

# The Environmental Cost of Fur

A scientific review of the environmental impact  
of the fur industry and why Furmark® is just  
another attempt at greenwashing



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**A Respect for Animals report**

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# Executive Summary

The fur industry is keen to portray an image of fur as a natural, sustainable and environmentally responsible product. However, an examination of the evidence reveals that this is no more than greenwashing of a resource-intensive, highly polluting industry with little regard for its impacts on biodiversity and the environment.

## Impact of the fur industry on biodiversity

The fur industry has historically had a devastating effect on biodiversity, being responsible for the extinction of some species and the over-exploitation of many others. Some species that were over-exploited in the past have never fully recovered and are still threatened today. Some species have recovered substantially in numbers but have low genetic diversity that makes them more vulnerable to catastrophic events, environmental changes, and infectious disease.

In some parts of the world, target species may now be killed at levels that do not pose an imminent threat to the survival of the species. However, this is not possible in poorly regulated societies and the trade in legal furs makes the trade in illegal furs easier, which continues to threaten species survival. Even in countries where hunting and trapping may not pose an immediate threat to the survival of the targeted species, traps kill non-target species, including threatened species.

Invasion by alien species is recognised as one of the main threats to biodiversity globally. Of the 18 'worst' alien mammal species in Europe, one third have been deliberately and/or accidentally introduced by the fur industry: muskrat, coypu, American mink, raccoon, American beaver, and raccoon dog. The brushtail possum, deliberately introduced to New Zealand for its fur, and the

coypu are included in the IUCN's list of '100 of the world's worst invasive alien species'.

The fur industry makes a commitment to "protect biodiversity" in its sustainability strategy, yet it lobbies in the European Union to keep fur-farmed species off the List of Invasive Alien Species of Union Concern. Fur industry lobbying has so far been successful in excluding American mink from the Union list, thus hampering control efforts. This lobbying, together with multiple other past and present actions of the fur industry, is directly contributing to the high risk of imminent extinction of the critically endangered European mink.

## Environmental pollution and resource use by the fur industry

Pollution from fur factory farms often has a devastating effect on local waterbodies, groundwater, soil and air quality. Ammonia emission per animal from mink houses is at least double that for broiler chickens, due to the high protein requirement of the strictly carnivorous mink and the typical use of open-sided houses on fur farms without sophisticated manure-handling systems. Emissions from fur farms can have serious negative effects on the health and quality of life of local residents, who frequently report problems with flies and foul odours.

The dressing and dyeing of fur involves the use of many toxic chemicals. Toxic metals pose a particularly serious problem because they are nonbiodegradable and bioaccumulate in the body. In terms of land pollution by toxic metals, fur dressing and dyeing is ranked in the top five highest pollution-intensity industries. Potentially dangerous levels of several hazardous chemicals have been found in fur products (including

clothing for children) sold in both Europe and China.

Fur has a substantially greater environmental impact (on a large number of measures including climate impact and various measures of pollution and resource use) than other common textiles. Measured over the life cycle of the product (from production of the raw material to disposal) the environmental impact of a mink fur coat is many times higher than that of a faux fur coat. The fur industry claims that a fur coat compensates for the difference with a longer lifespan but provides no supporting evidence. The available evidence indicates that the actual lifespan of fur garments is, on average, no more than 5-10 years and therefore nowhere near long enough to compensate for the difference in environmental impact.

The production of fur conflicts with efforts to achieve several UN Sustainable Development Goals, including Goal 2 (zero hunger), Goal 3 (good health and well-being), Goal 6 (clean water and sanitation), Goal 12 (responsible consumption and production), Goal 13 (climate action), Goal 14 (life below water), and Goal 15 (life on land).

## Furmark® is not credible and fails to address the environmental impacts of the fur industry

The International Fur Federation claims that "Furmark® is the comprehensive global certification and traceability system for natural fur that guarantees animal welfare and environmental standards." Key features of Furmark were assessed using 12 criteria covering basic requirements that any credible scheme would be expected to meet. Furmark scored only 1.5 out of a possible 12 points. For comparison, two established industry schemes (one for wool and one for leather / textiles) were assessed using the same criteria and both scored 12 out of 12 points.

The standards included in Furmark are generally not set at a level that adds value relative to existing national and international minimum requirements and normal industry practice and therefore would not be expected to result in significant positive sustainability impacts. Furmark does not currently include any published standards or targets for emissions, impacts on air, soil or water quality, biodiversity impact, energy use, or any other environmental performance measures; nor does it include any published standards for social responsibility.

There does not appear to be any public consultation process on draft standards for inclusion in Furmark and the views of environmental NGOs or other independent stakeholders specifically representing environmental / sustainability interests do not appear to be taken into account in standards development. There is a fundamental conflict of interest at the heart of Furmark because the fur industry itself is responsible for oversight of the scheme and there are no non-economic sector participants involved in the top-level governance of Furmark. Some of the individual schemes under the Furmark umbrella involve third party audits, although the independence of some of these audits is questionable.

There is a lack of transparency regarding both the standards and the certified entities included in Furmark. No proper standards documents or comprehensive list of certified entities are publicly available. It is not clear whether proper assurance standards have even been developed for some of the schemes, nor is there any comprehensive set of standards for the Furmark scheme as a whole. A search of the Furmark website, WelFur protocols and SafeFur standard did not find any requirement for unannounced visits or spot checks, or any clear procedures for addressing non-conformity, or any information regarding whether Furmark 'certified' fur auctions, dressers and dyers, manufacturers or retailers are permitted to also use or sell non-certified fur, or any limits for the proportion of certified content required in a product for it to carry the Furmark label.

Neither the Furmark website nor the International Fur Federation's sustainability strategy sets out clear and specific sustainability objectives. It is not clear how Furmark could reduce any of the

many very serious environmental impacts of the fur industry identified in this report because it fails even to adequately define what it is trying to change. Furmark lacks credibility and the scheme's purpose appears to be more of a public relations exercise to try to convince consumers that fur is already 'sustainable', rather than any genuine attempt to identify, define and reduce its impacts.

The Furmark website, Furmark executive summaries, IFF's sustainability strategy and various fur industry websites make multiple inaccurate and misleading claims regarding the content, impact and transparency of Furmark.

## The fur industry's environmental claims are classic examples of 'greenwashing'

The fur industry publicly claims a commitment to sustainability while actively lobbying to avoid regulation that would, for example, allow more effective action to combat the threat to biodiversity of invasive alien species or improve consumer protection against residues of hazardous chemicals in clothing.

The fur industry uses every greenwashing tactic available, committing all seven of the 'Sins of Greenwashing', including making claims that are demonstrably false.

**The evidence presented in this report demonstrates the considerable environmental damage caused by the fur industry and adds to the overwhelming case – on ethical, animal welfare, human and animal health, as well as environmental grounds – for a ban on fur farming and the sale of fur. Now is the time for the European Union, China, and all other countries that have not already done so, to take decisive action to end the farming of animals for their fur and the sale of fur products.**

The fur industry makes many vague, absolute and unsubstantiated claims that fur is 'natural', 'biodegradable', 'sustainable', 'eco-friendly', 'responsible' and 'ethical'. Independent advertising standards authorities in several countries have judged these claims to be misleading.

## Fur farming and the sale of fur must end

Legislation explicitly or effectively banning fur farming of some or all species has already been introduced in more than 20 countries and is currently being considered in several others. Some jurisdictions have banned the sale of fur and more and more luxury fashion brands and department stores are choosing to turn their back on fur.

The European Commission has committed to proposing legislation to end the use of cages for animals farmed for food and several Member States have called for a ban on fur farming across the EU. It would be illogical and unjustifiable to continue to allow animals to be farmed for fur in cages while prohibiting cages for animals farmed for food. There have also been prominent calls for a ban on fur farming in China, North America and around the world. It is hypocritical for countries that have prohibited fur farming to continue to allow the import and sale of fur.

# 1. Introduction



# 1. Introduction

The fur industry is keen to portray an image of fur as a natural, sustainable and environmentally responsible product. To this end, the International Fur Federation (IFF) has launched Furmark®, which it claims is a “comprehensive global certification and traceability system for natural fur that guarantees animal welfare and environmental standards.”<sup>1</sup> This report will examine the environmental impacts of the fur industry and the credibility of Furmark and seek to establish whether there is any truth in the fur industry’s environmental claims or whether this is just ‘greenwashing’.

Sustainable development is “development that meets the needs of the present without compromising the ability of future generations to meet their own needs.”<sup>2</sup> The 2030 Agenda for Sustainable Development<sup>3</sup> was officially adopted by 193 countries at the United Nations (UN) Sustainable Development Summit in September 2015. The Agenda sets out 17 Sustainable Development Goals (SDGs) and 169 targets to be met by 2030. The SDG’s cover social, economic and environmental dimensions of sustainable development. This report will focus on environmental aspects of sustainability.



# 2. Impact of the fur industry on biodiversity



## 2. Impact of the fur industry on biodiversity

The Earth is currently in the midst of a mass extinction event. There have been five other mass extinction episodes over the past 450 million years, each destroying 70-95% of the species that existed earlier and, in each case, it took millions of years to regain numbers of species comparable to before the event.<sup>4</sup> The earlier mass extinctions were caused by catastrophic alterations of the environment such as massive volcanic eruptions, depletion of oceanic oxygen, or collision with an asteroid, but the current mass extinction is caused by humans and is accelerating.<sup>5</sup> The massive loss of biodiversity in the ongoing sixth mass extinction may be the most serious environmental threat to the persistence of civilisation because it is irreversible.<sup>6</sup> This section will explore the historical and ongoing impacts of the fur industry on biodiversity.

### 2.1 Hunting and trapping of wild animals

#### 2.1.1 Impact of historical over-exploitation

The fur industry has historically had a devastating impact on biodiversity, with many species being driven to the brink of extinction and some being lost forever. The sea mink (*Neovison macrodon*) was hunted to extinction for the fur trade in the 19<sup>th</sup> century.<sup>7</sup> It is thought to have been exterminated around 1860, even before it had been recognised as a distinct species.<sup>8</sup> The Falklands wolf (*Dusicyon australis*) was endemic to the Falkland Islands. Due to being curious and unafraid of humans, it was particularly susceptible to culling. The species was hunted to extinction

by Argentine and Scottish settlers and United States (US) fur traders.<sup>9</sup> The last individual is believed to have been killed in 1876 at Shallow Bay, West Falkland Islands.<sup>10</sup>

Where a natural resource is shared amongst competing parties, the incentive is always to over-exploit and take too large a share.<sup>11</sup> Historically, when imperial powers or fur companies were competing, over-exploitation was often deliberate and extreme.<sup>12</sup> The fur trade played a major role in colonial economies and in facilitating the initial colonisation of North America by Europeans and subsequent westward expansion.<sup>13</sup> In the early days, the natural resources of North America were seen as inexhaustible but intensive systematic killing soon resulted in the near extinction of many once common species, such as the American beaver (*Castor canadensis*).<sup>14</sup>

The Eurasian beaver (*Castor fiber*) was also almost exterminated by the fur trade, reduced to around 1200 animals in eight populations in scattered refugia by the beginning of the 20<sup>th</sup> century.<sup>15</sup> Both beaver species have recovered substantially in numbers, although some sub-species of the Eurasian beaver are very rare<sup>16</sup> and some reintroduced populations of the Eurasian beaver have very low genetic diversity due to the small number of founding individuals.<sup>17</sup>

Fur seals include some of the most extreme examples of commercial exploitation, with several species being driven to the brink of extinction by 18<sup>th</sup> to early 20<sup>th</sup> century sealers.<sup>18 19 20 21 22 23</sup> Some species were reduced to just a few hundred individuals<sup>24</sup> or were thought to have gone extinct.<sup>25</sup> Fur seal populations have recovered

substantially but some species remain threatened today.<sup>26 27</sup> Even for those fur seals that now have relatively large populations, the severe population bottleneck caused by hunting for the fur trade has reduced the genetic diversity of some species, leaving them vulnerable to catastrophic events, environmental changes, and infectious disease.<sup>28 29 30</sup>

The sea otter (*Enhydra lutris*) was hunted almost to extinction for the fur trade in the 18<sup>th</sup> and 19<sup>th</sup> centuries. By the time the International Fur Seal Treaty brought an end to the commercial trade in sea otter fur in 1911, there were probably fewer than 2000 animals remaining in 13 remnant colonies.<sup>31</sup> These remnant populations have recovered to some extent but the species has low genetic diversity and remains endangered.<sup>32</sup> In Alaska, the Marine Mammal Protection Act 1972 and the Endangered Species Act 1973 allow for coastal native people to hunt sea otters for subsistence use, trade, barter, and the development of cottage industry. There is no other legal killing of sea otters, however, illegal trade in sea otter pelts continues on the black market in Russia, with most being sold on to markets in China.<sup>33</sup> There is strong pressure to increase levels of sea otter hunting in Alaska and marketing of pelts but the exemption that allows subsistence hunting is not designed to manage the population and it is vital to ensure that it does not facilitate illegal trade in sea otter pelts, as history so dramatically illustrates the vulnerability of sea otters to over-exploitation.<sup>34</sup>

In South America, hunting for the fur trade, in combination with habitat destruction and disturbance, led to the decline of the southern river otter (*Lontra provocax*), beginning in the late 19<sup>th</sup> century. Hunting of southern river otters was prohibited in Chile in 1929 but exports of otter skins continued until the early 1950s.<sup>35</sup> The species has been listed in CITES Appendix 1 (see Section 2.1.2) since the 1970s. The population of southern river otters is currently decreasing and the species remains endangered. Despite this, some illegal hunting of the southern river otter and trade in otter pelts continues.<sup>36 37</sup>

## 2. Impact of the fur industry on biodiversity

Hunting for the fur trade was the single greatest threat to the giant otter (*Pteronura brasiliensis*) in the past and the species came close to extinction in the early 1970s in Ecuador, Colombia, Venezuela, Bolivia, and Brazil.<sup>38</sup> Giant otters are easily visible, inquisitive and slow to reproduce, making them extremely vulnerable to over-exploitation for the fur trade.<sup>39</sup> The inclusion of the giant otter in CITES Appendix 1 (see Section 2.1.2) and the introduction of international trade restrictions on giant otter skins in the 1970s finally brought an end to commercial hunting.<sup>40</sup> There is not thought to be any current trade, although there have been reports of skins being displayed in homes as decoration.<sup>41</sup> While some isolated sub-populations of the giant otter are showing signs of recovery,<sup>42 43</sup> the overall population trend is currently decreasing and the species remains endangered.<sup>44</sup>

The short-tailed chinchilla (*Chinchilla chinchilla*, formerly *Chinchilla brevicaudata*) and the long-tailed chinchilla (*Chinchilla lanigera*) were once widely distributed along the central Andes and adjacent mountains. The high quality of their fur motivated the widespread killing of chinchillas for the fur trade during the 19<sup>th</sup> and early 20<sup>th</sup> centuries. As market prices and the demand for skins increased in Europe and the United States, the number of pelts exported rose. Between 1900 and 1909, the number of skins officially exported exceeded half a million per year.<sup>45</sup> In total, more than seven million chinchilla furs were exported from Chile during the early part of the 20<sup>th</sup> century and this is estimated to represent only one third of the total number of chinchillas killed, as many furs were damaged as a result of the hunting methods used and were discarded.<sup>46</sup> The continuous killing was not sustainable and the number of chinchillas hunted declined until they were considered economically extinct by 1917.<sup>47</sup> Concurrently, market prices for the skins increased exponentially and a ban on chinchilla hunting in 1929 only increased the demand for skins.<sup>48</sup> Both species were thought to be extinct in the 1960s but small scattered populations

have since been rediscovered.<sup>49</sup> Both species have been listed in CITES Appendix 1 (see Section 2.1.2) since the 1970s but chinchilla protection laws were not strictly enforced until 1983, with the establishment of the Chinchilla National Reserve in Chile, and both species remain endangered today.<sup>50 51</sup> Specimens of the short-tailed chinchilla were removed from the wild to establish captive populations, which continue to be farmed for fur.

In Australia, koalas and possums were hunted for their fur in the early 20<sup>th</sup> century. In Central Queensland, approximately 450,000 to almost one million koalas were traded annually over two decades between 1906 and 1927, and approximately 400,000 to three million possums were traded annually over three decades between 1906 and 1936.<sup>52</sup> In 1920, the Annual Report of the Department of Agriculture and Stock in Queensland considered that the extermination of possums and koalas was “in sight” and it was another seven years before koalas were given legal protection.<sup>53</sup>

### 2.1.2 Trade in wild cat furs and the introduction of CITES<sup>54</sup>

The fashion for wearing cat fur in the 1960s led to a huge surge in demand for the pelts of species such as the leopard (*Panthera pardus*), jaguar (*Panthera onca*), snow leopard (*Panthera uncia*), and tiger (*Panthera tigris*). The International Union for the Conservation of Nature (IUCN) issued a warning at its 1963 General Assembly that “the present fashion... of spotted cats is a threat to the continued existence of these kinds of animals” with particular reference to the leopard and jaguar. Estimates of annual imports into the United States and Europe in the late 1960s indicate that the pelts of over 10,000 leopards, 15,000 jaguars, 3000-5000 cheetahs and 200,000 ‘ocelots’ (which included similar species such as margay (*Leopardus wiedii*) and oncilla (*Leopardus tigrinus*) as well as ocelot (*Leopardus pardalis*)) reached the market annually.

Concern that this trade could drive these species to extinction was one of the primary concerns which fuelled the development of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) – an international agreement that restricts and regulates trade in wildlife, which came into force in 1975. All cats were listed on either Appendix I or II of CITES by 1977, so that international commerce in cats (dead or alive), their pelts, and other products has been either prohibited or regulated since that time. Appendix I includes species threatened with extinction. Trade in specimens of these species is permitted only in exceptional circumstances. Appendix II includes species not necessarily threatened with extinction, but in which trade must be controlled in order to avoid utilisation incompatible with their survival. With the listing of all the big cat species on Appendix I in the 1970s, the fur industry simply switched focus to smaller cat species, although dealers continued to advertise CITES Appendix I listed cat species in fur industry publications as late as 1987.<sup>55</sup>

As ocelot populations were hunted out, trade in the pelts of other small spotted cats in South America increased, including margay, oncilla, and Geoffroy’s cat (*Leopardus geoffroyi*). Many South American countries had already prohibited trade in their native cats before CITES became effective but illegal trade continued. The trade declined when the European Community (EC) banned the import of spotted cat furs from South America in 1986. Once again, the fur trade shifted its focus to other small spotted cat species. In China, an average of 150,000 leopard cats (*Prionailurus bengalensis*) were killed for their fur each year between 1955 and 1981, which increased to around 400,000 per year between 1985 and 1988. The EC, formerly the primary destination for leopard cat pelts exported from China, imposed an import ban in 1988, and Japan became the main consumer, at a lower level, importing 50,000 skins in 1989, in addition to a substantial domestic market in China.

