S1 | Functional response analysis

Further, we perform a functional response analysis (FR) showing the relation between total consumption (native plus non-native) and total prey availability (native plus non-native). We performed to show that the experiment was conducted to reach the maximum consumption of the predator. We performed this analysis using the 'Frair' package (Pritchard, 2017). First, the FR type (*i.e.*, Type I, II or III) was determined using logistic regression of the proportion of prey consumed by the initial density of prey (Trexler *et al.*, 1988; Pritchard *et al.*, 2017). The FR curves and the parameters of attack rate (a) and handling time (h) were obtained using Rogers' random predator equation (Rogers, 1972) with maximum likelihood estimation (Holling, 1959; Bolker, 2008). This equation was used considering the depletion of prey (Juliano, 2001; Pritchard *et al.*, 2017):

$$N_e = N_0(1 - exp[a(N_e h - T)])$$

Where N_e is the number of prey consumed, N_0 is the initial density of prey, a is the attack rate, h is the handling time, and T is the experimental period, given in days. The handling time parameter was used to calculate the maximum feeding rate calculated as 1/hT (Fernández-Arhex, Corley, 2004; Dick *et al.*, 2013; Pritchard *et al.*, 2017). Uncertainty around the fitted functional responses was evaluated using 95% confidence intervals of FR curves were constructed by bootstrapping (n = 2000).

In this analysis, we found negative linear coefficient in the logistic regressions for each prey type, indicating FRs were type II (Density= -0.647 ± 0.007, z = -8.584, p < 0.005) (Fig. 1). The FR parameters estimates were statistically significant (a = 0.057 ± 0.008, z = 7.111, p < 0.005) with 1/hT =. 0.007. The type II FRs found align with

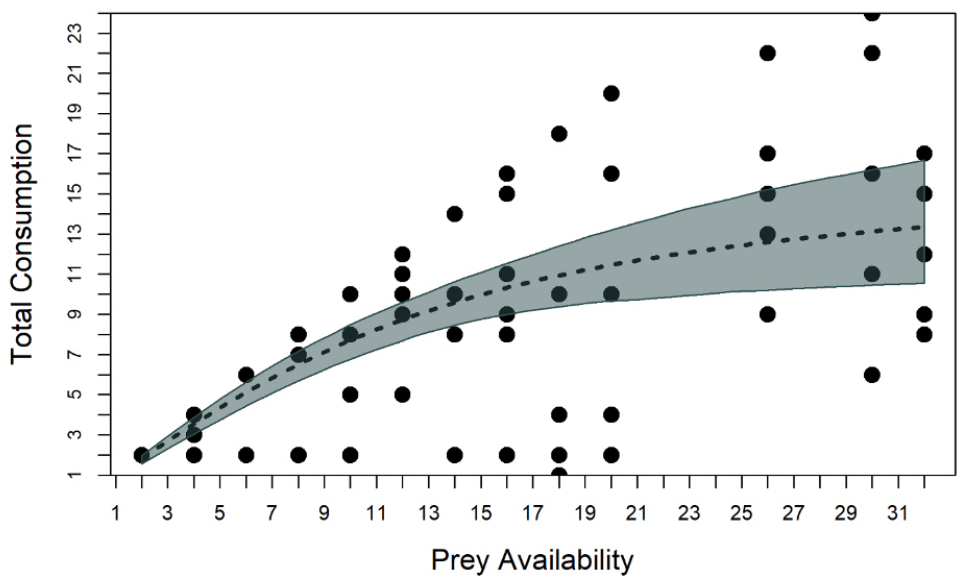

FIGURE S1 | Functional Response Analysis of *Micropterus salmoides* as predator of *Oreochromis niloticus*, *Coptodon rendalli*, and *Geophagus iporangensis*. The total consumption is a function of prey availability considering all preys together, given they were in the same experimental unit.

previous studies in *M. salmoides* (Alexander *et al*., 2014; Khosa *et al*., 2020; Cuthbert *et al*., 2020) and shows the point where the maximum consumption has been reached, from there the consumption remains relatively constant. We are aware that FR is correctly estimated using preys separately in experimental units. Here, preys co-exist and the FR below is thus a modification of classical FR of the non-native predator toward preys from different origins (native and non-native) in a co-existence scenario.

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