



Update on New Introductions

Ian Pfingsten

Cherokee Nation Technologies, Nonindigenous Aquatic Species Program
Wetland and Aquatic Research Center, Gainesville, FL



A graphic featuring the letters 'N', 'A', and 'S' in large, bold, black font. Each letter is set within a colored square: 'N' is on a yellow background with a nautilus shell illustration above it; 'A' is on a blue background with an angelfish illustration above it; and 'S' is on a green background with a lotus flower illustration above it. The entire graphic is set against a dark blue background.

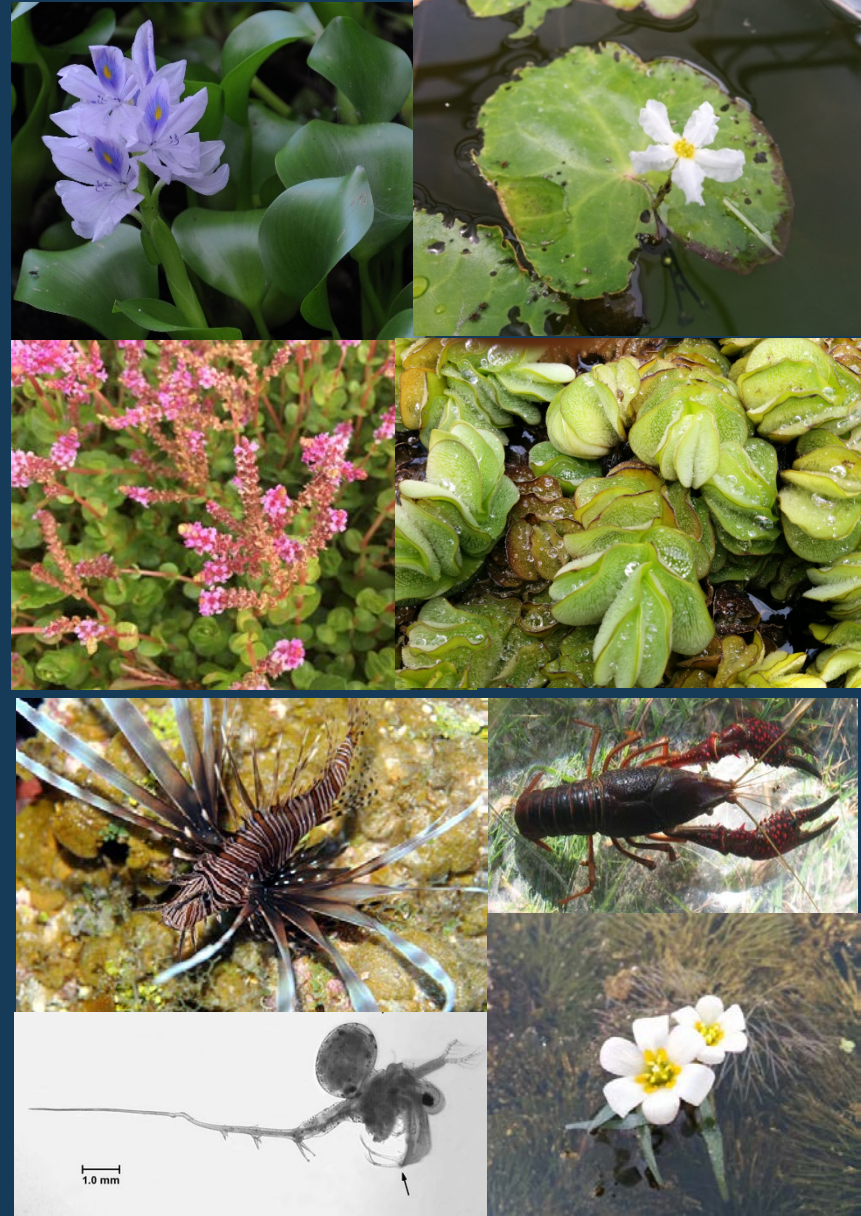
<https://nas.er.usgs.gov>

- The program is the central repository for spatially referenced accounts of introduced aquatic species
- The program provides scientific reports, online/ real-time queries, spatial data sets, distribution maps, and general information
- The data are made available for use by biologists, interagency groups, and the general public
- Part of a national Early Detection Rapid Response (EDRR) system



NAS Database

- Tracks >1,290 aquatic taxa
- Across conterminous US, Alaska, Hawaii, and US territories
- Dates ranging from 1790-2019
- Potential introduction pathways and population status



New Developments/Products

■ Alert Risk Mapper (ARM)

- Provide maps as images along with emailed alerts
- Attempt to identify risk of spread associated with new introductions
- Maps include:
 - Current native & non-native range
 - Waterbodies and reaches at risk of non-human-mediated introduction
 - Barriers (dams & waterfalls)
 - Species potential mobility (passive vs. active, overland, stream order size, & flow velocity)



New Developments/Products

- **Screen and Evaluate Invasive and Non-native Data (SEINeD)**
 - Publicly available tool
 - Users upload collection data (species, coordinates, counties, and states)
 - Coordinates are checked against native and non-native ranges from the NAS database
 - Users are returned a file with the native status for each datum, if available



New Developments/Products

■ Impacts database

- ~100 priority species in the southeast region
- Documented impacts (ecological, economic, human health)
- Quick display of impacts by species
 - Determine gaps in knowledge



GSARP regional view of NAS database

The screenshot displays the GSARP regional view of the NAS database. The interface is divided into several sections:

- Search Panel (Left):** Contains tabs for Query, Species, and Layers. Below these is a search bar and a section titled "Add a New Search Field" with a dropdown menu. There are also input fields for Genus, Species, and Common Name, each with a clear button (X). A "Search by Area" section includes checkboxes for "Draw Polygon" and "Draw Circle", and buttons for "Search" and "Reset".
- Map (Center):** A map of the Gulf and South Atlantic regions, showing states and provinces. A red outline highlights a specific region. The map includes labels for various geographical features like the Red Hills, Ozark Plateau, Ouachita Mountains, and Coastal Plain. Major cities like Dallas, Houston, New Orleans, and Miami are marked.
- URL Bar (Bottom):** Displays the URL https://nas.er.usgs.gov/viewer/ANSTF_regions/GSARP.aspx.
- Footer (Bottom):** Includes the USGS logo, a scale bar (0 to 100 miles), and a list of data sources: Esri, HERE, Garmin, FAO, NOAA, USGS, EPA, NPS.



NAS Alerts



- Alerts are generated when
 - Species is new to one or more geographic levels
 - Country
 - State
 - Drainage (HUC8)
 - County
- Observed within the last year