Today, trade in cat furs is much reduced and the legal trade involves the bobcat (*Lynx rufus*), Canada lynx (*Lynx canadensis*), Eurasian lynx (*Lynx lynx*), and the leopard cat from China. Many of the cat species that have been over-exploited by the fur trade in the past remain threatened today, and illegal trade in pelts continues to be a threat to many of these species.<sup>56 57 58 59 60 61 62</sup>

### 2.1.3 Ongoing threats to biodiversity

History shows that animal populations hunted for fur are very easily over-exploited<sup>63</sup> but the impact of the fur industry on biodiversity is not only historical. Today, wild fur makes up around 10% of world fur production<sup>64</sup> and close to 50% of North American fur production. In some parts of the world, target species may now be killed at levels that do not pose an imminent threat to the survival of the targeted species. However, the trade in wild fur continues to threaten biodiversity, hampering efforts to achieve several of the UN’s SDGs including Goal 12 (responsible consumption and production) and Goal 15 (life on land)<sup>65</sup> because:

- Killing of non-target species, including threatened species, is unavoidable. For example, in Canada, the use of killing neck snares aimed at killing various wild canids commonly leads to the deaths of many ungulates and carnivores, including species at risk, such as the grizzly bear (*Ursus arctos*) and the woodland caribou (*Rangifer tarandus*) in Alberta, the wolverine (*Gulo gulo*) in Quebec, and the lynx (*Lynx canadensis*) in Nova Scotia.<sup>66</sup>
- Management of animal populations hunted for fur is not possible in poorly regulated societies, and trade (legal and illegal) from these areas continues to threaten species survival.<sup>67</sup>
- Legal trade in furs makes the illegal trade easier.<sup>68</sup>

## 2. Impact of the fur industry on biodiversity

- Killing animals, even on an optimum sustained yield basis, necessarily involves keeping populations at lower densities than would otherwise be the case: such populations may be some 50% lower than unexploited ones.<sup>69</sup> Many animals hunted for fur are ‘keystone species’, such as top predators, that have a disproportionately large effect on the structure of ecological communities and ecosystem functioning.<sup>70</sup> Therefore, changes in the population densities of these species can have significant, and sometimes unforeseen, effects on entire ecosystems.<sup>71</sup>

North America is often held up as an example of sustainable management of species hunted for fur. IFF claims that “100 percent of the wild fur harvest from North America is part of government wildlife management programmes.”<sup>72</sup> However, it is important to note that North America has specifically managed its protected areas mainly for the maintenance of populations used for recreational hunting and trapping.<sup>73</sup> Burgin (2015) highlights how this narrow approach can fail to protect biodiversity:<sup>74</sup>

**“This approach [to wildlife management in North America] has focused on social requirements with a ‘utilitarian, iconic approach’, and those components of natural systems that were not considered ‘useful’ or ‘attractive’ have been largely ignored. This approach has tended to ignore biodiversity (including genetic diversity), ecological and landscape functionality, and adequate connectivity between protected areas”.**

IFF claims:<sup>75</sup> “The Agreement on International Humane Trapping Standards (AIHTS), which is a trilateral agreement between Canada, the EU and Russia, along with the parallel agreement between the EU and US, ensures that animal welfare is paramount in the wild fur harvest.” A detailed review of the animal welfare implications of trapping is outside the scope of this report. However, it is worth noting that a recent peer-reviewed scientific review of the AIHTS trapping standards concluded:<sup>76</sup>

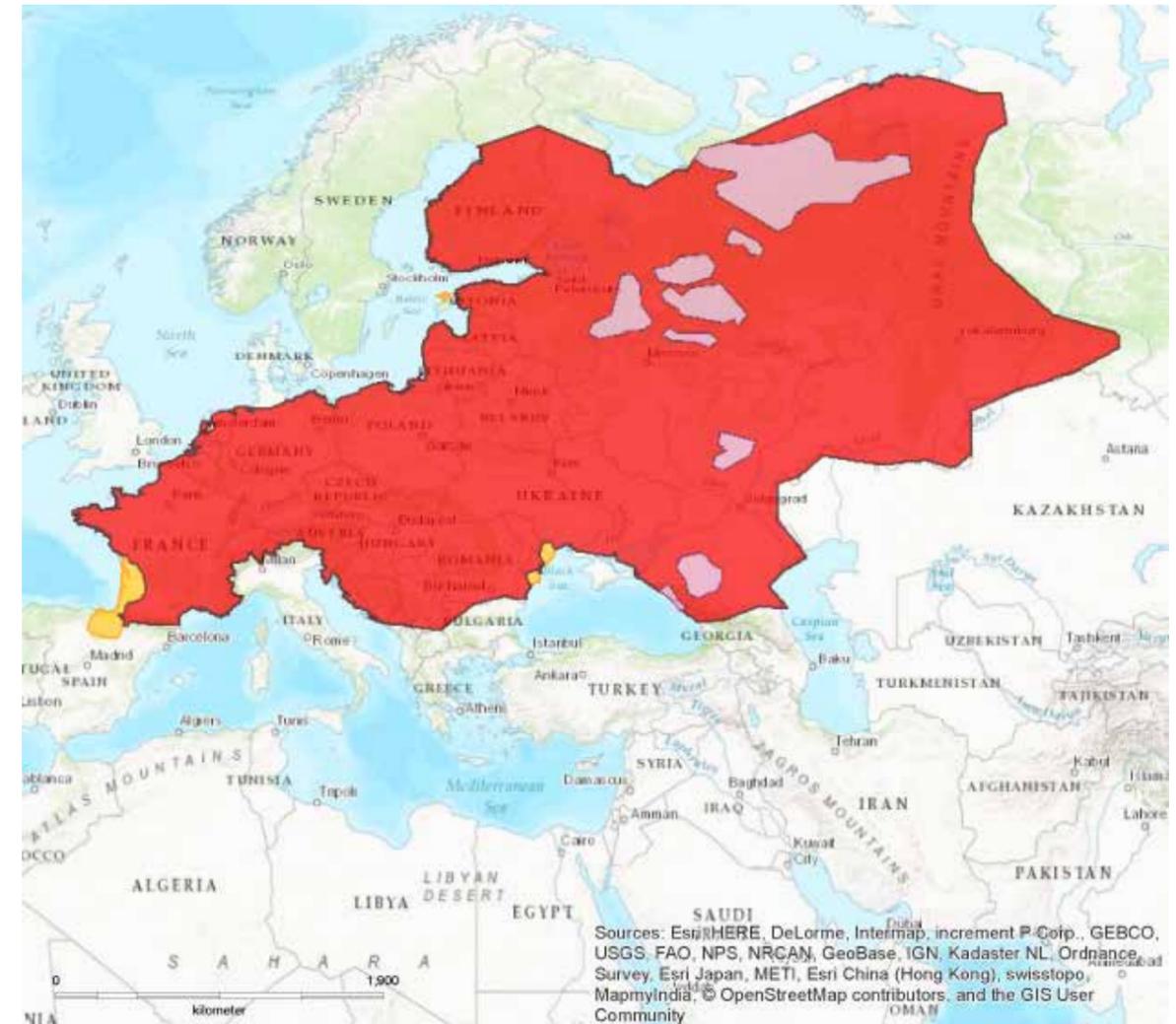
**“Our evaluation shows conclusively that the AIHTS standards do not reflect state-of-the-art trapping technology and that continued maintenance of these outdated standards perpetuates animal pain and suffering.”**

Trapping standards in the US are even weaker than the AIHTS standards.<sup>77</sup>

### 2.1.4 Case study: The European mink (*Mustela lutreola*)

The European mink was over-exploited by the fur industry in the first half of the 20<sup>th</sup> century.<sup>78</sup>

This, in combination with habitat loss and the impact of American mink (*Neovison vison*) introduced by the fur industry (both deliberate releases and escapes from fur farms; see Sections 2.2.1 and 2.2.8), has resulted in the European mink being lost from more than 85% of its former range (see Figure 2.1). It is likely that the overall number of European mink has declined more than 90% since the beginning of the 20<sup>th</sup> century.<sup>79</sup> The remaining population is small, fragmented and in decline and the species is classified as critically endangered.<sup>80</sup>



#### Range

- Extant (resident)
- Extinct
- Possibly Extant (resident)

Compiled by:  
IUCN (International Union for  
Conservation of Nature)

**Fig. 2.1. Current and historical range of the European mink. From IUCN<sup>81</sup>**

In Russia, over-exploitation in the first half of the 20<sup>th</sup> century was evident throughout almost the entire European mink range.<sup>82</sup> In addition, extensive habitat changes in the mid-20<sup>th</sup> century further contributed to the decline.<sup>83</sup> Large-scale introductions of American mink in Russia, first planned to be conducted only in regions outside the European mink’s natural range, were ultimately performed also inside the

native mink range because the native mink had become too scarce for the fur-trapping industry and American mink fur had a higher value in the market.<sup>84</sup> Despite its critically endangered status, trapping of European mink remains legal in Russia today.<sup>85</sup> The rapid decline of the European mink relative to the American mink is illustrated in the Vologda and Kostroma regions of Russia, where the proportion of European

mink skins in the hunting bag of the two mink species decreased from 50-70% to 1-10% within the 5-7 years to 2003.<sup>86</sup> European mink is not usually the target of trapping now, because its low population density makes trapping economically unprofitable, but it is killed in traps set for American mink, beaver, muskrat and marten, as well as in fish traps.<sup>87</sup> Some illegal trade in European mink fur to neighbouring countries from Romania has been recorded until recently but appears to have stopped.<sup>88</sup>

Although a variety of causes for the decline of the European mink can be identified (such as over-hunting and habitat loss), competition with the invasive American mink has become the most detrimental factor in recent decades.<sup>89,90</sup> Intensive control of American mink is on-going in Spain since 2003, around and inside the European mink distribution area. It is likely that, without such control of alien mink, the native mink population in Spain would have vanished already.<sup>91</sup> There are several American mink fur farms located in and around the last few remaining populations of European mink in Spain and Romania, and several escapes of American mink have been reported in 2015 from a recently established farm in Romania.<sup>92</sup>

The fur industry has played, and continues to play, a major role in the high risk of imminent extinction of the European mink through:

- Historical over-exploitation.
- Deliberate historical introductions of invasive American mink into European mink territory.
- Continued legal and accidental trapping of European mink.
- Ongoing escapes of American mink from fur farms (see Sections 2.2.1 and 2.2.8).
- Continued operation of existing fur farms, and establishment of new fur farms, within some of the last few remaining areas populated by the European mink.

- Lobbying to prevent effective EU-wide action to control the invasive American mink (see Section 2.2.8).

The example of the European mink clearly illustrates how the actions of the fur industry continue to threaten species with extinction, even today and even in countries where the fur industry claims that its business is responsible, sustainable and well-regulated. These actions directly conflict with SDG Goal 15, Target 15.5 (preventing the extinction of threatened species).<sup>93</sup>

## 2.2 Invasive species introduced by the fur industry

Invasion by alien (non-native) species is recognised as one of the main threats to biodiversity globally. Bellard *et al.* (2016)<sup>94</sup> assessed the prevalence of alien species as a driver of recent extinctions using data from the IUCN Red List. They found that alien species are the most common threat associated with vertebrate species that have gone completely extinct since AD 1500. Globally, invasive species threaten 14% of IUCN-listed critically endangered terrestrial vertebrate species (birds, mammals and reptiles), with critically endangered birds the most affected (25%).<sup>95</sup>

Nentwig *et al.* (2018)<sup>96</sup> ranked alien species in Europe according to their environmental and socioeconomic impact to produce a list of the 'worst' alien species in Europe. Of the 18 alien mammal species that appear on the list, one third have been deliberately and/or accidentally introduced by the fur industry, including three semi-aquatic rodent species and three mammalian carnivore species: Muskrat (*Ondatra zibethicus* – ranked 4<sup>th</sup> on the list), coypu (*Myocastor coypus* – 17<sup>th</sup>), American mink (19<sup>th</sup>), raccoon (*Procyon lotor* – 25<sup>th</sup>), American beaver (36<sup>th</sup>), and raccoon dog (*Nyctereutes procyonoides* – 66<sup>th</sup>) (see Sections 2.2.1 to 2.2.6 for more information on each of these species). Of the invasive mammal species included or proposed for inclusion on the EU's list of invasive alien species of

Union concern (see section 2.2.8), the muskrat, American mink and raccoon dog are the most widespread across the 47 member states of the Council of Europe, each having invaded at least 27 countries.<sup>97</sup> As a result of climate change, suitable climatic space is projected to increase for most invasive mammals in Europe.<sup>98</sup>

Invasive mammalian carnivores can have detrimental effects on native communities through predation on threatened or endangered prey populations and competition and/or maladaptive hybridisation with native carnivore species. Some of these effects may not be immediately obvious. Nonindigenous species can bring about a form of extinction of native species by hybridisation and introgression (movement of genes from one species into the gene pool of another species by repeated back-crossing of an inter-species hybrid with one of its parent species).<sup>99</sup> This form of extinction may not always be apparent from observing the morphology of the animals but may be revealed by molecular techniques.

Some invasive semi-aquatic rodent species can act as 'ecosystem engineers', directly altering the physical structure and function of their ecosystem. In some cases, multiple invasive species may interact, with devastating effects on invaded ecosystems. For example, the American beaver, muskrat and American mink have all been introduced to the southern tip of South America by the fur industry, where these three North American species have reassembled their native interactions.<sup>100</sup> Beavers affect river flow and native vegetation, changing forests into wetlands, creating suitable habitat for muskrats. Muskrats, in turn, are the main prey of inland mink populations and the latter has major impacts by preying opportunistically on native species, especially birds and small rodents.<sup>101</sup>

### 2.2.1 American mink (*Neovison vison*)

The American mink is a medium-sized, semi-aquatic carnivore of the mustelid family. The native range of the American mink extends over much of North America and Canada. They

## 2. Impact of the fur industry on biodiversity

have been introduced to many parts of the world for fur farming, including Europe, Russia and South America, and have spread due to accidental escapes and deliberate releases.<sup>102</sup> They are voracious predators, which kill in excess of their needs due to the phenomenon of 'surplus killing'. The American mink in Europe poses a threat to many seabird colonies and internationally important populations of ground-nesting birds and is a major contributing factor in the near extinction of the water vole (*Arvicola terrestris*) in the UK, and the decline of the critically endangered European mink across Europe.<sup>103</sup> In terms of the number of native species affected, the American mink is the alien mammal with the highest impact in Europe, affecting 47 native species, including six threatened species.<sup>104</sup>

In countries where fur farms still operate, mink still frequently escape into the surrounding environment. Despite regulations requiring fencing and traps around farms, around a quarter of mink caught by hunters in the wild in Denmark are farm-born.<sup>105</sup>

### 2.2.2 Raccoon (*Procyon lotor*)<sup>106</sup>

The raccoon is a medium-sized carnivore of the procyonidae family. Its opportunism and flexible behavioural traits result in omnivory and a wide ecological niche, with few natural predators. In addition, the raccoon has physical and physiological traits that allow it to colonise a wide range of habitats and climates. It has continued to expand its native North American range northward through the southern provinces of Canada, in addition to arid regions of the southwestern United States. The value of its fur prompted introductions to the former Soviet Union, and the establishment of fur farms from which releases occurred in western Europe. The raccoon has also been introduced to some islands off the coasts of Canada and Alaska, and in the Caribbean. Where conditions are favourable, colonisation following introduction can be rapid and it is expanding its range as an alien species in western Europe and Japan.

Raccoons exert ecological impacts on local fauna through predation, competition, and disease transmission. Raccoons can reduce nesting success of bird and reptile species that nest on the ground or in burrows, such as sea turtles and sea birds, and this may contribute to threatening rare species. The Allegheny woodrat (*Neotoma magister*) has become threatened through the transmission of raccoon roundworm (*Baylisascaris procyonis*). In Japan, raccoons may compete with, and exclude, the native raccoon dog as well as negatively impacting native prey species. Raccoons can also have economic impacts on agriculture, through destruction of crops and predation on domestic fowl, and there are health implications through its role as host to various zoonoses, some of which are lethal to humans.

### 2.2.3 Raccoon dog (*Nyctereutes procyonoides*)<sup>107</sup>

The raccoon dog is an omnivorous canid species native to East Asia. It was intentionally introduced from southeastern Siberia to multiple locations in the former Soviet Union by the fur industry during the first half of the 20<sup>th</sup> century. From there it has spread across much of Europe and is still spreading towards the west and south and may also spread further north due to global warming. Raccoon dogs may have a detrimental impact on native frog populations, and possibly also on some native birds.

The raccoon dog is an important vector of rabies in northeastern Europe and bait vaccinations are carried out, for example twice each year in Finland, at considerable expense. The raccoon dog is also a vector of several zoonotic parasitic infections, including the small fox tapeworm (*Echinococcus multilocularis*), *Trichinella* species, and sarcoptic mange.

### 2.2.4 Muskrat (*Ondatra zibethicus*)<sup>108</sup>

The muskrat is an amphibious rodent which is native to North America but has been introduced for its fur (both intentional releases

and accidental escapes from fur farms) to much of Europe, as well as parts of Asia and South America. It inhabits wetlands, where it damages vegetation (for food and for building its lodges), banks and other structures (by burrowing), and neighbouring crops, and can threaten populations of a variety of native species. Its high rate of reproduction makes the muskrat difficult to control.

Overabundance of muskrat can strongly threaten endemic species, such as the Desman (*Desmana moschata*), and also impacts fish and ground-nesting birds. Although mostly herbivorous, muskrats sometimes feed on crustaceans (such as crayfish), insects and bivalves, including threatened bivalve taxa such as Anodonta, Unio, and the freshwater pearl mussel (*Margaritifera margaritifera*). This indirectly affects rare fish species that deposit their eggs in bivalves, such as the bitterling (*Rhodeus amarus*).

### 2.2.5 Coypu (*Myocastor coypus*)<sup>109</sup>

The coypu or nutria is a large semi-aquatic rodent which originated from South America. Due to escapes and releases from fur farms there are now large feral populations in North America, Europe and Asia. Their burrows penetrate and damage river banks, dykes and irrigation facilities, and their feeding methods lead to the destruction of large areas of reed swamp and can also damage agricultural crops including sugarcane, alfalfa and root crops. Habitat destruction caused by coypu threatens rare marshland species of birds, fish and invertebrates. The coypu is listed as one of the '100 of the world's worst invasive alien species' by the IUCN.<sup>110</sup>

### 2.2.6 American beaver (*Castor canadensis*)<sup>111</sup>

The American or Canadian beaver is native to North America and has been introduced to Tierra del Fuego in southern South America, Finland, France, Poland and Russia. The

American beaver has been intentionally introduced for its fur (and also as part of a reintroduction programme for the Eurasian beaver in Finland, before it was recognised as a separate species).

