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To: House Committee on Agriculture, Land Use and Water

RE: HB 4128 – Preventing future public health crises caused by diseases that spread from

wildlife to humans

On behalf of our 12 organizations, we are writing to encourage your support for HB 4128 to help prevent the spread of zoonotic disease in Oregon. Evidence indicates that many of the worst epidemics and pandemics in recent decades, including COVID-19, Ebola virus, avian influenza and Severe Acute Respiratory Syndrome, were zoonotic in origin, which means that they spread from animals to humans. We believe that HB 4128 is a wise investment to help prevent future public health crises and associated economic disruptions.

Zoonotic disease transmission is driven in part by wildlife exploitation, including trade and trafficking. The United States is one of the world's top importers of wildlife, consuming an estimated 20 percent of the global wildlife market. Each year, the United States imports around 225 million live animals and 883 million specimens.² This adds up to a lot of opportunity for disease to spread from animals to humans.

Novel zoonotic pathogens pose serious threats to our public health, biological diversity and economic stability. The costs of wildlife diseases to public health are enormous, and tend to fall disproportionately on BIPOC communities, stemming from poor health care access and structural discrimination. With three out of four new or emerging infectious diseases being zoonotic in origin, Oregon must act now to avert future pandemics.

¹ Peters, A., Vetter, P., Guitart, C., Lotfinejad, N., & Pittet, D. (2020). Understanding the emerging coronavirus: what it means for health security and infection prevention. Journal of Hospital Infection (available at:

https://www.journalofhospitalinfection.com/article/S0195-6701(20)30099-2/fulltext) ("Considering the dynamics at the human-animal-ecosystem interface, it is not surprising that the worst epidemics and pandemics (including HIV, SARS-CoV, avian influenza, swine influenza, Ebola virus, and Zika virus) of the past 40 years were all of zoonotic or vector origin.")

² Smith, K. M., Zambrana-Torrelio, C., White, A., Asmussen, M., Machalaba, C., Kennedy, S., ... & Karesh, W. B. (2017). Summarizing US wildlife trade with an eye toward assessing the risk of infectious disease introduction. EcoHealth, 14(1), 29-39. https://link.springer.com/article/10.1007/s10393-017-1211-7

HB 4128 is a timely and necessary bill that will equip Oregon with practical tools to help prevent the spread of zoonotic disease.

HB 4128 will help prevent transmission of disease by strengthening state-agency coordination and improving prevention, monitoring and response plans. It will also help avert future disease outbreaks and economic disruptions by reducing avenues for animal disease transmission associated with import, trade and handling of wildlife. HB 4128 is a priority bill for the Oregon Wildlife Coalition and a bill of support for the Oregon Conservation Network.

This bill offers several practical tools to help Oregon be better prepared. First, it requires the Legislative Policy and Research Office, in consultation with OHA, OSP, ODA and ODFW, to prepare a report that evaluates Oregon's current framework for monitoring, preventing and responding to zoonotic diseases and recommends ways to strengthen the framework. Second, it requires ODFW to review and update the list of prohibited species as the commission deems necessary to protect against significant risks to public health from zoonotic disease. ODFW shall also update the list of prohibited species upon notification from OHA that a wildlife species poses a significant risk to public health from zoonotic disease. Third, it bans wildlife markets where wildlife are held and sold live for the purpose of human consumption except for those animals utilized for farm use under state law. Fourth, it directs ODFW to consider public health and the risk of zoonotic disease when adopting rules related to the holding and capture of wildlife.

Oregon must act now to improve its zoonotic disease prevention and response framework so that we are prepared for the next disease outbreak or pandemic.

Zoonotic diseases, like the COVID-19 pandemic, are on the rise due to human encroachment into new ecosystems, loss and conversion of habitat, climate change, and wildlife exploitation – including trade and trafficking. The current pandemic is only the latest in a number of devastating zoonotic diseases, including SARS, Ebola, and Lyme disease.³ Experts, including from the World Health Organization, agree that future human pandemics will likely be caused by wildlife and be zoonotic in nature.⁴ Infectious diseases cause about a quarter of human deaths. Of these deaths almost 60% are zoonotic and over 70% of these zoonoses are from wildlife.⁵

³ Peters, A., Vetter, P., Guitart, C., Lotfinejad, N., & Pittet, D. (2020). Understanding the emerging coronavirus: what it means for health security and infection prevention. Journal of Hospital Infection, 104(4), 440-448.

