

## Alternatives to Release

Instead of subjecting the fish to potentially harmful environmental conditions or risking potential ecological problems by releasing it, consider these alternatives for unwanted pet fish:

- Return it to a local pet shop for resale or trade.
- Give it to another hobbyist, an aquarium in a professional office, a museum, or to a public aquarium or zoological park.
- Donate it to a public institution, such as a school, nursing home, hospital, or prison.



If these options are not available, a veterinarian or fishery biologist can euthanize it (put it to sleep) with anesthesia. You can also do this at home by placing the fish in a container of water and putting it into the freezer. Because cold temperature is a natural anesthetic to tropical fishes, this is considered a very humane method of euthanasia. A pet shop also may be able to assist you if euthanasia is the option you choose. An excellent discussion of fish euthanasia was published in the September 1988 issue of *Tropical Fish Hobbyist*. This magazine is available through pet shops or at your local library.

To Report Nuisance Species Call:

1-877-STOP-ANS  
(1-877-786-9567)



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For more information visit the NAS Website at:  
<http://nas.er.usgs.gov>

- If you must give up your pet fish, please consider its well-being and its potential impact on the environment. Do not release it into a natural body of water.

Protect Florida's  
Native Fish



## Don't Release Exotic Animals

Any plant or animal that is not native to the United States is considered an exotic species. Most fishes available for sale in pet shops are exotic and are imported predominantly from Central and South America, Africa, and Southeast Asia. Each year, species representing nearly 150 million exotic freshwater and marine fishes, are imported into the United States for use in the aquarium trade.



### Potential Problems

Every year exotic fishes are released into the wild because hobbyists may not be able to take their fish with them when they move; they lose interest in maintaining an aquarium; the fish may outgrow the aquarium; or the fish may appear to be in poor health. Whatever the reason, releasing exotic fish into local waters is not a good idea, and in some places it may be illegal.

- The biological reasons not to release your aquarium fishes include:
- Released fish will be stressed when introduced to a different environment.

- They will be susceptible to parasites and diseases.
- They might be attacked by native predators, such as larger fish, fish-eating birds, or water snakes



### It Isn't Good for the Environment

If exotic fish survive and reproduce, they are difficult, if not impossible to control or eliminate. Some species may pose a physical or public health threat, such as piranhas and freshwater stingrays. And they may:

- Cause changes in the existing aquatic community through competition with native species or preying on them; overcrowding; or aggressive behavior.
- Infect native fish with exotic parasites or diseases.
- Affect the genetics of native species by hybridizing with them.

### Current Problems

- At least 185 different species of exotic fishes have been caught in U.S. open waters

- More than 75 of these species have established breeding populations.
- Escape or release of aquarium fishes account for more than half of the introductions.
- In the U.S., most introduced fishes have become established in Florida, Texas, and the Southwest.

- Many of these fishes are native to tropical regions of the world, and their water temperature requirements usually prevent them from surviving in cooler regions. Established species include some South American and African cichlids and livebearers.
- The goldfish, native to China, is one of the few cool region aquarium species that is established throughout the U.S.