Beavers are able to quickly cut down large numbers of trees and their damming activity can cause flooding, which can damage forests. Via physical, chemical and geomorphological alterations, beavers modify the structure and function of entire biotic communities and ecosystems. In Finland, they compete with native beaver populations.

### 2.2.7 Brushtail possum (*Trichosurus vulpecula*)

The brushtail possum is a nocturnal, arboreal marsupial native to Australia. It was introduced to New Zealand and several offshore islands, via multiple deliberate releases beginning in 1837 and continuing into the 20<sup>th</sup> century, with the intention of founding a fur industry.<sup>112</sup>

Possums damage native forests in New Zealand by selective feeding on foliage and fruits and also prey on invertebrates and bird eggs and nestlings (including threatened species).<sup>113</sup> Possums are vectors for bovine tuberculosis and consequently pose a significant threat to beef, deer and dairy industries.<sup>114</sup> The brushtail possum is listed as one of the '100 of the world's worst invasive alien species' by the IUCN.<sup>115</sup>

### 2.2.8 Managing invasive species

In 2014, the EU introduced Regulation 1143/2014 on invasive alien species (the IAS Regulation)<sup>116</sup> which entered into force on 1 January 2015. The IAS Regulation focuses on a List of Invasive Alien Species (IAS) of Union Concern (the 'Union list'), adopted in 2016<sup>117</sup> and updated periodically.<sup>118</sup> Member States (MS) are required to collect information and take actions regarding the listed species, aimed at prevention of the introduction of IAS, early detection and rapid eradication to prevent the establishment of IAS,

## 2. Impact of the fur industry on biodiversity

and management of IAS populations that are already established. In its Biodiversity Strategy for 2030,<sup>120</sup> the EU commits to managing established IAS with the aim of achieving a 50% reduction in the number of Red List species threatened by invasive alien species by 2030.

Given the prominent historical and ongoing role of the fur industry in the introduction and spread of multiple invasive alien species, and the industry's stated commitment in its sustainability strategy to "protect biodiversity",<sup>121</sup> one might expect that the fur industry would be at the forefront of efforts to control invasive alien species and protect threatened native species. Instead, the fur industry lobbies hard to exclude fur-farmed species from the Union list, thus hampering effective co-ordinated action to tackle invasive species.

Coypu and raccoon were included on the original Union list in 2016, and the muskrat was added in 2017. A risk assessment for the American beaver is expected to be considered for inclusion on the Union list in 2021.<sup>122</sup>

Despite opposition from the fur industry,<sup>123 124</sup> in 2017, a species currently farmed for fur in Europe – the raccoon dog (referred to by the fur industry as 'finnraccoon') was also added to the Union list, with effect from 2<sup>nd</sup> February 2019.<sup>125</sup> However, intensive lobbying by the fur industry<sup>126 127</sup> has so far prevented the inclusion of American mink on the Union list, despite overwhelming evidence of the need for urgent co-ordinated action to control this species to try to avert the imminent extinction of the critically endangered European mink.<sup>128</sup>

Carboneras *et al.* (2017)<sup>129</sup> systematically ranked IAS according to their maximum potential threat to biodiversity in the EU and prioritised 207 species for urgent risk assessment. The American mink was included in the group of 59 most urgent species based on their potential to permanently damage native species or ecosystems. In March 2018, a risk assessment proposing the addition of American mink to the Union list was submitted to the

European Commission but, despite approval by the EC's Scientific Forum on IAS, mink were excluded from the Commission's proposed list and from discussion in the voting process.<sup>130</sup> Denmark led the opposition to the listing of mink in order to protect its fur farming industry.<sup>131</sup> The risk assessment concluded:<sup>132</sup>

**“A large number of scientific publications demonstrate the invasiveness of the American mink and its very high ecological impact (the species is the main cause of decline or extinction of several threatened species). The main risk for establishment comes from mink farms.”**

Article 9(1) of the IAS Regulation<sup>133</sup> does allow for the keeping and breeding of species included on the Union list “for reasons of compelling public interest, including those of a social or economic nature”. Finland has requested and been granted a derogation from the European Commission, allowing the continued farming of raccoon dogs under licence.<sup>134</sup> This provision in the IAS Regulation was introduced following heavy lobbying by the fur industry. That the fur industry continues to oppose the inclusion of American mink on the Union list, despite already securing this protection of their commercial interests, clearly shows that they have no interest in protecting biodiversity unless it directly serves their economic interests.

The fur industry tries to downplay the impact of American mink and the role of fur farms as a source of mink and proposes that control measures for American mink would be better left to individual Member States.<sup>135</sup> It seems extraordinary to suggest that an invasive species that is so widespread across the EU would be better controlled by piecemeal actions by individual countries. There is surely no species more in need of co-ordinated cross-border action than the American mink. Fur Europe suggests that eradication attempts for the American mink in Europe would be too expensive with little to no chance of success.<sup>136</sup> However, research indicates that eradication

within continental areas is possible, especially with recent developments in trapping technology. Zabala *et al.* (2010)<sup>137</sup> conclude that American mink eradication from some continental areas would be feasible with current techniques at a moderate-low cost and recommend that management in continental areas should move towards eradication, rather than control, when feasible. Bouros *et al.* (2017)<sup>138</sup> highlight that effective control or local eradication of American mink is possible with reasonable effort using new trapping methods (mink rafts) developed in the UK and currently used in several areas in Europe with significantly better results compared to traditional trapping methods.

Many scientists have voiced concerns that the effectiveness of the IAS Regulation may be undermined by political and economic interests. Genovisi *et al.* (2015)<sup>139</sup> warn that “the real strength of the legislation will largely depend on the decisions of a committee of representatives of the Member States, with the risk that the real enforcement will be limited by political and economic, rather than scientific, considerations.” Tollington *et al.* (2017)<sup>140</sup> stress that “the list should remain unyielding to conflicts of interests since MS will be permitted to apply for derogations to maintain secure, captive populations of IAS where they provide socio-economic benefits of ‘compelling public interest’”. Zuberogoitia *et al.* (2018)<sup>141</sup> highlight that conservation efforts for the critically endangered European mink are being undermined because:

**“the powerful fur trade lobby is trying to exclude the American mink from the Invasive Species List”.**

This lobbying by the fur industry directly conflicts with SDG Goal 15, Target 15.5 (preventing the extinction of threatened species) and Target 15.8 (controlling or eradicating priority invasive alien species).<sup>142</sup>

There is now an additional pressing need for urgent action because of the risk of American

mink in the wild possibly acting as a virus reservoir for SARS-CoV-2 (severe acute respiratory syndrome coronavirus 2: the virus responsible for the COVID-19 pandemic in humans), posing a potential new threat to both humans and native wildlife (see section 3.1.2). A group of scientists from the UK, Spain, Estonia and Switzerland has called for large scale SARS-CoV-2 testing of wild American mink, in combination with removal trapping, across Europe, with co-ordinated action among neighbouring countries.<sup>143</sup>

### 2.2.9 Fur farm escapes of native species

Escaped animals from fur farms can also be problematic within their native range. Around one fifth (18%) of free-ranging American mink in Ontario, Canada, have been identified as

either escaped animals from fur farms or hybrids between escaped and wild animals.<sup>144</sup> This kind of ‘cryptic invasion’ can facilitate the introgression of maladaptive genes into wild populations. There is also a risk that diseases, such as Aleutian disease (a highly infectious and often fatal parvovirus), may be introduced to wild mink populations via contact with farm mink.<sup>145</sup>

‘Gene swamping’ (replacement of local genotypes by hybrids) has been highlighted as a severe threat to the survival of the highly endangered Fennoscandian arctic fox (*Alopex lagopus*).<sup>146</sup> On the Fennoscandian arctic tundra, the arctic fox is highly adapted to the fluctuating availability of lemmings; hybridisation with escaped arctic (‘blue’) foxes from fur farms conveys a risk of outbreeding depression, which could increase the risk of extinction through loss of local adaptations to the lemming cycle.<sup>147</sup>

### Section 2 summary:

The fur industry has historically had a devastating effect on biodiversity, being responsible for the extinction of some species and the over-exploitation of many others. Some species that were over-exploited in the past have never fully recovered and are still threatened today. Some species have recovered substantially in numbers but have low genetic diversity that makes them more vulnerable to catastrophic events, environmental changes, and infectious disease.

In some parts of the world, target species may now be killed at levels that do not pose an imminent threat to the survival of the species. However, this is not possible in poorly regulated societies and the trade in legal furs makes the trade in illegal furs easier, which continues to threaten species survival. Even in countries where hunting and trapping may not pose an immediate threat to the survival of the targeted species, traps kill non-target species, including threatened species.

Invasion by alien species is recognised as one of the main threats to biodiversity globally. Of the 18 ‘worst’ alien mammal species in Europe, one third have been deliberately and/or accidentally introduced by the fur industry: muskrat, coypu, American mink, raccoon, American beaver, and raccoon dog. The brushtail possum, deliberately introduced to New Zealand for its fur, and the coypu are included in the IUCN’s list of ‘100 of the world’s worst invasive alien species’.

The fur industry makes a commitment to “protect biodiversity” in its sustainability strategy, yet it lobbies in the EU to keep fur-farmed species off the List of Invasive Alien Species of Union Concern. Fur industry lobbying has so far been successful in excluding American mink from the Union list, thus hampering control efforts. This lobbying, together with multiple other past and present actions of the fur industry, is directly contributing to the high risk of imminent extinction of the critically endangered European mink.



### 3. Environmental pollution and resource use by the fur industry



## 3. Environmental pollution and resource use by the fur industry

### 3.1 Pollution from fur farms

#### 3.1.1 Emissions to air, soil and water

Fur farms typically house tens of thousands of animals on a relatively small area of land. In common with factory farms for other species, this presents a problem for the disposal of animal waste. However, for several reasons, this problem is generally greater for fur farms than for farms rearing livestock for food:

- Mink are strictly carnivorous animals with high protein demands and the protein content of mink feed is therefore about twice as high (35-40% of dry matter) as that of feed for omnivorous animals such as pigs.<sup>148</sup>
- Fur farms are often geographically concentrated in areas where there is little suitable land available for the useful disposal of manure.<sup>149</sup> Manure is heavy and expensive to transport so it is often impractical for it to be moved over long distances to areas where it can be used.<sup>150</sup>
- The design of fur farms creates a high potential for emissions from manure – fur farms typically use elevated cages in open-sided houses without sophisticated manure handling systems – urine and faeces drop from the cages to the slurry gutter or to the floor of the house, where they are stored for days or weeks.<sup>151</sup>

Ammonia emission from livestock is an important source of air pollution that contributes to acidification and eutrophication (nutrient enrichment of aquatic ecosystems characterised by excessive algal growth). In Denmark, nitrogen loss in the form of ammonia from mink was measured as 0.59g N/animal/day at 6°C and 1.15g N/animal/day at 16°C when the slurry was emptied weekly (which could be reduced to 0.44g N/animal/day at 6°C and 0.62g N/animal/day at 16°C if the slurry was emptied diurnally).<sup>152</sup> In houses for broiler chickens with about the same bodyweight, the evaporation of nitrogen as ammonia was 0.21-0.48g N/animal/day in the UK, Germany, The Netherlands and Denmark.<sup>153</sup> Ammonia emission per animal from mink houses is therefore at least double that for broiler chickens.<sup>154</sup>

Large amounts of ammonia emitted from fur farms can lead to soil acidification and damage to nearby forests. In western Finland, damage to the growth of Scots pine has been reported in the vicinity of mink and fox farms due to the high levels of nitrogen pollution emitted as ammonia from the manure of the animals.<sup>155</sup> Growth of Scots pine (*Pinus sylvestris*) can suffer considerably in forests close to fur farms, with the occurrence of wintertime dieback in the youngest shoots due to a serious imbalance in nitrogen metabolism.<sup>156</sup> Effects of ammonia deposition on mineral nutrition and pine needle structure can extend to distances of more than 1km from the farms.<sup>157</sup>

In China, measures of faecal pollution from mink and fox farms were found to be two to three times the emission standards for the livestock and poultry breeding industry (National Standard GB18596-2001, which stipulates maximum allowable daily average emissions for the intensive livestock farming industry). Specifically, for mink and fox farms respectively, biological oxygen demand (BOD) was 2.6 and 2.0 times higher, chemical oxygen demand (COD) was 3.6 and 2.4 times higher, suspended solids (SS) were 2.0 and 2.1 times higher, nitrogen in the form of ammonia (NH<sub>3</sub>-N) was 2.8 and 2.7 times higher, and phosphate (P) was 2.2 and 2.2 times higher.<sup>158</sup>

Discharge of excess nutrients, especially nitrogen (N) and phosphorous (P), into aquatic ecosystems can lead to eutrophication. Dense blooms of noxious, foul-smelling algae reduce water clarity and harm water quality and, in some cases, produce toxins that are potentially harmful to humans, livestock and wildlife. When these dense algal blooms eventually die, microbial decomposition severely depletes dissolved oxygen, creating a 'dead zone' lacking sufficient oxygen to support most organisms.<sup>159</sup> Human-induced eutrophication and concomitant harmful algal blooms continue to be the leading cause of water pollution for many freshwater and coastal marine ecosystems, posing a serious threat to potable drinking water sources, fisheries, and recreational water bodies.<sup>160</sup> Given that the demand for freshwater resources is expected to increase dramatically, protecting diminishing water resources has become one of the most pressing environmental issues.<sup>161</sup>

In Nova Scotia, Canada, the mink sector is concentrated in a relatively small area, which increases environmental risks.<sup>162</sup> Mink farms are primarily located in Yarmouth and Digby Counties in an area with a small cropland base, reducing alternatives to effectively manage mink manure and other wastes close to mink farms.<sup>163</sup> Transporting excess manure to areas with manure deficits is very expensive and the

manure often has to have water removed to reduce its volume for trucking. This expense limits opportunities to manage excess manure based on transporting it to other areas.<sup>164</sup>

In 2008, the Nova Scotia Department of Environment initiated annual water quality surveys in response to concerns about water quality in a number of lakes located within the Carleton, Meteghan, and Sissaboo River watersheds. Many of the lakes were found to be seriously degraded as a result of nutrient over-enrichment resulting in the development of extensive algal blooms.<sup>165</sup> A 2012 report identified mink farms as the major sources of the pollution and concluded that the extremely high levels of inorganic phosphorous were most likely a result of the use of superphosphate in the mink farming industry, which is used to increase the shelf life of mink feed and to reduce the occurrence of kidney stones in farmed mink.<sup>166</sup> As a result, the Nova Scotia Department of Agriculture developed and enacted the Fur Industry Act, and associated Regulations, which were enacted in 2013. These include a number of measures designed to minimise the impact of fur farming operations on water quality, although there is widespread concern that the measures do not go far enough.<sup>167</sup> In general, there have been marginal reductions in nutrient levels since the regulations were introduced, but levels in some lakes have increased and algal blooms continue to be a serious problem.<sup>168 169</sup>

In Finland, 95% of fur farms are located in the Ostrobothnia region in Western Finland.<sup>170</sup> This regional concentration of fur farms puts enormous strain on the water system. In Finland there are approximately 50 fur farms located at aquifers classified as important for water supply, plus approximately 80-100 closed fur farms on those aquifers.<sup>171</sup> In Western Finland specifically, there are 30 fur farms that pose a significant risk of contamination to important aquifers.<sup>172</sup> The main problem is the rising levels of nitrate and nitrite in these aquifers, due to leaching of nitrogen compounds from fur animal faeces. Nitrification causes the groundwater to become

acidic, which increases the dissolution of many heavy metals, and concentrations of nickel and aluminium may exceed multi-fold the quality requirements and recommendations for drinking water. Leaching of drugs given to the fur animals may also pose a risk to the groundwater quality.<sup>173</sup> The natural action of denitrifying bacteria is unable to significantly reduce the high levels of nitrogen compounds in the soil and groundwater at fur farms unless active remediation measures are employed.<sup>174</sup>

In Spain, nearly 80% of the mink farms are located in the Galicia region.<sup>175</sup> Groundwater quality data in the rural areas of Abegondo, Galicia, show bacteriological and nitrate contamination due to poor management of manure in the fields and discharges of slurry from pig and mink farms.<sup>176</sup>

Even where there is legislation in place to control pollution from fur farms, effective enforcement is often lacking. In Poland it is common practice for large farms to be divided into smaller units for the purposes of official documentation (whereas, in reality, they continue to operate as a single entity) in order to evade environmental protection measures that apply to larger farms only.<sup>177</sup> Audits by the Inspectorate of Environmental Protection detected irregularities in 15 out of 20 audited fur farms in Poland, including five cases where owners stored manure under mink cages, which may have caused sewage containing nitrogen to contaminate groundwater, and one farm where wastewater was discharged directly to the ground.<sup>178</sup>

In Lithuania, more than half of the country's fur farms are located in Siauliai County.<sup>179</sup> In 2014, following complaints from local residents, unannounced inspections were carried out on 31 fur farms. All of the 31 farms were found to be in breach of environmental requirements for manure and slurry management and 22 of the farms had started operations without carrying out an Environmental Impact Assessment, as required under Lithuanian law.<sup>180</sup> Follow-up

inspections in 2016 found that 12 out of 19 fur farms were still in violation of environmental regulations.<sup>181</sup> Although fines may be imposed, there is concern that the amounts are too low to ensure that breaches of environmental requirements are rectified, since it may be cheaper to pay a fine for the fourth or fifth time than to build a manure storage facility.<sup>182</sup>

Emissions from fur farms can have serious negative effects on the health<sup>183</sup> and quality of life of local residents, who frequently report problems with flies and foul odours<sup>184 185 186 187</sup> as well as slurry run-off and degradation of waterbodies.<sup>188 189</sup> The typical use of open-sided houses on fur farms, with manure stored for days or weeks at a time in the slurry gutter or on the floor beneath the cages,<sup>190</sup> provides the perfect breeding ground for flies. Most feed used on fur farms is wet and high in protein, which is also ideal substrate for fly larvae development.<sup>191</sup> A study in the Netherlands found that the prevalence of asthma and allergic rhinitis was increased among people living within 500m of mink farms.<sup>192</sup>

The potential for high levels of air, water and soil pollution from fur farms, coupled with often inadequate enforcement of environmental regulations, impedes progress towards several SDGs, including Goal 3, Target 3.9 (reducing illness from hazardous chemicals and air, water and soil pollution), Goal 6, Target 6.6 (protection of water-related ecosystems), Goal 12, Target 12.4 (environmentally sound management of chemicals and waste), Goal 13 (climate action), Goal 14, Target 14.1 (reducing marine pollution from land-based activities), and Goal 15, Target 15.1 (conservation of terrestrial and freshwater ecosystems).<sup>193</sup>