FILTER ALERT RESULTS

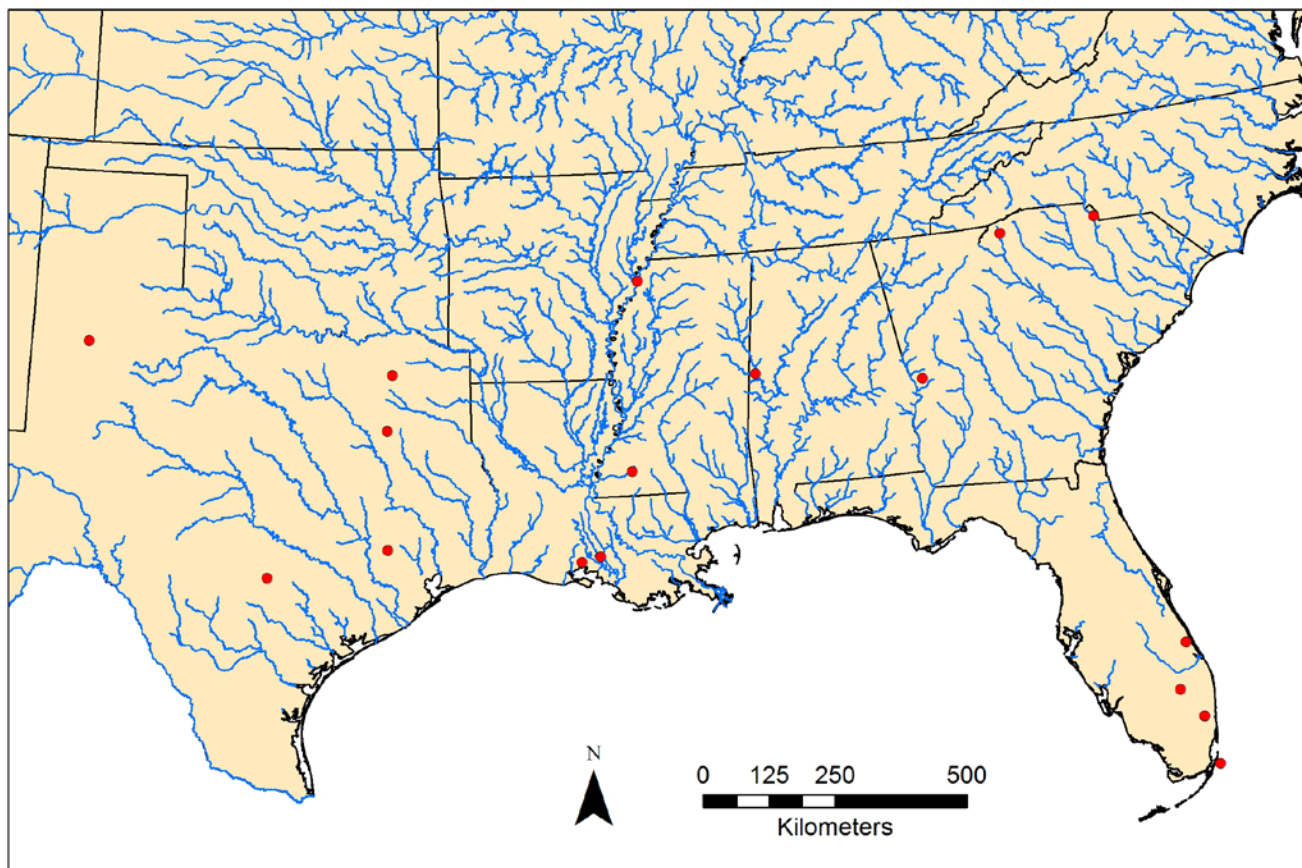
Group:	<input type="text" value="All"/>
In State:	<input type="text" value="All"/>
Genus	<input type="text"/>
Species	<input type="text"/>
Common Name	<input type="text"/>
Dates Between	<input type="text"/> and <input type="text"/>
Sort by:	<input type="text" value="Date"/>
Records per page:	<input type="text" value="25"/>
<input type="button" value="Filter Alerts"/>	



Alerts and updates since November



NAS Alerts from 11/01/2018 - 04/12/2019



LEVELS

2 new to state
12 new to drainage
4 new to county

GROUPS

7 plants
2 mollusks
5 fish
1 herps
2 crustaceans
1 cnidarian

TAXA

3 carp (2 black, 1 common)
2 giant salvinia
2 crayfish
3 crested floating-heart

STATES

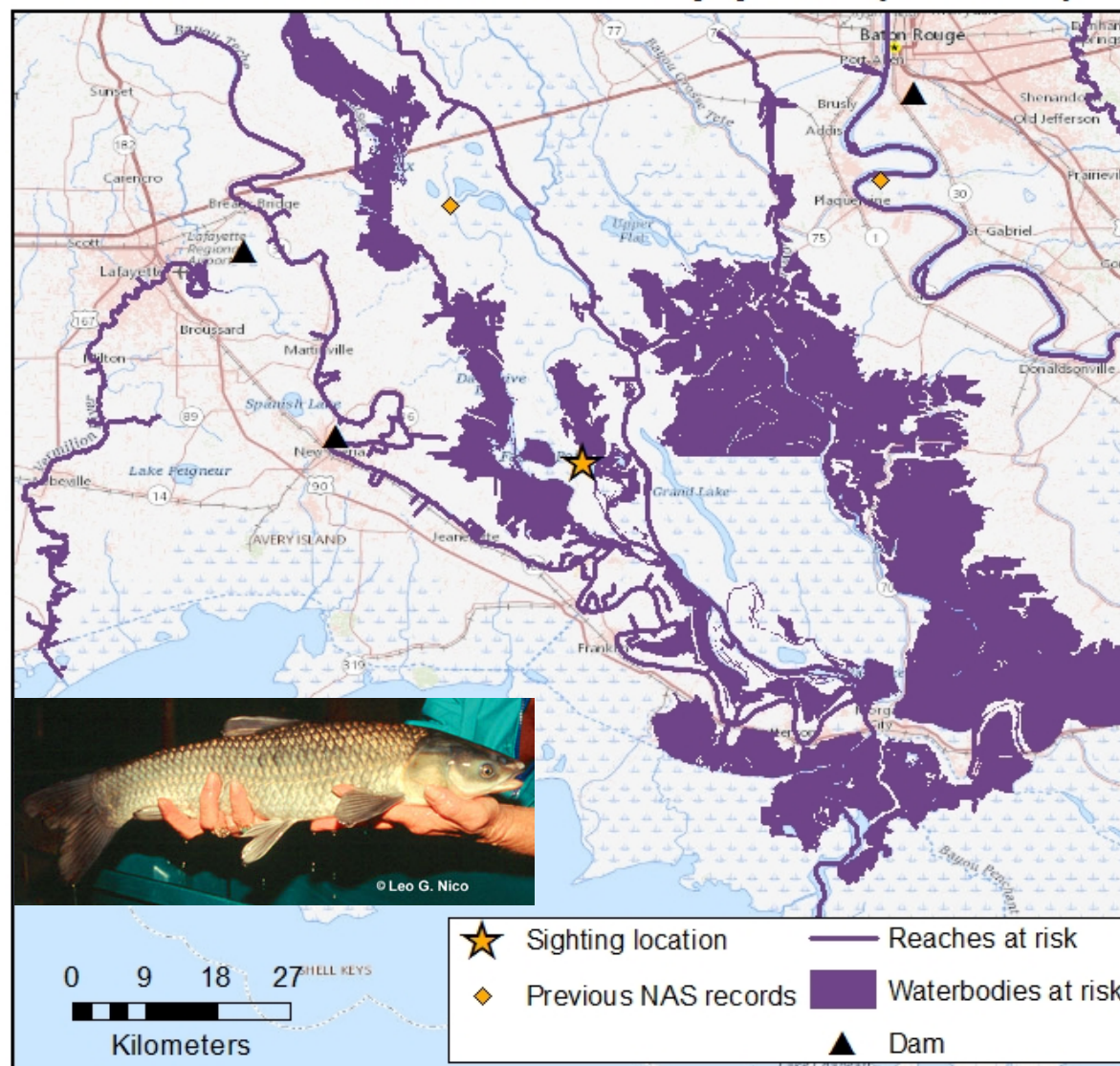
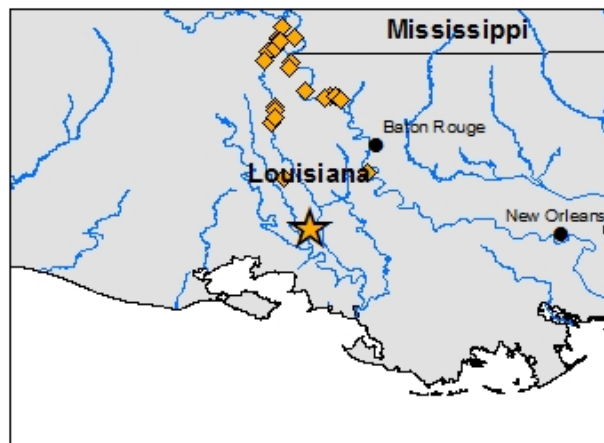
1 AL	2 MS
5 FL	2 SC
1 GA	5 TX
2 LA	





