

Exhibit G

**Supplemental Public Correspondence
Received as of March 16, 2021**

Roxann B Borisch

From: Hannah Connor <HConnor@biologicaldiversity.org>
Sent: Tuesday, March 16, 2021 1:42 PM
To: ODFW.Commission@state.or.us
Subject: Support for Petition to Amend OAR 635-056-0050 to Add Mink to the Prohibited Species List
Attachments: WEG-HSUS-HVO_Letter ISO Mink PSL Petition.pdf

Dear Chair Wahl and Members of the Commission,

Please accept the following written testimony from Humane Voters Oregon, the Humane Society of the United States, and WildEarth Guardians in support of the Center for Biological Diversity's January 15, 2021 administrative petition to the Oregon Fish and Wildlife Commission (Commission) to add commercially farmed mink to the list of prohibited species in OAR Chapter 635, Division 56 (Petition). This Petition is on the Commission Agenda to be considered for the purpose of grant or denial on March 19, 2021.

Thank you for the opportunity to provide comments. We appreciate your time and consideration and would be happy to provide further details upon request.

Respectfully submitted,

Kelly Peterson
Oregon Senior State Director
The Humane Society of the United States

Brian Posewitz
Director
Humane Voters Oregon

Samantha Bruegger
Wildlife Coexistence Campaigner
WildEarth Guardians



March 16, 2021

Oregon Fish and Wildlife Commission
Chair Mary Wahl
4034 Fairview Industrial Drive SE
Salem, OR 97302
ODFW.Commission@state.or.us

Re: Support for Petition to Amend OAR 635-056-0050 to Add Mink to the Prohibited Species List

Dear Chair Wahl and Members of the Commission,

On behalf of the undersigned wildlife conservation, animal welfare, and environmental organizations, we submit this letter in strong support of the Center for Biological Diversity's January 15, 2021 administrative petition to the Oregon Fish and Wildlife Commission (Commission) to add commercially farmed mink to the list of prohibited species in OAR Chapter 635, Division 56. Adding commercially farmed mink to the prohibited species list will ensure that the necessary regulatory safeguards are put in place to protect the state's native wild American mink populations against the spread of diseases such as SARS-CoV-2 (the animal virus linked to COVID-19 in humans) from commercial mink farming operations, to keep these operations from becoming reservoirs for future disease outbreaks, and to protect human health against the further spread of COVID-19 or other zoonotic diseases—critical preventative protections that do not currently exist.

American mink are a naturally solitary, semi-aquatic species native to Oregon and most of the United States and Canada. They are members of the mustelid family, which in Oregon includes federally protected Humboldt martens, Pacific fishers, wolverines, ermines, long-tailed weasels, American badgers, and river otters. Unfortunately for mink, because their fur is considered valuable for luxury clothing items and other goods that can be sold into largely international markets, in addition to being trapped in the wild, the animals are also commercially farmed in large facilities generally referred to in Oregon as confined animal feeding operations (CAFOs).

In Oregon, according to the Oregon Department of Agriculture, there are currently 11 state-permitted commercial mink CAFOs, only seven of which are still actively producing mink. On average, these operations are permitted to house almost 40,000 mink each, with the largest operation in the state permitted at 109,500 animals. These tens of thousands of animals are generally kept in adjoining wire cages where they are unable to express their natural behaviors. In such close quarters, pathogens can easily pass from mink to worker, or vice versa, as they inhale infectious droplets or touch contaminated surfaces.

Indeed, since COVID-19 was declared a pandemic in early 2020, commercial mink farming operations have established themselves internationally as being uniquely vulnerable to spreading the virus across mink and human populations, from captive mink to captive mink, and from captive mink to wild mink. Outside of the U.S., millions of commercially farmed mink have died or been preemptively culled on nearly 400 commercial mink farming operations across Denmark, the Netherlands, Sweden, Lithuania, Greece, Italy, France, Spain, and Canada.¹ In the U.S., commercial mink farming operations have seen at least 16 outbreaks since August: 12 in Utah, two in Wisconsin, and one each in Oregon and Michigan.² In both Utah and Oregon, mink captured in the wild have tested positive for SARS-CoV-2.³ In Oregon, the two captured, infected mink were believed to have been commercially-raised mink that had recently escaped from a nearby infected mink farming operation (as well as a third mink captured at the same time that was additionally believed to have escaped from the same operation, but did not test positive for the virus);⁴ the infected mink trapped in Utah, however, is believed to have been the first wild mink to have caught the virus, in this case from a nearby commercial mink farming operation.⁵

In addition to spreading among wild and captive mink populations, a report published in *Science* in January determined that the virus is also believed to be transmissible from mink back to humans—reinforcing the mink to human transmission believed to have occurred (and mutated) in commercial mink farming operations in Denmark.⁶ There are also significant

¹ Kate Golden, *The Wild World of Mink and Coronavirus*, Sierra (Jan. 7, 2021), <https://www.sierraclub.org/sierra/wild-world-mink-and-coronavirus>.

² *Id.*

³ *Id.*; Oregon Department of Agriculture, Tests at an Oregon Mink Farm Show SARS-CoV-2 Still Present with No Virus Mutations; Testing, Surveillance, and Trapping Continues (Jan. 12, 2021), <https://content.govdelivery.com/accounts/ORODA/bulletins/2b626a7>.

⁴ Oregon Department of Agriculture, Tests at an Oregon Mink Farm Show SARS-CoV-2 Still Present with No Virus Mutations; Testing, Surveillance, and Trapping Continues (Jan. 12, 2021), <https://content.govdelivery.com/accounts/ORODA/bulletins/2b626a7>.

⁵ Wufei Yu, *Why Utah's Wild Mink COVID-19 Case Matters*, High Country News (Jan. 20, 2021), <https://www.hcn.org/issues/53.3/south-wildlife-why-utahs-wild-mink-covid-19-case-matters>.

⁶ Oude Munnink, et al., Transmission of SARS-CoV-2 on Mink Farms Between Humans and Mink and Back to Humans, 371(6525) *Science* 172 (2021), <https://science.sciencemag.org/content/371/6525/172>; Mary Van Beusekom, *COVID-19 Likely Spreading from People to Animals-And Vice Versa*, CIDRAP News (Sept. 18, 2020), <https://www.cidrap.umn.edu/news-perspective/2020/09/covid-19-likely->

concerns in the scientific community about commercial mink farms becoming reservoirs for future spillover events of SARS-CoV-2 to humans and wild animal populations.⁷

That commercial mink farming operations have established themselves internationally as being potential sites for the spread of COVID-19 to humans and other mink is not, however, the only risk that escaped farmed mink from these operations pose to wild American mink populations. As detailed in the Center’s January 15 petition, “numerous studies have found that because native populations can be negatively impacted by domesticated organisms through predation, resource competition, genetic disruption, and disease introduction, the overwhelming presence of domestic animals and their hybridization with mink in natural populations is of great concern for the future sustainability of wild mink populations.”⁸ Further, reports indicate that escaped infected mink are at risk of spreading the virus to other exposed members of the mustelid family,⁹ as well as potentially to other wild animal populations.

All of these facts weigh in favor of adding commercially farmed mink to the state’s prohibited species list. Adding these animals to the list will not act to ban or otherwise discontinue commercial mink farming (and therefore should not cause negative economic impacts on Oregon’s remaining commercial mink farming operations). Rather, what it will do is put necessary protections in place to minimize escapes of commercially farmed mink into the wild, as well as make sure that adequate veterinary care is provided in mink facilities to minimize the spread of disease among mink and with human populations.

Specifically, if added to the state’s prohibited species list, neither species of mink could be imported, possessed, sold, purchased, exchanged or transported in the state except that “[t]he department may issue a permit for the importation, possession, sale, purchase, exchange or intrastate transportation of prohibited species and those species not yet classified if the

[spreading-people-animals-and-vice-versa](https://doi.org/10.1101/2020.09.01.277152); Oude Munnink BB, et al. Jumping back and forth: anthroozoonotic and zoonotic transmission of SARS-CoV-2 on mink farms, *bioRxiv*, doi: <https://doi.org/10.1101/2020.09.01.277152> (2020), <https://www.biorxiv.org/content/10.1101/2020.09.01.277152v1>.

⁷ Hammer, et al., SARS-CoV-2 Transmission Between Mink (Neovision vision) and Humans, Denmark, 27(2) *Emerg Infect Dis.* 547 (2021), https://wwwnc.cdc.gov/eid/article/27/2/20-3794_article?ACSTrackingID=USCDC_331-DM47276; M. Ferri and M. Lloyd-Evans, The Contribution of Veterinary Public Health to the Management of the COVID-19 Pandemic from a One Health Perspective, *One Health* 12 (2021), <https://www.sciencedirect.com/science/article/pii/S2352771421000203>.

⁸ Petition to Amend at 9 (citation omitted).

⁹ Kate Golden, *The Wild World of Mink and Coronavirus*, *Sierra* (Jan. 7, 2021), <https://www.sierraclub.org/sierra/wild-world-mink-and-coronavirus> (“The animals most at risk right now are the mink on farms—and perhaps their fellow captive mustelids, the endangered black-footed ferret. These ferrets, once spread across much of the American West, have been reintroduced from near-extinction over the past 40 years through a painstaking captive breeding program Before SARS-CoV-2, the ferrets’ biggest threat was another zoonotic disease: sylvatic plague For mink or ferrets, people are the disease reservoir.”).

department finds that” six identified safety standards are put in place to protect wild mink against threats posed by escaped commercial mink. Those six identified standards are: a. The facility is constructed to minimize escape of prohibited species; b. There are adequate security and safety programs and procedures which minimize the possibility of escape; c. There is adequate record keeping to aid in tracking of confined animals or recovery of escaped animals; d. There are adequate procedures, equipment and trained staff to maximize capture of escaped animals; e. Adequate veterinary care is provided to identify and minimize the spread of diseases; and f. The applicant has a good reputation for care of animals and compliance with the wildlife laws.

Because these common-sense protections are not currently required of commercial mink fur farms, acting to put them into place by granting the Center’s January 15, 2020¹ petition will, at a minimum, provide necessary protections for wild mink populations, have the secondary benefit of protecting human populations against further spread of COVID-19, and will provide a cost-effective way of stopping future pandemics before they start.

For these reasons, we respectfully request that the Commission **GRANT** the Center’s petition and initiate rulemaking proceedings to add American and European mink to the list of prohibited species in OAR Chapter 635, Division 56.

Respectfully submitted,

Kelly Peterson
Oregon Senior State Director
The Humane Society of the United States

Brian Posewitz
Director
Humane Voters Oregon

Samantha Bruegger
Wildlife Coexistence Campaigner
WildEarth Guardians

Roxann B Borisch

From: Hannah Connor <HConnor@biologicaldiversity.org>
Sent: Monday, March 15, 2021 6:31 PM
To: ODFW.Commission@state.or.us
Cc: Lori Ann Burd; Quinn Read; Hannah Connor
Subject: Support for Petition to Amend OAR 635-056-0050 to Add Mink to the Prohibited Species List
Attachments: Exhibit A_MinkIndexv2.pdf; CBD Written Testimony ISO Mink PSL Petition.pdf

Dear Chair Wahl and Members of the Commission,

Please accept the following written testimony from the Center for Biological Diversity (Center) in support of its January 15, 2021 administrative petition to the Oregon Fish and Wildlife Commission (Commission) to add commercially farmed mink to the list of prohibited species in OAR Chapter 635, Division 56 (Petition). This Petition is on the Commission Agenda to be considered for the purpose of grant or denial on March 19, 2021.

The documents referenced in the index contained in Exhibit A can be found here: [Exh. A Commercial Mink Threat Documents](#)

Thank you for the opportunity to provide comments. We appreciate your time and consideration and would be happy to provide further details upon request.

Respectfully submitted,

Hannah Connor
Senior Attorney, Environmental Health
Center for Biological Diversity
(202) 681-1676

This email may contain material that is confidential, privileged and/or attorney work product for the sole use of the intended recipient. Any review, reliance or distribution by others or forwarding without express permission is strictly prohibited. If you are not the intended recipient, please contact the sender and delete all copies.



VIA ELECTRONIC MAIL

March 15, 2021

Oregon Fish and Wildlife Commission
Chair Mary Wahl
4034 Fairview Industrial Drive SE
Salem, OR 97302
ODFW.Commission@state.or.us

Re: Support for Petition to Amend OAR 635-056-0050 to Add Mink to the Prohibited Species List

Dear Chair Wahl and Members of the Commission,

Please accept the following written testimony from the Center for Biological Diversity (Center) in support of its January 15, 2021 administrative petition to the Oregon Fish and Wildlife Commission (Commission) to add commercially farmed mink to the list of prohibited species in OAR Chapter 635, Division 56 (Petition). This Petition is on the Commission Agenda to be considered for the purpose of grant or denial on March 19, 2021.¹

Adding commercially farmed mink to the prohibited species list will provide essential protections for native wildlife in Oregon by filling a conspicuous regulatory gap in oversight over escaped farmed minks—animals that have been selectively bred to display certain genetic traits that are desired in the fur trade, but that can be destructive when released into the wild to compete with native populations. It will also ensure that necessary safeguards are put into place to protect the state's wild American mink populations against the spread of diseases such as SARS-CoV-2 (the animal virus linked to COVID-19 in humans) from commercial mink farming operations, to keep these operations from becoming reservoirs for future disease outbreaks, and to protect human health against the preventable spread of COVID-19 or other zoonotic diseases—critical preventative protections that do not currently exist.

The Center is an international nonprofit organization with over 1.7 million members and online activists. The Center works through science, law, and creative media to secure a future for all species, great and small, hovering on the brink of extinction. If the Petition is granted, the Center is ready to work with the Commission and Oregon Department of Fish and Wildlife (ODFW) staff to implement this important action.

¹ See Mar. 19, 2021 Commission Agenda, Exh. G, https://www.dfw.state.or.us/agency/commission/minutes/21/03_Mar/index.asp (last visited Mar. 15, 2021).

1. “The Perfect Storm”: Threats to Wild Mink, Other Wildlife, and Public Health from Escaped Commercially Farmed Mink Remain Acute

American mink are a naturally solitary, semi-aquatic species native to Oregon and most of the United States and Canada. They are members of the mustelid family, which in Oregon includes federally protected Humboldt martens, Pacific fishers, wolverines, ermines, long-tailed weasels, American badgers, and river otters.

Mink have traditionally been farmed in Oregon to produce pelts for the purpose of creating luxury clothing items and other goods, but following plummeting demand domestically, few commercial mink farms remain in Oregon today, and the ones that do largely grow their animals for sale into international markets. According to the Oregon Department of Agriculture (ODA), there are currently 11 state-permitted commercial mink confined animal feeding operations (CAFOs) in Oregon, only seven of which are still actively producing mink. On average, these operations are permitted to house almost 40,000 mink each, with the largest operation in the state permitted at 109,500 animals. These tens of thousands of animals are generally kept in adjoining wire cages where they are unable to express their natural behaviors. In such close quarters, pathogens can easily pass from mink to worker, or vice versa, as they inhale infectious droplets or touch contaminated surfaces.

Indeed, since COVID-19 was declared a pandemic in early 2020, commercial mink farming operations have established themselves internationally as being uniquely vulnerable to spreading the virus across mink and human populations, from captive mink to captive mink, and from captive mink to wild mink. João Rodrigues, a computational biologist at Stanford University who is studying why mink are more susceptible than other non-human animals to succumbing to and dying from COVID-19, sees commercially farmed mink getting sick with COVID as a “perfect storm” situation because “they are very susceptible, *and* we just happen to farm them in these very high density farms.”²

As informed by his research, Dr. Rodrigues—as well as other researchers working on this question such as Dr. Barbara Han, a disease ecologist at the Cary Institute—are not merely concerned with understanding the (significant) role that commercially farmed mink play in the spread of the virus to human populations, but also with what this susceptibility means in terms of cross-species transmission and disease spread in wild animal populations. As simply summarized by Dr. Han in a recent interview with PBS, “[o]nce a disease is established in an animal population, it’s very hard to control it.”³ Indeed, as the article goes on to describe in stark terms, Dr. Han “can’t name a disease we’ve been able to eradicate once it reaches that point. A future where scientists are playing whack-a-mink with these and potentially other species sickened by COVID-19—plus a vaccine that both doesn’t confer 100% immunity and isn’t accepted by 100% of the population—is a difficult one indeed.”⁴

² Alissa Greenberg, *What’s the Deal with Mink Covid?*, PBS NOVA (Mar. 5, 2021), <https://www.pbs.org/wgbh/nova/article/mink-covid-virus-mutation/> (emphasis added).

³ *Id.*

⁴ *Id.*; see also Kate Golden, *Wisconsin’s Mink Farming Industry Now Seen at Risk of COVID-19*, WISCONSIN STATE JOURNAL (Feb. 8, 2021), https://madison.com/wsj/business/wisconsin-s-mink-farming-industry-now-seen-at-risk-of-covid-19/article_59837d1a-63c0-5e7d-b872-70273398f336.html.

That articulated concern, scaled out to take into consideration the high potential for these operations to spread additional future zoonotic diseases from commercially farmed mink to human or wild animal populations, illustrates the very real threat to wildlife, wildlife conservation, and public health that this Petition is attempting to address. And to the contrary of the position taken by the Fur Commission (Fur Industry) in its February 8, 2021 letter to the Commission in opposition to the Petition,⁵ such concerns are based not in hyperbole or sensationalism, but in facts that support granting the Petition. Additional facts that support granting the Petition are that:

- Mink are highly vulnerable to respiratory disease, partly because their cells, like human cells, “have specific receptors that allow the virus to attach to them,”⁶
- Studies support that mink can transmit the virus to human populations,⁷
- Commercial mink farming operations present a risk of becoming reservoirs for future spillover events of SARS-CoV-2 to humans and wild animal populations,⁸
- Millions of commercially farmed mink have died or been preemptively culled on nearly 400 commercial mink farming operations across Denmark, the Netherlands, Sweden,

⁵ See Exhibit G to the Commission’s Mar. 19, 2021 Agenda (Public Correspondence Received as of Mar. 3, 2021),

https://www.dfw.state.or.us/agency/commission/minutes/21/03_Mar/G/Exhibit%20G_Attachment%203_Public%20Correspondence_2-23-21.pdf.

