



NAS FaST

U.S. Geological Survey's Nonindigenous Aquatic Species Flood and Storm Tracker

Pam Fuller, Wesley M. Daniel, Matthew Neilson, and Ian Pfungsten

The U.S. Geological Survey's Nonindigenous Aquatic Species (NAS) database is the national repository for spatially referenced biogeographic accounts of introduced freshwater species. The program tracks the distribution of > 1,250 nonindigenous species across the contiguous United States, Alaska, Hawaii, and US territories. NAS FaST maps were created to help assess the spread of nonindigenous species due to flooding associated with storms. Storm surge and flood events can assist the range expansion of nonindigenous aquatic species into new drainages. The NAS FaST maps combine information on potential flooding associated with a storm event with known locations of established or possibly established nonindigenous species from the NAS database. The map identifies all drainages within the flood zone that have a nonindigenous species present or a risk of introduction from surrounding drainages. Later this information is refined using USGS high water marks and stream gages to determine which drainages connected. These maps will help natural resource managers identify potential new locations for non-native species, or develop a watchlist of potential new species within a watershed.

Query

Potential Hurricane Irma Impact

Map updated Tue Oct 31 2017

Select a species:
suckermouth catfish (*Hypostomus sp.*)

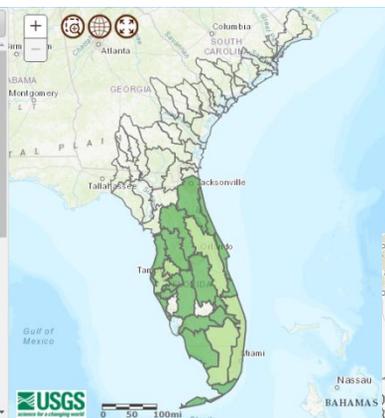
 *Hypostomus sp.*
suckermouth catfish
Fishes
Exotic
[View Fact Sheet](#)

Present in watershed
 Potential spread due to flooding

Explanation/Disclaimer

This map was created to help assess impacts on nonindigenous aquatic species distributions due to flooding associated with Hurricane Irma. Storm surge and flood events can assist expansion and distribution of nonindigenous aquatic species through connection of adjacent watersheds, backflow of water upstream of impoundments, increased downstream flow, and/or creation of freshwater bridges along coastal regions. This map will help natural resource managers determine potential new locations for individual species, or to develop a watchlist of potential new species within a watershed.

The area of interest was defined using USGS WaterWatch data on flood and high flow conditions. The



A map of the current occurrences (light green) and possible spread of suckermouth catfish (*Hypostomus sp.*) between drainage units (darker green) from flooding associated with Hurricane Irma.

Toledo Bend Reservoir (12010004)

| Present in watershed | Potential spread |
|---|---|
| <i>Corbicula fluminea</i> | <i>Alternanthera philoxeroides</i> |
| <i>Hydrilla verticillata</i> [dioecious] | <i>Cyprinus carpio</i> |
| <i>Landoltia punctata</i> | <i>Daphnia lumholtzi</i> |
| <i>Lepomis auritus</i> | <i>Egeria densa</i> |
| <i>Morone chrysops</i> x <i>M. mississippiensis</i> | <i>Eichhornia crassipes</i> |
| <i>Morone saxatilis</i> | <i>Hypophthalmichthys molitrix</i> |
| <i>Pista stratiotes</i> | <i>Ludwigia grandiflora</i> |
| <i>Salvinia minima</i> | <i>Micropterus salmoides floridanus</i> |
| <i>Salvinia molesta</i> | <i>Myriophyllum aquaticum</i> |
| | <i>Myriophyllum spicatum</i> |
| | <i>Notropis potteri</i> |

A table of nonindigenous aquatic species that are currently present in Toledo Bend Reservoir drainage and new species which have the potential to be introduced by Hurricane Harvey flooding of adjacent drainages.

MAP AND EXPLORE DATA FOR HURRICANES HARVEY, IRMA, MARIA, AND NATE.

RESEARCH INDIVIDUAL SPECIES, OR DEVELOP A WATCHLIST OF POTENTIAL NEW SPECIES WITHIN A WATERSHED.

SEARCH DATA FOR NONINDIGENOUS AQUATIC SPECIES INCLUDING FISHES, PLANTS, REPTILES, AMPHIBIANS, MAMMALS, AND INVERTEBRATES.

<https://nas.er.usgs.gov/viewer/Flooding/>