



New Species Occurrences and Program Updates

Matt Neilson

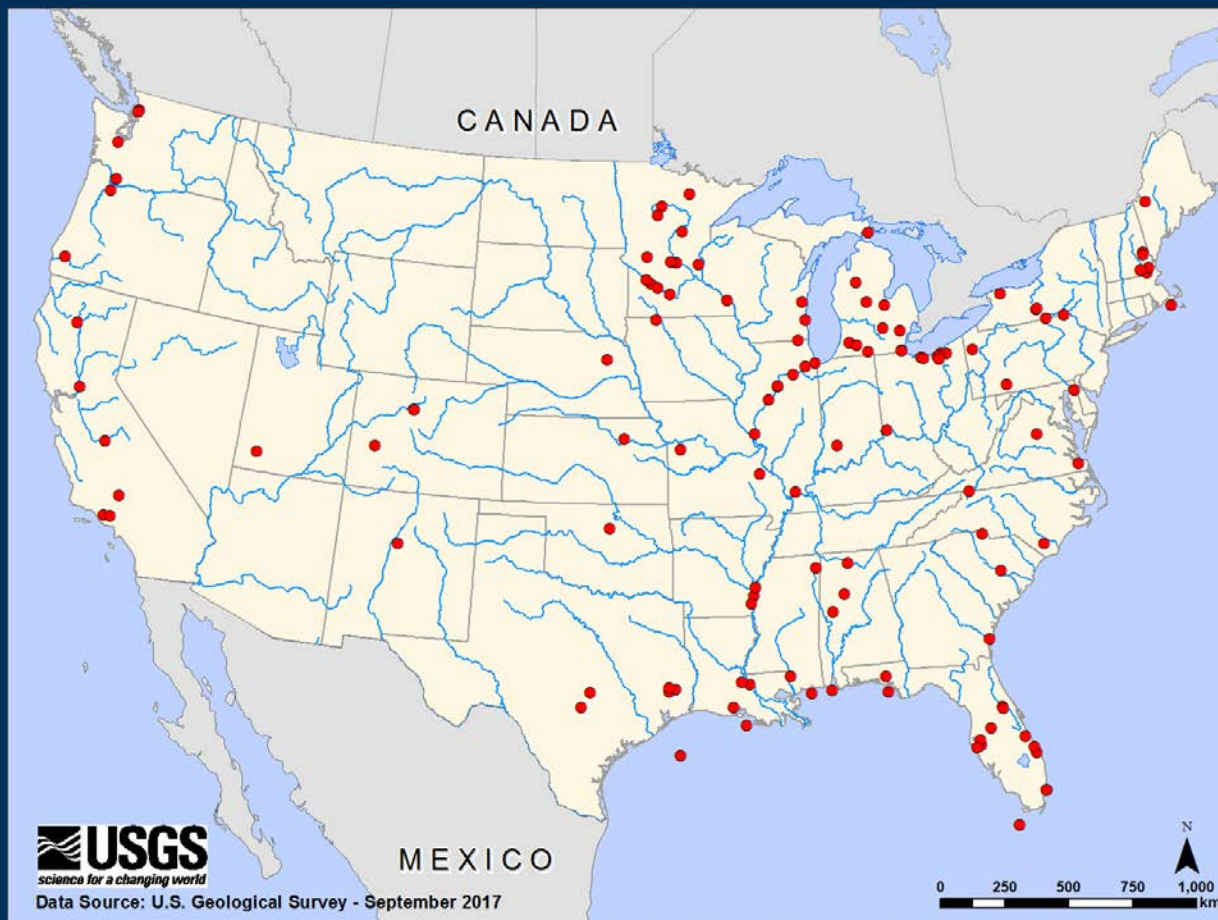
Nonindigenous Aquatic Species Program

Gainesville, FL

NAS Alerts

- Alerts are generated when
 - Species is new to one or more geographic levels
 - Country
 - State
 - Drainage (HUC8)
 - County
 - Observed within the last 6 months

Since April 2017 (124)



LEVELS

7 new to US
12 new to state
75 new to drainage
26 new to county
4 bonus alert

GROUPS

48 fish
27 plants
30 mollusk

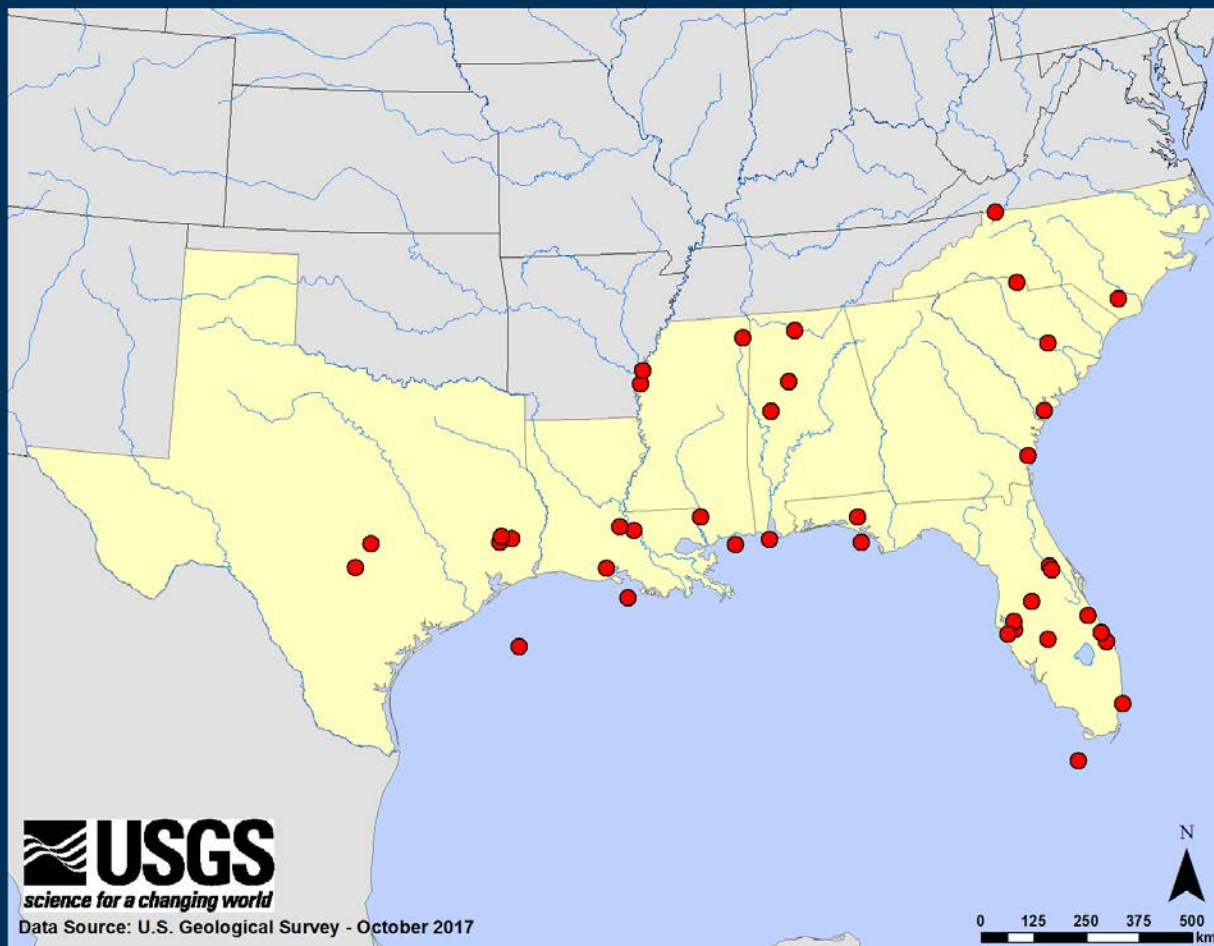
STATES

15 Florida
13 Minnesota
11 Michigan

SPECIES

17 carp (3 BH/5 SC/4 G/5 B)
9 Zebra Mussel
6 mysterysnail
6 red swamp crayfish

Since April 2017 (41)



