

SUPPLEMENTAL INFORMATION

**THE ROLE OF INVASIVE SPECIES AND CHARISMATIC MEGAFUNA
IN EVERGLADES HERPETOFAUNAL RESEARCH**

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Table S1. List of published studies, and associated metadata, examining Everglades herpetofauna between 2001 and 2021.

Authors	Year	Title	Urban or Natural	Taxon	Primary Research Category	Funding	State Funding	Federal Funding	Local /Private Funding
Goetz et al.	2018	Reduced innate immunity of Cuban Treefrogs at leading edge of range expansion	U	Anurans	Animal Health and Disease	Auburn University	0	0	1
Meshaka and Layne	2005	Habitat relationships and seasonal activity of the greenhouse frog (<i>Eleutherodactylus planirostris</i>) in Southern Florida	U	Anurans	Habitat Use / Distribution / Niche Modeling	N/A			
Johnston et al.	2008	Ecology of a freshwater turtle guild in a southern Florida canal system	U	Chelonians	Species Interaction / Community Ecology	N/A			
Figueroa et al.	2021	Seed consumption by gopher tortoises (<i>Gopherus polyphemus</i>) in the globally imperiled pine rockland ecosystem of Southern Florida, USA	U	Chelonians	Dietary	N/A			
Ljustina and Shelby	2018	Using canals in Southern Florida to measure impacts of urbanization on herpetofaunal community composition	U	Chelonians	Habitat Use / Distribution / Niche Modeling	N/A			
Corn et al.	2010	First Reports of Ectoparasites collected from wild-caught exotic reptiles in Florida	U	Community	Animal Health and Disease	USDA, FWC, USGS	1	1	0
Goetz et al.	2018	Toxic, invasive treefrog creates evolutionary trap for native gartersnakes.	U	Community	Evolution / Taxonomy	Auburn University	0	0	1
Mazzotti et al.	2016	Large reptiles and cold temperatures: Do extreme cold spells set distributional limits for tropical reptiles in Florida?	U	Community	Habitat Use / Distribution / Niche Modeling	NPS, USGS, UF	0	1	1

Osland et al.	2021	Tropicalization of temperate ecosystems in North America: The northward range expansion of tropical organisms in response to warming winter temperatures	U	Community	Habitat Use / Distribution / Niche Modeling	USGS, USFWS, State of Florida, NASA, etc.	1	1	0
Engeman et al.	2011	The aggressive invasion of exotic reptiles in Florida with a focus on prominent species: A Review	U	Community	Habitat Use / Distribution / Niche Modeling	N/A			
Meshaka	2011	A runaway train in the making: the exotic amphibians, reptiles, turtles, and crocodilians of Florida. Monograph 1	U	Community	Habitat Use / Distribution / Niche Modeling	N/A			
Krysko et al.	2011	Verified non-indigenous amphibians and reptiles in Florida from 1863 through 2010: Outlining the invasion process and identifying invasion pathways	U	Community	Habitat Use / Distribution / Niche Modeling	N/A			
Krysko et al.	2016	New verified nonindigenous amphibians and reptiles in Florida through 2015, with a summary of over 152 years of introductions	U	Community	Habitat Use / Distribution / Niche Modeling	N/A			
Fujisaki et al.	2010	Risk assessment of potential invasiveness of exotic reptiles imported to south Florida	U	Community	Restoration / Conservation	SFWMD, USGS Priority Ecosystem Studies Program	1	1	0
Main and Allen	2002	Landscape and seasonal influences on roadkill of wildlife in Southwest Florida	U	Community	Restoration / Conservation	N/A			
Clements et al.	2019	Non-native species dominate herpetofaunal community patterns in both native and non-native habitat patches in urban Miami-Dade County	U	Community	Species Interaction / Community Ecology	UM, William Evoy Fund	0	0	1
Smith	2006	Patterns of nonindigenous herpetofaunal richness and biotic homogenization among Florida counties	U	Community	Species Interaction / Community Ecology	University of Tennessee	0	0	1

