The Washington Post * By: Darryl Fears * February 23, 2015



Burmese Pythons

Scientific Name: Python bivittatus

Class: Reptilia

Kingdom: Animalia

Did you know invasive species, like the Burmese python, cost \$100 billion in damages in the U.S. alone? The Burmese python is one of the five largest species of

snakes in the world. It is native to a large area of tropical South and Southeast Asia. Until 2009, it was

considered a subspecies of **Python molurus**, but now is recognized as belonging to a distinct species.

These long, lean eating machines are terrorizing the Florida Everglades. Humans don't have much to fear, but native animals had better watch their backs. Alligators are being knocked off their perch as the swamp's top predator. People ask why these snakes are such a problem. Why can't experience hunters walk into the Everglades and kill them? Burmese pythons from Southeast Asia are so stealthy that even experts with the Florida Fish and Wildlife Conservation Commission have a tough time spotting them, let alone killing them. Since they were determined to be established and put the squeeze on the swamp in 2002, deer, raccoon, marsh rabbits, bobcats and possum have declined by as much as 99 percent in some cases, according to researchers for the U.S. Geological Survey.









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Emerald Ash Borer

Scientific Name: Agrilus planipennis

Class: Insecta

Kingdom: Animalia

The emerald ash borer is a green buprestid or jewel

beetle native to north-eastern Asia that feeds on ash species. **Ash** trees are one of the common native tree species in the eastern United States, and they are also frequently planted as street or landscaping trees. There are three common species of ash in middle Tennessee: **white ash**, **green ash** and blue **ash**. Females lay eggs in bark crevices on ash trees, and larvae feed underneath the bark of ash trees to emerge as adults in one



to two years. This bug's march across the Midwest is not the kind of green movement that conserves nature. It ruins ash trees that provide durable wood used for flooring, bowling alleys, church pews, baseball bats and electric guitars. The bugs **sparkle like a jewel** with their glittery hide, but the nickel-sized holes they bore into trees are ugly, and the squiggly trails their larvae etch on the bark can make your skin crawl. They arrived in southeastern Michigan in 2002 from their native habitats in Russia, China and Japan. Since then, tens of millions of ash trees have been killed, and their numbers continue to grow.





Larvae within the bark of the tree.

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The Nutria

Scientific Name: Myocaster coypus

Class: Mammalia Kingdom: Animalia

The nutria has a dense, gray undercoat guarded by long, coarse hairs that vary in color from yellowish-brown to dark brown. It has large, bright orange front teeth and small eyes and ears that are located high on its head. It has short legs with large, webbed hind feet that can be nearly 6 inches long. Its thin tail can be 12 to 18 inches long. Nutria grow to 2 feet long and weigh 12 to 15 pounds, but can weigh as much as 20 pounds.

The official name comes off like some kind of vitamin drink, so Louisianans came up with another that sounds more fitting: **swamp rats**. Nutria don't just look like rats with long tails and orange buck teeth, they breed like them. Female



nutria give birth to **litters of up to 14 then go back into heat in two days**. Federal wildlife officials say there's no hope of eradicating them from Louisiana, where they were imported from South America for their fur in the 1930s and grew out of control after being released when the industry died. A Chesapeake Nutria Eradication Program is working furiously to push them off the Del Marva Peninsula and wipe them out in Maryland and Delaware. Their endless digging on the banks of rivers rips up plants by the root, causing soil to erode, destroying native habitat for everything from muskrats to crabs to juvenile fish.





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European Starling

Scientific Name: Sturnus vulgaris

Class: Aves

Kingdom: Animalia

The common starling, also known as the European starling, or in the British Isles just the starling, is a

medium-sized passerine bird in the starling family, Sturnidae. It is about 20 cm long and has glossy black plumage (feathers) with a metallic sheen, which is speckled with white at some times of year.



