Intraguild predation: a widespread interaction related to species biology

Matías Arim, Pablo A. Marquet

Abstract

Intraguild predation (IGP), defined as killing and eating among potential competitors, seems to be a ubiquitous interaction, differing from competition or predation. In the present study we assess the frequency of IGP among 763 potential intraguild prey and 599 potential intraguild predators. Our results indicate that IGP is common in nature, reaching frequencies between 58.4 and 86.7%. A null model suggests that IGP in different groups of predators and prey (i.e. carnivores, omnivores, herbivores, detritivores, or top and intermediate species) have different deviations from a chance expectation, indicating these attributes of species biology as main determinants of IGP persistence. We suggest that IGP satisfies two basic requirements to be considered as important to the trophic structuring of communities. First, its occurrence is not random, rather it is associated with well-defined attributes of species biology, and secondly, it is a widespread interaction.