NAS Alert Risk Mapper (ARM)

Specimen ID:	1541543
Species:	<i>Mylopharyngodon piceus</i> (Black Carp)
Alert level:	County: Iberia (LA);
Alert date:	03/29/2019
State:	Louisiana
Locality:	Atchafalaya Basin near Buffalo Cove
Latitude (N):	29.9932
Longitude (W):	-91.5377
Collection date:	03/27/2019
Comments:	Unknown ploidy

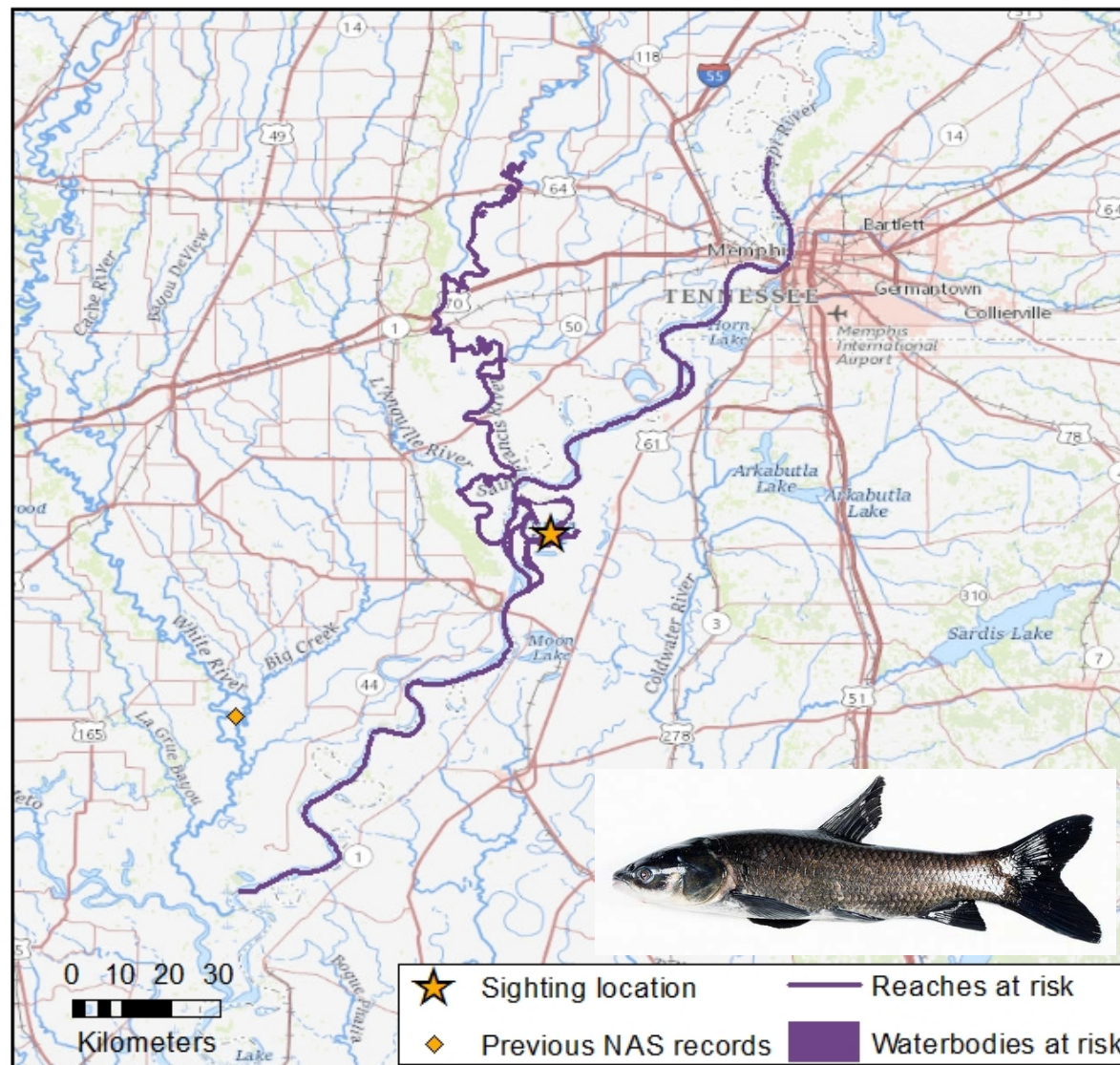
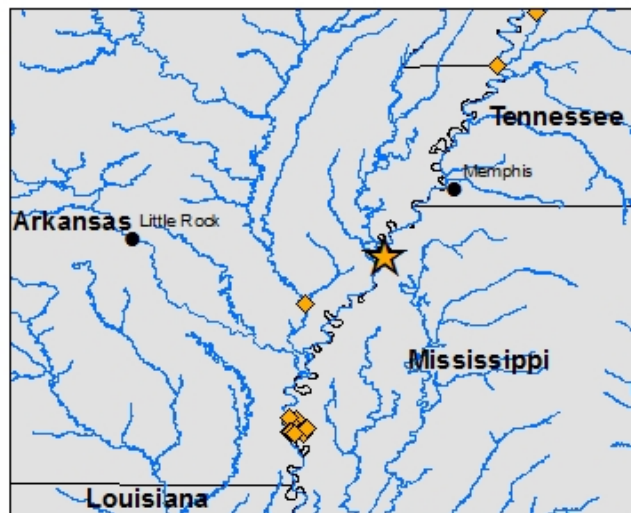


The map shows waterbodies at short-term risk of invasion from the species sighting. The at-risk areas are determined by species mobility and drainage barriers (dams).



NAS Alert Risk Mapper (ARM)

Specimen ID:	1524534
Species:	<i>Mylopharyngodon piceus</i> (Black Carp (diploid))
Alert level:	County: Tunica (MS); Drainage: Lower Mississippi-Helena (8020100)
Alert date:	02/21/2019
State:	Mississippi
Locality:	Tunica Lake
Latitude (N):	34.6404
Longitude (W):	-90.5034
Collection date:	01/29/2019

