**Abbreviated abstract**

This study proposes an experimental framework combining controlled feeding trials and stable isotope analysis to quantify the degree of intraguild predation (IGP) in an omnivorous food web consisting of a top predator, a mesopredator, and a shared prey. Feeding trials along with stable isotope analysis are used to construct a standard IGP curve, to which the nitrogen isotope signatures of field-collected top predator individuals are interpolated to estimate the degree of IGP in the field. The proposed framework leverages the strengths of different experimental approaches to study trophic interactions, providing a useful tool for quantifying IGP in a more accurate and realistic fashion.