⁶ Zöe Schlanger, *The Mink Pandemic Is No Joke*, THE ATLANTIC (Dec. 23, 2020),

<https://www.theatlantic.com/health/archive/2020/12/minks-pandemic/617476/>; Alissa Greenberg, *What’s the Deal with Mink Covid?*, PBS NOVA (Mar. 5, 2021), <https://www.pbs.org/wgbh/nova/article/mink-covid-virus-mutation/>.

⁷ Oude Munnink, et al., *Transmission of SARS-CoV-2 on Mink Farms Between Humans and Mink and Back to Humans*, 371(6525) *Science* 172 (2021), <https://science.sciencemag.org/content/371/6525/172>;

Mary Van Beusekom, *COVID-19 Likely Spreading from People to Animals-And Vice Versa*, CIDRAP News (Sept. 18, 2020), <https://www.cidrap.umn.edu/news-perspective/2020/09/covid-19-likely-spreading-people-animals-and-vice-versa>;

Oude Munnink BB, et al., *Jumping back and forth: anthropozoonotic and zoonotic transmission of SARS-CoV-2 on mink farms*, bioRxiv, doi:

<https://doi.org/10.1101/2020.09.01.277152> (2020),

<https://www.biorxiv.org/content/10.1101/2020.09.01.277152v1>.

⁸ Hammer, et al., *SARS-CoV-2 Transmission Between Mink (Neovision vision) and Humans, Denmark*, 27(2) *Emerg Infect Dis.* 547 (2021), https://wwwnc.cdc.gov/eid/article/27/2/20-3794_article?ACSTrackingID=USCDC_331-DM47276;

M. Ferri and M. Lloyd-Evans, *The Contribution of Veterinary Public Health to the Management of the COVID-19 Pandemic from a One Health Perspective*, *One Health* 12 (2021),

<https://www.sciencedirect.com/science/article/pii/S2352771421000203>; James Gorman, *Covid Infections in Animals Prompt Scientific Concern*, N.Y. TIMES, <https://www.nytimes.com/2020/11/08/science/Covid-virus-transmission-mink.html?action=click&module=RelatedLinks&pgtype=Article> (last updated Dec. 23, 2020).

- Lithuania, Greece, Italy, France, Spain, and Canada, as well as on commercial mink farming operations across the U.S. due to COVID-19 transmission and related risks,⁹
- In the U.S., including in Oregon, infected mink have escaped their confinements and introduced the virus into the wild. In both Utah and Oregon, mink captured in the wild have tested positive for SARS-CoV-2.¹⁰ In Oregon, two wild-trapped mink infected with the virus are believed to have been commercially-raised mink that had recently escaped from a nearby infected mink farming operation (a third mink was captured at the same time that was additionally believed to have escaped from the same operation, but that did not test positive for the virus).¹¹ The infected mink trapped in Utah, however, is believed to have been the first wild mink to have caught the virus, in this case from a nearby commercial mink farming operation.¹² Scientists concluded that the wild Utah mink caught the virus from an outbreak at the commercial mink farming operation because genome sequencing revealed that the virus found in the wild mink had the same genome as that found in the infected farmed mink,¹³
 - A mutated strain of COVID-19 that is believed to have originated in commercial mink was “detected retrospectively at a mink farm in the Netherlands... The mink were culled and the mutated strain did not infect humans,”¹⁴
 - Mink on commercial farms are artificially selected to display certain traits, which, if introduced into wild populations, can lead to a “loss of local adaptation and thus reduced fitness through a variety of mechanisms and traits,”¹⁵
 - Escaped farmed mink can also harm wild populations through competition for resources and introduction of disease,¹⁶

⁹ Kate Golden, *The Wild World of Mink and Coronavirus*, Sierra (Jan. 7, 2021), <https://www.sierraclub.org/sierra/wild-world-mink-and-coronavirus>.

¹⁰ *Id.*; Oregon Department of Agriculture, *Tests at an Oregon Mink Farm Show SARS-CoV-2 Still Present with No Virus Mutations; Testing, Surveillance, and Trapping Continues* (Jan. 12, 2021), <https://content.govdelivery.com/accounts/ORODA/bulletins/2b626a7>.

¹¹ *Id.*

¹² Wufei Yu, *Why Utah's Wild Mink COVID-19 Case Matters*, High Country News (Jan. 20, 2021), <https://www.hcn.org/issues/53.3/south-wildlife-why-utahs-wild-mink-covid-19-case-matters>.

¹³ James Gorman, *One Wild Mink Near Utah Fur Farms Tests Positive for Virus*, N.Y. TIMES (Dec. 15, 2020), <https://www.nytimes.com/2020/12/15/science/covid-wild-mink-utah.html>.

¹⁴ Helen Briggs, *'Mutant Coronavirus' Seen Before on Mink Farms, Say Scientists*, BBC (Nov. 9, 2020), <https://www.bbc.com/news/science-environment-54867653>.

¹⁵ Kaela B. Beauclerk, Jeff Bowman, & Albrecht I. Chulte-Hostedde, *Assessing the Cryptic Invasion of a Domestic Conspecific: American Mink in Their Native Range*, 3 *ECOLOGY AND EVOLUTION* 2296, 2305 (2013).

¹⁶ *Id.*

- The concentrated environment in which commercially farmed mink are forced to live increases the animals' stress and can compromise their immune system, which can make them particularly vulnerable to the spread of disease,¹⁷
- Reports indicate that escaped infected mink are at risk of spreading the virus to other exposed members of the mustelid family,¹⁸ as well as potentially to other wild animal populations.

As a supplement to the resources provided concurrently with the Petition on these points, the Center hereby submits an additional index and database of news articles related to these and other threats posed by commercially farmed mink to wild mink, other wildlife, and public health. Those materials are submitted along with this written testimony as Exhibit A.

2. The Substantive Goals of the Petition Can be Achieved in a Way that Reduces the Negative Economic Impact on Businesses by Granting the Petition

As further described in the Petition, the request to add commercially farmed mink to the prohibited species list will not have a negative impact on businesses.¹⁹ Indeed, when the net negative economic impacts to businesses from having to continue responding to COVID-19 or other future pandemic disruptions are taken into consideration, granting the Petition will ultimately result in a net positive economic impact on businesses. Further, if granted, this Petition will have no effect on commercial and recreational trapping.

a. Economic Impacts of the Requested Rule on Commercial Mink Farms

Adding farmed mink to the state's prohibited species list will not act as a bar to continued commercial mink farming, and therefore will not put these operations at risk for disruption of livelihood. Rather, what it will do is put necessary protections in place to minimize escapes of commercially farmed mink into the wild, as well as make sure that adequate veterinary care is provided in mink facilities to minimize the spread of disease among mink and with human populations.

Specifically, if added to the list, neither species of mink could be imported, possessed, sold, purchased, exchanged or transported in the state except that "[t]he department may issue a permit

¹⁷ Sigal Samuel, *Minks Are Transmitting COVID-19 To Humans. Don't Blame the Minks*, Vox (Nov. 13, 2020), <https://www.vox.com/future-perfect/21561066/covid-19-mink-mutation-denmark-cull>.

¹⁸ Kate Golden, *The Wild World of Mink and Coronavirus*, Sierra (Jan. 7, 2021), <https://www.sierraclub.org/sierra/wild-world-mink-and-coronavirus> ("The animals most at risk right now are the mink on farms—and perhaps their fellow captive mustelids, the endangered black-footed ferret. These ferrets, once spread across much of the American West, have been reintroduced from near-extinction over the past 40 years through a painstaking captive breeding program Before SARS-CoV-2, the ferrets' biggest threat was another zoonotic disease: sylvatic plague For mink or ferrets, people are the disease reservoir.").

¹⁹ While OAR 183.390(2) provides that the agency shall invite public comment on the rule and specifically request "public comment on whether options exist for achieving the rule's substantive goals in a way that reduces the negative economic impact on businesses," OAR 183.390(3) establishes that the economic impact on businesses is not one of the six enumerated factors that the agency is to consider in deciding whether to adopt the requested rule.

for the importation, possession, sale, purchase, exchange or intrastate transportation of prohibited species and those species not yet classified if the department finds that” six identified safety standards are put in place to protect wild mink against threats posted by escaped commercial mink. Those six identified standards are: a. The facility is constructed to minimize escape of prohibited species; b. There are adequate security and safety programs and procedures which minimize the possibility of escape; c. There is adequate record keeping to aid in tracking of confined animals or recovery of escaped animals; d. There are adequate procedures, equipment and trained staff to maximize capture of escaped animals; e. Adequate veterinary care is provided to identify and minimize the spread of diseases; and f. The applicant has a good reputation for care of animals and compliance with the wildlife laws.

These six safety standards are economically achievable and, when met, will enable commercial mink farming operations to continue operating. Indeed, according to the Fur Industry’s February 8, 2021 letter to the Commission on this Petition,²⁰ it avers with regards to standards a-d that “mink escapes are rare,” and with regards to standards e-f that “American mink are farmed in accordance with industry best practices and subject to rigorous certification.” While adequacy of veterinary care is never actually mentioned in the Fur Industry’s letter, if the statements in the letter are taken at face value then the request to add commercially farmed mink to the prohibited species list should merely supplement and create accountability standards around practices that are allegedly already happening. As such, they will not cause a significant or even moderate negative economic impact to these operators.

Even further, as the Fur Industry’s February 8, 2021 letter points out, “animal activists” have significant concerns about the welfare and treatment of the mink in these facilities. While the Center is not an animal welfare group, we are sympathetic to those concerns given the lack of transparency regarding how these facilities are operated and maintained. Given those outstanding Fur Industry concerns, the Center is confident that granting the Petition will benefit commercial mink farming operations by giving these operators a mechanism for confirming with the public and administrative authorities that “[a]dequate veterinary care is provided to identify and minimize the spread of diseases” and that “[t]he applicant has a good reputation for care of animals and compliance with the wildlife laws.” The availability of such information will increase public confidence about animal care in these facilities, which can be expected to produce positive economic benefits.

b. Economic Impacts of the Requested Rule on Other Businesses

When the negative economic impacts to businesses from having to continue responding to the spread of COVID-19 (in its current form or mutated variations thereof) and having to potentially respond to future pandemic disruptions are taken into consideration, the Commission should find that granting the Petition will result in a net positive economic impact on other businesses. As is indisputable, the COVID-19 pandemic has caused major economic shock to businesses across the country, including in Oregon. Businesses have been forced to closed—some temporarily,

²⁰ See ODFW, Exhibit G to the Commission’s Mar. 19, 2021 Agenda (Public Correspondence Received as of Mar. 3, 2021), https://www.dfw.state.or.us/agency/commission/minutes/21/03_Mar/G/Exhibit%20G_Attachment%203_Public%20Correspondence_2-23-21.pdf.

some permanently. Millions of people in this country alone have lost their jobs; some of whom have yet to find replacement jobs.²¹ As of February, 2021, more than 4 million people in this country have been unemployed for 6 months or more, “a surge of 3 million over the past year.”²² During the last year, the U.S. economy experienced drops of 32.9%, the sharpest economic contraction in modern American history according to the U.S. Commerce Department.²³ As these realities show, the economic consequences of the Center’s requested action on businesses is not a one-way street, but rather one foundationally based on an understanding that stopping the current pandemic and preventing future pandemics is inherently good for business and the Oregon economy.

Indeed, we can speak with authority on this issue since the Center itself, as a non-profit, public interest corporation, has experienced numerous negative economic impacts because of the COVID-19 pandemic. For example, the Center’s Oregon office, which is one of its largest offices, has been closed for over a year due to concerns about the spread of COVID-19. Such closures have meant that staff have been forced to adjust to working at home, changing productivity and output, and that significant monetary sacrifices have been made by the organization to support a continued healthy work force, including by paying for unused office space, paying to supplement in-house office needs, paying for the treatment of COVID-19 infections contracted by staff, and providing additional leave policies for employees who found themselves without care options for dependent children and elders, among other things.

At bottom, businesses that have been negatively affected by the spread of COVID-19 and will be negatively affected by the spread of any future comparable pandemics will economically benefit from a rule that provides a cost-effective way of arresting any future spread of disease from commercial mink farming operations.

c. Economic Impacts of the Requested Rule on Commercial and Recreational Trappers

If granted, the Petition will have no effect on commercial and recreational mink trappers. The Center goes to great length in the Petition to focus its request on the listing of commercially farmed mink, which have been bred to exhibit certain characteristics and traits dissimilar to wild American mink populations, and that are, therefore, a threat to those wild populations. The Center would like to reemphasize that baseline request. Accordingly, as wild American mink fall outside of the scope of the Center’s request, the activities of trappers to capture these animals likewise fall outside of the scope of any potential economic harm of this Petition.

²¹ See, e.g., Sam Gringlas, *Why Us?: A Year After Being Laid Off, Millions are Still Unemployed*, NPR (Mar. 7, 2021), <https://www.npr.org/2021/03/07/974079769/why-us-a-year-after-being-laid-off-millions-are-still-unemployed>.

²² *Id.*

²³ Scott Horsley, *3 Months of Hell: U.S. Economy Drops 32.9% in Worst GDP Report Ever*, NPR (July 30, 2020), <https://www.npr.org/sections/coronavirus-live-updates/2020/07/30/896714437/3-months-of-hell-u-s-economys-worst-quarter-ever>.

The common-sense protections afforded by adding commercially farmed mink to the prohibited species list will, at a minimum, provide necessary protections for wild mink populations that are not currently in place, have the secondary benefit of protecting human populations (and small business health) against further spread of COVID-19, and will provide a cost-effective way of stopping future pandemics before they start.

3. ODFW Has the Authority to Grant this Petition and Initiate Rulemaking

Division 65 of the Oregon Administrative Rules (OAR), which is administered by ODFW, controls the import, sale, and possession of certain wildlife.²⁴ The purpose of Division 65 is to protect Oregon's native wildlife.²⁵ In furtherance of that purpose, species are typically placed on the prohibited species list if they are likely to successfully invade Oregon's natural habitats and cause damage to Oregon's native species and their habitats, as is the case here.²⁶

To help identify whether a species is appropriate for inclusion on the prohibited species list, the Commission has previously consulted and applied the twelve criteria developed for determining whether a species should be classified as "noncontrolled."²⁷ Those criteria are:

- (a) Whether the species' natural range and habitat is similar to Oregon's climate and habitat
- (b) Whether the species has an invasive history
- (c) Whether the species can survive in Oregon
- (d) Whether the species has the potential to prey upon native wildlife
- (e) Whether the species can potentially degrade the habitat of native wildlife
- (f) Whether the Species has the potential to pass disease or parasites to native wildlife
- (g) What types of disease or parasites could be passed on to native wildlife
- (h) Whether the species has the potential to compete for food, water, shelter, or space with native wildlife
- (i) Whether the species has the potential to hybridize with native wildlife
- (j) Whether the species can be readily distinguished from a native species, or a prohibited or controlled species

²⁴ OAR 635-056-000-0150.

²⁵ *Id.* at 635-056-000.

²⁶ *See, e.g.*, ODWF, Exhibit B Attachment 1: Agenda Item Summary (Dec. 6, 2012) ("Dec. 6, 2012 Agenda Item Summary) (noting that the primary purpose of the prohibited species list is to prevent the introduction of species into "Oregon natural habitats" that "could cause serious problems for native wildlife," and that the Asian carp could thrive in Oregon's waterbodies and compete with native species for food.)

²⁷ *See, e.g.*, ODFW, Exhibit C Attachment 1: Agenda Item Summary (March 7, 2014), https://www.dfw.state.or.us/agency/commission/minutes/14/03_march/Exhibit%20C_Attachment%201_Agenda%20Item%20Summary.pdf (accepting the recommendation to list the armored glass lizard, Asian small-clawed otter, and the eastern subspecies of North American river otter as "prohibited" based on the noncontrolled classification criteria).

- (k) How the species is categorized in “The IUCN Red List of Threatened Species
- (l) And whether the species is commercially propagated (Unknown, rarely, moderate, common)²⁸

Using those criteria in 2014, for example, the Commission accepted a recommendation from the Wildlife Integrity Panel to add three species to the prohibited species list: the armored glass lizard, Asian small-clawed otter, and the eastern subspecies of North American river otter.²⁹ In that listing summary, the Commission did not elaborate as to which criteria were particularly persuasive in its listing decision, but it did note that these three species were “a high risk for becoming invasive in Oregon based on the criteria listed in OAR 635-056-0140,” and should therefore be added to the list of prohibited species.³⁰

Even further, and analogously, North American river otters, like American mink here, are native to Oregon. Yet, as identified in the petitioner’s public testimony to the Commission as support for why the river otter’s eastern subspecies should be included on the prohibited species list, petitioner acknowledged that “[a]s captive born animals they did not fit into any existing rules regarding native and non-native wildlife species,” but that “the risk of these otters becoming an invasive species in Oregon is too high for any classification other than ‘prohibited.’”³¹ The Commission, apparently, agreed.

Here too, commercially raised, selectively bred, captive born mink that escape their confinements pose a significant risk to native wildlife.³² First, and importantly, commercially raised mink can and do escape their confinements and enter into the wild; this is illustrated by the three escaped farmed mink caught during the window of time that affirmative trapping and

²⁸ OAR 635-056-0140(1)(a)–(l).

²⁹ ODFW, Exhibit C Attachment 1: Agenda Item Summary (March 7, 2014), https://www.dfw.state.or.us/agency/commission/minutes/14/03_march/Exhibit%20C_Attachment%201_Agenda%20Item%20Summary.pdf.

³⁰ *Id.*

³¹ *See, e.g.* ODFW, Draft Minutes, March 7, 2014 Commission Meeting, https://www.dfw.state.or.us/agency/commission/minutes/14/04_april/Draft_March%207%202014%20Commission%20Minutes.pdf (last visited Mar. 15, 2021).