LEVELS

6 new to US
8 new to state
21 new to drainage
5 new to county
1 bonus alert

GROUPS


22 fish
8 mollusks
8 plants
2 mammals
1 hydrozoan

STATES

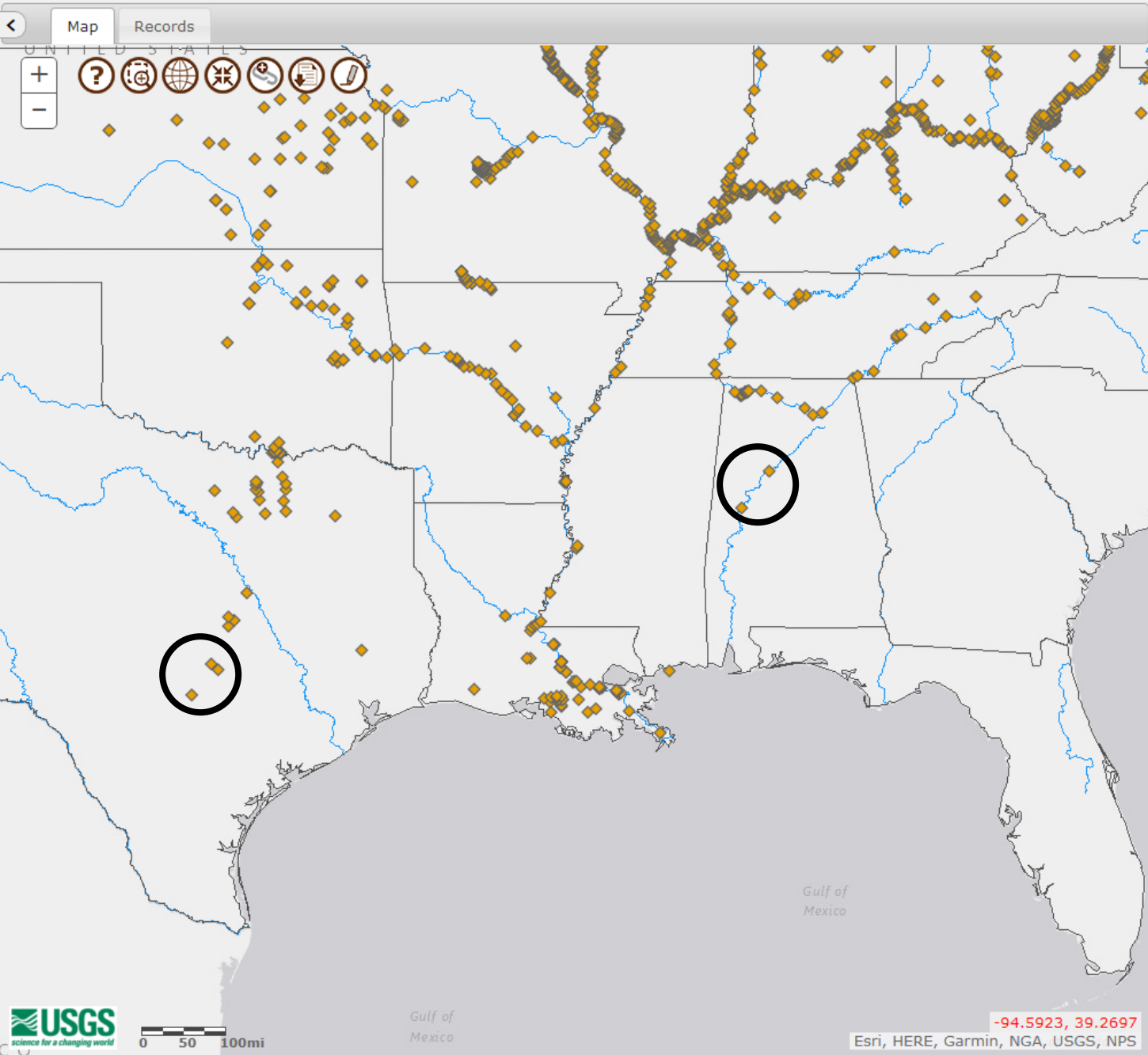
16 FL
6 TX
5 MS
4 AL, LA
3 SC
2 NC
1 GA

Query Species Layers

- Species Observations**
- Clustered Specimen Records ?
 - 1
 - 2 to 5
 - 6 to 10
 - 11 to 19
 - 20 or more
 - Selected
 - Individual Specimens ?
 - Selected

 *Dreissena polymorpha*
zebra mussel
Mollusks-Bivalves
Exotic

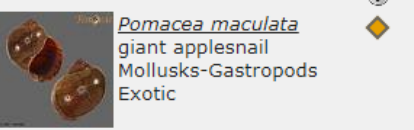
☒ Include ☐ HUC8 Level Records



Query Species Layers

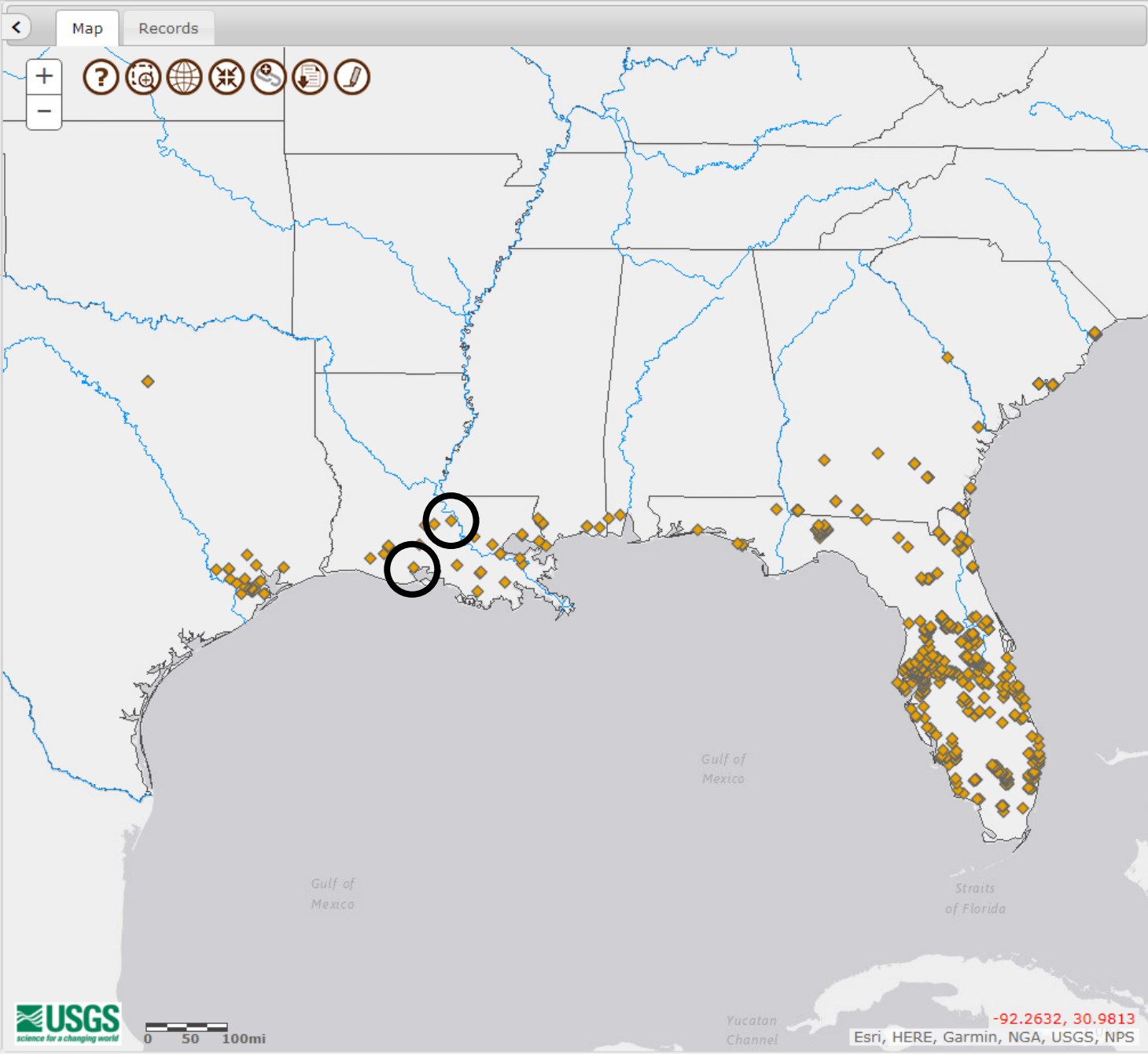
Species Observations

- ☐ Clustered Specimen Records ?
- 1 2 to 5
 - 6 to 10 11 to 19
 - 20 or more Selected
- ☒ Individual Specimens ?
- Selected




