
GOBY MEETING 2020



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Abstract Submission

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Title of presentation	Diet overlap between the invasive round goby (<i>Neogobius melanostomus</i>) and native fish in two Danube tributaries, Bulgaria	
<input type="checkbox"/> Oral presentation		
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In its invasive range along Europe and North America the round goby (<i>Neogobius melanostomus</i>) has been reported to suppress native species though predation and competition. Here we aim to evaluate potential competition in feeding by analysing dietary overlap of the round goby with 11 other fish species – barble <i>Barbus petenyi</i> , vimba bream <i>Vimba vimba</i> , gudgeon <i>Gobio gobio</i> , European perch <i>Perca fluviatilis</i> , schneider <i>Alburnoides bipunctatus</i> , common bleak <i>Alburnus</i>

alburnus, chub *Squalius cephalus*, monkey goby *Neogobius fluviatilis*, stone moroko *Pseudorasbora parva* and two loach species *Cobitis albicollis* and *C. taenia*. Gut content was examined from 1121 individuals in total. Sampling was conducted each month between March 2017 – April 2018 from Iskar and Vit rivers (Danube basin, Bulgaria). A moderate overlap (around 50% similarity in the diet) was observed between *N. melanostomus* and barbel, vimba bream and monkey goby in Iskar River, commonly for Diptera and Trichoptera larvae. The relatively low abundance of these invertebrates (50 ind/m² or less) in the river could result in possible competition between these fish. In Vit River dietary overlap of *N. melanostomus* was also moderate, but with gudgeon and European perch, mainly for Trichoptera larvae and gammarids. High abundance of the latter (200 ind/m²) probably illustrates opportunism in the feeding of these fish and possibly low competition. By utilising algae and terrestrial insects schneider, chub and common bleak showed little overlap with the round goby. High macroinvertebrate abundance and only moderate similarities in feeding, indicate that round goby probably does not suppress local fish species.

Keywords (max 6) Round goby, Danube tributaries, *Neogobius melanostomus*, diet overlap, competition, native fish