³² The Center disagrees that commercially raised mink necessarily fall within ODFW’s regulatory definition of “native” species. According to regulations, a “native” species is a “species, subspecies or populations which occur currently or historically in Oregon through natural (i.e. nonhuman) colonization or immigration, *rather than by human action or intervention.*” OAR 635-056-0010(13) (emphasis added). Since commercially raised, selectively bred, and captive born farmed mink are different from and introduced into wild populations through human action (breeding and failure to keep the animals from escaping into the wild), they do not comfortably fit into the regulatory definition of “native” species. Rather, they find a much more appropriate fit in the definition of “nonnative” species, which includes “introduced” species. OAR 635-056-0010(14). As such, commercially raised, selectively bred, captive born mink should be considered “nonnative” for the purpose of this Petition.

sampling was happening outside of Oregon mink operation known to be experiencing outbreaks of COVID-19. Second, these species have an invasive history when compared against wild mink; they can live and survive in Oregon, they have the potential to prey on native wildlife, and they can outcompete native mink for resources.³³ Further the disease, competition, and hybridization concerns connected to escaped commercially raised mink are well documented in the Center's Petition, and include that commercially farmed mink that have been selectively bred and raised in confinement for the propose of producing mink pelts for sale tend to be larger than wild mink and possess a variety of coat colors not often found in the wild, and that, once escaped, numerous studies have found that native populations can be negatively impacted by domesticated organisms such as commercially farmed mink through predation, genetic disruption, and disease introduction.³⁴ Consequently, studies have found that "[t]he overwhelming presence of domestic animals and their hybridization with mink in natural populations is of great concern for the future sustainability of wild mink populations."³⁵

In sum, ODFW has the authority to grant the Petition, and, as the Petition and these written comments clearly demonstrate, such action is essential for protecting native American mink and other Oregon wildlife (as well as public health).

That ODA also has some authority over regulating commercial mink farms as agricultural entities, does not preclude ODFW from granting the Petition. Specifically, ODA has authority over the "breeding, raising, producing in captivity and marketing of . . . mink," and identifies such animals as "domesticated fur-bearing animals."³⁶ It does not explicitly have—nor does it exercise—authority over escapes of such "domesticated fur-bearing animals" into the wild, and it certainly does not have the protective provisions in place to safeguard wild American mink

³³ Kidd, et al., *Hybridization Between Escaped Domestic and Wild American Mink (Neovison vison)*, 18 *Molecular Ecology* 1175, 1175 (2009); Kaela B. Beauclerk, Jeff Bowman, & Albrecht I. Chulte-Hostedde, *Assessing the Cryptic Invasion of a Domestic Conspecific: American Mink in Their Native Range*, 3 *ECOLOGY AND EVOLUTION* 2296 (2013); A.G. Kidd, J. Bowman, D. Lesbarrères, & A.I. Schulte-Hostedde, *Hybridization Between Escaped Domestic and Wild American Mink (Neovison vison)*, 18 *MOLECULAR ECOLOGY* 1175 (2009).

³⁴ See Petition at 9-10; Exhibit A.

³⁵ Kidd, et al., *Hybridization Between Escaped Domestic and Wild American Mink (Neovison vison)*, 18 *Molecular Ecology* 1175, 1175 (2009); Morris, et al., *Functional Genetic Diversity of Domestic and Wild American Mink (Neovison Vison)*, 13 *Evolutionary Applications* 2610, 2610 (2020) (found clear genetic distinctions found between wild mink near mink farms and those located in areas without mink farms); Bowman, et al., *Assessing the Potential for Impacts by Feral Mink on Wild Mink in Canada*, 139 *Biological Conservation* 12, 12 (2007) ("Our analysis suggests that the conditions exist for feral mink to contribute to wild mink declines through outbreeding depression or the introduction of disease."); Bowman, et al., *Testing for Bias in a Sentinel Species: Contaminants in Free-Ranging Domestic, Wild, and Hybrid Mink*, 112 *Environmental Research* 77 (2012); Wilkins, et al., *The "Domestication Syndrome" in Mammals: A Unified Explanation Based on Neural Crest Cell Behavior and Genetics*, 197(3) *Genetics* 795 (2014).

³⁶ ORS § 596.020. ODA's characterization of commercially raised, selectively bred, and captive born farmed mink as "domesticated" supports the argument that these animals should be considered nonnative species for the purpose of this Petition. See FN 31.

populations against harm from escaped commercially farmed mink or the diseases that they can spread. In light of the significant gap in oversight and control related to escaped farmed mink, it is ODFW's obligation to protect Oregon's native American mink by granting this Petition.³⁷

For these reasons, we respectfully request that the Commission **GRANT** the Petition and initiate rulemaking proceedings to add commercially farmed mink to the list of prohibited species in OAR Chapter 635, Division 56.

Thank you for the opportunity to provide comments. We appreciate your time and consideration and would be happy to provide further details upon request.

Respectfully submitted,



Hannah Connor, Senior Attorney
Center for Biological Diversity
P.O. Box 2155
St. Petersburg, FL 33731
hconnor@biologicaldiversity.org
(202) 681-1676



Lori Ann Burd, Environmental Health
Director
Center for Biological Diversity
P.O. Box 11374
Portland, OR 97211
laburd@biologicaldiversity.org
(971) 717-6405

³⁷ See ODFW, Exhibit B Attachment 1: Agenda Item Summary (Dec. 6, 2012) ("Dec. 6, 2012 Agenda Item Summary") (noting that the primary purpose of the prohibited species list is to prevent the introduction of species into "Oregon natural habitats" that "could cause serious problems for native wildlife," and that the Asian carp could thrive in Oregon's waterbodies and compete with native species for food.); OAR 635-056-0010(13).

EXHIBIT A

(Center for Biological Diversity Written Testimony on Petition to Amend OAR 635-056-0050 to Add Mink to the Prohibited Species List)

Relevant Media and Studies on Threats from Commercially Farmed Mink to Wild Mink and Public Health

1. Disease Outbreaks on Commercial Mink Farms

Alissa Greenberg, *What's the Deal with Mink Covid?*, PBS NOVA (Mar. 5, 2021), <https://www.pbs.org/wgbh/nova/article/mink-covid-virus-mutation/>

- “Mink aren’t just more susceptible to COVID-19 on a molecular level; they also get sick more than other animals because of their environment. ‘An organism can be the most susceptible in the world but live just in the Antarctic, and it’s not going to catch COVID,’ Rodrigues says. He sees mink getting sick with COVID as a ‘perfect storm’ situation, since ‘they are very susceptible, *and* we just happen to farm them in these very high density farms.’”

Zöe Schlanger, *The Mink Pandemic Is No Joke*, THE ATLANTIC (Dec. 23, 2020), <https://www.theatlantic.com/health/archive/2020/12/minks-pandemic/617476/>

- Mink are particularly vulnerable to respiratory disease, partly because, like humans, their cells “have specific receptors that allow the virus to attach to them.” The way they are kept in crowded conditions on farms also creates an ideal environment for the spread of COVID-19.
- If the virus escapes farms into wild mink populations, it could “become an entrenched and uncontrolled animal disease, wreaking havoc on animal communities and probably also occasionally infecting people.”
- Keith Poulsen, a veterinarian in Wisconsin, was called to two mink farms where hundreds of mink had already died when he was called, and hundreds more died in the few hours between the call and his arrival at the farms.
- The impacts to COVID on the mink farming industry have led to an acceleration of efforts to phase-out fur farming in several countries. The Netherlands announced it would end mink farming in 2021, and France announced it would also do so by 2025. Poland is expected to take similar action soon, and Ireland recently “decided to cull its farmed mink population preemptively, likely ending the industry in the country.”
- Ilaria Capua, a veterinarian and virologist, raised concerns that data on COVID infections in farmed mink is not complete, especially in Asia where levels of infection were high, yet China has reported no cases of COVID-19 among its mink. Dr. Capua is concerned about the possibility of a COVID-19 panzootic.

Dina Fine Maron, *What the Mink COVID-19 Outbreaks Taught Us About Pandemics*, NATIONAL GEOGRAPHIC (Feb. 24, 2021), <https://www.nationalgeographic.com/animals/article/what-the-mink-coronavirus-pandemic-has-taught-us>

- Describes concerns about animal reservoirs, and that these kinds of outbreaks could prolong the pandemic or spread the disease to other animals.
- On several farms, asymptomatic mink have tested positive for COVID-19 or had antibodies against the virus, suggesting it may be difficult to reliably detect the presence of the disease on mink farms and respond effectively.
- Animal reservoirs, which mink farms stand to become for COVID, can allow the virus to “continue to evolve and perhaps jump back and forth between humans and that species, potentially becoming more transmissible or deadly as it replicates.”
- Outbreaks on mink farms “have exposed problems that include inadequate monitoring for disease, weak or nonexistent regulations, and haphazard coordination around a virus that can be passed between humans and animals.”
- “More than half of all diseases that sicken humans can be spread by animals.”
- “Denmark and Sweden canceled their 2021 breeding seasons.”
- More than 12,000 of the United States’ roughly 3 million farmed mink “had died from COVID-19 before the annual slaughter for their pelts, in December [2020].”
- Notes the two mink carrying the virus found in the wild in Oregon which were believed to have escaped from a nearby farm.
- In Utah, dogs and feral cats on farms where outbreaks have occurred have also tested positive for the virus.
- “[I]t is entirely plausible that a virus jumps between two mammalian species, as we’ve already seen it do from humans to mink and back.” Quote from Lane Warmbrod, a senior analyst at Johns Hopkins Center for Health Security.

Mink Pass Coronavirus to Humans in the Netherlands, Deutsche Welle (May 25, 2020), <https://www.dw.com/en/mink-pass-coronavirus-to-humans-in-the-netherlands/a-53565241>

- “The Dutch government on Monday said that it was ‘highly likely’ that a person had been infected with the coronavirus by a mink, following a similar case last week.”

Toby Sterling, *Dutch Mink Cull Starts as Coronavirus Spreads to 10th Farm*, REUTERS (June 6, 2020), <https://www.reuters.com/article/us-health-coronavirus-netherlands-mink-idUSKBN23D0KB>

- A government-ordered cull began on all farms in the Netherlands where COVID-19 infection had been found. This amounted to an order for the culling of about 10,000 mink.

Pien Huang, *Dutch Minks Contract COVID-19—And Appear to Infect Humans*, NPR (June 25, 2020), <https://www.npr.org/sections/goatsandsoda/2020/06/25/882095588/dutch-minks-contract-covid-19-and-appear-to-infect-humans>

- Mink began to present with symptoms of COVID-19 on two fur farms in late April, and later tested positive for the virus. By the time of publication of this article, more than 500,000 mink had been culled on farms in the Netherlands and the virus had been found in at least 17 farms.
- At least two farm workers were believed to have then gotten COVID-19 from the mink.

Sophie Kevany, *A Million Mink Culled in Netherlands and Spain Amid COVID-19 Fur Farming Havoc*, THE GUARDIAN (July 17, 2020), <https://www.theguardian.com/world/2020/jul/17/spain-to-cull-nearly-100000-mink-in-coronavirus-outbreak>

- Spain ordered the culling of 92,700 mink on a farm. It was suspected that the virus was transmitted from a worker to the animals. Seven workers had tested positive in May, and in July 87% of the mink on the farm were believed to be infected.
- COVID-19 infections were reported to have spread to 25 farms in the Netherlands.
- COVID-19 was also confirmed on 3 mink farms in Denmark.

Azi Paybarah, *Coronavirus Strikes Mink in Utah*, N.Y. TIMES (Aug. 17, 2020), <https://www.nytimes.com/2020/08/17/us/coronavirus-strikes-mink-in-utah.html?action=click&module=RelatedLinks&pgtype=Article>

- Five mink on two farms in Utah were the first in the U.S. to test positive for the coronavirus.
- Though only five tested positive, more were believed to be infected “because of a recent upswing in the number of mink deaths on the farms.”
- Several workers also tested positive, but it was not determined whether those infections were linked to the farms.

Cheri Mossburg & Brian Ries, *10,000 Mink are Dead in COVID-19 Outbreaks at U.S. Fur Farms After Virus Believed Spread by Humans*, CNN, <https://www.cnn.com/2020/10/09/us/mink-covid-outbreak-trnd/index.html> (last updated Oct. 9, 2020 4:32 PM ET).

- At least 8,000 mink had died at the time of reporting on farms in Utah. The outbreak included nine farms, all of which were placed under quarantine.
- 2,000 mink were reported dead on a Wisconsin farm as well.

Allen Kim, *More Than 1 Million Mink Will Be Killed to Help Contain a Series of COVID-19 Outbreaks on Danish Farms*, CNN (Oct. 13, 2020), <https://www.cnn.com/2020/10/13/world/denmark-mink-farms-covid-trnd/index.html>

- After mink on nearly 60 farms in a northern region of Denmark tested positive for COVID-19, “and another 46 were under suspicion,” the Danish government called for a cull of over 1 million mink. The order included mink farms within five miles of a farm or her confirmed or suspected to be infected.

Hope Kirwan, *More Than 3K Mink Dead From Coronavirus at Taylor County Mink Farm*, WISCONSIN PUBLIC RADIO (Nov. 5, 2020), <https://www.wpr.org/more-3k-mink-dead-coronavirus-taylor-county-mink-farm>

- Nearly 3,400 mink died from the coronavirus on a mink farm in Taylor County, Wisconsin over the course of a month.

Jan M. Olsen, *North Denmark in Lockdown Over Mutated Virus in Mink Farms*, ASSOCIATED PRESS (Nov. 6, 2020), <https://apnews.com/article/mutated-virus-mink-farm-denmark-lockdown-98ede7f921eb6ef3b312e53743fc3edb>

- A northern region of Denmark went into a lockdown following the discovery of a mutated variation of the coronavirus infecting farmed mink in the area. At the time of publication there was not yet evidence that the mutated virus would behave significantly differently than already circulating variants.

Emma Farge & Kate Kelland, *WHO Looks at Mink Farm Biosecurity Globally After Danish Coronavirus Cases*, Reuters (Nov. 6, 2020), <https://www.reuters.com/article/us-health-coronavirus-who/who-looking-at-biosecurity-in-other-countries-after-danish-covid-19-mink-outbreak-idUKKBN27M1DD>

- The World Health Organization announced it would investigate “biosecurity around mink farms in countries across the world to prevent further ‘spillover events.’”

Helen Briggs, *‘Mutant Coronavirus’ Seen Before on Mink Farms, Say Scientists*, BBC (Nov. 9, 2020), <https://www.bbc.com/news/science-environment-54867653>

- A mutated strain of the coronavirus, which had appeared to spread from animals to humans in Denmark, was “detected retrospectively at a mink farm in the Netherlands... The mink were culled and the mutated strain did not infect humans.”
- Sweden has detected outbreaks in the southeast part of the country, but the Danish mutation was not found there.

Poland Orders Coronavirus Tests for Mink, THE FIRST NEWS (Nov. 10, 2020), <https://www.thefirstnews.com/article/poland-orders-coronavirus-tests-for-mink-17469>

- Following the discovery of the mutated coronavirus on a Danish mink farm, the Polish agriculture minister ordered the testing of farmed mink in Poland.

Sigal Samuel, *Minks Are Transmitting COVID-19 To Humans. Don’t Blame the Minks*, Vox (Nov. 13, 2020), <https://www.vox.com/future-perfect/21561066/covid-19-mink-mutation-denmark-cull>

- The conditions in which farmed mink are kept compromise their immune systems. They are crowded close together, “often coming into contact with each other’s secretions and excrement.”
- “[S]election for specific genes makes the animals almost genetically identical. That means that a virus can easily spread from animal to animal without encountering any genetic variants that might stop it in its tracks.”

Laurel Wamsley, *Coronavirus Found in Minks in Greece*, NPR (Nov. 13, 2020), <https://www.npr.org/sections/coronavirus-live-updates/2020/11/13/934512027/coronavirus-found-in-minks-in-greece>.

- Mink on two farms in northern Greece tested positive for the same strain of coronavirus found in humans. On one farm, 2,500 mink had been culled at the time of reporting.

Hannah Thompson, *COVID-19 Confirmed at French Mink Farm; 1,000 Slaughtered*, THE CONNEXION (Nov. 23, 2020), <https://www.connexionfrance.com/French-news/Covid-19-confirmed-at-French-mink-farm-as-1-000-mink-killed-and-more-test-results-expected>

- Regular testing at the four mink farms in France found infection at one of them, leading to the culling of 1,000 mink from that farm.

Reuters Staff, *Poland Finds Eight Coronavirus Cases in Farmed Mink*, REUTERS (Nov. 24, 2020), <https://www.reuters.com/article/uk-health-coronavirus-poland-mink/poland-finds-eight-coronavirus-cases-in-farmed-mink-idUKKBN28415S?edition-redirect=uk>

- Of 91 mink tested from a farm in the northern part of Poland, 8 came back positive. There had also been 18 cases among the workers since the start of the pandemic.

Reuters Staff, *Lithuania Finds its First Coronavirus Cases in Mink*, REUTERS (Nov. 26, 2020), <https://www.reuters.com/article/us-health-coronavirus-lithuania-mink-idUSKBN2861O5>

- 22 dead mink on a farm in central Lithuania tested positive for coronavirus. The farm was instructed to cull the 40 mink who were in close contact with the infected mink.

Tracy Loew, *An Oregon Mink Farm Has a COVID-19 Outbreak Among Animals and Workers*, STATESMAN JOURNAL (Nov. 27, 2020),

<https://www.statesmanjournal.com/story/news/local/coronavirus/2020/11/27/covid-19-confirmed-10-oregon-mink-farm-regon-department-agriculture/6441838002/>

- A farmer on an Oregon mink farm reported a mink with symptoms of COVID-19 on November 19, 2020. Samples from ten mink from the farm all came back positive. The Oregon Department of Health was not able to report how many total mink were infected, but explained that the ten tested were just a sample of the population.
- The farm was placed under quarantine on November 23 and all workers on the farm were asked to self-isolate.
- Oregon's farmed mink industry is the fourth-largest in the country, after Wisconsin, Utah, and Michigan, all of which have also had outbreaks of COVID-19 on mink farms.
- It was suspected that the virus was introduced to the farm by infected workers.

WORLD HEALTH ORGANIZATION (WHO), *SARS-CoV-2 Mink-associated Variant Strain—Denmark* (Dec. 3, 2020), <https://www.who.int/csr/don/03-december-2020-mink-associated-sars-cov2-denmark/en/>

- WHO press release announcing the reports from Denmark on the spread of COVID on mink farms.
 - November 5: Danish authorities reported the detection of a mink-associated COVID variant with a novel combination of mutations in 12 human cases, detected between August and September, 2020.
 - Preliminary laboratory findings found “a lower capability of antibodies to neutralize the Cluster 5 strain.”
 - Since June 2020, a total of 644 people associated with mink farming had tested positive, and at least 338 cases were reported “among people working with mink pelting, in six factories and two small facilities.”
 - As of December 1, 2020, a total of 289 mink farms were affected by the virus—20% of all mink farms in Denmark.

