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# A LIST OF MAYFLIES FROM THE LOWER APALACHICOLA RIVER DRAINAGE 1

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The Apalachicola River, formed by the fusion of the Flint and Chattahoochee Rivers at the Georgia-Florida state boundary, brings with it into Florida many species of Ephemeroptera that reach the southernmost extension of their ranges here. The river system has been described by others (La Forge et al., 1925; Cooke, 1939; Alabama Water Improvement Commission, 1949) and will not be redetailed here. Suffice it to say that the Chattahoochee, arising in the southern Appalachians, provides an excellent highway for the southward movement of many aquatic insects. The Flint, which takes its sources in the southern Piedmont of Georgia, is of considerably lesser importance in this respect.

The boundaries selected for the lower Apalachicola were arbitrarily chosen and do not extend beyond the Coastal Plain. The Alabama counties in which that part of the Apalachicola River drainage under consideration is located are Houston, Henry, and Barbour; those of Florida are Calhoun, Gulf, Gadsden, Jackson, and Liberty. As the river system arises mostly in Georgia, the number of counties included is considerably larger than in the two other states. They are Baker, Calhoun, Chattahoochee, Clay, Crisp, Decatur, Dooley, Doughtery, Early, Lee, Marion, Miller, Mitchell,

Quitman, Randolph, Schley, Seminole, Stewart, Sumter, Terrell,

Webster, and Worth.

In spite of the larger number of Georgia counties listed above, collections were made in only a few of them as the streams may not have been suitable for extensive collecting or were not readily accessible. Nevertheless, it is felt that the records are representative of that portion of the river system lying within the Coastal Plain. Were the report to have been broadened to cover that part of the Chattahoochee running through the Piedmont and mountainous regions of Georgia, the number of species would be far greater. The map (fig. 1) shows that part of the river system treated in this summary.

The following is a list of those places at which mayflies, either immatures or adults, have been collected along with the dates on

<sup>&</sup>lt;sup>1</sup> This investigation was supported in part by a research grant, No. G-4058, from the National Institute of Health, Public Health Service.

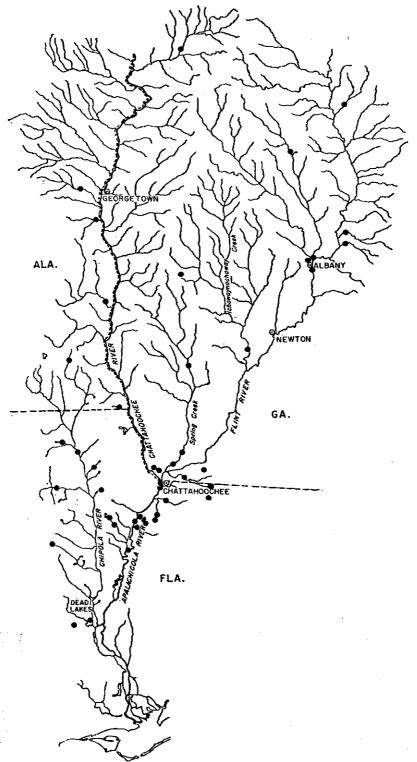


Figure 1. The lower Apalachicola River drainage system. Black dots indicate those places where mayflies were collected.

which collections were made. The majority of the specimens were taken either by me or my assistant, C. D. Hynes.

#### LOCALITIES

#### ALABAMA

#### BARBOUR COUNTY

1. 11.9 miles west of Eufaula at Highway 82: (a) June 22, 1954.

2. 1.7 miles south of junction of Highway 241 with farm road south of Eufaula: (a) June 23, 1954.

#### HENRY COUNTY

3. 6.2 miles south of Shorterville on farm road: (a) June 23, 1954.

#### Houston County

4. Dothan: (a) February 2, 1949.

5. Irwin Mill Creek, Chattahoochee State Park: (a) June 3, 1953.

#### FLORIDA

#### CALHOUN COUNTY

- 6. 4.2 miles east of county line: (a) April 7, 1938.
- 7. Chipola River: (a) November 5, 1938.
- 8. 15.1 miles east of Chattahoochee: (a) April 1, 1938.

