



Tiberti Rocco, Stefano Brighenti, Rocco Iacobuzio, Giulia Pasquini, Matteo Rolla. 2014. Behind the impact of introduced salmonids in high altitude lakes: adult, not juvenile fish are responsible of the selective predation on crustacean zooplankton. *Journal of Limnology*, 73:593-597.

Introduced fish seriously affect zooplankton communities in mountain lakes, often leading to the loss of large species. Selective predation is recognized to be the ultimate cause of such a strong impact. Here we describe the selection of zooplankton prey by analyzing the stomach contents of more than 300 brook trout (*Salvelinus fontinalis*) inhabiting seven alpine lakes in the Gran Paradiso National Park (western Italian Alps). Our results show that planktivory is much more common in young fish, which feed on a larger number of taxa, but also adult fish maintain the ability to feed on zooplankton. There is a direct dependence between the length of zooplankton prey and the length of their fish predators, and adult, not juvenile fish are responsible of the selective predation on large crustacean zooplankton, which drive the impact of introduced fish throughout the entire zooplankton community. In some rare cases, large zooplankton populations develop in the presence of brook trout, and planktivory can become an important temporary resource for adult fish during the ice-free season. Thus, in the early stages of the establishment of non-native trout in alpine lakes, large-bodied zooplankton may represent an important food resource.