Pomacea maculata
giant applesnail
Mollusks-Gastropods
Exotic

☒ Include ☐ HUC8 Level Records

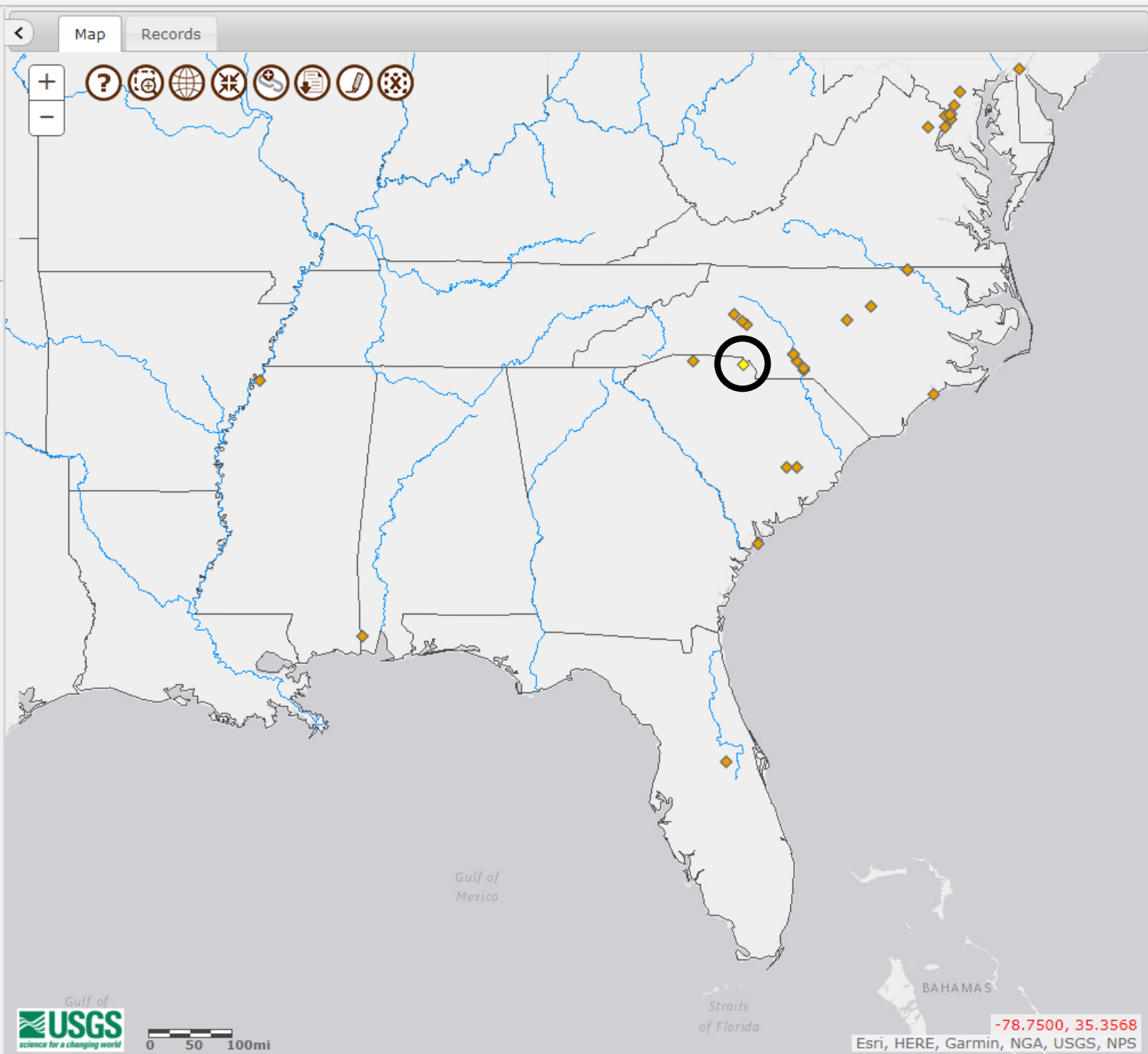


Query Species Layers

- Species Observations**
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 - ◆ Selected

 *Cipangopaludina japonica* ?
Japanese mysterysnail
Mollusks-Gastropods
Exotic

☒ Include ☐ HUC8 Level Records




[Query](#)
[Species](#)
[Layers](#)

[Map](#)
[Records](#)

