]. UNION: Tinker Cr at SR 24 VI-13-1983 [DHEC].

*Remarks.*—Certain materials from SC identified as *B. flavus* Traver have proven to be misidentifications of *B. nitidus*.

***Caenis amica*** Hagen, 1861

*Previous data.*—Carlson (1971, unpublished): PICKENS: Wildcat Cr, .75 mi from mouth, 790', & Duck Pond, Clemson, 1968. Berner (1977): BEAUFORT; SPARTANBURG. Morse et al. (1980): AIKEN (Upper Three Runs Cr). Provonsha (1990): AIKEN (Upper Three Runs Cr); NEWBERRY (Indian Cr). Daniels and Morse (1992): PICKENS (Wildcat Cr).

*New data.*—ANDERSON: 3 and 20 Cr, above discharge, IV-20-1980 [CLEM]. BARNWELL: Steel Cr, 750 m upstream SRP Rd A, IV-12-1984, & Steel Cr nr confl Meyers Br, III-19-1984, Steel Cr Swamp, Steel Cr Delta, IV-25-, X-04-1984, & Water Gap Cr, SRP A-17, IV-24-1984, Kondratieff (A) [PERC]; Pen Br Swamp off Wilson Rd, II-17-, IV-24-1984, Kondratieff (A & L) [PERC]. DARLINGTON: Swift Cr at CR 13 Ca 5 mi W Darlington, V-20-1980 [CLEM]. DORCHESTER: Polk Swamp, at SR 19, III-06-1997 [DHEC]. GEORGETOWN: Georgetown, Sandy Island Landing, light trap, IV-28-2000, Reeves (A) [PERC]. EDGDFIELD: Sleepy Cr at dirt rd nr SC 21?, V-29-1997 [DHEC]. GREENWOOD: Mountain Cr, end of dirt rd, For Serv WMA land, V-29-1997 [DHEC]. LEXINGTON: Stoop Cr, at Bridge on Bush R Rd, VIII-01-1980 [CLEM]. NEWBERRY: Enoree R, S-36-45, IV-30-1980 [CLEM]. ORANGEBURG: Roberts Cr at SC 332, VII-18-2001 [DHEC]. RICHLAND: Crane Cr at US 321 VI-29-1995 [DHEC]. SUMTER: Nasty Branch Cr, ca 0.75 km N SC 458, IV-09-1991 Heyn et al [CLEM]. WILLIAMSBURG: Boggy Swamp at SC 261, X-17-1978 [CLEM].

***Caenis diminuta*** Walker, 1853

*Previous data.*—Berner (1977): AIKEN; CHESTERFIELD; DARLINGTON; GREENWOOD; ORANGEBURG; RICHMOND. Poff and Matthews (1985): BARNWELL (Four Mile Cr, Steel Cr). Provonsha (1990): AIKEN (Upper Three Runs Cr); ANDERSON (3 & 20 Cr); BARNWELL (Four Mile Cr); JASPER (Savannah R, Maxwell Ponds).

*New data.*—ABBEVILLE: Calhoun Cr at SR 40, VII-09-1996 [DHEC]. AIKEN: Savannah R, SRS site 400 Area Boat Launch, R mi 157, IX-27-1994, Silldorff (A) [PERC]; cornfield at light, IV-03-1964, Gentry (A) [PERC]. ALLENDALE: Wells Br at SC 300, VIII-02-2002 [DHEC]. ANDERSON: pond at Simpson Exp Stn, VIII-23-1982, Culberstson/Rogers [CLEM]; 3 & 20 Cr, at US 178, X-01-1982, Missimer [CLEM]. BAMBERG: Georges Cr at S-5-232 ca 11 mi SW Bamberg, X-11-1978, Carlson/Sherer [CLEM]. BARNWELL: Savannah R, Donora at Donora Station, 1 mi below Par Pond SRP, IX-14-1972, Roback [PERC]; Steel Cr Swamp, Steel Cr Delta, IV-25-1984, & Steel Cr nr confl Meyers Br, III-19-1984, Kondratieff (A) [PERC]; Pen Br Swamp off Wilson Rd, II-17-1984, Kondratieff [PERC]; Par Pond, E L Warmarm, VI-22-1972, Richardson [PERC]. BERKELEY: Honey Hill Campground, V-10-1996, Morse (A) [CLEM]. CALHOUN: Big Beaver Cr at US 176, VII-20-2001 [DHEC]. CHEROKEE:

Thickety Cr at SC 211, VIII-10-1999 [DHEC]. CHESTER: Rocky Cr at S-12-689, upstream of pond, X-09-1978, Carlson/Younginer [CLEM]. CHESTERFIELD: Lynchess R at SC Hwy 265. Brewes Gold Mine Stn LR-1, III-29-1991, Heyn et al [CLEM]. DARLINGTON: Pee Dee R, ca 800 m downstream Hwy 15/401 bridge nr Society Hill, II-05-2001, Smith [CPL, PERC]; Black Cr nr Hartville, IX-07-1972, Roback [PERC]. DILLON: Reedy Cr at CR 48 N Latta [CLEM]. DORCHESTER: Four Holes Swamp, Mellards L [CLEM]. EDGEFIELD: Rd 626 nr Hwy 68, VII-23-1993, Monroe [CLEM]. FAIRFIELD: Dutchman Cr at SR 21, VI-30-1998 [DHEC]. FLORENCE: Florence, II-16-1980, Stevens/Pamplico [CLEM]. GREENVILLE: Mountain Cr at SR 51, VIII-15-2001 [DHEC]. GREENWOOD, Wilson Cr at SR 124, VII-15-1997 [DHEC]. HAMPTON: Sander's Br, upstream Hampton WWTP Stn 1, X-09-1991, Heyn et al [CLEM]. HORRY: Iron Springs Swamp at culvert on Rd 233, V-13-1980 [CLEM]. LANCASTER: Camp Cr at SR 20, VII-01-1998 [DHEC]. LAURENS: Rd 226, II-02-1994, Monroe [CLEM]. LEE: Lee St Pk, Oxbow Lake, I-10-1994, Garris [CELM]. LEXINGTON: Stoop Cr at bridge on Bush R Rd, VIII-01-1980 [CLEM]. MARION: Pee Dee R, Rt 501, I-11-1994, Sweeney [CLEM]. MARLBORO: Pee Dee R, ca 800 m downstream Hwy 15/401 bridge nr Society Hill, II-05-2001, Smith [CPL, PERC]. MCCORMICK: Stevens Cr at SC 23, VII-03-1996 [DHEC]. NEWBERRY: E 107-2, IV-17-1993, Monroe [CLEM]; trib Timothy Cr at SR 244, VII-07-1997 [DHEC]. OCONEE: Horse Pasture Valley, High Falls, X-16-1965, Bhatraruji [PERC]; pond S Clemson Dairy Farm, IX-03-1982, Robertson [CLEM]. ORANGEBURG: Grambling Cr at SR 154, VII-19-2001 [DHEC]. PICKENS: Lake Isaqueena, VII-03-1964, Dees [PERC]; Clemson Maxwell Ponds, XI-03-1959, Skelton [PERC]; Clemson Dairy Barns, II-04-1007, Richardson, & IX-27-1983, Joly, & Willards Pond, Clemson Dairy, I-31-1991, Mitchell [CLEM]. RICHLAND: Mith Cr N at Main St, Columbia, VIII-20-1999 [DHEC]. SALUDA: Big Cr at SC 194, 6.6 mi NE Saluda, VI-27-1980 [CLEM]. SPARTANBURG: Dutchman Cr at SR 511, VII-19-1995 [DHEC]. SUMTER: Nasty Branch Cr, ca 0.75 km N SC 458, IV-09-1991 Heyn et al [CLEM]. YORK: Fishing Cr at SR 347, VII-24-2002 [DHEC].

***Caenis hilaris* (Say), 1839**

*Previous data.*—Berner (1977): AIKEN; CHESTERFIELD; SPARTANBURG. Provonsha (1990): BARNWELL (Steel Cr Swamp); GREENVILLE (Saluda R); NEWBERRY (Saluda R).

*New data.*—ABBEVILLE: Calhoun Cr at SC 28, VII-07-2001 [DHEC]. BARNWELL: Steel Cr, 750 m upstream SRP Rd A, VIII-22-1984, Kondratieff (A) [PERC]. CALHOUN: Sandy Run Cr at US 176, VII-20-2001 [DHEC]. CHESTER: fishing Cr at SR 77, VI-20-2002 [DHEC]. CHESTERFIELD: Pee Dee R, ca 300 m upstream US Hwy 1 bridge nr Cheraw, XI-07-1999, VIII-05-2001, Smith [CPL, PERC]. COLLETON: Edisto R at SC 61, IX-12-2001 [DHEC]. DARLINGTON: Pee Dee R, ca 800 m downstream Hwy 15/401 bridge nr Society Hill, VIII-10,13-,XI-16-1999, VIII-06-2001, Smith [CPL, PERC]. EDGEFIELD: Sleepy Cr at SR 140, VI-02-1998 [DHEC]. HAMPTON: Sander Br at S-50, II-08-2000 [DHEC]. FAIRFIELD: Thorntree Cr at SR 258, VIII-28-1998 [DHEC]. FLORENCE: Pee Dee R, ca 800 m upstream of Hwy 76/301 bridge nr Florence, XI-08-1999, XI-14-2001, & upstream of entrance Staples Lake Landing nr Johnsonville, VIII-11-1999, Smith [CPL, PERC]. GREENVILLE: Matthews

Cr at SR 90, VIII-22-2001 [DHEC]. GREENWOOD: Hard Labor Cr, SR 164, VIII-21-2000 [DHEC]. KERSHAW: Wateree R, nr Camden, VII-30-1958, Roback [PERC]. LAURENS: Duncan Cr at SC 28, VII-10-2001 [DHEC]. LEE: Lynchess R at US 411, IX-01-1998 [DHEC]. LEXINGTON: Black Cr at SR 278, VIII-01-2001 [DHEC]. MARION: Pee Dee R, ca 800 m upstream of Hwy 76/301 bridge nr Florence, XI-08-1999, XI-14-2001, & upstream of entrance Staples Lake Landing nr Johnsonville, VIII-11-, XI-09-1999, VIII-08-2001, Smith [CPL, PERC]. MARLBORO: Pee Dee R, ca 300 m upstream US Hwy 1 bridge nr Cheraw, XI-07-1999, VIII-05-2001, & Pee Dee R, ca 800 m downstream Hwy 15/401 bridge nr Society Hill, VIII-10,13-,XI-16-1999, VIII-06-2001, Smith [CPL, PERC]. MCCORMICK: Little R at SR 19, VIII-07-2000 [DHEC]. NEWBERRY: trib Cimms Cr at SR 25, VII-22—2003 [DHEC]. OCONEE: trib Choestoea Cr at SR 429, VIII-01-2000 [DHEC]. PICKENS: Georges Cr at rd above SR 36, VIII-23-2001 [DHEC]. RICHLAND: Wateree R 1.6 mi upstream confl Congaree R, IX-14-2001 [DHEC]. SALUDA: Cloud Cr at US 178, VII-09-1997 [DHEC]. SPARTANBURG: North Pacolet R at SR 128, VIII-12-1999 [DHEC]. UNION: Fairforest Cr, at S-44-16, SW Union, VII-01-1999 [DHEC].

***Caenis latipennis*** Banks, 1907

*New data.*—ABBEBILLE: Calhoun Cr at SR 40, VII-06-1996 [DHEC]. CHESTER: Sandy R at SC 215, VII-06-1995 [DHEC]. EDGEFIELD: Rd 625, VI-22-1993, Monroe [CLEM]. FAIRFIELD: Jackson Cr at S-20-54, VIII-08-2001 [DHEC]. GREENWOOD: Ninety six/Wilson Cr at SR 702, VIII-24-2000 [DHEC]. LANCASTER: Six Mile Cr at SR 54, VIII-23-2000 [DHEC]. LAURENS: trib North Cr at Hwy 76, III-28-2000 [DHEC]. MCCORMICK: Little R at SR 19, VIII-07-2000 [DHEC]. ORANGEBURG: North Fork Edisto R, AT SR 39, IX-02-1997 [DHEC]. RICHLAND: Big Cedar Cr at SC 215, VI-28-1995 [DHEC]. SPARTANBURG: North Tyger R at SC 296, VII-24-1995 [DHEC]. YORK: Wildcat Cr at SR 998, VIII-23-2000 [DHEC].

***Caenis macafferti*** Provonsha, 1990

*Previous data.*—Provonsha (1990): AIKEN (Boggy Gut, Tinkers Cr, Upper Three Runs Cr); ANDERSON (Old Fish Hatch); BARNWELL (Mill Cr); NEWBERRY (SSE Whitmore); OCONEE (Little R); PICKENS (Maxwell Ponds).

*New data.*—ABBEBILLE: Long Cane Cr at SR 159, VII-10-1996 [DHEC]. AIKEN: Mill Cr, Savannah R Plant at SRP E2, IX-03-1976, Herlong/Prichard [CLEM]; Sand Cr at SC 421, VI-21-1996 [DHEC]. ALLENDALE: Lower Three Runs Cr at Tabernacle Church Rd, VI-02-1968, Roback [PERC]. ANDERSON: Wilson Cr at SC 413, VIII-15-2000 [DHEC]. BAMBERG: Little Salkehatchie R at Sc 70, VII-06-2000 [DHEC]. BARNWELL: Steel Cr Swamp, Steel Cr Delta, X-04-1984, Kondratieff (A) [PERC]. CHEROKEE: Thickety Cr at SC 18, VII-25-1995 [DHEC]. CHESTER: Sandy R at SC 215, VI-14-1999 [DHEC]. FAIRFIELD: Jackson Cr at S-20-54, VIII-14-1999 [DHEC]. GREENVILLE: Matthews Cr, Asbury Youth Campground, VII-18-1997, Spichiger [CLEM]. LAURENS: Enoree R at US Hwy 221, V-28-1980 [CLEM]. LEXINGTON: Black Cr at SR 278, VI-20-1997 [DHEC]. MCCORMICK: Stevens Cr SC 22, VI-10-1980 [CLEM]. NEWBERRY: Cannons Cr at US 176, VI-30-1999 [DHEC]. OCONEE: Long Cr at Hwy 538, VI-13-2002 [DHEC]. ORANGEBURG: Bull Swamp Cr at SR 189, VIII-09-1995 [DHEC]. PICKENS: Clemson Univ duck



ponds, IX-07-1968, Carlson [PERC]; Cane Cr, Cleo Chapman Hwy, VII-18-1997, & Estatoe Cr, Roy Jones Hwy, VII-15-, IX-19-1997, Spichiger [CLEM]; Brushy Cr, VIII-02-1991, Daniels, Morse [CLEM]. SPARTANBURG: Enoree R at US Hwy 221, V-28-1980 [CLEM]. YORK: Allison Cr, at US 321, 3.1 mi S Clover, VI-12-1980 [CLEM].

***Caenis punctata*** McDunnough, 1931

*Previous data.*—Provonsa (1990): BARNWELL (Steel Cr Swamp); GREENVILLE (Saluda R); NEWBERRY (Saluda R).

*New data.*—ABBEVILLE: Gill Cr at SR 32, VII-09-1996 [DHEC]. ANDERSON: Broadway Cr at US 76, VIII-19-1996 [DHEC]. BARNWELL: Water Gap Cr, SRP A-17, IV-24-1984, & Steel Cr Swamp, Steel Cr Delta, IV-24-1984, & Pen Branch Swamp off Wilson Rd, IV-24-1984, Kondratieff (A) [PERC]. CHESTERFIELD: Lynches R at Hwy 9, VII-25-2001 [DHEC]. DARLINGTON: Pee Dee R, ca 800 m downstream Hwy 15/401 bridge nr Society Hill, II-09-1999, Smith [CPL, PERC]. EDGEFIELD: Sleepy Cr at SR 24, I-27-1999 [DHEC]. GREENWOOD: Hard Labor Cr at SR 164, VII-11-19996 [DHEC]. MARLBORO: Pee Dee R, ca 800 m downstream Hwy 15/401 bridge nr Society Hill, II-09-1999, Smith [CPL, PERC]. RICHLAND: Kinley Cr at Quail Valley Swim and Racquet Club, IX-18-1997 [DHEC]. SPARTANBURG: Fairforest Cr at SC 56, VII-27-1995 [DHEC].

***Cercobrachys etowah*** Soldán, 1986

*New data.*—ALLENDALE: Lower Three Runs Cr, between Mullettville and Martin, VI-01-1960, Roback [PERC].

***Cercobrachys pomeiok*** Sun and McCafferty, 2008

*Previous data.*—Sun and McCafferty (2008): LAURENS (Beaver Dam Cr).

***Sparbarus maculatus*** (Berner), 1946

*New data.*—ABBEVILLE: Blue Hill Dr at SR 106, IX-03-1981 [DHEC]. DORCHESTER: Four Holes Swamp, Goodson L [CLEM]. PICKENS: Lake Isaqueena, Clemson VIII-29-1975, Childers [CLEM].

*Remarks.*—The larvae reported by Soldán (1986) as *Brachycercus flavus* (= *Sparbarus flavus*:) from Florence County was more likely *S. maculatus*. The former species remains unknown as larvae (Sun and McCafferty 2008).

EPHEMERELLIDAE

***Attenella attenuata*** (McDunnough), 1925

*Previous data.*—Allen and Edmunds (1961): EDGEFIELD (Log Cr). Berner (1977): AIKEN; EDGEFIELD; LEXINGTON.

*New data.*—AIKEN: Hollow Cr at SR 5, VI-20-1997 [DHEC]. CHESTERFIELD: Little Fork Cr at CR 39, IV-27-1993 & Skipper Cr at SC 145, VII-16-1998 [DHEC]. KERSHAW: Kelly Cr at SR 367 & Spears Cr at US 607, VI-17-1998 [DHEC]. LANCASTER: Lynches R at SC 265, IV-27-1993 [DHEC]. LEXINGTON: Congaree R at SR 34, VII-13-1994 & Second Cr at SR 647, VII-03-1997 [DHEC]. OCONEE: E Fork Chattooga R, Burrell's Ford, VII-10-1996, McElveen [CLEM]; Long Cr at Hwy 538, VI-13-2002 & White Fork at Stribling

Shoals Rd, III-14-2000 [DHEC]. RICHLAND: Cedar Cr at SR 66, VII-01-1997 [DHEC]. SPARTANBURG: North Pacolet R at Sr 128, VII-26-1998 [DHEC].

