

NOTES

PARTHENOGENESIS IN THE BURROWING MAYFLY *HEXAGENIA RIGIDA* (EPHEMEROPTERA)

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Parthenogenesis in North American mayflies occurs in *Ameletus ludens* Needham (Clemens 1922), *Ephoron album* (Say) (Britt 1962), *Stenonema fermoratum* (Say) (McCafferty and Huff 1974), *S. interpunctatum* (Say), *S. pulchellum* (Walsh), and *S. vicarium* (Walker) (Huff and McCafferty 1974). Attempts to determine its occurrence in the genus *Hexagenia* are reported for *H. limbata occulta* Walker (Neave 1932), *H. limbata* (Serville) (Hunt 1953), and *H. bilineata* (Say) (Thomforde and Fremling 1968). The purpose of this note is to report hatching in unfertilized eggs of *H. rigida* McDunnough.

Eggs were obtained from a total of 35 females which had had no contact with males after emergence. Twenty-seven of the females were reared from eggs obtained from females collected in the summer of 1974 along the shore of the Red River at the Perimeter Highway, south of Winnipeg, Manitoba, Canada. These eggs were incubated at 18°–20°C under continuous light and nymphs were reared in a silt substrate under the same temperature and light conditions. The other eight females were reared from late instar nymphs collected in the summer of 1975 from the Red River near the 1974 site. These nymphs were reared in silt substrate at 25°C under a 16 h light and 8 h dark cycle.

Eggs from the 35 females were released by dissection and incubated at 18°–20°C under continuous light and observed for hatching for 1 month. Sixteen (46%) of these females produced eggs which hatched. The proportion of hatching in 1577 eggs from one female was found to be 141/1577 (9%).

Work on the rearing of these nymphs is currently under way in an attempt to establish a continuous laboratory culture.

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