

02 December 2020

The Honorable Joe Neguse
U.S. Congressman, Colorado 2nd District

Re: Scientist support for a National Biodiversity Strategy

Dear Congressman Neguse,

As scientists who have spent our careers working to advance biodiversity science and conservation, we write to express our strong support for legislation that calls for a National Biodiversity Strategy for the United States. With this, Congress can help drive the “all-of-government” mobilization that is essential for addressing the biodiversity crisis in our country and for returning the U.S. to a place of international leadership in conservation.

Our planet is facing an alarming and catastrophic biodiversity crisis tied to human activities. Recent science syntheses have found that five major threats—habitat conversion, overexploitation, climate change, pollution, and invasive species—have put about a million species at risk of extinction around the world, 75% of lands and 66% of seas have been significantly modified by human activity, and wild animal populations have declined dramatically (IPBES 2019, World Wildlife Fund 2020). As a result, ecosystem services such as water filtration, disease buffering, and crop pollination are in decline (Food and Agriculture Organization 2019, Convention on Biological Diversity 2020), threatening benefits with an estimated worth of nearly \$10 *trillion* per year for North America (IPBES 2018, ELD Initiative 2015). That is, the biodiversity crisis has profound implications for society: as the World Economic Forum found, “The Forum’s multistakeholder network rate ‘biodiversity loss’ as the second most impactful and third most likely risk [for the global economy] for the next decade” (World Economic Forum 2020). However, governments have been slow to respond when presented with this evidence, and the response is too often ad hoc and disorganized. The result is evident in the 2020 report from the Convention on Biological Diversity: none of the Aichi Targets were achieved and for some, back-sliding has occurred (Convention of Biological Diversity 2020).

The U.S. is not exempt from the global biodiversity crisis. The Living Planet Index for North America places the decline of animals since 1970 at 33% (World Wildlife Fund 2020). North American bird populations have shrunk by an estimated 3 *billion* birds since 1970 (Rosenberg et al. 2019). Land conversion continues at an estimated two football fields per minute (Center for American Progress 2019) and sea-use change and pollution continues to grow (IPBES 2019). The Endangered Species Act has protected almost every listed species from extinction and hundreds of species are stable or improving, yet many hundreds of other species continue to decline (Evans et al. 2016, Malcom et al. 2016). These patterns should not be surprising since there have been no major new conservation laws or policies in the U.S. for decades. Further, countless laws and policies with cross-purposes can accelerate the decline of biodiversity absent guidance to the contrary, from those that authorize waterway modifications under the Clean Water Act that harm aquatic species (Evansen et al. 2020) to cell towers authorized by the Federal Communications Commission that harm bats and migratory birds (e.g., Erickson et al. 2005). The science is clear that action is needed.

To address the biodiversity crisis in the U.S., we commend the creation and implementation of a National Biodiversity Strategy. This Strategy would articulate a national commitment to comprehensively addressing all five of the major drivers of biodiversity loss, securing and restoring ecosystem services, and reestablishing the nation as a global leader in biodiversity conservation. It would coordinate a comprehensive “all-of-government” approach to tackling the crisis by:

- establishing quantitative, science-based goals for addressing the threats to biodiversity, including a goal of protecting at least 30% of U.S. lands and waters for biodiversity and climate by 2030;
- directing federal agencies to use their authorities to advance biodiversity conservation while pursuing their missions;
- guiding collaboration among federal agencies and with states, local governments, tribes, private landowners, and other non-governmental stakeholders;
- identifying gaps in existing laws and policies that Congress should address, including on major issues such as climate change;
- providing guidance on necessary funding levels for biodiversity conservation and direction to develop new funding sources;
- ensuring equitable access to nature, inclusive decision-making on biodiversity protection, and just allocations of resources among systematically and deliberately targeted and disadvantaged populations;
- establishing a Quadrennial Biodiversity Assessment for the U.S., akin to the Quadrennial Climate Assessment, to synthesize the science of conservation status and track progress; and
- stimulating new science, creative technologies, and innovative policies that can improve the effectiveness and efficiency of our conservation efforts.

As scientists, we call on the House of Representatives to pass your resolution as quickly as possible: the science is clear that we cannot wait to act. The effort to conserve biodiversity should be prioritized and coordinated with care to protect the nation's natural heritage for today and for generations to come. From science to practice, across sectors and across political boundaries, the U.S. can resume a leadership role in biodiversity conservation that the nation deserves and that the world needs.

Sincerely,

Dr. Leah Gerber, *Professor, Arizona State University*

Dr. Jane Lubchenco, *Distinguished University Professor, Oregon State University*

Dr. Terry Root, *Senior Fellow Emerita, Stanford University*

Dr. Mark Schwartz, *Professor, University of California - Davis*

Dr. Rae Wynn-Grant, *Research Fellow, National Geographic Society*

*Signatories are listed in alphabetical order. Affiliations are provided for purposes of identification and do not imply endorsement by the individual's institution.

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