***Dannella lita*** (Burks), 1949

*New data.*—ANDERSON: 3 and 20 Cr, at Cuffie Cr I-17-1997, DeLong [CLEM]. CHESTERFIELD: Fork Cr at SC 156, V-13-1999 [DHEC]. GREENVILLE: Matthews Cr, Asbury Youth Camp, VI-19-1997, & Matthews Cr, United Methodist Youth Camp, IV-11-, V-27-1997, Spichiger [CLEM]. OCONEE: Crane Cr, Cherokee Rd, V-09-1997, & E Fork Chattooga R, Rt 107, 1 km S NC, V-19-, VI-16-, VII-08-1997, Spichiger [CLEM]; E Fork Chattooga R, US Fish Hatchery, III-15-1987, & Coley Cr, IV-11-1987, Watson [CLEM]; Howard Cr, I-1974, Boyne [CLEM]. PICKENS: Cane Cr, Horse Pasture Rd, V-16-, VI-11-, VII-01-1997, & Estatoe Cr, Laurel Valley Rd, V-13-, VI-09-, VII-17-1997, Spichiger [CLEM]; Estatoe Cr, VI-02-1988, Yang [CLEM]; Six Mile Cr, SC Rt 291, IV04-1991, DeLong, & I-23-1987, Watson [CLEM]; Wildcat Cr, Clemson U For, I-07, Richardson [CLEM].

***Dannella simplex*** (McDunnough), 1925

*Previous data.*—Patrick et al. (1967): ALLENDALE (Savannah R). Carlson (1971, unpublished): PICKENS: Six Mile Cr, .25 mi from confl Wildcat Cr, 1968. Berner (1977): EDGEFIELD; FAIRFIELD; LAURENS; LEXINGTON. Morse et al. (1980): AIKEN (Upper Three Runs Cr).

*New data.*—AIKEN: Pen Br “not planted” III-15-1996, & Meyers Br, VI-22-1996, Parker et al [CLEM]; Mill Cr, Savannah R Plant, at SRPE-2, IV-12-, V-03-1977, Herlong/Prichard [CLEM]. ANDERSON: Three and Twenty Cr upstream Michelin Tire, IV-20-1980 [DHEC]. BARNWELL: Meyers Br, SRP Rd B6.2, III-30-1984, & Steel Cr nr confl Meyers Br, III-18-1984, Kondratieff [PERC]. CHESTERFIELD: Little Fork Cr at Hwy 265, III-21-1988 & Lynches R 2.3 mi downstream confl Fork Cr, IV-27-1993 [DHEC]. GREENVILLE: headwaters L Lanier above Landrum intake, V-22-1995 [DHEC]. LANCASTER: Lynches R at SC 265, IV-28-1999 [DHEC]. ORANGEBURG: Goodland Cr at SC 4, III-12-1997 [DHEC]. PICKENS: Cane Cr, Cleo Chapman Hwy, VI-19-1997, & Estatoe Cr, Roy Jones Hwy, V-13-1997, Spichiger [CLEM].

***Drunella allegheniensis*** (Traver), 1934

*Previous data.*—Jacobus and McCafferty (2004): OCONEE (Chauga R, Little R).

*New data.*—GREENVILLE: Matthews Cr, 3.9 km W Caesars Head, I-30-1993, Morse/Horton [CLEM]. OCONEE: White Water R, at 281, VIII-09-2002, MP [CLEM]; Chattooga R, at Burrell’s Ford, VII-10-1996, McElveen, & Chattooga R, 1 mi N St Hwy 28 at confluence to Reed Cr, IX-15-1988 [CLEM]; Little R, at old SC Rt 11, VIII-28-1982, Hamilton, & IX-08-1980, Holzenthal, & IX-02-1995, Carlson, & VIII-27-1982, Robertson, & IX-14-1985, Hudson [CLEM]; Chauga R at US 76, VII-20-1993 [DHEC]. PICKENS: Estatoe Cr at SR 143, VII-20-1993 [DHEC].

***Drunella lata*** (Morgan), 1911

*Previous data.*—Jacobus and McCafferty (2004): PICKENS (Estatoe Cr).

*New data.*—GREENVILLE: Matthew Cr, Asbury Youth Camp, VI-19-1997, Spichiger [CLEM]. OCONEE: Chattooga R, at SR 28, V-11-1969, Wallace [PERC], and VII-08-1996, Hull [CLEM]; Little R, at Rt 24, II-24-1991, DeLong [CLEM]; Crane Cr, Cherokee Rd, V-09-, VI-27-1997, & E Fork Chattooga R, upstream Chattooga confluence, V-19-1997, Spichiger [CLEM].

***Drunella tuberculata*** (Morgan), 1911

*Previous data.*—Carlson (1971, unpublished): PICKENS: Six Mile Cr, 0.25 mi from confl Wildcat Cr, 1968. Berner (1977): OCONEE. Jacobus and McCafferty (2004): OCONEE (East Fork Chattooga R, Little R, small stream).

*New data.*—GREENVILLE: Matthews Cr, Watson Heritage Preserve, III-22-1997, & Matthew Cr, Asbury Youth Camp, IX-12-1997, Spichiger [CLEM]; Middle Saluda R at Jones Gap St Prk, VIII-28-1997 [DHEC]. OCONEE: E Fork Chattooga R, upstream Chattooga confluence, IX-10-1982, Back, & VI-16-, VIII-05-1997, Spichiger, & E Fork Chattooga R, at US Fish Hatchery, IX-10-1982, Back, & E Fork Chattooga R, Rt 107, VI-16-, VII-08-, VIII-05-1997, Spichiger [CLEM]; Crane Cr, Cherokee Rd, VI-27-, VII-27-, IX-16-1997, Spichiger [CLEM]; Little R, at Rt 24, II-21-1991, Mitchell, & Little R, at Old SC Hwy 11, 2.5 mi SW Salem, V-06-1972, Carlson [CLEM]; Howard Cr, I, IX-1972, Boyne {CLEM}. Toxoway R, Laurel Fork Cr, IX-19-1975, Nichols [CLEM]; Wash Br at Cherokee Rd, VII-04-1996, Starkie [CLEM]; E Fork Chattooga R, 2.2 mi N Walhalla Fish Hatch, VIII-07-1969, & Wallace [PERC]. PICKENS: Cane Cr, Horse Pasture Rd, IX-05-1997, Spichiger [CLEM]; Estatoe Cr, Laurel Valley Rd, VII-15-, VIII-19-, IX-19-1997, & Estatoe Cr, Roy Jones Hwy, III-22-, V-13-1997, Spichiger [CLEM]; Rocky Bottom Cr at US178, VIII-11-2000 [DHEC].

***Drunella walkeri*** (Eaton), 1884

*New data.*—GREENVILLE: Matthews Cr, United Methodist Youth Camp, IV-15-1997, Spichiger [CLEM]. OCONEE: Chattooga R at SC Rt 28, IV-08-1993, Jones [CLEM]; Little R, at old SC Hwy 11, ca 2.5 mi SW Salem, V-05-1972, Carlson [CLEM]. PICKENS: Cane Cr, Cleo Chapman Hwy, IV-04-1997, & Estatoe Cr, Roy Jones Hwy, III-22-1997, Spichiger [CLEM].

***Ephemera catawba*** Traver, 1932

*Previous data.*—Carlson (1971, unpublished): PICKENS: Wildcat Cr, .75 mi from mouth, 790', 1968. Carlson (1973): PICKENS (Wildcat Cr). Berner (1977): GREENVILLE. Daniels and Morse (1992): PICKENS (Wildcat Cr).

*New data.*—AIKEN: Tinker Cr, Savannah R Plant at SRP8-1, II-26-1977, Herlong, Prichard [CLEM]; Upper Three Runs Cr, III-15-1996, & Myers Br, XII-04-1995, & III-15-1996, Parker et al [CLEM]. ANDERSON: small stream downstream Savannah R on Rt 181, VIII-21-1969, Wallace [PERC]. BARNWELL: Lower Three Runs Cr, Savannah R Plant, nr SRP Rds 8 & 8-8, III-17-1980, Kelley [CLEM]. CHESTERFIELD: Little Fork Cr at CR 39, IV-28-1998 & Lynches R 2.3 mi downstream confl Fork Cr, IV-28-1999 [DHEC]. LANCASTER: Lynches R at SC 265, IV-27-1993 [DHEC]. OCONEE: Chauga R at Chauga R Valley Development, VIII-14-1969, & E Fork Chattooga R, at Rt 28, 2.2 mi N Walhalla Fish hatch, VIII-07-1969, & E Fork Chattooga R at Walhalla Fish Hatch, VI-11-

, VIII-07-1969, & Yellow Br at Yellow Br Picnic Area on SC Rt 28, VII-13-1969, & Little R at SC Rt 11, 3 mi S Salem, V-11-1969, Wallace [PERC]; E Fork Chattooga R, at Walhalla Fish Hatchery, VIII-09-2002, Carroll, & E Fork Chattooga R upstream from Chattooga confluence, VIII-05-1997, Spichiger, & E Fork Chattooga at Rt 28, II-16-1989, McClure [CLEM].

***Ephemerella dorothea*** Needham, 1908

*Previous data.*—Traver (1935): GREENVILLE (Greenville). Schultz (1973): OCONEE (Boone Cr). Carlson (1971, unpublished): OCONEE: Devil Hole Cr at Brasstown, 1968; PICKENS: Wildcat Cr, .75 mi from mouth, 790', & Longbranch Cr .25 mi S Lake Issaqueena, 1968. Berner (1977): EDGEFILED; FAIRFIELD; GREENVILLE; LAURENS; NEWBERRY. Daniels and Morse (1992): PICKENS (Wildcat Cr).

*New data.*—AIKEN: Upper Three Runs, SRP Rd C, IV-23-1984, Kondratieff [CSU]; Pen Br, "not planted", & Meyers Br, XII-04-1995, III-15-1996, Parker et al [CLEM]. ANDERSON: Watermelon Cr, Broadway Cr Watershed, 1 mi N S-4-63, IV-11-1079, Weaver/Taylor [CLEM]; Three and Twenty Cr upstream Michelin Tire, IV-26-1980 & Richland Cr above US 29, 0.5 mi above Badische discharge, IV-26-1991 [DHEC]. BARNWELL: Savannah R, SRS, IV-19-1990, Wohl [CSU]. CHESTERFIELD: Lynches R 2.3 mi downstream confl Fork Cr, IV-10-1996 & Fork Cr at SC 151, V-01-1996 [DHEC]. DARLINGTON: Pee Dee R at US 401, II-02-1999 [DHEC]. GREENVILLE: Matthews Cr, 3.9 km W Caesars Head, I-30-1993, Morse/Horton [CLEM]. LANCASTER: Lynches R at Sc 265, IV-25-1999 [DHEC]. OCONEE: W trib Snow Cr at S-37-116, III-14-2000 [DHEC]. PICKENS: Estatoe Cr, Roy Jones Hwy, IV-17-, V-13-1999, Spichiger [CLEM]; Six Mile Cr at Rt 291, IV-04-1991, DeLong [CLEM].

***Ephemerella exrucians*** Walsh, 1862

*Previous data.*—Patrick et al. (1967) as *E. argo*: BARNWELL (Savannah R). Carlson (1971, unpublished) as *E. rossi*: PICKENS: Wildcat Cr, 0.75 mi from mouth, 790', 1968.

*New data.*—AIKEN: Upper Three Runs, SRP Rd C, IV-23-1984, Kondratieff [CSU]. BARNWELL: Savannah R, SRS, IV-19-1990, Sildorff [CSU]. CHESTERFIELD: Pee Dee R, ca 300 m upstream US Hwy 1 bridge nr Cheraw, II-09-1999, II-04-2001, Smith [CPL, PERC]. DARLINGTON: Pee Dee R, ca 800 m downstream Hwy 15/401 bridge nr Society Hill, II-04-1999, Smith [CPL, PERC]. FLORENCE: Pee Dee R, ca 800 m upstream of Hwy 76/301 bridge nr Florence, II-05-2001, Smith [PCL, PERC]. GREENVILLE: Matthews Cr, Asbury Youth Camp, IV-10-28-, V-21-1997, & Matthews Cr, Watson Heritage Preserve, V-07-, VI-04-1997, & Matthews Cr, Happy Acres Rd, V-05-1997, Spichiger [CLEM]. MARION: Pee Dee R, ca 800 m upstream of Hwy 76/301 bridge nr Florence, II-05-2001, Smith [CPL, PERC]. MARLBORO: Pee Dee R, ca 800 m downstream Hwy 15/401 bridge nr Society Hill, II-04-1999, & Pee Dee R, ca 300 m upstream US Hwy 1 bridge nr Cheraw, II-09-1999, II-04-2001, Smith [CPL, PERC]. OCONEE: Crane Cr at Tamassee Rd, 3.8 mi E SC 107, II-28-1991, Mitchell, & Crane Cr, Cherokee Rd, IV-15-, V-09,19,23-1997, & Crane Cr, Rt 107, IV-15-, V-09,23-1997, & E Fork Chattooga R, Rt 107, 1 km S NC, IV-01,22-, V-19-, VI-16-1997, & E Fork Chattooga R, upstream confluence Chattooga R, IV-01,22-, V-19-1997, Spichiger [CLEM]; Chattooga R at Rt 28, II-16-1989, McClure, &

Chattooga R, US Fish Hatchery, III-13-1987, Mellichamp, & XI-21-1992, Gilbert [CLEM]; Yellow Cr, Hwy 28, IV-10-1987, Pinson [CLEM]. PICKENS: Cane Cr, Horse Pasture Rd, V-16-, VII-01-1997, & Cane Cr, Cloe Chapman Hwy, V-21-1997, Spichiger [CLEM]; Six Mile Cr, at Rt 291, I-23, IV-04-1991, DeLong, & I-23-1987, Mellichamp [CLEM]; Lake Isaqueena, Clemson For, I-23-1987, Mellichamp, & II-20-1987, Pinson [CLEM]; Estatoe Cr, VI-08-1988, Yang, & Estatoe Cr, Roy Jones Hwy, IV-17-1997, & Estatoe Cr, Laurel Valley Rd, III-27-, IV-17-1997 [CLEM]; Reedy Cove Cr, IX-06-1979, Morse [CLEM]; Honey Cut Cr, Walker golf course, Clemson campus, I-23-1987, Gable, & I-29-1997, Constantero [CLEM].

***Ephemereella hispida*** Allen and Edmunds, 1965

*Previous data.*—Jacobus et al. (2002): GREENVILLE (Matthews Cr).

*New data.*—OCONEE: Little R at Rt 24, II-24-1991, DeLong [CLEM].

***Ephemereella invaria*** (Walker), 1853

*Previous data.*—Carlson (1971, unpublished) as *E. inconstans*: PICKENS: Wildcat Cr, .75 mi from mouth, 790', 1968. Berner (1977) as *E. choctawatchee*: AIKEN; ALLENDALE. Berner (1977) as *E. rotunda*: AIKEN. Morse et al. (1980) as *E. inconstans*: AIKEN (Upper Three Runs Cr). McCafferty (1985) as *E. floripara*: OCONEE (Chattooga R); Daniels and Morse (1992) as *E. inconstans*: PICKENS (Wildcat Cr). Jacobus and McCafferty (2003): BARNWELL (Steel Cr).

*New data.*—AIKEN: Mill Cr, Savannah R Plant at SRP E-2, I-15,29-, II-11,12,13,26-, III-11,29-, V-04-1977, Herlong/Prichard [CLEM]; Tinker Cr, Savannah R Plant, at SRP8-1, 11, & 12, I-04,05,29-, II-12-, III-4,11,29-1997, Herlong/Ptichard [CLEM]. ANDERSON: Tanglewood Cr, Pendleton, II-23-1989, Chen [CLEM]; Watermelon Cr, S-4-63, III-18-1979, & Watermelon Cr, 0.5 mi S S-4-29, III-14-1979, & W trib Watermelon Cr, 0.5mi N S-4-148, III-17-1979, & Brown's Cr (E Rock Cr), 0.25 mi N S-4-147, III-14-, IV-11-1979, & E trib Rock Cr, nr S-4-670, IV-11-1979, & Rock Cr, 0.75 mi upstream S-4-63, II-25-1979, Weaver/Taylor [CLEM]; Richland Cr above US 29, 20 m above Badische discharge, IV-26-1991 [DHEC]. BARNWELL: Mill Cr, Savannah R Plant, XII-04-1976, I-04,15-, II-11,12,26-1977, Herlong/Prichard [CLEM]. CHESTERFIELD: Fork Cr 150 m upstream confl Little Fork Cr, IV-10-1996 [DHEC]. GREENVILLE: Matthew Cr, Watson Heritage Preserve, V-05-, VI-04,24-, VIII-29-1997, & Matthews Cr, Asbury Youth Camp, IV-25-, V-12-, VI-19-1997, Spichiger [CLEM]. LANCASTER: Lynches R at SC 265, IV-10-1996 [DHEC]. LAURENS: North Cr at S-30-43, XII-11-1978 [DHEC]. OCONEE: E Fork Chattooga R, at Walhalla Fish Hatch, I-24-1969, Wallace/Sherberger [PERC]; small stream at Co Rt 171, 1 mi S Jct Co Rt 413, I-25-1969, Wallace [PERC]; Crane Cr, Rt 107, IV-09-1998, Spichiger [CLEM]; Chattooga R at SC Rt 28, IV-10-1987, Pinson {CLEM}; E Fork Chattooga R, upstream Chattooga confluence, IV-01,22-, X-03-1997, Spichiger, & E fork Chattooga R, at US Fish Hatchery, III-13-1987, Mellichamp [CLEM]; Howard Cr, I-1974, Boyne [CLEM]; Little R, I-26-1997, Moore, & Little R at Rt 24 III-02-1989, Chen [CLEM]. PICKENS: Six Mile Cr, at Rt 291 IV-04-1991, Mitchell, & I-23-1987, Mellichamp, & Six Mile Cr, Clemson U For, III-07-1987, Mellichamp [CLEM]; Cane Cr, Cleo Chapman Hwy, IV-04-, V-01-1997, & Cane Cr, Horse Pasture Rd, IV-04-, V-16-

, VI-11-1997, & Estatoe Cr, Roy Jones Hwy, III-22-, IV-17-1997, Spichiger [CLEM]; Lake Isaqueena, Clemson U For, II-23-1987 [CLEM]. SPARTANBURG: Jimmies Cr at S-42-430 Freys Dr, XII-14-1978 [DHEC].

***Ephemera needhami*** McDunnough, 1925

*Previous data.*—Berner (1977): EDGEFIELD.

*New data.*—CHESTERFIELD: Lynches R 2.3 mi downstream confl Fork Cr, IV-27-1993, IV-07-1994, IV-10-1996, IV-09-1997, IV-28-1999 & Fork Cr 150 m upstream confl Little Fork Cr, IV-10-1996 & fork Cr at SC 151, V-01-1996 & Little For Cr upstream old addition Brewers Gold Mine, IV-09-1997 [DHEC]. LANCASTER: Lynches R at SC 265, IV-27-1993, IV-09-1996, IV-09-1997, IV-28-1998, IV-28-1999 {DHEC}.