Enge et al.	2004	Reptile surveys of pine Rockland habitat in six Miami Dade county parts	U	Community	Species Interaction / Community Ecology	N/A			
Fujisaki et al.	2012	Use of alligator hole abundance and occupancy rates as indicators for restoration of a human-altered wetland	U	Crocodylians	Habitat Use / Distribution / Niche Modeling	USGS Army Corp of Engineers, USGS, NPS	0	1	0
Rochford et al.	2016	Molecular analyses confirming the introduction of Nile crocodiles, <i>Crocodylus niloticus</i> Laurenti 1768 (Crocodylidae), in southern Florida, with an assessment of potential for invasion	U	Crocodylians	Habitat Use / Distribution / Niche Modeling	N/A			
Burger et al.	2004	Gender and spatial patterns in metal concentrations in brown anoles (<i>Anolis sagrei</i>) in Southern Florida, USA	U	Squamates	Animal Health and Disease	NIEHS. Institute for Biological Invasions	0	1	1
Sanger et al.	2018	The effects of thermal stress on the early development of the lizard <i>Anolis sagrei</i>	U	Squamates	Animal Health and Disease	Loyola University of Chicago	0	0	1
Tokarz et al.	2002	Effects of testosterone treatment and season on the frequency of dewlap extensions during male-male interactions in the lizard <i>Anolis sagrei</i>	U	Squamates	Animal Health and Disease	NSF	0	1	0
Epstein et al.	2020	Diagnosis and successful medical management of a colonic, urate enterolith in an Argentine Black and White Tegu (<i>Salvator merianae</i>)	U	Squamates	Animal Health and Disease	N/A			
Parker et al.	2021	using enclosed y-mazes to assess chemosensory behavior in reptiles	U	Squamates	Behavioral Studies	NPS, James Madison university	0	1	1
Kolbe et al.	2021	Bright lights, big city: an experimental assessment of short-term behavioral and performance	U	Squamates	Behavioral Studies	University of Rhode Island and	0	1	1

		effects of artificial light at night on Anolis lizards				National Geographic Society			
Stroud et al.	2019	behavioral shifts with urbanization may facilitate biological invasion of a widespread lizard	U	Squamates	Behavioral Studies	Florida International University	0	0	1
Aviles-Rodriguez and Kolbe	2019	Escape in the city: urbanization alters the escape behavior of Anolis lizards	U	Squamates	Behavioral Studies	National Geographic Society, NSF, University of Rhode Island	0	1	0
Harvey et al.	2016	Not seeing is not believing: volunteer beliefs about Burmese pythons in Florida and implications for public participation in invasive species removal	U	Squamates	Community Science and Outreach	FWC, UF	1	0	1
Giery et al.	2017	Frugivory and seed dispersal by the invasive knight anole (<i>Anolis equestris</i>) in Florida, USA	U	Squamates	Dietary	NSF, Fairchild	0	1	1
Tiatragul et al.	2017	Embryos of non-native anoles are robust to urban thermal environments	U	Squamates	Dietary	NSF, Howard Hughes medical Institute	0	1	1
Chejanovski et al.	2017	An experimental evaluation of foraging decisions in urban and natural forest populations of Anolis lizards	U	Squamates	Dietary	NSF, University of Rhode Island	0	1	1
Hanslowe et al.	2016	First record of invasive Burmese python oviposition and brooding inside an anthropogenic structure	U	Squamates	Dietary	ENP, USGS Greater Everglades Priority Ecosystems Science Program,	0	1	0

						and USGS Invasive Species Science program			
Mazzotti et al.	2020	Diet of Nile Monitors (<i>Varauns niloticus</i>) removed from Palm Beach and Broward Counties, Florida, USA	U	Squamates	Dietary	FWC, SFWMD, and UF	1	1	1
Smith et al.	2016	Observations on nesting and clutch size in <i>Furcifer oustaleti</i> (Oustalet's chameleon) in South Florida	U	Squamates	Dietary	Miami Dade Parks and Open Spaces, University of Florida, FWC, Evergalde s Cooperati ve Invasive Species Managem ent Area	1	1	1
Townsend et al.	2005	Predation of a tree snail <i>Drymaeus multilineatus</i> (Gastropoda:Bulimulidae) by <i>Iguana iguana</i> (reptilia: Iguanidae) on Key Biscayne, Florida	U	Squamates	Dietary	N/A			
Stroud and Giery	2016	Nesting behavior and egg incubation time of introduced brown basilisks (<i>Basiliscus vittatus</i>) in South Florida	U	Squamates	Dietary	N/A			
Wood et al.	2016	Insights into the introduction history and population genetic dynamics of the Nile monitor (<i>Varanus niloticus</i>) in Florida	U	Squamates	Evolution / Taxonomy	Charlotte Harbor National Estuary program, National Fish and Wildlife	0	1	1