### 3.1.2 Disease and antibiotic resistance

Fur farms also pose a risk to the health of the wider public and wildlife via the transmission of disease and dissemination of antibiotic-resistant

microbes into the environment, jeopardising SDG Goal 3 (good health and well-being).<sup>194</sup> The large numbers of animals kept in crowded and chronically stressful conditions in factory farms create the perfect breeding ground for disease, including zoonotic disease (disease that can be transmitted from animals to people). This issue has received much attention recently due to the outbreaks of SARS-CoV-2 in mink farms across Europe and North America.<sup>195</sup> SARS-CoV-2 has been detected in mink on hundreds of farms in Denmark, as well as on farms in the Netherlands, Greece, Sweden, Spain, Lithuania, France, Italy, Latvia, Poland, the US and Canada.<sup>196</sup>

Whole-genome sequencing of the virus isolated from mink on farms in the Netherlands has provided evidence of both human-to-mink and mink-to-human transmission of the virus.<sup>197</sup> Sequencing of samples from humans infected with mink-related SARS-CoV-2 in Denmark revealed that the virus had accumulated mutations with potentially adverse consequences for human health.<sup>199</sup> As a result, a ban on mink farming in the Netherlands has been brought forward from 2024 to 2021<sup>199</sup> and mink farming has been temporarily suspended in Denmark, Sweden, France and Italy, with millions of mink being culled.<sup>200</sup> Further investigation has confirmed that mutations in the mink-related SARS-CoV-2 strain in Denmark do affect its susceptibility to antibodies in recovered COVID patients and vaccinated individuals.<sup>201</sup>

In their report on SARS-CoV-2 infection in mustelids, The European Food Safety Authority (EFSA) and European Centre for Disease Prevention and Control (ECDC) note that:<sup>202</sup>

**“large mink farms with high animal density provide ideal conditions for SARS-CoV-2 replication and transmission.”**

They also highlight the risk of spreading the virus to wildlife: “Farmed mink are generally farmed in open housing systems and in contiguous cages. The former situation may allow close contact between caged mink and other animals approaching these facilities,

which, if they are susceptible, may acquire SARS-CoV-2 if mink are infected; the latter (contiguous cages) may facilitate efficient animal-to-animal transmission of infectious diseases.” Testing of wild mink in the vicinity of an infected farm has detected SARS-CoV-2 in a wild mink in the US.<sup>203</sup> A joint risk assessment by the Food and Agriculture Organization of the United Nations (FAO), the World Organisation for Animal Health (OIE) and the World Health Organization (WHO) concluded that there is a high risk of transmission of SARS-CoV-2 from fur farms to susceptible wildlife populations in Europe.<sup>204</sup> EFSA / ECDC note that raccoon dogs are another species of concern “as they are susceptible and capable of shedding SARS-CoV-2, and they are bred for fur production [...] and are present in the wild with high abundance in Europe.”<sup>205</sup>

Fur farms can act as a reservoir of many other infectious diseases. The soil around fur farms can become heavily contaminated with bacteria<sup>206</sup> and parasites,<sup>207</sup> including some which are zoonotic. A Polish study at three fur farms (with foxes, mink and raccoon dogs) found eggs of the roundworms *Toxocara canis* and *Toxascaris leonine*, and live larvae of the hookworms *Ancylostoma caninum* and *Uncinaria stenocephala* in the soil between the rows of cages and around the farm, with some occurring at least 300m from the farm boundary.<sup>208</sup>

Antibiotic resistance is a serious public health problem of growing concern. Antibiotic resistance genes (ARGs) are frequently detected in livestock waste and are not completely removed by conventional livestock waste treatment processes, resulting in their release to soil and water environments.<sup>209</sup> Various exposure routes of these ARGs to humans may be contributing to the rise in resistant clinical infections that are increasingly difficult to treat with antibiotics.<sup>210</sup> A Danish study found that antibiotic resistance was common in most pathogenic bacteria from mink.<sup>211</sup> Waste from fur farms is therefore a potential source of ARGs in the environment.

Worryingly, while antibiotic use in animals farmed for food in Denmark has been falling,<sup>212</sup> antibiotic use in mink in Denmark increased significantly between 2007-2012 and fluctuated at a high level during 2012-2016 (except for a temporary drop in 2013-2014).<sup>213</sup>

### 3.2 Toxic chemicals used in pelt processing

#### 3.2.1 Fur dressing and dyeing

Dressing refers to the preservation of fur from its unprocessed state. Dyeing refers to changing the colour of the hairs of the fur. Both processes require industrial and chemical methods, involving the use of many substances that are hazardous to the environment and human health.

The pelts obtained from fur farmers, trappers and hunters have usually been scraped to remove flesh and fatty deposits, stretched and air dried.<sup>214</sup> The pelts then go through a series of treatment steps, typically as follows:<sup>215</sup>

- The pelts are soaked in saltwater to resoften the skin and stop bacterial action, with the aid of proteolytic enzymes.
- The pelts are placed in a pickling bath of potash alum or ammonia alum and salt, to which acids are added.
- The pelts are then ready to be tanned with specific agents (e.g. chromium sulphate, aldehyde, aluminium salts).
- Then the pelts are immersed in an oil solution (fatliquoring).
- If dyed, dressed pelts are treated with a weak alkaline solution (e.g. sodium bicarbonate, ammonia, sodium phosphates) or with oxidisers or reducing agents.
- The pelts are then soaked in a mordant solution (e.g. ferric sulphate<sup>216</sup>) to increase their receptivity.
- Then the pelts are steeped in a dye solution.

The ILO encyclopaedia of Occupational Health and Safety notes that:<sup>217</sup> “Various chemicals used in the fur industry are potential skin irritants. These include alkalis, acids, alum, chromates, bleaching agents, oils, salt and the compounds involved in the dyeing process, which comprise various types of dyes as well as mordants.” It also notes that: “Unpacking of bales which have been treated with dusting powder in their countries of origin, drumming, plucking, unhairing and shearing can all produce irritant dust. In dye houses and dye kitchens, where salts of lead, copper and chromium (and possibly carcinogenic dyes) are weighed and cooked, there is also a risk of ingestion of toxic dusts. Injurious vapours may arise from degreasing solvents and fumigating chemicals. There is also the possibility of development of contact sensitization (allergy) to some of these chemicals or to the dust from one or more of the types of fur being handled.”

Haz-Map® is an online occupational health database designed for health and safety professionals and for consumers seeking information about the adverse effects of workplace exposures to chemical and biological agents.<sup>218</sup> The main links in Haz-Map®, established using current scientific evidence, are between chemicals and occupational diseases. The information in Haz-Map® comes from textbooks, journal articles, documented Threshold Limit Values,<sup>219</sup> and electronic databases such as ChemIDplus.<sup>220</sup> All of the health-related content in Haz-Map® comes from peer-reviewed sources, and the methods used to extract the information were published in a peer-reviewed journal. Haz-Map® lists more than 45 chemicals and groups of chemicals as “hazardous agents” associated with the fur dressing and dyeing process, including:<sup>221</sup>

- Carcinogens (substances that cause cancer)
- Genotoxins (substances that damage DNA)
- Mutagens (substances that cause mutations in DNA)
- Reproductive toxins

- Teratogens (substances that interfere with foetal development)
- Hepatotoxins (substances that cause damage to the liver)
- Nephrotoxins (substances that cause damage to the kidneys)
- Pulmonary toxins (substances that cause damage to the lungs)
- Neurotoxins (substances that cause damage to the nerves)
- Corrosive substances
- Skin, eye and mucous membrane irritants
- Skin sensitisers (substances that can cause an allergic reaction following skin contact)
- Respiratory sensitisers (substances that can cause an allergic reaction when inhaled).

The use of toxic metals in fur dressing and dyeing is particularly problematic because they are nonbiodegradable and bioaccumulate in the body.<sup>222</sup> Toxic metals are significant environmental pollutants and their toxicity is a problem of increasing significance for ecological, evolutionary, nutritional and environmental reasons.<sup>223</sup> In terms of land pollution by toxic metals, fur dressing and dyeing is ranked in the top five highest pollution-intensity industries.<sup>224</sup>

The waste from fur dressing and dyeing contains a cocktail of hazardous chemicals. Improper handling and disposal can lead to contamination of soils, surface waters and groundwater. The International Fur Dressers’ and Dyers’ Association (IFDDA) claims:<sup>225</sup> “We are socially responsible entrepreneurs and care for human beings and the environment”. In reality, the industry is highly polluting, which has resulted in most fur dressing and dyeing globally now being carried out in countries that have generally lower environmental standards. Prior to the COVID-19 pandemic, the EU exported around 6000 tonnes of raw mink skins annually, mainly to China, Cambodia and Thailand,<sup>226</sup> as well as around 2000 tonnes of raw fox skins, mainly to China.<sup>227</sup> Water and land pollution from

fur processing facilities is a common and well-recognised problem in China.<sup>228</sup> Even in Europe, pollution from fur dressing and dyeing still occurs. In 2018, EXPOTAN S.A., an IFDDA member in Kastoria, Greece, was fined €34,350 for pollution and environmental degradation caused by its fur skin processing and refining plant, including illegal storage, illegal management and uncontrolled disposal of hazardous waste.<sup>229</sup> Waste oils contaminated the water supply of local residents with potentially carcinogenic substances, including trichloroethene and tetrachloroethene, above the permissible limits.<sup>230</sup> The contamination was brought to light in 2018 but was later revealed to have been occurring since at least 2014.<sup>231</sup> In the fine imposition decision, it was noted that EXPOTAN S.A. had committed past violations related to storage and management of waste but had failed to rectify the situation despite recommendations and deadlines for compliance.<sup>232</sup>

#### 3.2.2 Toxic chemical residues in fur clothing

Over the past decade, a number of studies have been carried out to investigate chemical residues in fur products on sale in several countries. The 2011 report, *Poisons in Furs*,<sup>233</sup> looked at 35 fur articles from many internationally famous fashion brands purchased in seven European countries (Bulgaria, Germany, UK, The Netherlands, Austria, Romania and Switzerland). The fur samples were tested for residues of 17 toxic chemicals and chemical groups that are known health hazards by an independent certified laboratory, the Bremer Umweltinstitut (Bremen Environmental Institute). All of the samples were found to be contaminated to some extent. Formaldehyde (which is carcinogenic and allergenic) and alkylphenols and alkylphenol ethoxylates (which mimic oestrogen and disrupt the hormone system) were identified in all of the samples. 15 of the 17 chemicals and chemical groups tested for were detected in one or more of the samples, including toxic heavy metals and the internationally banned pesticide DDT.

In at least 12 cases, the contamination of the fur products was so high that it was probably in breach of statutory requirements.

In 2016, following research in Italy that found toxic chemicals in the fur trim on the hood of children's jackets,<sup>234</sup> the European Commission ordered the withdrawal from the market of Blumarine Baby jackets.<sup>235</sup> The amount of hexavalent chromium (chromium VI, which is carcinogenic and allergenic) in the hood did not comply with the REACH Regulation (EC 1907/2006 on the Registration, Evaluation, Authorisation and Restriction of Chemicals). Research in the Netherlands in 2015 also found toxic chemicals in the fur trim of children's jackets from six well-known brands.<sup>236</sup> In this case, most of the samples contained high levels of formaldehyde and alkylphenol ethoxylates.

The 2018 report, *Toxic Fur: A Global Issue*,<sup>237</sup> looked at six fur fashion items purchased from high-street stores in China, including a fur key ring, two children's coats with fur hood trim, two women's coats with fur hood trim, and one men's coat with fur hood trim. The products were analysed for six chemicals known for their probable damaging effects to human health: formaldehyde, chromium VI, alkylphenol ethoxylates, azo dyes and chlorinated phenols. All six samples failed Chinese and/or international recommended standards for chemical substances. Five of the six samples failed international legal requirements, and four of the six items failed Chinese legal standards. All items contained formaldehyde, chromium VI, polycyclic aromatic hydrocarbons (PAH), alkylphenol ethoxylates, azo dyes and heavy metals, including lead.

In response to the European Chemicals Agency (ECHA) consultation on proposed restrictions on skin sensitizing substances in textile, leather, hides and fur, Fur Europe lobbied for higher concentrations to be allowed for fur products than for leather and textiles, even suggesting that the restrictions should not apply to fur at all.<sup>238</sup> They argued that "fur is used in the

exterior part of the garment for thermal and aesthetic reasons and is not used as lining which would be in prolonged contact with human skin in the same way as textiles or leather". This argument clearly has no basis in fact, as is apparent from the use of fur on the inside of the hood in the jackets for young children in the examples described in this section. There have also been several instances where fur-lined gloves have been removed from the market in the EU due to excessive levels of chromium VI.<sup>239 240</sup>

Pollution from fur processing facilities, and the potentially dangerous levels of hazardous chemicals found in fur clothing, conflict with several SDGs, including Goal 3, Target 3.9 (reducing illness from hazardous chemicals and air, water and soil pollution), Goal 6, Target 6.3 (reducing water pollution from hazardous chemicals), and Goal 12, Target 12.4 (environmentally sound management of chemicals and waste).<sup>241</sup>

### 3.3 Life Cycle Assessment (LCA) of the environmental impacts of fur

Sections 3.1 and 3.2 show how pollution from fur farms and fur processing facilities damages the environment. The textile industry also has substantial impacts on the environment.<sup>242</sup> Life Cycle Assessment (LCA) is a decision support tool to evaluate the environmental impacts of a product or service throughout its life cycle. This section will examine the findings of LCA studies comparing the environmental impacts of fur with those of other textiles and faux fur garments.

#### 3.3.1 LCA studies conducted by CE Delft

Two LCA studies, commissioned by animal welfare groups, have been carried out by independent research consultancy CE Delft.<sup>243</sup> The first was published in 2011<sup>244</sup> and compared

the environmental impact of producing 1kg of mink fur with 1kg of other common textiles: cotton, acrylic, polyester, and wool. On 17 of the 18 environmental impacts investigated, mink fur scored higher (i.e. worse) than all of the other fabrics. Water depletion is the only impact on which mink fur scored better than one of the fabrics (cotton). The environmental impacts of producing 1kg of mink fur (apart from water depletion) were found to be a factor of 2 to 28 times higher than those of common textiles (see Table 3.1). The feed of the mink was the main contributor to 14 of the 18 environmental impacts. Nitrous oxide (N<sub>2</sub>O) and ammonia (NH<sub>3</sub>) emissions from mink manure also make a notable contribution to several environmental impacts.

The second CE Delft study was published in 2013<sup>245</sup> and compared the environmental impact of a mink fur coat with a faux fur coat and a mink fur trim with a faux fur trim. This time, the comparison was extended to include not just the production of the material but also the use

and disposal of the product. The scores for the various environmental impacts were calculated separately (using the ReCiPe midpoint method) and also combined into a single measure (the ReCiPe single score, which weighs the impacts into one environmental score). The environmental impacts of the fur coat were found to be a factor of 3 to 83 times higher than those of a faux fur coat (see Table 3.1). For the mink fur trim and faux fur trims, similar ratios apply. Even when a mink fur trim is reused once or twice on a new product, and the faux fur trim is not, the impact of the mink fur trim is greater.

The substantially greater environmental impacts of fur compared with other textiles and faux fur (as shown in Table 3.1) indicate that the production of fur is at odds with several SDGs including Goal 2 (zero hunger), Goal 3 (good health and well-being), Goal 6 (clean water and sanitation), Goal 12 (responsible consumption and production), Goal 13 (climate action), Goal 14 (life below water), and Goal 15 (life on land).<sup>246</sup>



**Table 3.1: Difference in environmental impacts between the production of 1kg of mink fur and 1kg of other textiles (cotton, acrylic, polyester, and wool) (Source: CE Delft, 2011 <sup>247</sup>) and between a mink fur coat and a faux fur coat with various backing materials (Source: CE Delft, 2013 <sup>248</sup>)**

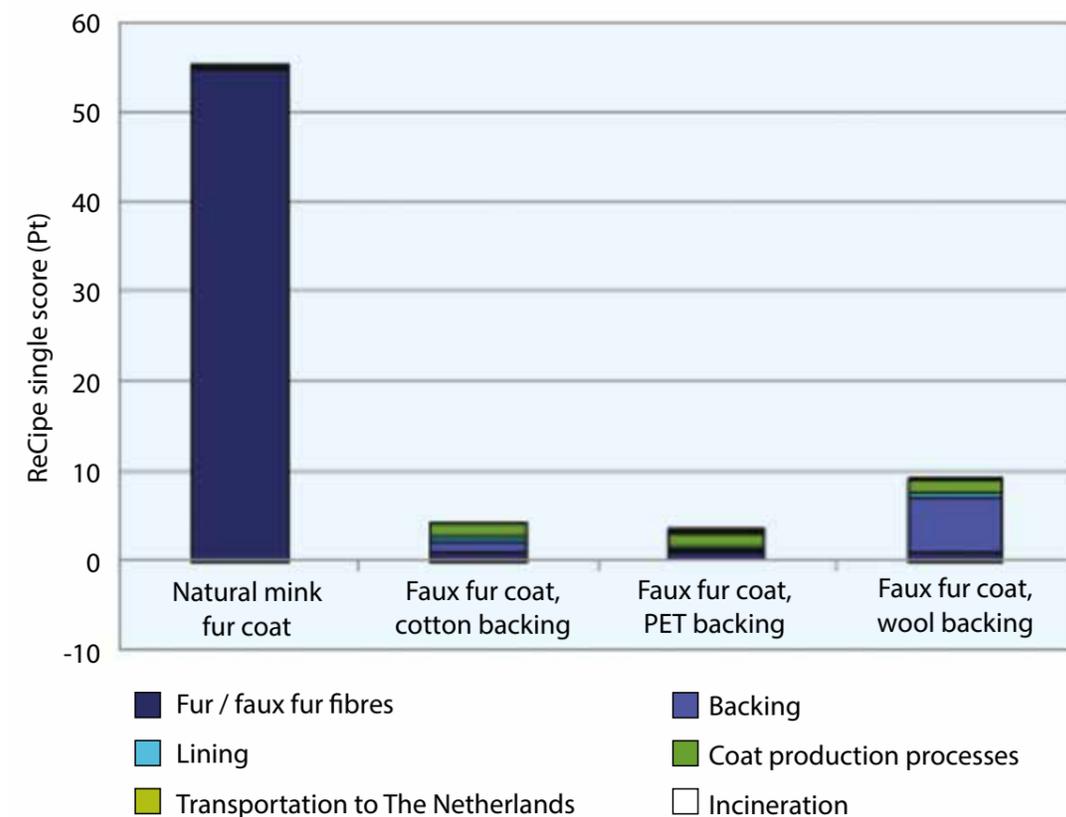
Environmental impact	Minimum difference factor between the impact of 1kg of fur and the impact of 1kg of the other textiles (i.e. the impact of the worst performing textile in each case would need to be multiplied by this number to equal the impact of fur) (from CE Delft, 2011 <sup>249</sup> )	Minimum difference factor between the impact (midpoint) of a fur coat and the impact (midpoint) of a faux fur coat with various backing materials (i.e. the fur coat would need to have a lifespan this many times longer than the worst performing faux fur coat to have equal impact) (from CE Delft, 2013 <sup>250</sup> )
Climate change	4.7	4
Ozone depletion	11.9	13
Human toxicity	3.4	6
Photochemical oxidant formation	28.1	5
Particulate matter formation	17.0	12
Ionising radiation	2.1	35
Terrestrial acidification	15.3	13
Freshwater eutrophication	5.2	4
Marine eutrophication	12.9	7
Terrestrial ecotoxicity	24.0	83
Freshwater ecotoxicity	2.6	3
Marine ecotoxicity	3.2	3
Agricultural land occupation	5.3	6
Urban land occupation	27.9	23
Natural land transformation	9.5	8
Water depletion	0.4	-
Metal depletion	6.8	10
Fossil depletion	6.5	4