***Ephemera subvaria*** McDunnough, 1931

*New data.*—OCONEE: Chattooga R at St Rd 28, I-18-1969, Wallace [PERC].

***Eurylophella bicolor*** (Clemens), 1913

*Previous data.*—Carlson (1971, unpublished): PICKENS: Wildcat Cr, .75 mi from mouth, 790', 1968. Daniels and Morse (1992): PICKENS (Wildcat Cr).

*New data.*—CHESTERFIELD: Lynches R 2.3 mi downstream confl fork Cr, XII-06-1994 [DHEC]. OCONEE: Chattooga R, at SC Rt 28, III-27-1989, Mellichamp [CLEM]. UNION: Rd E100-2, II-06-1994, Monroe [CLEM].

***Eurylophella doris*** (Traver), 1934

*Previous data.*—Berner (1977): AIKEN; ALLENDALE; KERSHAW; ORANGEBURG. Berner (1977) as *E. trilineata*: Morse et al. (1980): AIKEN (Upper Three Runs Cr). Smock et al. (1985): RICHLAND (Cedar Cr). Funk and Sweeney (1994): AIKEN (Upper Three Runs Cr); EDGEFIELD (Turkey Cr); MCCORMICK (Horton Br Long Cane Cr); NEWBERRY (Indian Cr, Long Br Indian Cr, trib Indian Cr).

*New data.*—ANDERSON: Tanglewood Spr, Pendleton, II-23-1989, McClure [CLEM]. BARNWELL: Mill Cr, Savannah R Plant, VII-08-1977, Herlong/Pritchard [CLEM].

***Eurylophella enoensis*** Funk, 1994

*Previous data.*—Funk and Sweeney (1994): EDGEFIELD (Turkey Cr).

***Eurylophella funeralis*** (McDunnough), 1925

*Previous data.*—Traver (1935): OCONEE (Stumphouse Mt). Carlson (1971, unpublished): PICKENS: Wildcat Cr, .75 mi from mouth, 790', 1968. Schultz (1973): OCONEE (Boone Cr). Sweeney and Vannote (1987): OCONEE (Crane Cr). Daniels and Morse (1992): PICKENS (Wildcat Cr).

*New data.*—AIKEN: S Fork Edisto R, Aiken St Prk, IV-17-1985, Kondratieff (A) [PERC]. ANDERSON: Watermelon Cr W trib, S S-4-63, III-17-1979, & E trib Rock Cr N S-4-670, & Rock Cr, 0.75 mi upstream S-4-63, VI-28-1979, Weaver/Taylor [CLEM]; 3 and 20 Cr at Cuffie Cr, J-17-1991, Mitchell [CLEM]. GREENVILLE: Matthews Cr, Asbury Youth Camp, IV-28-1997, & Matthews Cr, United Methodist Youth Camp, IV-11-1997, & Matthew Cr, Watson Heritage Preserve, V-07-1997, & Matthews Cr, Happy Acres Rd, V-05-1997, Spichiger



[CLEM]. LAURENS: Rd 334, III-27, 1993, Monroe [CLEM]. OCONEE: E Fork Chattooga R, upstream confluence Chattooga R, IV-22-, V-19-1997, & E Fork Chattooga R, Rt 107, 0.5 mi S NC, IV-22-1997, Spichiger [CLEM]; Crane Cr, Rt 107, III-25-, IV-15-1997, & Crane Cr, Cherokee Rd, III-25-, IV-15-, V-09,23-1997, Spichiger [CLEM]; Rd 2288 at Hwy 290, V-06-1993, II-19-1994, & nr Rd 737, V-06-1997, Monroe [CLEM]; Howard Cr, I-1974, Boyne [CLEM]. PICKENS: Cane Cr, Horse Pasture Rd, III-13-1997, Spichiger [CLEM]; Indian Cr, Clemson U For, III-16-1987, Pinson [CLEM].

***Eurylophella minimella*** (McDunnough), 1931

*Previous data.*—Schultz (1973): OCONEE (Boone Cr). Berner (1977): LEXINGTON.

***Eurylophella prudentalis*** (McDunnough), 1931

*Previous data.*—Carlson (1971, unpublished): PICKENS: Wildcat Cr, .75 mi from mouth, 790', 1968. Morse et al. (1980): AIKEN (Upper Three Runs Cr). Daniels and Morse (1992): PICKENS (Wildcat Cr). Funk and Sweeney (1994): AIKEN (Upper Three Runs Cr); LEXINGTON; NEWBERRY (Indian Cr).

*New data.*—CHETERFIELD: Lynches R 2.3 mi downstream confl Fork Cr & fork Cr 150 m upstream confl Little fork Cr, IV-10-1996 [DHEC].

***Eurylophella temporalis*** (McDunnough), 1924

*Previous data.*—Allen and Edmunds (1963a): MCCORMICK? (Savannah R). Patrick et al. (1967): ALLENDALE (Savannah R); BARNWELL (Savannah R). Carlson (1971, unpublished): PICKENS: Wildcat Cr, .75 mi from mouth, 790', 1968. Daniels and Morse (1992): PICKENS (Wildcat Cr). Funk and Sweeney (1994): NEWBERRY (Indian Cr).

*New data.*—ALLENDALE: Brier Cr at US Rt 301, 1.5 mi from Savannah R, II-18-1970, Wallace et al [PERC]. BAMBERG: Buck Cr at SR 167, III-01-1996 & Little Salkahatchie R at SC 70 & Toby Cr at SR 29, II-29-1996 [DHEC]. BARNWELL: Steel Cr Swamp, IV-06-1984, & Stell Cr Swamp, Steel Cr Delta, IV-25,26,28-, V-02-1984, Kondratieff (A) [PERC]. CHEROKEE: Conoe Cr 5 M upstream Blacksburg WWTP discharge, XI-30-1992 [DHEC]. CHESTER: trib Hoopers Cr at Hwy 9, IV-10-2001 [DHEC]. CHESTERFIELD: Fork Cr at SC 151, XI-21-1996 & Little Fork Cr at Hwy 265, IV-28-1999 [DHEC]. EDGEFIELD: Double Br upstream proposed dairy farm BMP, XII-02-1996 [DHEC]. GREENVILLE: South Saluda R at SC 8, VI-01-1995 [DHEC]. MARLBORO: Crooked Cr at 609, X-05-1988 [DHEC]. MCCORMICK: Rocky Cr, 2 mi NE McCormick, III-14-1969, Wallace et al [PERC]. OCONEE: Chattooga R, at SC Rt 28, IV-10-1987, Pinson [CLEM]. ORANGEBURG: Great Br at SC 4, II-18-1997 & Little Bull Cr at SC 33, II-12-1997 [DHEC]. SPARTANBURG: trib South Tyger R at Rogers Mill lift stat, XII-02-2003 [DHEC].

***Eurylophella versimilis*** (McDunnough), 1930

*Previous data.*—Funk and Sweeney (1994): MCCORMICK (Horton Cr, Horton Br Long Lane Cr).

*New data.*—BARNWELL: Meyers Br, SRP Rd B6.2, III-30-1984, & Steel Cr, Steel Cr Delta, V-01-1984, Kondratieff (A) [PERC]. PICKENS: Lake Isaqueena, Clemson, II-21-2001, Tvshivkova [CLEM].

***Penelomax septentrionalis*** (McDunnough), 1925

*Previous data.*—Carlson (1971, unpublished): PICKENS: Wildcat Cr, .75 mi from mouth, 790', 1968. Daniels and Morse (1992): PICKENS (Wildcat Cr).

*New data.*—ANDERSON: Three and Twenty Cr downstream Michelin Tire, IV-20-1980 [DHEC]. CHESTERFIELD: Lynches R 2.3 mi downstream confl Fork Cr, IV-07-1994 & fork Cr a150 m upstream confl Little Fork Cr, IV-10-1996 & Fork Cr at SC 151, IX-13-1994, III-15-1995 & Fork Cr at SR 770, III-15-1995 & Little Fork Cr at CR 39, IV-09-1997 [DHEC]. GREENVILLE: Matthews Cr, United Methodist Youth Camp, IV-10-1997, Spichiger [CLEM]. NEWBERRY: Enoree R, S-36-48, 3.5 mi above jct Broad R, IV-30-1980 [CLEM]. PICKENS: Six Mile Cr, at Rt 291, IV-04-1991, DeLong [CLEM].

***Serratella serrata*** (Morgan), 1911

*Previous data.*—Jacobus and McCafferty (2003): GREENVILLE (Matthews Cr); OCONEE (E Frk Chattooga R).

*New data.*—AIKEN: S Fork Edisto R, SC Rt 53, III-13-1984, Kondratieff (A) [PERC]. CHEROKEE: Kings Cr at S-11-209, VI-25-1995 [DHEC]. OCONEE: E Fork Chattoog R, at Walhalla Fish Hatch, VIII-01-1969, Wallace [PERC]; Howard Cr, I-1974, Boyne [CLEM]; Crane Cr, Cherokee Rd, VI-27-1997, & Crane Cr, Rt 107, VII-29-1997, & E Fork Chattooga R, Rt 107, & upstream confluence Chattooga R, VIII-05-1997, Spichiger [CLEM]; Chattooga R, at SR 28, VII-08-1996, McElveen [CLEM]. PICKENS: Cane Cr, Cleo Chapman Hwy, VI-19-1997, & Estatoe Cr, Laurel Valley Rd, VI-09-1997, & Estatoe Cr, Roy Jones Hwy, VII-17-1997, Spichiger [CLEM].

***Serratella serratoides*** (McDunnough), 1931

*Previous data.*—Berner (1977): GREENVILLE. Jacobus and McCafferty (2002): CHESTERFIELD (Lynches R); LANCASTER (Lynches R).

*New data.*—ABBEVILLE: Savannah R at bridge at Rt 72 nr Calhoun Falls, VII-20-1969, Wallace [PERC]. ANDERSON: Broadmouth Cr at Sec Rd 81, VIII-15-1997 [DHEC]. BARNWELL: Yarrow Br, at SR 161, II-20-1997 [DHEC]. CHEROKEE: Bowen R at SR 83, VIII-11-1999 [DHEC]. CHESTERFIELD: Lynches R 2.3 mi downstream confl Fork Cr, IV-07-1994 [DHEC]. FAIRFIELD: Little R at S-20-60, VI-14-1999 [DHEC]. GREENVILLE: Matthews Cr, 3.9 km W Caesars Head, I-30-1993, Morse/Horton [CLEM]. LANCASTER: Flat Cr at US 601, VII-31-2003 [DHEC]. MCCORMICK: Stevens Cr at SC 23, VII-03-1996 [DHEC]. NEWBERRY: Indian Cr at US 176, VII-18-1995 [DHEC]. OCONEE: Chauga R at Chauga R Valley Development, VIII-14-1969, & Little R, at SC Rt 11, 3 mi S Salem, VIII-07-1969, Wallace [PERC]; Chattooga R at 28, VIII-07-2002, BWM, & Chattooga R, upstream from Chattooga confluence, VII-08-1997, Spichiger, & Chattooga R, at Burrells Ford VII-10-1996, McElveen [CLEM]. PICKENS: Estatoe R at SR 143, VIII-04-2000 [DHEC]. RICHLAND: Big Cedar Cr at SC 215, VI-14-1999 [DHEC]. SPARTANBURG: Cedar Shoals Cr 0.2 mi downstream confl Enoree R, VII-09-1999 & Dutchman Cr at SR 40, VII-08-1999 [DHEC].

***Teloganopsis deficiens*** (Morgan), 1911

*Previous data.*—Allen and Edmunds (1963b): GREENVILLE (nr jct Hwy 14 & Hwy 29). Patrick et al. (1967): BARNWELL (Savannah R). Berner (1977): AIKEN; EDGEFIELD; FAIRFIELD; GREENVILLE. Morse et al. (1980): AIKEN (Upper Three Runs Cr). Daniels and Morse (1992): PICKENS (Wildcat Cr).

*New data.*—ABBEVILLE: Calhoun Cr at SR 24, VII-10-1996 [DHEC]. AIKEN: Pen Br “unplanted”, VIII-05-1995, & Meyers Br, VIII-05-, XII-04-1995, Parker et al [CLEM]. ANDERSON: Browns Cr (E Rock Cr), n S-4-147, VII-25-1979, & Watermelon Cr, 1 mi N S-4-63, VI-28-1979, Weaver/Taylor [CLEM]. BAMBERG: Little Salkahatchie R at SR 41, VI-27-1995 [DHEC]. BARNWELL: Meyers Br, nr confl Steel Cr, IV-16-1984, & Steel Cr nr confl Meyers Br, IV-02,23-1984, Kondratieff (A) [PERC]; Turkey Cr at SR 169, III-01-1996 [DHEC]. CHEROKEE: Thickety Cr at SC 211, VIII-10-1999 [DHEC]. CHESTER: Sandy Cr at SC 215, VII-06-1995 [DHEC]. CHESTERFIELD: Hills Cr at SR 105, VIII-13-2003 [PERC]. EDGEFIELD: Cheves Cr at SR 34, VII-20-2000 [DHEC]. FAIRFIELD: Thorntree Cr at SR 258, VIII-28-1998 [DHEC]. GREENVILLE: Matthews Cr, Watson Heritage Preserve, VI-24-1997, Spichiger [CLEM]. KERSHAW: Flat Rock Cr at SR 40, VII-17-2002 [DHEC]. LANCASTER: South Branch Wildcat Cr at SR 39, VII-08-1998 [DHEC]. LAURENS: Beaverdam Cr at S-30-97, VII-21-1999 [DHEC]. MCCORMICK: Rd 547E, II-20-1994, Monroe {CLEM}; trib Baker CR at SR 21, VII-16-2003 [DHEC]. NEWBERRY: Cannons Cr at US 176, VIII-17-1995 [DHEC]. OCONEE: Chauga R, at Chauga R Valley Development, VIII-14-1969, & Little R, at SC Rt 11, 3 mi S Salem, VIII-07-1969, Wallace [PERC]; Chattooga R at Rt 28, VIII-07-2002, Blum [CLEM]; E Fork Chattooga R, upstream confluence Chattooga R, IV-22-, V-19-, VII-08-, VIII-05-1997, & E Fork Chattooga R, Rt 107, 1 mi S NC, VI-16-, VII-08-1997, & Crane Cr, Cherokee Rd, VI-27-1997, Spichiger [CLEM]; Rd 2253 nr Hwy 196, XII-16-1993, & Rd 2288 at Hwy 290, II-19-1994, Monroe [CLEM]; Little R at old SC Rt 11, VIII-27-1982, Missimer [CLEM]. PICKENS: Cane Cr, Cleo Chapman Hwy, III-13-, V-, VI-19-1997, & Cane Cr, Horse Pasture Rd, VI-11-1997, Spichiger [CLEM]; Estatoe Cr, Roy Jones Hwy, IV-17-, V-13-, VI-09-, VII-15-1997, & Estatoe Cr, Laurel Valley Rd, VI-09-1997, Spichiger [CLEM]. RICHLAND: Big Cedar Cr at SC 215, VII-06-1992 [DHEC]. SALUDA: Moores Cr at Hwy 178, VIII-03-2001 [DHEC]. SPARTANBURG: Maple Cr at SR 644 & South Tyger R at Hwy 293, VIII-19-1999 [DHEC]. UNION: Rd E100-2, II-06-1994, Monroe [CLEM]; Browns Cr at S-44-86, VII-19-1995 [DHEC]. YORK: fishing Cr at SR 347, V-26-1993 [DHEC].

***Tsalia beneri*** (Allen and Edmunds), 1958

*New data.*—OCONEE: Little R, at SC Rt 11, 3 mi S Salem, V-11-1969, Wallace [PERC]; Little R at old SC Hwy 11, 2 mi SW Salem, III-31-1973, Carlson [CLEM]; Little R at Hwy 24, II-26-1997, Moore/Reid [CLEM].

## EPHEMERIDAE

***Ephemera blanda*** Traver, 1932

*Previous data.*—Traver (1935): GREENVILLE (Greenville). Carlson (1971, unpublished): OCONEE: East fork Chattooga R at Walhalla St Fish Hatch, & Long Cr at Long Creek, & Chaug R at Whestone, & Burgess Cr at Salem, 1968; PICKENS: Wildcat Cr, .75 mi from mouth, 790', & Longbranch Cr .25 mi S Lake Issaqueena, & Carrick Cr at Table Rock St Prk, & South Saluda R at Cleveland, 1968. Carlson (1973): PICKENS (Wildcat Cr). Berner (1977): GREENVILLE. Morse et al. (1989): OCONEE (Coley Cr, Thompson R). Daniels and Morse (1992): PICKENS (Wildcat Cr).

*New data.*—ANDERSON: E trib Rock Cr, N S-4-670, III-14-1979, II-22-1980, & Watermelon Cr, 1 mi N S-4-670, III-17-1979, Weaver/Taylor [CLEM]. OCONEE: E Fork Chattooga R, Rt 107, nr NC, V-19-, VIII-05-1997, & E Fork Chattooga R, upstream confluence Chattooga R, VIII-05-1997, & Crane Cr, Cherokee Rd, III-25-, IV-15-, V-09-1997, & Crane Cr, Rt 107, III-25-, IV-15-1997, Spichiger [CLEM]; E Fork Chattooga R, US Fish Hatchery, III-13-1987, Pinson [CLEM]; Crane Cr, III-02-1989, McClure [CLEM]; Howard Cr, I-1974, Boyer [CLEM]; Little R, X-23-1984, Wilson [CLEM]. PICKENS: Cane Cr, Horse Pasture Rd, IV-04-, V-16-1997, & Estatoe Cr. Laurel Valley Rd, VI-09-1997, Spichiger [CLEM]; Indian Cr, Clemson U For, III-16-1987 [CLEM]; Four Mile Cr off SC 183, X-24-1997 [DHEC]. SPARTANBURG: Jimmies Cr at US 29, X-19-1978 [DHEC].

***Ephemera guttulata*** Pictet, 1843

*Previous data.*—McCafferty (1975): OCONEE (Chattooga R).

*New data.*—LAURENS: Rd 334, III-27-1993, Monroe [CLEM]. OCONEE: Townes Cr, X-14-1980, Kelley [CLEM]; Townes Cr, For Rd 710, V-24-1993, Kondratieff [CSU]; E Fork Chattooga R, upstream confluence Chattooga R, V-19-1997, Spichiger [CLEM]; Crane Cr at Tamassee Rd, 3.8 mi E Sc 107, II-28-1997, DeLong, & V-21-1981, Weaver/Stark [CLEM]; Crane Cr, Cherokee Rd, IV-15-, V-09,23-1997, Spichiger [CLEM]; PICKENS: Lake Isawqueena, Indian Cr, X-09-1981, Kelley [CLEM].

