May 28, 2020

The Honorable Gavin Newsom Governor of California

The Honorable Toni Atkins Senate President Pro Tempore

The Honorable Anthony Rendon Speaker of the Assembly

Re: Support for a State Policy to Protect At Least 30% of California's Lands, Freshwater and Oceans by 2030

Dear Governor Newsom, Pro Tempore Atkins and Speaker Rendon,

As scientists who live or work in or on California, we write to express our strong support for Assembly Bill 3030¹, which, if enacted, would establish a state policy to protect and restore at least 30% of California's lands, freshwater and oceans by 2030.

The scientific community is documenting a rapid loss of natural areas and biodiversity in California, the U.S. and throughout the world. More than 1 million species are threatened with extinction as a result of habitat degradation, overexploitation, climate change, pollution and other stressors (IPBES 2019). As a globally significant biodiversity hotspot with an exceptional concentration of endemic and imperiled species, California has much to protect for the sake of our national and global communities. At least 686 California species are at risk of extinction² and two-thirds of the state's native plants are forecasted to lose most of their range in the next 100 years (Loarie et al. 2008). California has lost more than 1 million acres of natural area due to development (Lee-Ashley et al. 2019). Climate change is reducing the ability of ecosystems to provide clean water and regulate water flows, limiting the ability of nature to buffer communities against disasters such as wildfires, storms, floods and marine heatwaves (Melillo et al. 2014). As California's health and economic systems are challenged by the COVID-19 global pandemic, which likely was spread from animals to humans as a result of habitat loss and overexploitation (Johnson et al. 2020), the effect of the biodiversity crisis on people is more pronounced than ever.

Scientists globally are uniting around a science-driven plan to save biodiversity by protecting at least 30% of the world's terrestrial and marine environments by 2030, a strategy known as 30x30. The goals of 30x30 -- to safeguard biodiversity and address climate change -- are outlined in a paper by Dinerstein et al. (2019) proposing a Global Deal for Nature. Dinerstein et al. recommend that countries formally protect at least 30% of terrestrial, freshwater and marine areas by 2030 to ensure climate targets are met while

¹ Available at http://leginfo.legislature.ca.gov/faces/billAnalysisClient.xhtml?bill_id=201920200AB3030

² Listed on the California Endangered Species Act or as a Species of Special Concern; https://wildlife.ca.gov/Conservation

preventing species extinctions and the rapid erosion of biodiversity and ecosystem services. Extensive scientific evidence supports 30x30 (e.g., Allen et al. 2019, Dinerstein et al. 2017, O'Leary et al. 2016, Sala & Rechberger 2018, Wilson 2016, Zhao et al. 2020), amplifying the call that conserving at least 30% of our planet's terrestrial and marine environments must be part of the solution to reverse declines in biodiversity and address climate change.

Commitments to 30x30 from governments and multilateral institutions are now on the rise in North America and internationally. Canada has committed and the European Parliament has pledged to meet 30x30 targets in their territories. The United Nations Convention on Biological Diversity has included 30x30 as a target in its draft Post-2020 Biodiversity Framework (Greenfield 2020). In the U.S., resolutions backed by 76 environmental organizations were recently introduced in the House and Senate to support protecting 30% of the nation's land, freshwater and marine areas (H. Res. 835, 2019; S. Res. 372, 2019).

Reaching 30x30 at the national scale is numerically feasible, yet will require coordinated, accelerated land, freshwater and marine protection and restoration supported by all levels of government, including states. Protections should be implemented that prioritize 1) areas of high biodiversity, especially threatened and endangered species most at risk of extinction, and/or 2) areas with high carbon stocks, and wherever possible 3) areas that improve responsible access to nature for communities of color and economically disadvantaged communities. Only 12% of U.S. lands and 26% of U.S. oceans are currently managed for conservation (Richards 2018). California is already a leader in protecting biodiversity, with 22% of the state's lands and 16% of coastal waters protected and managed for their natural character, resources and functions (Rosa 2020). Although more than 50% of California is public land, not all is protected for biodiversity, and opportunities abound for strengthening conservation goals. California can continue to lead the way nationally and internationally with the adoption of policies and implementation of practices that enable the protection of 30% or greater of terrestrial, freshwater and marine environments by 2030.

Assembly Bill 3030 would create a state policy that sets a reasonable and achievable goal to protect at least 30% of the lands, freshwater and oceans in California by 2030. The policy includes specific objectives that improve the protection and management of natural areas, promote collaboration, increase opportunities to sequester carbon through natural measures and utilize state authorities to protect biodiversity within the state, nationally and internationally. In order to explicitly address the biodiversity crisis underlying this effort, protections should be prioritized in areas with declining species, high carbon areas and on habitat types under-represented in current protected areas. Protecting and restoring these areas will require working with the federal government, local communities, Native American tribes and private landowners to conserve natural places and resources. These efforts must also improve access to nature for all people in the state, including for communities of color and economically disadvantaged communities.

As informed stewards of biodiversity, we urgently advise you to support Assembly Bill 3030 and its science-based policy to protect at least 30% of the lands, freshwater and oceans within California by 2030. As your constituents, and as humans dependent on nature and its ecosystem services, our life and

work depends on safeguarding biodiversity in California and beyond. We urge California to serve as a national and global leader by making the 30x30 goal a state policy and working to achieve this important target.

Sincerely,

More than 170 scientists³ living or working in California *All signatories represent their own views and do not represent their respective institutions.*

For current list of signatories, please see https://defenders-cci.org/sign-on/ca-30x30/signatories/

Cc: Assemblymember Lorena Gonzalez, Chair, Assembly Appropriations Committee Members, Assembly Appropriations Committee

References

Allan, J.R., Possingham, H.P., Atkinson, S.C., Waldron, A., Marco, M. Di, Adams, V.M., Butchart, S.H.M., Venter, O., Maron, M., Williams, B.A., Jones, K.R., Visconti, P., Wintle, B.A., Reside, A.E. & Watson, J.E.M. (2019). Conservation attention necessary across at least 44% of Earth's terrestrial area to safeguard biodiversity. bioRxiv, 839977.

