

Highlights:

- Tegu lizard swipes eggs from native reptile nests.
- Climate change increases invader hybridization with a native species.
- Toad introduction detected early enough to stop an invasion?
- Catch a lionfish? Now there's an app for reporting it.

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Focal Species: Common Myna

Scientific names:

Acridotheres tristis

Size:

To 10 inches long, with a six-inch wingspan

Native range:

Central and southern Asia and India



Photo: Nora Arias Loftis, Bugwood.org

Common mynas are cocoa brown in color with a glossy black head, neck, and upper breast. The undersides and tips of their tails and their outer wing feathers are white. Their bills, legs, and feet are bright yellow and they have bare, bright yellow patches behind the eyes. Common mynas walk, rather than hop, and their call is a distinctive medley of chirps, tweets, chuckles, snorts, and growls ([see a YouTube video here](#)).

Common mynas are native to southeastern Asia but have been widely introduced via the pet trade and zoo escapes. Consequently, they are now found in many tropical and subtropical areas including Florida. Due to the variety and severity of the negative impacts caused by common mynas, they have been listed as an Injurious Wildlife Species under the Lacey Act and can no longer be imported into the United States.

They inhabit floodplains, grasslands, and cultivated areas where they can become an agricultural pest. However, they reach their greatest densities in human-modified habitats. In Florida, these omnivorous birds are found mainly in South and Central Florida but have also been spotted in the panhandle.

They nest in groups in palm trees, tree cavities, and urban structures, including signs and broken lights, and compete with native species for nest space. They have even been known to attack Purple Martins for space in martin houses. In some parts of the world, these aggressive nest competitors are known to displace and prey on native endangered bird species.

These invasive birds can also carry a variety of mites and other parasites--some of which can infect humans--as well as a variety of diseases that affect humans (e.g., Salmonellosis) or other birds. Control of common mynas requires trapping or pesticides; however, pesticides cannot be used when non-target species might be affected.

[Learn More...](#)



Science: Tegù Lizard Impacts



Researchers have long suspected that invasive, omnivorous tegu lizards could negatively impact ground-nesting species by preying on their eggs. A recent note published by Dr. Frank Mazzotti (UF/IFAS) and collaborators confirmed this suspicion. The research team posted cameras at an old crocodile nest and an old alligator nest and observed that the invasive lizards readily preyed on various reptile eggs laid at these sites. If tegus found the eggs, they removed up to two per day until the nest was empty. These results are only preliminary but suggest that further investigation of the potential impacts of tegu predation of nests of native species is needed. [Learn More...](#)

Science: Climate Change and Fish Hybridization

Rainbow trout (*Onchorhynchus mykiss*) have been introduced worldwide as a sportfish and have been listed among the world's worst invasive species. In some areas, water temperatures or stream flow dynamics prevent rainbow trout from thriving or minimize impacts from hybridization with native trout species, which has driven some native trout to the brink of extinction. However, a new USGS report shows that climate change may alter stream flooding and flow in the Pacific Northwest, resulting in conditions conducive to rainbow trout breeding and thus increasing the frequency of hybridization. The USGS study found that a rapid increase in hybridization was associated with climatic changes--hybridization spread upstream, causing irreversible impacts on western cutthroat trout populations. Similar climatic changes are predicted for other ecosystems in North America and are likely to result in increased hybridization. [Learn More...](#)



Rainbow Trout; Photo: E. Engbretson, USFWS

Noteworthy: Introduced Toads Detected Early

Another toxic toad--the Asian common toad (*Duttaphrynus melanostictus*) is poised to invade at least two island nations. In late May, [a letter to Nature](#) was published by researchers pleading for rapid action to stop the invasion of these toads in Madagascar after they were sighted near the seaport of Toamasina where they are believed to have been transported in shipments from Asia. The toads are likely to spread rapidly and pose a risk to the unique wildlife of Madagascar. Less than a week later, [reports of this same species in Melbourne, Australia](#) are cause for alarm. Much like the cane toad, this species could have devastating impacts. Although these invasions were detected early, a rapid response will be required if there is any hope of eradication before these toads begin breeding and spread.

Noteworthy: Nile Crocodile Found

In March, wildlife officials [captured a 5.5-foot Nile crocodile in the Everglades](#). After having avoided capture for nearly two years, the juvenile Nile crocodile is now in custody--the third Nile crocodile believed to have escaped from a facility in South Miami-Dade County. Allowing Nile crocodiles, a non-native species, to escape is a crime and the unnamed facility is currently under investigation. Although this was a juvenile, Nile crocodiles can grow to 17 feet in length and potentially pose a threat to humans.



