



Maine DEP Biological Monitoring Program Updates

MAWWG-NEBAWWG Joint Meeting

November 12-14, 2024 | Northampton, MA
Assessing Resources, Planning for Change

MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION

Protecting Maine's Air, Land and Water

Wetland Sampling

Target Habitat Areas of emergent, floating or submerged aquatic vegetation ($\leq 1\text{m}$).
Often in / along slow-moving rivers and streams or littoral zones of ponds/lakes



Aquatic Macroinvertebrates - Three 1-meter D-net sweeps

Epiphytic Algae - Clip 5 plant stems at each of 3 replicate sites

Phytoplankton - Water grab

Aquatic macrophyte surveys– visual plant surveys within a 5-meter radius plot

Water Quality - Water grab nutrients, chloride; In-situ meters DO, pH, SPC

Wetland Human Disturbance Assessment – Field-based rapid stressor assessment



Recent Program Successes

- Published preliminary findings from macrophyte pilot study (ASWM's webinar December 10th)
- Program back to full staff after retirements and promotions, wetland staff moved onto State fund
- Move to Survey 123 forms for data collection with R scripts for processing
- Partial automation of the WHDA (rapid stressor ID)
- Updated MWPP 2023 to 2028
- Program QAPP submitted for 5-year renewal
- Department approval to move forward with rulemaking to incorporate wetland models into Maine's Water Quality Standards as Numeric biological aquatic life criteria



Ongoing and planned activities

- Recipient of WPDGs for many years, current activities:
 - State workgroup to evaluate NWI update (*feedback/collaboration*)
 - Trends in wetland losses, 5-year report to EPA
 - 20-year landcover change analysis using new C-CAP data layer (NOAA), incorporate newer landcover into assessments
 - Trends in biological communities at long term reference sites (*climate change*)
 - Biological criteria rulemaking (algae, macroinvertebrates) and associated support materials
 - Continue testing floristic quality metrics to develop predictive ability
 - Tidal marsh surveys (*climate change*)
 - Monitor waters in underserved areas of the state (EJ areas)
 - Low gradient stream pilot project





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