

## FINAL MINUTES

### **Natural Heritage & Endangered Species Advisory Committee (NHESAC)**

Thursday, January 9, 2025  
DFW Field Headquarters, Southwest Meeting Room #103  
1 Rabbit Hill Road, Westborough, MA 01581  
*Meeting held virtually via Zoom webinar*

#### **MEMBERS:**

Present: Bill Brumback, Mark Mello, Kevin Powers, Matthew Sisk, David Small, Wayne Petersen

Absent: None

#### **ASSOCIATE MEMBERS:**

Present: Andy Finton, Russ Hopping

Absent: None

#### **AGENCY STAFF:**

Present: Jesse Leddick, Rebecca Quiñones

#### **OTHERS:**

Present: N/A

– The meeting was called to order at 1:38 P.M. –

#### **1. Approval of the November 14, 2024, Minutes**

Bill Brumback motioned that the November 2024 minutes be accepted, Dave Small seconded, and members voted unanimously to approve.

#### **2. Chair's Comments – Mark Mello**

Mark Mello was not present at the outset. Secretary Kevin Powers served that role until the Chair arrived at approx. 1:45 and took over the role.

#### **3. Board Member's Comments – Matthew Sisk**

Comments by the Board, Chair, and Members now need to be announced in advance of the meeting, so there were no comments during this meeting. We're awaiting further clarification on this change for future meetings.

#### **4. NHESP Report & Assistant Director's Report – Jesse Leddick**

We will receive clarification on the requirements of the open meeting law from Jennifer Sulla, DFG's General Counsel at the next Fisheries and Wildlife Board meeting on January 15<sup>th</sup>. Committee members

are encouraged to attend if possible (remote attendance is an option). We'll then develop a protocol for committee members to submit topics for comment at future meetings.

- Staffing:
  - a. Formation of a new section within MassWildlife titled Land and Habitat Conservation (Sections currently include Wildlife, Fisheries, Outreach and Education, Operations, and NHESP). The new section will pull staff from existing sections, with a primary focus on land and habitat management and restoration. These staff will be reassigned to this new section, but will maintain connections to their original section. These staff will be reporting to a new assistant director, Emily Myron. Jesse provided a brief bio and mentioned her close ties with the MA legislators and conservation partners, and her successful history in garnering federal funding sources for conservation. She was closely involved in the 2022 climate law. Jesse (and other Assistant Directors) will work closely with Emily to help set land conservation and habitat restoration/management priorities for MassWildlife.
    - i. Answer to question: This section will work primarily internally on WMAs, but there will be an outward looking component, collaborating with and providing guidance to conservation partners.
- Updates on Key NHESP Projects:
  - a. State Wildlife Action Plan: Update – Plan to submit a revised SWAP to the USFWS by September 2025. Key to receive federal funding, and also a MA plan for guidance on conserving the most imperiled species in MA. Becca and Jesse will be coordinating the effort for MassWildlife, and working closely with the wildlife and fisheries sections. Most efforts so far have been focused on refining the list of species that will be defined as species of greatest conservation need (SGCN; including MESA and Federally Listed Species), and options to include other species.
    - i. 2015: 570 SGCN species, 432 were MESA listed
    - ii. SGCN need to meet criteria
      - 1. Populations – low abundance or distribution
      - 2. Threat level
      - 3. Status – listed, E, T, SC
      - 4. Population in decline – both geographically and abundance
      - 5. Data deficient
    - iii. Wildlife, Fisheries, and Heritage are all reviewing the previous list and determining whether to add or remove species. The new MESA listed species will be automatically added, so non-listed species are the focus of review.
      - 1. Approximately 52 species are being strongly considered for addition, and approximately 6 proposed for removal (including several species that were delisted from MESA).
    - iv. New SWAP structure will be similar to older version – habitat based
    - v. Shift in format, from paper documents to more of an online, electronic version more readily available to the public. This enables it to be more of a living document, so it doesn't need to be static between the 10-year updates.
      - 1. Oregon and Delaware have already done this well.  
The connections to other plans and actions will also be well linked through this format. E.g. BioMap – with an emphasis on habitat, we'll be largely relying on this key tool underneath the SWAP to point to the lands, waters, and habitats that are important to the protection, management, and restoration of SGCN species.