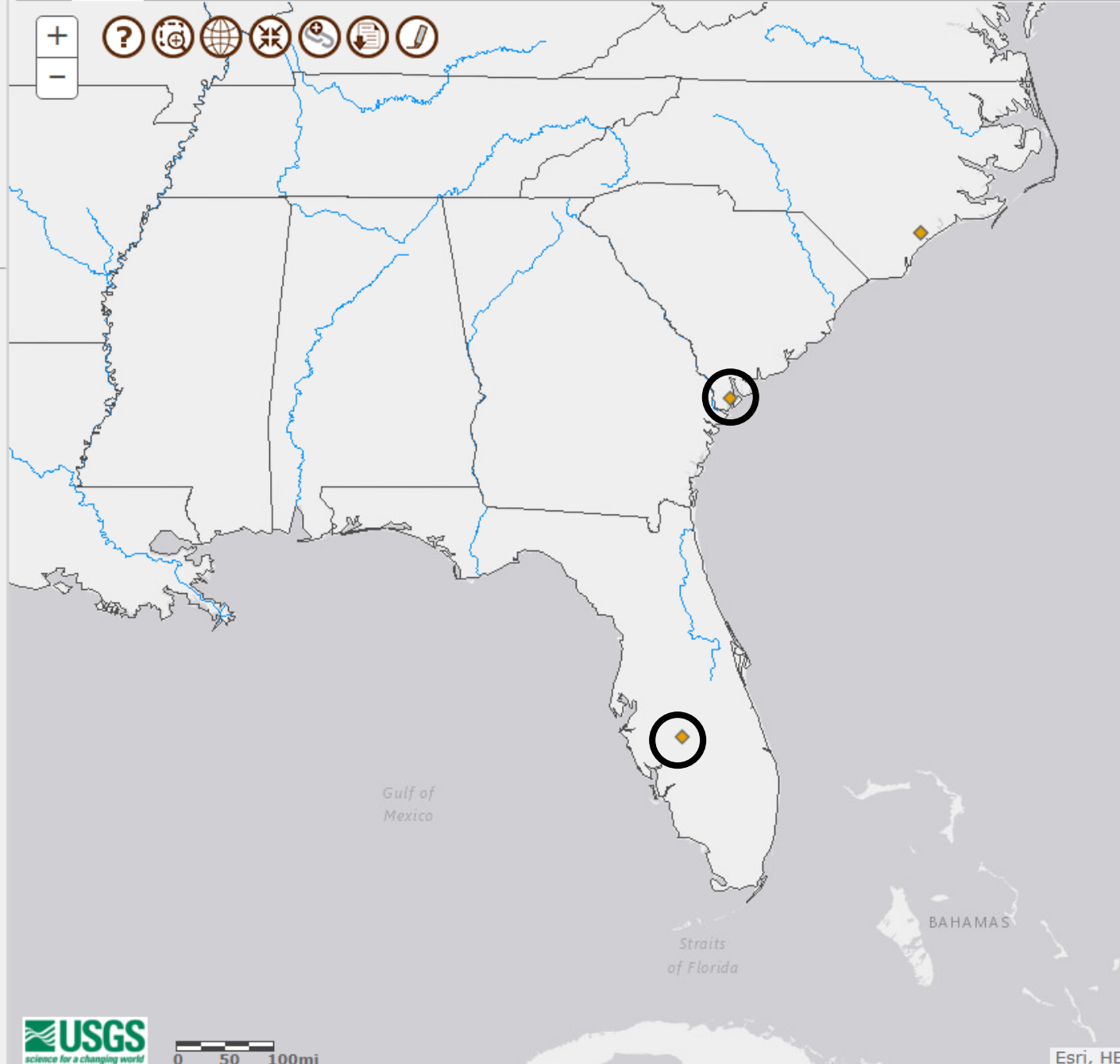
Species Observations

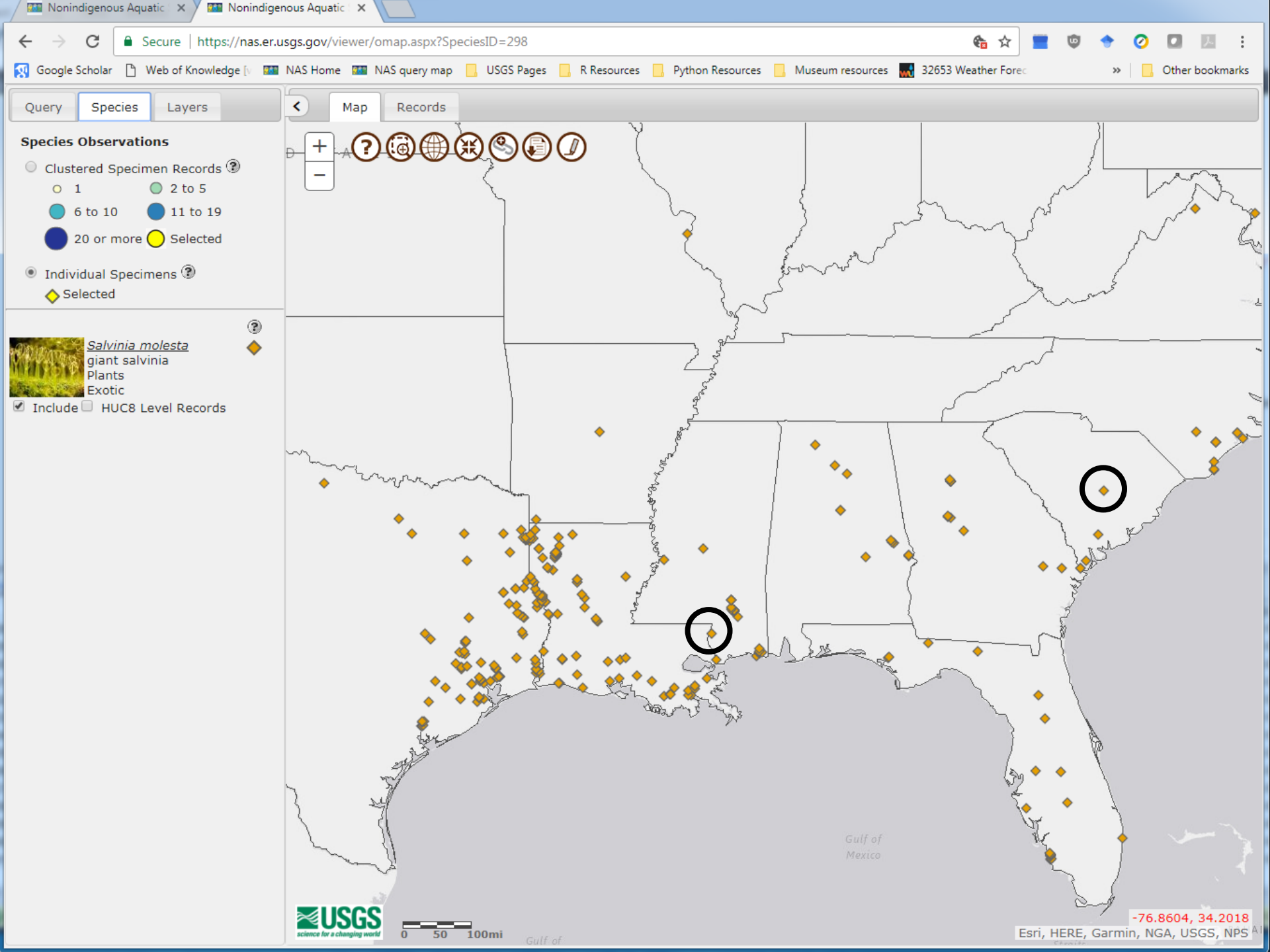
- ☐ Clustered Specimen Records ?
☐ 1 ☐ 2 to 5
☐ 6 to 10 ☐ 11 to 19
☐ 20 or more ☐ Selected
☒ Individual Specimens ?
☐ Selected



Philydrum lanuginosum
 woolly frog's mouth
 Plants
 Exotic


☒ Include ☐ HUC8 Level Records





Query Species Layers

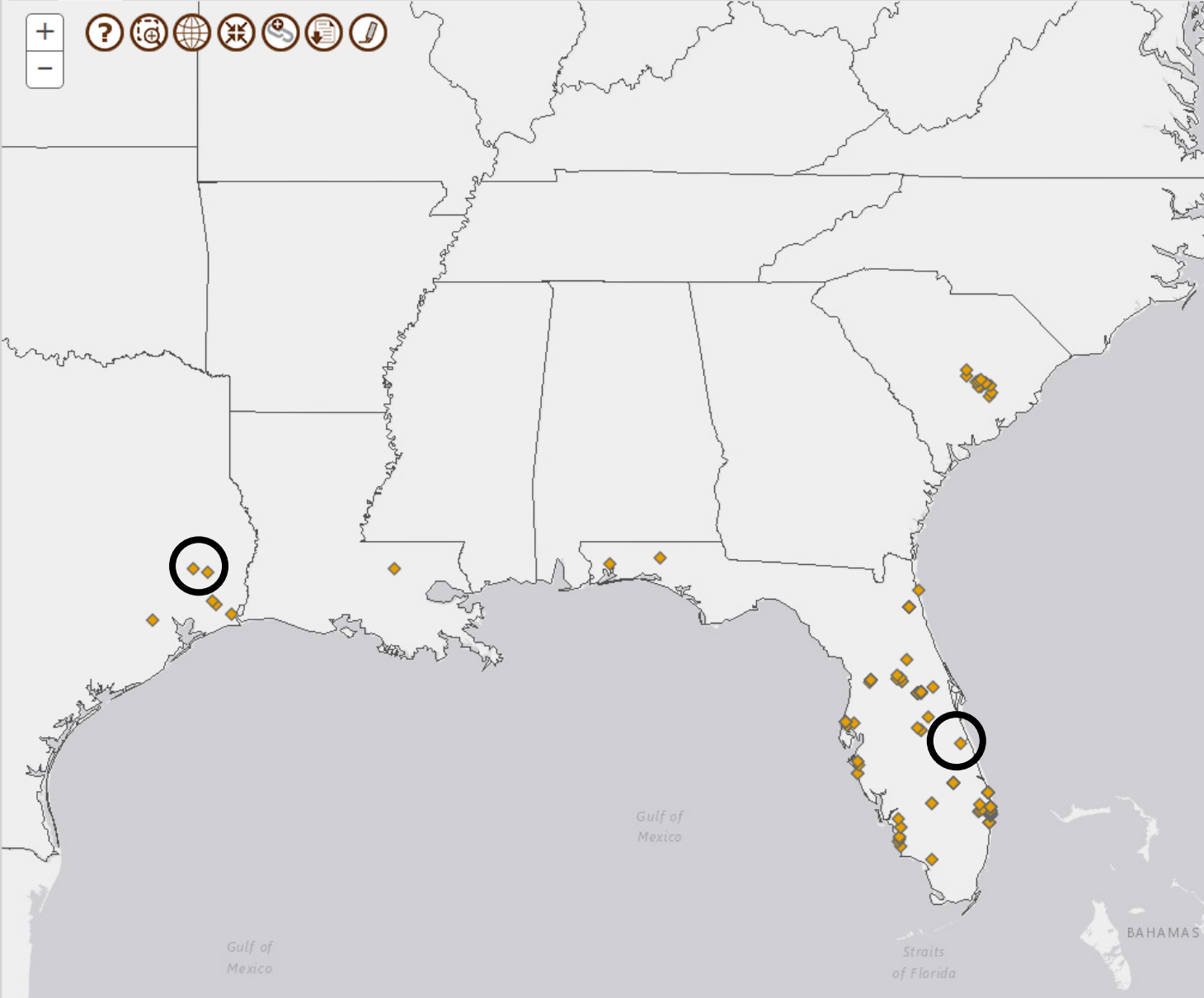
- Species Observations**
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- Selected