When combined into a single measure, the environmental impact of a mink fur coat exceeds that of a faux fur coat by many times (see Figure 3.1). Even if the lifespan of the fur coat were assumed to be five times longer than the faux fur coats (30 years vs. 6 years – this is the assumption used in the fur industry-commissioned LCA study by DSS – see Section 3.3.3), the fur coat would still have a greater environmental impact because the impact of one mink fur coat

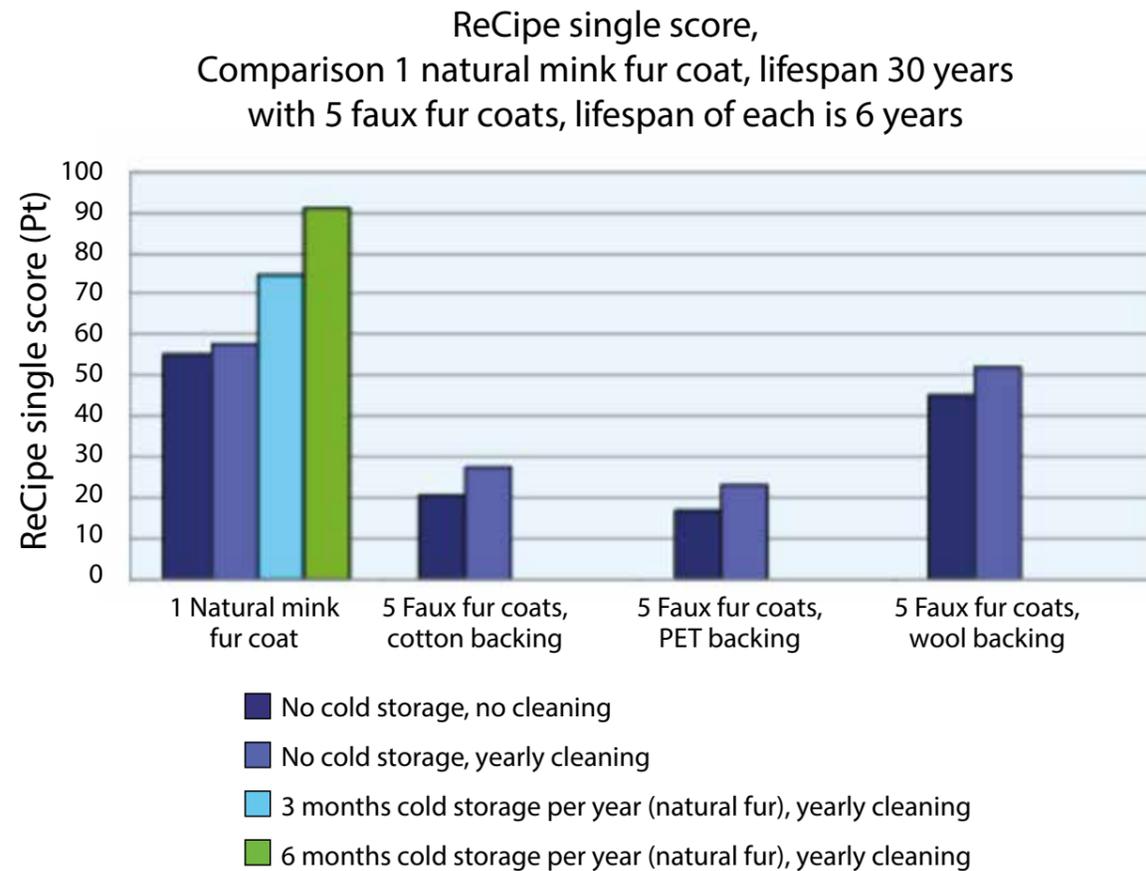
is greater than that of five faux fur coats (see Figure 3.2).

In both CE Delft studies, wherever there was uncertainty, several scenarios were considered and the option selected was that which minimised the environmental impact of the mink fur relative to the other materials. Thus, the actual difference between the environmental impact of the mink fur and the other materials is likely to be even greater.

ReCipe single score, Comparison 1 mink fur coat, 1 faux fur coat, excl. maintenance, similar lifespan



**Figure 3.1: Comparison of the overall environmental impact of one mink fur coat (excluding any impact of cold storage and cleaning to extend its lifespan) with the environmental impact of one faux fur coat (with various backing materials). From CE Delft, 2013. <sup>251</sup>**



**Figure 3.2: Comparison of the overall environmental impact of a mink fur coat (with and without cold storage and cleaning to extend its lifespan) with the environmental impact of five faux fur coats (with various backing materials). From CE Delft, 2013. <sup>252</sup>**



### 3.3.2 LCA study conducted by MTT

The fur industry has also commissioned LCA studies. One study was carried out in 2010-2011 by MTT Agrifood Research Finland, <sup>253 254</sup> a public research organisation operating under the Finnish Ministry of Agriculture and Forestry. This considered fewer environmental impacts than the CE Delft studies, concentrating on greenhouse gas (GHG) emissions (i.e. carbon footprint), eutrophication emissions and acidification emissions. The study compared a mink fur coat, a fox fur coat, a jacket (65% polyester, 35% cotton), a faux fur coat (65% acrylic, 7% modacrylic, 28% cotton), and a faux fur coat (100% acrylic). The authors assumed that the fur coats had a lifespan ten times longer than the other clothing items, although they did not provide any evidence or references to support this assumption. Even with this unrealistically long lifespan for the fur coats (see Section 3.3.3), the GHG emissions and acidifying emissions were both worse for the fur coats than for the other clothing items. Therefore, although this study did not attempt to combine the scores for the various impacts into a single score, the other clothing items had lower environmental impacts than the fur coats on two of the three parameters investigated.

The other clothing items also had very low impact in terms of eutrophication emissions. However, the authors made an interesting argument with regards to the eutrophication emissions for fur. They argued that the eutrophication emissions for the fur coats would be more than cancelled out by the removal of herring from the Baltic Sea for inclusion in the feed for the fur animals. Baltic herring and side-products of fish slaughtering make up around 20% of the feed ration for fur animals in Finland. <sup>255</sup> Certainly, the bodies of the fish do contain both nitrogen (N) and phosphorous (P). However, it is an oversimplification to assume that the removal of some N and P by fisheries catches has an overall beneficial effect on eutrophication, as other effects of fishing may counterbalance

this effect. <sup>256</sup> For example, fish sequester considerable amounts of P during summer and might compete with algae, in particular nitrogen-fixing cyanobacteria, for P. <sup>257</sup> Indeed, fishing may itself promote eutrophication-like effects. <sup>258</sup> When a coastal area of the Baltic Sea with an intermediate level of eutrophication was managed as a long-standing 'no-take' area (i.e. without fishing), changes in the food web resulted in improved environmental status, with species composition resembling that seen in low eutrophication areas with fishing. <sup>259</sup> Therefore, rather than cancelling out the eutrophication emissions of fur production, it is even possible that the removal of fish from the Baltic for use in fur animal feed might exacerbate the eutrophication impact of fur.

In any case, Baltic herring stocks have been severely over-fished, so their use in the feed of fur animals can hardly be considered an environmental benefit. Since records began in 1974, the stock biomass for central Baltic herring (the largest of the Baltic herring stocks) is estimated to have shrunk by 77%. <sup>260</sup> For four years in a row now, the International Council for the Exploration of the Sea (ICES) has advised that there should be zero catch of Western spring spawning herring in the Baltic, <sup>261</sup> which has been fished above sustainable levels for many years. So far this advice has been ignored by EU fisheries ministers in the quota negotiations. <sup>262</sup>

In the context of a rapidly growing world population and even more rapidly growing demand for fish and fisheries products, the use of fish in fur animal feed must be seen as detrimental to global food security and several SDGs, including Goal 2 (zero hunger), Goal 3 (good health and well-being), Goal 12 (responsible consumption and production), and Goal 14 (life below water). <sup>263</sup> Even if fish by-products only, rather than whole fish, were used in fur animal feed (which is clearly not the case), this would still be using resources to produce fur that could be better utilised to produce human food via fishmeal and fish oil

in feed for livestock and aquaculture. There has been a progressive reduction in supply of fishmeal and fish oil globally since the mid-1990s, coupled with a rapidly growing aquaculture industry (many species of farmed fish are carnivorous so the increase in aquaculture production has a knock-on impact in increasing demand for fishmeal and fish oil for feed from catch fisheries) which has led to an increasing share of fishmeal and fish oil being produced from fish by-products.<sup>264</sup> These by-products are not waste, but a valuable commodity. Indeed, a great deal of research effort is directed at the replacement of fishmeal and fish oil in aquaculture diets because there is inadequate supply to meet the requirements of the rapidly expanding aquaculture sector.<sup>265</sup>

Large amounts of fish have also been used in feed on Danish fur farms (prior to the cull of mink on Danish farms in November 2020 – see Section 3.1.2). In 2020, approximately 238,000 tonnes of sandeels, from both domestic and foreign fishing vessels, were delivered to Danish fishmeal and fish oil processing factories.<sup>266</sup> At a key Danish landing site on the Jutland peninsula, at the North Harbour of Hvide Sande, sandeels are landed and processed at a company called Hvide Sande Minkfodercentral (Mink Feed Centre), from where they are delivered directly to Danish fur farms.<sup>267</sup> The industrial sandeel fishery is one of the largest in the North Sea and is permitted to operate within the foraging range of IUCN Red List species like kittiwake (*Rissa tridactyla*) and puffin (*Fratercula arctica*), breeding at internationally important (and legally protected) seabird colonies on the UK coast.<sup>268</sup> The kittiwake, which is particularly dependent on sandeels, has seen its UK numbers fall by half since the 1960s, with diminishing availability of prey during the breeding season thought to be mainly responsible.<sup>269</sup> It has become clear that sea warming is driving sandeel decline, but there is also evidence that the international North Sea sandeel fishery is a contributory factor and is affecting the resilience of seabird populations to chronic climatic shifts in their food resources.<sup>270</sup>

### 3.3.3 LCA study conducted by DSS

Another LCA study commissioned by the fur industry was carried out by a Canadian company, DSS Management Consultants Inc., in 2012.<sup>271</sup> This study compared a mink fur coat with a faux fur coat. As in the MTT study, the DSS study attempted to use real data from fur industry operators. However, DSS was not very successful in obtaining these data: “Primary data relating to inputs and outputs were collected for various processes associated with the natural fur lifecycle. These data were obtained through surveys distributed to individual operators. The response rate to these surveys was generally low. As a result, reliance on secondary data sources was necessary in many cases.” They go on to state: “no claim is made that this LCA is based on a representative natural fur life cycle.”

The DSS study used the same software used by CE Delft: SimaPro (including data from its supporting Ecoinvent database). However, unlike the 81-page<sup>272</sup> and 48-page<sup>273</sup> documents published by CE Delft, the 16-page DSS document<sup>274</sup> is only a summary and gives very little detail and almost no numerical values for the inventory data that are the basis of the study. CE Delft requested the full report from the International Fur Trade Federation (now IFF) in order to be able to match assumptions and learn which sources were used but this request remained unanswered.<sup>275</sup> The DSS study states: “Clearly documenting data sources and explaining the related analysis allows independent review and confirmation of this analysis. In fact, this LCA has undergone a critical, independent third-party peer review as per the ISO LCA standard.” Unfortunately, putting the unpublished full study through an unpublished peer review process by unnamed reviewers does nothing to give the study credibility.

It is therefore not possible to fully understand why the DSS study produced the opposite result to those of CE Delft and MTT, with the environmental impact of fur apparently being lower than the faux fur alternative in the DSS

study. One of the few assumptions used in the DSS study for which numerical data are given in the published summary, is for the assumed lifespan of the coats being compared. Unfortunately, despite noting that “A key parameter that affects all aspects of this LCA is the functional unit (i.e., the length of the useful life of a natural fur coat)” and that “The peer reviewers identified this parameter in particular as being of key importance”, the study does not provide any references or supporting evidence to justify the figures used. It merely states: “The functional unit used for this LCA is the lifetime use of a natural-fur, full-length coat. The useful life of a natural fur coat is assumed to be 30 years. The useful life of a faux fur coat is assumed to be 6 years. To make the two products comparable, it is assumed that five faux fur coat [sic] are required to equal the useful lifetime of one natural fur coat.”

An assumed lifespan of 5 or 6 years for the faux fur coat would appear to be reasonable for the lifespan of synthetic textiles.<sup>276</sup> However, the available evidence does not support an average lifespan of 30 years for a fur coat. A well-researched and fully referenced examination of the longevity, repair and re-use of animal fur was prepared for Voices for Animals in 2020.<sup>277</sup> This study concludes that the actual average longevity of garments made from the most common types of fur is no more than 5-10 years (<10 years for mink, <7 years for arctic fox and <5 years for red fox). Long-term research in Russia has established the average service life of classic-cut fur products to be 3-6 years for hats and 5-8 years for coats.<sup>278</sup> It is possible for an individual fur garment to last for several decades, for example if it is composed of the most durable types of fur, if it is worn only occasionally, and if it is placed in seasonal cold storage. However, when the fur industry refers to fur coats having a lifespan of 30 years or more, these are exceptional individual cases being passed off as the norm.<sup>279</sup>

The DSS study does consider other scenarios for the lifespan of the garments but, inexplicably, it

only considers an increase in the lifespan – from 30 to 36 years for a fur coat, or from 6 to 8 years for a faux fur coat. When the scores in the DSS study are adjusted in line with the available evidence on garment longevity, this change alone is sufficient to reverse the findings of the study in favour of faux fur. When the lifespan is adjusted so that the fur coat is assumed to have a lifespan two times (instead of five times) longer than the faux fur coat (i.e. equivalent to 10 years for the fur coat and 5 years for the faux fur coat), 11 of the 13 scores for the individual indicators, as well as the combined ReCiPe single score, now indicate a lower impact for faux fur. It is important to note, however, that CE Delft found a lower impact for faux fur even when using the same garment lifespan assumptions used by DSS (see Figure 3.2, Section 3.3.1).<sup>280</sup>

### 3.3.4 Use of LCA to support environmental claims

The LCA studies discussed in Sections 3.3.1 to 3.3.3 clearly show that the environmental impact of fur is many times greater than the environmental impact of other textiles and faux fur. As part of the Circular Economy Action Plan, the European Commission proposed in 2020 that companies should substantiate their environmental claims using Product and Organisation Environmental Footprint methods (based on LCA).<sup>281</sup> The fur industry is represented on the European Commission’s Environmental Footprint Technical Advisory Board.<sup>282</sup> Fur Europe has voiced concern that “environmental footprint methods currently under discussion may leave some key product features untold to consumers - longevity, functionality, plastic pollution”.<sup>283</sup> The fur industry is clearly concerned that, without adjustments based on an unrealistically long lifespan of fur garments, standardised environmental footprint methods will not produce favourable results for fur products (regarding the other point raised by Fur Europe – plastic pollution – see Section 3.4).

Of course, there are other key product features that are not usually included in LCA studies

currently, but which are helpful in enabling consumers and organisations to make informed decisions regarding the impacts of a product. There is growing interest in broadening LCA to include economic and social aspects of sustainability and animal welfare. Scherer *et al.* (2018)<sup>284</sup> propose a framework for incorporating animal welfare into LCA. The authors note that even a very simplified assessment of animal welfare impact would be preferable to ignoring this issue altogether. Such an assessment could be based, for example, on the living space of the animals, the slaughter age either as life duration or life fraction, the number of animals affected in producing a product unit, and a moral judgement based on the perceived level of self-awareness of the animals affected.<sup>285</sup> The high level of animal suffering involved in the production of fur means that alternatives that avoid the use of animals would further out-perform fur in LCA comparisons when animal welfare is included.

### 3.4 Biodegradability

The fur industry is always keen to highlight the problem of plastic pollution and to make claims regarding the biodegradability of fur in comparison with faux fur.<sup>286</sup> To this end, IFF and Fur Europe commissioned a study of fur and faux fur biodegradation. In response to the findings, IFF comments:<sup>287</sup> “Over the testing period natural fur biodegraded rapidly and at a similar rate to organic matter such as an oak or willow leaf”. What the study actually found was that biodegradation of the fur samples plateaued at between 6.6% for dyed fox fur and 25.8% for undyed mink fur, indicating that the fur products were only partially biodegradable under the test conditions.<sup>288</sup> The study gives average biodegradation percentages for a selection of natural products for comparison, which range from 31% for leaves (oak, poplar, willow) to 66% for craft paper (bleached and lignin removed). The degree of biodegradation for fur products cannot therefore be said to be similar to the natural products listed, since the range for the fur products (6.6-25.8%) falls

entirely below the range for the natural products (31-66%). This is to be expected, given that the fur has been chemically treated to preserve it. The study refers to the fur samples as dyed or undyed but makes no reference to the specific chemicals used in the dressing and dyeing process for the fur samples, nor any reference to any toxic substances that may be released during the partial biodegradation of the samples or the potential environmental impacts of those substances.

Although IFF’s interpretation of this study exaggerates the biodegradability of fur, plastic pollution is certainly a pressing global issue and synthetic textiles do contribute to it.<sup>289</sup> However, this will not be addressed by the niche fur industry, with its substantially greater environmental impact, on a large number of measures, compared with other textiles (see Section 3.3). More extensive collection and recycling of plastic items at the end of their life, for re-use in new production, to offset the use of virgin plastic, is a critical aspect both for reducing the amount of plastic waste entering the environment, and in improving the efficiency of fossil resource use.<sup>290</sup> Polyester is the synthetic material with the greatest share of the global textile market.<sup>291</sup> Currently the share of recycled polyester is increasing and reached 14% of the polyester market in 2019.<sup>292</sup> However, most recycled polyester is currently based on plastic bottles as feedstock and a move towards more textile-to-textile recycling will be needed.<sup>293</sup> The technology to extract and reuse polyester fibres from unwanted textiles has been developed.<sup>294</sup> The EU-funded RESYNTEX project aims to create a new circular economy concept for the textile industry, producing secondary raw materials from unwearable textile waste.<sup>295</sup> There is also growing interest in bio-based polyester.<sup>296</sup>

There are already faux fur alternatives to fur available that address the issues of plastic pollution and / or biodegradability, while reducing or avoiding harm to animals.<sup>297</sup> KOBA® faux fur, created by Ecopel in partnership with Stella McCartney, is the first commercially

available partially bio-based faux fur. KOBA faux fur is made with up to 100% DuPont™ Sorona® polymer fibre, making it 37% plant-based.<sup>298</sup> The corn-based components are a by-product from the bio-fuel sector (not food source) that would otherwise be left unused.<sup>299</sup> The remainder of the composition is polyester or recycled polyester, which can be fully recycled again at the end of the product’s life.<sup>300</sup> Sorona® for faux fur does not break down over time due to heat or UV rays, helping to lengthen the life of garments.<sup>301</sup> KOBA faux fur debuted as a black faux fur coat at Stella McCartney’s Spring 2020 fashion show during Paris Fashion Week.<sup>302</sup> KOBA faux fur reduces plastic pollution by reducing or avoiding the use of virgin plastic and through the possibility to recycle garments. Greenhouse gas emissions and energy use are reduced compared with polyester faux fur<sup>303</sup> so that KOBA faux fur would be expected to further

out-perform animal fur when comparing environmental impact, while completely avoiding the use of animals.

