

## Highlights:

- Look out for Tegus!
- Lionfish, not lobster on the menu?
- Feral swine could transmit bacteria
- Introduced birds outcompete natives in Hawaii
- Egg-eating Pythons

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## Focal Species: Argentine Tegu

### Scientific name:

*Tupinambis merianae*

### Size:

Up to 4 ft. long,

### Native range:

South America

### Notes:

Juveniles have green heads, adult males may have large jowls

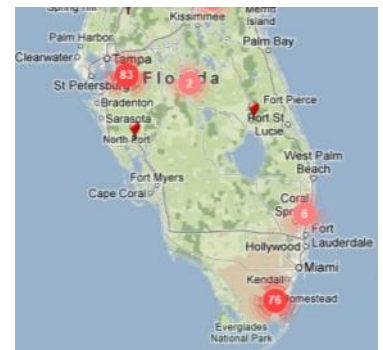


(Photo by Mario Sacramento, map by EDDMaps)

Wild populations of Argentine tegu lizards, also known as black-and-white tegus, were first reported in Florida near Tampa in 2006 and near Homestead in 2008, although individual tegus have been sighted in various parts of South and Central Florida since the mid-1990s. Tegus are native to South America but are common in the pet trade and these lizards were introduced into Florida as a result of pet escapes and/or releases. Tegus grow much larger than Florida's native lizards and consume a wide variety of prey, including eggs. Chicken eggs have proven to

be the best bait for trapping these elusive lizards and their penchant for eggs suggests potential for negative impacts on native, ground-nesting birds and reptiles.

Tegu lizards thrive in forest, scrub, and disturbed areas such as agricultural land and also swim well. They are known to use gopher tortoise burrows to evade capture and take shelter in burrows or other refuges during the winter months. In late February or early March, these large lizards become more active—keep an eye out for them until around November, when they become dormant. In June 2011,



the first tegu nest was documented in Florida, indicating that this species is breeding in the wild. Radio telemetry studies are underway in the Homestead area, and should provide valuable information about habitat use and home range of these lizards. However, without funding for management, eradication is unlikely. [Learn More...](#)



## Science: Egg-eating Pythons



Guineafowl eggs regurgitated by python (Photo by Skip Snow, NPS)

In a recent paper, Dove et al. (2012) reported on another potential impact of introduced Burmese pythons.

The gut of a python captured in Florida in early 2011 contained the remains of limpkin eggs – pigment on the eggs indicates they had been laid, and weren't inside of an eaten

bird. Later in 2011, a python was captured after reports that it was hanging around a free-ranging Guinea fowl nest before the hen and eggs disappeared – upon capture, the python regurgitated the missing hen and eggs.

Egg eating is not unknown among snakes, but has only

previously been documented in one other large-bodied constrictor – the Yellow Anaconda. Smaller-bodied snakes that consume eggs must use specialized vertebrae to break eggs after they are swallowed, whereas pythons seem able to simply digest the shells.

[Learn More...](#)

## Science: Florida “Herp” Invasions

For decades, Florida has been a "hotspot" for invasions of amphibians and reptiles. The sheer numbers of introduced species has led to uncertainty about the identity and number of species that have been introduced and the number that currently are established and breeding in the state. Recently, Krysko et al. (2011)

used a combination of field work and careful examination of museum specimens and existing literature to clarify matters. They identified a total of 137 introduced species and their invasion pathway and determined their current invasion status. Of these 137 species, they found that 56 have estab-

lished, breeding populations – 3 frogs, 4 turtles, 1 crocodylian, 43 lizards, and 5 snakes. Although release for biological control, zoos, and cargo pathways contributed to these introductions, an astounding 84% of “herp” introductions were attributed to the pet trade.

[Learn More...](#)

## Science: Introduced Bird Competitors



The I'iwi is one of 8 HI birds that have declined (Photo by Dr. Freed)

The Japanese white-eye (*Zosterops japonicus*) is a bird native to Asia that was introduced on Oahu in 1929 and on Hawaii in 1937 for insect biological control. These birds rapidly spread and their populations exploded until they were the most common bird in the state of Hawaii. However, the land that in 1985 became the Hakalau Forest National Wildlife Refuge on Hawaii

provided a refuge for native birds and density of white-eyes on the refuge remained low. In 1989, the preserve initiated efforts to restore some pasture adjacent to old-growth forest – with unintended consequences. As the forest grew, the white-eyes moved in and eventually invaded the preserve.