- By November 20, 2020, authorities determined the Cluster 5 variant was no longer circulating in humans.
- In addition to ordering the culling of all farmed mink in Denmark, the government banned mink farming in Denmark until December 31, 2021 and established “economic support packages” for those affected.
- As of the press release, eight countries had reported COVID-19 in farmed mink: Denmark, Lithuania, Netherlands, Spain, Sweden, Italy, Greece, and the U.S.

Hannah Ray Lambert, *Staff Transmitted COVID-19 to Mink on Oregon Farm*, KOIN (Dec. 3, 2020), <https://www.koin.com/news/special-reports/staff-transmitted-covid-19-to-mink-on-oregon-farm/>

- Testing showed the virus was introduced to the mink by farm workers.

Amy Judd, *COVID-19 Outbreak at B.C. Mink Farm Raises Concerns About Virus Mutation*, Global News (Dec. 8, 2020), <https://globalnews.ca/news/7508527/bc-mink-farm-outbreak-covid-19-mutation/>

- Eight employees on a mink farm in British Columbia, Canada tested positive for coronavirus.

Reuters Staff, *France Rules Out Mutated Coronavirus in Mink Farm Case*, Reuters (Dec. 9, 2020), <https://www.reuters.com/article/health-coronavirus-france-mink-idUSKBN28J11U>

- A coronavirus outbreak detected on a mink farm in November, 2020 was found not to involve a mutated strain of the virus.
- All the animals on the farm had been culled upon discovery of the outbreak.
- Notes that the Denmark cull ultimately involved the slaughter of 17 million mink.

Jenn Chávez, *Mink are Catching the Coronavirus on Farms—Including One in Oregon*, OREGON PUBLIC BROADCASTING (Dec. 10, 2020), <https://www.opb.org/article/2020/12/08/mink-are-catching-the-coronavirus-on-farms-including-one-in-oregon/>

James Gorman, *Denmark Will Kill All Farmed Mink, Citing Coronavirus Infections*, N.Y. TIMES, <https://www.nytimes.com/2020/11/04/health/covid-mink-mutation.html?action=click&module=RelatedLinks&pgtype=Article> (last updated Dec. 17, 2020)

- The Danish government announced its intention to slaughter the approximately 15 million mink on Denmark’s more than 1,000 mink farms.
- The move was prompted by 12 people in the Jutland region becoming infected with the mutated virus found in the mink, which showed a weak reaction to antibodies.
- Animal Protection Denmark provides: “The right decision would be to end mink farming entirely and help farmers into other occupation that does not jeopardize public health and animal welfare.”

James Gorman, *Covid Infections in Animals Prompt Scientific Concern*, N.Y. TIMES, <https://www.nytimes.com/2020/11/08/science/Covid-virus-transmission-mink.html?action=click&module=RelatedLinks&pgtype=Article> (last updated Dec. 23, 2020)

- Article discusses several examples of concern over COVID-19 infections in animals prompting need for scientific study. Examples:
 - Notes the situation in Denmark, where the virus appeared to transfer from humans, to mink, and back to humans, and mutated in the process. While the mutated virus did not appear to cause more severe illness or be more contagious, one variant “was less responsive to antibodies in lab tests.” Out of an abundance of caution, the Danish government ordered the killing of the country’s entire mink population and “effectively lock[ed] down the northern part of the country, where the mutated virus was found.”
 - Other animals have been infected and show a varying degree of response, but the reaction in farmed mink seems to be the most severe, with large numbers of deaths in the U.S. and Europe. This may be “partly because of the crowded conditions on those ranches, which could increase the amount of exposure.”
 - “Public health experts worry... that any species capable of infection could become a reservoir that allowed the virus to re-emerge at any time and infect people.”
 - Another study tested domestic pets, including from households where people had covid, and while none of the pets showed signs of active virus, some did have antibodies, suggesting the pets were “getting infected but not getting sick or passing the virus on.”
 - “So far, the mink in Denmark are the only known instance of the virus infecting an animal, mutating, and transferring back to humans.”

Simon Little, *Mink on Second B.C. Farm Test Positive for COVID-19*, GLOBAL NEWS (Dec. 24, 2020), <https://globalnews.ca/news/7541651/second-bc-mink-farm-covid/>

- After 3 mink died at a mink farm in B.C., Canada, the animals tested positive for the virus which causes COVID-19.
- The farm ultimately saw at least 17 workers and their contacts and five mink test positive. 200 mink also died on that farm earlier in December.
- Testing indicated the virus had spread from humans to the mink.
- The article also notes that research has found that the mutations found in Denmark in the virus which passed from humans to mink and back to humans were “less worrisome than originally thought, but could potentially affect how well antibody therapies work on the virus.”

Kate Golden, *The Wild World of Mink and Coronavirus*, SIERRA (Jan. 7, 2021), https://www.sierraclub.org/sierra/wild-world-mink-and-coronavirus?utm_source=twitter&utm_campaign=sierramag&utm_medium=sierra_social.

- In Denmark, at least 367 people became infected with variants of the coronavirus that started in farmed mink.

Sara Tabin, *Why Are So Many Minks Dying of Covid-19?*, Forbes (Oct. 13, 2020), <https://www.forbes.com/sites/saratabin/2020/10/13/why-are-so-many-minks-dying-of-covid/?sh=5b7beabd6da2>

Martin Enserink, *Coronavirus Rips Through Dutch Mink Farms, Triggering Culls to Prevent Human Infections*, Science Magazine (Jun. 9, 2020), <https://www.sciencemag.org/news/2020/06/coronavirus-rips-through-dutch-mink-farms-triggering-culls-prevent-human-infections>

Soo Kim, *Utah Officials Allegedly Failed to Disclose Mink Farm Worker Died of COVID After Outbreak*, Newsweek (Jan. 25, 2021), <https://www.newsweek.com/coronavirus-utah-mink-farm-covid-outbreak-employee-death-usda-udaf-cdc-animal-rights-1564071>

James Gorman, *How Mink, Like Humans, Were Slammed by the Coronavirus*, N.Y. TIMES, <https://www.nytimes.com/2020/12/23/science/covid-mink-animals.html> (last updated Jan. 22, 2021)

- Overview of why farmed mink are so susceptible to COVID-19 (prone to respiratory viruses, kept in crowded quarters) and some history on disease transmission between humans and animals.

Kate Golden, *Wisconsin's Mink Farming Industry Now Seen at Risk of COVID-19*, WISCONSIN STATE JOURNAL (Feb. 8, 2021), https://madison.com/wsj/business/wisconsin-s-mink-farming-industry-now-seen-at-risk-of-covid-19/article_59837d1a-63c0-5e7d-b872-70273398f336.html.

- State officials in the U.S. seem unlikely to call for culls the way that some European countries have.
- Research by wildlife biologists in Canada has “found that 64% of the mink [researchers] trapped near ranches were either captive or wild-captive hybrids,” showing a potential pathway for disease spread from captive to wild mink.

Matt McKinney, *Midwestern Mink Farms Navigate COVID Fears*, STAR TRIBUNE (Feb. 16, 2021), <https://www.startribune.com/midwestern-mink-farms-navigate-covid-fears/600023870/?refresh=true>

Coronavirus Found on Polish Mink Farm can be Transmitted to Humans, THE FIRST NEWS (Feb. 13, 2021), <https://www.thefirstnews.com/article/coronavirus-found-on-polish-mink-farm-can-be-transmitted-to-humans-19819>

- A strain of the COVID-19 virus which can be transmitted between humans and mink was found on a Polish mink farm. The strain differs from that detected in Danish mink. It was detected in late January, 2021. All 5,800 mink on the farm were culled.

Matthew Rozsa, *Zombie Mink, Infected Escapees, and COVID Outbreaks: How Mink Farms Became a Political Flash Point*, SALON (March 3, 2021), <https://www.salon.com/2021/03/03/zombie-mink-infected-escapees-covid-outbreaks-how-mink-farms-became-a-political-flash-point/>

- After Denmark’s cull of its farmed mink, the mink were buried in shallow graves. But as the mink decayed and their bodies filled with gas, their bloated corpses rose up from the ground.

- Even in captivity mink maintain their wild instincts and behavior, and are highly resistant to captivity in small cages. This makes them excellent escape artists. In Oregon, three mink escaped a farm that was under quarantine for a COVID-19 outbreak. Two of those mink tested positive for COVID-19.
- The quarantine on the farm was lifted after only a small percentage of the mink were tested and found to be negative.

2. Additional Articles on Spread of Disease from Farmed Mink to Wild Animals

James Gorman, *One Wild Mink Near Utah Fur Farms Tests Positive for Virus*, N.Y. TIMES (Dec. 15, 2020), <https://www.nytimes.com/2020/12/15/science/covid-wild-mink-utah.html>

- A wild mink tested positive for coronavirus near a mink farm in Utah where there had been an outbreak.
- The virus found in the wild mink had the same genome as that found in the infected farmed mink.
- Several other wild animals of different species in the area were also tested, and all came back negative, suggesting the positive test of the wild mink was an isolated event and the disease was not actively spreading in the wild.

Tony McReynolds, *Endangered Black-Footed Ferret Gets Experimental COVID-19 Vaccine in Colorado*, AMERICAN ANIMAL HOSPITAL ASSOCIATION NEWS (Dec. 31, 2020), <https://www.aaha.org/publications/newstat/articles/2020-12/endangered-black-footed-ferret-gets-experimental-covid-19-vaccine-in-colorado/>

- The USGS National Wildlife Health Center developed and injected 120 captive black-footed ferrets with an experimental COVID vaccine in summer 2020.
- Fewer than 300 black-footed ferrets are known to exist in the wild, so the vaccination effort was motivated by concerns about how the virus could impact the survival of the species, given how it had already been seen spreading among farmed mink. Mink and ferrets are close cousins, both being mustelids.

Kate Golden, *Wisconsin's Mink Farming Industry Now Seen at Risk of COVID-19*, WISCONSIN STATE JOURNAL (Feb. 8, 2021), https://madison.com/wsj/business/wisconsin-s-mink-farming-industry-now-seen-at-risk-of-covid-19/article_59837d1a-63c0-5e7d-b872-70273398f336.html.

- Research by wildlife biologists in Canada has “found that 64% of the mink [researchers] trapped near ranches were either captive or wild-captive hybrids,” showing a potential pathway for disease spread from captive to wild mink.

Dina Fine Maron, *What the Mink COVID-19 Outbreaks Taught Us About Pandemics*, NATIONAL GEOGRAPHIC (Feb. 24, 2021), <https://www.nationalgeographic.com/animals/article/what-the-mink-coronavirus-pandemic-has-taught-us>.

- On several farms, asymptomatic mink have tested positive for COVID or had antibodies against the virus, suggesting it may be difficult to reliably detect the presence of the disease on mink farms and respond effectively.
- Animal reservoirs, which mink farms stand to become for COVID, can allow the virus to “continue to evolve and perhaps jump back and forth between humans and that species, potentially becoming more transmissible or deadly as it replicates.”

- Notes the two mink carrying the virus found in the wild in Oregon which were believed to have escaped from a nearby farm.
- In Utah, dogs and feral cats on farms where outbreaks have occurred have also tested positive for the virus.
- “[I]t is entirely plausible that a virus jumps between two mammalian species, as we’ve already seen it do from humans to mink and back.” Quote from Lane Warmbrod, a senior analyst at Johns Hopkins Center for Health Security.
- So far no wild animals trapped and tested around mink farms in the U.S. and Europe have been found to be infected.

3. Articles on Farmed Mink Escaping into Wild and Potential Harm to Wild Populations

A.G. Kidd, J. Bowman, D. Lesbarrères, & A.I. Schulte-Hostedde, *Hybridization Between Escaped Domestic and Wild American Mink (Neovison vison)*, 18 *MOLECULAR ECOLOGY* 1175 (2009)

- “[D]omestic mink are escaping and persisting within wild mink populations” and hybridizing with wild populations.
- 64% of mink caught in this study were either domestic or wild-domestic hybrids. “The presence of backcrossed individuals and such complex composition of hybrids suggests that domestic alleles are being introgressed into the wild mink population, which may be a concern for the future sustainability of wild mink.”
- “[D]iseases such as Aleutian disease, a highly infectious and often fatal parvovirus found in many mink farms may be introduced into natural mink populations via contact with domestic mink.”

Escaped Mink Could Be “Disaster” for Donegal, BBC NEWS (Sept. 29, 2010), <https://www.bbc.com/news/uk-northern-ireland-11435659>

- Up to 5,000 mink escaped a farm in Ireland, with the farm owners blaming “animal liberation terrorists,” though the article did not indicate this had been confirmed by police.
- A conservation ranger expressed concern for the threat posed to bird colonies by the escape. Because the area water fowl are not good fliers, “[p]opulations of moorhen and coot have been seriously damaged by feral mink.”
- “They breed quite prolifically. They have no natural predators here. There’s not a waterway in Ireland that doesn’t have a mink population.”

Kaela B. Beauclerk, Jeff Bowman, & Albrecht I. Chulte-Hostedde, *Assessing the Cryptic Invasion of a Domestic Conspecific: American Mink in Their Native Range*, 3 *ECOLOGY AND EVOLUTION* 2296 (2013)

- Findings were consistent with previous research showing that “domestic individuals do escape from farms within their native range and subsequently interact with wild mink.” At 2305 (citing Kidd et al., 2009).
- “Loss of natural and sexual selection, along with genetic drift and founder effects arising from the introduction of mink to farms, can lead to a loss of local adaptation and thus reduced fitness through a variety of mechanisms and traits.” At 2305.

- Offers an anecdotal example of “an escaped domestic mink in Essex that foraged on low quality foods that damaged its teeth and appeared to lead to an unusually high body burden of polychlorinated biphenyls.” At 2305.
- Other possible threats to wild mink from escaped domestic mink include competition for resources. At 2306.
- Farmed mink can also be a “reservoir or vector for pathogens that affect wild mink.” It’s already been shown that Aleutian Disease Virus “spills back and forth between domestic and wild mink.” At 2306.

Amy Judd, *Hundreds of Mink Escape from Abbotsford Farm*, GLOBAL NEWS (Oct. 3, 2013), <https://globalnews.ca/news/878117/hundreds-of-mink-escape-from-abbotsford-farm-reports/>

- About 200 mink escaped from a farm in Canada. No criminal activity was suspected.

Alistair Munro, *Invasive Mink Killing Native Wildlife in Highlands*, The Scotsman (July 20, 2014), <https://www.scotsman.com/news/invasive-mink-killing-native-wildlife-highlands-2000140>

- Mink in Scotland, “descendants of mink who either escaped from the farms or were set free by animal rights activists” have a huge impact on native wildlife there, preying on species such as water voles and ground nesting birds.

Government Investigating Possible Mink Escape on Northeast Coast, CBC NEWS (Sep. 28, 2015), <https://www.cbc.ca/news/canada/newfoundland-labrador/government-investigating-possible-mink-escape-on-northeast-coast-1.3247296>

- An apparent increase in mink density in an area of Canada gave rise to suspicions that some of the mink were escapees from farms in the area.

Sophie Kevany, *Escaped Infected Danish Mink Could Spread COVID in Wild*, THE GUARDIAN (Nov. 27, 2020 8:33 EST), <https://www.theguardian.com/environment/2020/nov/27/escaped-infected-danish-mink-could-spread-covid-in-wild>

- “Mink are known to regularly escape fur farms and the risk that infected mink are now in the wild was confirmed on Thursday.”
 - This statement is kind of misleading. It seems to be based on a statistical analysis based on historical data on farmed mink escapes, rather than an actual recorded incident of an escaped infected mink.
 - “This year... there was a risk that about 5% of the minks that escaped from farms were infected with Covid-19.”

Danny Peterson, *Mink Caught Outside Oregon Farm Tests Positive for SARS-CoV-2*, KOIN (Dec. 24, 2020), <https://www.koin.com/news/health/coronavirus/mink-caught-outside-oregon-farm-tests-positive-for-sars-cov-2/>

- A mink caught outside a farm in Oregon under quarantine due to a COVID-19 outbreak tested positive for the virus.
- Nine other wild animals were captured in the area as part of surveillance, and they all tested negative, suggesting the virus was not circulating in the wild.

April Ehrlich, *Mink Infected With the Coronavirus Escapes Oregon Fur Farm*, OREGON PUBLIC BROADCASTING (Dec. 29, 2020), <https://www.opb.org/article/2020/12/29/coronavirus-mink-oregon/>

Kate Golden, *The Wild World of Mink and Coronavirus*, SIERRA (Jan. 7, 2021),

https://www.sierraclub.org/sierra/wild-world-mink-and-coronavirus?utm_source=twitter&utm_campaign=sierramag&utm_medium=sierra_social

- “Pre-pandemic, American mink that escaped or were intentionally released from European farms were considered some of the worst invaders on the continent. They established themselves quite handily, out-competed the native European mink, and caused all sorts of ecological damage.”
- “Near Ontario mink ranches, 64 percent of the mink trapped were either escapees or captive-wild hybrids...” Some of the mink tested were positive for Aleutian mink disease, of which wild mink have their own strains, suggesting the disease could go back and forth between the populations.

Wufei Yu, *Why Utah’s Wild Mink COVID-19 Case Matters*, HIGH COUNTRY NEWS (Jan. 20, 2021), <https://www.hcn.org/issues/53.3/south-wildlife-why-utahs-wild-mink-covid-19-case-matters>

- Interview with virologist and veterinarian Dr. Anna Fagre on the potential consequences of spillover of COVID-19 from farmed mink into wild populations and general concerns about disease transmission between humans and animals.

Lina Zhang, Yan Hua, and Shichao Wei, *High Genetic Diversity of an Invasive Alien Species: Comparison Between Fur-Farmed and Feral American Mink (Neovison vison) in China*, 11 *Animals* 1 (2021)

- Study results “may illustrate that the process of farmed mink escaping into the wild is ongoing.”
- The apparent “relatively high diversity and... admixture of different genetic characteristics between farmed and feral populations of mink in northeastern China... is conducive to increasing the fitness of individuals and potentially contribut[ing] to the invasion of American mink.”

