

Is the enemy of your enemy your friend? On the potential of lacertid lizards to control pests and protect plants

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Lizards are dominant elements of Mediterranean ecosystems and achieve high population densities across a broad range of natural and human-modified habitats. Despite their prominence, little is known on their functional role as mesopredators in affecting arthropod populations. Furthermore, ecological theory suggests that lizards can be drivers of trophic cascades, a phenomenon that has implications for crop protection in traditional agricultural areas. Conversely, some evidence suggests that lizard population densities may be determined by bottom-up effects, i.e. by local arthropod population sizes. Here we present the results from a combination of observational studies and experimental manipulations on the two-way relationship between lizards and the local food webs as well as the implications for low-impact agricultural practices.