



## **SAMPLE ABSTRACT**

### **AN EXAMINATION OF FEED QUANTITY REQUIREMENTS FOR RIFFLESHELL MUSSELS (*EPIOBLASMA* SPP.) HELD AT WHITE SULPHUR SPRINGS NATIONAL**

#### **FISH HATCHERY, WEST VIRGINIA**

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Knowledge of feed quantity requirements is essential to successful captive care of freshwater mussels. An optimum ration was determined for riffleshell mussels *Epioblasma spp.* held at White Sulphur Springs National Fish Hatchery, West Virginia. Cumberlandian combshell *E. brevidens*, oyster mussel *E. capsaeformis*, snuffbox *E. triquetra*, and northern riffleshell *E. torulosa rangiana*, along with the rainbow mussel *Villosa iris* were fed one of four rations (20,000 cells ml<sup>-1</sup>, 40,000 cells ml<sup>-1</sup>, 80,000 cells ml<sup>-1</sup>, or 120,000 cells ml<sup>-1</sup>) of the alga *Neochloris oleoabundans* for two-hour trials in June (15°C), August (18°C), and December (11°C), 2006. Measurements of filtration rate and absorption rate were used to determine milligrams of feed mussels absorbed per hour (net absorption rate). Optimum rations were based upon observed net absorption rates, and were compared among *Epioblasma spp.*, *Epioblasma* vs. *Villosa*, between sexes, and among seasons. No differences were observed among *Epioblasma spp.* ( $P > .05$ ), nor between genera ( $P > .05$ ), or sexes ( $P > .05$ ). Net absorption rates in June were significantly lower than in August ( $P < .05$ ). Scheduled tests will determine net absorption rates of mussels in December. Optimum rations for *Epioblasma spp.* fed *N. oleoabundans* were 40,000-80,000 cells ml<sup>-1</sup> in June (15°C), and 80,000-120,000 cells ml<sup>-1</sup> in August (18°C).