						Foundatio n, University of Tennessee , University of Tampa			
Feiner et al.	2021	A highly conserved ontogenetic limb allometry and its evolutionary significance in the adaptive radiation of <i>Anolis</i> lizards	U	Squamates	Evolution / Taxonomy	John templeton Foundation, Wenner-Gren, UF	0	1	1
Battles et al.	2019	Do structural habitat modifications associated with urbanization influence locomotor performance and limb kinematics in <i>Anolis</i> lizards?	U	Squamates	Evolution / Taxonomy	NSF, University of Rhode Island	0	1	1
Wegener et al.	2019	Hybridization and rapid differentiation after secondary contact between the native green anole (<i>Anolis carolinensis</i>) and the introduced green anole (<i>Anolis porcatius</i>)	U	Squamates	Evolution / Taxonomy	NSF, University of Rhode Island	0	1	1
Ren et al.	2016	Does adaptive radiation of a host lineage promote ecological diversity of its bacterial communities? A test using gut microbiota of <i>Anolis</i> lizards	U	Squamates	Evolution / Taxonomy	University of Virginia, American Museum of Natural History	0	1	1
Kahrl et al.	2017	Consistent differences in sperm morphology and testis size between native and introduced populations of three <i>Anolis</i> Lizard Species	U	Squamates	Evolution / Taxonomy	University of Virginia, Herpetologists League, American Museum	0	1	1

						of Natural History			
Tollis and Boissinot	2014	Genetic variation in the green anole lizard (<i>Anolis carolinensis</i>) reveals island refugia and a fragmented Florida during the quaternary	U	Squamates	Evolution / Taxonomy	CUNY, American Museum of Natural History	0	0	1
Leal et al.	2012	Rapid change in the thermal tolerance of a tropical lizard	U	Squamates	Evolution / Taxonomy	Duke University	0	0	1
Fieldsend et al.	2021	Provenance and genetic diversity of the non-native geckos <i>Phelsuma grandis</i> Gray 1870 and <i>Gekko gekko</i> (Linnaeus 1758) in Southern Florida, USA	U	Squamates	Evolution / Taxonomy	FIU, Susan Levine Trust	0	0	1
Dowell et al.	2016	Combining genetic and distributional approaches to sourcing introduced species: a case study on the Nile monitor (<i>Varanus niloticus</i>) in Florida	U	Squamates	Evolution / Taxonomy	Henry Luce Foundation, Fordham University	0	0	1
Short and Petren	2011	Fine-scale genetic structure arises during range expansion of an invasive gecko	U	Squamates	Evolution / Taxonomy	University of Cincinnati	0	0	1
Falk et al.	2016	A validation of 11 body-condition indices in a giant snake species exhibits positive allometry	U	Squamates	Evolution / Taxonomy	ENP, USGS Greater Everglades Priority Ecosystems Science Program, and USGS Invasive Species Science program	0	1	0
Kolbe et al.	2013	Physiological variation among invasive populations of the Brown Anole (<i>Anolis sagrei</i>)	U	Squamates	Evolution / Taxonomy	Indiana Academy of	0	1	0