Nymphoides cristata
crested floating-heart
Plants
Exotic

☒ Include ☐ HUC8 Level Records


Map Records




Query Species Layers

Species Observations


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- Selected

- 


Acanthochromis polyacanthus
spiny chromis damselfish
Fishes
Exotic

☒ Include
- 


Barbonymus gonionotus
Java Barb
Fishes
Exotic

☒ Include
- 


Monodactylus sebae
African moony
Fishes
Exotic

☒ Include
- 

Neopomacentrus cyanomos
regal demoiselle
Fishes
Exotic

☒ Include
- 

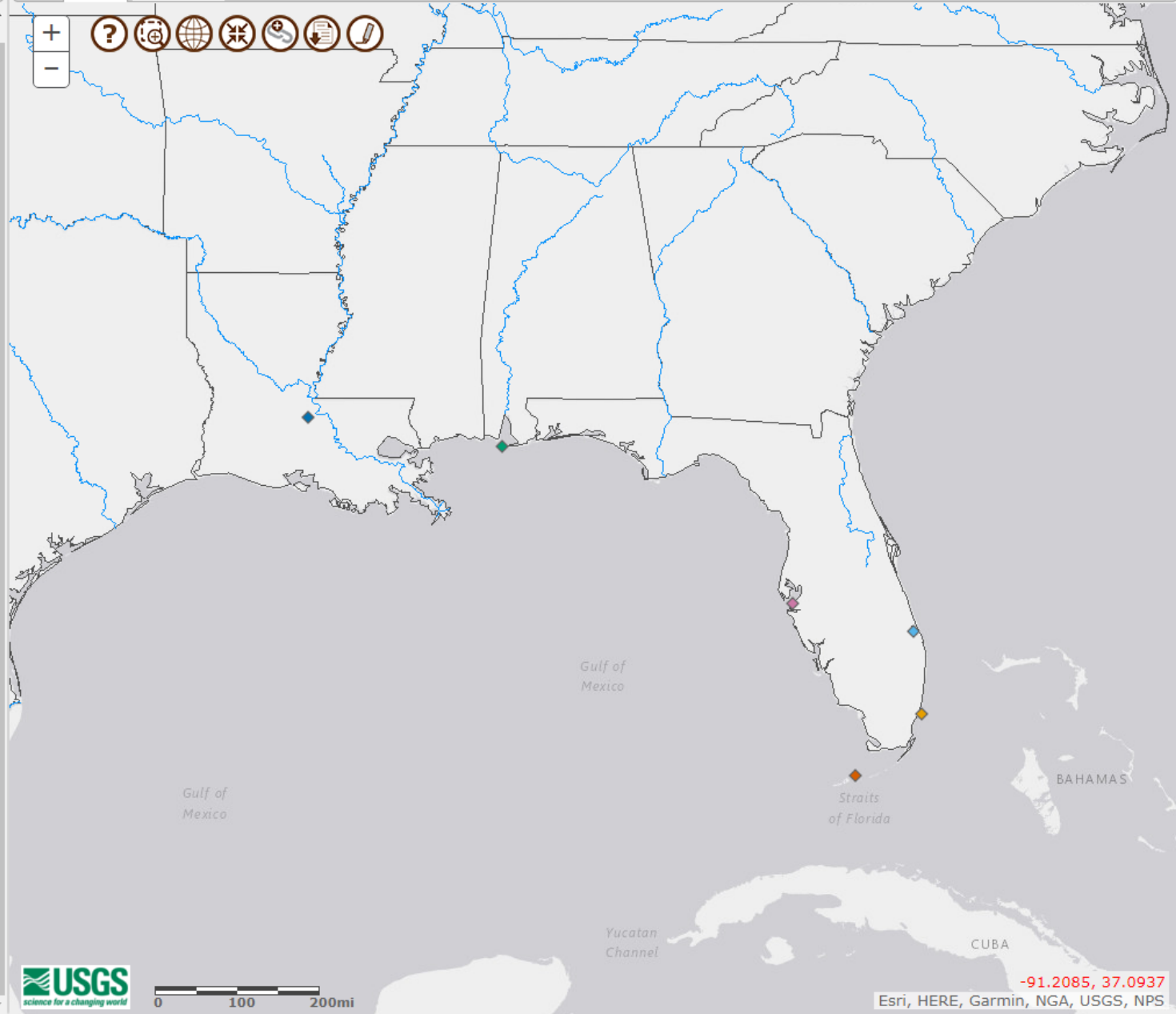
Protemblemaria punctata
Warthead Blenny
Fishes
Exotic

☒ Include
- 

Pseudoplatystoma punctifer
Spotted Tiger
Shovelnose Catfish
Fishes
Exotic

☒ Include

Map Records



Species Observations

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☐ Individual Specimens ?

☒ Selected



Neopomacentrus

cyanomos

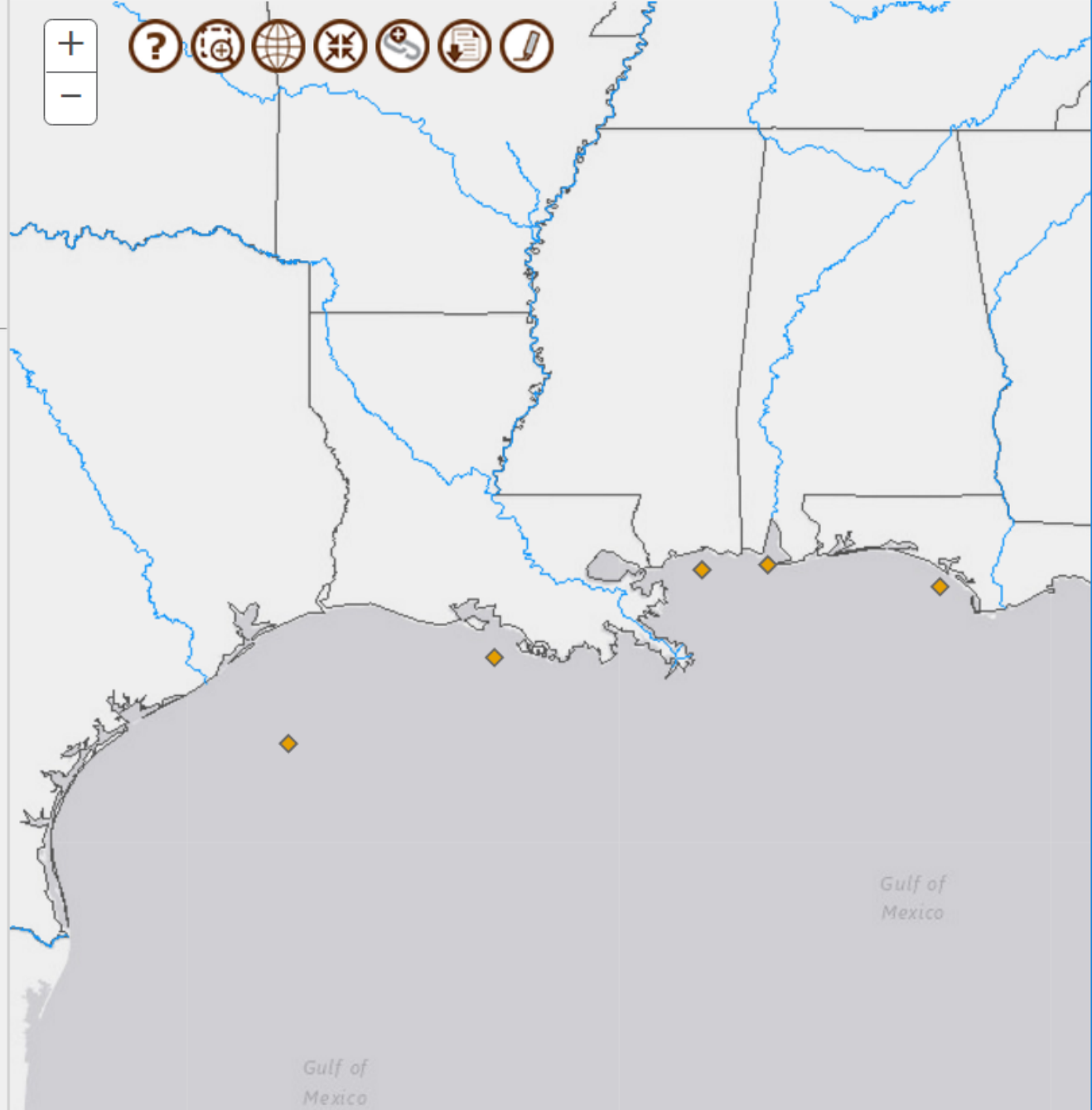
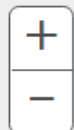
regal demoiselle