#### GADSDEN COUNTY

9. River Junction: (a) March 17, 1939; (b) June 30, 1939; (c) July 1, 1939.

- 10. Flat Creek, 41/2 miles south of Chattahoochee on Highway 269: (a) March 17, 1939; (b) June 30, 1939; (c) July 1, 1939; (d) June 6, 1940; (e) June 8, 1940; (f) April 4, 1953; (g) June 4, 1953; (h) March 20, 1954; (i) June 8, 1954; (j) March 30, 1956; (k) April 13, 1956.
- 11. Chattahoochee: (a) April 3-4, 1953; (b) June 1-4, 1953; (c) March 20, 1954; (d) June 8, 1954; (e) March 30, 1956; (f) April 13, 1956.
- 12. Glen Julia Springs near Mount Pleasant: (a) June 6, 1954.

#### GULF COUNTY

13. 6.9 miles west of Wewahitchka at Highway 22: (a) April 1, 1956.

14. Dead Lakes, 1 mile north of Wewahitchka at Highway 71: (a) April 1, 1956.

#### JACKSON COUNTY

- 15. Blue Springs Creek near Marianna at U. S. Highway 90: (a) May 5, 1933; (b) April 13, 1955; (c) December 11, 1937; (d) June 8-9, 1938; (e) July 1, 1939; (f) December 1, 1939; (g) June 5-6, 1940; (h) May 3, 1941; (i) April 18, 1954.
- 16. 3.6 miles north of Altha: (a) December 10, 1937; (b) June 8-9, 1938; (c) July 1, 1939; (d) December 1, 1939; (e) February 3, 1949.
- 17. 12.2 miles southeast of Marianna: (a) June 9, 1938.
- 18. 2.9 miles north of Altha: (a) July 1, 1939; (b) February 3, 1949.
- 19. 14.2 miles north of Bay County line: (a) June 8, 1938.
- 20. Florida Caverns State Park: (a) December 2, 1939.

#### LIBERTY COUNTY

- Sweetwater Creek near Torreya State Park: (a) May 7, 1933; (b) June 10, 1938; (c) November 4, 1938; (d) July 1, 1939; (e) December 1, 1939; (f) April 8, 1941; (g) May 2, 1941; (h) April 28-30, 1946; (i) May 29, 1946; (j) February 3, 1949; (k) April 14, 1951; (l) June 1, 1953; (m) March 27, 1954.
- 22. Kelly Branch: (a) December 10, 1937.
- Little Sweetwater Creek near Torreya State Park: (a) December 10, 1937;
   (b) June 10, 1938,
- Crooked Creek about 10 miles south of Chattahoochee: (a) March 17, 1939; (b) July 1, 1939; (c) April 4, 1953; (d) March 20, 1954; (e) March 27, 1954
- 25. 4.5 miles north of turnoff to Torreya State Park: (a) June 10, 1938.
- 26. Alum Bluff on the Apalachicola River: (a) May 3, 1941.
- Rock Creek, Torreya State Park: (a) June 4, 1953; (b) March 27, 1954;
   (c) March 30, 1955; (d) March 30, 1956.
- 28. Bristol: (a) July 29, 1939,

#### GEORGIA

#### BAKER COUNTY

Ichawaynochaway Creek at Highway 91: (a) April 22, 1949; (b) September 12, 1950; (c) November 27, 1953; (d) May 15, 1954.

#### CALHOUN COUNTY

30. Cordray's Pond: (a) June 18, 1946. 2

#### CHATTAHOOCHEE COUNTY

31. Upatoi Creek at Highway 103: (a) April 11, 1954.

#### DECATUR COUNTY

- 32. Mosquito Creek at Highway 97: (a) April 5, 1953; (b) June 5, 1953; (c) March 28, 1954.
- 33. 1 mile south of Faceville at Highway 97: (a) March 28, 1954.
- Spring Creek at Reynoldsville: (a) July 1912;<sup>2</sup> (b) July 19, 1912;<sup>2</sup> (c) July 29, 1912;<sup>2</sup> (d) July 16, 1929;<sup>2</sup> (e) August 19, 1939;<sup>2</sup> (f) April 3, 1946;<sup>2</sup> (g) June 8, 1946;<sup>2</sup> (h) June 15, 1946;<sup>2</sup> (i) June 2, 1953; (j) June 8, 1954; (k) August 19, 1954.
- 35. Spring Creek, 5 miles north of junction of Flint and Chattahoochee Rivers: (a) April 3, 1953.

#### DOOLEY COUNTY

36. Hogcrawl Creek at Highway 90: (a) November 28, 1953.

#### DOUGHTERY COUNTY

- 37. Flint River at Albany: (a) June 22, 1939.2
- 38. Lake Worth near Albany: (a) July 30, 1931.2
- 39. Albany: (a) 1932.2

<sup>&</sup>lt;sup>2</sup> These records are from the P. W. Fattig collection at Emory University. I am indebted to Dr. W. B. Baker for permitting me to study these collections.

