

Small Grants Program



USFWS partnership with GSMFC & GSARP
Gulf & South Atlantic Regional Panel of the
Aquatic Nuisance Species Task Force

March 16, 2022

Panama City Beach, FL



Small Grants Program-The Process



- The Program was initiated in 2014 with a 5-year grant.
- GSMFC posts an RFP with amount of anticipated funding and evaluation criteria (Fish & Aquatic Conservation Program's Strategic Plan (FAC))
- The FAC Strategic Plan Objectives for Aquatic Invasive Species are used to evaluate proposals. Proposals must address at least one of the following:
 1. **Prevent Introduction** of potentially invasive species into the US
 2. Work with tribes, states, & other partners to **implement a national early detection & rapid response framework**
 3. In collaboration with tribes, states & other partners, **prevent the spread of potentially invasive species already in the US**
 4. **Manage established population of AIS through population suppression**



Small Grants Program-The Process



- Proposals are submitted to James Ballard, GSARP Coordinator at GSMFC
- Proposals are ranked by the review committee, comprised of Panel representatives from across GSARP membership (Federal, State and University representatives)
- The ranking sheet has weighted scores for significance, Technical Merit, Feasibility, Budget, and Impact for how the proposal implements the FAC Plan Objectives



Small Grants Program-The Process

2019 ANS Small Grants Program - Proposal Review Form								
		Review Criteria (Score 0-10)						
Proposal #	Project Title	Significance	Technical Merit	Feasibility	Budget	Impact	Total Points	Notes
1	Assessing the population dynamics and body condition of Zebra Mussels within and between two Texas water bodies with different population trajectories.						0.00	
2	Integrating chemical and biological controls for the aquatic weed <i>Alternanthera philoxeroides</i> (alligatorweed).						0.00	
3	Occurrence and physiological differences in two invasive lionfish species, <i>Pterois miles</i> and <i>Pterois volitans</i> . East Texas Cuban tree frog survey						0.00	
Review Criteria Definitions and Scoring								
Significance: Does the proposal adequately address at least one of the priorities identified in the RFP? (30 Points)								
Technical Merit: Is the project technically sound and are the project objectives clearly stated and applicable to the RFP priorities? (25 Points)								
Feasibility: Are the methodologies and timeline clearly stated, logical, and have a high probability of achieving the projects objectives? (15 Points)								
Budget: Do the expected outcomes/deliverables from the project justify the funding request? Are the costs allowable, reasonable, and budgeted in accordance with the GSMFC's project-specific cost categories (outlined in the RFP) and are they in compliance with OMB Uniform Guidance as applicable? (10 Points)								
Impact: Does the project have a potential to positively impact ANS prevention, control, eradication, or improve ANS management decisions in the USFWS southeast region? (20 Points)								
Scoring: Please rank each proposal on the five criteria listed above by assigning a score from 0 - 10 for each criteria. 0 = does not satisfy the criteria at all, 10 = satisfies the criteria completely. The form will automatically calculate the number of points the proposal will receive for each criteria based on your 0-10 score.								

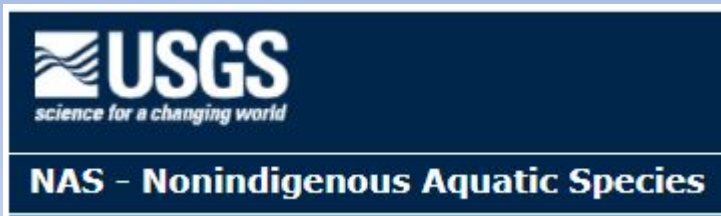
Cooperative Agreements with other Federal Agencies

- GSMFC can't administer funds back to a federal agency
 - Highly ranked Federal projects are funded with a Cooperative agreement between Federal agencies.