World Health Organization Regional Office for Europe, *New Assessment Shows High Risk of Introduction and Spread from Fur Farming of the Virus that Causes COVID-19* (Feb. 17, 2021), <https://www.euro.who.int/en/health-topics/health-emergencies/coronavirus-covid-19/news/news/2021/2/new-assessment-shows-high-risk-of-introduction-and-spread-from-fur-farming-of-the-virus-that-causes-covid-19>.

- A global risk assessment found that “the overall risk of introduction and spread of the SARS-CoV-2 virus... from the fur-farming system to humans and to susceptible wildlife populations in the WHO European Region is considered high.”

4. Select Studies and Articles on Genetic Problems and Farmed Mink

A.G. Kidd, J. Bowman, D. Lesbarrères, & A.I. Schulte-Hostedde, *Hybridization Between Escaped Domestic and Wild American Mink (Neovison vison)*, 18 MOLECULAR ECOLOGY 1175 (2009)

- Study found strong evidence of feral mink hybridizing with wild mink. “Possible genetic consequences of these introductions may include reduced fitness and disruption of local adaptation via the introduction of maladaptive gene complexes.”
- That mink seem to chronically escape from farms suggests that “introgressive hybridization of wild populations with domesticated animals may contribute to genetic homogenization, disrupt population structure, and contribute to local extinctions by the disruption of local adaptations.”

D. Demontis et al., *Inbreeding Affects Fecundity of American Mink (Neovison vison) in Danish Farm Mink*, 42 ANIMAL GENETICS 437 (2011)

- Study found that inbreeding decreases fecundity in farmed mink.

Kimberly Y. Morris, Jeff Bowman, Albrecht Schulte-Hostedde, & Paul J. Wilson, *Functional Genetic Diversity of Domestic and Wild American Mink (Neovison vison)*, 13 EVOLUTIONARY APPLICATIONS 2610 (2020)

- Clear genetic distinctions found between wild mink near mink farms and those located in areas without mink farms.
- Found loss of genetic variation in captive mink.
- “Relaxed natural selection may result in an increased frequency of alleles that are normally selected against in nature, and while these deleterious alleles may have no effect in a farm environment, they could have negative impacts on mink survival in the wild.”

Dina Fine Maron, *Denmark to Cull 15 Million Mink After Coronavirus Spillover Into Humans*, NATIONAL GEOGRAPHIC, <https://www.nationalgeographic.com/animals/article/denmark-mink-culling> (last updated Nov. 6, 2020)

- “Farmed mink do not exhibit a large amount of genetic diversity, which can favor infectious disease transmission and susceptibility.”

Sigal Samuel, *Minks Are Transmitting COVID-19 To Humans. Don't Blame the Minks*, Vox (Nov. 13, 2020), <https://www.vox.com/future-perfect/21561066/covid-19-mink-mutation-denmark-cull>

- “[S]election for specific genes makes the animals almost genetically identical. That means that a virus can easily spread from animal to animal without encountering any genetic variants that might stop it in its tracks.”

Roxann B Borisch

From: Lori Pavlicek <4bfarms@mtangel.net>
Sent: Monday, March 15, 2021 11:35 AM
To: ODFW.Commission@state.or.us
Subject: CBD petition

Oregon Department of Fish and Wildlife

As a farmer in Oregon, I ask you to deny the Petition to Add Mink to the list of Prohibited Species, as recommended by ODFW staff.

The Center of Biological Diversity, based in Arizona, is using unfair tactics to target mink agriculture and using COVID-19 as the excuse to do so. What is the difference between any employer that has an employee test positive for COVID-19 and was spread to others, and the single mink operation that contained the infected animals? This petition, ultimately, is a step to shutting down all agriculture.

The petition is unwarranted and is a treat to all Oregon agriculture!

Thank you for your time

Lori Pavlicek
4 B Farms, Inc.

Roxann B Borisch

From: Griselda Olvera <golvera@biologicaldiversity.org>
Sent: Monday, March 15, 2021 1:31 PM
To: ODFW.Commission@state.or.us
Subject: Support for Petition to Amend OAR 635-056-0050 to Add Mink to the Prohibited Species List
Attachments: Oregon Mink Farming- CBD.xlsx

Dear Chair Wahl and Members of the Commission,

Please accept the following written testimony from the Center for Biological Diversity (Center) in support of its January 15, 2021, administrative petition to the Oregon Fish and Wildlife Commission (Commission) to add commercially farmed mink to the list of prohibited species in OAR Chapter 635, Division 56. This petition is on the Commission's Agenda to be considered for the purpose of grant or denial on March 19, 2021.

Griselda Olvera

Digital Organizer
Center for Biological Diversity
P.O. Box 710, Tucson, AZ 85702-0710
www.biologicaldiversity.org

March 5 through March 14, 2021

SUBJECT: I Support Adding Minks to Prohibited Species List

I urge you to add farmed minks to the state's prohibited species list. I love our native wildlife and believe the commission must protect the wild animals that make our state unique. Mink farms are a tiny and dwindling part of our state's economy. But they pose an outsized threat to public health and wildlife. As an Oregonian, I would be outraged if the commission sided with the mink industry over the best interests of our state's public health and heritage wildlife. Thank you for considering these comments. I trust you will do the right thing and take this important stand to protect our state from further COVID outbreaks. It is not worth the threat to our native species to have mink farms without additional protections against the threat of covid.

List of names attached

First Name	Last Name	City	State/Province	Zip/Postal
Theresa	Melof	Hillsboro	OR	97124
Scott	Maclowry	Bend	OR	97703
Katherine	Skirvin	Pendleton	OR	97801
Ann-Marie	Yost	Portland	OR	97213
Cybele	Knowles	Tucson	AZ	85716
Jean	Svadlenka	Wilsonville	OR	97070
Deb	Merchant	Albany	OR	97321
Lilith	Gist	Coos Bay	OR	97420
Wendy	Williams	Klamath Falls	OR	97601
Sally	Needham	Portland	OR	97224
Daniels	Cathy	Salem	OR	97306
diane	Tegtmeier	Ashland	OR	97520
Roberta	Sommer	Cornelius	OR	97113
Adam	French	Beaverton	OR	97008
Gloriana	Casey	Blodgett	OR	97326
Maxine	Sheets-Johnstone	Yachats	OR	97498
Erica	Antill	Portland	OR	97215
John	Weil	Portland	OR	97229
Nancy	Shinn	Coos Bay	OR	97420
Greg	Pezeshki	Wilsonville	OR	97070
Linore	Blackstone	Portland	OR	97213
Julie	Sonam	Springfield	OR	97477
Amelia	Hard	Portland	OR	97202
Audrey	Caplan	Schenectady	NY	12309
Shelley	Inks	Springfield	OR	97478
Barbara Nina	Council	Ashland	OR	97520
Robin	Vesey	Portland	OR	97219
Don	Hall	Corvallis	OR	97330
Teresa	DeLorenzo	Astoria	OR	97103
Todd	Garretson	Portland	OR	97206
J A	Wilson	Oregon City	OR	97045
mary	mccracken	La Grande	OR	97850
Judy	Walton	Portland	OR	97214
Gayle	Peterson	Corvallis	OR	97330
Helen	Klimeck-Jones	West Linn	OR	97068
Lory	Utz	Roseburg	OR	97470
Janet	Jones	Portland	OR	97212
Becky	Rose	Beaverton	OR	97005
Sue	Birge	Seal Rock	OR	97376
Mary Ann	Pogany	Prineville	OR	97754
Barbara	Davis	Waldport	OR	97394
Heather	Morijah	Albany	OR	97321
Kelly	Peterson	Bend	OR	97702
Jane	Kwiatkowski	Eugene	OR	97405
james	thompson	Portland	OR	97210
Marta	Boyett	Elmira	OR	97437

Linda	Skonberg	Sutherlin	OR	97479
Joan	Maiers	Lake Oswego	OR	97034
James	Rankin	Corvallis	OR	97330
Kathy	Hessler	Portland	OR	97224
Lisa	Spears	Cottage Grove	OR	97424
Katie	Grenier	Bend	OR	97702
Maryellen	McFadden	Portland	OR	97240
Albert	LePage	Eugene	OR	97405
Shireen	Farrahi	Portland	OR	97229
Mike	Zotter	Portland	OR	97214
Leslie	O'Neil	Bend	OR	97703
Scott	Weber	Gleneden Beach	OR	97388
Brce	Hellemn	Portland	OR	97227
Julia	Allen	Tillamook	OR	97141
Brenda	Peterson	Portland	OR	97223
Michael	Wherley	Eugene	OR	97402
Jack	Wells	Portland	OR	97215
Therese	Campbell	Eugene	OR	97401
Gret	Rowe	Bend	OR	97703
Jane	Bicquette	Sherwood	OR	97140
Mary	Rexford	Ashland	OR	97520
Lauren	Thompson	Portland	OR	97206
Kim	Nelson	Salem	OR	97302
Teresa	Coble	Springfield	OR	97477
Olina	St. Onge	Medford	OR	97501
Susan	Kirkbride	Hillsboro	OR	97123
Louisa	McCleary	Portland	OR	97210
Doranne	Long	Grants Pass	OR	97527
Carol	Alley	Corvallis	OR	97330
Dan and Mrs. Janet	Blair	Joseph	OR	97846
Kristin	Gerhart	Bandon	OR	97411
Katherine	McKnight	Portland	OR	97211
Phil	Hanson	Salem	OR	97301
Walter	Shriner	Portland	OR	97213
Alison	McDonald	Hood River	OR	97031
Beth	Redwood	Portland	OR	97217
Carol	Conroy	Bend	OR	97701
Maurine	Canarsky	Portland	OR	97214
Heidi	Perry	Portland	OR	97211
Babs	Alvernaz	Junction City	OR	97448
Anne	Goldfeld	Beaverton	OR	97006
Betty	Buck	Corvallis	OR	97333
Jana	Castanares	Mount Hood Parkdale	OR	97041
Linda	Werner	Mcminnville	OR	97128
Susan	Haywood	Portland	OR	97210
Abby	Sherman	Portland	OR	97203
David	Harrison	Salem	OR	97302

Shel	Grove	Bronx	NY	10458
Bobby	Fries	Eugene	OR	97405
Janet	Weil	Portland	OR	97229
Jess	Tyler	Portland	OR	97206
kathy	wilburn	Salem	OR	97306
Alexandra	Penney	Portland	OR	97227
Diana	Edenfield	Hermiston	OR	97838
Leigh	Hood	Ashland	OR	97520
Hal	Anthony	Grants Pass	OR	97526
Phoenix	Oaks	Portland	OR	97217
Grazia	Cunningham	Portland	OR	97232
Donna	Steadman	Portland	OR	97224
KRISTEN	HART	Portland	OR	97232
David	Edwards	Eugene	OR	97404
Suzanne	Zerbey	Springfield	OR	97477
Anna	Petrov	Beaverton	OR	97007
Lee and Marilyn	Rengert	Salem	OR	97304
Mary Anne	Ericson	Portland	OR	97215
Mike	Brinkley	Eugene	OR	97405
Lisa	Robertson	Enterprise	OR	97828
Petra	Caruso	Portland	OR	97215
Pamela	Vasquez	Salem	OR	97305
Teresa	Himelhoch	Mcminnville	OR	97128
Cathy	Lewis-Dougherty	Lake Oswego	OR	97035
Star	Studonivic	Portland	OR	97233
Dennis	Bone	Grants Pass	OR	97527
Marianne	Bickett	Sherwood	OR	97140
Joni	O'Donahue	Lake Oswego	OR	97035
Janet	Meyer	Bend	OR	97701
Laurie	Shentalevonn	Portland	OR	97202
Michael	Renfrow	Portland	OR	97213
Alice	Isackson	Clatskanie	OR	97016
Carol	Nugent	Hillsboro	OR	97124
Scott	Kennedy	Salem	OR	97303
KB	Mercer	Portland	OR	97266
Daniel	Jokelson	Ashland	OR	97520
Jennifer	Stangel	Portland	OR	97212
Melinda	McCoy	Portland	OR	97239
Robert	Bresky	Oregon City	OR	97045
Julaine	Morley	Yachats	OR	97498
Jennifer	Loomis	Portland	OR	97266
Jamie	St Mark	Portland	OR	97211
Cynthia	Marrs	Junction City	OR	97448
Susan	Inahara	Portland	OR	97225
Susan	Blakely	Talent	OR	97540
Roland	Morris	Sandy	OR	97055
Renate	McKeever	Portland	OR	97224

Peter	Sergienko	Portland	OR	97210
Janet	Sleath	Bend	OR	97703
Steve	Walsh	Gresham	OR	97030
Thomas	Keys	Gresham	OR	97080
Alexander	Kofsky	Beaverton	OR	97007
Jill	Marks	Newport	OR	97365
Fredrick	Kinder	Albany	OR	97321
Kay	Carey	Beaverton	OR	97008
Anne	Adams	Corvallis	OR	97330
William	Ramirez	West Linn	OR	97068
Rachel	Ross	Salem	OR	97302
Laura	Swanton	Portland	OR	97206
Lise	Hull	Bandon	OR	97411
Kathleen	Malan-Thompson	Portland	OR	97219
alton	roundy	Eagle Creek	OR	97022
John	Howard	Brookings	OR	97415
Julia	barbee	Portland	OR	97216
Charlotta	Ball	Hillsboro	OR	97123
Stephen a	Johnson	Portland	OR	97225
Joshua	Donoghue	Portland	OR	97212
Jay	Skinner	Newport	OR	97365
Renee	Windsor-White	Lebanon	OR	97355
April	Atwood	Portland	OR	97202
Peggy	Munsey	Philomath	OR	97370
michelle	unger	Portland	OR	97209
Rheama	Koonce	Depoe Bay	OR	97341
Marty	Crowley	Otis	OR	97368
Alita	Pearl	Neotsu	OR	97364
Judy	Kinsman	Florence	OR	97439
Valerie	Huffman	Portland	OR	97217
Ann	Nowicki	Eugene	OR	97408
gm	whiting	Joseph	OR	97846
Fran	Hast	Seal Rock	OR	97376
MERRIJO	Wheaton	Baker City	OR	97814
Lara	Martinez-Plachta	Portland	OR	97213
Diane	Daiute	Sweet Home	OR	97386
Lori	Howell	Eagle Point	OR	97524
Carol	Woofter	Eugene	OR	97408
Margaret	Keene	Madras	OR	97741
Randall	Nerwick	Portland	OR	97222
Wendy	Gere	Medford	OR	97504
Janice	MacWilliams	Portland	OR	97213
Ray	Neff	Eugene	OR	97405
Linda	Grove	Clackamas	OR	97015
Jacob	Wallace	Portland	OR	97217
Tory	Morgan	Cannon Beach	OR	97110
Julia	Fitzgerald	Harrisburg	OR	97446

Tiare	King	Beaverton	OR	97007
Sascha	Wiebenson	Portland	OR	97227
Thomas	Bugas	Portland	OR	97232
Linda	Knox	Bend	OR	97702
Melantha	Bobrick	Bend	OR	97703
Robert	Jones	Salem	OR	97302
Donna	Harris	Bend	OR	97707
Christopher	Teutimez Rawlings	Portland	OR	97216
Dolores	Matthys	Seaside	OR	97138
Roberta	Hall	Corvallis	OR	97330
Ute	Saito	Portland	OR	97229
Clint	Landeen	Canby	OR	97013
NANCY	PHILLIPS	La Pine	OR	97739
Autumn	Knights	Salem	OR	97301
KRYSTOL	LAMAR	Normal	IL	61761
Ryan	Shannon	Portland	OR	97203
Jacqueline	Jenkins	Salem	OR	97303
Jason	Wheeler	Portland	OR	97214
Randall and Luanne	Mierow	Beavercreek	OR	97004
Jerry	Melton	Corvallis	OR	97330
Margot	Royal	Cloverdale	CA	95425
Stephen	Karakashian	Portland	OR	97222
cheryl	Iewis	Portland	OR	97267
Randi	Brinkley	Canby	OR	97013
Barbara	Kelso	Beaverton	OR	97003
Steve	Prince	Eugene	OR	97405
Debra	Snow	Gresham	OR	97080
Ruth	Schellbach	Salem	OR	97302
Anna	Mirocha	Tucson	AZ	85701
Brenda	Lebegern	Madras	OR	97741
Georgeann	Courts	Portland	OR	97202
Juliann	Rogers	Portland	OR	97209
Linda	Cotrufello	Ashland	OR	97520
Linda	Price	Medford	OR	97504
Carol	Wagner	Albany	OR	97322
Kim	Beeler	Lake Oswego	OR	97034
Eileene	Gillson	Sherwood	OR	97140
Suzette	Farmer	Portland	OR	97213
Veroune	Chittim	Selma	OR	97538
Kimberley	Lopez	Alsea	OR	97324
Marie	Fisher	Portland	OR	97209
Pat	Ward	Portland	OR	97203
Dave	Plaehn	Corvallis	OR	97330
Robert	Carothers	Lake Oswego	OR	97035
Melanie	Wood	Portland	OR	97223
Maria	Kelly	Ashland	OR	97520
Betsy	Herbert	Corvallis	OR	97330

Anita	Larson	Eugene	OR	97401
Joji	Kappes	Portland	OR	97215
Judith	Maron-Friend	Portland	OR	97220
Ciara	Andrews	Coquille	OR	97423
Nancy	Carl	Carlton	OR	97111
Catherine	Keys	Ashland	OR	97520
Amy	Lafferty	Bend	OR	97702
Rob	Gee	Phoenix	OR	97535
Katie	Haldeman	Bend	OR	97701
Pam	Reber	Eugene	OR	97402
Matt	Herb	Portland	OR	97223
Dan	Adams	Salem	OR	97306
Gary	Ivey	Bend	OR	97702
Mary	Buckley	Portland	OR	97211
Nate	Hildebrand	Portland	OR	97212
Neal	Matteo	Ashland	OR	97520
wilma	Ingram	Warrenton	OR	97146
Leslie	Green	Philomath	OR	97370
Deborah	Wyland	Klamath Falls	OR	97603
Debbie	Lehwalder	Grants Pass	OR	97526
Andrea	Pellicani	Coos Bay	OR	97420
Catherine	Leach	Springfield	OR	97477
salme	armijo	Eugene	OR	97402
John	Barger	Portland	OR	97206
Erin	Cockley	Portland	OR	97206
Dorinda	Kelley	Portland	OR	97213
Beth	Marshall	Central Point	OR	97502
Michalle	Gleason	Portland	OR	97233
Tommy	Y	Beaverton	OR	97008
Carolyn	Latierra	Portland	OR	97212
Steve	Aydelott	Bend	OR	97701
Tim	faytinger	Corvallis	OR	97330
Rebecca	Lerback	Woodburn	OR	97071
Linda	Snyder	Salem	OR	97306
Erika	Kane	Hubbard	OR	97032
Jo	Forkish	Eugene	OR	97405
Jayd	Sollinger	Ashland	OR	97520
Victoria	Eells	Sixes	OR	97476
Mary	Vorachek	Salem	OR	97301
Jim	Yarbrough	Ashland	OR	97520
Karen And Michael	Burmester	Happy Valley	OR	97086
Suzanne	Livingston	Glendale	OR	97442
steph	taylor	Sandy	OR	97055
Wanda	Graff	Canby	OR	97013
Kevin	Stephens	Portland	OR	97223
Sue	Lundquist	Ashland	OR	97520
Corrie	Podolak	Hood River	OR	97031