Fishes

Exotic



☒ Include ☐ HUC8 Level Records



0 50 100mi

-97.8662, 35.4463

Esri, HERE, Garmin, NGA, USGS, NPS

Query Species Layers

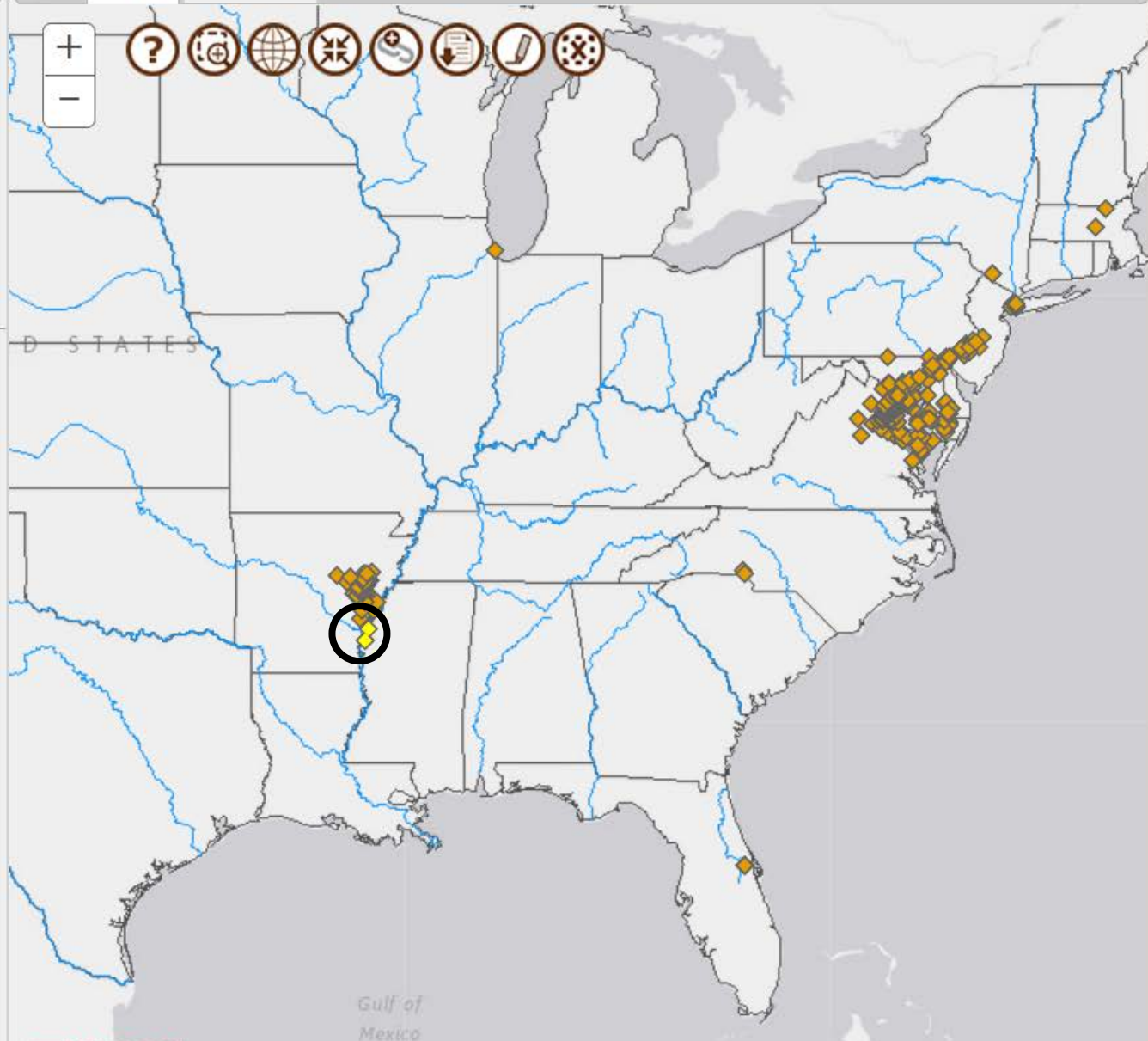
Map Records

Species Observations

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Channa argus
Northern Snakehead
Fishes
Exotic
☒ Include ☐ HUC8 Level Records



0 150 300mi

-81.6724, 37.2338
Esri, HERE, Garmin, NGA, USGS

Query Species Layers

Species Observations

☐ Clustered Specimen Records ?


☐ 1 ☐ 2 to 5

☐ 6 to 10 ☐ 11 to 19

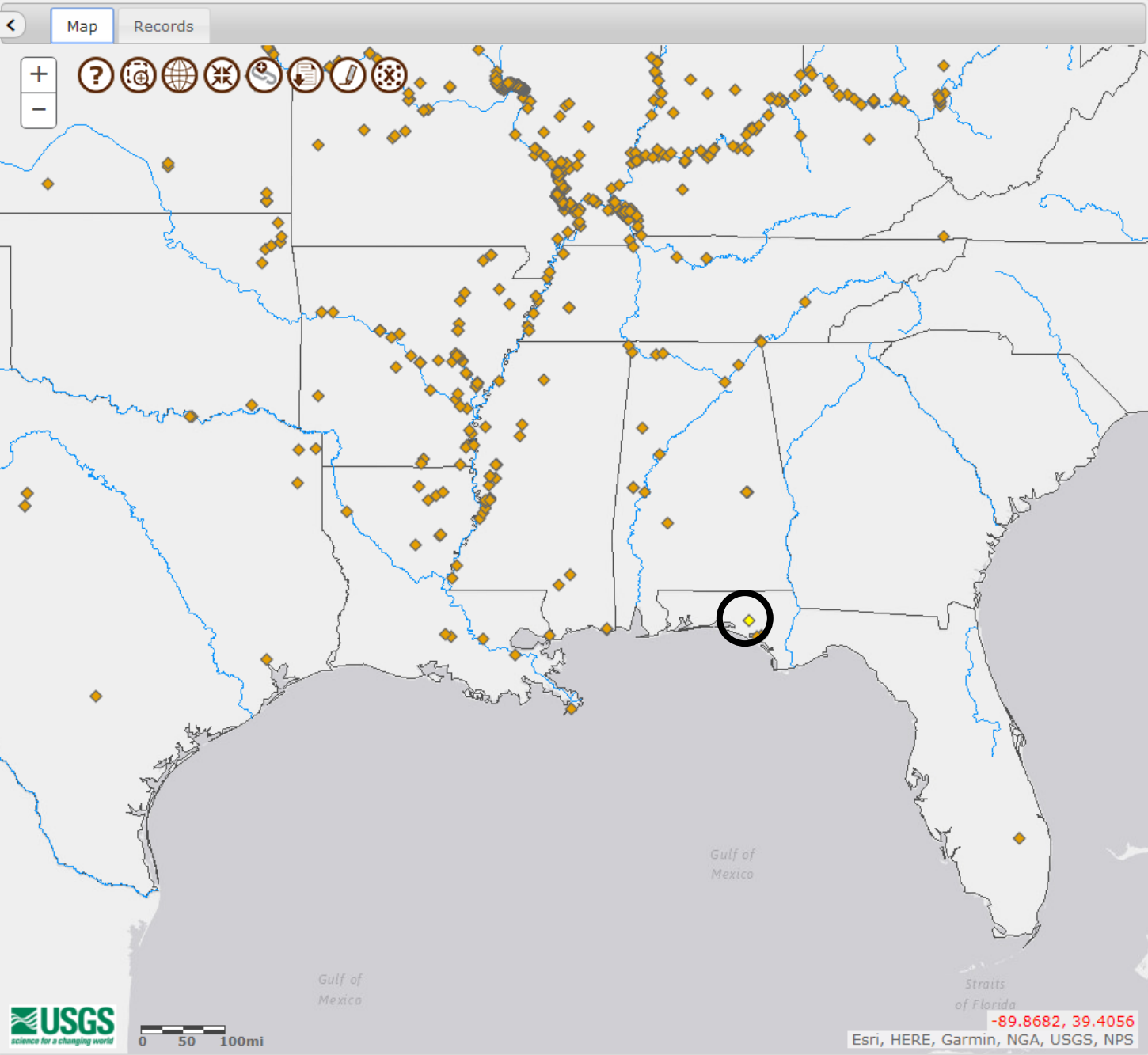
☐ 20 or more ☐ Selected

☒ Individual Specimens ?