⁴ Can, Ö. E., D'Cruze, N., & Macdonald, D. W. (2019). Dealing in deadly pathogens: Taking stock of the legal trade in live wildlife and potential risks to human health. Global ecology and conservation, 17, e00515 (available at:

https://www.sciencedirect.com/science/article/pii/S2351989418302312) ("The World Health Organization (WHO) and most infectious disease experts agree that the origins of future human pandemics are likely to be zoonotic, with wildlife emerging as the primary source (Wang and Crameri, 2014).")

⁵Jones, K.E., Patel N.G., Levy M.A., Storeygard A., Balk D., Gittleman J.L. et al. (2008). Global trends in emerging infectious diseases. Nature 451, 990-993. doi: 10.1038/nature06536; Smith, K. M., Zambrana-Torrelio, C., White, A., Asmussen, M., Machalaba, C., Kennedy, S., ... & Karesh, W. B. (2017). Summarizing US wildlife trade with an eye toward assessing the risk of infectious disease introduction. EcoHealth, 14(1), 29-39 (available at: https://link.springer.com/article/10.1007/s10393-017-1211-7 ("Approximately one-quarter of human deaths are caused by infectious disease and nearly 60% of infectious diseases are considered zoonotic (pathogens transmissible between animals and humans); most of these (>70%) are caused by pathogens of wildlife origin (Taylor et al. 2001; Jones et al. 2008; Drexler 2010).")

Human populations continue to grow and expand, putting people in closer contact with both wild and domestic animals, which in turn creates more opportunities for disease transmission.⁶ Changes in climate and land use, including deforestation and intensive farming practices have caused catastrophic habitat loss which can provide new opportunities for diseases to pass to/from wildlife.⁷ And the movement of people, wildlife, and wildlife products has increased from international travel and trade, allowing diseases to spread quickly across borders and around the globe.⁸

Zoonotic diseases and the resulting pandemics have the potential to become even more common and deadly without further intervention. Wildlife trafficking and trade has contributed, and perhaps even driven, the pervasiveness of these diseases. However, it's possible to reduce the likelihood of epidemics like COVID-19 with stronger global, national, and state regulation and enforcement of wildlife trade and trafficking.

Preventing the next pandemic will require state and Federal coordination – and Oregon has the opportunity to be a leader in this nationwide effort.

The ongoing COVID-19 pandemic has revealed the fragility and inadequacy of our nation's public health systems. It is imperative that we act now to prevent future pandemics by examining and shoring up our disease prevention and response capabilities. Doing so will require concerted and collaborative action at both the state and Federal level.

Congress is still working to pass the bipartisan *Preventing Future Pandemics Act*, which would direct the State Department to work with international partners to shut down commercial wildlife markets, end the trade in live wildlife for human consumption and stop the associated wildlife trade, end the import, export and sale of live wildlife for human consumption in the United States, and phase out demand for wildlife as a food source. The bill, <u>H.R. 8433 in the 116th Congress</u>, was introduced by U.S. Representatives Mike Quigley (D-IL) and Fred Upton (R-MI) and co-sponsored by a bipartisan group of nearly 150 Representatives. A companion bill, <u>S.R. 37 in the 116th Congress</u>, was reintroduced in the Senate by Senators Cory Booker (D-NJ) and John Cornyn (R-TX).

