



Subcommittee Progress Report

Science and Research Synthesis of Invasive Catfish Workgroup

Chair: Yan Jiao, Vaskar Nepal

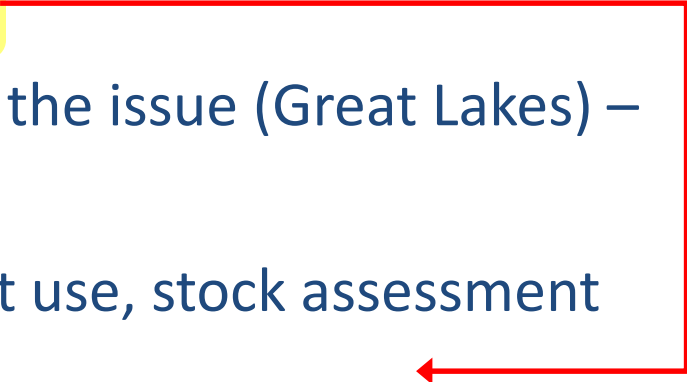
Members: Matt Balazik, Christine Densmore,
Mary Fabrizio, Alexa Kretsch Galvan,
Mary Groves, Corbin Hilling,
Jorge Holzer, Cathy Liu,
Steve Minkinen, Matt Ogburn,
Troy Tuckey, Dave Secor,
Margaret Whitmore

Subcommittee activities

Met twice to accomplish actions recommended by last ICW workgroup meeting.

- March 12
- May 21

Actions

1. Compile available data sources and identify gaps/needs
 2. Investigate what other jurisdictions are doing to address the issue (Great Lakes) – reach out and make connections with these groups
 3. Develop and prioritize a list of science needs (e.g. habitat use, stock assessment modeling, population connectivity, predation impacts)
 4. Identify/compile potential funding sources (e.g. specific grants)
 5. Consider developing more preliminary population models (for specific tribes) to help managers establish removal targets
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Action 1: Compile available data sources and identify gaps/needs

Table 1: Compiled available data sources.

1a: data sources for Virginia tidal rivers invasive catfish

1b: data sources for Potomac river invasive catfish

1c: data sources for Maryland invasive catfish

Action 1: Compile available data sources and identify gaps/needs

Table 1: Compiled available data sources.

1a: data sources for Virginia tidal rivers invasive catfish

Data short name	Agency /institute	Time period	Purpose or function	Availability/ sharable	Contact	Note	member who added the information	Publications
BCF Growth0	VIMS	2000-2002	Growth and Condition	Sharable	William Connelly	Length, weight and age (otoliths); James, York, Rappahannock	<u>Vaskar Nepal</u>	
BCF Growth 1	VIMS	2010-2012	Growth and condition		Rob Latour	Length, weight and age (otoliths); James, York, Rappahannock, Potomac	<u>Vaskar Nepal</u>	
BCF Growth 2	VIMS	2015-2017	Growth and condition	Sharable	<u>Vaskar Nepal</u>	Length, weight and age (otoliths); James, York	<u>Vaskar Nepal</u>	
BCF Reproduction	VIMS	2015-2017	Maturity, reproductive traits	Sharable	<u>Vaskar Nepal</u>	Length, age, GSI; James, York; in press	<u>Vaskar Nepal</u>	
BCF Acute Salinity	VIMS	2016	Acute salinity tolerance	Sharable	<u>Vaskar Nepal</u>	<u>72 hour</u> salinity tolerance experiment (i.e., ex-situ); time-to-death	<u>Vaskar Nepal</u>	

Action 2: Investigate what other jurisdictions are doing to address the issue (Great Lakes)

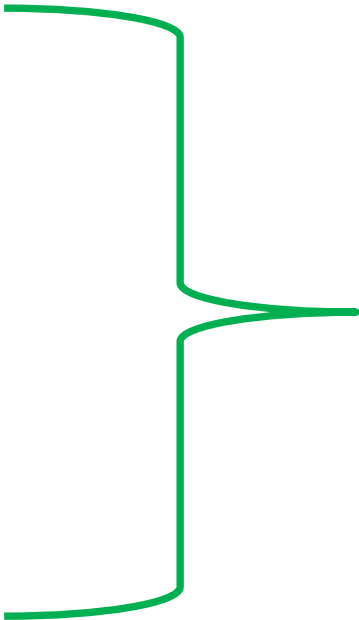
- Jurisdictions in GLFC are well organized, very cooperative, and sharing goals and targets in dealing with invasive species
- Long term funding in dealing with invasive species in GLFC is important
- Suggested future cooperation among the jurisdictions in the Chesapeake Bay and Delaware area to deal with conflicts of goals and interests among agencies
- Invite guests into SRS subcommittee discussions in the future

Action 3: Develop and prioritize a list of science needs

- ❑ Decide not to rank the needs but to consider the needs and solutions in spatial and temporal scales;
- ❑ Encourage research activities that address these science needs collaboratively;
 - which should provide the most effective approach to understand the impact of blue catfish on the Chesapeake Bay ecosystem, identify strategies to reduce negative impacts, and recommend appropriate management actions.

Action 3: Develop and prioritize a list of science needs

- ☐ Habitat use
- ☐ Population structure
- ☐ Stock assessment
- ☐ Predation impact
- ☐ Socio-economic aspect
- ☐ Fish health and contamination



Needs or questions
Existing studies/programs
Ongoing studies/programs
Concerns on the studies/questions

Action 4: Identify/compile potential funding sources (e.g. specific grants)

- **S-K:** there are currently two projects funded by S-K. One is funded to VIMS; the other one is led by LSU/UMD/VT.
- **Aquatic invasive species fund:** Currently there is a project funded to study blue catfish movement. Contact Margaret Whitmore for further information.
- **Sea Grant:** the SRS members discussed the potential to develop multistate Sea Grant proposals such as the states of MD, VA, and DE.
- **USGS and FWS RFP:** Communication and collaborations with team members working at USGS and FWS for further opportunities.
- **Mitigation account/dollar:** Troy and Margaret suggested this potential funding source for consideration in the future. Strategies to secure this fund may be through other topics such as protected resources and other species of concern/ interests.
- **Other funding sources such as funds from ASFMC and NOAA CBO.** The SRS members commented on these funding sources and suggested possible strategies.

Action 5: Consider developing more preliminary population models (for specific tribes) to help managers establish removal targets

- ❑ This task is suggested to be done in 2 ways.
 - extend the existing population models developed for James river blue catfish to other rivers/tributaries with similar datasets or types of data available.
 - consider alternative models and analyses based on existing data available in each tributary.
- ❑ Synthesizing existing data, sharing data, identifying data gaps, and developing data collection programs are important for improving the quality of the current stock assessment and for developing new models.

Summary

- ❑ Recommend to continue fishery-independent surveys from DWR, and strongly support the new tributary creel surveys, and the catch size frequency and age-length key sampling from DWR and VMRC.
- ❑ New tagging programs may consider using gears matching the ongoing Bay telemetry array.
- ❑ Integrating predation impact and socio-economic aspect into the stock assessment models and fisheries management evaluation.
- ❑ Extend existing models or built new models in each tributary for management purposes.
- ❑ EPA and FDA safety standard differences between comm~ rec fisheries
- ❑ The invasive catfish problem is regional and there are limited funding sources. The invasive catfish research needs support from regional agencies.
- ❑ Encourage collaborations among members with different expertise.
- ❑ Encourage cooperation among jurisdictions.

Questions?