☒ Selected

 *Hypophthalmichthys nobilis*
Bighead Carp
Fishes
Exotic

☒ Include ☐ HUC8 Level Records



Query Species Layers

Map Records

Species Observations

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☒ Selected



Hypophthalmichthys

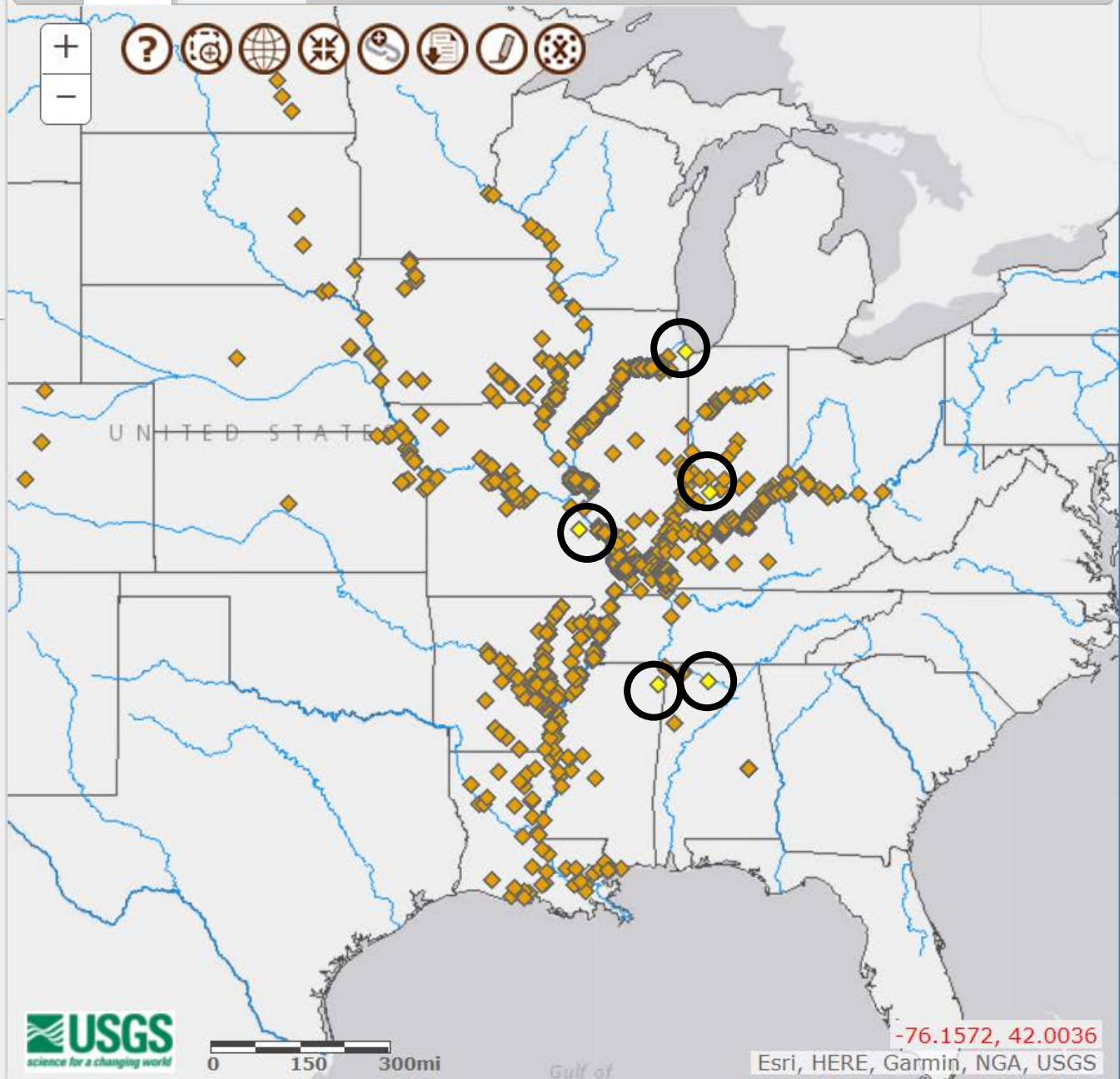
molitrix

Silver Carp

Fishes

Exotic

☒ Include ☐ HUC8 Level Records



-76.1572, 42.0036

Esri, HERE, Garmin, NGA, USGS

Outside Gulf/South Atlantic Region

Query

Species

Layers



Map

Records

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*Dreissena polymorpha*

zebra mussel

Mollusks-Bivalves

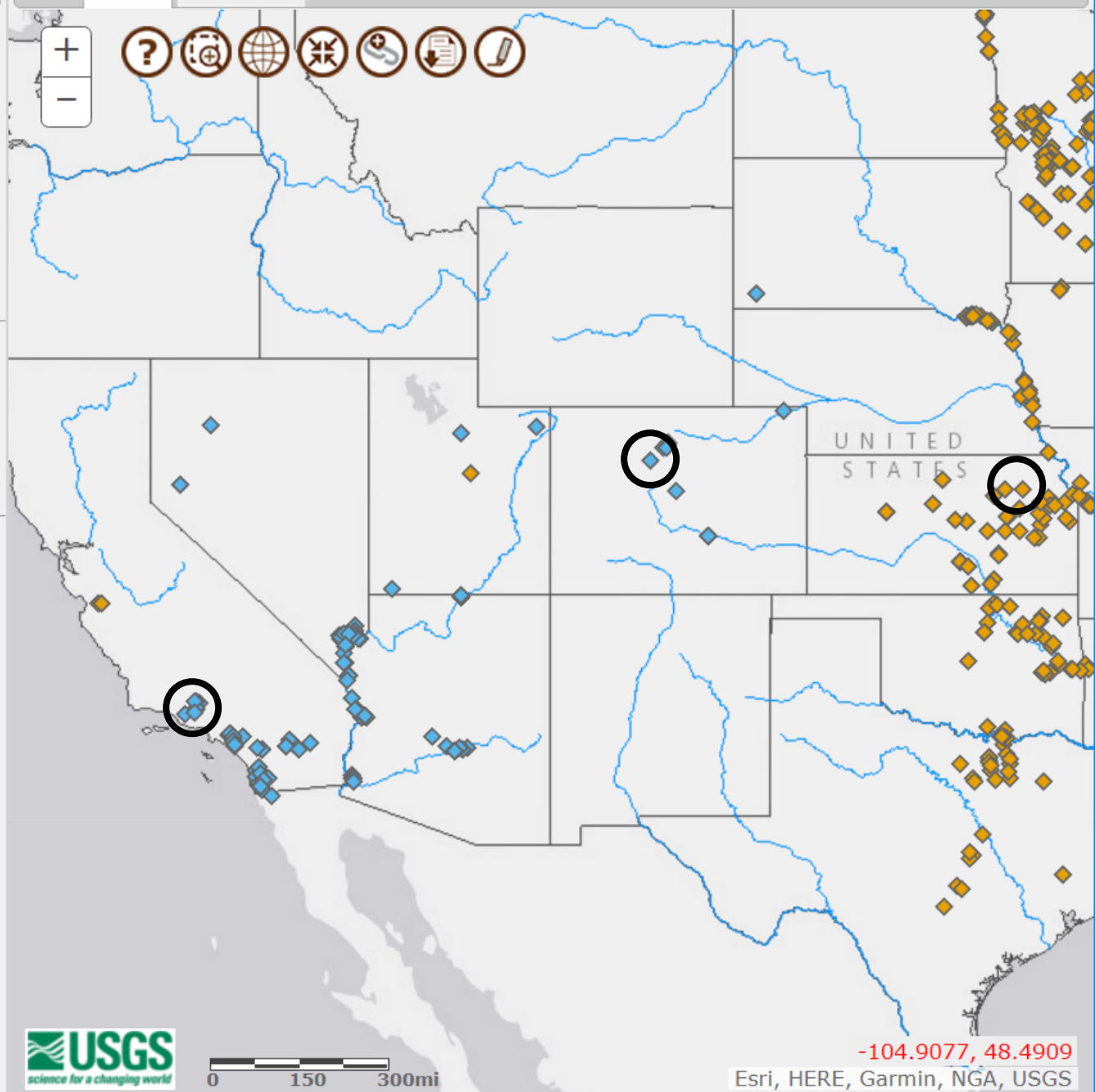
Exotic

☒ Include*Dreissena rostriformis**bugensis*

quagga mussel

Mollusks-Bivalves

Exotic

☒ Include

Query Species Layers

Map Records

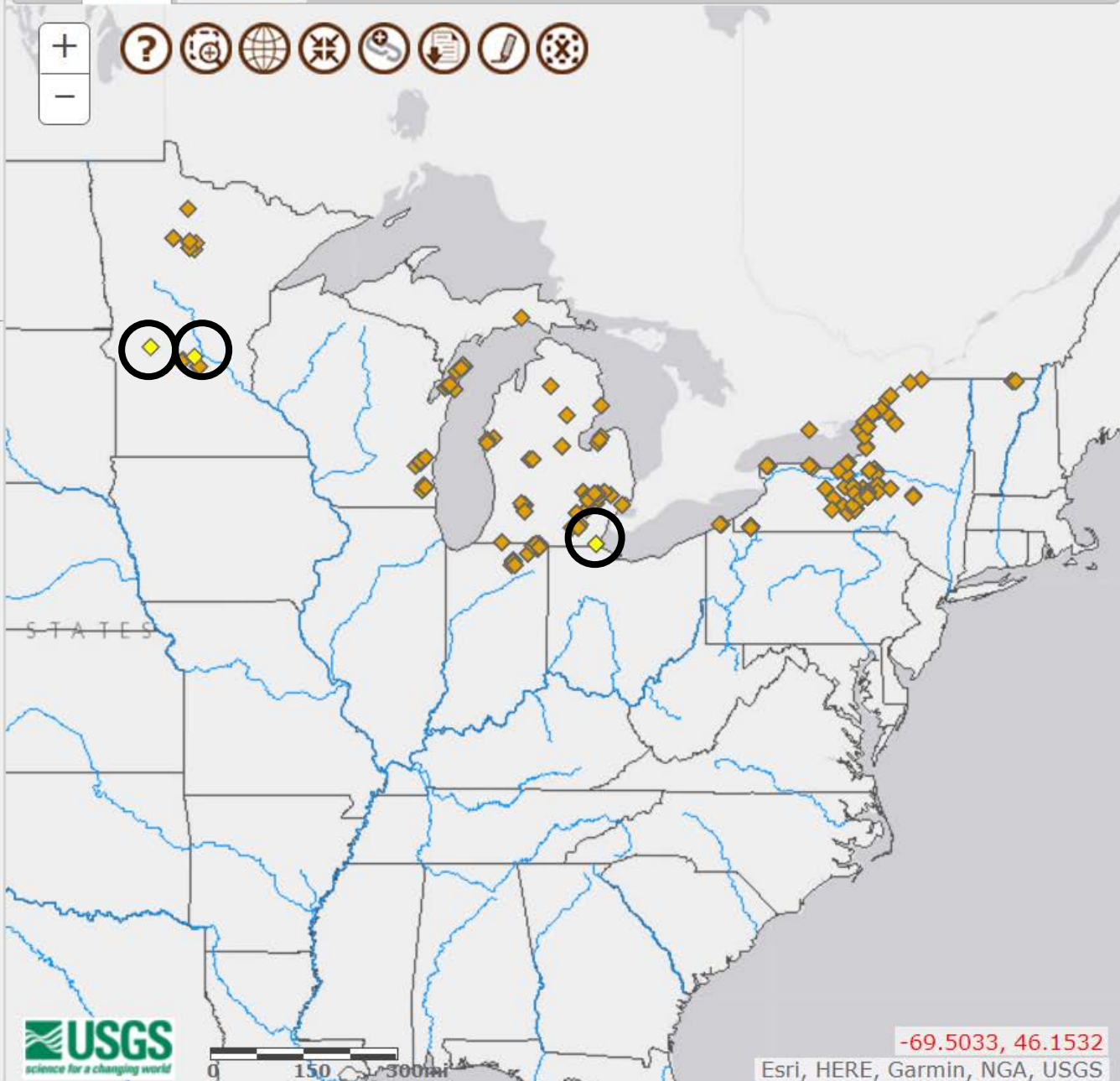
Species Observations

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Nitellopsis obtusa
starry stonewort
Plants
Exotic

☒ Include ☐ HUC8 Level Records



-69.5033, 46.1532
Esri, HERE, Garmin, NGA, USGS

Query

Species

Layers

<

Map

Records

Species Observations

☐ Clustered Specimen Records ?

1

2 to 5

6 to 10

11 to 19

20 or more

Selected

☒ Individual Specimens ?

Selected



Pectinatella magnifica
magnificent bryozoan
Bryozoans
Native

☒ Include ☐ Native Range

☐ HUC8 Level Records



0 150 300mi

-111.6860, 40.0904

Esri, HERE, Garmin, NGA, USGS

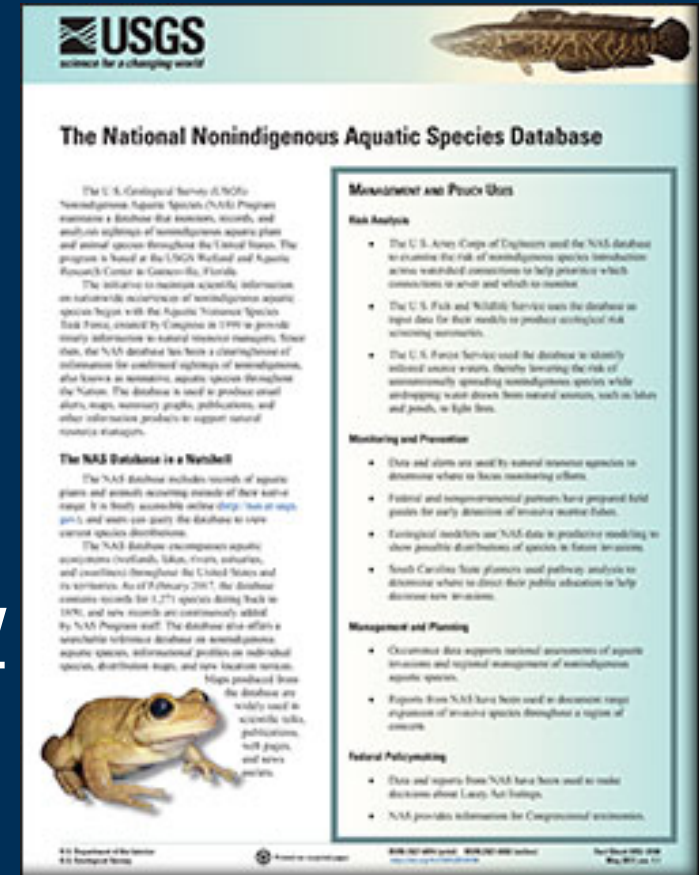
New Developments/Products

- Updated program factsheet
- Hurricane Harvey impacts map
- USFWS Region 4 plant report
- Alert Risk Mapper

NAS Program Factsheet

- Basic overview and description of NAS Database (updated May 2017)

