

NOTE

Range Extensions and Ecological Data for
Southern United States Ephemeroptera

While conducting ecological studies of southern rivers, I found six mayfly species beyond their previously known ranges. Since little or no ecological information exists for these species and the new state records better define range extremes, the following data are presented.

Anepeorus simplex (Walsh) (Heptageniidae): Arkansas, Jefferson County, Arkansas River near Pine Bluff. T.6S., R.7W., S.7. 15 May 1980. Previously known from Illinois, Iowa, and Georgia. *Baetis ephippiatus* Traver (Baetidae): Louisiana, Natchitoches Parish and Red River Parish line, Bayou Pierre near Evelyn. T.12N., R.10W., S.36. 21 Aug. 1979. Formerly reported from the extreme southeast, west to Alabama, and north to Indiana and Virginia. *Baetis longipalpus* Morihara and McCafferty: Louisiana, Red River Parish, Red River near Grand Bayou. T.13N., R.11W., S.2. 22 Aug. 1979. Indiana and Wisconsin were the only known localities. *Baetis quillieri* Dobbs: Louisiana, De Soto Parish and Red River Parish line, Bayou Pierre near Lake End. T.11N., R.9W., S.36. 22 Aug. 1979. Common to the extreme southwest. *Leptohyphes dolani* Allen (Tricorythidae): Florida, Hamilton County and Madison County line, Withlacoochee River near Pinetta. T.3N., R.10E., S.204,205. 13 Sept. 1979. Previously collected from Savannah River, Georgia. *Spinadis* sp. Edmunds and Jensen (Heptageniidae): Arkansas, Jefferson County, Arkansas River near Pine Bluff. T.6S., R.7W., S.7. 15 May 1980. This rarely collected genus was known from Georgia, Indiana, and Wisconsin.

Baetis ephippiatus and *Baetis quillieri* larvae were collected from submerged aquatic vegetation and wood in current varying from 0.2 m/s in silty areas to 0.4 m/s in sandy reaches. Riparian vegetation formed a partially closed canopy over the stream which varied from 3 m to 15 m in width. Common co-habitators were *Hydropsyche rossi* Flint, Voshell, and Parker, *Caenis* sp., *Stenacron floridensis* (Lewis), *Polypedilum* sp. and *Rheotanytarsus* sp. In Florida, *B. ephippiatus* occurs on vegetation in sand bottom streams (Berner, L., 1950. Univ. Fla. Biol. Sci. Ser. 4:1-267). Since *B. quillieri* larvae were only recently described no comparative ecological data exist.

Baetis longipalpus colonized bole wood, tree limbs, and whole trees in the Red River, a highly erosional environment where shifting sand is the dominate bottom type. The collection area was 250 m to 400 m wide and 4 m deep; current varied from 0.3 m/s to 0.8 m/s. Large rivers are the only known habitat of *B. longipalpus* (Morihara, D. K. and W. P. McCafferty, 1979. Proc. Entomol. Soc. Wash. 81: 34-37). Other species sharing this habitat were *Hydropsyche orris* Ross, *Psychopsyche flava* (Hagen), *Pentagenia vittigera* (Walsh), *Torotopus incertus* (Traver), *Polypedilum* sp., and *Rheotanytarsus* sp. The ephemeroptera were captured from the drift; presumably they burrowed into stable clay banks.

Since *Spinadis* sp. and *Anepeorus simplex* were collected in drift nets in mid-river, their specific habitat was not observed. At the collection site, the Arkansas River is 500 m wide and 6 m deep with a boulder and gravel bottom. Current

varied from 0.7 m/s to 0.9 m/s; however, wingdams greatly reduced the current near shore permitting a silty substrata to form. These species are apparently restricted to large rivers (Edmunds, G. F. Jr., S. L. Jensen, and L. Berner, 1976. Univ. Minn. Press, Minneapolis, pp. 1-330). *Cyrnellus fraternus* (Banks), *H. orris*, *Hexagenia* sp., *P. vittigera*, *Dicrotendipes* sp., and *Gyptotendipes* sp. were dominant members in this community.

Leptohyphes dolani occurred on calcareous rock and wood in slow current (0.2 m/s) in the Withlacoochee River; most of the surface was shaded by a dense tree canopy. *Baetis ephippiatus*, *Stenonema exiguum* Traver, *Hydropsyche venularis* Banks, *Chimara socia* Hagen, *Pentaneura* sp., and *Rheotanytarsus* sp. were abundant at this site. Allen (1967. Can. Entomol. 99: 350-375) reported *L. dolani* from the Savannah River in Georgia but did not describe the habitat.

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