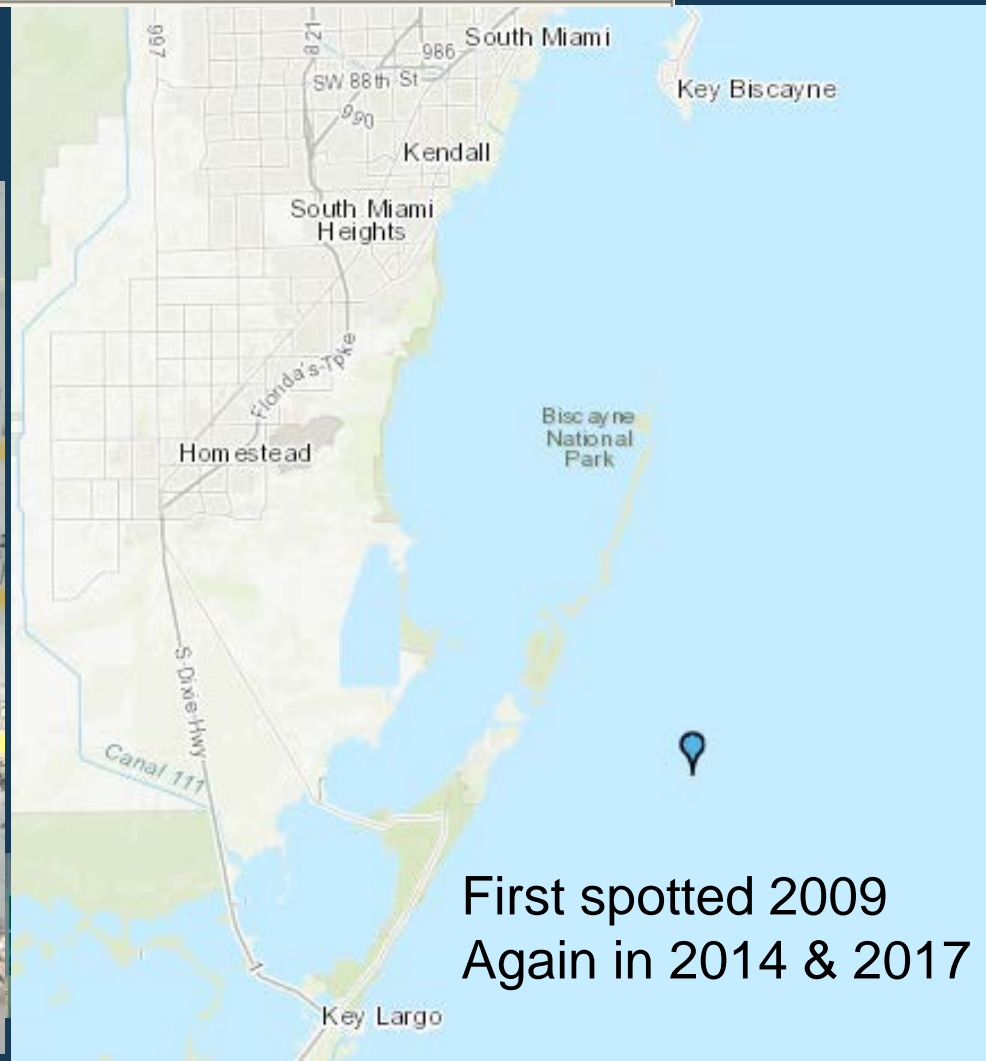


Data Disclaimer: These data are preliminary or provisional and are subject to revision. They are being provided to meet the need for timely best science. The data have not received final approval by the U.S. Geological Survey (USGS) and are provided on the condition that neither the USGS nor the U.S. Government shall be held liable for any damages resulting from the authorized or unauthorized use of the data.

The map shows waterbodies at short-term risk of invasion from the species sighting. The at-risk areas are determined by species mobility and drainage barriers (dams).

Specimen ID	1523014
Group	Fishes
Genus	Zanclus
Species	cornutus
Common Name	Moorish Idol
State	FL
County	Miami-Dade
Locality	Atlantic Ocean, Florida, On the vertical wall that forms the boundary between Biscayne National Park and the Florida Keys National Marine Sanctuary

Collection Day	9
Collection Month	11
Collection Year	2018
Year Accuracy	Actual
Potential Pathway	released aquarium
Status	eradicated

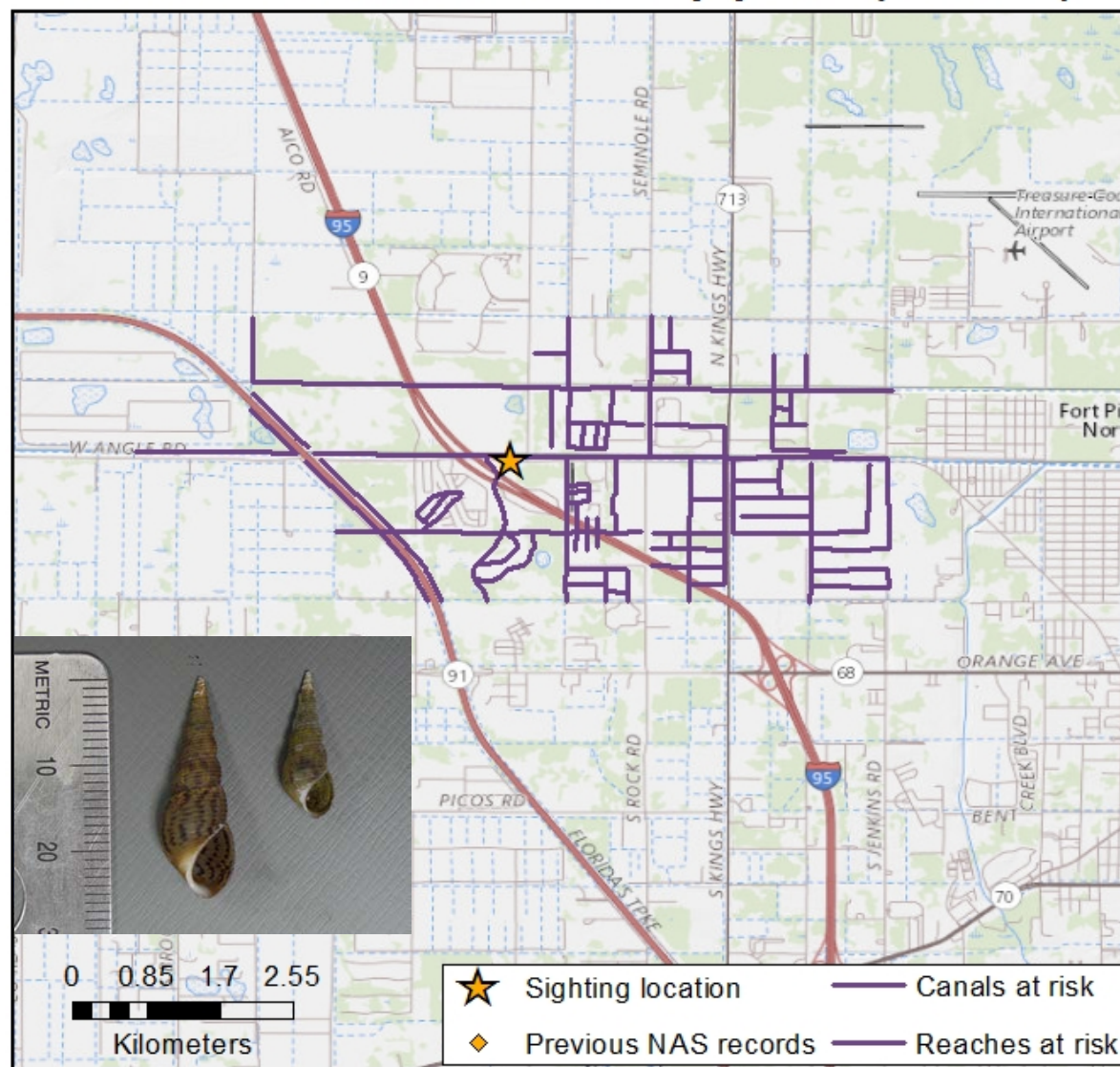
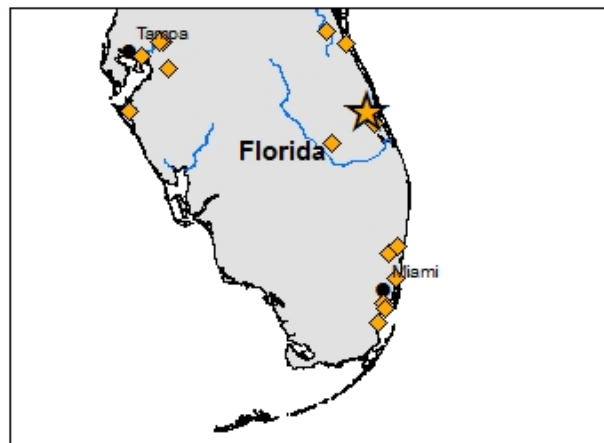


First spotted 2009
Again in 2014 & 2017



NAS Alert Risk Mapper (ARM)

Specimen ID:	1541595
Species:	<i>Melanoides tuberculata</i> (red-rim melania)
Alert level:	Drainage: Vero Beach (3080203)
Alert date:	04/08/2019
State:	Florida
Locality:	Belcher Canal, Vero Beach, Florida
Latitude (N):	27.4697
Longitude (W):	-80.4217
Collection date:	03/26/2019
Comments:	