In a recent paper, Freed and Cann (2012) reported on the results of bird surveys conducted in the preserve. They

found that white-eyes first invaded restoration areas and then increased in density in open and closed forest. As the white-eye population grew, numbers of native birds declined dramatically. Freed and Cann hypothesize that these declines are due to competition with white-eyes for limited food resources and suggest that white-eye management strategies may be critical for native bird survival. [Learn More...](#)

## News Updates: Invader Impacts

**Lionfish and Lobstering**  
The rapid invasion of the Lionfish and its potential impacts on native fishes are now well-known. However, [a recent CNN news story mentioned a new problem – lionfish are also impacting lobster fishermen](#). One fisherman reports that, four years ago, he had never seen a lionfish – now he catches up to 200 lbs. of lionfish per day! Lobster don't enter traps that have a few lionfish

inside, so he's starting to sell the lionfish instead. Although this may be good news for lobsters, it's costing this fisherman around \$2 per lb. in lost income, because lobsters sell for less money.

**Feral Pigs Transmit Bacteria**  
Science Daily, an excellent source of invasive species science news, [recently reported that a nasty bacteria, \*Brucella suis\*, has been detected in feral swine in North](#)

[Carolina](#). This bacteria can be transmitted to humans, causing persistent, flu-like symptoms, and is now a health concern for hunters, who are advised to wear gloves while dressing feral pigs. Perhaps more troubling is the fact that this bacteria can also be transmitted to commercial swine populations, and could have economic impacts on the industry.

[More Invader Updater News](#)

“Four years ago, lobster fisherman Gary Nichols had never laid eyes on a lionfish, but today his traps are full of them.”

## Legislation: Stop Invasive Species Act

The U.S. Army Corps of Engineers (USACE) is currently conducting a five-year study of strategies for preventing Asian carp from entering the Great Lakes via the Chicago canal. However, the electric barrier that prevents carp from traveling through the canal recently experienced a

brief failure and five Great Lakes states are suing the Obama administration in order to speed up the study. In response to concerns over the time frame of the USACE study, a bipartisan bill called the Stop Invasive Species Act has been introduced in Congress. If passed, this bill would require the USACE to deliver a

report much sooner – within 18 months. As a result, the USACE announced in early May that in 2013, much earlier than expected, they will deliver a report identifying the best options for keeping carp out of the Great Lakes. (See Resources, pg. 4, for More Info)

## Noteworthy: Exotic Pet Amnesty Days

In May, Gatorland hosted an FWC Exotic Pet Amnesty Day, [collecting more than 50 unwanted exotic pets](#) and ensuring that they will not be released into the wild.

These events are held several times each year – the next Amnesty Day will be held on September 29, 2012 from 10:00 am until 2:00 pm at the Jacksonville Zoo and Gardens (370 Zoo

Parkway, Jacksonville, FL). Spread the word – any exotic pets will be accepted!

[Learn More...](#)



Pacu fish are collected at Gatorland on May 19th (Photo by Gatorland)

## Innovation: Profiling Invasive Species

Researchers in the U.K. have pioneered the use of crime-fighting techniques to study the spread of invasive species.

Geographic profiling is a spatial modeling and statistical technique used to pinpoint the location of killers or other crimi-

nals – now, it is being used to find the source of invasive plants and animals!

*See Resources for More Info...*





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suggestions, or an In Focus photo?  
Want to be added to the mailing list?

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## In Focus...

This female Oustalet's chameleon was collected from an avocado grove in Florida City as part of multi-partner effort to eradicate this introduced species. As noted in Krysko et al.'s recent monograph (see *Science*, pg. 2), there are two species of chameleon now breeding in the state. (Note: Florida's native green anole is sometimes incorrectly referred to as a chameleon.)



Photo © Steve A. Johnson 2012

The Invader Updater is a quarterly newsletter focused primarily on providing information on invasive vertebrate animals in Florida and the southeastern U.S. and was first published in Fall 2009.

## Resources

- ◆ [Florida Invader: Tegu Lizard](#) – this online fact sheet has a one-page printable handout version
- ◆ [ECISMA March 2012 Newsletter](#) – this issue contains informative tegu lizard updates
- ◆ Krysko et al. (2011) Verified non-indigenous amphibians and reptiles in Florida from 1863 through 2010: Outlining the invasion process and identifying invasion pathways and stages. *Zootaxa* 3028: 1-64
- ◆ Stop Invasive Species Act of 2012 – read the bill: [House Bill 4406](#) or [Senate Bill 2317](#) (identical)
- ◆ [Army Corps to speed up study on keeping carp out of Lake Michigan](#) – Chicago Tribune
- ◆ [FWC Exotic Pet Amnesty Events](#)
- ◆ [Biodiversity crime: tracking invasive species like criminals](#) – Co.Exist
- ◆ [North American Invasive Species Network](#) – website offers a wealth of information and resources related to invasive species
- ◆ World Organization for Animal Health: [Guidelines for Assessing the Risk of Non-native Animals becoming Invasive](#) (pdf)
- ◆ Florida Museum of Natural History Department of Herpetology: [Checklist of Established Florida Amphibians and Reptiles](#) – provides up-to-date information on introduced “herps” in Florida
- ◆ Know of an important resource not listed here or in our archives? Let us know – email a description and URL to [monicaem@ufl.edu](mailto:monicaem@ufl.edu).