

# Human-Mediated Dispersal of the Mediterranean Gecko (*Hemidactylus turcicus*) in Texas

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Exotic species are rapidly becoming an important consideration for conservation. Geographic range expansion of exotic species continues to draw attention as should the dispersal agents and life history stages of the dispersed organisms. Here, we report a human-mediated dispersal event (anthropochore) involving the Mediterranean Gecko (*Hemidactylus turcicus*) in Texas.

*Hemidactylus turcicus*, a geographically widespread exotic species in the United States (Conant and Collins. 1998. Reptiles and Amphibians of Eastern and Central North America. 3rd ed., Houghton Mifflin Co., Boston. 450 pp.; Meshaka et al. 2006. Herpetol. Conserv. Biol. 1:45-50) that is typically associated with buildings and other human structures (Rose and Barbour 1968. American Midl. Nat. 79:159-168; Dundee and Rosman 1989. Amphibians and Reptiles of Louisiana. Louisiana State University Press, Baton Rouge. 295 pp.). The geographic range expansion since its introduction into the United States has been well discussed (Meshaka et al. 2006). However, little information is available that quantifies dispersal of this species. Some researchers have noted the connection between the distribution of this species along trucking routes and the role trucks play in its dispersal (Davis 1974. Journ. Herpetol. 8: 77-80; Meshaka 1995. Florida Scientist 58: 10-15), and other researchers have underscored the importance of eggs as the most common and successful life history stage in the dispersal of this species (Selcer 1986. Copeia 1986: 956-962). Herein, we report a case of human-mediated dispersal of this species by the U.S. Postal Service to a new site within its geographic range and comment on its implications.

We discovered a live juvenile female *H. tur-*

*cicus* (1.327 g, Total Length = 84 mm, SVL = 40 mm, Tail Length = 44 mm) among a shipment of boxes as they were delivered by the U.S. Postal Service to the Texas A&M University-Texarkana mailroom on 14 May 2007. The outside temperature was 28–30 C. *Hemidactylus turcicus* had not been reported on the A&M-Texarkana campus before this incident. This observation supports the assertion that juveniles and adults can be spread via shipments inside the cargo area of trucks.

Mail truck activity and human-associated vagility by species such as *H. turcicus*, provide repeated rapid and long distance dispersal that is otherwise naturally uncommon or absent. The availability of mail trucks as dispersal agents for *H. turcicus* provides ample opportunity for exchange of genetic material to improve heterozygosity among populations, especially those founded by only a few individuals. It could also serve to disperse diseased individuals, which might negatively impact native species. Mail truck dispersal could also provide opportunities for dispersal to new locations, such as Texas A&M University-Texarkana, which in this case involved the dispersal of a presumably single individual of a young female. In this situation, the frequent stops made by mail trucks increase the likelihood of a shorter wait for a potential mate for this female than at buildings with less reliable dispersal opportunities. In light of the negative ecological consequences associated with incidental dispersal of organisms, such as *H. turcicus* by mail trucks, we suggest another layer of attention to be paid to parcels delivered by U.S. Postal Service.

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