There are also examples of biodegradable faux fur, such as the ‘bio-fur’ produced by Margarete Steiff GmbH (the 120-year-old teddy bear company) partnered with Katharine Hamnett (London-based fashion designer).<sup>304</sup> This ‘bio-fur’ is made from mohair fibre trapped in a cotton backing fabric. The mohair is sourced from farms in South Africa that adhere to Sustainable Mohair Production Guidelines.<sup>305</sup> This ‘bio-fur’ is biodegradable, does not contribute to plastic pollution, and involves pasture-based farming systems that would be expected to reduce animal suffering compared with the inherently cruel factory farming and trapping methods employed by the fur industry.

### Section 3 summary:

Pollution from fur factory farms often has a devastating effect on local waterbodies, groundwater, soil and air quality. Ammonia emission per animal from mink houses is at least double that for broiler chickens, due to the high protein requirement of the strictly carnivorous mink and the typical use of open-sided houses on fur farms without sophisticated manure-handling systems. Emissions from fur farms can have serious negative effects on the health and quality of life of local residents, who frequently report problems with flies and foul odours.

The dressing and dyeing of fur involves the use of many toxic chemicals. Toxic metals pose a particularly serious problem because they are nonbiodegradable and bioaccumulate in the body. In terms of land pollution by toxic metals, fur dressing and dyeing is ranked in the top five highest pollution-intensity industries. Potentially dangerous levels of several hazardous chemicals have been found in fur products (including clothing for children) sold in both Europe and China.

Fur has a substantially greater environmental impact (on a large number of measures including climate impact and various measures of pollution and resource use) than other common textiles. Measured over the life cycle of the product (from production of the raw material to disposal) the environmental impact of a mink fur coat is many times higher than that of a faux fur coat. The fur industry claims that a fur coat compensates for the difference with a longer lifespan but provides no supporting evidence. The available evidence indicates that the actual lifespan of fur garments is, on average, no more than 5-10 years and therefore nowhere near long enough to compensate for the difference in environmental impact.

The production of fur conflicts with efforts to achieve several UN Sustainable Development Goals, including Goal 2 (zero hunger), Goal 3 (good health and well-being), Goal 6 (clean water and sanitation), Goal 12 (responsible consumption and production), Goal 13 (climate action), Goal 14 (life below water), and Goal 15 (life on land).



**4. Will Furmark® address the environmental impacts of the fur industry?**



## 4. Will Furmark® address the environmental impacts of the fur industry?

In 2020, IFF published a sustainability strategy<sup>306</sup> and launched Furmark®, which it claims is a “comprehensive global certification and traceability system for natural fur that guarantees animal welfare and environmental standards.”<sup>307</sup> The first Furmark ‘certified’ pelts were sold at auction in 2020 and the Furmark label launched to consumers in September 2021.<sup>308</sup> Furmark is an umbrella scheme incorporating various programmes for farmed fur, wild fur, and dressers and dyers (see Box 4.1 and Table 4.2).

This section will assess the credibility of Furmark, comparing key features of the scheme with two established industry schemes. The two schemes used for comparison are the Responsible Wool Standard (RWS) by Textile Exchange (see Box 4.2) and MADE IN GREEN by OEKO-TEX® (see Box 4.3). These schemes were chosen because the RWS includes both animal welfare and sustainability aspects and MADE IN GREEN includes both product testing for harmful substances and sustainability aspects. Between them, these schemes cover all the areas that IFF claims are covered by Furmark.



### Box 4.1 Furmark® by the International Fur Federation (IFF)

According to the IFF website:<sup>309</sup>

“The International Fur Federation was established in 1949 and is the only organisation to represent the international fur industry and regulate its practices and trade. The federation promotes the business of fur, establishing certification and traceability programmes on welfare and the environment. It is also committed to supporting young designers and retailers who intend to go into fur and fashion.”

Furmark is an umbrella scheme that includes:<sup>310</sup>

- Farmed mink, fox and raccoon dog certified under WelFur in Europe and elsewhere.
- Farmed mink and fox certified to standards based on industry Codes of Practice in the US and Canada.
- Farmed sable certified by a government research institute in Russia.
- Farmed karakul fetal and newborn lamb pelts certified to standards based on an industry Code of Practice in Namibia.
- Wild sable from Russia sold through certified auction houses.
- Various wild species from the US and Canada sold through certified auction houses.
- Dressers and dyers certified to the Furmark SafeFur standard (testing for harmful substances).
- Traceability of certified pelts through the supply chain from fur farms and hunters / trappers via auction houses, dressers and dyers, manufacturers and retailers.

### Box 4.2: Responsible Wool Standard (RWS) by Textile Exchange

According to the Responsible Wool standards document:<sup>311</sup>

“Textile Exchange is a global non-profit that works closely with our members to drive industry transformation in preferred fibers, integrity and standards and responsible supply networks. We identify and share best practices regarding farming, materials, processing, traceability and product end-of-life in order to reduce the textile industry’s impact on the world’s water, soil and air, and the human population.”

“The Responsible Wool Standard is a voluntary standard that addresses the welfare of sheep and the land they graze on”.

**Box 4.3: MADE IN GREEN by OEKO-TEX® (International Association for Research and Testing in the Field of Textile and Leather Ecology)**

According to the OEKO-TEX website and a factsheet about the MADE IN GREEN label:

“OEKO-TEX® enables consumers and companies to make responsible decisions which protect our planet for future generations. We consist of 18 independent research and test institutes in Europe and Japan. They are responsible for the joint development of test methods and limit values which form the basis for our standards.”<sup>312</sup>

“Since 1992, our portfolio of independent certifications and product labels has enabled companies along the textile chain and all consumers to make responsible decisions in favour of products that are harmless to health, environmentally friendly and manufactured in a fair way.”<sup>313</sup>

“The MADE IN GREEN label verifies that an article has been tested for harmful substances. This is carried out through certification in accordance with STANDARD 100 by OEKO-TEX® or LEATHER STANDARD by OEKO-TEX®. It also guarantees that the textile or leather product has been manufactured using sustainable processes under socially responsible working conditions. This is carried out through certification in accordance with STeP by OEKO-TEX®.”<sup>314</sup>

The schemes are assessed in three broad areas, each with four criteria, giving a total of 12 criteria (see Table 4.1 and Sections 4.1-4.3). These criteria are based on various guidelines published (separately and in partnership) by ISEAL and WWF, including credibility principles<sup>315 316 317</sup> and codes of good practice for sustainability standards,<sup>318 319 320 321</sup> a report on how credible standards can contribute to delivering the SDGs<sup>322</sup> and a certification assessment tool (CAT)<sup>323</sup> (see Sections 4.1-4.3 for discussion of the findings in relation to relevant quotes from these guidelines).

The assessment of the schemes is based on desk research (mostly based on information available online plus a copy of the Furmark SafeFur standard, version 2020/04/02). A simple scoring system is used, with 1 point if the criterion is met, 0.5 point if it is partially met, and 0 points if it is not met. The scores are presented in Table 4.1. The criteria used for the assessment cover basic requirements, which any credible scheme would be expected to meet. It is therefore not surprising that the RWS and MADE IN GREEN standards both score 12 out of a possible 12 points. Furmark, in contrast, fails to meet most of the criteria and scores only 1.5 out of 12 (see Table 4.1 and Sections 4.1-4.3 for details).

**Table 4.1: Assessment of the credibility of Furmark and two established industry schemes.**

For each criterion, score 1 = scheme meets the criterion, score 0.5 = scheme partially meets the criterion, score 0 = scheme does not meet the criterion. See text (Sections 4.1-4.3) for further discussion regarding each criterion.

Scheme	FURMARK®	RESPONSIBLE WOOL STANDARD (RWS)	MADE IN GREEN
Scheme owner	International Fur Federation (IFF)	Textile Exchange	OEKO-TEX®
<b>AREA 1: QUALITY OF THE STANDARDS</b>			
<b>Criterion 1(1): Scheme owners clearly define and communicate the specific sustainability objectives of the standards and strategy for achieving these objectives</b>	<b>SCORE = 0</b>  No. As of 11.10.21, a search of the Furmark website <sup>324</sup> did not reveal any clear and specific sustainability objectives. The information presented suggests that the goal is to provide “certification”, “traceability”, “confidence” and “assurance” with no indication of how this will contribute to any specific sustainability objectives (see Section 4.1.1).	<b>SCORE = 1</b>  Yes. “The goals of the Responsible Wool Standard are to provide the industry with the best possible tool to: <ul style="list-style-type: none"><li>■ Recognize the best practices of farmers;</li><li>■ Ensure that wool comes from farms with a progressive approach to managing their land, and from sheep that have been treated responsibly;</li><li>■ Create an industry benchmark that will drive improvements in animal care and land management and social welfare where needed; and</li><li>■ Provide a robust chain of custody system from farm to final product so that consumers are confident that the wool in the products they choose is truly RWS.”<sup>325</sup></li></ul> In the RWS standards document, the requirements are arranged into small sets with the desired outcome clearly stated for each set. <sup>326</sup>	<b>SCORE = 1</b>  Yes. “The overall goal of MADE IN GREEN by OEKO-TEX® is to have traceable products tested for harmful substances and sustainably produced in accordance with OEKO-TEX® guidelines.” <sup>327</sup> At a glance: <sup>328</sup> <ul style="list-style-type: none"><li>■ “Sustainability in processes and sourcing ensured through optimization of chemical management and wastewater quality”</li><li>■ “Product and consumer safety ensured through testing for harmful substances”</li><li>■ “Social responsibility ensured through fair wages, working hours and safety at workplace”</li><li>■ “Traceability &amp; Transparent Supply Chains enable to make informed purchasing decisions”</li></ul>

Scheme	FURMARK®	RESPONSIBLE WOOL STANDARD (RWS)	MADE IN GREEN
Scheme owner	International Fur Federation (IFF)	Textile Exchange	OEKO-TEX®
<b>AREA 1: QUALITY OF THE STANDARDS</b>			
<b>Criterion 1(2):</b> <b>Standards address the most significant sustainability impacts of a product</b>	<b>SCORE = 0</b> No. Furmark does not currently include any published standards or targets for emissions, impacts on air, soil or water quality, biodiversity impact, energy use, or any other environmental performance measures; nor does it include any published standards for social responsibility (see Section 4.1.2).	<b>SCORE = 1</b> Yes. The RWS addresses animal welfare, environmental protection (including soil health, biodiversity and native species) and social responsibility (including social welfare, working conditions, and health and safety of workers). <sup>329</sup>  Textile Exchange is ISEAL Code Compliant so has successfully undergone independent evaluations against the ISEAL Codes of Good Practice in Standards-Setting, Assurance and Impacts. <sup>330</sup>	<b>SCORE = 1</b> Yes. "STeP analyses all important areas of a company using 6 modules: 1. Chemical management 2. Environmental performance 3. Environmental management 4. Social responsibility 5. Quality management 6. Health protection and safety at work" <sup>331</sup>
<b>Criterion 1(3):</b> <b>Standards are set at a meaningful performance level that adds value and results in measurable progress towards the scheme's sustainability objectives</b>	<b>SCORE = 0</b> No. Standards reward the <i>status quo</i> . No requirement to go beyond normal industry practice and basic legal requirements. No clear and specific sustainability objectives are defined for progress towards these to be measured (see Section 4.1.3).	<b>SCORE = 1</b> Yes. Standards go beyond normal industry practice (e.g. mulesing and dehorning / disbudding are prohibited).  Textile Exchange is ISEAL Code Compliant so has successfully undergone independent evaluations against the ISEAL Codes of Good Practice in Standards-Setting, Assurance and Impacts. <sup>332</sup>	<b>SCORE = 1</b> Yes. "Certification is not possible if the minimum percentage score for the STeP by OEKO-TEX® standard is not achieved and/or the specified exclusion criteria are not fulfilled (see Annex 10)." <sup>333</sup> Annex 10 includes six pages of exclusion criteria, including criteria which go beyond normal industry practice.  "The MADE IN GREEN product label demonstrates continuous improvement toward greater sustainability at individual production facilities." <sup>334</sup>

Scheme	FURMARK®	RESPONSIBLE WOOL STANDARD (RWS)	MADE IN GREEN
Scheme owner	International Fur Federation (IFF)	Textile Exchange	OEKO-TEX®
<b>AREA 1: QUALITY OF THE STANDARDS</b>			
<b>Criterion 1(4):</b> <b>Standards-setters collaborate and engage with a balanced representative group of stakeholders in standards development</b>	<b>SCORE = 0.5</b> The Furmark website refers to: <sup>335</sup> "engagement with scientists, government officials, farmers, hunters and trappers, and with third-party assessors" and "conscientious consumers and contemporary fashion groups and brands". However, there does not appear to be any representation of environmental NGOs or any other independent stakeholders specifically representing environmental / sustainability interests, nor any public consultation process on any of the draft standards. IFF's sustainability strategy mentions many well-respected organisations and round tables but IFF's involvement with these appears to be limited (see Section 4.1.4)	<b>SCORE = 1</b> Yes. Textile Exchange publishes detailed standard-setting procedures, including for stakeholder engagement. <sup>336</sup>  Textile Exchange is ISEAL Code Compliant so has successfully undergone independent evaluations against the ISEAL Codes of Good Practice in Standards-Setting, Assurance and Impacts. <sup>337</sup>	<b>SCORE = 1</b> Yes. The OEKO-TEX International Advisory Board (IAB) includes 3 representatives of the OEKO-TEX Association and 6 representatives of OEKO-TEX stakeholders and a balance is sought between the most important stakeholder groups including companies, associations, civil society and politics, with a focus on disadvantaged stakeholders. <sup>338</sup>
<b>Total score for quality of the standards</b>	0.5 / 4	4 / 4	4 / 4

Scheme	FURMARK®	RESPONSIBLE WOOL STANDARD (RWS)	MADE IN GREEN
Scheme owner	International Fur Federation (IFF)	Textile Exchange	OEKO-TEX®
<b>AREA 2: IMPARTIALITY AND TRUTHFULNESS</b>			
<b>Criterion 2(1):</b> <b>Independent third party oversight and certification throughout the entire supply chain from raw material production to final product, involving several certification bodies</b>	<p><b>SCORE = 0</b></p> <p>No. Some of the individual schemes under the Furmark umbrella involve third party audits (see Table 4.2) although the independence of some of these audits is questionable and for each scheme there appears to be only one certification body and this certification body has often been involved in the development of the standards (see Section 4.2.1).</p> <p>Oversight of Furmark is by the fur industry itself: <sup>339</sup> "FURMARK has been developed by the International Fur Federation. A steering group of key members of the International Fur Federation's board – comprised of the CEOs of the major auctions, leading fur manufacturers, brands, retailers, and brokers – will have full oversight of FURMARK".</p>	<p><b>SCORE = 1</b></p> <p>Yes. "The RWS requires all sites to be certified, beginning with the wool farmers and through to the seller in the final business to business transaction. Farms are certified to the Animal Welfare and Land Management Modules of the RWS. Subsequent stages of the wool supply chain are required to be certified against the requirements of the Content Claim Standard (CCS), up to the seller in the last business-to-business transaction."<sup>340</sup></p> <p>"Certification services for Textile Exchange standards are performed by independent, third-party certification bodies" and a searchable list of certification bodies that are currently licensed to conduct certification to Textile Exchange standards is available on the Textile Exchange website.<sup>341</sup></p>	<p><b>SCORE = 1</b></p> <p>Yes. "Our 18 accredited, independent textile and leather partner institutes play the most important part in our certification. Therefore, they are audited every three years by the Secretary General of OEKO-TEX® and an experienced institute employee of a different institute [...] To make sure that the performance of the laboratories of our partner institutes is comparable and that the methods are accurate, annual Round Robin Tests are carried out. The OEKO-TEX® partner institutes have to participate in this interlaboratory comparison."<sup>342</sup></p> <p>A full list of testing institutes in 69 countries that offer MADE-IN-GREEN certification is available in Annex 1 in the standard <sup>343</sup></p>

Scheme	FURMARK®	RESPONSIBLE WOOL STANDARD (RWS)	MADE IN GREEN
Scheme owner	International Fur Federation (IFF)	Textile Exchange	OEKO-TEX®
<b>AREA 2: IMPARTIALITY AND TRUTHFULNESS</b>			
<b>Criterion 2(2):</b> <b>Auditing process includes unannounced inspection visits / additional spot checks to provide an accurate picture of whether an entity meets the standards</b>	<p><b>SCORE = 0</b></p> <p>Neither the SafeFur standard <sup>344</sup> nor the WelFur protocols <sup>345 346 347</sup> stipulate any requirement for unannounced visits or spot checks (see Section 4.2.2)</p>	<p><b>SCORE = 1</b></p> <p>Yes. "Certification may also include additional confirmation visits by the certification body without notice."<sup>348</sup></p> <p>"Certification bodies conduct a risk assessment on each organization prior to each audit and assign a risk designation of low, medium, or high risk. Higher risk levels require certification bodies to visit more farms and/or to conduct more semi-announced and unannounced audits."<sup>349</sup></p>	<p><b>SCORE = 1</b></p> <p>Yes. "[D]uring the certification process and during the validity period of the corresponding OEKO-TEX® Certificate one or more auditors of a Testing Institute authorised by OEKO-TEX® may visit all relevant operations of the Client on working days during normal operating hours at any time as announced (i.e. with prior written notice) or unannounced [...] the auditor is permitted to take random samples (e.g. material or waste water samples) or to request their examination."<sup>350</sup></p> <p>"To make sure that the samples that are tested during the certification represent the article finally sold and that the sold article also conforms with the applicable standard, 25% of the issued STANDARD 100 and LEATHER STANDARD certificates are checked in product controls"<sup>351</sup></p>

