**Subject**: Develop a baywide catfish policy in order to control the population, geographic spread, and ecological impacts of blue (*Ictalurus furcatus*) and flathead (*Pylodictis olivaris*) catfish in the Chesapeake Bay.

## Background:

Blue and flathead catfish are non-native, invasive species introduced to the Chesapeake Bay ecosystem during the 1960s and '70s. Documentation stating approximately 285,000 blue catfish and 200 flathead catfish fry were stocked throughout the Virginia portion of the Bay. Blue catfish were stocked at a headwater site and some lower tidal sites, and flathead catfish were stocked in multiple locations throughout several Virginia systems. Flathead catfish exhibited a significant time lag prior to rapid expansion in the James River main stem, whereas blue catfish had a much shorter time-lag followed by slower expansion. Since being introduced, their range has expanded profoundly and is threatening native species throughout all major Chesapeake Bay river systems in Virginia. For Maryland, their range presently occupies the majority of the Potomac River, Nanticoke River, and the lower Susquehanna River as well. Human transportation, natural expansion, storm/flooding events, and dam removals are the main influencing factors that have lead to their current state of proliferation throughout the Chesapeake Bay.

Blue catfish are a large, long-lived fish species exhibiting an opportunistic, generalist feeding strategy. They are fast growing and upon maturation and a dietary switch to piscivory, have demonstrated weight gains of ~10 lbs/year, which watermen have come to expect. Records show they can reach over 100 lbs (VA state record is 102.25 lbs from the James River) and electrofishing surveys by VDGIF have resulted in catch per unit effort (CPUE) upwards of 6,000 fish/hour. Their spread and over-abundance are causing trophic cascades throughout their impacted regions, resulting in severely unbalanced ecosystems.

Flathead catfish are native to the Mississippi and Gulf slope drainages. They normally tolerate salinity up to 6 parts per thousand. Observations show they are aggressive and opportunistic piscivores, and have been classified as "biologically harmful." In their native range they can reach about 55 kg and live up to 15 years; however, currently they have not quite reached comparable sizes in the Chesapeake Bay.

## 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 Goal Implementation Team (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 sound management approach is to ensure the best available science has been compiled and synthesized to inform the policy process. To accomplish this, the Fisheries GIT is establishing a catfish Task Force to explain the biology and ecology of blue catfish within the Chesapeake Bay ecosystem and suggest a range of possible management options. 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 blue catfish.

This effort will be coordinated on a baywide basis drawing on expertise from across the region and through an open and transparent process that encourages and allows for stakeholder input. This collaborative approach was recommended as an outcome of the full Sustainable Fisheries Goal Implementation Team meeting held in Williamsburg, Virginia on December 2nd, 2010 and has been supported by the Sustainable Fisheries Goal Implementation Team Executive Committee.

**Recommendations**:
The team will develop a white paper that collects and synthesizes what is known about Blue and Flathead Catfish in the Bay and will suggest some near term steps that can be taken to address the Fisheries GIT objectives to 1) Mitigate the spread of this invasive species and 2) reduce populations to the lowest level possible.

Draft white paper should include these elements:

- Background and History of Species Introduction in the Bay
- Bay wide synthesis of population size and structure estimates including range and distribution
- Assessment of the ecological impacts of this invasive species (i.e. estimates of removal of native species biomass as an apex predator, habitat competition with native species, effects on restoration activities for shad, etc)
- Synthesis of current policies for commercial and recreational fishing, and introduction of these species
- Summary of human health risks and state/federal standards and regulations
- Near (beginning 2011) and longer term management options for mitigating spread
- Near (beginning 2011) and longer term management options to reduce populations to the lowest possible level (a level at which ecological impacts are significantly minimized)

Note: The last two bullets could take the form of a decision matrix that lists the management option and its associated pros, cons, and/or unknowns.

Consider feasibility of near-term management actions:

- Require anglers to destroy-on-capture
- Full eradication pilot project within a small tributary

The team should provide an initial set of recommendations for discussion at the full Sustainable Fisheries Goal Implementation Team meeting in June, 2011. Following this meeting, the team will devise a final set of recommendations to the Fisheries GIT Executive Committee no later than September, 2011 in order to be implemented by the states beginning in 2012.

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