Integrated Trends Analysis Team (ITAT)

Wednesday, November 20th, 2024

10:00 AM – 11:30 AM

Join by Webinar (Microsoft Teams)

Meeting Link

Meeting Number: 253 685 624 378

Password: j3EhRu

Or join by phone

Conference Line: +1 469-208-1525

Access code: 291803530#

Meeting Materials: Link

This meeting will be recorded for internal use only to assure the accuracy of meeting notes.

Closed Captioning will be available for this meeting. To turn on the closed captioning, click on the 3 ellipses (More actions), then click on "Turn on live captions" (preview).

AGENDA

10:00 – 10:05 AM *Welcome – Breck Sullivan (U.S. Geological Survey, USGS) and Kaylyn Gootman (Environmental Protection Agency, EPA)*

Announcements:

- Scientific and Technical Advisory Committee (STAC) Synthesis Request for Proposal; ***Due December 2nd***.
- Intern opportunity: Yale Conservation Scholars Early Leadership Initiative. Applications for host sites are ***due December 8, 2024***.
- Intern opportunity: Call for Chesapeake Student Recruitment, Early Advisement, and Mentoring (C-StREAM) internship mentors, project proposals due to Melissa Fagan (faganm@chesapeake.org) by ***end of day Friday, December 6th***.
- The newly published *Rappahannock Tributary Summary* available on the ITAT webpage.
- The newly published *Potomac Tributary Summary StoryMap* available on the ITAT webpage.
- National Conservation Training Center Meeting (NCTC) Debrief – Chesapeake Bay Program Charting the Course Beyond 2025.

Upcoming Conferences, Meetings, Workshops and Webinars:

- American Geophysical Union (AGU) 2024 Fall Meeting – December 9-13, 2024, Washington, D.C.
- 14th National Monitoring Conference – March 10-12, 2025, Green Bay, Wisconsin.
- The 35th Annual Environment Virginia Symposium – April 8-10, 2025, Lexington, VA.

10:05 – 10:35 AM *Diel cycling oxygen dynamics over two decades: Variability and hypoxia metrics in the Patuxent estuary*

Presenter(s): *Amir Azarnivand (University of Maryland Center for Environmental Science, UMCES)*

Description: This study explores how diel oxygen cycling in the Patuxent estuary varies interannually, influenced by riverine flow and nutrient input. Using high-frequency data spanning two decades, we analyze how diel oxygen dynamics shift with changes in flow, offering insights into the factors driving oxygen fluctuations in this ecosystem.

Note: Presentation slides will not be made publicly available, but notes of the presentation will be provided in the ITAT Meeting Minutes.

10:35 - 11:30 AM *Controls on Water-Column Respiration Rates in the Patuxent: Insights from Long-Term Time-Series Measurements*

Presenter(s): *Jeremy Testa (UMCES)*

Description: Rates of ecosystem metabolic properties, such as plankton community respiration, can be used as an assessment of the eutrophication state of a waterbody and are the primary biogeochemical rates causing oxygen depletion in coastal waters. However, given the additional labor involved in measuring biogeochemical rate processes, few monitoring programs regularly measure these properties, and thus, few long-term monitoring records of plankton respiration exist. Here we summarize findings from an 8-year, biweekly plankton community respiration rate time series made in the lower Patuxent River estuary. Results indicate that respiration rate was primarily driven by temperature and particulate nitrogen concentrations, where particulate nitrogen concentrations were elevated during periods of high influence from the mainstem Chesapeake Bay.

11:30 AM Adjourn

CANCELLED: December 10th, 2024, from 10 AM – 12 PM

Next Meeting: Wednesday January 22nd, 2025, from 10 AM – 12 PM