***Ephemera simulans*** Walker, 1853

*Previous data.*—McCafferty (1975): FAIRFIELD (Cedar Cr).

*New data.*—OCONEE: Crane Cr at Tamassee Rd, 3.8 mi E SC 107, V-10-1981, Holzenthal [CLEM].

***Ephemera varia*** Eaton, 1883

*Previous data.*—Schultz (1973): OCONEE (Boone Cr).

*New data.*—ANDERSON: Tanglewood Cr, Tanglewood subdivision, II-12-1997, Gable [CLEM]. GREENVILLE: Matthews Cr, Watson Heritage Preserve, VI-04-1997, Spichiger [CLEM]; waterfall at Rt 11-276 ca 0.5 mi E jct Rt 11/Rt 276, V-23-1989, Watson [CLEM]. OCONEE: E Fork Chattooga R, US Fish Hatchery, III-13-1987, Morse/Mellichamp, & E Fork Chattooga R, Walhalla Fish Hatchery, III-13-1989, McClure [CLEM]; Crane Cr, Cherokee Rd, V-09-, VI-17-1997, & Crane Cr, Rt 107, V-09-23-1997, Spichiger, & Crane Cr at Tamassee Rd, 3.8 mi E SC 107, V-10-1981 [CLEM]; trib Crane Cr, IX-21-1992, Gilbert [CLEM].

PICKENS: Cane Cr, Horse Pasture Rd, V-16-1997, Spichiger [CLEM]; Wildcat Cr, Clemson, IX-28-1979, Beach [CLEM]. SPARTANBURG: Jimmies Cr at US 29, XII-14-1978 [DHEC].

***Hexagenia atrocaudata*** McDunnough, 1924

*New data.*—OCONEE: Little R, at Rd 4S, V-09-1974, Forsyth [CLEM]; N fork Toxaway Cr at Sc Rt 48, X-22-1982, Missimer [CLEM]. PICKENS: Lake Isaqueena, IX-11-1965, Robertson, & IX-04-1965, McCaskill [CLEM]; cow pond, Clemson, IX-11-1965, Brocroma [CLEM]; Six Mile Cr, Clemson, X-15-1980, Taylor [CLEM].

***Hexagenia bilineata*** (Say), 1824

*Previous data.*—Carlson (1971, unpublished): OCONEE: Little R, dam at Hwy 130, 1968. McCafferty (1975): ABBEVILLE (Peizer); AIKEN (Beulah Pond). Berner (1977): ANDERSON.

*New data.*—ANDERSON: Cuffie Cr at CR 115, VI-14, Holzenthal [CLEM]. LEXINGTON: Berry's Mill, VIII-27-1932, Dunaran [PERC]. PICKENS: Lake Isaqueena, VII-03-1964, Dees, & Lake Hartwell, Mountain View Prk, VII-20-1998, Spichiger [CLEM]; Four Mile Cr off 183, X-05-1999 [DHEC].

***Hexagenia limbata*** (Serville), 1829

*Previous data.*—Traver (1937) as *H. carolina*: PICKENS (Clemson). Traver (1937) as *H. kanuga*: FLORENCE (Florence). Traver (1937) as *H. marilandica*: PICKENS (Clemson). Carlson (1971, unpublished) as *H. limbata* or *H. munda*: GREENVILLE: Lake Lyman, east end of lake, 1968; OCONEE: Little R, dam at Hwy 130, & Long Cr at Long Creek, & Devil Hole Cr at Brasstown, & unnamed creek, 3<sup>rd</sup> bridge on Hwy 59, 3 mi N Walhalla, & Chattooga R at Hwy 28, & Chauga R at Whetstone, & Burgess Cr at Salem, 1968; PICKENS: Wildcat Cr, .75 mi from mouth, 790', & Longbranch Cr .25 mi S Lake Isaqueena, & Carrick Cr at Table Rock St Prk, & South Saluda R at Table Rock, 1968. Schultz (1973): OCONEE (Boone Cr). Berner (1977) as *H. munda*: AIKEN; ANDERSON; FLORENCE; GREENVILLE; LEXINGTON; OCONEE; SPARTANBURG. Morse et al. (1980) as *H. munda*: AIKEN (Upper Three Runs Cr). Smock et al. (1985) as *H. munda*: RICHLAND (Cedar Cr). Morse et al. (1989) as *H. munda*: OCONEE (Thompson R). Daniels and Morse (1992): PICKENS (Wildcat Cr).

*New data.*—AIKEN: Mill Cr, Savannah R Plant, SRP E-2, VIII-08-1977, Herlong/Prichard [CLEM]; Upper Three Runs, SRPRd CVII-26-1984, Kondratieff (A) [PERC]. ANDERSON: Pendleton Swamp, 3 and 20 Cr at Cuffie Cr nr bridge, I-17-2001, Vshivkova [CLEM]; Simpson Stn VI-04-1975, Lee (A) [CLEM]. BAMBERG: Little Slakahatchie R at SR 84, VI-21-1995 [DHEC]. BARNWELL: Meyers Br, 600 m upstream SRPRd A, VI-07-, VII-10-, VIII-22-1984, Kondratieff (A) [PERC]. BERKELEY: Fore Holes Swamp, Mellards Lake, VII-29-1980, Brunswig [CLEM]; Lake Moultrie, II-08-1979 [INHS]. COLLETON: Little Salkahatchie R at SC 64, IV-18-1985 [DHEC]. DORCHESTER: Four Holes Swamp, Mellards Lake, VII-29-1980, Brunswig [CLEM]. FLORENCE: lake, VII-21-1981, Simpson [CLEM]. HAMPTON: Cossawatchie R at US 601, VIII-24-1988 [DHEC]. MCCORMICK: Long Cane Cr at SR 117, VIII-01-1990 [DHEC]. OCONEE: Cane Cr, at Rd 134, VI-07-2001, Forsyth [CLEM]; Coneross Cr, IX-30-1978, Burne [CLEM]; Crane Cr, Tamassee Rd, II-28-1991, Kartalia [CLEM];

Lake Isaqueena, IX-04-1965, Sanjawongse [CLEM]; Little R at old SC Rt 11, VIII-27-1982, Missimer et al. & IX-08-1980, Holzenthal, & IX-03-1975, Hudson, & Little R at Rd 45, IV-10-, VI-07-1974, Forsyth [CLEM]; Thompson R, at NC border, IX-14,15-1987, Hoffman/English, & VII-20,21-1987, Hamilton/Hoffman (A) [CLEM]. SALUDA: Harrison's Br 75 m upstream Amick's Poultry wastewater discharge, IX-13-1984 [DHEC]. SPARTANBURG: Jimmies Cr at S-42-430, XII-11-1984 [DHEC]. YORK: Bullocks Cr at SR 40, VII-05-1995 [DHEC].

***Litobrancha recurvata*** (Morgan), 1913

*New data.*—OCONEE: E Fork Chattooga R, Walhalla Fish Hatchery, V-07-1991, Morse, & III-25-1993, Jur, & E Fork Chattooga R, upstream Chattooga R confluence, VIII-05-1997, Spichiger [CLEM]; Crane Cr, Cherokee Rd, V-23-, VI-27-1997, & Crane Cr, Rt 107, III-25-, V-09-1997, Spichiger [CLEM]. PICKENS: Estatoe Cr, Laurel Valley Rd, IV-17-1997, Spichiger [CLEM].

HEPTAGENIIDAE

***Cinygmula subaequalis*** (Banks), 1914

*New data.*—GREENVILLE: Matthews Cr, Asbury Youth Camp, IV-10,25-1997, & Matthews Cr, United Methodist Youth Camp, IV-11-1997, & Matthews Cr, Watson Heritage Preserve, V-05-1997, Spichiger [CLEM]. PICKENS: Cane Cr, Cleo Chapman Hwy, IV-04-, V-01-1997, & Cane Cr, Horse Pasture Rd, III-13-1997, Spichiger [CLEM]; Estatoe Cr, Laurel Valley Rd, III-27-, IV-17-1997, Spichiger [CLEM]; Wildcat Cr, Clemson U For, II-14-1997, Spichiger [CLEM].

***Epeorus dispar*** (Traver), 1933

*Previous data.*—Traver (1935): GREENVILLE (Greenville). Morse et al. (1989): OCONEE (Thompson R). Daniels and Morse (1992): PICKENS (Wildcat Cr).

*New data.*—ANDERSON: 3 and 20 Cr at Cuffie Cr, I-17-1991, Kartalia [CLEM]. GREENVILLE: Matthews Cr, Asbury Youth Camp, V-13-, IX-12-1997, & Matthews Cr, Watson Heritage Preserve, VI-04-, VI-24-1997, & Matthews Cr, Happy Acres Rd, V-05-1997, Spichiger [CLEM]; trib Middle Saluda R at US 276, VII-12-2004 [DHEC]. OCONEE: E Fork Chattooga R, Rt 107, V-19-, VIII-05-1997, & E Fork Chattooga R, upstream Chattooga confluence, VIII-05-1997, Spichiger [CLEM]; Coley Cr, 484.4, XI-17-1987, I-09,19-, V-12-1988, JJH [CLEM]; Crane Cr, Cherokee Rd, III-25-, IV-15-, V-23-1997, & Crane Cr, Rt 107, V-09,23-, VI-27-, VII-29-1997, Spichiger, & Crane Cr, Tamassee Rd, 3.8 mi E SC 107, X-14-1980, & II-06-1987, Morse [CLEM]; Howard Cr, I-1974, Boyne [CLEM]; Limberpole Cr at SC Rt 413, VI-27-1988, Yang/Morse [CLEM]; Townes Cr, X-14-1980, Kelley [CLEM]; N Toxaway Cr, X-22-1982, Robertson [CLEM]. PICKENS: Cane Cr, Cleo Chapman Hwy, V-21-1997, & Cane Cr, Horse Pasture Rd, V-16-1997, & Estatoe Cr, Laurel Valley Rd, V-13-, VI-09-, VII-15,19-, IX-19-1997, S Spichiger [CLEM]; Todd's Cr, I-10-1991, DeLong [CLEM].

***Epeorus fragilis*** (Morgan), 1911

*New data.*—OCONEE: Crane Cr, Cherokee Rd, V-09-1997, Spichiger [CLEM]. PICKENS: Cane Cr, Horse Pasture Rd, IV-04-1997, & Estatoe Cr, Laurel Valley Rd, III-27-, IV-17-1997, Spichiger [CLEM].



***Epeorus pleuralis*** (Banks), 1910

*New data.*—GREENVILLE: Matthews Cr, Asbury Youth Camp, IV-25-, V-21-1997, & Matthews Cr, Watson Heritage Preserve, V-07-1997, Spichiger [CLEM]. OCONEE: E Fork Chattooga R, Rt 107, IV-01,22-1997, & E Fork Chattooga R, upstream Chattooga R confluence, IV-01,22-1997, Spichiger [CLEM]; Coley Cr, , I-19-, III-24-, V-12-1997, JHH [CLEM]; Crane Cr, III-02-1988, McClure, & Crane Cr at Tamassee Rd, 3.8 mi E SC107, II-06-1987, Morse, & II-28-1991, Mitchell, DeLong [CLEM]; Crane Cr, Cherokee Rd, III-25-, IV-15-, V-23-1997, Spichiger [CLEM]; Mill Cr, I-14,19-1988, JHH [CLEM]; pool at foot of waterfall on rd to Chattooga R, 10 mi S jct Rt 104, VI-20-1988, Watson [CLEM]; Thompson R, III-24-1988, JHH [CLEM]. PICKENS: Cane Cr, Cleo Chapman Hwy, III-13-, IV-04-1997, & Estatoe Cr, Laurel Valley Rd, V-13-, VI-09, V-13-1997, (L only) Spichiger [CLEM]; Rocky Bottom Cr at US 178, VIII-24-1987 [DHEC].

***Epeorus subpallidus*** (Traver), 1937

*New data.*—PICKENS: Estatoe Cr, Laurel Valley Rd, VIII-19-1997, Spichiger [CLEM].

***Epeorus vitreus*** (Walker), 1853

*Previous data.*—Carlson (1971, unpublished) as *E. rubidus*: OCONEE: East Fork Chattooga R at Walhalla St Fish Hatch, & Chattooga R at Hwy 28, & Long Cr at Long Creek, & Chauga R at Whetstone, & Cevil Hole Cr at Brasstown, & Burgess Cr at Salem, 1968; PICKENS: Wildcat Cr, .75 mi from mouth, 790', & Longbranch Cr .25 mi S Lake Issaquenna, & Eastatoe Cr at Rocky Bottom, & Carrick Cr at Table Rock St Prk, 1968. Carlson (1973): PICKENS (Wildcat Cr). Morse et al. (1989): OCONEE (Coley Cr, Thompson R). Daniels and Morse (1992) as *E. rubidus*: PICKENS (Wildcat Cr). Berner (1977) as *E. rubidus*: PICKENS.

*New data.*—GREENVILLE: Matthews Cr, United Methodist Camp, V-21-1997, (L & A), & Matthews Cr, Asbury Youth Camp, IV-10,25-, VI-09-, VII-18-1997, Spichiger [CLEM]. OCONEE: Chattooga R, at SR 28, VII-08-1996, Smith, & Chattooga R, 0.6 mi N Burrels Ford, IV-22-1997, & E Fork Chattooga R, upstream Chattooga confluence, IV-01-, V-19-, VI-11-, VII-08-, VIII-05-1997, & E Fork Chattooga R, Rt 107, IV-22-, V-19-, VI-16-, VIII-05-1997, Spichiger, & E Fork Chattooga R, US Fish Hatchery, V-29-1981, Hamilton [CLEM]; Crane Cr, Cherokee Rd, IV-15-, V-09,23-, VI-27-1997, Spichiger, & Crane Cr, Tamassee Rd, 3.8 mi E SC 107, II-13-1987, Mellichamp [CLEM]; Howard Cr, I-1974, Boyne [CLEM]. PICKENS: Cane Cr, Cleo Chapman Hwy, III-13-, IV-04-, V-01-, VI-19-, VII-18-1997, Spichiger [CLEM]; Estatoe Cr, Roy Jones Hwy, III-22-, IV-17-, V-13-, VI-19-, VII-15-, VIII-19-1997, & Estatoe Cr, Laurel Valley Rd, IV-17-, VI-09-, VII-15-, IX-19-1997, Spichiger [CLEM].

***Heptagenia dolosa*** Traver, 1935

*Previous data.*—Berner (1977): GREENVILLE.

***Heptagenia flavescens*** (Walsh), 1862

*Previous data.*—Berner (1977): ORANGEBURG. Morse et al. (1980): AIKEN (Upper Three Runs Cr).

*New data.*—AIKEN: Upper Three Runs, SRP Rd C, IV-17-1984 23-1984,

Kondratieff (L & A), & IV-23-, X-21-1984 Kondratieff (A) [PERC]; Savannah R, at SC 28, 1.6 mi NNW Beach Island, VIII-17-1978 [CLEM]. BERKELEY: Santee R at SC 41/US 17A, NE Jamestown, VII-05-1978 [CLEM]. CHESTER: Broad R at SC 72/215/121, 3 mi E Carlisle, VIII-16-1987 [CLEM]. COLLETON: Edisto R at SC 61, Givhans Ferry St Prk, VII-07-1978 [CLEM]. DARLINGTON: Black Cr at S-16-35, 5.5 mi SE Darlington, & Pee Dee R, at SC 34, 11 mi NE Darlington, VI-28-1978 [CLEM]. DORCHESTER: Edisto R at SC 61, Givhans Ferry St Prk, VII-07-1978 [CLEM]. GEORGETOWN: Pee Dee R, at Us 701, 2.75 mi NE Yanhanna, VII-05-1978 [CLEM]. GREENWOOD: Saluda R at US 25, bypass, 1.5 mi ESE Ware Shoals, VIII-08-1978 {CLEM}. HORRY: Pee Dee R, at Us 701, 2.75 mi NE Yanhanna, VII-05-1978 [CLEM]. LAURENS: Saluda R at US 25, bypass, 1.5 mi ESE Ware Shoals, VIII-08-1978 [CLEM]. MARLBORO: Pee Dee R, at SC 34, 11 mi NE Darlington, VI-28-1978 [CLEM]. PICKENS: Rocky Bottom Cr at US 178, VIII-24-1987 [DHEC]. RICHLAND: Wateree R at US 76 & 378, VI-30-1978 [CLEM]. SUMTER: Wateree R at US 76 & 378, VI-30-1978 [CLEM]. UNION: Broad R at SC 72/215/121, 3 mi E Carlisle, VIII-16-1987 [CLEM]. WILLIAMSBURG: Santee R at SC 41/US 17A, NE Jamestown, VII-05-1978 [CLEM].

*Remarks.*—Previous material identified as *H. pulla* (Clemens) from SC has proven to be a misidentification of *H. flavescens* (see also remarks under *H. pulla*, below).

#### ***Heptagenia marginalis*** Banks, 1910

*Previous data.*—Berner (1977): EDGEFIELD; GREENVILLE; OCONEE. Morse et al. (1989): OCONEE (Coley Cr, Thompson R).

*New data.*—CHESTERFIELD: Lynches R at Rt 265, VI-07-1985, Kondratieff (A) [PERC] & IV-27-1993 (L) [DHEC]. LANCASTER: Lynches R at Rt 265, VI-07-1985, Kondratieff (A) [PERC]. OCONEE: Chattooga R at 28, IX-13-2000, Morse, & Chattooga R at 290, VIII-10-2002, BWM [CLEM]; E Fork Chattooga R, at Walhalla Fish Hatchery, VIII-12-2002, Carrol [CLEM] Little R, at old SC Rt 11, VIII-27-1982, Missimer [CLEM]. PICKENS: Cane Cr, Cleo Chapman Hwy, III-13-, IX-05-1997, & Estatoe Cr, Roy Jones Hwy, VII-15-, IX-19-1997, Spichiger [CLEM].

#### ***Heptagenia pulla*** (Clemens), 1913

*Previous data.*—Traver (1935) as *H. julia*: GREENVILLE (Greenville). Morse et al. (1989) as *H. julia*: OCONEE (Coley Cr, Thompson R).

