The Argentine Black and White Tegu in South Florida

Population Growth, Spread, and Containment

Florida's Reptilian Invasion

The accumulation of exotic reptiles and amphibians in Florida has been called a "runaway train" that has yet to be controlled (Meshaka 2011). The state is home to more nonnative species of reptiles and amphibians than anywhere else in the world. South Florida is especially at risk because of its subtropical climate, large areas of disturbed habitats, and thriving trade in exotic pets. Although pythons have received the majority of public attention, invasive lizards also pose a significant threat to south Florida's native wildlife and ecosystems.

The Argentine black and white tegu (*Salvator merianae*, formerly *Tupinambis merianae;* Harvey et al. 2012) was introduced to Florida through the pet trade and has established breeding populations in Hillsborough County (central Florida) and Miami-Dade County (south Florida). The tegu is one of the largest lizard species in the Western Hemisphere, growing up to four feet in total length. Females lay an average of 35 eggs per year starting at age three or four. Tegus have survived below-freezing temperatures in Florida by burrowing during the winter months (McEachern et al. 2015). The tegu's broad habitat use and omnivorous diet create the potential for severe ecological impacts.

More Tegus in More Areas

Collaborative interagency efforts to assess the south Florida tegu population through surveys, trapping, radio-tracking, and removal began in 2009 within the Everglades Cooperative Invasive Species Management Area (ECISMA). Since then, Argentine black and white tegus have grown in number and expanded their range in south Florida. Figure 1 shows the number of tegus removed per year by ECISMA cooperators. Both the number of tegus removed and the effort expended to catch them have increased. These totals do not include tegus removed by private trappers, some of whom reported removing more than 400 in one year.

Argentine black and white tegu (*Salvator merianae*)
Photo: Robin Bijlani, University of Florida

The south Florida tegu population is centered in Florida City and Southern Glades Wildlife and Environmental Area, about six miles from Everglades National Park (Figure 2). Tegus are dispersing from this core area. To the east, they are approaching the Turkey Point Power Plant site, a nesting area of federally threatened American crocodiles (*Crocodylus acutus*). To the west and south they are advancing toward Everglades National Park and the Florida Keys (Figure 2). Levees facilitate tegus' spread into vulnerable habitats that would otherwise be isolated from terrestrial invaders (Klug et al. 2015).

Recent tegu sightings west of the Everglades Agricultural Area and south of the Caloosahatchee River suggest that southwest Florida may also be vulnerable to invasion.

Figure 1. Tegus removed by year (2009–2014) by Florida Fish and Wildlife Conservation Commission, University of Florida, and partners within the Everglades Cooperative Invasive Species Management Area.
Source: Florida Fish & Wildlife Conservation Commission

Figure 2. Tegu locations by year in southern Miami-Dade County.
Source: Florida Fish and Wildlife Conservation Commission. 2014. Exotic species database. Florida Fish and Wildlife Conservation Commission, Tallahassee, FL (accessed December 1, 2014)

UF UNIVERSITY of FLORIDA

Institute of Food and Agricultural Sciences
IFAS Publication Number WEC-360
November 2015