<https://pubs.usgs.gov/fs/2012/3100/>



Hurricane Harvey impacts map

- Provide timely assessment of potential spread of NAS in flood impacted areas
- Provide tool for natural resource managers to inform NAS survey efforts
 - Current species list within watershed and potential 'watchlist' of species

<https://nas.er.usgs.gov/viewer/harvey.aspx>

Hurricane Harvey impacts map

USGS science for a changing world

NAS - Nonindigenous Aquatic Species

Home Alert System Database & Queries Taxa Information Report a Sighting

Query

Harvey Impact

Pick a species:
(Select species)

Lower Brazos (12070104)

Present in drainage	Potential Spread
Corbicula fluminea	Astyanax mexicanus
Daphnia lumholtzi	Cyprinus carpio
Eichhornia crassipes	Eleutherodactylus cystignathoides
Morone chrysops	Eleutherodactylus cystignathoides campi
Myocastor coypus	Herichthys cyanoguttatus
Pistia stratiotes	Hydrilla verticillata [dioecious]
Poecilia formosa	Lepomis auritus
Pomacea maculata	Limnophila sessiliflora
Pterygoplichthys anisitsi	Lucania goodei
Salvinia molesta	Micropterus salmoides floridanus
	Myriophyllum spicatum
	Oreochromis aureus
	Pterygoplichthys multiradiatus
	Pterygoplichthys sp.
	Scardinius erythrophthalmus

Map updated Sun Sep 10 2017. Explanation

Accessibility FOIA Privacy Policies and Notices

U.S. Department of the Interior | U.S. Geological Survey
URL: <https://nas.er.usgs.gov>
Page Contact Information: Pam Fuller - NAS Program

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Esri, HERE, Garmin, FAO, NOAA, USGS, EPA, NPS

TAKE PRIDE IN AMERICA

Hurricane Harvey impacts map