*New data.*—GREENVILLE: Matthews Cr, Watson Heritage Preserve, VIII-29-1997, Spichiger [CLEM]. OCONEE: E Fork Chattooga R, Rt 107, IV-22-, VIII-05-1997, & E Fork Chattooga R, upstream Chattooga confluence, VI-16-, VII-08-, VIII-05-1997, Spichiger [CLEM]; Howard Cr, I-1974, Boyne [CLEM]; Little R at old SC Rt 11, IX-09-1980, Kelley [CLEM]. PICKENS: Estatoe Cr, Laurel Valley Rd, VII-15-1997, Spichiger [CLEM]; Rocky Bottom Cr at US178, VIII-24-1987 [DHEC].

*Remarks.*—Materials previously assigned to *H. Julia* Traver in SC are referable to *H. pulla*.

***Heptagenia townesi*** Traver, 1935

*Previous data.*—Traver (1935): GREENVILLE (Greenville). Morse et al. (1989): OCONEE (Coley Cr).

*New data.*—GREENVILLE: Matthews Cr, Watson Heritage Preserve, VI-04-1997, Spichiger [CLEM]. OCONEE: Crane Cr, Cherokee Rd, V-23-, VI-27-1997, Spichiger [CLEM]. PICKENS: Estatoe Cr, Laurel Valley Rd, IX-19-1997, Spichiger [CLEM].

***Leucrocuta aphrodite*** (McDunnough), 1926

*Previous data.*—Carlson (1971, unpublished): OCONEE: chattooga R at Hwy 28, & Long Cr at Long Creek, & Chauga R at Whetstone, and Devil Hole Cr at Brasstown, & Burgess Cr at Salem, 1968; PICKENS: Wildcat Cr, .75 mi from mouth, 790', & Longbranch Cr .25 mi S Lake Issaqueena, & South Saluda R at Cleveland, 1968. Daniels and Morse (1992): PICKENS (Wildcat Cr).

*New data.*—GREENVILLE: Matthews Cr, Asbury Youth Camp, V-21-, VI-19-1997, Spichiger [CLEM]. PICKENS: Cane Cr, Cleo Chapman Hwy, VI-19-, VII-18-, IX-05-1997, & Estatoe Cr, Roy Jones Hwy, IV-17-, IX-19-1997, & Estatoe Cr, Laurel Valley Rd, IX-19-1997, Spichiger [CLEM].

***Leucrocuta hebe*** (McDunnough), 1924

*New data.*—GREENVILLE: Matthews Cr, Asbury Youth Camp, VII-18-1997, Spichiger [CLEM]. PICKENS: Wildcat Cr, V-02-, VIII-22-1968, Carlson (A) [PERC]; Cane Cr, Cleo Chapman Hwy, IX-05-, X-10-1997, & Estatoe Cr, Roy Jones Hwy, VII-15-, IX-19-1997, Spichiger [CLEM].

***Leucrocuta juno*** (McDunnough), 1924

*Previous data.*—Morse et al. (1989): OCONEE (Coley Cr, Thompson R).

***Leucrocuta maculipennis*** (Walsh), 1863

*Previous data.*—Berner (1977): CHESTERFILED.

*New data.*—GREENVILLE: Matthews Cr, Asbury Youth Camp, IX-12-1997, Spichiger [CLEM]. OCONEE: E Fork Chattooga R, upstream confluence Chattooga R, V-19-, VII-08-1997, Spichiger [CLEM].

***Leucrocuta minerva*** (McDunnough), 1924

*New data.*—MCCORMICK: Cedar Spring Cr, Rt 138, V-14-1984, Kondratieff (A) [PERC].

***Leucrocuta thetis*** (Traver), 1935

*Previous data.*—Berner (1977): OCONEE.

*New data.*—GREENVILLE: Matthews Cr, Asbury Youth Camp, VII-18-1997, Spichiger [CLEM]. PICKENS: Cane Cr, Horse Pasture Rd, IV-04-, V-16-, VI-11-, IX-15-1997, & Estatoe Cr, Laurel Valley Rd, VI-09-1997, Spichiger [CLEM].

***Maccaffertium carlsoni*** (Lewis), 1974

*Previous data.*—Lewis (1974): ANDERSON (Trib Eighteen Mile Cr); PICKENS (Wildcat Cr). Bednarik and McCafferty (1979): ANDERSON (Eighteen Mile Cr); PICKENS (Wildcat Cr). Daniels and Morse (1992): PICKENS (Wildcat Cr).

*New data.*—ANDERSON: W trib Watermelon Cr, 0.25 mi N S-4-148, III-17-1979, Weaver, Taylor [CLEM]. FLORENCE: unnamed creek, VIII-1981, Simpson [CLEM]. GREENVILLE: Matthews Cr, Happy Acres Rd, V-05-1997, & Matthews Cr, Watson Heritage Preserve, VIII-29-1997, Spichiger [CLEM]. LAURENS: Enoree R at SC 418, VII-30-2003 [DHEC]. OCONEE: unnamed creek, 3<sup>rd</sup> bridge on SC 59, 3 mi NW Walhalla, II-01-1969, Carlson [PERC]; Crane Cr, Cherokee Rd, IV-15-1997, & Crane Cr, Rt 107, III-25-, V-09-1997, Spichiger [CLEM]; Brasstown Cr at SR 48, VIII-02-2000 [SHEC]. PICKENS: Golden Cr at Golden Cr Rd, VIII-16-2000 & Rocky Bottom Cr at US178, VIII-24-1987 & Shoals CR at Sc 140, VIII-22-1000 [DHEC]. SPARTANBURG: trib Princess Cr upstream abandoned school constr site, V-10-1996 & Page Cr 100 m upstream Landrum POTW, V-16-1996 & Obed Cr at SC 11, VII-18-2003 [DHEC].

***Maccaffertium exiguum*** (Traver), 1933

*Previous data.*—Berner (1977): AIKEN; KERSHAW; NEWBERRY.

*New data.*—ABBEVILLE: Little R at SR 32, VIII-30-2000 [DHEC]. AIKEN: Little Horse Cr at SR 104, VI-20-1996 & McTier Cr at SR 209, VI-19-1997 [DHEC]. ANDERSON: Big Brushy Cr at SR 143 & Hen Coop Cr at SR 244, VIII-24-1996 [DHEC]. BARNWELL: Toby Cr at SR 29, VII-06-2000 [DHEC]. CHEROKEE: Buffalo Cr at Sc 198, VIII-11-1999 & Thickety Cr at SC 211, VIII-10-1999 [DHEC]. CHESTER: fishing Cr at SR 77, VI-20-2002 [DHEC]. DARLINGTON: Boggy Swamp at SR 50, VIII-13-2002 [DHEC]. FAIRFIELD: Little R at S-20-60, VI-14-1999 [DHEC]. FLORENCE: Black Cr at SC 327, IX-01-1998 [DHEC]. GREENVILLE: Reedy Cr at Sec Rd 68, VIII-17-2001 [DHEC]. LANCASTER: Little Lynches R at SC 157, VII-29-2003 [DHEC]. LAURENS: Enoree R at S-30-75 & Rabon Cr at Sec Rd 54, VII-17-1997 [DHEC]. MCCORMICK: Little R at SR 19, VIII-07-2000 & Long Cane Cr at SR 117, VII-08-1996 [DHEC]. NEWBERRY: Duncan Cr at US 176, VII-01-1999 [DHEC]. OCONEE: E Fork Chattooga R, US Fish Hatchery, III-13-1987, Pinson [CLEM]. ORANGEBURG: N fork Edisto R at SR 39, VII-01-199 [DHEC]. RICHLAND: Wateree R 1.6 mi upstream confl Congaree, IX-14-2001 [DHEC]. SPARTANBURG: Lawson's Fork Cr at SR 108, VIII-09-1999 & South Tyger R at 293, VII-24-1995 [DHEC]. UNION: Fairforest Cr at S-44-16, VII-01-1999 [DHEC].

***Maccaffertium ithaca*** (Clemens and Leonard), 1924

*Previous data.*—Traver (1935): GREENVILLE (Greenville); PICKENS (Clemson)

*New data.*—ANDERSON: Saluda R at US 81, VIII-29-2000 [DHEC]. GREENVILLE: Gilder Cr upstream Sullivan Subdivision, IX-11-2001 [DHEC]. PICKENS: Estatoe Cr, Laurel Valley Rd, VI-09-1997, Spichiger [CLEM].

***Maccaffertium lenati*** (McCafferty), 1990

*New data.*—ANDERSON: W trib Watermelon Cr, Broadway Watershed, 0.25 mi N S-4-148, VI-25-1979, Weaver/Taylor [CLEM]. PICKENS: Lake Isaqueena, Clemson U For, II-20-1987, Pinson [CLEM].

***Maccaffertium mediopunctatum*** (McDunnough), 1926

*Previous data.*—Berner (1977) as *Stenonema nepotellum*: LEXINGTON.

*New data.*—GREENVILLE: trib Middle Saluda R at US 276, VII-12-2004 [DHEC].

***Maccaffertium meririvulatum*** (Carle and Lewis), 1978

*New data.*—GREENVILLE: Matthews Cr, Watson Heritage Preserve, V-05-07-, VI-04-1997, Spichiger [CLEM]. OCONEE: Chattooga R, 0.6 mi N Burrells Ford, IV-22-1997, & E Fork Chattooga R, Rt 107, VII-08-, VIII-05-1997, & Crane Cr, Rt 107, IV-15-, V-09-, VI-27-, IX-16-1997, Spichiger [CLEM]; Brasstown Cr at SR 48, VIII-28-1996 [DHEC]. PICKENS: Cane Cr, Horse Pasture Rd, IV-04-, V-16-, VI-11-, VII-01-, IX-05-1997, Spichiger [CLEM].

***Maccaffertium mexicanum*** (Ulmer), 1920

*Previous data.*—Carlson (1971, unpublished) as *Stenonema integrum*: PICKENS: Wildcat Cr, .75 mi from mouth, 790', 1968. Daniels and Morse (1992): PICKENS (Wildcat Cr). Lewis (1974) as *Stenonema integrum*: PICKENS (Clemson). Berner (1977): AIKEN; ANDERSON; GREENVILLE; NEWBERRY; OCONEE. Bednarik and McCafferty (1979) as *Stenonema integrum*: CHEROKEE (Secondary Rd); LAURENS (Enoree R); PICKENS (Clemson).

*New data.*—AIKEN: Hollow Cr at SR 5, VI-20-1996 & Sage Mill Br at Sage Mill Country Club, X-04-2000 [DHEC]. CHEROKEE: Thickety Cr at SR 104, VII-10-2001 [DHEC]. COLLETON: Chessey Cr at SR 45 & Fuller Swamp CR at US 17A & Ireland Cr at SR 116, III-13-1996 [DHEC]. DARLINGTON: Pee Dee R at US401, II-02-1999 [DHEC]. FAIRFIELD: Throntree Cr at SR 258, VIII-28-1998 [DHEC]. HORRY: Whiteoak Swamp at SR 97, II-19-2003 [DHEC]. JASPER: Cypress Cr at SC 3, III-14-1996 [DHEC]. LEE: Lynches R at US 401, IX-01-1998 [DHEC]. MCCORMICK: Stevens Cr at SC 23, VII-03-1996 [DHEC]. NEWBERRY: Little R at SR 48, VII-08-1997 [DHEC]. OCONEE: Chattooga R, at Rt 28, VIII-07-2002, Butra [CLEM]. ORANGEBURG: Edisto R at US 78, IX-06-2001 [DHEC]. RICHLAND: Wateree R at 1.6 mi upstream confl Congaree, IX-14-2001 [DHEC].

***Maccaffertium modestum*** (Banks), 1910

*Previous data.*—Traver (1935) as *Stenonema annexum*: BARNWELL (Barnwell); GREENVILLE (Greenville). Traver (1935) as *Stenonema rubrum* and *S. varium*: GREENVILLE. Berner (1977) as *Stenonema annexum*: EDGEFILED; LEXINGTON. Berner (1977) as *Stenonema rubrum*: LAURENS. Bednarik and McCafferty (1979): FLORENCE (Lynch R). Smock et al. (1985): RICHLAND (Cedar Cr). Morse et al. (1989): OCONEE (Coley Cr, Thompson R).

*New data.*—ABBEVILLE: Calhoun Cr at Sc 28, VII-07-2001 [DHEC]. AIKEN: Shaws Cr at SR 26, VII-25-2001 [DHEC]. ALLENDALE: Jackson Cr at S-18, II-16—2000 [DHEC]. ANDERSON: Rock Cr, 0.75 mi upstream S-4-63,

III-14,17-1979, & Watermelon Cr, W Trib, S S-4-63, III-18-1979, Weaver/Taylor [CLEM]. BAMBERG: Savannah Cr at SR 87, II-16-2000 [DHEC]. BARNWELL: Meyers Br 600 m upstream SRP Rd A, IV-16-, VIII-22-1984, Meyers Br, SREL Boardwalk, III-19-1984, & Steel Cr nr confluence Meyers Br, II-29-, IX-24-1984, & Steel Cr Swamp, III-06,14-, V-03-1984, Kondratieff (A) [PERC]. CALHOUN: Sandy Run Cr at US 176, VII-20-2001 [DHEC]. CHEROKEE: Thickety Cr at SC 211, VIII-10-1999 [DHEC]. CHESTER: Sandy R at SC 215, VI-14-1999 [DHEC]. CHESTERFIELD: Little Fork Cr, at Rt 39, III-28-1991, Heyn et al [CLEM]. CLAREDON: Spring Grove Cr at SR 26, VI-27-2002 [DHEC]. COLLETON: Ireland Cr at SR 116, III-13-1996 & Willow Cr at SR 42, II-19-2000 [DHEC]. DARLINGTON: Pee Dee R at US 401, II-02-1999 [DHEC]. DORCHESTER: Indian Fields Cr at US 78, III-05-1997 [DHEC]. EDGEFIELD: Cheves Cr at SR 34, VII-20-2000 [DHEC]. FAIRFIELD: Jackson Cr at S-20-54, VIII-08-2001 [DHEC]. FLORENCE: Black Cr at SC 327, IX-01-1998 [DHEC]. GREENVILLE: Matthews Cr, Asbury Youth Camp, IV-25-1997, Spichiger {CLEM}. GREENWOOD: Rocky Cr at SC 72 by-pass on SC 254, VII-17-2003 [DHEC]. HAMP- TON: Sanders Br at S-50, II-08-2000 [DHEC]. JASPER: Cypress Cr at US 321, II-08-2000 [DHEC]. KERSHAW: Beaver Cr at SR 13, VII-16-2002 [DHEC]. LANCASTER: Sugar Cr at SC 160E, VIII-23-2000 [DHEC]. LAURENS: Beaverdam Cr at S-30-97, VII-21-1999 [DHEC]. LEE: Scape Ore Sewamp at SC 84, IX-01-1998 [DHEC]. LEXINGTON: Six Mile Cr at US 21, VII-02-1997 [DHEC]. MCCORMICK: Steeve Cr, Hamilton Branch St Prk, V-25-1987, Pinson {CLEM}. NEWBERRY: Indian Cr at US 176, VII-18-1995 [DHEC]. OCONEE: Chattooga R, Hwy 218 at Station Line, V-24-1993, Kondratieff (A) [CSU]; Chattooga R at 28, IX-13-2000, Morse [CLEM]; E Fork Chattooga R, Rt 107, V-19-1997, & E Fork Chattooga R, upstream confluence Chattooga R, VII-08-1997, Spichiger [CLEM]; Crane Cr, at Tamassee Rd, 3.8 mi E SC 107, II-06-1987, Morse [CLEM]; Little R at old Hwy 11 bridge, IX-03-1975, Hudson [CLEM]. ORANGEBURG: N Fork Edisto R at SR 39, VIII-29-2001 [DHEC]. PICKENS: Beaver Lake, VIII-30-, IX-06-1978, Burne [CLEM]; Can Cr, Cleo Chapman Hwy, III-11-, IV-04-, IX-05-1997, & Cane Cr, Horse Pasture Rd, III-13-1997, & Eatatoo Cr, Roy Jones Hwy, III-22-, IV-17-, V-13-, VI-09- (A & L), IX 19-1997, & Eatatoo Cr, Laurel Valley Rd, IV-17-1997, Spichiger [CLEM]; Lake Issaqueena, Clemson U For, II-20-1987, Mellichamp, Pinson [CLEM]; Six Mile Cr, at Rt 291, I-23-1987, Pinson, & IV-04-1991, DeLong [CELM]; Willard's Pond, Clemson Dairy, I-30-1987, Pinson [CLEM]. RICHLAND: Crane Cr at US 321, VIII-20-1999 [DHEC]. SALUDA: Cloud Cr at US 178, VII-09-1997 [DHEC]. SPARTANBURG: South Tyger R at 293, VIII-19-1999 [DHEC]. SUMTER: Brunson Swamp Cr at SR 251, VII-23-2003 [DHEC]. UNION: Bowns Cr at S-44-86, VII-07-1999 [DHEC]. YORK: Clark Cr at SR 63, VI-15-1999 [DHEC].

***Maccaffertium pudicum*** (Hagen), 1861

*Previous data.*—Traver (1935): GREENVILLE (Greenville); PICKENS (Clemson). Carlson (1971, unpublished): OCONEE: East Fork Chattooga R at Walhalla St Fish Hatch, & Chattooga R at Hwy 28, & Long Cr at Long Creek, & Chauga R at Whetstone, & Devil Hole Cr at Brasstown, & Burgess Cr at Salem, 1968; PICKENS: Wildcat Cr, .75 mi from mouth, 790', & Longbranch Cr .25 mi S Lake Issaqueena, & Lake Issaqueena at mouth of Six Mile Cr, & Eastatoo Cr at Rocky Bottom, & Carrick Cr at Table Rock St Prk, 1968. Carlson (1973):



PICKENS (Wildcat Cr). Berner (1977): OCONEE. Bednarik and McCafferty (1979): OCONEE (Bearcamp Cr, Wright Cr). Morse et al. (1989): OCONEE (Coley Cr, Thompson R). Daniels and Morse (1992): PICKENS (Wildcat Cr).