Scheme	FURMARK®	RESPONSIBLE WOOL STANDARD (RWS)	MADE IN GREEN
Scheme owner	International Fur Federation (IFF)	Textile Exchange	OEKO-TEX®
<b>AREA 2: IMPARTIALITY AND TRUTHFULNESS</b>			
<b>Criterion 2(3):</b> <b>Auditing process includes clear transparent process for addressing non-conformity with the standards, including timescales for rectifying non-conformity and immediate suspension for critical non-conformity</b>	<b>SCORE = 0</b> Neither the SafeFur standard <sup>352</sup> nor the WelFur protocols <sup>353 354 355</sup> stipulate any clear procedures for addressing non-conformity. The wording of the SafeFur standard suggests that dressers and dyers who are purchasing furs contaminated with hazardous chemicals may continue to be certified without any clear procedure to protect consumers from these contaminated products <sup>356</sup> (see Section 4.2.3).	<b>SCORE = 1</b> Yes. "The inspection protocol shall include a process for handling non-conformity, including the following elements: F4.2.1 Identification of non-conformities against all applicable requirements of the Standard; F4.2.2 Grading of non-conformities according to the levels identified in A2. Requirement Levels. F4.2.3 Follow-up to ensure that non-conformities are closed within a specified timeline which is not more than 30 days for major non-conformities and 60 days for minor non-conformities; F4.2.4 Immediate suspension from the group in the case of critical non-conformities, until such non-conformities have been closed; and F4.2.5 Documentation of non-conformities issued and closed, including explanation of corrective actions taken." <sup>357</sup>	<b>SCORE = 1</b> Yes. "The quality assurance officer can issue obligations and recommendations which need to be implemented by the customer [...] Failed On-Site Visits or not implementing the agreed obligations in due time can lead to a withdrawal of the certificate." <sup>358</sup> "If the customer violates these [Terms of Use] or the corresponding regulations and rules in accordance with the Standard applicable to him, OEKO-TEX® shall issue a warning to him and request him to remedy the violation within 30 days. If the violation is not remedied within the set period, OEKO-TEX® reserves the right to withdraw the Certificate or the Licence or to refuse a renewal" <sup>359</sup>
<b>AREA 3: TRANSPARENCY AND TRACEABILITY</b>			
<b>Criterion 3(1):</b> <b>Comprehensive scheme standards have been published and are freely available online</b>	<b>SCORE = 0</b> No comprehensive set of standards for the Furmark scheme has been developed or published. Some limited aspects of the scheme have been published and are freely available online, e.g. the WelFur protocols, but full standards documents are not available online for any of the schemes included under Furmark (see Section 4.3.1 and Table 4.2).	<b>SCORE = 1</b> Yes. The RWS <sup>363</sup> and Content Claim Standard, <sup>364</sup> as well as the RWS User Manual, <sup>365</sup> are all freely available on the Textile Exchange website.	<b>SCORE = 1</b> Yes. The full standards and summary factsheets for MADE IN GREEN, <sup>366 367</sup> STANDARD 100, <sup>368 369</sup> LEATHER STANDARD, <sup>370 371</sup> and STeP, <sup>372 373</sup> as well as various supporting information (application forms, testing methods and limit values, terms of use, etc) are all freely available on the OEKO-TEX website.
<b>Area 2 Summary</b>			
<b>Criterion 2(4):</b>	<b>SCORE = 0</b>	<b>SCORE = 1</b>	<b>SCORE = 1</b>
<b>Claims and communications by and about the scheme, certified businesses and products are not misleading and are supported by the content of the standard</b>	No. The Furmark website, Furmark executive summaries, IFF's sustainability strategy and various fur industry websites make multiple inaccurate and misleading claims regarding the content, impact and transparency of Furmark (see Section 4.2.4).	Yes. Textile Exchange publishes guidelines for making claims and communicating about Textile Exchange Standards <sup>360</sup> and permitted claims are consistent with the scope of the standard.  Textile Exchange is ISEAL Code Compliant so has successfully undergone independent evaluations against the ISEAL Codes of Good Practice in Standards-Setting, Assurance and Impacts. <sup>361</sup>	Yes. OEKO-TEX publishes labelling guidelines <sup>362</sup> and permitted claims are consistent with the scope of the standard.
<b>Total score for quality of the standards</b>	0 / 4	4 / 4	4 / 4

Scheme	FURMARK®	RESPONSIBLE WOOL STANDARD (RWS)	MADE IN GREEN
Scheme owner	International Fur Federation (IFF)	Textile Exchange	OEKO-TEX®
<b>AREA 2: IMPARTIALITY AND TRUTHFULNESS</b>			
<b>Criterion 2(4):</b> <b>Claims and communications by and about the scheme, certified businesses and products are not misleading and are supported by the content of the standard</b>	<b>SCORE = 0</b> No. The Furmark website, Furmark executive summaries, IFF's sustainability strategy and various fur industry websites make multiple inaccurate and misleading claims regarding the content, impact and transparency of Furmark (see Section 4.2.4).	<b>SCORE = 1</b> Yes. Textile Exchange publishes guidelines for making claims and communicating about Textile Exchange Standards <sup>360</sup> and permitted claims are consistent with the scope of the standard.  Textile Exchange is ISEAL Code Compliant so has successfully undergone independent evaluations against the ISEAL Codes of Good Practice in Standards-Setting, Assurance and Impacts. <sup>361</sup>	<b>SCORE = 1</b> Yes. OEKO-TEX publishes labelling guidelines <sup>362</sup> and permitted claims are consistent with the scope of the standard.
<b>Total score for quality of the standards</b>	0 / 4	4 / 4	4 / 4
<b>AREA 3: TRANSPARENCY AND TRACEABILITY</b>			
<b>Criterion 3(1):</b> <b>Comprehensive scheme standards have been published and are freely available online</b>	<b>SCORE = 0</b> No comprehensive set of standards for the Furmark scheme has been developed or published. Some limited aspects of the scheme have been published and are freely available online, e.g. the WelFur protocols, but full standards documents are not available online for any of the schemes included under Furmark (see Section 4.3.1 and Table 4.2).	<b>SCORE = 1</b> Yes. The RWS <sup>363</sup> and Content Claim Standard, <sup>364</sup> as well as the RWS User Manual, <sup>365</sup> are all freely available on the Textile Exchange website.	<b>SCORE = 1</b> Yes. The full standards and summary factsheets for MADE IN GREEN, <sup>366 367</sup> STANDARD 100, <sup>368 369</sup> LEATHER STANDARD, <sup>370 371</sup> and STeP, <sup>372 373</sup> as well as various supporting information (application forms, testing methods and limit values, terms of use, etc) are all freely available on the OEKO-TEX website.

Scheme	FURMARK®	RESPONSIBLE WOOL STANDARD (RWS)	MADE IN GREEN
Scheme owner	International Fur Federation (IFF)	Textile Exchange	OEKO-TEX®
<b>AREA 3: TRANSPARENCY AND TRACEABILITY</b>			
<b>Criterion 3(2): Comprehensive list of certified entities is freely available online</b>	<b>SCORE = 0</b> No (see Section 4.3.2 and Table 4.2).	<b>SCORE = 1</b> Yes. <sup>374</sup>	<b>SCORE = 1</b> Yes. <sup>375</sup>
<b>Criterion 3(3): Manufacturer can be identified from the product label</b>	<b>SCORE = 1</b> Yes. The label can be checked online <sup>376</sup> (see Section 4.3.3).	<b>SCORE = 1</b> Yes. The label must identify the last company to be certified and the certifying body. <sup>377</sup>	<b>SCORE = 1</b> Yes. The label can be checked online <sup>378</sup>
<b>Criterion 3(4): Clearly defined limits for certified and non-certified content of the final product carrying the label</b>	<b>SCORE = 0</b> As of 11.10.21, a search of the Furmark website, <sup>379</sup> the WelFur protocols, <sup>380 381 382</sup> and the SafeFur standard <sup>383</sup> did not find any information regarding whether Furmark 'certified' fur auctions, dressers and dyers, manufacturers or retailers are permitted to also use or sell non-certified fur, or any limits for the proportion of certified content required in a product for it to carry the Furmark label (see Section 4.3.4).	<b>SCORE = 1</b> Yes. To carry the RWS label, the final product must contain between 5% and 100% RWS wool and blending with conventional wool is not permitted. <sup>384</sup>	<b>SCORE = 1</b> Yes. "Single components that equal or exceed 5% of the total weight of the product as well as at least 85% of the total weight of the product shall be supplied by STeP by OEKO-TEX® certified production facilities. This concerns only facilities with wet / chemical processes (excluding wet spinning processes). Metal and plastic accessories, as well as rubber and cardboard are not considered." <sup>385</sup>
<b>Total score for quality of the standards</b>	1 / 4	4 / 4	4 / 4
<b>OVERALL SCORE</b>	<b>1.5 / 12</b>	<b>12 / 12</b>	<b>12 / 12</b>

## 4.1 Quality of the standards

### 4.1.1 Criterion 1(1): Scheme owners clearly define and communicate the specific sustainability objectives of the standards and strategy for achieving these objectives

ISEAL (2021) states:<sup>386</sup> "A credible sustainability system has a clear purpose to drive positive social, environmental, and economic impacts and to eliminate or remediate negative impacts. It defines and clearly communicates its scope, its specific sustainability objectives, and its strategies for achieving these objectives (its theory of change)."

IFF's sustainability strategy includes the following objective:<sup>387</sup> "By end 2020, 90% of the global fur production sold through auction houses will be certified under FURMARK." Unfortunately, it is less clear what it is aiming to achieve through this certification. Neither the Furmark website nor IFF's sustainability strategy sets out its 'theory of change' because the purpose of Furmark appears to be more of a public relations exercise to try to convince consumers that fur is already 'sustainable', rather than any genuine attempt to identify, define and reduce its impacts. The Furmark website states:<sup>388</sup> "We recognise that the public, regulators and those in fashion do not have a clear understanding of the fur trade. The International Fur Federation (IFF) has therefore created a single certification framework for natural fur [...] Furmark® reaffirms the status and value of natural sustainable fur; Furmark® reaffirms the collective effort to deliver global, recognised standards."

The various programmes included in Furmark generally reward the *status quo* (see Section 4.1.3) and, in many cases, rely on the existence of legislation, international agreements and government oversight that are already in place to demonstrate the supposed sustainability of fur. It is clear from the evidence presented in this report that these things have not been adequate

to prevent many very serious environmental impacts of fur and it is not clear how Furmark could reduce any of these impacts because it fails even to adequately define what it is trying to change.

### 4.1.2 Criterion 1(2): Standards address the most significant sustainability impacts of a product

ISEAL (2013)<sup>389</sup> states that standards should "address the most significant sustainability impacts of a product, process, business or service". Standard strengths described by WWF (2016) include:<sup>390</sup>

- "Producers are required to take measures to reduce any net emissions of greenhouse gases from the management unit."
- "Producers are required to maintain or improve the quality of surface or ground water."
- "Producers are required to take measures to minimise and mitigate negative impacts from operations on local communities and individuals."
- "Producers are required to take measures to minimize and mitigate potential impacts from operations on biodiversity values."
- "Producers are not allowed to introduce or use invasive alien species in the management unit."

Furmark does not currently include any published standards for any of the above points and the last point, regarding invasive alien species, would exclude most fur farming from certification. WelFur focuses on assessing animal welfare and does not include environmental performance measures or targets for fur farms. With regards to dressers and dyers, the Furmark website states:<sup>391</sup> "To be a fully certified dresser and dyer you must meet the following conditions:

1. Only chemicals from the agreed fur chemical list should be used in processing – this will be followed up by an on-site spot-check

2. Undergo government inspections of factory outputs, as well as constant or regular on-site monitoring
3. The chemicals present in the end product must be REACH-compliant
4. Entire traceability journey tracked via Furmark®.

The “on-site spot-check” refers to the Furmark SafeFur standard developed by testing laboratory FILK. As of 11.10.21, a search of Furmark, IFF, Fur Europe, and FILK websites did not find a publicly available copy of these standards (see Section 4.3.1 and Table 4.2). However, a copy of the SafeFur standard (version 2020/04/02) was supplied to EcoAid, following repeated requests to Furmark.<sup>392</sup> The standards document supplied covers testing of fur samples for hazardous chemicals but does not include any standards for emissions, waste handling, water or energy use, or any other environmental performance measures.

Therefore, it seems that the only checks on environmental performance are from “government inspections of factory outputs, as well as constant or regular on-site monitoring” but it is not specified who should carry out this monitoring or what should be monitored or any limits or consequences. According to IFF’s sustainability strategy, an environmental audit scheme for Furmark suppliers is not planned to be introduced until 2025 with the stated aim of certifying 90% of suppliers by 2030<sup>393</sup> and it is not clear what the requirements of such a scheme would be. Furmark also does not currently appear to include any audit of social responsibility:<sup>394</sup> “By 2030, the Furmark® certification will include a high-level assessment of a producer’s human rights performance.”

It appears then, that Furmark does not currently require any certification relating to environmental performance for fur farms or dressers and dyers, and this area can be covered by “government inspections” alone. There are many reports of fur

farms being illegally constructed,<sup>395</sup> commencing operations without performing a legally required Environmental Impact Assessment,<sup>396</sup> operating without environmental permits,<sup>397</sup> or in breach of environmental regulations,<sup>398 399</sup> or evading environmental protection measures that apply to larger farms by dividing farms (on paper only) into smaller units<sup>400</sup> (see Section 3.1.1). Similarly, serious pollution from fur dressers and dyers remains a problem, even in countries that can be considered to have relatively stringent environmental regulations (see Section 3.2.1). Clearly, oversight by governments is often inadequate to curb the environmental impacts of the fur industry and Furmark does not appear currently to be doing anything to address this.

#### 4.1.3 Criterion 1(3): Standards are set at a meaningful performance level that adds value and results in measurable progress towards the scheme’s sustainability objectives

ISEAL (2013)<sup>401</sup> states that credible standards “are set at a performance level that results in measurable progress towards the scheme’s sustainability objectives”. ISEAL (2014)<sup>402</sup> identifies the following as a baseline requirement for good practice in standard-setting: “Requirements in the standard are set at a performance level that results in significant positive sustainability impacts.”

The WelFur certification scheme was examined in two reports published in 2015 and 2020. The 2015 report concluded:<sup>403</sup>

**“The WelFur protocols have been specifically designed around the very serious limitations of current housing systems and generally reward the *status quo*, even where this is known to compromise welfare [...] The ‘best current practice’ ceiling makes the WelFur scores of limited value and misleading because ‘best current practice’ still represents what the majority of people would consider to be an unacceptable level of welfare.”**

Similarly, the 2020 report concluded:<sup>404</sup>

**“WelFur, which is designed around the current housing systems and current minimum level of European Union legislation, does not offer satisfactory or reliable solutions to the grave inherent problems of standard fur farming practices.”**

The other schemes for farmed fur included in Furmark (see Table 4.2) permit similar cage-based farming methods and so will also have little potential to add value due to the serious welfare problems inherent in cage systems. Protocols for wild fur included in Furmark do not appear to be publicly available (see Section 4.3.1 and Table 4.2) and it is therefore not possible to draw firm conclusions about whether these have potential to add value over and above existing national and international minimum requirements. However, the Furmark website suggests that government oversight and compliance with various international agreements are likely to be significant components of the requirements for inclusion in Furmark.<sup>405 406</sup> In terms of welfare, international agreements that are in place do little to prevent animal suffering (see Section 2.1.3).

The standards for dressers and dyers under Furmark also do not appear to have significant potential to add value. An analysis of the SafeFur standard (version 2020/04/02) by EcoAid<sup>407</sup> concluded that the standard is not credible or truthful because:

**“[T]he SafeFur standard**

- **fails to fulfil the majority of the credibility principles of the ISEAL alliance**
- **does repeatedly not fulfil Furmarks [sic] own claims and claims that are made by the standard itself”**

In addition, it concluded that the SafeFur standard does not contribute in a significant way to the safety and/or sustainability of the product’s lifecycle because:

**“[T]he added value of the SafeFur standard**

- **to protect the human health of workers in the supply chain or buyers of furs proofed [sic] to be rather marginal**
- **to protect the environment from detrimental effects of harmful chemicals proofed [sic] to be negligible”**

In summary, the standards included in Furmark are generally not set at a level that adds value relative to existing national and international minimum requirements and normal industry practice and therefore would not be expected to result in significant positive sustainability impacts.

#### 4.1.4 Criterion 1(4): Standards-setters collaborate and engage with a balanced representative group of stakeholders in standards development

Baseline requirements for good practice in standard-setting described by ISEAL (2014)<sup>408</sup> include identification of key stakeholder groups, which include “environmental organisations who have an interest in areas affected by the implementation of the standard”, and a “public consultation phase for standards development or revision” to include “at least one round of 60 days for comment submissions by stakeholders” (plus a second round of at least 30 days for new standards to “ensure that stakeholders have an opportunity to provide feedback on whether their comments were understood and taken into account”). The Furmark website refers to “engagement with scientists, government officials, farmers, hunters and trappers, and with third-party assessors” and “conscientious consumers and contemporary fashion groups and brands”.<sup>409</sup> However, there does not appear to be any involvement of environmental NGOs (non-governmental organisations) or any other independent stakeholders specifically representing environmental / sustainability interests, nor any public consultation process

on draft standards for inclusion in Furmark.

ISEAL (2021) states: <sup>410</sup>“A credible sustainability system identifies governments, businesses, and civil society organisations, including other sustainability systems, that are working towards shared sustainability objectives. It actively seeks alignment and respectfully pursues collaboration with others. It establishes partnerships and shares learnings to improve its efficiency and its direct or systemic impacts.”

In its sustainability strategy, IFF mentions several well-respected organisations and discussion forums. In a section entitled “Roundtable on animal-based material and natural fibres” (page 33), it states: <sup>411</sup>“IFF is actively participating in a range of sustainability discussions, working with stakeholders such as ISEAL, Textile Exchange, UNECE, CITES, IUCN and Sustainable Apparel Coalition. These forums provide platforms for constructive discussion on the use of animal-based materials. IFF is committed to continued engagement across multiple forums, promoting evidence-based approaches to natural fur.”

As an organisation that represents those involved in hunting, trapping and trade in wild animals, one would certainly expect IFF to be involved in discussions with the IUCN and CITES. The other organisations and discussion forums mentioned give the impression that Furmark has been developed in collaboration with some of the leaders in the field of sustainability standards. Some of these organisations offer opportunities to participate in benchmarking exercises, apply standardised sustainability measurement tools, receive direct support to monitor and improve sustainability standards, and undergo independent evaluations against codes of good practice for sustainability standards. Unfortunately, IFF’s involvement appears to be more about promoting its own agenda and apparently falls short of accepting any standardisation of measurement or external monitoring that might demonstrate any credibility of Furmark.