Example: NAS database updates

- eDNA integration into the NAS website
- Alert Risk Maps with the NAS email alerts
- Impact Tables on NAS database
- Horizon Scan for Puerto Rico



Small Grants Program



- Between 2014-2018, 30 projects were funded with \$659,488.37 FWS funds
- A new 5-year grant was established in 2019 will provide funding through 12/31/2024
- Between 2019 and 2021, \$289,859.10 has been obligated to support 10 projects through GSMFC
- Between 2014-2021, 3 Cooperative Agreements were established with USGS (\$127,632)
- Since 2014, a total of 43 projects have been funded with FWS Funds **\$1,076,979.47** (2014-2021)

In Addition:

- An additional \$54,000 to the Univ of AR Pine Bluff to expand invasive carp work (#1 ranked project for FY2021)
- An additional \$44,949 to USGS for support for a BioBlitz and Arapaima survey in FL
- FWS provided a EDRR trailer to the Frost Museum \$7,171

Total FWS funds expended to combat AIS: \$1,183,099.47



NAS - Nonindigenous Aquatic Species



Small Grants Program-Scope of Work



RISK

- Risk assessments
- Horizon Scans
- eDNA work
- Impacts to other species including humans
- Model bait regulations

Assess introduction (rapid response)

- Mapping with Apple snails & speckled crayfish
- NAS database
- Invasive nematode parasite in American Eel

Detection

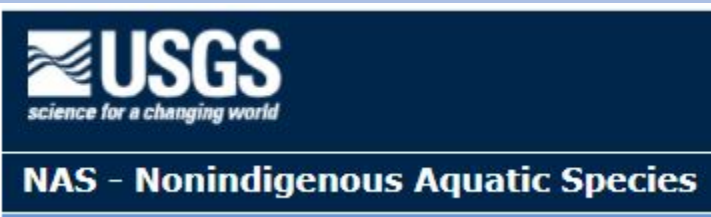
- eDNA for didymo, parasite in American Eel, rusty crayfish
- Whirling disease (detect, track, and trace)

Impacts

- Invasive carp impacts on native fish food webs
- Hybridization of invasives species with native species (black basses)
- Hydrilla infected with bacteria that produces a novel cyanotoxin

Control

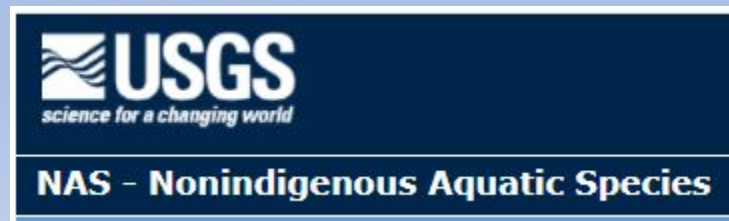
- Endocide for giant salvinia
- Lionfish control
- Apple snail control





Small Grants Program Benefits

- Leveraging other funds within the Service & USGS to reduce costs
- National Wildlife Refuge System's interest in Alligator weed project may result in a collaborative project to eradicate Alligator weed on NWRS lands and expand control of invasives across programs.
- Additional funds were directed toward other Service stations to address internal priorities for eDNA development for invasive crayfish and snakehead species, as well as invasive carp.
- Collaboration continues to expand



Prevention is more Cost Effective than Response

- Between 1960-2020, global management spending for biological invasions is reported to be at least \$95.3 BILLION with damage costs of \$1130.6 BILLION
- Post-invasion spending was 25 times higher than pre-invasion
- Average delay in management action was 11 years after damage reporting
- Management costs were highest in North America (54%) and Oceania (30%). Only 83 of 204 countries have documented management costs
- Biological invasions are a transboundary problem that requires action

Prevention is more Cost Effective than Response

- Proactive management reduces future costs at the trillion-dollar scale (US)
- Considering impacts of climate change on invasive species expansion is necessary when planning for proactive investment of resources
- We need to improve and standardize reporting of invasive species expenditures in addition to management outcomes (failure or success) to inform cost effectiveness and guide strategies



Research Summary: The costs of inaction: Global invasive species spending reveals lack of proactive management

[Cuthbert, R.N., Diagne, C., Hudgins, E.J., Turbelin, A., Ahmed, D.A., Albert, C., Bodey, T.W., Briski, E., Essl, F., Haubrock, P.J. and Gozlan, R.E., 2022. Biological invasion costs reveal insufficient proactive management worldwide. *Science of The Total Environment*, p.153404.](#)