*New data.*—ANDERSON: Pendleton Swamp, 3 and 20 Cr, at Cuffie Cr, I-15-1997, Morse [CLEM]; Big Cr at SR 116, VIII-17-1997 [DHEC]. CHESTER: McMillan Br at SC 9, II-04-2002 [DHEC]. GREENVILLE: Matthews Cr, Asbury Youth Camp, IV-25-, VI-19-, IX-12-1997, & Matthews Cr, Watson Heritage Preserve, V-07-, VI-04,24-1997, & Matthews Cr, United Methodist Camp, V-21-1997, & Matthews Cr, Happy Acres Rd, V-05-1997, Spichiger [CLEM]; Middle Saluda R at SR 96, VIII-21-2001 [DHEC]. NEWBERRY: Cannon Cr at Oxnew Rd, IX-03-2003 [DHEC]. OCONEE: E Fork Chattooga R, Rt 107, IV-01,22-, V-19-, VI-16-, VII-08-, VIII-05-, X-03-1997, & E Fork Chattooga R upstream Chattooga confluence, IV-01,22-, V-19-, VI-16-, VII-08-, X-03-1997, Spichiger [CLEM]; Crane Cr, Cherokee Rd, III-25-, IV-15-, V-09,23-, VI-27-, VII-22-1997, & Crane Cr, Rt 107, IV-15-, IX-16-1997, Spichiger, & Crane Cr, at Tamassee Rd, 3.8 mi E SC 107, II-06-1981 Morse, & II-06-1987, D Pinson [CLEM]. PICKENS: Cane Cr, Horse Pasture Rd, IV-04-, V-16-1997, & Cane Cr, Cleo Chapman Hwy, III-13-, IV-04-, V-01,27-, VII-18-1997, Spichiger [CLEM]; Estatoe Cr, Laurel Valley Rd, III-27-, IV-17-, V-13-, VII-15-1997, Spichiger [CLEM]. SPARTANBURG: trib South Tyger R at Rogers Mill lift stat, XII-02-2003 [DHEC].

***Maccaffertium pulchellum*** (Walsh), 1862

*New data.*—ALLENDALE: Lower Three Runs Cr, Rt 66, III-27-1985, Kondratieff (A) [PERC].

***Maccaffertium sinclairi*** (Lewis), 1979

*New data.*—OCONEE: E fork Chattooga R, US Fish Hatchery, III-13-1987, Mellichamp [CLEM]; Crane Cr, at Tamassee Rd, II-06-1987, Heinsohn [CLEM]; Toxaway R, X-20-1978, Lanning [CLEM].

***Maccaffertium smithae*** (Traver), 1937

*Previous data.*—Berner (1977): AIKEN. Morse et al. (1980): AIKEN (Upper Three Runs Cr).

*New data.*—AIKEN: Pen Br, III-15-1996, & Meyers Br, VI-22-1996, Parker et al [CLEM]; Upper Three Runs Cr at SRP 8-1, V-17-1977 Herlong, Prichard (A) [CLEM]. ANDERSON: Watermelon Cr, 0.5 mi S S-4-63, III-14-1979, & 0.25 mi N S-4-63, V-18-1979, & 1 mi N S-4-63, & Browns Cr, (E Rock Cr), N S-4-147, IV-11-1979, Weaver/Taylor [CLEM]. BARNWELL: Mill Cr, Savannah R Plant, I-15-, II-12-1977, Herlong/Prichard [CLEM]. CHESTERFIELD: Pee Dee R, ca 300 m upstream US Hwy 1 bridge nr Chersaw, 1999, Smith [CPL]. DARLINGTON: Pee Dee R, ca 800 m downstream of Hwy 15/401 bridge nr Society Hill, 1999, Smith [CPL]. FLORENCE: Pee Dee R, ca 800 m upstream of Hwy 76/301 bridge nr Florence, 1999, Smith [CPL]. LEXINGTON: W Fork Hunt Br (incl falls), Peachtree Rock Preserve, II-05-1995, Prather, Miller, & V-07-, VI-20-, VIII-19-, X-23-1995, Prather, et al [CLEM]. MARION: Pee Dee R, ca 800 m upstream of Hwy 76/301 bridge nr Florence, 1999, Smith [CPL]. MARLBORO: Pee Dee R, ca 300 m upstream US Hwy 1 bridge nr Chersaw, & Pee Dee R, ca 800 m downstream of Hwy 15/401 bridge nr Society Hill, 1999, Smith [CPL]. OCONEE: Crane Cr, at Tamassee Rd, 3.8 mi E SC 107, II-06-1987, Morse

[CLEM].

***Maccaffertium terminatum*** (Walsh), 1862

*Previous data.*—Bednarik and McCafferty (1979): GREENVILLE (Greenville). Daniels and Morse (1992): PICKENS (Wildcat Cr).

*New data.*—ABBEVILLE: Big Curly Tail Cr at US Fo Rd 509, VII-09-1996 [DHEC]. AIKEN: McTier Cr at SR 209, VII-25-2001 [DHEC]. ANDERSON: 3 and 20 Cr, at Cuffie Cr, I-20-1989, Morse [CLEM]. CHEROKEE: Buffalo Cr at SC 198 & Thickety Cr at SC 18, VIII-25-1995 & Ross CR at SR 63, VII-18-2003 [DHEC]. CHESTER: Fishing Cr at SR 77, VI-20-2002 [DHEC]. CHESTERFILED; Lynches R, Rt 265, VI-17-1985, Kondratieff (A) [PERC]. GREENVILLE: Matthews Cr at SR 90, VIII=27-1997 & Vaughn Cr, VIII-23-1998 [DHEC]. LANCASTER: Lynches R, Rt 265, VI-17-1985, Kondratieff (A) [PERC]. LAURENS: Enoree R at SC 418, VII-30-2003 [DHEC]. LEE: Lynches R at US 401 [DHEC]. MCCORMICK: Cedar Springs Cr, Rt 138, V-14-1984, Kondratieff (A) [PERC]. NEWBERRY: New R at SR 48, VIII-02-1999 & Duncan Cr at US 176, VII-01-1999 [DHEC]. OCONEE: Cane Cr, at Tamassee Rd, 3.8 mi E SC 107, [CLEM]; Coneross Cr, IX-30-1978, Burke [CLEM]. ORANGEBURG: North Edisto R at SR 39, VIII-29-2001 [DHEC]. SPARTANBURG: Middel Tyger R at S-42-64, VIII-05-1999 & Spivey Cr at SR 209, VIII-24-1999 [DHEC].

***Maccaffertium vicarium*** (Walker), 1853

*New data.*—ANDERSON: 3 and 20 Cr, at Cuffie Cr, I-16-1987, Mellichamp [CLEM]. OCONEE: Howard Cr, I-1974, Boyne [CLEM].

***Macdunnoa brunnea*** Flowers, 1982

*Previous data.*—Flowers (1982): ANDERSON; LAURENS (Dunkan Cr).

*New data.*—OCONEE: E Fork Chattooga R, Walhalla Fish Hatchery, III-25-1993, Jur [CLEM]. UNION: Fairforest Cr at S-44-16, VII-01-1999 [DHEC].

***Rhithrogena amica*** Traver, 1935

*New data.*—OCONEE: Chattooga R at Hwy 28, IV-05-1995 Parker [CLEM]; E Fork Chattooga R, upstream Chattooga confluence, V-19-1997, Spichiger [CLEM].

***Rhithrogena fasciata*** Traver, 1933

*Previous data.*—Carlson (1971, unpublished): OCONEE: Burgess Cr at Salem, 1968.

***Rhithrogena fuscifrons*** Traver, 1933

*New data.*—GREENVILLE: Matthews Cr, Watson Heritage Preserve, VIII-29-1997, Spichiger [CLEM]. OCONEE: E Fork Chattooga R, Rt 107 I km S NC border, VI-16-, VII-08-, X-02-1997, & E Fork Chattooga R, upstream Chattooga confluence, VI-16-, VI-16-1997, Spichiger [CLEM, PERC]; Crane Cr, Cherokee Rd, V-23-1997, Spichiger [CLEM]. PICKENS: Estatoe Cr, Laurel Valley Rd, VI-09-1997, Spichiger [CLEM].

***Rhithrogena manifesta*** Eaton, 1885

*New data.*—GREENVILLE: South Saluda R, Table Rock St Prk, VI-03-1985, Kondratieff [CSU]. PICKENS: South Saluda R, Table Rock St Prk, VI-03-1985, Kondratieff [CSU].

***Rhithrogena uhari*** Traver, 1933

*Previous data.*—Berner (1977): EDGEFIELD.

*New data.*—GREENVILLE: Matthews Cr, United Methodist Youth Camp, IV-27-1997, Spichiger [CLEM]. PICKENS: Estatoe Cr, Laurel Valley Rd, VI-09-1997, Spichiger [CLEM].

***Stenacron carolina*** (Banks), 1914

*Previous data.*—Traver (1935): GREENVILLE; PICKENS (Clemson, Rocky Bottom). Lewis (1974): PICKENS (Keonee R).

*New data.*—GREENVILLE: Matthews Cr, Watson Heritage Preserve, VI-04-1997, Spichiger [CLEM]. OCONEE: E Fork Chattooga R, Rt 107, IV-22-1997, & E Fork Chattooga R, upstream Chattooga confluence, V-19-1997, Spichiger [CLEM]; Crane Cr, Cherokee Rd, V-09-1997, S Spichiger, & Crane Cr, 3.8 mi E SC Rt 107 at Tamassee Rd, III-04-1993, Jur [CLEM]. PICKENS: Estatoe Cr, Laurel Valley Rd, IV-17-, VI-09-1997, Spichiger [CLEM]; Rices Cr at SR 158, VIII-10-2000 [DHEC].

***Stenacron interpunctatum*** (Say), 1839

*Previous data.*—Carlson (1971, unpublished): OCONEE: Devil Hole Cr at Brasstown, 1968; PICKENS: Wildcat Cr, .75 mi from mouth, 790', & Longbranch Cr .25 mi S Lake Issaqueena, 1968. Carlson (1973): PICKENS (Wildcat Cr). Berner (1977): AIKEN; NEWBERRY; OCONEE; ORANGEBURG. Berner (1977) as *S. heterotarsale*: OCONEE. Morse et al. (1980): AIKEN (Upper Three Runs Cr). Daniels and Morse (1992): PICKENS (Wildcat Cr).

*New data.*—ABBEVILLE: Calhoun Cr at SC 28, VII-07-2001 [DHEC]. AIKEN: Little Horse Cr at SR 104, VII-18-2000 [DHEC]. ALLENDALE: Jackson Cr at S-18, II-26-1996 [DHEC]. ANDERSON: Rocky Cr at Sc 413, VIII-15-2000 [DHEC]. BAMBERG: Little Salkahatchie R at SC 70, VIII-05-2000 & Lemon Cr at S-74, III-05-1996 [DHEC]. BARNWELL: Meyers Br, nr confl Steel Cr, IV-06-1984, Meyers Br, SRP Rd B6.2, VI-03-1984, Kondratieff (A), & Steel Cr at SR 55, III-19-1984, & Steel Cr 750 m upstream SRP Rd A, VI-03-1984, Kondratieff (L & A) [PERC]; Toby Cr at SR 29, II-129-1996 [DHEC]. CHEROKEE: Thickety Cr at SC 18, VIII-10-1999 [DHEC]. CHESTER: Rocky Cr at SR 335, VI-26-1998 [DHEC]. CHESTYERFIELD: Little Fork Cr at CR 39, IV-11-1995 [DHEC]. CLAREDON: Spring Grove Cr at SR 26, VI-27-2002 [DHEC]. COLLETON: Sittle Salkahatchie R at SC 64, VIII-15-1995 [DHEC]. EDGEFIELD: Oconee Cr at SR 129, VIII-03-2000 & Sleepy Cr at dirt rd nr SR 2, I-24-1996 [DHEC]. FAIRFIELD: Thorntree Cr at SR 258, VIII-28-1998 [DHEC]. FLORENCE: Black Cr at SC 327, IX-01-1998 [DHEC]. GREENVILLE: Matthews Cr at SR 90, VIII-22-2001 [DHEC]. GREENWOOD: Ninety Six cr at SR 42, II-08-2000 [DHEC]. JASPER: Cypress Cr at SC 3, III-14-1996 [DHEC]. KERSHAW: Flat Rock Cr at SR 70, VIII-27-1998 [DHEC]. LANCASTER: Six Mile Cr at SR 54, VIII-23-2000 [DHEC]. LAURENS: Warrior Cr at SC 49, VII-21-1999 [DHEC]. LEXINGTON: Congaree Cr 300 m downstream confl Red

Bank Cr, II-25-2000 [DHEC]. MCCORMICK: trib Baker Cr at SR 21, VII-11-2003 [DHEC]. NEWBERRY: Crimms Cr at SC 213, VII-20-2003 [DHEC]. OCONEE: Choestoea Cr at SR 49, VIII-01-2000 [DHEC]. ORANGEBURG: Goodbys Cr at US 176, II-21-2001 [DHEC]. PICKENS: Cane Cr, Cleo Chapman Hwy, IX-05-1997, & Estatoe Cr, Roy Jones Hwy, V-13-1997, Spichiger [CLEM]. RICHLAND: Crane Cr at US 321, VII-20-1999 [DHEC]. SALUDA: Cloud Cr at US 178, VII-09-1997 [DHEC]. SPARTANBURG: Meadow Cr at SR 56, VIII-18-1999 [DHEC]. UNION: Fairforest Cr at S-44-16, VII-19-1995 [DHEC]. WILLIAMSBURG: Ox Swamp at US 521, II-03-2003 [DHEC]. YORK: Clark Cr at SR 63, VII-05-1995 [DHEC].

***Stenacron pallidum*** (Traver), 1933

*Previous data*—Morse et al. (1989): OCONEE (Coley Cr, Thompson R).

*New data*.—ABBEVILLE: Gill Cr at SR 32, VII-09-1996 [DHEC]. ALLENDALE: Coosawatchie R at S-350, II-15-2000 [DHEC]. ANDERSON: Wison Cr at SC 413, VII-24-1996 [DHEC]. BERKELEY: Four Holes Swamp/Mellards Lake, V-1983, Bradbury [CLEM]. CALHOUN: Lyons Cr at SC 6, VI-25-2002 [DHEC]. CHEROKEE: Canoe Cr 5 m upstream Blacksburg WWTP discharge, VI-11-1992 [DHEC]. CHESTER: Rocky Cr at SR 335, VI-26-1998 [DHEC]. COLLETON: Asheppo R at Sr 88, II-05-2003 [DHEC]. DORCHESTER: Four Holes Swamp/Mellards Lake, V-1983, Bradbury [CLEM]. GREENVILLE: Vaughn Cr upstream headwaters L Lanier, VIII-12-1999 [DHEC]. GREENWOOD: Nineth Six Cr at SR 42, VII-15-1997 [DHEC]. HAMPTON: Sanders Br at S-50, II-08-2000 [DHEC]. LAURENS: Warrior Cr at SC 49, VII-21-1999 [DHEC]. MCCORMICK: trib Baker Cr at SR 21, VII-10-2003 [DHEC]. OCONEE: Chattooga R, at SC Rt 28, V-10-1991, Eaton [CLEM]. E Fork Chattooga R, Rt 107, VI-16-1997, & E Fork Chattooga R upstream Chattooga confluence, IV-01-1997, Spichiger [CLEM]; Little R, at Rt 24, II-21-1991, DeLong [CLEM]. PICKENS: Cane Cr, Cleo Chapman Hwy, III-13-, V-01-, VI-19-, VII-18-, IX-05-1997, & Estatoe Cr, Roy Jones Hwy, III-22-, VI-09-, VIII-19-1997, Spichiger [CLEM]. RICHLAND: Big Cedar Cr at SC 215, VI-28-1995 [DHEC]. SPARTANBURG: Maple Cr at SR 644, VIII-12-1999 [DHEC]. WILLIAMSBURG: Ox Swamp, at US 521, II-03-2003 [DHEC].

***Stenonema femoratum*** (Say), 1823

*Previous data*.—Traver (1935): GREENVILLE. Berner (1977): KERSHAW; OCONEE. Berner (1977) as *S. tripunctatum*: KERSHAW.

*New data*.—AIKEN: Hollow Cr, off Rt 57, V-01-1984, Kondratieff (A) [PERC]. CHESTERFILED: Fork Cr at Hwy 151, I-26-1998 & Little Fork Cr at Hwy 265, VIII-12-1992 [DHEC]. EDGEFIELD: Rocky Cr at SR 61, VI-26-1996 & Sleepy Cr at SR 24, XII-09-1996 [DHEC]. GREENVILLE: Beaverdam Cr above Hanson property at SC 253, XII-14-1999 [DHEC]. GREENWOOD: Mountain Cr at SR 62, I-27-1999 [DHEC]. LEXINGTON: Dreher Shoals Dam, V-25-1935, Dunaran (A) [PERC]; Double Br Cr upstream middle school off Hwy 378, VI-09-1998 [DHEC]. MCCORMICK: Byrd Cr, Rt 118, V-14-1984, Kondratieff (A) [PERC]; Doctors Br, at SR 21, VII-10-2003 [DHEC]. OCONEE: White Fork at Sullivan Rd, III-14-2000 [DHEC]. PICKENS: Four Mile Cr at SC 183, X-05-1999 [DHEC]. SPARTANBURG: trib South Tyger R upstream Rogers Mill lift stat, VIII-12-1992 [DHEC]. YORK: Bullocks Cr at SC 198, VII-05-1995 [DHEC].

## ISONYCHIIDAE

***Isonychia arida*** (Say), 1839

*Previous data.*— Berner (1977) as *I. pictipes*: OCONEE. Morse et al. (1980) as *I. pictipes*: AIKEN (Upper Three Runs Cr). Kondratieff and Voshell (1984): AIKEN (Upper Three Runs Cr).

*New data.*— AIKEN: S Fork Edisto R, SC Rt 53, V-13-1984, & Upper Three Runs Cr, SRPRd C, VI-02-1982, Kondratieff (A) [PERC]. BARNWELL: Meyers Br, 600 m upstream Rd A, VI-03-1983, VII-10-1984, & Steel Cr, Cypress Bridge, X-17-1984, Kondratieff (A, L) [PERC].

***Isonychia bicolor*** (Walker), 1853

*Previous data.*— Carlson (1971, unpublished) as *I. fattigi*: OCONEE: Chauga R at Whetstone, 1968; PICKENS: Wildcat Cr, .75 mi from mouth, 790', & South Saluda R at Table Rock, & Eighteen Mile Cr at Hwy 44 ca 4 mi E Central, 1968. Kondratieff and Voshell (1984): LAWRENCE (Ware Shoals). Daniels and Morse (1992): PICKENS (Wildcat Cr).

*New data.*— BARNWELL: Steel Cr nr confluence Meyers Br, IV-16-1984, Kondratieff (A,L) [PERC]. CHESTERFILED: Little Fork Cr, off Co Rd 265, VI-17-1885, & Lynches R Rt 265, VI-17-1985, Kondratieff (A) [PERC]. EDGEFIELD: Turkey Cr, Rt 68, V-14-1984, & Turkey Cr, Co Rt 51, IV-12-1985, Kondratieff (A) [PERC]. LANCASTER: Lynches R Rt 265, VI-17-1985, Kondratieff (A) [PERC]. OCONEE: Little R at old SR 11, IX-15-1976, Morse [CLEM]. PICKENS: Cane Cr, Cleo Chapman Hwy, V-01-, VI-19-, VII-18-, IX-05-1997, Spichiger [CLEM]; Estatoe Cr, Roy Jones Hwy, III-22-, IV-17-, V-13-, VII-15-, IX-19-1997, Spichiger [CLEM].