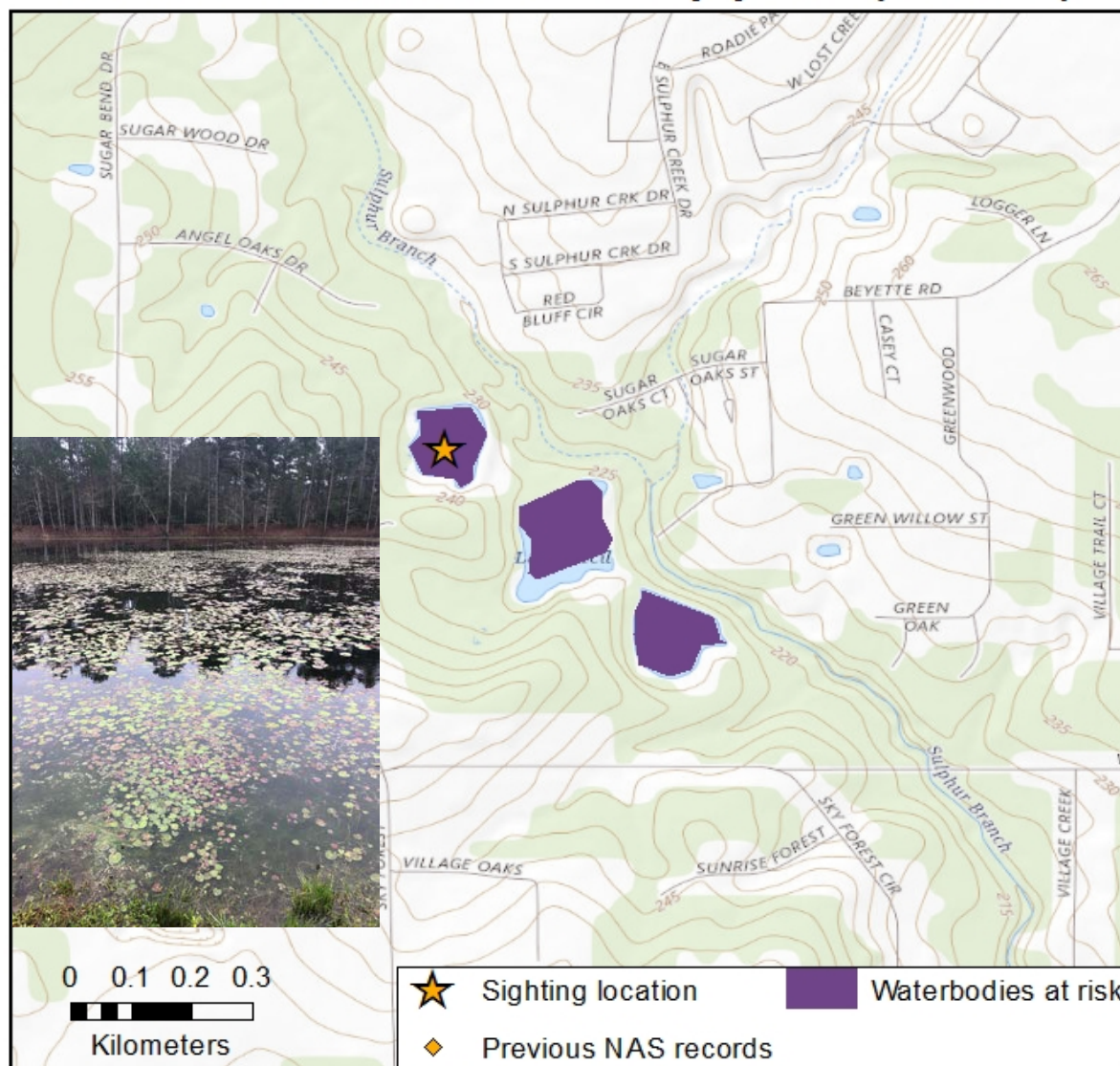
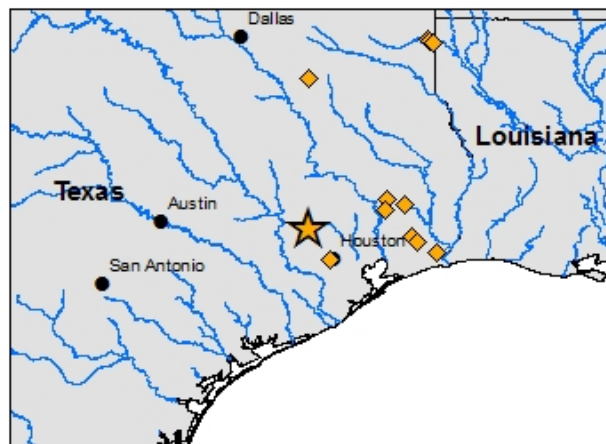


The map shows waterbodies at short-term risk of invasion from the species sighting. The at-risk areas are determined by species mobility and drainage barriers (dams).



NAS Alert Risk Mapper (ARM)

Specimen ID:	1529938
Species:	<i>Nymphoides cristata</i> (crested floating-heart)
Alert level:	County: Montgomery (TX); Drainage: Spring (12040102)
Alert date:	03/05/2019
State:	Texas
Locality:	pond near Lake Cecil
Latitude (N):	30.186
Longitude (W):	-95.7319
Collection date:	00/00/2018
Comments:	

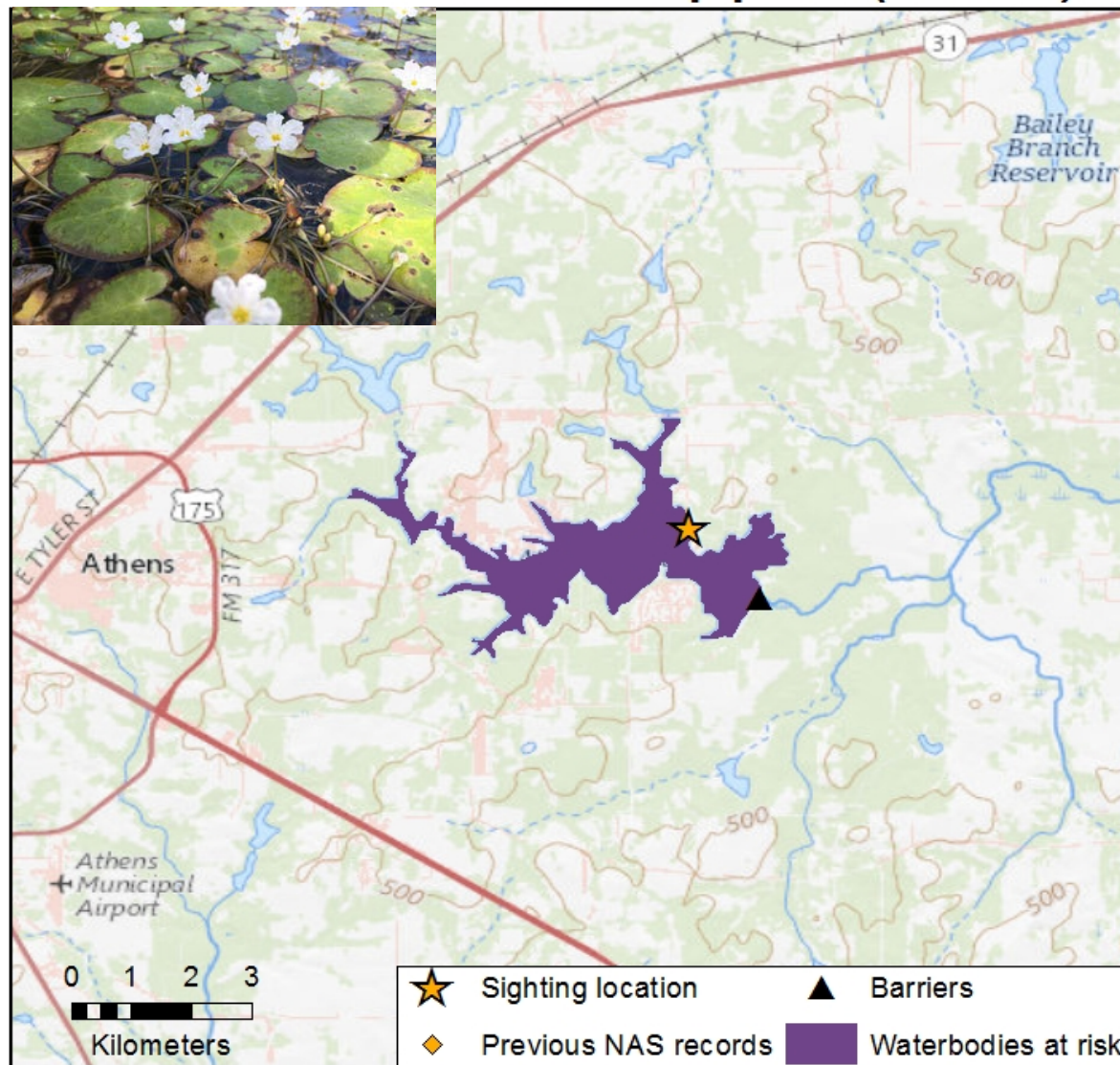
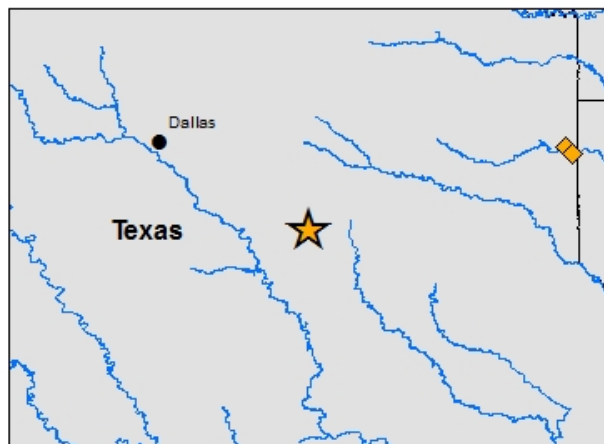