						Science, NSF, University of Rhode Island			
Toro et al.	2004	The evolution of jumping performance in Caribbean Anolis lizards: solutions to biomechanical trade offs	U	Squamates	Evolution / Taxonomy	NSF	0	1	0
Kolbe et al.	2007	Multiple sources, admixture, and genetic variation in introduced Anolis lizard populations	U	Squamates	Evolution / Taxonomy	NSF, DDIG, and EPA	0	1	0
Kolbe et al.	2004	Genetic variation increases during biological invasion by a Cuban lizard	U	Squamates	Evolution / Taxonomy	NSF, EPA	0	1	0
Kolbe et al.	2007	Differential admixture shapes morphological variation among invasive populations of the lizard <i>Anolis sagrei</i>	U	Squamates	Evolution / Taxonomy	NSF, EPA	0	1	0
Kolbe et al.	2008	Admixture determines genetic diversity and population differentiation in the biological invasion of a lizard species	U	Squamates	Evolution / Taxonomy	NSF, EPA	0	1	0
Kolbe et al.	2007	Multiple sources, admixture, and genetic variation in introduced Anolis lizard populations	U	Squamates	Evolution / Taxonomy	NSF, US EPA	0	1	0
Pyron et al.	2019	Morphology and molecular data reveal invasion of cryptic golden tegus (<i>Tupinambis cryptus</i> Murphy et al. 2016) in Florida	U	Squamates	Evolution / Taxonomy	USGS, NSF	0	1	0
Wood et al.	2018	Insights into the introduction history and population genetic dynamics of the Argentine black-and-white tegu (<i>Salvator merianae</i>) in Florida	U	Squamates	Evolution / Taxonomy	USDA, SFWMD, Columbus Zoo, University of Louisville, NFWF, University of Tennessee	1	1	1

						University of Tampa, Charlotte Harbor National Estuary Program			
Krysko et al.	2003	The madagascar giant day gecko, <i>Phelsuma madagascariensis grandis</i> Gray 1870, (Sauria:Gekkonidae): a new established species in Florida	U	Squamates	Evolution / Taxonomy	N/A			
Krysko and Abdelfattah	2005	A key to the geckos (Sauria: Gekkonidae) of Florida	U	Squamates	Evolution / Taxonomy	N/A			
Stroud and Mothes	2020	An extreme cold event leads to community-wide convergence in lower temperature tolerance in a lizard community	U	Squamates	Evolution / Taxonomy	N/A			
Bock et al.	2021	Changes in selection pressure can facilitate hybridization during biological invasion in a cuban lizard	U	Squamates	Evolution / Taxonomy	N/A			

Table S2. List of primary research categories and the number of studies within each category funded by State, Federal, and Local/Private Funding.

Primary Research Category	Sum of State Funding	Sum of Federal Grant	Sum of Local/Private Funding
Community Science and Outreach	1	1	2
Species Interaction / Community Ecology	2	12	4
Behavioral Studies	2	6	4
Reproductive Biology	3	8	4
Population Ecology	5	11	6
Movement Ecology	1	9	7
Animal Health and Disease	1	8	9
Dietary	4	14	11
Restoration / Conservation	6	23	12
Evolution / Taxonomy	2	22	17
Habitat Use / Distribution / Niche Modeling	3	22	18
Grand Total	30	136	94

Table S3. List of all Greater Everglades Ecosystem Restoration Conference (GEER) Presentations and Posters from 2001 to 2021.

Authors	Year	Origin	Species	Megafauna	Taxon	Type
Rice et al.	2003	Invasive	Cuban Treefrog	No	Anurans	Talk
Walls	2010	Invasive	Cuban Treefrog	No	Anurans	Poster
Casler et al.	2003	Native	All Anurans	No	Anurans	Poster
Ugarte et al.	2003	Native	Pig Frog	No	Anurans	Talk
Schuman and Bartoszek	2008	Native	All Anurans	No	Anurans	Talk
Ugarte et al.	2000	Native	Pig Frog	No	Anurans	Poster
Brandt	2010	Native	All Anurans	No	Anurans	Talk
Dixon	2010	Native	All Anurans	No	Anurans	Talk
Anderson	2015	Native	All Anurans	No	Anurans	Talk
Waddle	2015	Native	All Anurans	No	Anurans	Talk
Everham	2017	Native	All Anurans	No	Anurans	Talk
Hart et al.	2003	Native	Diamondback Terrapin	No	Chelonians	Talk
Hart	2006	Native	Diamondback Terrapin	No	Chelonians	Poster
Hart	2008	Native	Diamondback Terrapin	No	Chelonians	Talk
Darby et al.	2008	Native	Mud and Musk Turtles	No	Chelonians	Talk
Denton	2015	Native	Diamondback Terrapin	No	Chelonians	Poster