***Isonychia georgiae*** McDunnough, 1931

*Previous data.*— Carlson (1971, unpublished) as *I. thalia*: OCONEE: Chattooga R at Hwy 28, & Long Cr at Long Creek, & Chauga R at Whetstone, & Devil Hole Cr at Brasstown, & Burgess Cr at Salem, 1968; PICKENS: Wildcat Cr, .75 mi from mouth, 790', & Estatoe Cr at Rocky Bottom, & Carrick Cr at Table Rock St Prk, & South Saluda R at Table Rock, & South Saluda R at Cleveland, 1968. Berner (1977) as *I. thalia*: OCONEE. Daniels and Morse (1992): PICKENS (Wildcat Cr).

*New data.*— OCONEE: Crane Cr, Cherokee Rd, VI-27-1997, Spichiger [CLEM]. PICKENS: Cane Cr, Horse Pasture Rd, VI-11-1997, & Cane Cr, Cleo Chapman Hwt, VI-09-1997, & Estatoe Cr, Roy Jones Hwy, VI-09-1997, Spichiger [CLEM]; six Mile Cr at Rt 291, I-23-1987, Mellichamp [CLEM].

***Isonychia sayi*** Burks, 1953

*Previous data.*— Kondratieff and Voshell (1984): AIKEN (Upper Three Runs Cr). Morse et al. (1989): OCONEE (Coley Cr, Thompson R).

***Isonychia sicca*** (Walsh), 1862

*New data.*—BARNWELL: Savannah R, SRS, VI-28-1990, Wohl [CSU]. FLORENCE: creek at Florence, VIII-13-1981, Simpson [CLEM]. KERSHAW: Wateree R, 100' S US Hwy 1 at bridge, IX-04-1966 & Wateree R, 3 mi S Camden, IX-01-1966, Richardson [PERC]. OCONEE: Little R, XI-14-1973, Bass [CLEM]. PICKENS: Indian Cr, Clemson, X-10-1973 [CLEM].

***Isonychia similis*** Traver, 1932

*Previous data.*—Traver (1935): GREENVILLE. Berner (1977) as *I. aurea*: OCONEE. Kondratieff and Voshell (1984): PICKENS (springs into Wildcat Cr); SUMTER (Sumter Historic Park). Morse et al. (1989): OCONEE (Coley Cr, Thompson R).

*New data.*—OCONEE: E Fork Chattooga R, Rt 107, VII-08-, VIII-05-1997, & Crane Cr, Rt 107, IX-16-1997, Spichiger [CLEM]. PICKENS: Estatoe Cr, Laurel Valley Rd, VII-15-1997, Spichiger [CLEM].

## LEPTOHYPHIDAE

***Asioplax dolani*** (Allen), 1976

*Previous data.*—Allen (1967): AIKEN (dikes above Ellenton). Berner (1977): NEWBERRY. Allen (1978): AIKEN? (Savannah R). Wiersema and McCafferty (2005): BARNWELL (Steel Cr).

*New data.*—FLORENCE: Pee Dee R, ca 800 m upstream of Hwy 76/301 bridge nr Florence, VIII-12-1999, VIII-7,9-2001, & upstream of entrance Staples Lake Landing nr Johnsonville, VIII-11-1999, Smith [CPL, PERC]; Black Cr at SC 327, IX-01-1998 [DHEC]. MARION: Pee Dee R, ca 800 m upstream of Hwy 76/301 bridge nr Florence, VIII-12-1999, VIII-7,9-2001, & upstream of entrance Staples Lake Landing nr Johnsonville, VIII-11-1999, Smith [CPL, PERC]. MCCORMICK: Little R at SR 19, VIII-07-2000 [DHEC]. ORANGEBURG: N Fork Edisto R at SR 39, IX-02-1997 [DHEC]. PICKENS: Clemson U For, XII-12-1992, Gilbert [CLEM]. RICHLAND: Wateree R 1.6 mi upstream confl Congaree, IX-14-2001 [DHEC].

***Tricorythodes albilineatus*** Berner, 1946

*New data.*—AIKEN: Savannah R, 5 mi below Peyre, Steel Cr, VII-08-1951, Dolan [PERC].

***Tricorythodes allectus*** (Needham), 1905

*New data.*—AIKEN: Mill Cr, Savannah R Plant, at SRPE-2, IX-30,04-1976, & Upper Three Runs Cr, Savannah R Plant, at SRP "F", IX-18,19-1976, Herlong/Prichard (A,L) [CLEM, PERC]; Upper Three Runs Cr, SRP Rd C, IX-13-1984, Kondratieff (A) [PERC]. BARNWELL: Steel Cr, Cypress Bridge, X-20-1984, & Steel Cr Swamp, Kondratieff (A,L) [PERC]. GREENVILLE: Salude R, Holidays Bridge, 12 mi E Belton, VI-07-1981 (A) [PERC]. KERSHAW: Wateree R, 100' S US Hwy 1 at bridge, IX-04-1966 & Wateree R at mount of Bolton Cr, IX-02-1966 & Wateree R, 3 mi S Camden, IX-01-1966, Richardson [PERC].



***Tricorythodes robacki*** (Allen), 1967

*Previous data.*—Allen (1967): AIKEN (Upper Three Runs Cr).

*New data.*—ORANGEBURG: North Fork Edisto R at SR 39, IX-02-1997 [DHEC].

## LEPTOPHLEBIIDAE

***Choroterpes basalis*** (Banks), 1900

*New data.*—YORK: Calabash Br, at S46-414, 2.5 mi SE Clover [CLEM].

***Habrophlebia vibrans*** Needham, 1907

*Previous data.*—Traver (1935) as *H. pusilla*: GREENVILLE (Greenville). Carlson (1971, unpublished): OCONEE: Devil Hole Cr at Brasstown, 1968; PICKENS: Wildcat Cr, .75 mi from mouth, 790', 1968. Carlson (1973): PICKENS (Wildcat Cr). Berner (1977): LEXINGTON. Morse et al. (1989): OCONEE (Thompson R). Daniels and Morse (1992): PICKENS (Wildcat Cr).

*New data.*—CHEROKEE: Spences Cr at S-11-118 & trib Spences Cr 25 m above Briar Cr, V-07-1980 [DHEC]. KERSHAW: Spears Cr at Sc 12, V-28-1981 [DHEC]. LEXINGTON: trib Red Bank Cr 50 m upstream I-20, II-04-1985 [DHEC]. OCONEE: Chattooga R, at Burrel's Ford, VII-10-1996, Sturkie [Clem]; E Fork Chattooga R, at Walhalla Fish Hatchery, III-30-1989, Morse, & VIII-12-2002, Butera, & E Frk Chattooga R, Rt 107, IV-22-1997, & E Fork Chattooga R, upstream of Chattooga confluence, V-19-, VII-08-1997, Spichiger [CLEM]; Crane Cr, III-05-1997, Moore, & Crane Cr, at Tamasee Rd, 3.8 mi E SC107, II-13-1987, Watson [CLEM]; Seneca Marina Cr, at Shiloh Rd, II-10-1991, DeLong [CLEM]. SPARTANBURG: Johnson Putnam Cr 10 m upstream Unisper Chemical discharge ditch, I-31-1980 [DHEC].

***Habrophlebiodes americana*** (Banks), 1903

*Previous data.*—Traver (1935): GREENVILLE (Greenville). Carlson (1971, unpublished): OCONEE: Devil Hole Cr, at Table Rock St Prk, 1968; PICKENS: Wildcat Cr, .75 mi from mouth, 790', & Carrick Cr at Table Rock St Prk, 1968. Berner (1977): OCONEE. Morse et al. (1980): AIKEN (Upper Three Runs Cr). Morse et al. (1989): OCONEE (Coley Cr, Thompson R). Daniels and Morse (1992): PICKENS (Wildcat Cr).

*New data.*—AIKEN: Upper Three Runs Cr, SC Rt 113, IV-07-1984, Kondratieff (A) [PERC]. ANDERSON: E trib Rock CR, N S-4-670, V-18-1979, Weaver/Taylor [CLEM].

***Habrophlebiodes brunneipennis*** Berner, 1946

*Previous data.*—Berner (1977): AIKEN.

***Leptophlebia bradleyi*** Needham, 1932

*Previous data.*—Burian (2001): AIKEN (South Fork Edisto R, Upper Three Runs Cr); DORCHESTER (Four Holes Swamp).

*New data.*—CALHOUN: Halfway Swamp Cr, at SC Hwy 267, ca 2.5 mi SE Lone Star, I-26-1982 [CLEM].

***Leptophlebia cupida*** (Say), 1823

*Previous data.*—Traver (1935) as *Blasturus collina*: GREENVILLE. Patrick et al. (1967) as *L. austrina*: ALLENDALE (Savannah R). Carlson (1971, unpublished) as *L. austrina*: OCONEE: Chauga R at Hwy 107, 1968; PICKENS: Wildcat Cr, .75 mi from mouth, 790', 1968. Berner (1977) as *L. austrina*: GREENVILLE. Berner (1977) as *L. collina*: ANDERSON. Morse et al. (1980): AIKEN (Upper Three Runs Cr). Daniels and Morse (1992) as *L. austrina*: PICKENS (Wildcat Cr). Burian (2001): ANDERSON (Pendleton Swamp, 3 & 20 Cr); BERKELEY (Four Hole Swamp); CHEROKEE (Canoe Cr); DORCHESTER (Four Holes Swamp); NEWBERRY (Indian Cr, Long Br Indian Cr).

*New data.*—BARNWELL: Meyers Br, SREL Boardwalk & Meyers Br, SRP Rd B6.2, III-28-1984, Kondratieff (A,L) [PERC]. DARLINGTON: Pee Dee R, ca 800 m downstream Hwy 15/401 bridge nr Society Hill, Smith, II-05-2001 [CPL, PERC]. FLORENCE: Pee Dee R, ca 800 m upstream of Hwy 76/301 bridge nr Florence, II-04-1999, II-06-2001, VIII-7.9-2001, & upstream of entrance Staples Lake Landing nr Johnsonville, II-03-1999, Smith [CPL, PERC]. MARION: Pee Dee R, ca 800 m upstream of Hwy 76/301 bridge nr Florence, II-04-1999, II-06-2001, & upstream of entrance Staples Lake Landing nr Johnsonville, II-03-1999, Smith [CPL, PERC]. MARLBORO: Pee Dee R, ca 800 m downstream Hwy 15/401 bridge nr Society Hill, Smith, II-05-2001 [PCL, PERC].

***Leptophlebia intermedia*** (Traver), 1932

*Previous data.*—Berner (1977): CHESTERFIELD. Burian (2001): AIKEN (Upper Three Runs Cr); BARNWELL (Meyer's Br); NEWBERRY (Long Br Indian Cr); ORANGEBURG (North Fork Edisto Cr); PICKENS (Wildcat Cr).

*New data.*—AIKEN: Upper Three Runs, thermal Effects Lab, III-19-1984 & Upper three Runs Cr at SRP Rd C, Kondratieff (A,L) [PERC]. FLORENCE: Pee Dee R, upstream of entrance to Staples Lake Landing nr Johnsonville, II-07-2001, Smith [CPL, PERC]. MARION: Pee Dee R, upstream of entrance to Staples Lake Landing nr Johnsonville, II-07-2001, Smith [CPL, PERC].

***Leptophlebia johnsoni*** McDunnough, 1924

*Previous data.*—Burian (2001): AIKEN (Upper Three Runs Cr); ANDERSON (Broadway Cr); ORANGEBURG (North Fork Edisto R).

***Paraleptophlebia adoptiva*** McDunnough, 1929

*New data.*—GREENVILLE: Matthews Cr, Watson Heritage Preserve, V-05.07-, VI-04.24-1997, Spichiger [CLEM]. OCONEE: E Fork Chattooga R, Walhalla Fish Hatchery, III-30-1989, McClure, V-23-1987, Mellichamp, & E Fork Chattooga R, Rt 107, V-19-, VI-27-1997, & E Fork Chattooga R, upstream confluence Chattooga R, IV-22-, VI-16-, VII-08-1997, Spichiger [CLEM]; Crane Cr, , Rt 107, IV-15-, V-09-, VI-27-1997, & Crane Cr, Cherokee Rd, IV-15-, V-23-, VI-27-1997, Spichiger [CLEM]. PICKENS: Cane Cr, Cleo Chapman Hwy, V-01-1997, & Cane Cr, Horse Pasture Rd, VI-11-, VII-01-1997, Spichiger [CLEM].

***Paraleptophlebia assimilis*** (Banks), 1914

*Previous data.*—Traver (1935): GREENVILLE (Greenville).

***Paraleptophlebia debilis*** (Walker), 1853

*Previous data.*—Patrick et al. (1967): ALLENDALE (Savannah R).

***Paraleptophlebia guttata*** (McDunnough), 1924

*Previous data.*—Carlson (1971, unpublished): PICKENS: Wildcat Cr, .75 mi from mouth, 790', 1968. Carlson (1973): PICKENS (Wildcat Cr). Daniels and Morse (1992): PICKENS (Wildcat Cr). Berner (1977): OCONEE. Morse et al. (1989): OCONEE (Coley Cr, Thompson R).

*New data.*—GREENVILLE: Matthews Cr, Asbury Youth Camp, V-01,21-, VII19-, VII18-1997, Spichiger [CLEM]. OCONEE: E Fork Chattooga R, upstream confluence Chattooga R, V-19-, VII-08-, VIII-05-1997, & E Fork Chattooga R, Rt 107, VI-16-1997, & Crane Cr, Cherokee Rd, IV-15-, V 09,23-, VII-27-1997, Spichiger [CLEM]; Flat shoals Cr, Tamassee DAR School, X-02-1980, Kelley [CELM]. PICKENS: Cane Cr, V-01,21-, V-19-, VII-18-1997, & Estatoe Cr, Roy Jones Hwy, V-13-, VI-09-1997, & Estatoe Cr, Laurel Valley Rd, VII-15-, VIII-19-1997, Spichiger [CLEM].

***Paraleptophlebia jenaе*** Berner, 1955

*Previous data.*—Berner (1977): EDGEFIELD.

***Paraleptophlebia moerens*** (McDunnough), 1924

*New data.*—OCONEE: Crane Cr, Cherokee Rd, IX-16-1997, Spichiger [CLEM].

***Paraleptophlebia mollis*** (Eaton), 1871

*New data.*—BARNWELL: Lower Three Runs Cr, X-04-1992, Kelley [CLEM]. OCONEE: E Fork Chattooga R, US Fish Hatchery, V-29-1981, & E Fork Chattooga R, upstream confluence Chattooga R, IV-01-1997, Spichiger, & Little R, X-22-1992, Gilbert [CLEM].

***Paraleptophlebia swannanoa*** (Traver), 1932

*Previous data.*—Traver (1935): GREENVILLE. Berner (1977): ORANGEBURG.

*New data.*—OCONEE: E Fork Chattooga R, Walhalla Fish Hatchery, off CR 325 [CLEM].

***Paraleptophlebia volitans*** (McDunnough), 1924

*Previous data.*—Berner (1977): AIKEN; GREENVILLE; KERSHAW; LEXINGTON; ORANGEBURG. Morse et al. (1980): AIKEN (Upper Three Runs Cr). Smock et al. (1985): RICHLAND (Cedar Cr). Morse et al. (1989): OCONEE (Thompson R).

*New data.*—ANDERSON: E trib Rock Cr, N S-4-670, VI-28-1979, Weaver/Taylor [CLEM].

## METRETOPODIDAE

*Siphloplecton basale* (Walker), 1853

*Previous data.*—Berner (1977): BARNWELL.

*New data.*—AIKEN: Upper Three Runs Cr, at Rd 8-1, Savannah R site, IV-06, Floyd/Bidlock [CLEM]. ANDERSON: Pendleton Swamp, 3 and 20 Cr, at Cuffie Cr, I-17-2001, Vshivkova [CLEM]. OCONEE: Little R, as SCE24, III-01-1995, Hamada [CLEM].

*Siphloplecton simile* Berner, 1978

*New data.*—BARNWELL: Meyers Br of Savannah R, V-29-1984, Kondratieff [CSU] (A).

## NEOPHEMERIDAE

*Neophemera purpurea* (Traver), 1931

*Previous data.*—Traver (1935): GREENVILLE (Greenville). Carlson (1971, unpublished): OCONEE: unnamed creek, 3<sup>rd</sup> bridge on Hwy 59, 3 mi N Walhalla, 1968.

*New data.*—GREENVILLE: Matthews Cr, Asbury Youth Camp, VII-18-1997, Spichiger [CLEM]; Middle Tyger R at SC 14, VIII-26-1999 & Shoals CR at SR 40, VIII-23-2001 [DHEC]. OCONEE: Cranes Cr, County Route 335, 16-VI-1985, Kondratieff [PERC]; Chattooga R at Rt 28, II-16-1989, Tudders/Hudson, & High Falls, X-16-1965, Kissam, Broersma [CLEM]; Brasstown Cr at SR 48, VIII-02-2000 & Chauga R at SR 193, VIII-28-1996 [DHEC]. ORANGEBURG: N Fork Edisto R at SR 39, VIII-29-2001 [DHEC]. PICKENS: Cane Cr, Cleo Chapman Hwy, X-05-1997, & Estatoe Cr, Roy Jones Hwy, V-13-, VIII-19-1997, Spichiger {CLEM}; Estatoe Cr, III-07-1997, Briggs, & small stream N Pickens, X-24-1961, DuRant [CLEM]; Toxaway R Below falls X-04-1963, Burtrell, & running stream, high falls, X-16-1965, Addison [CLEM]. SPARTANBURG: South Pacolet R at SR 183, VII-26-1995 [DHEC].

*Neophemera youngi* Berner, 1953

*Previous data.*—Carlson (1971, unpublished): PICKENS: Six Mile Cr, .25 mi from confl Wildcat Cr, 1968. Morse et al. (1980): AIKEN (Upper Three Runs Cr). Poff and Matthews (1985): AIKEN (Upper Three Runs Cr).

