

Testimony before the Senate Committee on Natural Resources & Energy on H.126 Community Resilience and Biodiversity Protection Act | April 19th, 2023

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Written testimony

Honorable members of the Senate Committee on Natural Resources and Energy, thank you for the opportunity to share testimony on H.126 Community Resilience and Biodiversity Protection Act and my apologies for being unable to join you for the rescheduled hearing.

My name is Tara Moberg. I am a Global Freshwater Advisor with The Nature Conservancy's Protect Oceans, Lands and Waters team, where we support conservation efforts across more than 70 countries, under the mission of conserving the lands and waters on which all life depends. Most recently and relevant to this hearing, I served as a delegation member for the UN Convention on Biological Diversity COP-15, where the text of the global 30 x 30 commitment was negotiated and adopted under Target 3 of the Kunmin-Montreal Global Biodiversity Framework (Attachment 1).

Before I begin, I would like to share that while I am not a resident of Vermont, I am a grateful beneficiary of the state's renowned natural resources *and* stewardship – as an avid swimmer, Lake Willoughby is one of my favorite places in the world to recharge. I thank you for your efforts to conserve these resources for the benefit of the public, including consideration of the bill before you.

I would like to share two foundational considerations from our international experience, as they may apply to the decisions before the Committee on H.126. First, a review of why it is critical to explicitly consider water, or freshwater ecosystems, in conservation policy targets and second, a summary of how this is being done throughout the U.S. and around the world.

First, supported by a significant weight of evidence,ⁱ we know that the conservation of freshwater habitats and ecosystems is **absolutely essential** to both to restore and protect global biodiversity and to sustain the resilience of our communities through a changing climate. The foundational goals of H.126 cannot be achieved without the inclusion of both lands *and* waters.

- **Freshwater ecosystems – such as lakes, rivers and streams, marshes, peatlands and other wetlands– are among the most biodiverse but also the most threatened ecosystems on the planet.** They have the greatest species diversity per unit area, and high numbers of endemic species whose loss in one system could spell extinction. They have lost proportionately more biodiversity than land or sea, with almost one in three freshwater species threatened by extinction.
- **Monitored populations have declined 83% on average, twice the rate of marine and terrestrial biodiversity (Figure 1).** Less than a fifth of preindustrial wetlands remain, where detailed surveys have been made and the loss of wetlands and other freshwater habitats, is the dominant factor driving the decline of 80% of threatened freshwater-dependent species.

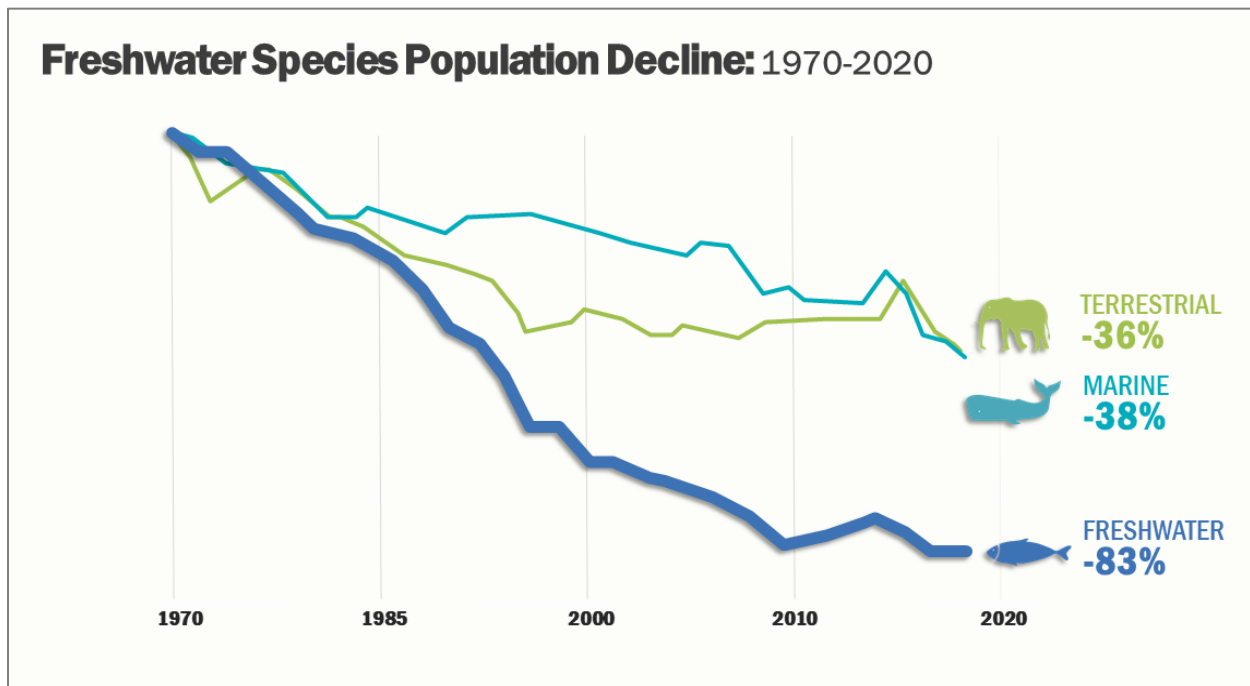


Figure 1. The WWF Living Planet Index reports a loss of 69% of vertebrate species populations since 1970. Hidden in the averaging is the disproportionate loss of populations of freshwater species. It was with this understanding, that freshwater ecosystems were explicitly included in the negotiated Kunming-Montreal Global Biodiversity Framework (WWF Living Planet Report, 2022 and 2016).