The map shows waterbodies at short-term risk of invasion from the species sighting. The at-risk areas are determined by species mobility and drainage barriers (dams).



NAS Alert Risk Mapper (ARM)

Specimen ID:	1523963
Species:	<i>Nymphoides cristata</i> (crested floating-heart)
Alert level:	County: Henderson (TX); Drainage: Upper Neches (12020001)
Alert date:	12/04/2018
State:	Texas
Locality:	Lake Athens
Latitude (N):	32.2171
Longitude (W):	-95.7346
Collection date:	02/00/2018
Comments:	Reported by TPWD

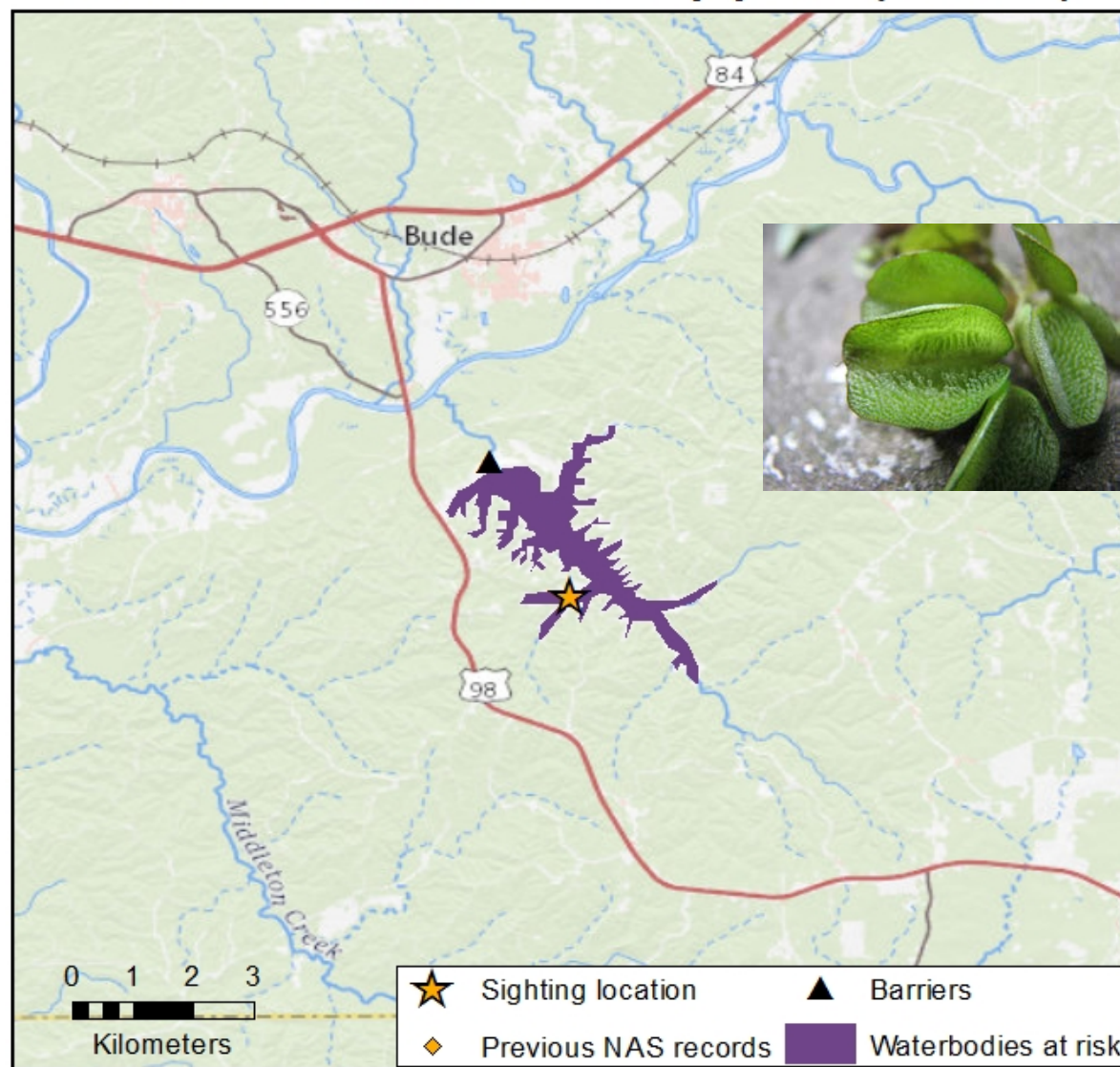
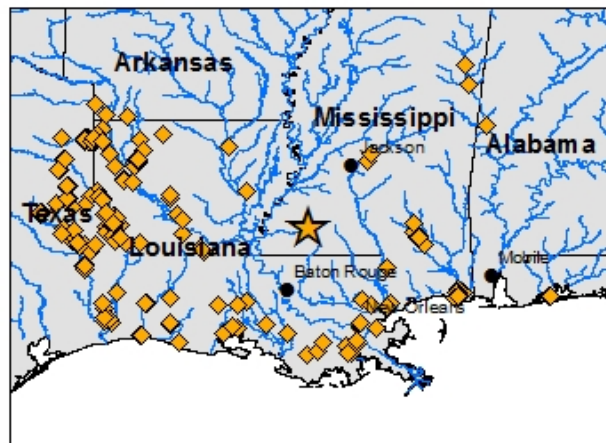


The map shows waterbodies at short-term risk of invasion from the species sighting. The at-risk areas are determined by species mobility and drainage barriers (dams).



