

Title: A progressing, ten year long mark-recapture study of an isolated population of the Mediterranean Gecko (*Hemidactylus turcicus*) in Bedford County, Virginia.

Program of Study: Environmental Studies

Presentation Type: Print Poster

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Category: Experimental (Basic)

Introduced species can have positive and negative effects on local ecosystems. The Mediterranean gecko (*Hemidactylus turcicus*) is an introduced lizard that can be found in isolated populations in North America. Instances of species dispersal have been linked to anthropogenic impacts. Monitoring trends in a local isolated population of *H. turcicus* presents an opportunity to understand how this introduced species competes for survival and impacts a non-native environment. The application of a mark-recapture method in studying an isolated population of *H. turcicus* provides access to data that can further an understanding of population trends. Nocturnal mark-recapture surveys on a Central Virginia population of *H. turcicus* were conducted during the summer from 2007-2010, 2013, and 2015. Published accounts of population trends from 2007-2008 provide initial insights into this population. This research seeks to analyze subsequent population samplings to further investigate the ecology and natural history of an isolated population of *H. turcicus*.

Christian Worldview Statement: My Christian worldview is foundational to how I process data from the research that is presented to me. I believe that more we learn and discover about God's creation, the more we begin to learn about ourselves and God. God is the creator of all things. He has created many creatures to leave in a variety of locations. Some species thrive in more specific locations than others. It is a delight to see that despite the fall of man, sin and death

enters the world; this species of gecko, *H. turcicus*, is not limited to living and thriving in one location. It is always interesting to see how a species can be introduced into a foreign environment and still thrive. The Mediterranean gecko is a prime example of this. The adaptability of the Mediterranean gecko shows off God's handy work; that even when His creation is corrupted it is still magnificent.