Starlings are little birds that travel in huge packs, and they are known for **wreaking havoc**. Birders don't like it, but starlings are generally regarded as pests. Every year, the Agriculture Department's division of Wildlife Services kills 4 million animals identified by residents across the country as a nuisance, and starlings are targeted the most — by far. Moving in flocks that resemble small black clouds, they descend on cities, towns and mostly farms, beaks aimed at the ground in search of food. Starlings are known to **swarm toward feeding cattle** to steal their food, needling and harassing the bigger animals until they back off. Since their introduction to the United States by Shakespeare enthusiasts in the 1890s, they have become arguably the most successful foraging bird in the country, with a population of about 200 million.







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Northern Snakehead

Scientific Name: Channa argus

Class: Actiinopterygii

Kingdom: Animalia

The northern snakehead is a species of snakehead fish native to China, Russia, North Korea, and South Korea, ranging from

the Amur River to Hainan. It has been introduced to other regions, where it is considered invasive. In Europe, the first report of the species was from Czechoslovakia in 1956.

It's called a **snakehead**. That dreadful name pretty much sums up the most feared fish in the Chesapeake Bay watershed, a sharp-tooth monster so scary that fishing tournaments are held not to eat, or fight it on the line, but solely to kill it. Snakeheads look like some weird cross between a python and an electric eel, and attempts to get large numbers of people to fish and eat it so that snakeheads don't eat too many other creatures in the estuary have failed. Stories about how this fish from China and Korea ended



up in the bay in the early 2000s vary. Some say a clueless aquarium dumped several in a tributary; others say someone carried them from a fish market. Whatever happened, **female snakeheads**, which are **baby factories**, are known to carry up to **100,000 eggs**, took it from there and have now spread to Delaware and Virginia.



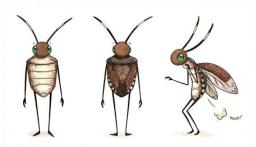
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Brown Marmorated Stink Bug

Scientific Name: Halyomorpha halys

Class: Insecta

Kingdom: Animalia



Here's a quick thought, in 10 words: A stink bug is probably in your house right now. They don't seem to mind that

you're there. They just need a place to rest through winter and crawl out in spring to mate and make millions more stink bugs. Stink bugs annoy because they swarm and smell like cilantro, but **they don't bite or carry disease**. They're not to be confused with the growing swarm of Asian

kudzu bugs in Georgia, although their behaviors are similar. Stink bugs destroy fruits and vegetables and drive up produce prices. They first showed up in Allentown, Pa., in 1998 after crawling out a cargo ship that probably stopped in China, their native land. There, stink bugs aren't a problem because small wasps lay eggs on their backs and the babies use them for a meal as they grow. With no wasps in the mid-Atlantic, they became marauders.

As of 2010, **17 states** had been categorized as having established populations, and several other states along the eastern half of the United States were reported as having more than normal numbers of stink bugs. Stink bug populations rise because the climate in the United States is ideal for their reproduction. In optimal conditions, **an adult stink bug can develop within 35 to 45 days after hatching**. Female stink bugs are capable of laying **four hundred eggs** in their lifetime. The bug is also capable of producing at least one successful



generation per year in all areas of the United States, no matter the climate. In warmer climates, multiple generations can occur annually, which can range from two generations in states such as Virginia to six generations in states such as California, Arizona, Florida, Louisiana, Georgia, and Texas.



The addition of two more generations allowed the population to explode, leading to the establishment of several other populations in neighboring states. Currently, no environmental limiting factors are apparently slowing their distribution across North America. They also are extremely mobile insects, capable of moving from host to host without causing disruption in their reproductive processes. Currently, populations are estimated to continue to grow and spread to other states and provinces, especially during unusual periods of warm weather.