NAS Alert Risk Mapper (ARM)

Specimen ID:	1529995
Species:	<i>Salvinia molesta</i> (giant salvinia)
Alert level:	County: Franklin (MS); Drainage: Homochitto (8060205)
Alert date:	03/08/2019
State:	Mississippi
Locality:	Lake Okhissa
Latitude (N):	31.4122
Longitude (W):	-90.8317
Collection date:	02/11/2019
Comments:	Reported by MDWFP



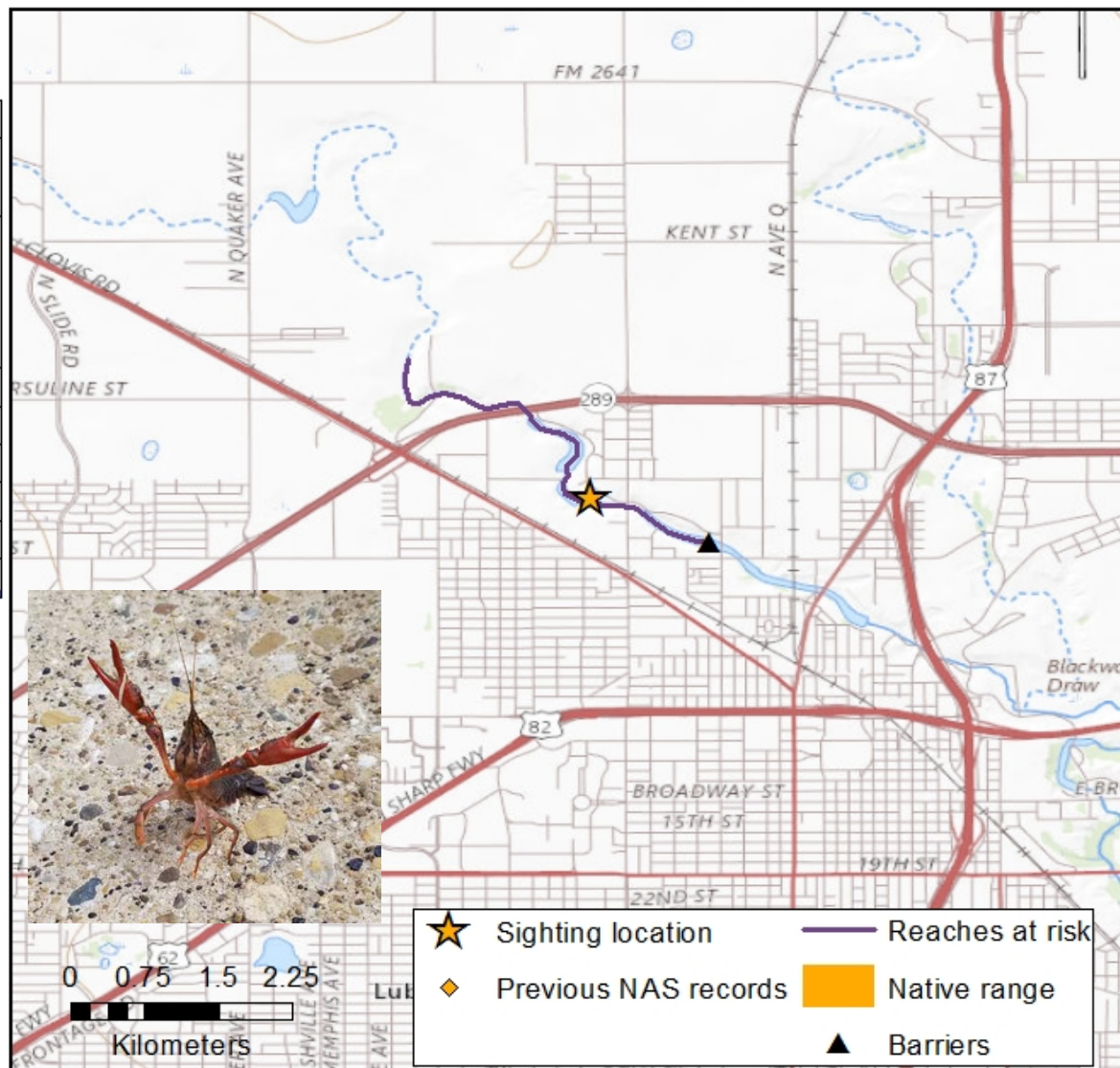
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The map shows waterbodies at short-term risk of invasion from the species sighting. The at-risk areas are determined by species mobility and drainage barriers (dams).



NAS Alert Risk Mapper (ARM)

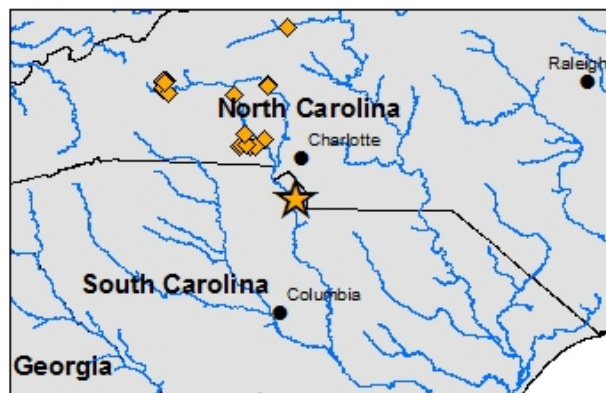
Specimen ID:	1523007
Species:	<i>Procambarus clarkii</i> (Red Swamp Crayfish)
Alert level:	State: Texas; County: Lubbock (TX); Drainage: Yellow House Draw (12050001)
Alert date:	11/28/2018
State:	Texas
Locality:	Buddy Holly Recreation Area
Latitude (N):	33.61248
Longitude (W):	-101.87377
Collection date:	8/6/2018



