EXOTIC AND INVASIVE HERPS AT ARCHBOLD

INVASIVE species: 12 Invaders are non-native to the ecosystem, under consideration and/or introduced by humans or is likely to cause harm to natural resources or harm to humans health.

INVASIVE species become easier after 5 years, this time frame can vary dramatically.

Increasing exotic populations has been primarily related to the pet trade, causing an exponential increase since the 1970’s. These species enter Florida’s habitats through escape or intentional release by owners and have caused tremendous damage to exisiting ecosystems.

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Invasive and exotic species are a problem on every continent, but they create the most issues in areas with high human populations, widespread use of vehicles, and long-distance trade routes. Florida is unique among the states as an entire species, such as the INVASIVE Shoulder Scrub.

Climate change exacerbates Florida’s problem because higher temperatures can make many exotics suitable. As habitats in Central and South America are lost to climate change, Central and Northern Florida may become a refuge for species unable to effectively adapt.

A FEW OF ARCHBOLD’S CURRENT SQUATTERS

**Cuban Treefrog**
Chiromantis xerampelinos

**STATUS:** Native
**NATIVE TO:** Cuba, the Balabac, and the Cayman Islands.
**MEANS OF INVASION:** Introduced by horticultural shipments, plantings, and vehicles.
**DISTRIBUTION:** Most commonly around man-made structures with outlets that attract rain, has an availability of hiding and drinking water resources that provide breeding sites.
**AVERAGE LENGTH** ranges from 10 to 15 inches.
**DIET:** Feeds on small insects, spiders, and other invertebrates.
**IMPACTS:** Adaptable and natural adjustment of population size to it’s new environment. A reformed exotic species & have the potential to eliminate or significantly reduce native species.
**NOT ALL EXOTICS BECOME INVASIVE:** Highly unlikely because of it’s behavior and habitat preferences.

**Greenhouse Frog**
Eleutherodactylus plesisternus

**STATUS:** Exotic
**NATIVE TO:** Cuba and the Bahamas. As a resident of southern Florida since the 1950’s.
**MEANS OF INVASION:** Tadpole larva spread through transportation of nursery stock.
**DIET:** Mainly aquatic insects, including ants, beetles, and crickets.
**IMPACTS:** May compete with other species for food, but threats are minimal.
**ERADICATION:** Likely too late as many native species have the potential to eliminate or significantly reduce native species.

**Indo-Pacific Gecko**
Hemidactylus germaini

**STATUS:** Exotic
**NATIVE TO:** Southeast Asia.
**MEANS OF INVASION:** Arrived on shipments of greenhouse nursery stock and horticultural materials. Of all seven gecko species introduced to Florida, the Indo-Pacific Gecko has the widest distribution. Peels off man-made structures with ambient light or UV light from vehicles.
**DISTRIBUTION:** Most common around man-made structures with outdoor lights. Also found in natural habitats, cropland, tropical forests, urban parks, and on road shoulders.
**AVERAGE LENGTH** ranges from 4 to 6.5 inches long.
**DIET:** Feeds on a variety of insects, spiders, and other invertebrates.
**IMPACTS:** Adaptability and natural adjustment of population size to it’s environment. A reformed exotic species & have the potential to eliminate or significantly reduce native species.

**Brown Anole**
Anolis sagrei

**STATUS:** Exotic
**NATIVE TO:** Cuba and the Bahamas.
**MEANS OF INVASION:** Documented in the Florida Keys in the 1980’s, likely via the ornamental plant trade. This was unidirectional and the population was isolated in the Keys. Avid burrower in manmade structures. Has the potential to eliminate or significantly reduce native species.
**DIET:** Widespread in Florida and Georgia. Well adapted for horticultural shipments, plantings, and vehicles.
**ERADICATION EFFORTS:** Failed. Has the potential to eliminate or significantly reduce native species.

**Argentine Tegu**
 Tupinambis merianae

**STATUS:** Invader
**NATIVE TO:** South and Central South America.
**MEANS OF INVASION:** PVR trade.
**DISTRIBUTION:** Primarily in savannah and grassland habitats. Easily adapted to altered habitats. Tends to be found in areas where there has been recent development due to increased temperatures and associated alterations to the environment.
**AVERAGE LENGTH** ranges from 6 to 10 feet long.
**DIET:** Omnivorous, eating both animal and plant matter.
**IMPACT:** Ornamental interest—small prey present to devour, forage fast, and consume a variety of animal species.

**INDIAN OCEAN Tegu**
Varanus niloticus

**STATUS:** Exotic
**NATIVE TO:** Africa.
**MEANS OF INVASION:** Slipped in from the Mozambique channel.
**DIET:** Omnivorous, eating both animal and plant matter.
**IMPACT:** Ornamental interest—small prey present to devour, forage fast, and consume a variety of animal species.

**Cane Toad**
Bufo marinus

**STATUS:** Exotic
**NATIVE TO:** South and Central South America.
**MEANS OF INVASION:** Intentionally released around 1916 for pest control in sugar cane fields. A Highlands County population has been present since the late 1970’s after the construction of a residential subdivision. There have been 200,000 insects released to date.
**DISTRIBUTION:** Generally found near water. Can reproduce any warm time of year and lays thousands of eggs in any body of water.
**AVERAGE LENGTH** ranges from 8 to 10 inches.
**DIET:** Generalist predator—ornamental and opportunistic consumer that feeds on turtles, vertebrates, invertebrates, plant, and sometimes other toads. Feeds on a variety of insects, spiders, and other invertebrates.
**IMPACTS:** Not yet documented in Archbold Biological Station, but are known to stress native species.

**Burmeese Python**
Python molurus bivittatus

**STATUS:** Exotic
**NATIVE TO:** Southeast Asia.
**MEANS OF INVASION:** Escaped from captivity or accidental introductions by pet owners due to the species rapid growth rate and aggressive appetite.
**DISTRIBUTION:** Thought to be widely distributed throughout the Everglades – confirmed breeding populations and self-sustaining for at least 40 years in southern peninsular Florida. Turtles of their range are unknown because of their elusive nature and camouflage.
**ERADICATION EFFORTS:** Possible with a 2 to 3 foot length.
**IMPACT:** Adult male can specialize in eating animals from house wrens to white-tailed deer and can destroy the Everglades.

**Brown Monitor**
Varanus macraei

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**DIET:** Omnivorous, eating both animal and plant matter.
**IMPACT:** Ornamental interest—small prey present to devour, forage fast, and consume a variety of animal species.

**Nile Monitor**
Varanus niloticus

**STATUS:** Exotic
**NATIVE TO:** Africa.
**MEANS OF INVASION:** PVR trade.
**DISTRIBUTION:** Species confirmed breeding and self-sustaining throughout Florida for over 30 years.
**RECOMMENDED:** Large adults can specialize in eating animals from house wrens to white-tailed deer and can destroy the Everglades.

**ERADICATION EFFORTS:** Not yet documented in Archbold Biological Station, but are known to stress native species.

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