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Feral Hogs

Scientific Name: Sous scrofa

Class: Mammalia Kingdom: Animalia

In the 1930s, Eurasian wild boars were brought to Texas and released for hunting. They bred with

free-ranging domestic animals and escapees that had adapted to the wild. And yet wild hogs were barely more than a curiosity in the Lone Star State until the 1980s. They have **razor-sharp teeth**, curling tusks and are so hot tempered that they charge humans. Otherwise, feral hogs, wild pigs or big boars are just farm pigs gone wild. They're established in 47 states, with massive populations in Texas, Florida, Georgia and North Carolina, and a growing one in Virginia. In most of those places, experienced hunters have a green light to shoot them on sight. **Here's why: They cause about \$1.5 billion in damage nationwide each year**. They're also an *ecological nightmare* that eats turtle eggs, wild turkey eggs and quail that nest on the ground. Acorns and chestnuts that are the next generation of trees go into their stomachs. Feral pigs were introduced to the United States from ships centuries ago, but the recent population boom, state game officials and biologists say, is largely the fault of hunters who imported wild pigs to hunt year round.



Did you know: Plant matter comprises around 90% of the Wild Boar's diet as they feed on young leaves, berries, grasses and fruits, and unearth roots and bulbs from the ground with their hard snouts.

Mass (weight):

Male: 170 – 220 lbs (European population), **Female:** 130 – 180 lbs (European population)

Pregnancy Term: 115 days (approx.. 4 months)





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Lion Fish

Scientific Name: Pterois

Class: Actiinopterygii

Kingdom: Animalia

Pterois is a genus of venomous marine fish, commonly known as lionfish, native to the Indo-Pacific. Also called zebrafish, firefish, turkeyfish, tastyfish or butterfly-cod, it is characterized by conspicuous warning



coloration with red, white, creamy, or black bands, showy pectoral fins, and venomous spiky fin rays.



Lionfish are very pretty. That ends the positive vibrations that marine biologists give this animal. They are exotic gluttons that eat everything they can stuff in their mouths, and they are destroying life on the coral reef that serves as habitat for thousands of species of other fish. That's how they earned the name *Norway rats* of the Atlantic. Lionfish are native to the Pacific Ocean, but they were widely traded for their looks and were first spotted near Miami in the mid-1980s before proliferating in the Gulf of Mexico, the Atlantic and the Caribbean Sea near the turn of the century.

The venom of the red lionfish, delivered via an array of up to 18 needle-like dorsal fins, is purely defensive. It

relies on camouflage and lightning-fast reflexes to capture prey, mainly fish and shrimp. A sting from a lionfish is **extremely painful to humans** and can cause nausea and breathing difficulties, but is rarely fatal.





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Norway Rat

Scientific Name: Rattus norvegicus

Class: Mammalia Kingdom: Animalia



The brown rat, also known as the common rat, street rat, sewer rat, Hanover rat, Norway rat, Norwegian rat, Parisian rat, water rat or wharf rat, is one of the best known and most common rats.



Norway rats have lived in the United States for so long that they're like family. They were introduced in 1775 and are now everywhere, including Alaska and Hawaii, living under various aliases, including brown rats and sewer rats. Norway rats prefer to live near humans and they like choice meats, but really a rat will eat anything — eggs, young chickens, vegetables, garbage and wood. They're a menace known to climb trees and skitter across thin branches to kill and eat wild chicks in their nests. They're survivors, adept at avoiding things that eat them.

All that eating comes with a lot of social time. Might as well start a neighborhood so they can have potlucks and block parties. **Pregnancy takes 3 weeks, with 3-6 litters per year and 7-8 young a litter**. Newborns grow hair after 1 week, open eyes in 2 weeks, are weaned at 3-4 weeks, and mature in 2-5 months. Adult life lasts 6-12 months or longer, if in captivity. Other than their vision, their senses are keen (touch with long whiskers). They are color-blind. They are nocturnal, and can run, climb, jump, swim, and love to explore.





What don't they do? They gnaw on objects, eat stored food, and transmit disease by droppings, urine, bites, fleas and mites in their fur.