Regulations: Lionfish Management

In April, the FWC proposed several rule changes to curtail introductions of lionfish and facilitate removal. The proposed rules would prohibit live imports of lionfish to prevent additional introductions and create demand for Florida-caught lionfish. Furthermore, the proposed rules would prohibit aquaculture of lionfish to eliminate the potential of large-scale accidental releases. Additionally, the proposed rules eliminate regulatory barriers to facilitate lionfish removal. Harvest of marine fish when diving on a rebreather--a device that doesn't release bubbles that scare fish away--is currently prohibited; the proposed new rules would allow the use of a re-breather to harvest lionfish. The new rules would also allow permits to be issued for lionfish tournaments and thus permit spearfishing in areas where this method is typically prohibited. By issuing permits for spearfishing for special events only, impacts to public safety would be minimized. In June, the rules will be presented to the Commission for final approval. **For more information, see 'Resources' (pg. 4).**



Lionfish being netted Photo: FWC

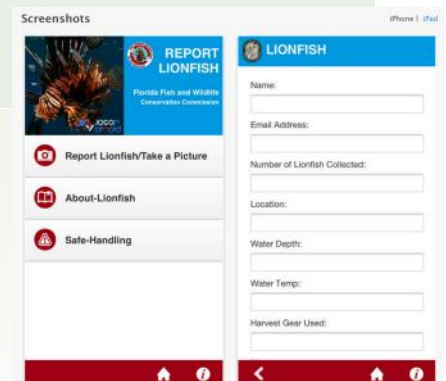
Noteworthy: Return of the Gambian Rats

Gambian pouched rats (*Cricetomys gambianus*) were released in the Florida Keys around the year 2000 by a pet breeder. These rats pose a serious threat to native species and are known to spread diseases to humans. As sightings of these giant rats on Grassy Key increased over the years, concerns grew over their potential to spread to the mainland and pose a risk to agriculture there. In 2006, the Florida Fish and Wildlife Conservation Commission, USDA Wildlife Services, US Fish and Wildlife Service, and the South Florida Water Management District began an intensive eradication effort on Grassy Key. They installed a grid of bait stations over most of the island that were baited with rodenticide-laced bait. By 2009, the rat population had declined to the point that intensive trapping efforts failed to turn up any rats and the eradication efforts were believed to be successful. However, not all of the landowners on Grassy Key allowed access to their property, thus inadvertently providing refuges where rats escaped detection. Due to this and other challenges, it seems that the eradication was not successful. Gambian rats have recently made a reappearance on the island and eradication efforts will begin anew with USDA Wildlife Services trapping rats during the summer. However, full compliance will be needed for these efforts to succeed. **For more information, see 'Resources' (pg. 4).**



Innovation: Lionfish Reporting App

At the end of May, the Florida Fish and Wildlife Conservation Commission released the new Report Florida Lionfish smartphone and iPad app. The app includes educational information on lionfish as well as safe handling tips and the ability for fishermen and divers to report their catch along with the location, water depth, gear type, and even a photo. The first 250 people to report a lionfish catch using the app will win a free t-shirt. **For more information, see 'Resources' (pg. 4).**



In Focus: A Use for Invasive Frogs



The photo at left was provided by Karen Schneider — a Florida Master Naturalist and concerned citizen — along with her [Cuban Treefrog Citizen Scientist](#) report. Cuban treefrogs are widespread in Florida, where they prey on and compete with native treefrogs and are quite a nuisance to humans. For more information, read "[The Cuban Treefrog in Florida.](#)" After invasive Cuban treefrogs have been humanely euthanized and the citizen scientist report is complete, Karen uses the frozen frogs as garden fertilizer. Simply bury a frog beneath each plant when planting or dig holes for frogs between plants. This method also works for disposing of invasive cane toads and is commonly used in Australia where they are abundant.

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 Winter 2009. This newsletter is produced by:

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Do you have questions, comments, or suggestions, or want to be added to the mailing list? Email monicaem@ufl.edu



Related Resources

- ◆ [Common Myna - *Acridotheres tristis*](#): Florida's Nonnative Wildlife. Species detail - FWC
- ◆ [Acridotheres tristis](#) - Global Invasive Species Database
- ◆ [Invasive lizards a potential threat to Florida's nesting reptiles, UF/IFAS researchers find](#) - UF News
- ◆ [Climate Change Accelerates Hybridization between Native and Invasive Species of Trout](#) - USGS Newsroom
- ◆ [Onchorhynchus mykiss](#) – Global Invasive Species Database
- ◆ [Lionfish invasion: FWC moves forward with management changes](#) – FWC
- ◆ [Lionfish recreational regulations](#) – FWC
- ◆ Witmer & Hall. 2011. [Attempting to eradicate invasive Gambian giant pouched rats \(*Cricetomys gambianus*\) in the United States: lessons learned](#). In: Veitch, C. R.; Clout, M. N. and Towns, D. R. (eds). Island invasives: eradication and management. IUCN, Gland, Switzerland.
- ◆ [Giant rats reappear in the Keys](#) - Miami Herald
- ◆ [New Report Florida Lionfish app unveiled](#) - FWC
- ◆ [FWC Non-native Amnesty Day Events](#) (next scheduled: October 4, 2014 – West Palm Beach)