

To: Oregon House Committee on Climate, Energy, and Environment

Re: Xerces Society Letter of Support for HB 3932

March 24, 2025

Dear Chair Lively, Co-Vice Chair Gamba, Co-Vice Chair Levy and all Committee Members,

The Xerces Society supports HB 3932, which would improve the water quality of streams and rivers across Oregon, helping both people and wildlife. The Xerces Society is a national non-profit dedicated to the conservation of insects, other invertebrates, and their habitats. Oregon is where Xerces was founded and where its main operations remain today.

Over 100,000 miles of Oregon's waterways are considered to be [in poor health](#): they are impaired by high water temperatures, sedimentation, and toxins. The Department of Environmental Quality (DEQ) is tasked with improving the water quality of these waterways, but doing so requires significant resources to design and implement mitigations that would reduce pollution.

Research shows that beaver dams can help to clean pollution from streams and rivers. Dams slow the passage of water through a river and can act as a natural filter. [A study by the City of Gresham, OR](#) found that pollutant removal was greater when beaver dams were present than when they were absent and that heavy metals were reduced twice as efficiently when dams were present. The increased removal of pollutants results from the dam slowing water flow, allowing sediment and pollutants to drop out of the water column.

Beaver activities also help to restore impacted water tables and underground aquifers, and they can create natural wetlands and expand riparian habitats for wildlife (Larsen et al. 2021). The habitats they create help aquatic macroinvertebrates, which are vital for juvenile salmon and other fish (e.g., Pollack et al. 2004). They also increase wet areas in the arid west, which increases the diversity and abundance of pollinators as well as other insects that are a vital food source for birds (e.g., Fedyń et al. 2024).

In short, beavers improve water quality and restore habitat. The increased habitat complexity and heterogeneity resulting from beaver engineering activities promote biodiversity at multiple scales, enhancing both aquatic and terrestrial ecosystems (Willby et al., 2018). The presence of beavers has been shown to significantly increase species richness and abundance across various taxa. For example, studies have demonstrated that beaver-engineered habitats support higher species richness and abundance of terrestrial and semi-aquatic mammals compared to

non-beaver areas. This includes notable increases in the presence of species such as otters and pine martens (Nummi et al., 2019).

Passage of Oregon HB 3932 is a win-win for Oregonians and the wildlife that share our state.

References:

Fedyń, I. et al. (2024) Ecosystem engineers cause biodiversity spill-over: Beavers are associated with breeding bird assemblages on both wetlands and adjacent terrestrial habitats. *Science of The Total Environment*, 950,175166. <https://doi.org/10.1016/j.scitotenv.2024.175166>.

Larsen A. et al. (2021) Dam builders and their works: Beaver influences on the structure and function of river corridor hydrology, geomorphology, biogeochemistry and ecosystems. *Earth Science Reviews*, 218, 103623. <https://doi.org/10.1016/j.earscirev.2021.103623>

Nummi P., Liao W., Huet O., Scarpulla E., and Sundell J., 2019, The beaver facilitates species richness and abundance of terrestrial and semi-aquatic mammals. *Global Ecology and Conservation*, 20: e00701. <https://doi.org/10.1016/j.gecco.2019.e00701>

Pollock, M. M., Pess, G. R., Beechie, T. J., & Montgomery, D. R. (2004). The Importance of Beaver Ponds to Coho Salmon Production in the Stillaguamish River Basin, Washington, USA. *North American Journal of Fisheries Management*, 24(3), 749–760. <https://doi.org/10.1577/M03-156.1>

Willby N., Law A., Levanoni O., Foster G., and Ecke F., 2018, Rewilding wetlands: beaver as agents of within-habitat heterogeneity and the responses of contrasting biota, *Philosophical Transactions of the Royal Society B: Biological Sciences*, 373(1761): 20170444. <https://doi.org/10.1098/rstb.2017.0444>