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The Tegu

Scientific Name: Salvator merianae

Class: Reptilia

Kingdom: Animalia

The black and white tegu, also called the giant tegu, is the largest species of **tegu lizard**. They are an **omnivorous species** which inhabits the tropical rain forests, savannas, and semi-deserts of east and central South America. Tegus have unusually high intelligence and can also be house-broken.

Tegus look like little brown anolis lizards — on steroids.

They're muscular, fast and love eggs. They're known to harass pets — some reports claim they have killed cats — and they invade homes. Tegus were brought to the United States as pets, and are still available for sale in some stores. They were released into the wild and have spread from the Florida Keys to the Florida Panhandle and are threatening to reach into southern Georgia. Like pythons, Florida officials have launched offensives designed to kill them.



And also like pythons, those efforts have failed. There are now so many that Florida game officials have given up on the idea of eradicating them, and now only hope to manage the population.



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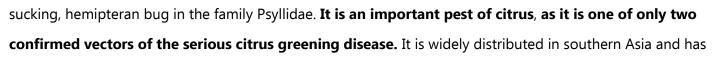
Asian Citrus Psyllid

Scientific Name: Diaphorina citri

Class: Insecta

Kingdom: Animalia

The Asian citrus psyllid, Diaphorina citri, is a sap-





spread to other citrus growing regions.

It's a little farfetched, but this tiny bug could be the end of Florida orange juice. The Asian citrus psyllid carries a **bacteria** that goes by many names: huanglongbing, "yellow dragon disease" and "citrus greening." But what people remember is that Florida orange growers, agriculturalists and academics compare it to cancer.

In citrus trees, roots become deformed, fruits drop

from limbs prematurely and trees die. Half of all citrus trees in Florida, which provides **80 percent** of the nation's orange juice, **are infected**. The trees slowly die. Florida, which provides up to 80 percent of U.S. orange juice, has been hardest hit, but the psyllid and disease have been detected in Georgia, Louisiana, Texas and California, which provide most of the nation's lemons. Psyllids were first detected outside Miami in 1998 and the bacteria was discovered near there in 2005. It spread to 31 other counties within two years.







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Brown Tree Snake

Scientific Name: Boiga irregularis

Class: Reptilia

Kingdom: Animalia

The brown tree snake is an arboreal rear-fanged colubrid snake native to eastern and northern coastal Australia, eastern Indonesia, Papua New Guinea, and a large number of islands in northwestern Melanesia.

Brown tree snakes **are not in** the contiguous **United States**. Be happy about that. Hundreds of thousands are in Guam, a U.S. territory, and are responsible for the decimation (destroying) of birds there. Birds had no reason to fear an



animal that didn't exist until it was **introduced accidentally in the 1950s**. Brown tree snakes are so out of control that they're known for causing power outages when they climb utility poles. Now that many of the birds are gone, the snakes have turned their attention to native lizards. Hawaii, 3,800 miles east of Guam, is on high alert to stop the **poisonous**, predatory snake native to Australia and Indonesia.



Little is known about the reproductive habits of brown tree snakes. Some studies claim that breeding and egg laying are known to occur throughout the year across their entire geographic range, whereas others note that breeding may be cued by cooler temperatures that occur in the colder seasons of the year. In many cases, egg fertilization does not follow mating right away, because a reproducing female may store a male's sperm for up to several years until it is needed. Fertilized eggs are deposited in relatively dark, humid locations—such as caves, holes, hollow logs, and gaps between rocks—to prevent excessive drying. **Two clutches of up to 12 eggs may be deposited in a given year**, and each egg ranges from 42 to 47 mm long (about 1.7 to 1.9

inches) and 18 to 22 mm (about 0.7 to 0.9 inch) wide. As the leathery outer coverings of the eggs slowly harden and dry over time, the eggs in the clutch may adhere to one another to form a clump. Brown tree snakes neither incubate their eggs nor care for their young, and the hatchlings that emerge some 90 days later thus must immediately fend for themselves.

