

Invasive Species

With some background on invasive species in our area, I'm Calhoun County Game Warden Mike Mitchell.

Invasive species are a host of plants and animals from exotic places with exotic names — Emerald ash borer, Formosan termite, Asian long-horned beetle, Japanese climbing fern, and Asian dodder. These threaten the health of Texas' native ecosystems, yet few people know that these pests and pathogens are already present or standing at our doorstep.

An "invasive species" is defined as a species that is non-native or alien to the ecosystem under consideration and whose introduction causes or is likely to cause economic or environmental harm or harm to human health.

Sometimes you will see invasive species referred to as exotic, alien or non-indigenous species. The problem with these names is that they only refer to the non-native part of the definition above. Many exotic or alien species do not cause harm to our economy, our environment or our health. In fact, the vast majority of "introduced" species do not survive, and only about 15 percent of those that do go on to become "invasive" or harmful.

This is important because an invasive species may grow and spread rapidly, establishing and persisting over large areas. Species that become invasive succeed due to favorable environmental conditions and lack of natural predators, competitors and diseases that normally regulate their populations.

Invasive species are a form of biological pollution. Invasive species decrease biodiversity by threatening the survival of native plants and animals. They interfere with the ecosystem function by changing important processes like fire, nutrient flow and flooding. Invasive species may hybridize with native species, resulting in negative genetic impacts.

Invasive species spread easily in today's modern global network of commerce and are difficult and costly to control. They impede industries and threaten agriculture and can endanger human health. They species are a significant threat to almost half of the native U.S. species currently listed as federally endangered.

The cost to prevent, monitor and control invasive species are enormous, not to mention the costs to crop damage, fisheries, forests and other resources. Invasives cost the U.S. \$137 billion annually. Some of the most invasive and harmful species cost in excess of \$100 million each annually.

When a species ends up in a new ecosystem, it is considered "introduced." Species do naturally change their ranges slowly over time, but it is not these "natural" events that

we are concerned with. Most of the introductions that result in invasive species are human-caused.

In some cases, we deliberately introduce species. Examples of this include garden ornamentals, range forage plants for cattle, animals and insects used to control other organisms, particularly in agriculture, and plants used for erosion control and habitat enhancement for wildlife.

Other species are introduced accidentally on imported nursery stock, fruits and vegetables, in ship ballast waters, on vehicles, in packing materials and shipping containers, through human-built canals and from human travel.

There are many things you can do to help stem the tide of invasive species. Here are just a few ways you can take action and get involved:

1. Join a Citizen Scientist Program. Working out in the field can be a very rewarding way to combat invasive species. Whether you are collecting scientific data to be used by local, state or national agencies and organizations, or actually helping get rid of the invasive plants and animals, you will be able to see up close and personal the impacts of invasive species and the results of your efforts.

2. Do Not Be a Vehicle of Dispersion. Most invasive species are introduced by humans accidentally. Learn how to prevent carrying invasive species on your boats, cars, bicycles, motorcycles, socks and hiking boots.

3. Garden Wisely. Avoid plants that self-seed and show up outside of your garden. Do not use weedy volunteers from parks and abandoned lots. Most non-native species are okay; the invasive species are the ones to avoid. Planting a native species garden can be very rewarding. There are many resources to help with creating low-maintenance and colorful native plant gardens, such as the Lady Bird Johnson Wildflower Center Native Plant Information Network. Also visit the PlantWise website for easy tips on how to manage your garden to preserve the unique qualities of neighboring wildlands.

4. Educate Yourself. Learn more about invasive species by exploring the various web sites I will offer shortly.

5. Educate Others. Tell your friends and family what you have learned and let your local nursery grower know your concerns if they are selling invasive species.

If you notice a nursery selling an invasive species, voice your opinion to them. It's the same thing with seeing a neighbor planting them. You may also inform your local game warden, who may be contacted through your local Sheriff's Department.

There are many Internet web sites devoted to education on this topic. One is TexasInvasives.org, which has links for the Citizen Scientist Program, reporting, and

even an online invasives database. There is also a free online monthly newsletter there, which you may subscribe to and get updates.

When landscaping, educate yourself. If you don't know it, don't grow it. The library, nearby Master Gardeners, and even the Texas Parks and Wildlife Department website are good starting places. Type "good native plant species" into the search box.

There are numerous invasive species threatening this area. These include the Water Hyacinth, which you will see growing in canals of the GBRA water system, as well as the waterways of Highway 35 between Green Lake and Tivoli. Lesser-known invasives in our area include the American Rice Miner, which affects rice. There is also the McCartney Rose, amongst others. Marine invasive species, currently of very high concern, include the Tiger Prawn and Lionfish.

Boat owners in this area thus need exercise special caution. Clean recreational equipment. Exotics often travel from one water body to another by "hitching a ride" on a watercraft. To curb the spread of these invasive species, boaters in Texas are required by law to remove harmful plants and animals from boats and trailers before leaving the vicinity of a lake, river or bay.

Follow These Simple Steps:

1. Clean. Remove all plants, animals and mud, and thoroughly wash everything, including crevices and other hidden areas.
2. Drain. Eliminate all water before leaving the area, including wells, ballast and engine cooling water.
3. Dry. Allow time for your boat to completely dry before launching in other waters. If your boat has been in infested waters for an extended period of time, or if you cannot perform the required steps above, you should have your boat professionally cleaned with high-pressure scalding hot water, over 140°F, before transporting to any other body of water.

It is an offense for any person to release into the water of this state, import, sell, purchase, transport, propagate or possess any species, hybrid of a species, subspecies, eggs, seeds or any part of any species defined as harmful or potentially harmful exotic fish, shellfish or aquatic plant. It is also against the law not to remove harmful plants and animals from your boat and trailer. Game wardens may issue citations for failing to do so. Commercial violations are even more severe.

Texas Parks and Wildlife encourages you to enjoy the great outdoors and all the opportunities it has to offer. For more information, see our website at www.tpwd.state.tx.us.

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