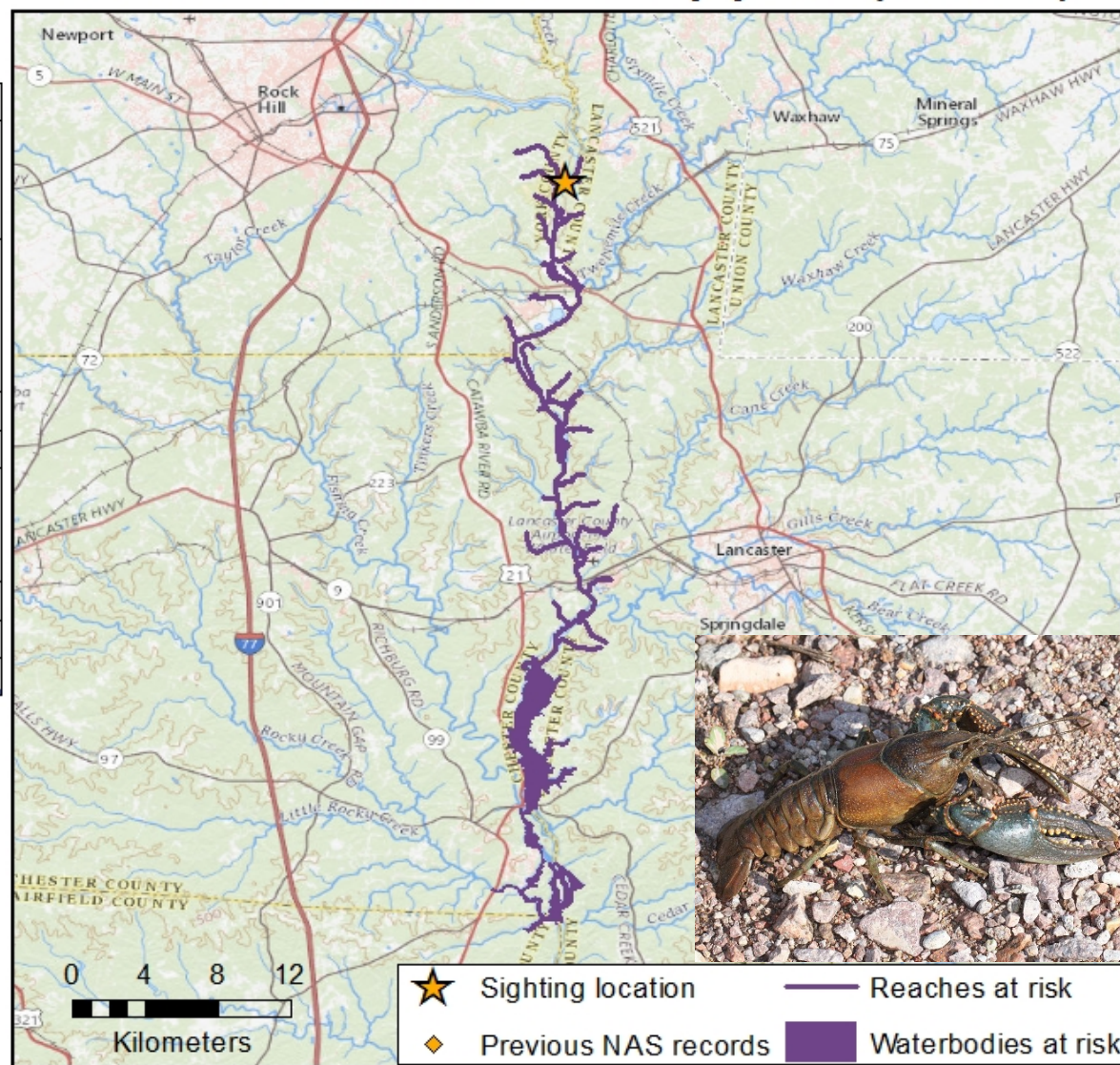
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Specimen ID:	1522776
Species:	<i>Faxonius virilis</i> (Virile Crayfish, Northern Crayfish)
Alert level:	State: South Carolina County: York, SC Drainage: Lower Catawba (3050103)
Alert date:	12/17/2018
State:	South Carolina
Locality:	Catawba River at Catawba Indian Nation Reservation Boat Landing
Latitude (N):	34.90758
Longitude (W):	-80.87341
Collection date:	12/7/2018



NAS Alert Risk Mapper (ARM)

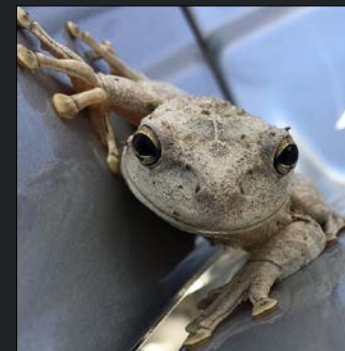
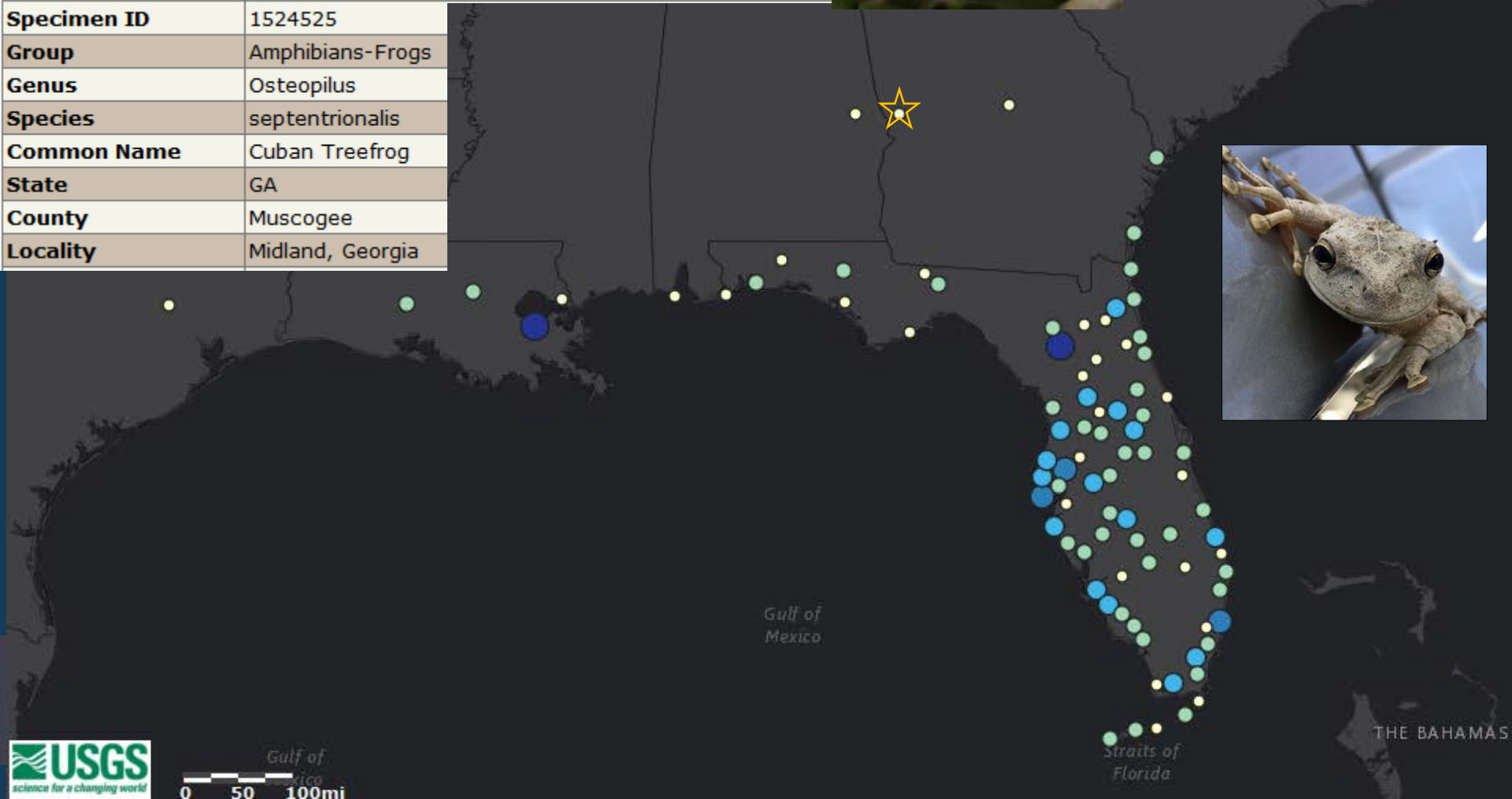


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The map shows waterbodies at short-term risk of invasion from the species sighting. The at-risk areas are determined by species mobility and drainage barriers (dams).

Collection Day	26
Collection Month	1
Collection Year	2019
Year Accuracy	Actual
Potential Pathway	hitch hiker
Status	unknown
Comments	found on some plants we brought inside for the winter.
Record Type	NAS sighting report
Freshwater/Marine	Freshwater
Number Collected	1

Specimen ID	1524525
Group	Amphibians-Frogs
Genus	Osteopilus
Species	septentrionalis
Common Name	Cuban Treefrog
State	GA
County	Muscogee
Locality	Midland, Georgia



Questions?



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

- **Pam Fuller-** (Emeritus)
pfuller@usgs.gov
- **Matthew Neilson-** Fishes and Technical details
mneilson@usgs.gov
- **Amy Benson-** Carps, Snakeheads and Dreissena mussels
abenson@usgs.gov
- **Wesley Daniel-** Inverts, Mollusks, Herps, and Mammals
wdaniel@usgs.gov
- **Ian Pfingsten-** Plants
ipfingsten@usgs.gov
- **Cayla Morningstar-** Mollusks
cmorningstar@contractor.usgs.gov
- **Justin Procopio-** Fishes
jprocopio@contractor.usgs.gov

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