- vi. Staff are updating fact sheets for every SGCN species, and adding new fact sheets for new SGCN species. Fact sheets include information on the species, distribution, essential habitats, status, threats, conservation actions, etc.
- vii. These are part of the SWAP, but also serve as information to the public and conservation partners.

Since Tim Flanagan resigned, the Committee will need to vote on a new Assistant Chair at the April meeting.

**5. *Advancements in Aquatic Biodiversity Conservation in MA*** – Dr. Rebecca Quiñones, NHESP Conservation Science Program Manager – *See PowerPoint for full and accurate details*

- 1. Expansion of Aquatic Biodiversity Conservation in the context of:
  - a. BioMap
  - b. Biodiversity Executive Order – draft goals

BioMap

- 1. Traditionally – excellent job with species-based planning and action
- 2. Newer plans – cover entire aquatic communities
  - a. BioMap – what are the most important areas for aquatic conservation?
    - i. Interesting and challenging
  - b. Great range of variability across Massachusetts
    - i. Gradient of community structure (headwaters to mainstems)
    - ii. East-West variation
    - iii. Management-made variation
- 3. We have a lot of data – 1998-2018 (and to the present)
- 4. Approach:
  - a. Removed data associated with stocked/introduced fish
  - b. Extended habitats from survey points – to capture dispersal
  - c. Recreated hydrologic connections
  - d. Compare historical vs. contemporary assemblages to identify resilient systems
  - e. Used percentiles to score all stream reaches.
    - i. Top percentiles were identified for conservation
    - ii. Lesser percentiles for restoration.
- 5. Grouped by major basins
- 6. Then analyses: abundance, evenness, similarity (target vs. observed) etc.
- 7. Also in BioMap:
  - a. Native species richness, stratified lakes and ponds, etc.
- 8. Then buffers were defined. Not fixed width, but looking at the quality of the habitat and the supporting, dynamic systems (e.g. floodplains) that support the aquatic system.
- 9. See the interactive BioMap online map
- 10. What's new
  - a. Relative measure of biodiversity statewide
  - b. Focus on protection AND restoration
  - c. Including of floodplains AND wetlands
  - d. Variable buffers
- 11. Additional analyses
  - a. Assemblages across multiple taxa (mussels, turtles, aquatic insects)
  - b. Regional perspective

- c. Predicted changes due to land use change, climate change, and how to use management interventions to mitigate these, and improve management
- 12. Question: Buffers: How do we justify these variable buffers – Answer: There is a lot of literature on the integration and dependence of rivers and uplands that justify expansive buffers. A lot of evidence.

#### Biodiversity EO Habitat Restoration Goals

1. Built on BioMap: List of Habitats (22)
    - a. 12 of them are aquatic
  2. Gather data: What are the percentage goals for each habitat?
  3. Goal Characteristics
    - a. Bolster native biodiversity
    - b. Best science
    - c. Improve baseline conditions
    - d. Address climate vulnerability
    - e. Slow degradation
    - f. Scale appropriately
  4. State of an ecosystem that can maintain structure and function over time. Quality of biodiversity services for the present and future.
  5. Flowing waters: with % goals for Baseline, 2030, 2040, 2050
    - a. Cold Rivers and Streams
    - b. Cool Rivers and Streams
    - c. Mainstem Rivers
    - d. Riparian Floodplains
  6. Inland waters, Coastal systems, etc.
  7. Next Steps:
    - a. Restoration siting
    - b. Level of Effort
    - c. Restoration strategies
    - d. Related projects by other agencies
6. **Member's and Associate Member's Comments** – *None; see note above under Board Member's Comments*

– The meeting adjourned at 2:46 P.M. –

Drafted & Submitted by: Andy Finton