Dinerstein, E., Vynne, C., Sala, E., Joshi, A.R., Fernando, S., Lovejoy, T.E., Mayorga, J., Olson, D., Asner, G.P., Baillie, J.E.M., Burgess, N.D., Burkart, K., Noss, R.F., Zhang, Y.P., Baccini, A., Birch, T., Hahn, N., Joppa, L.N. & Wikramanayake, E. (2019). A Global Deal For Nature: Guiding principles, milestones, and targets. Sci. Adv., 5, eaaw2869.

Dinerstein, E., Olson, D., Joshi, A., Vynne, C., Burgess, N.D., Wikramanayake, E., Hahn, N., Palminteri, S., Hedao, P., Noss, R., Hansen, M., Locke, H., Ellis, E.C., Jones, B., Barber, C.V., Hayes, R., Kormos, C., Martin, V., Crist, E., Sechrest, W., Price, L., Baillie, J.E.M., Weeden, D., Suckling, K., Davis, C., Sizer, N., Moore, R., Thau, D., Birch, T., Potapov, P., Turubanova, S., Tyukavina, A., De Souza, N., Pintea, L., Brito, J.C., Llewellyn, O.A., Miller, A.G., Patzelt, A., Ghazanfar, S.A., Timberlake, J., Klöser, H., Shennan-Farpón, Y., Kindt, R., Lillesø, J.P.B., Van Breugel, P., Graudal, L., Voge, M., Al-Shammari, K.F. & Saleem, M. (2017). An ecoregion-based approach to protecting half the terrestrial realm. Bioscience, 67, 534–545.

Greenfield, P. 2020. UN drafts plan sets 2030 target to avert Earth's sixth mass extinction. The Guardian. https://www.theguardian.com/environment/2020/jan/13/un-draft-plan-sets-2030-target-to-avert-earths-sixth-mass-extinction-aoe

H. Res. 835. 2019. 116 Congress.

https://www.congress.gov/bill/116th-congress/house-resolution/835/all-info?r=1&s=2

IPBES. 2019. Summary for policymakers of the global assessment report on biodiversity and ecosystem services of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services.

³ This is an open letter that continues to accept scientist signatories. To see the most updated list of signatories, please visit https://dfnd.us/ca30x30

- Diaz S et al., editors. IPBES Secretariat, Bonn, Germany. https://www.ipbes.net/news/ipbes/ipbes-global-assessment-summary-policymakers-pdf.
- Johnson, C.K., Hitchens, P.L., Pandit, P.S., Rushmore, J., Evans, T.S., Young, C.C.W. & Doyle, M.M. (2020). Global shifts in mammalian population trends reveal key predictors of virus spillover risk. Proc. R. Soc. B, 287, 20192736.
- Lee-Ashley, M., Rowland-Shea, J. & Richards, R. (2019). The Green Squeeze. Washington, D.C., Center for American Progress.
 - https://www.americanprogress.org/issues/green/reports/2019/10/22/476220/the-green-squeeze/
- Loarie, S.R., Carter, B.E., Hayhoe, K., McMahon, S., Moe, R., Knight, C.A. & Ackerly, D.D. (2008). Climate change and the future of California's endemic flora. PLoS One, 3, e2502.
- Melillo J., Richmond T., Yohe G. (2014). Climate Change Impacts in the United States: The Third National Climate Assessment.
 - http://s3.amazonaws.com/nca2014/low/NCA3_Climate_Change_Impacts_in_the_United States_LowRes.pdf?download=1
- O'Leary, B.C., Winther-Janson, M., Bainbridge, J.M., Aitken, J., Hawkins, J.P. & Roberts, C.M. (2016). Effective coverage targets for ocean protection. Conserv. Lett., 9, 398–404.
- Richards, R. (2018). Measuring Conservation Progress in North America. Washington, D.C., Center for American Progress.
 - ${\color{blue} h\underline{ttps://www.americanprogress.org/issues/green/reports/2018/12/04/461705/measuring-conservation-p} \\ {\color{blue} rogress-north-america}$
- Rosa, L. 2020. California 30x30 data viewer. Defenders of Wildlife. https://defenders-cci.org/publication/ca-30x30
- S. Res. 34 (2019). 116 Congress. CR S5976-5977.
 - https://www.congress.gov/bill/116th-congress/senate-resolution/372/all-info
- Sala, E. & Rechberger, K. (2018). Protecting half the ocean? In: From Summits to Solut. Innov. Implement. Sustain. Dev. Goals (eds. Desai, R., Kato, H., Kharas, H. & McArthur, J.). Brookings Institution Press, Washington, D.C., pp. 239–261.
- Theobald, D.M., Leinwand, I., Anderson, J.J., Landau, V. & Dickson, B.G. (2019). Loss and fragmentation of natural lands in the conterminous U.S. from 2001 to 2017. The Center for American Progress and Conservation Science Partners. URL https://www.csp-inc.org/public/CSP Disappearing US Exec Summary 011819.pdf
- Wilson EO. 2016. Half Earth: Our Planet's Fight for Life, 1st edition. Liveright Publishing Corporation, New York, NY.
- Zhao, Q., Stephenson, F., Lundquist, C., Kaschner, K., Jayathilake, D. & Costello, M.J. (2020). Where Marine Protected Areas would best represent 30% of ocean biodiversity. Biol. Conserv., 244, 108536.