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## THE MAYFLY, *DOLANIA AMERICANA*, (EPHEMEROPTERA: BEHNINGIIDAE) IN ALABAMA<sup>1</sup>

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**ABSTRACT:** Nymphs of *Dolania americana* were collected from the Blackwater River, Escambia County, Alabama. The collection represents a new state record. Substrate conditions were similar to those previously reported for the species. The collections indicate that the species may occupy sites in lower order watercourses.

The rarely collected mayfly, *Dolania americana* Edmunds and Traver, has been reported from five areas scattered along the Coastal Plain of the southeastern United States from Louisiana to North Carolina (Edmunds and Traver 1959; Schneider 1966; Tsui and Hubbard 1979; Finn and Herlong 1980; Benke *et al.* 1984). Kondratieff and Harris (1986) did not report this species from Alabama.

On November 17, 1985 one *Dolania americana* nymph was collected from the Blackwater River at Escambia County Rd. 4, 1.6 km E Bradley, Escambia County, Alabama. A subsequent attempt to collect nymphs at the same site in December 1985 was unsuccessful, but a third attempt on March 9, 1986 yielded three additional specimens. The nymphs were collected by straining sand from the stream bottom through a 3.2 mm mesh screen. The four nymphs obtained ranged in length from 13.3 to 14.8 mm. The three specimens taken in March showed darkening of the cuticle characteristic of pre-emergent nymphs.

All four specimens were obtained in the upper 10 cm of clean shifting sand. The water depth at the time of both collections was approximately 20 cm. The current speed in the microhabitat where nymphs were found was sufficient to cause continual slow shifting of the sand on the bottom. No *Dolania* nymphs were taken in microhabitats where organic detritus and leaf litter had accumulated; although nymphs of the gomphid, *Progomphus obscurus* (Rambur), were present at all sites. Most stretches of the Blackwater River near this site range from 10-15 m in width. However, the site from which *Dolania* were obtained was a widened portion up to 20 m and was shallower than adjacent narrower stretches. The adjacent bottomland trees do not form a closed canopy over the stream at this site. A short distance north of the bridge the river forks into several small streams. Suitable *Dolania* habitat is therefore probably not present north of the

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collecting site.

Although the presence of *Dolania* at this site is of little zoogeographic significance because of the proximity of previously known Florida sites downstream (Peters and Peters 1977), the collections document the occurrence of the species in Alabama and indicate that it occurs at sites in lower order watercourses than those from which it had previously been reported. It is therefore possible that the species may be present in similar unperturbed shifting sand streams on the southeastern Coastal Plain.

#### LITERATURE CITED

- Benke, A.C., T.C. VanArsdall, Jr., D.M. Gillespie, and F.K. Parrish. 1984. Invertebrate productivity in a subtropical blackwater river: the importance of habitat and life history. Ecol. Monogr. 54:25-63.
- Edmunds, G.F., Jr., and J.R. Traver. 1959. The classification of the Ephemeroptera I. Ephemeroidea: Behningiidae. Ann. Entomol. Soc. Amer. 52:43-51.
- Finn, P.L., and D.D. Herlong. 1980. New distributional record of *Dolania americana* (Ephemeroptera: Behningiidae). Entomol. News 91:102-104.
- Kondratieff, B.C., and S.C. Harris. 1986. Preliminary checklist of the mayflies (Ephemeroptera) of Alabama. Entomol. News 97:230-236.
- Peters, W.H., and J.G. Peters. 1977. Adult life and emergence of *Dolania americana* in northwestern Florida (Ephemeroptera: Behningiidae). Int. Revue ges. Hydrobiol. 62:409-438.
- Schneider, R.F. 1966 Mayfly nymphs from northwestern Florida. Quart. J. Fla. Acad. Sci. 29:203-206.
- Tsui, P.T.P., and M.D. Hubbard. 1979. Feeding habits of the predaceous nymphs of *Dolania americana* in northwestern Florida (Ephemeroptera: Behningiidae). Hydrobiologia 67:119-123.