

REPRODUCTION BY INDIVIDUALS OF A NON-REPRODUCING POPULATION OF *Megaloniais nervosa* FOLLOWING TRANSLOCATION. Oven, Jackie H., and James B. Layzer. Tennessee Cooperative Fishery Research Unit, Tennessee Technological University, Box 5114, Cookeville, TN 38505. (Tel. 615/372-3032).

Reproduction of *Megaloniais nervosa* has not been documented for >20 yrs in much of the Cumberland River where water temperature and flow regimes have been greatly altered by hypolimnetic discharges. Studies in other streams have implicated altered temperature or discharge patterns as causative factors inhibiting reproduction. *Megaloniais nervosa* were collected from the Cumberland River, translocated to the Tennessee River and held in an embayment of Kentucky Lake. One year later, samples of *M. nervosa* were taken from the Cumberland River, Kentucky Lake, and the translocated group. Histological examination indicated that translocated mussels and mussels originating in Kentucky Lake had undergone normal reproductive development and females of both samples had mature glochidia in their marsupium. In contrast, there was no indication of reproductive activity in gonads or marsupium of individuals collected from the Cumberland River. Our results indicate that the altered temperature regime is disrupting the normal gametogenic cycle, and that translocation to a more normal thermal regime will reinitiate a normal cycle. We suspect that the altered thermal regime is also disrupting the gametogenic cycle of endangered mussel species occurring in the Cumberland River. These relict populations will disappear unless they are translocated or the thermal regime returned to normal.

ORAL PRESENTATION. Contact JBL at same tel. number if JHO is not available.