

# **Brown Trout Fry From Naturalized and Stocked Populations: Relationships Between Emergence Time and Food Availability**

by

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## **ABSTRACT**

The size and composition of drifting invertebrates available throughout the emergence period of brown trout may affect survival rates of newly emerged fry. Differences in the stocking history of the Coon Creek and Mormon Creek sub-watersheds (southwestern Wisconsin tributaries to the Mississippi River) have resulted in bimodal emergence patterns of brown trout fry. Domestic (recently stocked) trout commonly emerge three weeks earlier than naturalized stocks. The effects of early emergence were analyzed by collecting brown trout fry and invertebrates weekly throughout the emergence period (April 12-May 25, 2000). Brown trout fry were collected with an electroshocker, weighed, measured (gape and total length), and dissected to analyze stomach contents. Temporal variations in quality and quantity of invertebrate prey were determined by analysis of drift net samples that were collected concurrently with the trout fry. Biomass of drifting preferred prey (*Baetis* spp., and Chironomidae larvae and pupae) in three streams increased over time. Therefore, domestic fish within these streams may emerge at times that are not ideally matched with availability of preferred prey.