*New data.*—AIKEN: Shaws Cr at SR 26, XII-17-1998 [DHEC]. ALLENDALE: Lower Three Runs Cr, at Davis Br, Hwy 25, IX-25-1990, Heyn/Bouknight [CLEM]. ANDERSON: Richland Cr above US 29, 20 m aboe Badische discharge, VI-06-1998 & Three and Twenty Cr upstream Michelin Tire, IV-20-1980 [DHEC]. BARNWELL: Steel Cr, nr confl Meyers Branch, IV-25-1984, and 750 m upstream, SR Rd A, V-7-1984, and Meyers Branch, nr confl Steel Cr, IV-23-1984 [PERC]; Yarrow Br at SR 161, II-20-1997 [DHEC]. CHESTER: Fishing Cr at SC 9, XI-13-1980 [DHEC]. CHESTERFIELD: Fork Cr at SC 151, V-01-1996, X-23-1997, I-26-1998, IV-13-1999 & Little Fork Cr upstream old addition Brewers Gold Mine, VIII-12-1992 [DHEC]. OCONEE: Little R, at Rt 24, II-21-1991, DeLong [CLEM]. ORANGEBURG: Goodlans Cr at SC 4, III-12-1997 [DHEC]. PICKENS: Six mile Cr, at Hwy 291, II-01-1995, Prather, & Lake Isaqueena, Clemson U For, II-20-1987, Pinson [CLEM]. SPARTANBURG: Obew Cr at SR 42, VIII-24-1999 [DHEC].

## OLIGONEURIIDAE

***Homoeoneuria cahabensis*** Pescador and Peters, 1980

*New data.*—FLORENCE: Pee Dee R, ca 800 m upstream of Hwy 76/301 bridge nr Florence, & upstream of entrance Staples Lake Landing nr Johnsonville, 1999, Smith [CPL]. MARION: Pee Dee R, ca 800 m upstream of Hwy 76/301 bridge nr Florence, & upstream of entrance Staples Lake Landing nr Johnsonville, 1999, Smith [CPL].

***Homoeoneuria dolani*** Edmunds, Berner and Traver, 1958

*Previous data.*—Edmunds et al. (1958): ALLENDALE (Savannah R); GREENVILLE (South Saluda R). Patrick et al. (1967): ALLENDALE (Savannah R); BARNWELL (Savannah R).

## POLYMITARCYIDAE

***Ephoron leukon*** Williamson, 1802

*Previous data.*—McCafferty (1975): CHESTERFILED (Cheraw); DARLINGTON (Hartsville). Berner (1977): AIKEN. Morse et al. (1980): AIKEN (Upper Three Runs Cr).

*New data.*—ABBEVILLE: Calhoun Cr at SR 40, VIII-12-1987 & Gill Cr at SR 32, VII-09-1996 & Hogskin Cr at SC 184, VII-10-1996 & Little R at SR 24, VII-210-1996 [DHEC]. ANDERSON: Broadway Cr at US 76, between Anderson and Belfon, VI-01,29-1979 [CLEM]; Eighteen Mile Cr at SR 148, VIII-19-1996 & Hen Coop Cr at SR 244, VII-24-1996 & Little Generositee Cr at SC 184, VII-25-1996 [DHEC]. CHEROKEE: Thickety Cr at SC 211, VIII-10-1999 [DHEC]. CHESTER: Fishing Cr at SR 77, VI-20-2002 [DHEC]. GREENVILLE: Grove Cr at Sec Rd 81, VIII-13-2002 [DHEC]. GREENWOOD: Turkey Cr at SR 96, VII-16-1997 [DHEC]. KERSHAW: Grannies Quarter Cr at SR 58, VI-25-1998 [DHEC]. OCONEE: Toxaway Cr at SR 34, VIII-02-2000 [DHEC]. UNION: Neals Cr at SR 86, VII-07-1999 [DHEC]. YORK: Bullocks Cr at SR 40, VII-05-1999 [DHEC].

***Tortopus puella*** (Pictet), 1843

*Previous data.*—Scott et al. (1959) as *T. incertus*: AIKEN (Savannah R); BARNWELL (Savannah R); HAMPTON (Savannah R). Patrick et al. (1967) as *T. incertus*: ALLENDALE (Savannah R); BARNWELL (Savannah R). Berner (1977) as *T. incertus*: AIKEN; ALLENDALE. Brooks et al. (1979) as *T. incertus*: AIKEN (Beulah Pond).

*New data.*—AIKEN: Savannah R, 5 mi below Peyre, Steel Cr, VII-08-1951, Dolan [PERC]; FLORENCE: Pee Dee R, ca 800 m upstream of Hwy 76/301 bridge nr Florence, 1999, Smith [CPL]. MARION: Pee Dee R, ca 800 m upstream of Hwy 76/301 bridge, nr Florence, 1999. Smith [CPL].

## POTAMANTHIDAE

*Anthopotamus distinctus* (Traver), 1935

*New data.*—YORK: Catawba R at I-77, IX-18-2005, McCafferty, McCafferty [PERC].

## PSEUDIRONIDAE

*Pseudiron centralis* McDunnough, 1931

*Previous data.*—Berner (1977): ALLENDALE. Unzicker and Carlson (1982): CHEROKEE (Broad R).

*New data.*—DARLINGTON: Pee Dee R, ca 800 m downstream of Hwy 15/401 bridge nr Society Hill, V-18-1999, Smith [CPL]. MARLBORO: Pee Dee R, ca 800 m downstream of Hwy 15/401 bridge nr Society Hill, V-18-1999, Smith [CPL].

## SIPHONURIDAE

*Siphonurus decorus* Traver, 1932

*Previous data.*—Berner (1977): ORANGEBURG.

*Siphonurus mirus* (Eaton), 1885

*Previous data.*—Traver (1935): GREENVILLE (Greenville). Carlson (1971, unpublished): PICKENS: Wildcat Cr, .75 mi from mouth, 790', 1968. Berner (1977): NEWBERRY. Daniels and Morse (1992): PICKENS (Wildcat Cr).

*New data.*—ANDERSON: 3 and 20 Cr, at Cuffie Cr, I-16-1987, Mellichamp, & I-17-1991, DeLong, & Pendleton Swamp, I-09-1987, Watson [CLEM]. DARLINGTON: Pee Dee R, ca 800 m downstream Hwy 15/401 bridge nr Society Hill, II-05-2001, Smith [CPL, PERC]. MARLBORO: Pee Dee R, ca 800 m downstream Hwy 15/401 bridge nr Society Hill, II-05-2001, Smith [CPL, PERC]. PICKENS: Lake Isaqueena, Clemson U For, IX-17-1982, Robertson [CLEM].

*Siphonurus quebecensis* (Provancher), 1878

*Previous data.*—Traver (1935): GREENVILLE (Greenville). Berner (1977): ANDERSON.

*New data.*—ANDERSON: Richland Cr above US 29, 20 m above Badische discharge, VI-03-1986 [DHEC]. GREENVILLE: Beaver Dam Cr, 7 mi NW Freer, II-22-1997, Edwards, & Matthews Cr, Watson Heritage Preserve, VI-04-1997, Spichiger [CLEM]. NEWBERRY: Indian Cr 5 mi SSE Whitmore, IV-22, 28-1985, Rebude/Funk, & Long Br Indian Cr, IV-28-1988, Funk (A) [CSU]. PICKENS: Wildcat Cr, Clemson U For, I-30-1993, Richardson [CLEM].



## ACKNOWLEDGMENTS

We thank the following individuals for their cooperation in this study, without whom it would not have been possible: Jim Glover (South Carolina Department of Health and Environmental Control); Luke Jacobus (Indiana University); Boris Kondratieff (Colorado State University); John Morse (Clemson University); Rick Smith (Carolina Power and Light); Arwin Provonsha (Purdue University); Lu Sun (NIH); Jeff Webb (LaTrobe University, Australia); and Jack Zloty (University of Calgary).

## LITERATURE CITED

- Allen, R. K. 1967. New species of New World Leptohiphinae (Ephemeroptera: Tricorythidae). *Canadian Entomologist* 99:350-375.
- Allen, R. K. 1978. The nymphs of North American *Leptohyphes* (Ephemeroptera: Tricorythidae). *Annals of the Entomological Society of America* 71: 537-558.
- Allen, R. K. and G. F. Edmunds. 1961. A revision of the genus *Ephemerella* (Ephemeroptera: Ephemerellidae). III. The subgenus *Attenuatella*. *Journal of the Kansas Entomological Society* 34: 161-173.
- Allen, R. K. and G. F. Edmunds. 1963a. A revision of the genus *Ephemerella* (Ephemeroptera: Ephemerellidae) VIII. The subgenus *Eurylophella*. *Canadian Entomologist* 95: 597-623.
- Allen, R. K. and G. F. Edmunds. 1963b. A revision of the genus *Ephemerella* (Ephemeroptera: Ephemerellidae). VI. The subgenus *Serratella* in North America. *Annals of the Entomological Society of America*. 56: 583-600.
- Bednarik, A. F. and W. P. McCafferty. 1979. Biosystematic revision of the genus *Stenonema* (Ephemeroptera: Heptageniidae). *Canadian Bulletin of Fisheries and Aquatic Sciences* 201: 1-73.
- Berner, L. 1977. Distributional patterns of southeastern mayflies (Ephemeroptera). *Bulletin of the Florida State Museum, Biological Science* 22: 1-56.
- Brooks, D. W., P. H. Carlson, J. F. Cornell, H. B. Douglass, E. W. King, V. H. McCaskill, J. C. Morse, T. E. Skelton, and J. Spooner. 1979. Status report: Arthropoda other than Crustacea. Pages 46-51. *In*: Forsythe, D. M. and W. B. Ezell, eds., *Proceedings of the first South Carolina endangered species symposium*. South Carolina Wildlife and Marine Resources Department. Charleston, South Carolina.
- Burian, S. K. 2001. A revision of the genus *Leptophlebia* Westwood in North America (Ephemeroptera: Leptophlebiidae). *Bulletin of the Ohio Biological Survey New Series* 13: 1-79.
- Carlson, P. H. 1971. Emergence and seasonal distribution of Ephemeroptera from Wildcat Creek, Pickens County, South Carolina. Unpublished Masters Thesis, Clemson University, Clemson, South Carolina.
- Carlson, P. H. 1973. Seasonal distribution of mayflies (Ephemeroptera) from Wildcat Creek, Pickens County, South Carolina. Pages 204-208. *In*: Peters, W. L. and J. G. Peters, eds., *Proceedings of the first international conference on Ephemeroptera*. Brill, Leiden.
- Daniels, S. M. and J. C. Morse. 1992. Mayflies (Ephemeroptera), stoneflies (Plecoptera), and other interesting biota of Wildcat Creek, South Carolina, a biodiversity reference stream. *Entomological News* 103: 44-52.
- Edmunds, G. F., R. K. Allen, and W. L. Peters. 1963. An annotated key to the nymphs of the families and subfamilies of mayflies (Ephemeroptera). *University of Utah Biological Series* 13 (1): 1-49.
- Edmunds, G. F. and J. R. Traver. 1959. The Classification of the Ephemeroptera. I. Ephemeroidea: Behningiidae. *Annals of the Entomological Society of America* 52: 43-51.

- Fink, T. J., T. Soldán, J. G. Peters, and W. L. Peters. 1991. The reproductive life history of the predacious, sand-burrowing mayfly *Dolania americana* (Ephemeroptera: Behningiidae). *Canadian Journal of Zoology* 69: 1083-1093.
- Flowers, R. W. 1982. Review of the genus *Macdunnhoa* (Ephemeroptera: Heptageniidae) with the description of a new species from Florida. *Great Lakes Entomologist* 15: 25-30.
- Funk, D. H. and B. W. Sweeney. 1994. The larvae of eastern North American *Eurylophella* Tiensuu (Ephemeroptera: Ephemerellidae). *Transactions of the American Entomological Society* 120:209-286.
- Harvey, R. S., R. L. Vannote, and B. W. Sweeney. 1979. Life history, developmental process, and energetics of the burrowing mayfly *Dolania americana* (Ephemeroptera: Behningiidae). Pages 211-230. *In*: Flannagan, J. F and K E. Marshall, eds., *Advances in Ephemeroptera biology*. Plenum, New York.
- Jacobus, L. M. and W. P. McCafferty. 2002. Analysis of some historically unfamiliar Canadian mayflies (Ephemeroptera). *Canadian Entomologist* 134: 141-155.
- Jacobus, L. M. and W. P. McCafferty. 2003. Revisionary contributions to North American *Ephemerella* and *Serratella* (Ephemeroptera: Ephemerellidae). *Journal of the New York Entomological Society* 111: 174-193.
- Jacobus, L. M. and W. P. McCafferty. 2004. Revisionary contribution to the genus *Drunella* (Ephemeroptera: Ephemerellidae). *Journal of the New York Entomological Society* 112: 127-147.
- Jacobus, L. M., W. P. McCafferty, and S. Spichiger. 2002. First adult description for *Ephemerella hispida* (Ephemeroptera: Ephemerellidae). *Entomological News* 113: 342-343.
- Kondratieff, B. C. and V. R. Voshell. 1984. The North And Central American species of *Isonychia* (Ephemeroptera: Oligoneuriidae). *Transactions of the American Entomological Society* 110: 129-244.
- Lewis, P. A. 1974. Taxonomy and ecology of *Stenonema* mayflies (Heptageniidae: Ephemeroptera). EPA Environmental Monitoring Series Report EPA-670/4-74-006: 1-81.
- Lugo-Ortiz, C. R. and W. P. McCafferty. 1998. New larval variants and distributional records for *Plauditus cestus* (Ephemeroptera: Baetidae). *Great Lakes Entomologist* 31: 201-204.
- McCafferty, W. P. 1975. The burrowing mayflies (Ephemeroptera: Ephemeroidea) of the United States. *Transactions of the American Entomological Society* 101: 447-504.
- McCafferty, W. P. 1985. New spiny crawlers from headwaters of the Savannah River (Ephemeroptera: Ephemerellidae). *Proceedings of the Entomological Society of Washington* 87: 421-425.
- McCafferty, W. P. 2000. Reporting species record data. *Entomological News* 111: 311-312.
- McCafferty, W. P. 2006. The American Sand Burrowing Mayfly *Dolania americana*. South Carolina Department of Natural Resources Comprehensive Wildlife Conservation Strategy. Species Descriptions. <<http://www.dnr.sc.gov/cwcs/pdf/Mayfly.pdf>> pp. 1-6.
- McCafferty, W. P. 2008. The mayflies of North America. *Mayfly Central*. <<http://www.entm.purdue.edu/entomology/research/mayfly/contents.html>>.
- McCafferty, W. P. and R. D. Waltz. 1998. A new species of the small minnow mayfly genus *Plauditus* (Ephemeroptera: Baetidae). *Entomological News* 109: 354-356.
- McCafferty, W. P., M. D. Meyer, J. M. Webb, and L. M. Jacobus. 2004. New state and provincial records for North American small minnow mayflies (Ephemeroptera: Baetidae). *Entomological News* 115: 93-100.
- Meyer, M. D. and W. P. McCafferty. 2003. New synonym of *Apobaetis etowah* (Traver) (Ephemeroptera: Baetidae). *Pan-Pacific Entomologist* 79: 249.
- Morse, J. C., J. W. Chapin, D. D. Herlong, and R. S. Harvey. 1980. Aquatic insects of Upper Three Runs Creek, Savannah River Plant, South Carolina. Par I: Orders other than

- Diptera. Journal of the Georgia Entomological Society 15: 73-101.
- Morse, J. C., S. W. Hamilton, and K. M. Hoffman. 1989. Aquatic insects of Lake Jocassee catchment in North and South Dakota, with descriptions of four new species of caddisflies (Trichoptera). Journal of the Elisha Mitchell Scientific Society 105: 14-33.
- Patrick, R. J. Cairns, and S. W. Roback. 1967. An ecosystematic study of the fauna and flora of the Savannah River. Proceedings of the Academy of Natural Sciences of Philadelphia 118: 109-407.
- Pescador, M. L. and L. Berner. 1981. The mayfly family Baetiscidae (Ephemeroptera). Part II. Biosystematics of the genus *Baetisca*. Transactions of the American Entomological Society 107: 163-228.
- Poff, N. L. and R. A. Matthews. 1985. The replacement of *Stenonema* spp. By *Caenis diminuta* Walker as the numerical dominant in the mayfly assemblage of a thermally-stressed stream. Journal of Freshwater Ecology 3: 19-26.
- Provonsha, A. V. 1990. A revision of the genus *Caenis* in North America (Ephemeroptera: Caenidae). Transactions of the American Entomological Society 116: 801-884.
- Provonsha, A. V. and W. P. McCafferty. 2006. A second species of the North American genus *Americaenis* Provonsha and McCafferty (Ephemeroptera: Caenidae). Journal of Insect Science 6:10 ([www.insectscience.org/6.10](http://www.insectscience.org/6.10))
- Schultz, D. A. 1973. Boone Creek Oil Spill. National Technical Information Service. Springfield, Virginia. 37pp.
- Scott, D. C., L. Berner, and A. Hirsch. 1959. The nymph of the mayfly genus *Tortopus* (Ephemeroptera: Polymitarcidae). Annals of the Entomological Society of America 52: 205-213.
- Smock, L. A., E. Gilinsky, and D. L. Stoneburner. 1985. Macroinvertebrate production in a southeastern United States blackwater stream. Ecology 66: 1491-1503.
- Soldán, T. 1986. A revision of the Caenidae with ocellar tubercles in the nymphal stage (Ephemeroptera). Acta Universitatis Carolinae Biologica 1982. 1984: 289-362.
- Sun, L. and W. P. McCafferty. 2008. Cladistics, classification, and identification of the Brachycercinae mayflies (Insecta: Ephemeroptera: Caenidae). Zootaxa 1801: 1-239.
- Sweeney, B. W. and D. H. Funk. 1991. Population genetics of the burrowing mayfly *Dolania Americana*: geographic variation and the presence of a cryptic species. Aquatic Insects 13:17-27.
- Sweeney, B. W. and R. L. Vannote. 1987. Geographic parthenogenesis in the stream mayfly *Eurylophella funeralis* in eastern North America. Holarctic Ecology 10: 52-59.
- Traver, J. R. 1935. Part II, Systematic. Pages 237-739. In: Needham, J. G., J. R. Traver, and Y-C. Hsu, eds., The biology of mayflies. Comstock, Ithaca, New York.
- Traver, J. R. 1937. Notes on mayflies of the southeastern states. Journal of the Elisha Mitchell Scientific Society 53: 27-86.
- Unzicker, J. D. and P. H. Carlson. 1982. Ephemeroptera. Pages 3.1-3.97. In: Brigham, A. R., W. U. Brigham, and A. Gnilka, eds., Aquatic insects and oligochaetes of North and South Carolina. Midwest Aquatic Enterprises, Mahomet, Illinois.
- Wiersema, N. A. and W. P. McCafferty. 2005. Contribution to the taxonomy of *Asioplax* (Ephemeroptera: Leptohiphidae: Tricorythodinae). Entomological News 116: 147-158.
- Zloty, J. 1996. A revision of the Nearctic *Ameletus* mayflies based on adult males, with descriptions of seven new species (Ephemeroptera: Ameletidae). Canadian Entomologist 128: 293-346.