

## Feeding habits of the alien brook trout

Quantifying patterns of prey resource use is fundamental to identify mechanisms enabling the coexistence of related fish species. Trophic interactions between the native brown trout, *Salmo trutta*, and the introduced brook trout, *Salvelinus fontinalis*, were studied monthly from May to October in three mountain streams in Central Europe (Czech Republic). To evaluate whether the feeding habits differ between separated and coexisting populations of these species, one locality where both species coexist, and two allopatric populations of either species were studied. Across the study period, the mean stomach fullness of fish varied, being highest in spring and declining through autumn. The diet overlap (Schoener's overlap index) between the species increased through the studied season (from 54.5% in July to 81.5% in October). In allopatry, both species had nearly the same feeding habits. However, in sympatry, brook trout consumed higher proportion of terrestrial invertebrates, while brown trout showed no changes either in the proportions of aquatic and terrestrial prey utilized or in the selectivity for prey categories in comparison to allopatric conditions. The dietary shift observed for brook trout, but not for brown trout, suggests that brown trout is a stronger competitor in the studied sympatric locality, leading the brook trout to change its feeding habits to reduce interspecific competition.

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