Marylin	Mirza	Lake Oswego	OR	97035
Ron	Jameson	Philomath	OR	97370
Emily	Tope	Portland	OR	97203
Bob	McKinney	Corvallis	OR	97333
T	Timmins	Eugene	OR	97401
Delia	N	Portland	OR	97223
Christopher	Paddon	Astoria	OR	97103
Stephen	Wilson	Gleneden Beach	OR	97388
Connie	Johnson	Portland	OR	97221
Jeanne	Crowley	Astoria	OR	97103
Marilyn	Depew-Hillman	Veneta	OR	97487
Janet	H.	North Bend	OR	97459
Tammi	Clenard	Portland	OR	97220
Julie	Harris	Beaverton	OR	97078
Cheryll	Bennett	Bend	OR	97703
Kimberly	Nistad	Portland	OR	97214
Judith	Schwartz	Manzanita	OR	97130
Annette	Buchanan	Ashland	OR	97520
Ciry	Null	Chiloquin	OR	97624
Kate	Evans	Lake Oswego	OR	97034
Charlie	Graham	Hillsboro	OR	97124
Martha	Nordbusch	Prineville	OR	97754
Eartha	Green	Portland	OR	97225
Christine	Banielos	Portland	OR	97213
Mary	Neuendorf	Salem	OR	97304
Kevin	Brown	Silverton	OR	97381
Marc	Anderson	Tualatin	OR	97062
Jan	Stone	Forest Grove	OR	97116
Carolyn	Saiia	Florence	OR	97439
Tom	Coffee	Lake Oswego	OR	97035
Denise	Echauri	Beaverton	OR	97008
Sylvia	Allen	Portland	OR	97203
Mike	Andrewjeski	Medford	OR	97501
Linda	Cochrane	Salem	OR	97302
Jenny	Branstetter	Silverton	OR	97381
Adele	Dawson	Florence	OR	97439
clifford	myers	Deer Island	OR	97054
Peggy	Leviton	Jacksonville	OR	97530
Melba	Dlugonski	Portland	OR	97206
reid	bailey	Klamath Falls	OR	97603
Elizabeth	VanDenzen	Santa Fe	NM	87507
Diane	Luck	Portland	OR	97212
DIANA	KEKULE	Depoe Bay	OR	97341
Gwen	Ortiz	Myrtle Creek	OR	97457
Aaron	Payette	Sandy	OR	97055
Janice	Fitcha	Neskowin	OR	97149
Amanda	Feaver	Portland	OR	97217

Marney	Reed	Florence	OR	97439
Hildie	Cuddigan	Portland	OR	97213
Adeline	Fleming	Eugene	OR	97402
Kristy	Knowles	Portland	OR	97266
Susan	Parks	Bend	OR	97702
maria	nazzaro	Portland	OR	97211
Judith	Hayes	Medford	OR	97501
Jillian	Hawley	Salem	OR	97304
Niall	Carroll	Astoria	OR	97103
Frances	Merriman	Solvang	CA	93463
Sue	Kretschmann	Talent	OR	97540
marian	pitts	Medford	OR	97501
Pamela	Wood	Keizer	OR	97307
Heidi	Lorenz	Newport	OR	97365
Yulia	Brockdorf	Hillsboro	OR	97123
B Barbara	Parliman	Williams	OR	97544
Clyde	Williams II	Portland	OR	97267
Dennis	Smith	Enterprise	OR	97828
Elizabeth	Von Radics	Medford	OR	97501
Karyn	Lacroix	Eugene	OR	97401
Matthew	Barmann	Hood River	OR	97031
Nora	Polk	Portland	OR	97206
Richard	Langis	Beaverton	OR	97007
Jim	Wells	Medford	OR	97501
Jan	Toister	Corvallis	OR	97330
Sydney	Bayne	Portland	OR	97219
Angela	Jacobs	Portland	OR	97221
David	Nez	Portland	OR	97203
Roberta	Boyden	Eugene	OR	97408
James	Freeberg	Ashland	OR	97520
k	I	Roseburg	OR	97470
Amber	Haven	Newberg	OR	97132
Lisa	Graham	Madras	OR	97741
Audrey	Morgan	Tualatin	OR	97062
Chris	Gossard	Bend	OR	97703
Lynette	Boone	Eugene	OR	97405
William	Bell	Sunnyvale	CA	94087
Donna	Pacheco	Lake Oswego	OR	97035
Tamara	Wecker	Portland	OR	97223
Chris	Chiverton	Coos Bay	OR	97420
Michael	Halloran	Salem	OR	97305
Melinda	Fleming	Portland	OR	97209
Teresa	Schmidt	Eugene	OR	97405
Nancy	Marshall	Portland	OR	97213
Margaret	Stephens	Salem	OR	97301
Camille	McPhee	Portland	OR	97214
joe	Frascone	Dallas	OR	97338

Trisha	Broeke	Portland	OR	97267
Dom	Hart	Portland	OR	97230
Susan	Newton	Portland	OR	97210
john	long	Redmond	OR	97756
larry	gimbel	Lake Oswego	OR	97034
Susan	Croissant	Cottage Grove	OR	97424
Mike	Bohannon	Canyon City	OR	97820
Janice	Coleman	Portland	OR	97211
Tiffany	Spahn	Portland	OR	97202
Mr. Charles Otter	McSweeney	Cave Junction	OR	97523
Tammera	Hinshaw	Salem	OR	97305
Harriet	Sheridan	Seaside	OR	97138
Benton	Elliott	Eugene	OR	97401
Carol	Elkins	Aumsville	OR	97325
Matthew	Snyder	Forest Grove	OR	97116
Germaine	Ploos	Medford	OR	97501
Brock	Roberts	Portland	OR	97210
Patricia	Burton	Gaithersburg	MD	20877
Christine	Smith	Ashland	OR	97520
Gitanjali	Hursh	Portland	OR	97206
Paul	Daniello	Pendleton	OR	97801
Kathleen	Ruiz	Seaside	OR	97138
Stacia	Brown	Portland	OR	97214
Jan	Monical	Warren	OR	97053
Dena	Turner	Portland	OR	97215
Chandra	Jane	Eugene	OR	97405
Joan	Beldin	Port Angeles	WA	98362
Wendy	McGowan	Eugene	OR	97404
Judy	Basye	Mcminnville	OR	97128
Linda	Hendrix	Bend	OR	97702
Vivian	Dowell	Medford	OR	97501
Michelle	Hofmann	Portland	OR	97203
David	Hicks	Ashland	OR	97520
Barbara	Arlen	Corvallis	OR	97330
Belinda	Colley	Azalea	OR	97410
Mark	Tunno	Chiloquin	OR	97624
Heidi	Hoy	Mound	MN	55364
Claudette	Hills	Brookings	OR	97415
Tara	Barton	Portland	OR	97225
Stacy	Alaimo	Eugene	OR	97404
Katherine	Wright	West Linn	OR	97068
Kathrin	McCoy	Ashland	OR	97520
Anthony	Albert	Corvallis	OR	97330
Yen	Schuster	Oregon City	OR	97045
Sally	Maish	Roseburg	OR	97471
Lexi	Loch	Portland	OR	97216
Brooke	BrandSmith	Portland	OR	97216

Marilyn	Mooshie	Selma	OR	97538
Brett	Baumann	Lake Oswego	OR	97034
Carrie	McGranahan	Eugene	OR	97405
Katrina	Shortridge	Corvallis	OR	97333
Jean	Wyman	Portland	OR	97213
Mary	Fifield	Portland	OR	97214
alicia	cohen	Portland	OR	97214
Jonathan	Levy	Eugene	OR	97402
margaret	Quentin	Portland	OR	97213
Hope	Sloan	Salem	OR	97301
Sandra	Pongracz	Florence	OR	97439
Paul	Borcherding	La Grande	OR	97850
Jennifer	Hauge	Salem	OR	97302
Martha	Jurick	Portland	OR	97223
Lisa	Billings	Portland	OR	97221
Sky	Yeager	Corvallis	OR	97330
Martha	Vest	Portland	OR	97222
Diana	Snow	Oregon City	OR	97045
Sheila	Dooley	Mosier	OR	97040
Paul	Katen	Otis	OR	97368
Wally	Sykes	Joseph	OR	97846
Christina	Pasillas	Klamath Falls	OR	97603
Sandi	Cornez	Portland	OR	97219
Hillary	Tiefer	Portland	OR	97219
Robynn	Hayek	Salem	OR	97317
Robert	Rossi	Salem	OR	97308
Laura	Powers Carson	Portland	OR	97220
Kebrhea	Cuellar	Springfield	OR	97478
Donna	Willinsky	Portland	OR	97219
Victoria	Holzendorf	Lake Oswego	OR	97034
Cathie	Batavia	Portland	OR	97229
Ariane	Moss	Hillsboro	OR	97124
Kristin	Schoorl	Nyssa	OR	97913
Mark	Wheeler	Portland	OR	97215
Ron	Cavin	Eugene	OR	97401
Dorothy	Brockway	North Bend	OR	97459
Brent	Rocks	Portland	OR	97201
Shelly	Young	La Pine	OR	97739
Barbara	Moore	Grants Pass	OR	97526
Amy	Bizon	Mcminnville	OR	97128
Jennifer	Biller	Portland	OR	97239
Laurinda	Sells	Grants Pass	OR	97526
Katherine	Gorell	Portland	OR	97215
Delphine	Bez	Tualatin	OR	97062
Laura	Davies	Lake Oswego	OR	97034
Linda	Alstad	Salem	OR	97304
Beth	Mathewson	Newport	OR	97365

Robin	Jenkins	Dallas	OR	97338
Todd	Dugan	Mcminnville	OR	97128
Lisa	Windflower	Philomath	OR	97370
Michael	Noack	Seal Rock	OR	97376
Renée	Schrock	Salem	OR	97302
Linda	Pankewicz	Raymond	ME	4071
David	Ewing	Bend	OR	97702
Dennis R	Brokaw	Salem	OR	97304
Christina	Castle-Rey	Eugene	OR	97405
Ryan	Beam	West Linn	OR	97068
Paul	Howard	Corvallis	OR	97333
Tammy	Bittler	Portland	OR	97206
John	Rudolph	Bend	OR	97703
Kara	Powers	Eugene	OR	97405
Nichole	Bourcier	Portland	OR	97209
Kelly	Hibbert	Roseburg	OR	97470
Randi	Eby	Portland	OR	97202
Sally	Martin	Oregon City	OR	97045
Robert	Coppola	Eugene	OR	97402
Debi	Hertel	Beaverton	OR	97078
Kathleen	Roche	Bend	OR	97701
Whit	Watkins	Oregon City	OR	97045
Tracina	Stewart	Portland	OR	97211
Joyce	Howard	Portland	OR	97202
Joshua	Horner	Happy Valley	OR	97086
Dorothy	Louis	Corvallis	OR	97333
Douglas	Weir	Portland	OR	97239
Christine	Mueller	Portland	OR	97202
Nina	French	Portland	OR	97220
Randall	Webb	Portland	OR	97210
John	Noland	Coos Bay	OR	97420
Jaci	Wilkins	Ashland	OR	97520
Sam	Wardwell	Gladstone	OR	97027
Wendy	Holland	Coos Bay	OR	97420
Delcianna	Winders	Portland	OR	97219
Carole	Onasch	Portland	OR	97206
Jeremy	Foisy	Mcminnville	OR	97128
Teresa	McKirgan	Camas Valley	OR	97416
G	Driscoll	Albany	OR	97321
Marianne	McClure	Portland	OR	97202
Anna	Wessinger	Portland	OR	97201
Jill	B.	Salem	OR	97301
Elena	Meyer	Central Point	OR	97502
George	Snipes	Portland	OR	97206
Erica	St John	Hillsboro	OR	97123
Susan	Horky	Portland	OR	97212
Soleil	Aurose	Ashland	OR	97520

Casey	Neill	Portland	OR	97212
Dr. Cody	Traweek	Hillsboro	OR	97124
Patricia	Bowman	Portland	OR	97229
Emily	Trunnell	Knoxville	TN	37923
Ann	Brown	Portland	OR	97214
Beverly	Tiemann	Lake Oswego	OR	97034
Dinah	Vardon	North Plains	OR	97133
Emily	Basile	Portland	OR	97239
Laureen	Felton	West Linn	OR	97068
Teri	O'Day	Springfield	OR	97477
Ann	Littlewood	Portland	OR	97212
Zed	Langston	Eugene	OR	97402
Linda L	Watts	Florence	OR	97439
Kelie	Squires	Portland	OR	97233
Virginia	Caully	Portland	OR	97223
Raven	Sara	Grants Pass	OR	97526
Pam	Pinkston	Springfield	OR	97478
A	Q	Austin	TX	78733
Satya	Vayu	Portland	OR	97215
Brien	Bublitz	Manzanita	OR	97130
Eric	Hixson	Hood River	OR	97031
Susan	Hartford	Hood River	OR	97031
Mindy	Machanic	Salem	OR	97301
Sabrina	McDonald	Portland	OR	97239
Claudia	Craig	Portland	OR	97213
Barbara	Shor	Ashland	OR	97520
Margaret	Taylor	Oregon City	OR	97045
Pam	Tensch	Saint Helens	OR	97051
Martin	Fisher	Portland	OR	97215
Josef	Wyss-Lockner	Portland	OR	97216
Joan	Davis	Estacada	OR	97023
Alan	Hanson	Bend	OR	97703
Josephus	BattleSword	Las Vegas	NV	89123
Katherine	Poree	Corvallis	OR	97330
Helen	Hays	Oregon City	OR	97045
Karen	Cole	Wilsonville	OR	97070
Alyce	Huntsinger	Portland	OR	97219
Trey	Ufholz-Swartz	Roseburg	OR	97471
Tina	White	Philomath	OR	97370
Sherry	Wilmsen	Lincoln City	OR	97367
Dan	Sherwood	Portland	OR	97214
sarah	mayer	Cave Junction	OR	97523
Penn	Weldon	Pacifica	CA	94044
Kathy	Jones	Portland	OR	97206
Wesley E.	Stoker	Corvallis	OR	97330
Eric	Ross	Sweet Home	OR	97386
Cottie	Huber	Lake Oswego	OR	97034

Kris	Ebbe	Corvallis	OR	97333
Jennifer	Will	Bend	OR	97701
C	Cason	La Pine	OR	97739
Lisa	Caine	Portland	OR	97212
Paula	osberg	Portland	OR	97230
David	Ferguson	Springfield	OR	97477
Margo	Emrich	Ashland	OR	97520
john	tresemer	Portland	OR	97211
Jeremiah	Graff	Portland	OR	97202
Kathy	Mason	Sebewaing	MI	48759
BC	Shelby	Portland	OR	97209
Mark	Galbraith	West Linn	OR	97068
Edith	Orner	Albany	OR	97322
Courtney	Childs	Corvallis	OR	97333
janna	piper	Portland	OR	97293
Marguerite	Eliasson	South Beach	OR	97366
Susanna	Askins	Portland	OR	97230
Annita	Bowman	Ontario	OR	97914
Karen	Deora	Portland	OR	97212
Valerie	Adell	Portland	OR	97213
Roderic	Stephens	Beaverton	OR	97003
Maureen	O'Neal	Portland	OR	97223
Laura	Royal	Cloverdale	CA	95425
Joel	Kay	Portland	OR	97222
Ellen	Hall-Chave	Banks	OR	97106
Dresden	Skees-Gregory	Hillsboro	OR	97124
Carey	Pivceвич	Bend	OR	97702
Heather	Marsh	Lake Oswego	OR	97035
Robin	Ricker	Mcminnville	OR	97128
Kathryn N.	Fox	Salem	OR	97317
Cierra	Buer	Powell Butte	OR	97753
caroline	cunningham	Ashland	OR	97520
Erik	Englebert	Portland	OR	97202
S	W	Bend	OR	97702
David	Komlosi	La Grande	OR	97850
Steve	Garrett	Bandon	OR	97411
Sonja	Tsaknaridis	Portland	OR	97223
Nicole	Sadori	Westwood	NJ	7675
Donna	Boyer	Gaston	OR	97119
Janette	Wells	Bend	OR	97702
Maria	Hernandez-Wolfe	Portland	OR	97219
Elizabeth	Sauer	Portland	OR	97232
David	Kelley	Portland	OR	97213
Shayne	O'Brien	Portland	OR	97215
Kelly	Brignell	Portland	OR	97239
Isaac	Ehrlich	West Linn	OR	97068
J. David	Scott	Cottage Grove	OR	97424