⁶ Karesh, W. B., et al. (2005). Wildlife trade and global disease emergence. Emerging infectious diseases, 11(7), 1000; Luis, A.D., et al. (2013). A comparison of bats and rodents as reservoirs of zoonotic viruses: are bats special? Proc R Soc B 280: 20122753. http://dx.doi.org/10.1098/rspb.2012.2753; Bell, D., Roberton, S., & Hunter, P. R. (2004). Animal origins of SARS coronavirus: possible links with the international trade in small carnivores. Philosophical Transactions of the Royal Society of London. Series B: Biological Sciences, 359(1447), 1107-1114; White, R. J., & Razgour, O. Emerging zoonotic diseases originating in mammals: a systematic review of effects of anthropogenic land-use change. Mammal Review; Evans, T. et al. (2020). Links between ecological integrity, emerging infectious diseases originating from wildlife, and other aspects of human health - an overview of the literature. WCS.

⁷ IPBES (2020) Workshop Report on Biodiversity and Pandemics of the Intergovernmental Platform on Biodiversity and Ecosystem Services.

Daszak, P., das Neves, C., Amuasi, J., Hayman, D., Kuiken, T., Roche, B., Zambrana-Torrelio, C., Buss, P., Dundarova, H., Feferholtz, Y., Foldvari, G., Igbinosa, E., Junglen, S., Liu, Q., Suzan, G., Uhart, M., Wannous, C., Woolaston, K., Mosig Reidl, P., O'Brien, K., Pascual, U., Stoett, P., Li, H., Ngo, H.

T., IPBES secretariat, Bonn, Germany, DOI:10.5281/zenodo.4147318; Karesh, W. B., et al. (2005). Wildlife trade and global disease emergence.

Emerging infectious diseases, 11(7), 1000; Luis, A.D., et al. (2013). A comparison of bats and rodents as reservoirs of zoonotic viruses: are bats special? Proc R Soc B 280: 20122753. http://dx.doi.org/10.1098/rspb.2012.2753; Bell, D., Roberton, S., & Hunter, P. R. (2004). Animal origins of SARS coronavirus: possible links with the international trade in small carnivores. Philosophical Transactions of the Royal Society of London.

Series B: Biological Sciences, 359(1447), 1107-1114; White, R. J., & Razgour, O. Emerging zoonotic diseases originating in mammals: a systematic review of effects of anthropogenic land-use change. Mammal Review; Evans, T. et al. (2020). Links between ecological integrity, emerging infectious diseases originating from wildlife, and other aspects of human health - an overview of the literature. WCS.

⁸ Kruse, H., Kirkemo, A. M., & Handeland, K. (2004). Wildlife as source of zoonotic infections. Emerging infectious diseases, 10(12), 2067 (For instance, infectious agents harbored within insects, animals, or humans can travel halfway around the globe in <24 hours in airplanes.").

Several states are working to advance legislation to address the threat of zoonotic disease, including California, New York, New Jersey, and New Hampshire. We believe that Oregon must work with our neighbors in Washington and California to create a West Coast bulwark against the spread of zoonotic disease. Indeed, if California successfully implements its proposed restrictions on activities at high risk of spreading zoonotic disease, it is very likely those activities will simply shift to Oregon.

These state initiatives represent the beginnings of a broader movement. We strongly believe that Oregon's decisive action now will demonstrate necessary leadership in this area and provide a roadmap for other states.

HB 4128 recognizes that addressing zoonotic diseases effectively will require an interdisciplinary and interagency approach.

Successfully preventing and responding to health issues – like the spread of zoonotic disease -- at the human-animal-environment interface will require a collaborative, multisectoral, and interdisciplinary approach. It will require working at the local, regional, national, and global levels. It will also require recognition that the health of people is closely connected to the health of animals and our shared environment. This approach to achieving optimal health outcomes is often referred to as One Health – an approach which is gaining recognition in the United States.

In practice, this approach involves engaging experts in human, animal, environmental health, and other relevant disciplines and sectors in monitoring and controlling public health threats and to learn about how diseases spread among people, animals, plants, and the environment. HB 4128 embraces this approach by engaging the expertise of the Oregon Health Authority, Oregon Department of Fish and Wildlife, Oregon Department of Agriculture, and the Oregon State Police. We believe that by promoting collaboration across sectors, we can achieve the best health outcomes for people and for wildlife.

Please vote YES on HB 4128 and support these commonsense solutions to help Oregon address the growing threat of zoonotic disease transmission.

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