

SCIENTIFIC & TECHNICAL ADVISORY COMMITTEE

Meeting Agenda



DELAWARE CENTER FOR THE
INLAND BAYS
Research. Educate. Restore.

DATE & TIME: *July 26, 2019 -- 9:00 a.m. to 12:00 p.m.*

LOCATION: *DNREC Lewes Field Facility, end of Pilottown Road, Lewes*

Meeting called by: Scott Andres, Chair

AGENDA ITEMS

Call to order, Welcome, Introductions

Announcements

Bunting Branch DE/MD: fish passage restoration while maintaining the old mill pond. *Roman Jesien, Md. Coastal Bays Program*

Construction of an innovative 600 ft regenerative stream channel at the head of tide mill dam in Bishopville Maryland is described. At the insistence of local residents, a major portion of the 4-acre pond was to be maintained upon modification of the 4-ft sheet-metal dam. The dam was replaced with a series of four riffles and step-pools that raised each water level by 1 ft over a distance of 30 ft. Completed in Dec 2014, monitoring over the past 5 years documents the consistent passage of alewife and white perch to over 7 miles of freshwater stream in the St Martins River system.

(Tentative) Conservation genetics and tracking of marine species *Louis Plough, UMES*

The Plough lab at Horn Point Laboratory uses genetic and genomic tools to understand the ecology and evolution of marine animals, with a special interest in the biology of larvae. Presentation will highlight work on environmental DNA (eDNA) analysis of river herring.

Effects of climate change on physiology of HAB species in the Inland Bays and its consequences on trophic transfer *Nayani Vidyarthna, Univ. of DE*

Shifts in global temperature as well as carbon dioxide are expected to have potentially profound effects on phytoplankton communities, with possible cascading consequences for marine food webs. We studied how climate change (rising temperature and/or ocean acidification) influence the physiology of three major HAB species originating from the Inland Bays. Our study showed that climate change condition will result in major physiological changes, such as toxin production and fatty acid profiles of the studied HAB species, which in turn can have negative effects on trophic transfer.

Update on Inland Bays Modeling Effort *Scott Andres, DGS*

New Business

- 2021 State of the Inlands Bays

Adjourn

Upcoming 2019 STAC MEETING DATES: November 1