Sandra	Thomas	Medford	OR	97504
Stephanie	Reynolds	Brookings	OR	97415
WALTER	RICE	Portland	OR	97215
Edward	Dingman	Salem	OR	97306
Mary	Lyda	Cave Junction	OR	97523
Dean	Sigler	Beaverton	OR	97003
Lida	Stevenson	Corvallis	OR	97333
Lori Ann	Burd	Portland	OR	97211
Ryan	Clark	Portland	OR	97209
Jennifer	Wolfsong	Beaverton	OR	97005
Jamie	Fillmore	Portland	OR	97229
Loni	Kincaid	Portland	OR	97224
Ursula	Trimble	Waldport	OR	97394
Julian	Cockrell	Medford	OR	97504
Tania	Willis	Portland	OR	97215
Nicole	Lawless	Eugene	OR	97405
S.R.	Julian	Portland	OR	97214
Kathryn	Menard	Portland	OR	97210
Cathy	Bledsoe	Portland	OR	97225
Claire	Cohen	Lake Oswego	OR	97034
Kayna	Warren	Gold Beach	OR	97444
Angela	Fazzari	Portland	OR	97213
Dara	Illowsky	Portland	OR	97219
Nancy	Fleming	Lake Oswego	OR	97034
Nancy	Chichester	Portland	OR	97213
Mika	Gentili-Lloyd	Hillsboro	OR	97124
Linda	Barnett	Ashland	OR	97520
Andrea	Ros	Eugene	OR	97405
Carole	Hamilton	Dallas	OR	97338
Jane	Farrell	Eugene	OR	97405
Susan	Bowden	Eugene	OR	97405
Heather	Dale	Wilsonville	OR	97070
Tori	Herbst	Portland	OR	97217
Sandra	Joos	Portland	OR	97239
Craig	Emerick	Corvallis	OR	97330
Judith	Sugg	Portland	OR	97219
Margie	Pratchenko	Medford	OR	97504
alice	west	Portland	OR	97215
Dona	Ward	Eugene	OR	97403
James	Lieb	Beaverton	OR	97003
Shira	Fogel	Clackamas	OR	97015
Hariana	Chilstrom	Portland	OR	97215
Susan	Wechsler	Corvallis	OR	97330
Andrew	Arneson	Beaverton	OR	97005
Kimberly	Smith	Eugene	OR	97405
Aileen	Thomas	Lake Oswego	OR	97035
Marian	Carter	Elkton	OR	97436

Debra	Smith	Portland	OR	97267
Jeanine	Yows	Salem	OR	97302
Monique	Williams	West Linn	OR	97068
Lisa	Zure	Portland	OR	97215
Ian	Shelley	Portland	OR	97225
Gary	Landers	Sisters	OR	97759
Alan	Lawrence	Portland	OR	97217
Zechariah	Heck	Bend	OR	97703
Todd	Hildebrandt	Elmira	OR	97437
Anita	Gimre	Banks	OR	97106
Donna	Meadows	Bend	OR	97702
Brad	Wood	Gold Beach	OR	97444
Maxine	Olsen	Portland	OR	97216
Erik	Olaf	Portland	OR	97211
Laura	Wheeler	Bend	OR	97702
John	Borland	Williams	OR	97544
Eva	Lee	West Linn	OR	97068
Michael	Price	Portland	OR	97239
Joan	Turner	Portland	OR	97224
JoEllen	Mayer	Beaverton	OR	97005
Cristy	Murray	Oregon City	OR	97045
Arthur	Rochester	Port Townsend	WA	98368
Alan	Blackwell	West Linn	OR	97068
Annie	Segraves	Sweet Home	OR	97386
Karen	Sinclair	Grants Pass	OR	97527
Lori Blacklidge	Carty	Jacksonville	OR	97530
Eric	von Borstel	Stayton	OR	97383
Connie	Newman	Eugene	OR	97402
Diane	Gange	Corvallis	OR	97330
Victoria	Groshong	Waldport	OR	97394
H	Gunther	Cornelius	OR	97113
Katherine	Treffinger	Cove	OR	97824
Katelyn	Acevedo Perez	Grants Pass	OR	97527
Peg	Reagan	Gold Beach	OR	97444
cherish	Nikitich	Hillsboro	OR	97123
Michelle	Bienick	Grants Pass	OR	97527
Matthew	Gray	Corvallis	OR	97330
Elisabeth	Shaver	Salem	OR	97303
Debra	Lutje	The Dalles	OR	97058
Irene	Saikevych	Central Point	OR	97502
Linda	Cornell	Canby	OR	97013
Nina	Utigaard	Talent	OR	97540
SJ	Jolliff	Scio	OR	97374
Mel	Onro	Hood River	OR	97031
Margo	Winden	Portland	OR	97229
Maureen	Bigler	Glide	OR	97443
Kristine	Metzner	Cornelius	OR	97113

Linda	Carlson	Veneta	OR	97487
Dale	Lockridge	Portland	OR	97211
Yola	Hesser	Florence	OR	97439
Stacey	Gunderson	Clackamas	OR	97015
Danda	Sweetwater	Hillsboro	OR	97124
Leonard	Bottleman	Prineville	OR	97754
John	Cochrane	Astoria	OR	97103
sean	mccuen	Salem	OR	97302
jan	golick	Eugene	OR	97405
Susan	delles	Rogue River	OR	97537
Cecilia	Brown	Portland	OR	97214
Paul	Daly	Eugene	OR	97405
Maura	Price	Portland	OR	97232
Robin	Kladke	Roseburg	OR	97471
Sherry	Bohannan	Portland	OR	97215
Debbie	Chewning	Bothell	WA	98012
Tiffany	Oneill	Boring	OR	97009
Joseph	Breazeale	Ashland	OR	97520
Rebecca	A Stillwell	Albany	OR	97321
Jaylen	Schmitt	Portland	OR	97211
Ellen	Jacobs	Bellingham	WA	98225
Malcolm	Chaddock	Portland	OR	97215
Shannon	Lucas	Bend	OR	97702
Denise	Ortega	Brookings	OR	97415
Juliana	Cyman	Hillsboro	OR	97123
Darrel	Whipple	Rainier	OR	97048
Allison	Everitt	Salem	OR	97301
Sophie and Jim	Swirczynski	Eugene	OR	97404
Sarah	Haavind	Eugene	OR	97401
Amber	Thalmayer	Eugene	OR	97402
Sam	D.	Eugene	OR	97404
Joy	Vyner			LI284RS
Erika	Leon	Independence	OR	97351
Rachel	Cairns	Hermiston	OR	97838
Clifford	Spencer	Portland	OR	97207
Rebecca	Clark	Portland	OR	97203
Sally	Keller	Eugene	OR	97405
Corinne	Sherton	Salem	OR	97306
Ella	de Vries	Hebo	OR	97122
Sarah	Ryan-Knox	Portland	OR	97206
Anne	Vincent	Jacksonville	OR	97530
Lynnette	Chiotti	Saint Helens	OR	97051
Charles	Horton	Independence	OR	97351
Margaret	Kelley	Bend	OR	97702
Rebecca	Picton	Corvallis	OR	97330
Gerald	DeLemos	Redding	CA	96003
Donna	Sharp	Veneta	OR	97487

Vicente	Moretti	Portland	OR	97229
Louise Y	Adams	West Linn	OR	97068
Donna	Grubbs	The Dalles	OR	97058
Amber	H	Eugene	OR	97405
Mireia	Roig-Paul	Beaverton	OR	97007
Bethany	Lester	Sandy	OR	97055
Charles	Lange	Eugene	OR	97402
Caitlin	Muret	Hillsboro	OR	97124
Stacy	Moranville	Salem	OR	97317
Eydie	Dennis	Salem	OR	97305
D	Stirpe	Portland	OR	97214
Chris	Latt	Portland	OR	97224
Duncan	Baruch	Portland	OR	97219
Judith	Lienhard	Portland	OR	97225
Frances	Seegert	Pleasant Hill	OR	97455
UChristine	Badura	Portland	OR	97222
Jack	Corbett	Salem	OR	97302
B.	Greene	Portland	OR	97217
Dana	Bleckinger	Yachats	OR	97498
Kay	Tousley	Portland	OR	97232
robin	anderson	Seaside	OR	97138
Carol	Gold	Corvallis	OR	97333
Paul	Halliday	The Dalles	OR	97058
Sherry	Monie	Damascus	OR	97089
Ann	Hollyfield	Seal Rock	OR	97376
Penny	Signalness	Corvallis	OR	97330
Teetle	Clawson	Portland	OR	97211
Crystin	Orser	Portland	OR	97219
Judi	Stratton	Jacksonville	OR	97530
Marcia	Alajmi	Sherwood	OR	97140
Edith	Montgomery	Ashland	OR	97520
Michelle	McEldowney	Oregon City	OR	97045
Marna	Herrington	Portland	OR	97210
Steven	Schafer	Portland	OR	97225
John	Bartels	Portland	OR	97266
Teresa	Hare	Gresham	OR	97030
Nancy	Hline	Portland	OR	97211
jan	nelson	Eugene	OR	97402
Rob	Wells	Lake Oswego	OR	97034
Walter	Evans	Mcminnville	OR	97128
A	Todd	Eugene	OR	97404
Vida	Lohnes	Rhododendron	OR	97049
carolyn	giles	La Grande	OR	97850
Carla	Williams	Cottage Grove	OR	97424
Michelle	Hess	Portland	OR	97232
Dave	Ruud	Portland	OR	97231
Donna	Crane	Lebanon	OR	97355

Jo	Kirsch	Beaverton	OR	97008
Linda	Chance	Portland	OR	97221
Charles	Hung	Eugene	OR	97403
Roxane	Auer	Portland	OR	97215
Kim	White	Newberg	OR	97132
Laura M.	Ohanian	Eugene	OR	97402
Eric	Lambart	Portland	OR	97217
Linda	Wiseman	Medford	OR	97504
James	moore	Tillamook	OR	97141
Carrie	Gibbons	Portland	OR	97202
Virginia	Vu	Portland	OR	97216
alex	bonk	Portland	OR	97213
Nadia Franina	Gaerlan		Benguet	2600
Lee	Taylor	Portland	OR	97223
Roslyn	Simon	Portland	OR	97229
Shaikha	Alfuwairis	Portland	OR	97209
Nancy	Sowersby	Roseburg	OR	97470
Elaine	McFarlane	Corvallis	OR	97333
Mary	McGilvra	Portland	OR	97201
Frances	Dunham	Ashland	OR	97520
Greer	Ryan	Portland	OR	97222
Nathan	Donley	Olympia	WA	98516
Grant	Fujii	Portland	OR	97203
Robert	Stoyles	Sublimity	OR	97385
John	Thaw	Corvallis	OR	97330
Scott	Crockett	Florence	OR	97439
Aaron	Dukes	Hood River	OR	97031
Deirdre	Young	Portland	OR	97203
Karen	Conlon	Portland	OR	97212
Grace	Neff	Albany	OR	97322
Helen	Moissant	Central Point	OR	97502
Charlotte	Sperisen	Grants Pass	OR	97526
Julie	Williams	Portland	OR	97223
Sally	Cadonau	Beaverton	OR	97078
Dawn	Smallman	Portland	OR	97215
Charles	Baughman	Bend	OR	97703
Veronica	Z	Florence	OR	97439
Samantha	Lubben	Beaverton	OR	97007
Mara	Isbell	Bend	OR	97702
Angie	Heide	Portland	OR	97214
Paula	Sendar	Beaverton	OR	97008
sherrie	kuehn	Gladstone	OR	97027
Stephanie	Strakbein	Redmond	OR	97756
Tod	Boyer	Ashland	OR	97520
Alexandria	flores	Portland	OR	97283
Lary	McKee	Gervais	OR	97026
Natalie	DaSilva	Portland	OR	97219

Penny	Heinonen	Eugene	OR	97405
James and Rita	Grauer	Ashland	OR	97520
Teresa	Sem	Portland	OR	97229
Teri	Richardson	Klamath Falls	OR	97601
Kristin	Smith	Portland	OR	97210
Paula	Hodges	Escondido	CA	92025
Alice	Hall	Corvallis	OR	97330
Nicole	planchon	Selma	OR	97538
Lisa	Duke	Eugene	OR	97405
Diana	Rebman	Portland	OR	97229
Mel	Fish	Waldport	OR	97394
Jess	James	Sisters	OR	97759
Katie	Harvey	Salem	OR	97302
Richard	Bucolo	Hood River	OR	97031
Athena	Stanley	Talent	OR	97540
Maggie	Stock	Portland	OR	97223
megan	petrucelli	Portland	OR	97230
Matt	Johnson	Seattle	WA	98118
Deborah	Houshour	Myrtle Point	OR	97458
Marilyn	Burkhardt	Hebo	OR	97122
Satomi	Honda	Portland	OR	97206
Randy	Harrison	Eugene	OR	97402
Wanda	Nelsen	Ashland	OR	97520
Greg	Black	Portland	OR	97202
Anne	Graas	Portland	OR	97217
Serena	Chakravorty	Happy Valley	OR	97086
Dvora	Robinson	Portland	OR	97206
Daniel	Anderson	Eugene	OR	97402
Terese	Drummond	Portland	OR	97224
Miriam	Gottlieb	Molalla	OR	97038
Regan	Fisher	Portland	OR	97215
Sharlane	Blaise	Portland	OR	97201
Amanda	Sweet	Portland	OR	97224
Shannon	Hunter	Portland	OR	97227
Marie	Wakefield	Newport	OR	97365
Tansy	Rhein	Portland	OR	97215
Lisa	Matthews	Central Point	OR	97502
Charles	Looney	Scappoose	OR	97056
Dustin	Kearns	Portland	OR	97206
Sharon	Burge	Salem	OR	97306
Tascha	Babitch	Portland	OR	97214
Becky	Johnson	Grants Pass	OR	97526
Carmen	Hammersmith	Warrenton	OR	97146
Karen	Varney	Portland	OR	97219
Stephanie	Parent	Portland	OR	97221
Glen	Comuntzis	Portland	OR	97223
Tracy	Richards	Clackamas	OR	97015

Deon	Saraceno	Eugene	OR	97405
Carla	Pacheco	Portland	OR	97219
Susan	Marsh	Lake Oswego	OR	97035
Miranda	Daviduk	Corvallis	OR	97333
Debra	Rehn	Portland	OR	97202
Philip	Ratcliff	Salem	OR	97302
Alisyn	Peters	Portland	OR	97211
Tung	Vu	Sherwood	OR	97140
Christine	Psyk	The Dalles	OR	97058
Dana	Petre-Miller	Salem	OR	97303
Jaime	Ramirez	Corvallis	OR	97330
em	C	Philomath	OR	97370
Bill	Burk	Bend	OR	97707
Susan	Heath	Albany	OR	97322
Rachel	Ford	Portland	OR	97219
Kelly	Nelson	Portland	OR	97219
cheryl	erb	Salem	OR	97301
Clarissa	Marsh	Scappoose	OR	97056
Julia	Mendez	Beaverton	OR	97007
Sandra	Jilton Rogers	Medford	OR	97504
Jason	Chin	Portland	OR	97219
Isabel	Ortiz	Portland	OR	97229
Tye	M.	Springfield	OR	97477
Rebecca	Wacklor	Central Point	OR	97502
Brad	Nahill	Portland	OR	97206
Debra	Culwell	Gresham	OR	97030
Jennifer	Abernathy	Bend	OR	97709
Renee	Clark	Lincoln City	OR	97367
Leland	Peterman	Scio	OR	97374
Deborah	Delaunay	Ashland	OR	97520
A	Valdez	Portland	OR	97211
Tiffany	McCleary	Portland	OR	97210
Nancy	Weil	Arch Cape	OR	97102
Susan	Geer	La Grande	OR	97850
Marsha	Freed	Portland	OR	97229
E	Darby	Portland	OR	97209
Calli	Madrone	Bend	OR	97702
Patricia	Foster	West Linn	OR	97068
Stacie	Hall	Oregon City	OR	97045
Jina	Richmond	Philadelphia	PA	19148
Kate	Lundquist	Eugene	OR	97402
Susan	Drew	Sandy	OR	97055
Randy	Kozar	Hillsboro	OR	97124
Michele	Dickson	Portland	OR	97221
Adama	Hamilton	Ashland	OR	97520
Andrew	Oldham	Portland	OR	97217
melanie	feder	Philomath	OR	97370

Jasmine	Saavedra	Philomath	OR	97370
Gary	Lacy	Grants Pass	OR	97527
BEN	SILVA	Portland	OR	97229
Kim	Davis	Salem	OR	97306
Jan	Accardo	Lincoln City	OR	97367
Linda	Bolduan	Lake Oswego	OR	97034
Jennifer	Kirkpatrick	Terrebonne	OR	97760
Patricia	Harris	Portland	OR	97215
Lisa	Sambora	Portland	OR	97291
Juan	Calvillo	Portland	OR	97267
Scott	Kacek	Portland	OR	97216
Jennifer	Leber	Portland	OR	97218
H.M.	Sustaita	Eugene	OR	97404
Daniel	Dizney	Eugene	OR	97408
Richard	Lemer	Elmira	OR	97437
Anna	Cowen	Oregon City	OR	97045
David	Nichols	Portland	OR	97213
Lisa	Frangente	Portland	OR	97210
Richard	McCombs	Otter Rock	OR	97369
Glenn	Fain	Portland	OR	97209
Lacy	Campbell	Portland	OR	97214
Debora	Martinez	Portland	OR	97229
Cherine	Bauer	Eugene	OR	97404
Hayley	Peter-Contesse	Corvallis	OR	97333
David	Chatfield	Portland	OR	97215
John	Herberg	Eugene	OR	97405
Jana	Lee	Portland	OR	97239
Kristy	Giles	Clackamas	OR	97015
jurissah	naive	Beaverton	OR	97003
Tabitha	Donaghue	Portland	OR	97266
Linda	Boruch	Canyonville	OR	97417
Ted	Scherff	Bowling Green	OH	43402
Penny	McArdle	Lake Oswego	OR	97034
Kristen	Swanson	Springfield	OR	97477
Patty	Bonney	Portland	OR	97223
Marjorie	Nafziger	Portland	OR	97202
Sara	Pritt	Eugene	OR	97401
Emma	Tresemmer	Hood River	OR	97031
Judy	Radovsky	Corvallis	OR	97330
Jennie	Mull-Scotty	Portland	OR	97266
Monica	Geyer	Bend	OR	97707
Marguery Lee	Zucker	Eugene	OR	97403
Tisa	Lynch	Sherwood	OR	97140
MARY	EASTMAN	Toledo	OR	97391
Julie	Redman	Eugene	OR	97401
Vega	Nunez	Long Creek	OR	97856
Juanita	Rinas	Eugene	OR	97402