40. 7.2 miles north of junction of U. S. Highway 82 and Highway 257, at Highway 257: (a) November 28, 1953.

#### MILLER COUNTY

41. Colquitt Spring Creek: (a) June 12, 1931.2

#### SEMINOLE COUNTY

- 42. Alagar Hole, located between Spring Creek and Chattahoochee River: (a) June 2, 1953.
- 43. Lewis' Pond: (a) June 2, 1953.

#### SUMTER COUNTY

44. Muckalie Creck, 1 mile south of Americus: (a) June 20, 1931.2

#### WORTH COUNTY

45. Abram's Creek at Highway 257: (a) November 28, 1953.

#### LIST OF SPECIES

#### Superfamily Ephemeroidea

Family Ephemeridae

Hexagenia bilineata (Say)—11 (b); 15 (g); 34 (i); 37 (a); 38 (a).

H. munda elegans Traver—2 (a); 3 (a); 10 (f); 11 (b); 12 (a); 16 (e); 27 (c); 29 (b); 34 (b,d,f,i,j,k); 38 (a); 40 (a).

H. munda marilandica Traver—7 (a); 8 (a); 10 (a,b,i); 15 (h); 16 (c);
 21 (a,b,c,e,g,h,j,l,m); 24 (b); 30 (a).

Hexugenia sp.-24 (c); 31 (a); 36 (a); 41 (a); 44 (a).

Pentagenia vittigera (Walsh)-11 (b); 26 (a).

#### Family Polymitarcidae

Tortopus incertus (Traver)—28 (a); 34 (e); 39 (a).

#### Superfamily Caenoidea

Family Neoephemeridae

Neoephemera compressa Berner—29 (c).

N. youngi Berner-10 (a,f); 21 (c,e,j,k,m); 24 (a,c,d); 32 (a,c).

#### Family Caenidae

Brachycercus sp.-29 (d); 34 (i).

Brachycercus sp. A<sup>a</sup>-10 (a); 21 (h,j,k,l,m).

Cuenis diminuta Walker—9 (b); 10 (k); 11 (b,d,e); 14 (a); 15 (b,d,e,f,g,h,i); 16 (c); 19 (a); 34 (d,i).

Caenis hilaris (Say)—1 (a); 3 (a); 9 (c); 11 (b,i); 15 (e,g); 16 (d); 21 (b,c,d,e,g,h,j,l); 27 (a); 29 (d); 34 (i).

Caenis sp.-5 (a); 29 (d); 43 (a).

#### Superfamily Prosopistomatoidea

#### Family Baetiscidae

Baetisca gibbera Berner-29 (c).

B. obesa (Say)—14 (a).

B. rogersi Berner—2 (a); 10 (a,f); 21 (g,h,j,k); 24 (c,d); 32 (c).

<sup>&</sup>lt;sup>a</sup> The species is designated by this letter in *The Mayflies of Florida* (Berner, 1950).

#### Superfamily Leptophlebioidea

Family Leptophlebiidae

Habrophlebia vibrans Needham-16 (a,e); 18 (b).

Habrophleboides brunneipennis Berner—3 (a); 12 (a); 16 (c); 18 (a,b); 21 (b,g,h,j); 24 (e); 27 (a,b); 32 (c).

Leptophlebia intermedia (Traver)—4 (a); 9 (a); 10 (a,f,j); 14 (a) 16 (a,d,e); 18 (b); 21 (j); 23 (a); 40 (a).

Paraleptophlebia bradleyi Needham-36 (a).

P. volitans McDunnough-16 (a,b,é); 18 (b); 21 (d); 24 (a,c).

#### Family Ephemerillidae

Ephemerella choctawhatchee Berner—10 (a,f); 21 (e,h,j,k,m); 24 (a); 27 (b,c); 32 (c).

E. hirsuta Berner-21 (k).

E. rotunda Morgan—11 (c); 27 (d).

E. simplex McDunnough? — 27 (c).

Ephemerella sp. (serrata group)-29 (d).

Ephemerella sp. A<sup>3</sup>-10 (f); 17 (a); 18 (b); 21 (d,g,k); 24 (e); 32 (a).

