

Of natural predation and gastronomy: Who's eating the invasive lionfish (*Pterois miles*) in Cyprus (Levantine Sea)

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Since its appearance in western Atlantic and Caribbean waters, the Indo-Pacific lionfish (*Pterois miles* and *Pterois volitans*) are an invasive species of celebrity status. Their populations have impacted local marine ecology within their invaded areas by exhibiting biological and ecological traits that facilitate their dispersion and successful establishment. Since 2012, *P. miles* is one among recent invasive species that has already overtaken the eastern Mediterranean Levantine Sea while rapidly expanding westwards. A factor that may be contributing to lionfish success is the prey and predator so-called naïveté. Lionfish is consuming naïve prey while experiencing low to none predation from native naïve predators (i.e. enemy release). Natural predation and human exploitation are considered as necessary structuring forces for controlling lionfish populations. In consequence, information of when and where predation by native mesopredators and consumption by humans begin is important for management strategies of this invasive species in the Mediterranean and elsewhere. Here we present a chronology (2012 to date) and spatial distribution of this process in Cyprus. One mesopredator fish species seemingly begun to prey on lionfish as early as two years after the onset of the lionfish expansion in Cyprus and another fish species was first observed by accident in 2017 ingesting a lionfish. Predation of lionfish is occurring at different depths and throughout the year. Humans lost their naïveté during the early stages of the lionfish invasion (2014/2015) when a few persons (all with access to information in the web) showed an experimental gastronomical interest on the lionfish. Since then, the frequency of the consumption of lionfish and its acceptance (not anymore considered a preposterous idea to consume this species), increased in a temporal pattern that closely matches dissemination of information about the lionfish by different sources and types of media (e.g. TV, newspapers, web), as well as the increase in the abundance of the lionfish around the island. There is an incipient trade for this species in the artisanal market where the lionfish in the bycatch is transported inland to villages for its consumption. For management purposes is important to perform comparative studies on the social and natural consumption of the lionfish in other affected areas of the Mediterranean.

Keywords: invasive species; Pterois; lionfish; opportunistic predation; mesopredator; human consumption