Michele	Chavez	Portland	OR	97224
Cindy	Allen	Hood River	OR	97031
Hayyim	Cohen	Eugene	OR	97405
Karen	Olch	Eugene	OR	97440
Debbi	Weiler	Salem	OR	97303
Mary	Callison	Redmond	OR	97756
Breena	Satterfield	Portland	OR	97212
Bridget	Wyatt	Portland	OR	97209
Leigh	Hill	Eugene	OR	97402
Kacey A	Donston	Westlake	OR	97493
Amber	Apple	Portland	OR	97224
Amy	Roberts	Albany	OR	97321
Esther	Friedman	Salem	OR	97302
Letitia	Tarver	Astoria	OR	97103
denine	heinemann	Portland	OR	97217
Nancy	Boyd	Eugene	OR	97405
Kathryn	Robinson	Gladstone	OR	97027
Patricia	Farrell	Newberg	OR	97132
Loren	Morris	Bandon	OR	97411
Frank	Rouse	Colton	OR	97017
Kyle	Alhart	Bend	OR	97703
Craig	Cline	Salem	OR	97302
jared	margolis	Eugene	OR	97403
Brandon	Haslick	Burns	OR	97720
Chris	Lykins	Lebanon	OR	97355
Lindsay	Moore	Portland	OR	97212
Adrian	Bergeron	Halfway	OR	97834
Wendy	Green	Toledo	OR	97391
Kim	Wick	Buxton	OR	97109
Lynette	Fannon-Lamkin	Beaverton	OR	97007
Sandra	Whitener	Sevierville	TN	37876
Eli	Vidal	Portland	OR	97229
Melissa	Rehder	Portland	OR	97206
Shawn	Shaffer	Medford	OR	97504
Gwen	Hadland	Hillsboro	OR	97123
Mary	Thompson	Portland	OR	97219
William	Johnson	Molalla	OR	97038
Kristina	Haddad	Portland	OR	97215
Tracy	Mott	West Linn	OR	97068
Rosalie	Sable	Medford	OR	97501
Brad	Kalita	Chiloquin	OR	97624
Jacqueline	Glyde	Portland	OR	97220
Laura	Fleming	Eagle Point	OR	97524
Desiree	Piter	Medford	OR	97501
Stephen	Oder	Corvallis	OR	97330
ashley	thomas	Portland	OR	97202
Cynthia	Bauman	Ashland	OR	97520

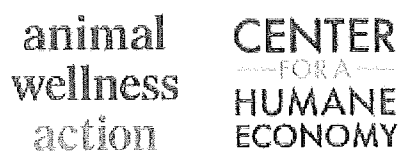
Ted	Bayer	Bend	OR	97703
Steve	Mamoyac	Corvallis	OR	97330
Valerie	Hagen	Portland	OR	97220
Bonnie	Dawn	Coquille	OR	97423
Daniel	Katz	Houston	TX	77096

Roxann B Borisch

From: Scott Edwards <sedwards@animalwellnessaction.org>
Sent: Monday, March 15, 2021 3:07 PM
To: odfw.commission@state.or.us
Subject: _\|/_ Potentially Risky URL in Email - Click Carefully _\|/_ Mink Petition Comments
Attachments: OR Mink Peititon Comments.pdf

Please find attached comments in support of the Petition filed by the Center for Biological Diversity requesting that mink be added to the list of prohibited species.

Thank you,
Scott Edwards
General Counsel



Helping Animals Helps Us All.
611 Pennsylvania Ave., S.E. #136
Washington, D.C. 20003

M: 914.299.1250
AnimalWellnessAction.org
CenterforaHumaneEconomy.org



March 16, 2021

Oregon Department of Fish and Wildlife
4034 Fairview Industrial Drive SE
Salem, OR 97302
Attn: Commission Members

Sent via email

Re: Petition to Initiate a Rulemaking to Amend OAR 635-056-0050 to Add Mink to the Prohibited Species List

Dear Commissioners,

Animal Wellness Action, the Center for a Humane Economy and Animal Wellness Action, three nonprofit organizations with supporters and staff members that reside in the state of Oregon, hereby submit these comments in support of the Center for Biological Diversity's January 15, 2021 *Petition to Initiate a Rulemaking to Amend OAR 635-056-0050 to Add Mink to the Prohibited Species List*. Mink farming poses an ongoing and undeniable threat to the public safety and economic security of the people of Oregon. As Ohio State University veterinarian and infectious disease specialist Mike Oglesbee states, "If American mink farms aren't going to shut down, the first line of defense against viruses on farms is biosecurity."¹ Adding mink to the list of the prohibited species and invoking the biosecurity safeguards that OAR 635-056-0050 demand is the least that Oregon should be doing to confront the many dangers that the industry brings and minimize the spread of COVID-19 infections in the state.

I. Links between mink farming and COVID-19

The onset of the COVID-19 virus lies in the all-too-present intersection between inhumane treatment of certain species and the transmission to humans.² As several researchers have documented, mink are highly susceptible to COVID-19, more than any other non-human animal.³ The packed conditions, and the unyielding stress that the animals endure, almost certainly weakens their immune response and enhances the likelihood of infections. Mink are wild, semi-aquatic animals that typically roam and hunt over land areas as large as 2,500 acres.⁴

¹ <https://www.pbs.org/wgbh/nova/article/mink-covid-virus-mutation/>

² <https://onlinelibrary.wiley.com/doi/full/10.1002/wmh3.348>

³ *Id.*

⁴ https://www.furfreealliance.com/wp-content/uploads/2017/09/Factsheet_Animal-welfare-problems-in-fur-farming.pdf

The unnatural, barren, caged conditions that mink are subjected to on these facilities greatly increases their susceptibility to the virus as their stress levels rise and abnormal behavior such as pacing, swaying, self-mutilation, cannibalism and infanticide occurs.⁵

This unique susceptibility is having devastating impacts across the United States and in Europe; several states throughout the U.S. – including Oregon, Utah, Wisconsin, and Michigan – have experienced tens of thousands of COVID-19 infections and deaths among captive mink populations. Several European nations have conducted mass euthanasia programs to arrest the spread of the virus, and they are fairly compensating the producers for losses and for the permanent shutdown of their operations.

There is now evidence from studies in Denmark and the Netherlands that not only is the virus capable of being transmitted from mink to human, but it may do so in a mutated form. The acute concern is that the mutation will allow the virus to resist newly developed vaccines now being administered under Emergency Use Authorization or those in development – a circumstance that has the potential to upend vaccine development and administration. The World Health Organization has called the mutation concerning and has called for further studies to ascertain the impact on vaccines currently in development. The “cluster-5” mutation found in Denmark has a combination of mutations that had not previously been observed. Early findings indicate that this mutation decreased sensitivity to neutralizing antibodies in humans.⁶

The World Organization for Animal Health (OIE) has issued guidance that describes the truly shocking facts about farmed mink and transmission of COVID-19:⁷

- The risk is high for human to animal transmission, moderate for animal to human transmission, and very high for transmission between animals.
- The risk of SARS-CoV-2 transmission from infected farmed minks to humans in contact with the mink is high.
- The risk of SARS-CoV-2 transmission between farmed and domestic animals on infected mink farms is high for cats and dogs.
- The risk of SARS-CoV-2 transmission between farms through movement of live infected mink is high.
- The risk of transmission of SARS-CoV-2 between different mink farms through infected humans is considered high.

⁵ *Id.*

⁶ <https://www.who.int/csr/don/06-november-2020-mink-associated-sars-cov2-denmark/en/>

⁷ https://www.oie.int/fileadmin/Home/MM/Draft_OIE_Guidance_farmed_animals_cleanMS05.11.pdf

- The risk of transmission of SARSCoV-2 through import/export of carcasses or products from infected animals of the susceptible species listed above is considered low to medium.

An outbreak on large farms may take several months before the virus fades out. Events in the Netherlands and Denmark show ongoing new outbreaks caused by mink associated variants of SARS-CoV2, pointing at ongoing transmission between farms and transmission from mink to humans.⁸ A study in the Netherlands states that by the end of June 2020, 68 percent of mink farm workers and their family members had tested positive for the virus or had antibodies to SARS-CoV-2. These large clusters of infection were initiated by human COVID-19 cases and have subsequently shown that mink-to-human transmission occurred.⁹ In late January 2021, Sweden reported on the death of a mink worker there.

These studies confirm that there is a risk of establishing a reservoir of SARS-CoV-2 due to ongoing transmission between farms.¹⁰ In Oregon, mink recently escaped from a quarantined mink farm and were later trapped and tested positive for SARS-CoV-2.¹¹ While the Fur Commission and other, self-interested industry participants downplay the frequency of farmed mink escaping into the wild, a 2013 study concluded that 18% of free-ranging mink in Ontario, Canada were either escaped domestic animals or hybrids.¹² On the run, infected mink can come into contact with an indeterminate number of other animals of multiple species, contributing to the risk of a SARS-CoV-2 reservoir in wildlife, that could then be transmitted back to people, perhaps in a mutated form.

II. Any cost/benefit analysis favors placing mink on the prohibited species list

COVID-19 has had a devastating effect on Oregon's economy over the past year, with over 90 percent of businesses reporting negative impacts and 70 percent of businesses reporting a decline in revenue.¹³ Twenty percent of the state's labor force collected unemployment benefits in 2020, totaling \$6.5 billion.¹⁴ While the final financial impact of COVID is yet to be determined, state economists are predicting a \$4.4 billion budget shortfall in 2021-23 and \$3.3 billion in the following years.¹⁵

Contrast those numbers with the economic benefits of a dwindling industry that exists to provide fur for a select luxury fashion industry, with pelts being shipped mainly to China as

⁸ Bas B. Oude Munnink et al, Transmission of SARS-CoV-2 on mink farms between humans and mink and back to humans, Science 08 Jan 2021: Vol. 371, Issue 6525, pp. 172-177, DOI: 10.1126/science.abe5901

⁹ *Id.*

¹⁰ *Id.*

¹¹ Two Escaped Farm Mink Test Positive for COVID-19 During Mink Trapping Season, Willamette Week, Jan 14, 2021

¹² <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3728966/>

¹³ <https://sos.oregon.gov/blue-book/Pages/facts/economy-overview.aspx>

¹⁴ *Id.*

¹⁵ <https://www.opb.org/news/article/oregon-budget-coronavirus-covid-19-economic-impact/>

demand for fur has dropped significantly in the United States over the past decade. Because of the dropping demand, mink pelts are becoming a decreasingly priced commodity, with pelt prices sinking by 80% over the past ten years, down to a 2019 low of just under \$22. Contrary to the Fur Commissions claim of “ebb and flow” in the mink fur market, the U.S. industry has been all ebb and no flow, with a steady, yearly decline this past decade and no indication that there will be any rebound as demand continues to shrink.

The Oregon mink farming industry consists of a dozen facilities that produced approximately 202,000 mink pelts in 2019. The production and price of pelts put the Oregon mink industry at a value of \$4.44 million, a tiny fraction of the state’s \$223.38 billion GDP. While the exact number of people employed in the mink farm industry is unknown, farms generally employ a small handful of workers. It is likely that all of Oregon’s operations employ around 50-60 people.

Given the established link between mink and COVID-19, even a total shutdown of the mink farming industry in the state would be economically prudent; there is, however, absolutely no economic justification for the Commission falling to implement the additional biosecurity measures that would accompany placing mink on the prohibited species list.

Simply put, a virus spawned by the inhumane treatment of animals in China at the end of 2019 may now be spread by ongoing mistreatment of animals here in our own nation. Should a mink farm contribute to a new wave of infections – with infected workers bringing the virus back into their communities – government leaders in Oregon may order future lockdowns of businesses, extending the lifespan of the extraordinary social and business dislocations of the past year and adding to the economic losses suffered in the state.

It is no small irony that Oregon and the rest of the United States would assume enhanced domestic economic risks when it comes to the spread of COVID to supply a luxury product to China. It was China that recklessly tolerated open-air, live-wildlife markets and launched the virus around the world even after animal welfare advocates and scientists warned that a virus might jump the species barrier. Now we are incubating the virus on factory mink farms to clothe some small percentage of its citizens in fur. China might welcome this self-destructive act by the United States, but Oregon shouldn’t play along.

The science around the current pandemic is evolving, as new variants emerge, vectors identified and vaccines discovered. And while the current COVID crisis may hopefully be met with the rapid development of several promising vaccines, zoonotic disease experts all tell us that it’s not a matter of if, but when, the next pandemic will strike. As one virologist states, “There will be more pandemics, and there is a feeling among scientists that [COVID-19] could just be a dress rehearsal for the real big pandemic.”¹⁶ In deciding this Petition, the Commission is obligated to look beyond the current crisis, and take the responsible steps needed today in

¹⁶ <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3728966/>

anticipation of what tomorrow may hold. Those step must include addressing the danger posed by mink farms in this pandemic and in the ones yet to come.

For those reasons, we strongly urge the Commission to grant the Petition and add mink to the list of prohibited species.

Sincerely,

Scott Edwards
General Counsel
Animal Welfare Action
Center for a Humane Economy

Roxann B Borisch

From: Jonister <jonister10@gmail.com>
Sent: Saturday, March 13, 2021 6:27 AM
To: odfw.commission@state.or.us
Subject: Mink Petition

ODFW,

I was alarmed to see on the agenda a consideration to eliminate mink harvest in the state of Oregon. This action seems biased towards animal welfare enthusiasts based on feeling and not fact. I hope this action IS NOT CONSIDERED by ODFW unless state biologists deem it necessary for the health of the population. I recreate on Sauvie Island and regularly see mink. I see them on public and private property.

I represent myself as a hunter, trapper, and outdoor enthusiast who believes management should be based on science and fact. Please do not consider this petition.

Kind regards,

Jonah Kubecka

Roxann B Borisch

From: Matt Sprague <MSprague@pd-grp.com>
Sent: Friday, March 12, 2021 3:42 PM
To: odfw.commission@state.or.us
Subject: Mink

Dear Commission Members:

These extremist organizations are going to continue their efforts of trying to get every animal species in Oregon on a prohibited list. I hope you see this as clearly as I do and do not fall for the misinformation being provided by them. Mink are quite common along river and stream corridors in Oregon. They can be very elusive and generally are nocturnal so seeing them is rare but that's not unusual for many species.

Thank you for your time.

Matthew L. Sprague
9180 NE Blackcap Lane
Newberg, Oregon 97132

Roxann B Borisch

From: American Mink Exchange <info@amminkexchange.com>
Sent: Friday, March 12, 2021 12:59 PM
To: ODFW.commission@state.or.us
Subject: Re; Center for Biological Diversity Petition to Initiate Rulemaking to Amend OAR 635-056-0050 to Add Mink to the Prohibited Species List
Attachments: Untitled document.docx

AMERICAN MINK EXCHANGE

1025 Maxwell Lane
Hoboken , NJ
07030

Curt Melcher, Director
Commission members,
Oregon Department of Fish & Wildlife
ODFW.commission@state.or.us

Re; Center for Biological Diversity Petition to Initiate Rulemaking to Amend OAR 635-056-0050 to Add Mink to the Prohibited Species List

We are writing to you today to urge the Commission to DENY the Center for Biological Diversity's (CBD) petition to add mink to the prohibited species list.

We would like to address certain falsehoods and misinformation in the petition. The CBD claim that "the demand for mink and other fur products has dramatically declined as the commercial market for these products has diminished" is patently FALSE. As a leading global auction company I can say with authority that the demand for Oregon mink is very strong throughout the world. In fact, this year prices for American mink have risen 80%-100%, with sales levels approaching 100%.

Furthermore, comparing the SARS-CoV-2 farm outbreaks in the U.S. to that which affected Denmark last summer is irresponsible and inflammatory. Denmark had over 1200 farms, marketing over 17 million mink in an area about 1/3 the size of Oregon. The farms were much larger, highly concentrated, and closer to large population centers. The U.S. has around 120 farms, spread across 16 northern states, with approximately 2 million mink raised for market. As they are in remote, rural areas, any potential threat to public health is minimal. Thank you for your time.

Respectfully,

Irving Tax
President
American Mink Exchange



FUR COMMISSION USA

POST OFFICE BOX 1532 MEDFORD, OREGON 97501
TEL. 541.595.8566 FAX 541.566.7489
WWW.FURCOMMISSION.COM

Dept. of Fish & Wildlife Commission

There is a difference between privacy and secrecy. The Arizona-based Center for Biological Diversity, another anti-fur organization, insists that the mink producers of Oregon are "operating underground" and being "shrouded in secrecy". I say they are just trying to protect their business, their families, and a modicum of privacy, and for good reason. Memories are long for the Oregon mink farmers, and experience has taught them to beware of the wolf in sheep's clothing.

In the early morning hours of June 9, 1991, mink farmers lives were changed forever. At least 6 incendiary devices exploded, engulfing the barn and research facilities at Oregon State University's Experimental Mink Farm. Along with feed, bedding, and equipment to care for the animals, decades of research documents and records on mink health and disease were destroyed. This was the launching of the Animal Liberation Front's five-state arson campaign against the fur industry, and the beginning of the attacks on Oregon's mink farmers. Within a few months a Willamette Valley mink farm and a mink feed supplier were firebombed. Since then, two more universities have had their mink research facilities destroyed, tens-of thousands of mink have been released from farms, hundreds of farms damaged and records destroyed, and thousands of hard working farm families traumatized.

In October of 2008, a fur farming family awoke one morning at their mink ranch in NW Oregon, to find over 1,500 of their prized mink gone and the pens destroyed, many of the animals were frantically scurrying about the yard. Hundreds died, some of dehydration or starvation, others to the stress of the attack. This was the third Oregon farm attacked that Fall. The family had emigrated from Finland, where they had raised mink for generations. They loved the USA and had never imagined this could happen to them. A year later, almost to the day, they were attacked again, and lost 300 more mink. Little could they know then; it was going to get worse.

In the predawn hours of July 27th, 2010, eight incendiary devices simultaneously exploded around the family home, engulfing farm machinery, vehicles, and structures in front of and behind their home. Animal Liberation Front Spokesperson Peter Young stated at the time, "I think that people are aware that releasing mink from a farm can potentially shut farms down but using incendiary devices can get the job done much more efficiently."

Ever since that first fateful night in 1991, Oregon's mink farmers have suffered vandalism, death threats, property destruction, arson attacks, and animal releases. It continues to this day. As recently as December, members of Direct Action Everywhere, a California based group whose specialty is farms raids, were identified outside mink farms in 4 Oregon counties.

So when animal rights activists accuse the mink farmers of "operating underground" or being "shrouded in secrecy", I can tell you they'd love nothing more than to be able to publicly promote their businesses and talk about their expertise in animal husbandry. But memories are long, and privacy is safer.

Respectfully,

Michael Whelan
Executive Director