

ABSTRACT

STREAM RESOURCE UTILIZATION OF SYMPATRIC AND
ALLOPATRIC JUVENILE BROWN (Salmo trutta) AND
STEELHEAD TROUT (Salmo gairdneri)

By

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The dietary and habitat preferences of sympatric and allopatric juvenile brown (Salmo trutta) and steelhead trout (Salmo gairdneri) were measured in order to assess potential areas of interaction between the two species.

Juvenile brown and steelhead trout in the Little Manistee, Pere Marquette, and Boardman Rivers were found to utilize the same food and space resources. Both species ate primarily chironomid and simuliid larvae of approximately the same size.

Analysis of habitat utilization indicated that both brown and steelhead trout are commonly associated with instream structure, particularly down timber. No major differences in utilization were observed for sympatric versus allopatric populations of these trout. However, differences in physical parameters such as depth and velocity did allow distinction to be made between trout populations from different rivers.