- The integrity of freshwater ecosystems is vital to community well-being and resilience.** As this Committee and Vermont laws and regulations appreciate, freshwater ecosystems also provide irreplaceable ecosystem services including drinking and irrigation water, food security, flood- and drought risk reduction, pollution control, and carbon sequestration and storage. One third of our global food production relies on rivers and forty per cent of the global fish protein consumed by humans comes from freshwater fish species. Further, most of the global soil carbon pool is in wetlands, particularly peatlands, which store twice as much carbon as the world’s forests.

Closer to home, we also know how valued clean, swimmable, fishable waters are to community well-being – and **national polls underscore that the protection of freshwaters – rivers, wetlands, and lakes - ranks among the most favorable conservation investments with voters.**

- Yet, despite their importance, freshwater ecosystems are repeatedly undervalued in conservation discourse and investment, in terms of restoration, protection and sustainable management. **Treating freshwater ecosystems as part of the terrestrial realm has resulted in their neglect, impacting the extent, management effectiveness and resilience of freshwaters in protected and conserved areas.** This insufficiency derives from the fact that healthy functioning of freshwater ecosystems depends on a combination of what we call ‘key ecological attributes’: hydrologic regime, connectivity, water quality, physical habitat, and biotic composition. None of these attributes is guaranteed to be maintained through land conservation alone.

Which brings me to the second consideration -- for these reasons previously mentioned, explicit inclusion of freshwater ecosystems in conservation and climate policy goals, indicators and implementation mechanisms **is critical** to recover and safeguard some of the most threatened ecosystems and biodiversity on the planet.

Over the last two years, this need for explicit inclusion of waters or freshwater ecosystems has been recognized across global, national and state policy initiatives.

- The Biden Administration’s America the Beautiful Initiative aims to conserve 30% of lands and waters by 2030 and noted several significant milestones toward the conservation and restoration of watersheds and freshwater habitats in their first annual report.
- Like Vermont, several states are following suit with their own initiatives for conserving lands and waters including New York, Michigan, Nevada and California.
- In December 2022, nearly 200 countries Party to the Convention on Biological Diversity, recognizing this need, explicitly included inland waters – rivers, lakes, and wetlands -- in their 30x30 protection target of the Kunming-Montreal Global Biodiversity Framework (GBF). This means **countries around the world are now committed to conserving freshwater ecosystems, at the same level as terrestrial and marine ecosystems,** and a community of freshwater experts including the IUCN World Commission on Protected Areas, is working together to deliver guidance for countries implementing that commitment. Importantly, the GBF 30 x 30 goes beyond a 30 percent target, incorporating critical requirements of representation, connectivity, effective management and equity (Attachment 1).

Because I understand it is material to the Committee’s deliberations, I will also note that many of the countries that are Party to the Kunming-Montreal Global Biodiversity Framework, as well as some states leading 30 x 30 initiatives, have a Public Trust Doctrine under which waters or other natural resources are held in trust by the sovereign or state. In and of themselves, the Public Trust Doctrines do not qualify resources toward the 30 percent goal under the GBF, as they do not satisfy the definition of protected areas and other effective area-based conservation measures under the Convention. In addition, from my conversations, Parties do not see their commitment to explicitly including waters in their 30 x 30 ambitions as being in conflict with, or redundant to, their respective Public Trust Doctrines. Rather, **they view these goals and their required participatory planning processes as a pro-active framework for articulating and managing resources collectively for the benefit of the people – now and into the future.**

In summary, in order to address the dual biodiversity and climate crises, we must explicitly consider the conservation of freshwater ecosystems. Over the last two years, this need has been acknowledged and reflected in policy commitments by more than 200 countries, including the U.S.

Reaching our international and national commitments to conserve 30% of our waters in the next seven years means that we must act now. Vermont can build from their renowned innovations and commitment to conservation and help to lead the way by including 'waters' in H.126 and conserving the freshwater ecosystems that provide essential services to its communities, that support rare and endangered species, like brook lampreys and sturgeon, and that play a key role in flood resilience. The foundational goals of H.126 cannot be achieved without the inclusion of both lands *and* waters.

I thank the Committee for your time and commitment and would be honored to continue to work with TNC's Vermont Chapter to support any requests for clarification or additional information.