E. trilineata Berner—9 (a); 10 (a,h,k); 13 (a); 14 (a); 16 (e); 18 (b); 21 (c,e,j,m); 23 (a); 24 (c); 31 (a); 35 (a).

Family Tricorythidae

Tricorythodes albilineatus Berner—3 (a); 15 (d); 21 (b,c,d,l); 24 (b); 29 (d); 34 (c,i).

#### Superfamily Heptagenioidea

Family Isonychiidae

Isonychia fattigi Traver—10 (a); 11 (b); 17 (a); 21 (b,c,d,e,f); 24 (a); 29 (a,b,c); 34 (i).

I. pictipes Traver—10 (a,b,d,f,g,i,k); 21 (d,e,g,h,j,k,l); 24 (a,c); 27 (a,b,c); 32 (a,c); 34 (i).

Isonychia sp.—2 (a); 3 (a); 21 (m); 29 (d); 30 (a); 32 (b); 34 (h); 45 (a). Isonychia sp. G<sup>3</sup>—24 (a,c,e); 27 (a,b,c,d); 32 (c).

#### Family Heptageniidae

Heptagenia flavescens Walsh—I1 (a); 34 (f,g).

Heptagenia sp.—1 (a).

Stenonema exiguum Traver—1 (a); 3 (a); 4 (a); 5 (a); 10 (a,i); 11 (a,b,d); 15 (c,d,e,g,h,i); 16 (b); 17 (a); 21 (b,c,d); 24 (c); 32 (b,e); 34 (i).

Stenonema interpunctatum (Say)\*—7 (a); 8 (a); 10 (i); 15 (a,c,d,e,g,i); 16 (b); 21 (h); 25 (a); 29 (c,d); 34 (a,i).

Stenonema smithae Traver—4 (a); 6 (a); 8 (a); 9 (a); 10 (a,b,e,f,g,i,k); 11 (a,b,d); 15 (a,c,g); 16 (a,b,d,e); 18 (b); 21 (a,b,c,d,e,g,h); 22 (a); 23 (a); 24 (a,c,e); 25 (a); 27 (c,d); 29 (c,d).

Stenonema sp.—1 (a); 2 (a); 5 (a); 11 (a); 27 (a); 31 (a); 34 (f,g); 45 (a). Stenonema varium Traver?—40 (a); 45 (a).

#### Family Ametropodidae

Siphloplecton speciosum Traver—10 (f).

<sup>&</sup>lt;sup>4</sup> This species was referred to as Stenonema proximum Traver in The Mayflies of Florida (Berner, 1950).

Family Bactidae

Buetis australis Traver—4 (a); 13 (a); 16 (e); 20 (a); 21 (g); 29 (d).

B. ephippiatus Traver-16 (c); 29 (d).

B. intercalaris McDunnough—5 (a); 9 (a); 10 (c,f); 20 (a); 21 (c,d,e,g,i j,l); 24 (a,c,e); 29 (c); 32 (b,c); 45 (a).

B. propinquus (Walsh)-11 (b,d); 15 (e).

B. spiethi Berner—7 (a); 15 (i); 16 (a,b,c,e); 18 (b); 20 (a); 21 (c,d,e,g,h,j); 24 (e); 27 (b); 29 (d); 32 (b,d); 45 (a).

Baetis spinosus McDunnough—3 (a); 5 (a); 9 (a,b); 10 (c,d,f,i); 16 (a,c,e); 18 (b); 20 (a); 21 (c,d,g); 23 (a,b); 24 (a,c,e); 25 (a); 27 (c); 31 (a); 32 (b,c); 40 (a); 45 (a).

Baetis sp.-1 (a); 2 (a); 11 (b); 29 (d); 34 (i).

Callibaetis floridanus Banks-5 (a); 15 (e,f,g,h,i); 20 (a); 35 (a).

Callibactis sp.—11 (f); 16 (e); 18 (b); 33 (a); 43 (a).

Centroptilum hobbsi Berner-1 (a); 17 (a); 21 (l); 29 (c,d).

C. viridocularis Berner-15 (e); 21 (l); 34 (i).

Clocon rubropictum McDunnough—20 (a); 29 (d).

Clocon sp. A3-4 (a); 16 (d); 18 (b); 29 (d).

Pseudocloeon punctiventris (McDunnough)-21 (h); 23 (a); 29 (c,d); 31 (a).

P. parvulum McDunnough—21 (b,d).

Pseudocloeon sp.—1 (a); 2 (a); 10 (i); 11 (a).

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