Invasive Catfish Policy Implementation Recommendations

Background:
On January 27th the Sustainable Fisheries GIT (Fisheries GIT) formally adopted a policy to begin addressing the risks posed by invasive blue and flathead catfish. The policy stated the Sustainable Fisheries Goal Implementation Team Executive Committee would work together to:

- Include blue catfish and flathead catfish in public awareness campaigns targeting invasive species, including efforts to prevent further introductions;
- Improve scientific understanding of blue catfish and flathead catfish biology and population dynamics;
- Develop models that will aid in better understanding the potential impacts of non-native species on the fish community;
- Develop, evaluate, and implement a set of management measures (e.g. increased harvest and/or nutrient reduction) aimed at controlling populations and mitigating adverse effects of blue and flathead catfish while recognizing that these two catfish species currently support fisheries with economic and recreational value;
- Identify high-risk/high-value opportunities for containment and/or mitigation; assessing risk of expansion and ecological resource valuation by developing an integrated online decision support tool.

Discussion:
Management actions need to be put in place as soon as possible to lessen the adverse effects of this species on the Chesapeake Bay ecosystem. The Sustainable Fisheries GIT understands complete eradication of blue catfish is likely not feasible, but desires a means to mitigate their spread. The first step toward development of a sound management approach is to ensure the best available science has been compiled and synthesized to inform the policy process.

Following the formal adoption of an invasive catfish policy, the Fisheries GIT needs to begin working on implementing its proposed efforts and actions. One of the initial efforts should be to ensure consistent baywide measures are in effect and all jurisdictions are in agreement on how to handle the species from a management standpoint. Therefore, our primary objective is to develop an agreed upon management strategy for handling these invasive species across all jurisdictions.

Recommendation:
Fisheries GIT ExComm establishes an *Invasive Catfish Task Force* (could be a restructured Invasive Catfish Work Group with updated membership) to coordinate actions and progress toward the five policy objectives with emphasis on exploring potential management measures and proposing actions to mitigate impacts of invasive catfish. This group will be responsible for explaining possible management scenarios presented to the Fisheries GIT based on sound science. The Fisheries GIT, lead by the Executive Committee, will then consider the proper course of action to achieve baywide agreement and management of invasive catfish.

Proposed Actions: Below are our proposed measures on how to begin implementation of a consistent management policy throughout the Chesapeake Bay.

Include blue catfish and flathead catfish in public awareness campaigns targeting invasive species, including efforts to prevent further introductions;
Initial Recommendations ***(In progress)***
Finalize the outreach document completed by DCDOE*.*

- *Make any additions or corrections that have developed and are supported by new research.*
- *Link or include outreach document in each jurisdictions commercial and recreational regulatory materials.*

Improve scientific understanding of blue catfish and flathead catfish biology and population dynamics;
Initial Recommendations ***(In progress)***
Critical knowledge gaps identified, NCBO is funding the following projects*;*

(2/1/2012-1/31/2014)SERC: Trophic Dynamics in Blue Catfish
(9/1/2011-8/31/2014)VIMS: Population Assessment and Survival Rates
(8/1/2011-7/31/2012)VIMS: Growth Dynamics in Chesapeake Bay Watershed
(7/1/2011-6/31/2012)VCU: Blue catfish predation as a novel source of mortality on other fisheries resources.

Develop models that will aid in better understanding the potential impacts of non-native species on the fish community;
Initial Recommendations ***(Start April 2012)***
Initial modeling efforts have identified significant impacts on key fished species, bay-wide scenarios explored with few attainable management options found to mitigate and reduce BCF populations.

- *(4/1/2012-11/31/2012): NCBO Modeling Team: Expansion of the Chesapeake Bay Fisheries Ecosystem Model to a spatially specific tool to model scenario efficacy in specific tributaries.*
- *Model will incorporate new findings and be developed in close collaboration with the MDDNR and VDGIF. This will provide a finer level of understanding of tributary impacts of BCF and trib specific management recommendations.*

Develop, evaluate, and implement a set of management measures (e.g. increased harvest and/or nutrient reduction) aimed at controlling populations and mitigating adverse effects of blue and flathead catfish while recognizing that these two catfish species currently support fisheries with economic and recreational value;

Initial Recommendations ***(Priority Action Item)***
Consider issues outlined below to establish and adopt minimum level of compliance for all jurisdictions*.*

- *Develop measures to contain blue catfish by strictly prohibiting future introductions.*
- *Mandate bay-wide agreement and enforcement of no transport and or live removals regulations.*
- *Increase and mandate accessibility to BCF information and resources (Include signage and all commercial and recreational regulatory materials.)*

Assess citation programs

- *Should jurisdictions continue investing resources on citation programs for invasive species?*
- *Does continuation of citation programs support a catch and release fishery?*

- *Could this be changed with modifications to the citation programs?(citations awarded for dead BCF only)*

Identify high-risk/high-value opportunities for containment and/or mitigation; assessing risk of expansion and ecological resource valuation by developing an integrated online decision support tool.
*Initial Recommendations **(In progress)***

- *(4/1/2012-11/31/2012): NCBO: Spatial Chesapeake Bay Fisheries Ecosystem Model.*
- *VCU: Catfish Portal: An integrated decision support tool for blue catfish*
- *(9/1/2011-8/31/2012)VIMS: Evaluation of contaminants and implications on using fisheries as a population control mechanism.*

Current Invasive Catfish Workgroup Members:
Nancy Butowski (MD DNR)
Mary Fabrizio (VIMS)
Greg Garman (VCU)
Bob Greenlee (VDGIF)
Joe Grist (VMRC)
Mary Groves (MD DNR)
Derek Orner (NOAA)

Potential Additions: (others?)
Tim Groves (MD DNR – Fisheries Biologist)
Steve Vilnut (MD DNR – Seafood Market Specialist)
Jorge Holzer (UMD – Economist)
Robert Hale (VIMS – Contaminants)