Denton	2021	Native	Diamondback Terrapin	No	Chelonians	Poster
Fujisaki	2008	Invasive	All Invasives	No	Community	Talk
Rochford and Mazzotti	2015	Invasive	All Invasives	No	Community	Talk
Claunch	2019	Invasive	All Invasives	No	Community	Poster
Jennings	2019	Invasive	All Invasives	No	Community	Talk
Rice et al.	2000	Native	All Amphibians	No	Community	Poster
Cassani and Lindblad	2003	Native	All Amphibians	No	Community	Talk
Rice et al.	2003	Native	All Amphibians	No	Community	Talk
Howell	2021	Native	All Amphibians	No	Community	Poster
Rice et al.	2003	Native/Exotic	All Herpetofauna	No	Community	Poster
Glenn	2003	Native/Exotic	All Herpetofauna	No	Community	Poster
Everham	2015	Native/Exotic	All Herpetofauna	No	Community	Poster
Searcy	2021	Native/Exotic	All Herpetofauna	No	Community	Talk
Franklin	2000	Native	American Alligator	Megafauna	Crocodylians	Poster
Palmer et al.	2000	Native	American Alligator	Megafauna	Crocodylians	Poster
Rice et al.	2000	Native	American Alligator	Megafauna	Crocodylians	Poster
Slone and Allen	2000	Native	American Alligator	Megafauna	Crocodylians	Poster
Allen	2000	Native	American Alligator	Megafauna	Crocodylians	Talk
Gross et al.	2000	Native	American Alligator	Megafauna	Crocodylians	Talk
Dalrymple et al.	2000	Native	American Alligator	Megafauna	Crocodylians	Talk
Mazzotti et al.	2000	Native	American Crocodile	Megafauna	Crocodylians	Poster

Richards	2000	Native	American Crocodile	Megafauna	Crocodylians	Talk
Mazzotti et al.	2003	Native	American Alligator	Megafauna	Crocodylians	Poster
Mazzotti et al.	2003	Native	American Alligator	Megafauna	Crocodylians	Poster
Cherkiss and Mazzotti	2003	Native	American Alligator	Megafauna	Crocodylians	Talk
Phillips	2003	Native	American Alligator	Megafauna	Crocodylians	Talk
Slone et al.	2003	Native	American Alligator	Megafauna	Crocodylians	Talk
Zweig et al.	2003	Native	American Alligator	Megafauna	Crocodylians	Talk
Chopp et al.	2003	Native	American Alligator	Megafauna	Crocodylians	Talk
Rice	2006	Native	American Alligator	Megafauna	Crocodylians	Talk
Slone	2006	Native	American Alligator	Megafauna	Crocodylians	Talk
Cherkiss	2006	Native	American Crocodile	Megafauna	Crocodylians	Poster
Lorenz	2006	Native	American Crocodile	Megafauna	Crocodylians	Talk
Ogurcak et al.	2008	Native	American Alligator	Megafauna	Crocodylians	Talk
Mazzotti et al.	2008	Native	American Alligator/Crocodile	Megafauna	Crocodylians	Talk
Miller	2008	Native	American Crocodile	Megafauna	Crocodylians	Talk
Green et al.	2008	Native	American Crocodile	Megafauna	Crocodylians	Talk
Mazzotti et al.	2008	Native	American Crocodile	Megafauna	Crocodylians	Talk
Jeffery	2010	Native	American Alligator	Megafauna	Crocodylians	Poster
Bartoszek	2010	Native	American Alligator	Megafauna	Crocodylians	Poster

Burtner	2010	Native	American Alligator	Megafauna	Crocodylians	Poster
Watling	2010	Native	American Crocodile	Megafauna	Crocodylians	Talk
Green et al.	2010	Native	American Crocodile	Megafauna	Crocodylians	Talk
Fujisaki	2015	Native	American Alligator	Megafauna	Crocodylians	Poster
Shinde	2015	Native	American Alligator	Megafauna	Crocodylians	Poster
Beauchamp	2015	Native	American Alligator	Megafauna	Crocodylians	Talk
Farris	2015	Native	American Alligator/Crocodile	Megafauna	Crocodylians	Poster
Brandt	2015	Native	American Alligator/Crocodile	Megafauna	Crocodylians	Talk
Faughman	2017	Native	American Alligator	Megafauna	Crocodylians	Poster
Nestler	2017	Native	American Alligator	Megafauna	Crocodylians	Poster
Strickland et al.	2017	Native	American Alligator	Megafauna	Crocodylians	Poster