**TEXTILE EXCHANGE:** In addition to the references to “Textile Exchange” and the “Roundtable on animal-based material and natural fibres”, IFF’s sustainability strategy states the following objective: <sup>412</sup>“Develop and participate in the working groups on animal-based material and sustainable fibres to improve practices/ techniques and address challenges in the fashion industry.” Textile Exchange coordinates the Animal Fibers and Materials Round Tables, which currently operate as two entities: the Animal Fibers Round Table and the Leather Round Table. <sup>413</sup> According to Textile Exchange, the Animal Fibers Round Table includes wool, mohair, alpaca and cashmere because these fibres are produced in similar pasture-based farming systems, whereas fur would fall outside of this scope and will not be included in this work. <sup>414</sup> The Leather Round Table operates separately. Therefore, although IFF is listed as a Textile Exchange member, <sup>415</sup> the industrial factory farming methods employed by the fur industry preclude its involvement in the Animal Fibers Round Table. Currently, although participation in one of its benchmarks or challenges is strongly encouraged, there are no specific requirements that must be met for an organisation to become a member of Textile Exchange. <sup>416</sup>

**SUSTAINABLE APPAREL COALITION:** According to its website, <sup>417</sup> the Sustainable Apparel Coalition (SAC) is “made up of over 250 leading apparel, footwear and textile brands, retailers, suppliers, service providers, trade associations, non-profits, NGOs, and academic institutions working to reduce environmental impact and promote social justice throughout the global value chain. The Coalition develops the Higg Index, a suite of tools that standardizes value chain sustainability measurements for all industry participants. These tools measure environmental and social labor impacts across the value chain. With this data, the industry can identify hotspots, continuously improve sustainability performance, and achieve the environmental and social transparency consumers are demanding.” Member

organisations are listed on the SAC website but, as of 11.10.21, there is no mention of IFF, Furmark, Fur Europe, or any other entity representing the fur industry. <sup>418</sup>

**ISEAL:** In addition to its claim to be “working with stakeholders such as ISEAL” in its sustainability strategy, IFF specifically claims with regard to Furmark that: <sup>419</sup>“Certification programs must meet national regulations and ISEAL’s credibility principles”. ISEAL is “a membership organisation of sustainability standards and similar systems. Through participation in ISEAL’s learning, collaboration and innovation activities, members strive to continually improve their systems to create greater sustainability impact.” <sup>420</sup> ISEAL publishes Credibility Principles <sup>421</sup> <sup>422</sup> and Codes of Good Practice for Standards-Setting, <sup>423</sup> Assurance <sup>424</sup> and Impacts. <sup>425</sup> ISEAL has two levels of membership (as well as a third membership category for accreditation bodies): <sup>426</sup>

- “ISEAL Community Members abide by our Code of Conduct and submit annual progress reports and improvement plans against our Codes of Good Practice. To understand the difference they are making, they must implement a monitoring and evaluation (M&E) system within the first three years of participation.” <sup>427</sup> “Community Members are not required to participate in ISEAL’s compliance programme, but ongoing system improvement will be periodically reviewed.” <sup>428</sup>
- “ISEAL Code Compliant designates members who have successfully undergone independent evaluations against the ISEAL Codes of Good Practice in Standards-Setting, Assurance and Impacts.” <sup>429</sup>

As of 11.10.21, IFF is not listed as an ISEAL member. <sup>430</sup>

In summary, there does not appear to be any public consultation process on draft standards for inclusion in Furmark and the views of environmental NGOs or other independent stakeholders specifically representing

environmental / sustainability interests do not appear to be taken into account in standards development. IFF is a Textile Exchange member but does not have to meet any requirements to permit this. The industrial factory farming methods employed by the fur industry preclude its involvement in the Animal Fibers Round Table coordinated by Textile Exchange. Neither IFF nor Furmark appears to be a member of any organisation or coalition that would require it to be evaluated against any recognised standards of good practice. IFF’s claim to adhere to ISEAL’s Credibility Principles is misleading because Furmark lacks credibility and transparency (see Tables 4.1 and 4.2).

## 4.2 Impartiality and truthfulness

### 4.2.1 Criterion 2(1): Independent third party oversight and certification throughout the entire supply chain from raw material production to final product, involving several certification bodies.

WWF and ISEAL (2017) state: <sup>431</sup> “A credible sustainability standard is more than a logo on a product: it is run by an independent organization that ensures compliance, maintains the integrity of the system and has a clear mission-driven focus on sustainability.” Scheme strengths identified by WWF (2016) <sup>432</sup> include:

- “Highest governance decision-making forum requires balanced participation of economic, social and environmental representatives”.
- “Highest decision-making forum procedures ensure that noneconomic sector constituencies collectively have (at least) the same governance decision-making power as economic sector constituencies.”

There is a fundamental conflict of interest at the

heart of Furmark because the fur industry itself is responsible for oversight of the scheme.<sup>433</sup> “FURMARK has been developed by the International Fur Federation. A steering group of key members of the International Fur Federation’s board – comprised of the CEOs of the major auctions, leading fur manufacturers, brands, retailers, and brokers – will have full oversight of FURMARK”. There is no mention of any non-economic sector participants in this top-level governance of Furmark.

Some of the individual schemes under the Furmark umbrella do involve third party audits (see Table 4.2). However, WWF (2015) advises:<sup>434</sup> “The certification scheme must have several certification bodies accredited to avoid perceived or real conflict of interest.” For each of the certification schemes included in Furmark, there appears to be only a single certification body named as responsible for certification (see Table 4.2) and this certification body has often been involved in the development of the standards. For example, the SafeFur standard was developed with FILK and FILK is the only testing institute named as responsible for the certification. The Furmark executive summary 2021 states:<sup>435</sup> “Furmark® requires that fur be dressed and dyed according to a dedicated chemical standard for the fur industry, created with the International Fur Dressers and Dyers Association (IFDDA) and the independent testing and research institute FILK”. The Furmark website states:<sup>436</sup> “FILK are the third-party testing institute for the dressing and dyeing chemical standard. Under the SafeFur Certification Standard, dressers and dyers must submit samples to FILK (Testing Institute) for testing followed by a subsequent monitoring visit.”

Similarly, Baltic Control is named as responsible for the North American wild fur certification and the protocol for this certification was developed by Baltic Academy, which is part of Baltic Control:<sup>437</sup> “Baltic Academy is an independent department at Baltic Control® Certification that works within the areas of development,

consultancy and education.” The Furmark executive summary 2021 states:<sup>438</sup> “In 2020, third-party animal welfare experts Baltic Academy developed the detailed protocol with the support of an independent technical advisory committee, comprised of experts from USA and Canada. The final protocol was used as a basis for the subsequent audit of the trading body which was completed by Baltic Control in March 2021.”

The independence of some of the audits of the schemes included in Furmark is questionable. For example, the most recently published WelFur protocol states:<sup>439</sup> “On-farm-assessments are undertaken by the independent third-party, Baltic Control, an ISO/IEC 17021 accredited, international certification body. Only Baltic Control can issue WelFur certificates to fur farmers. Baltic Control’s fur farm assessors are trained by the scientists responsible for the relevant species protocol.” In reality, some WelFur audits are sub-contracted. For example, Finnish research company, Luova Oy, states on its website: “In Finland Luova Oy is subcontractors [sic] to Baltic Control. Audits for WelFur and the certification system in Finland are handled by Luova Oy from the beginning of 2017.”<sup>440</sup> Luova Oy is partly owned by the Finnish Fur Breeders’ Association,<sup>441</sup> which holds 38% of the company’s stock.<sup>442</sup> In addition, several of Luova’s assessors appear to have close ties to the fur industry.<sup>443</sup> In its 2019 Sustainability Review, the Finnish Fur Breeders’ Association states that its holding of shares in Luova does not affect the impartiality of the audits but provides no evidence or reasoning to support this claim.<sup>444</sup> Obviously, there is a conflict of interest if audits are being performed by a company that is partly owned by the fur industry itself. In 2017, CEO of Fur Europe, Mette Lykke Nielsen, said:<sup>445</sup> “It has been important for us that both the science behind WelFur as well as the farm assessments are 100 percent independent from the fur sector itself.” Clearly, this is not the case.

#### 4.2.2 Criterion 2(2): Auditing process includes unannounced inspection visits / additional spot checks to provide an accurate picture of whether an entity meets the standard

In order to have confidence in the auditing process, it is vital that some audits are carried out without prior warning, especially where a certified entity is identified as being at high risk of non-compliance. Scheme strengths identified by WWF (2016) include:<sup>446</sup>

- “Certification bodies are required to conduct risk-based auditing and surveillance”.
- “Certification bodies are required to conduct unannounced audits in high risk contexts.”

If, for example, a farm is always given notice of an audit, there is potential for farmers to perform more thorough checks than they would otherwise make to identify and cull injured animals prior to an audit. Similarly, if fur samples to be tested for hazardous substances are always supplied by the dresser / dyer, there is potential for the system to be cheated by providing ‘clean’ samples for testing that do not represent the full array of chemicals used by the dresser / dyer. Additional spot checks, for example, unannounced audits with samples selected for testing directly by the auditor and/or testing a proportion of final products on sale to consumers, are necessary to mitigate this risk.

Neither the the SafeFur standard<sup>447</sup> nor the WelFur protocols<sup>448 449 450</sup> stipulate any requirement for unannounced visits or spot checks.

#### 4.2.3 Criterion 2(3): Auditing process includes clear transparent process for addressing non-conformity with the standards, including timescales for rectifying non-conformity and immediate suspension for critical non-conformity

ISEAL (2018) states:<sup>451</sup> “The scheme owner shall require assurance providers and oversight bodies to follow consistent procedures on remediating nonconformities, which shall include defined time limits for implementing corrective actions, steps for verifying corrective actions, and repercussions of continued non-conformity” and advises that publicly available information about an assurance scheme should include: “Description of consequences for different levels of non-conformity”.

Neither the SafeFur standard<sup>452</sup> nor the WelFur protocols<sup>453 454 455</sup> stipulate any clear procedures for addressing non-conformity. Indeed, the wording of the SafeFur standard (version 2020/04/02)<sup>456</sup> suggests that appropriate action may not be taken to protect consumers from products contaminated with potentially harmful levels of hazardous chemicals. If a fur sample that has undergone dressing (and dyeing if applicable) fails one of more of the tests, re-testing of the relevant parameters is carried out on a raw skin sample (i.e. prior to dressing / dyeing) from the same batch. The SafeFur standard states:<sup>457</sup> “If the results of re-testing do not meet the requirements too, a contamination of the skin prior to the production process is most likely. Considering the test results, FILK may nevertheless decide to issue a certification of the production process in this case. Notwithstanding of the decision of FILK, the applicant is obliged to inform its raw skin supplier about the negative result.” This suggests that, if a fur dresser / dyer is purchasing raw furs that are contaminated (e.g. from dusting with chemicals to prevent decomposition prior to dressing) and this contamination remains at potentially hazardous levels in the furs after dressing / dyeing, a certificate can still be issued and the standards do not stipulate that such furs must not be sold or must not be labelled as meeting the standard until the issue is resolved, nor do they stipulate a timescale to rectify the problem.

#### 4.2.4 Criterion 2(4): Claims and communications by and about the scheme, certified businesses and products are not misleading and are supported by the content of the standard

ISEAL (2021) states: <sup>458</sup> “A credible sustainability system substantiates its claims. Any claims the system or its users make are clear, relevant, and can be checked. They enable customers and other stakeholders to make informed choices. The scope and design of the system is accurately reflected in any claims, ensuring these are not misleading. Claims about sustainability impacts are backed up with data and evidence that is publicly available.”

The Furmark executive summary 2021 claims that “Furmark® is the comprehensive global certification and traceability system for natural fur that guarantees animal welfare and environmental standards” and “Furmark® products are traceable, verified, and guaranteed to have met the highest standards”. <sup>459</sup> Furmark cannot be said to be ‘comprehensive’ since it does not currently include an environmental audit or a social responsibility audit for Furmark suppliers (see Section 4.1.2). The standards included in Furmark are generally not set at a level that adds value relative to existing national and international minimum requirements and normal industry practice and would not therefore support a claim to meet ‘the highest standards’ (see Section 4.1.3).

ISEAL (2015) <sup>460</sup> cautions that claims should “avoid using the absolute statement ‘sustainable’”. Most advertising guidelines also advise that vague and general terms, such as ‘sustainable’, ‘natural’, ‘environmentally-friendly’ or ‘eco-friendly’, should not be used as they are potentially misleading for consumers. <sup>461</sup> The Furmark label itself includes the words “Sustainable natural fur”. <sup>462</sup> The Furmark website states: <sup>463</sup> “Furmark®: the international mark of sustainable natural

fur” and the Furmark executive summary 2021 claims: <sup>464</sup> “At the heart of Furmark® is a natural, sustainable, biodegradable, and long-last [sic] material recognised for its unique qualities.” The absolute claim ‘biodegradable’ is not supported by the evidence presented by the fur industry itself (see Section 3.4). The available evidence does not indicate that fur garments are, on average, particularly long-lasting in comparison with other textiles (see Section 3.3.3). The claim ‘natural’ is both inaccurate (because some of the chemicals used in fur dressing and dyeing are synthetic, e.g. disperse dyes) and unhelpful (because other chemicals used in fur dressing and dyeing are naturally occurring yet potentially harmful, e.g. formaldehyde).

The Furmark executive summary 2021 claims that “Furmark® animal welfare and environmental programmes are science-based, third-party certified, and transparent” and that “certification programmes are verified by third parties and publicly available.” <sup>465</sup> These statements are misleading because there is a lack of transparency regarding both the standards and the certified entities. No proper standards documents or comprehensive list of certified entities are publicly available (See Sections 4.3.1 and 4.3.2 and Table 4.2).

The Natural Fibers Alliance is “a coalition of producers and associations that support the use of natural sustainable materials in clothing, accessories, and other goods.” <sup>466</sup> Its website promotes Furmark and refers to it as “an ISO-certified program”. <sup>467</sup> ISO develops standards but the ISO website is clear that ISO is not involved in certification and a product or system should never be labelled as “ISO-certified”. <sup>468</sup> A product or system can be identified as certified to an ISO-standard if it has been certified by an independent certification body as meeting an ISO standard. However, although FILK <sup>469</sup> and Baltic Control <sup>470</sup> are certified to various ISO standards, the Furmark scheme itself does not appear to have been certified to any ISO standard, in which case

the claim would be misleading, indicating a third-party endorsement of Furmark that does not exist.

### 4.3 Transparency and traceability

#### 4.3.1 Criterion 3(1): Comprehensive scheme standards have been published and are freely available online

WWF and ISEAL (2017) state: <sup>471</sup> “details of the standard, how it is applied and how decisions are made, including certification assessments, should be clear and publicly available.” ISEAL (2014) <sup>472</sup> clarifies what is meant by ‘publicly available’: “Information that is published on an organisation’s website and can be found through a basic and quick search is considered to be publicly available. ‘Available on request’ is not the same as publicly available.” ISEAL (2014) <sup>473</sup> identifies the following as a baseline requirement for good practice in standard-setting: “All approved standards shall [...] be published promptly”.

IFF’s sustainability strategy claims that all the certification programmes under Furmark are publicly available: <sup>474</sup> “Certification programmes must be verified by third parties and publicly available”. This claim is repeated on the Furmark website. For example, in relation to dressers and dyers, it states: <sup>475</sup> “certification programmes must ensure their protocols are available to the general public. In order to validate the credibility of protocols, simplified versions of the protocols must also be publicly available.”

Despite these claims, a search of the Furmark and IFF websites, the websites of the various entities claimed to be responsible for the schemes included in Furmark, and relevant industry websites, did not reveal any proper assurance standards documents for any of the schemes included in Furmark (see Table 4.2).

The WelFur protocols, and the industry Codes of Practice on which farmed fur certification in Canada and the US is based, are available online (except for farmed fox in the US) (see Table 4.2). However, these are not full assurance standards documents and lack many details that would normally be found in an assurance standard. For example, they do not stipulate any clear procedures for addressing non-conformity with the standards (see Section 4.2.3).

For all of the other schemes, no standards documents or protocols of any kind could be found online (see Table 4.2). For North American wild fur, the Baltic Control website states: <sup>476</sup> “It is with great pride that we finally can reveal the new Wild Fur protocol, which Baltic Academy has developed on behalf of the International Fur Federation (IFF)” but, unfortunately, it does not actually reveal the protocol at all. It just links to the Furmark and IFF websites, which also do not show the protocol. The Furmark website states: <sup>477</sup> “Fur Harvesters auction was successfully audited in March 2021: the Protocol includes an extensive set of requirements for the trading body, some of which will be phased in” but there is no link to the protocol or any further details on its current or future requirements.

In summary, there is a lack of transparency with regards to the standards for all of the ‘certification programmes’ included in Furmark and it is not clear whether proper assurance standards have even been developed for some of the schemes. It does not appear that any comprehensive set of standards has been developed for the Furmark scheme as a whole.

**Table 4.2: Transparency of the ‘Certification Programmes’ included in Furmark.**

Information correct as of 11.10.21. See text, Sections 4.3.1 and 4.3.2, for further information.

‘Certification Programmes’ included in Furmark <sup>478</sup>	What is covered?	‘Certification Bodies’ claimed to be responsible for the programme <sup>479</sup>	Websites searched for standards documents and lists of certified entities	Assurance standards documents and/or lists of certified entities found?
“WelFur”	Pelts of farmed mink, fox and raccoon dog in Europe and elsewhere	Baltic Control	furmark.com furmark.maglr.com (Furmark digital toolkit) wearefur.com (IFF) sustainablefur.com (Fur Europe) bccertification.com (Baltic Control)	No full assurance standards documents or list of certified entities found.  WelFur assessment protocols for mink, <sup>480</sup> fox <sup>481</sup> and raccoon dog <sup>482</sup> are available on the Fur Europe website.
“North American Farm-Raised”	Pelts of farmed mink and fox in the USA and Canada	NSF International (Canada) Validus (USA)	furmark.com furmark.maglr.com (Furmark digital toolkit) wearefur.com (IFF) nsf.org nsfcanada.ca canadamink.ca (Canada Mink Breeders Association) nfacc.ca (National Farm Animal Care Council) validusservices.com validuscertified.com furcommission.com (Fur Commission USA) usfoxshipperscouncil.org (US Fox Shipper’s Council)	No full assurance standards documents or lists of certified entities found.  Codes of Practice for farmed mink <sup>483</sup> and farmed fox <sup>484</sup> in Canada are available on the NFACC website.  Standard Guidelines for the Operation of Mink Farms in the United States are available on the Fur Commission USA website. <sup>485</sup>  Standard Guidelines for the Operation of Fox Farms in the United States are outlined in a Code of Ethics, which is available on request from the US Fox Shipper’s Council. <sup>486</sup>

‘Certification Programmes’ included in Furmark®	What is covered?	‘Certification Bodies’ claimed to be responsible for the programme	Websites searched for standards documents and lists of certified entities	Assurance standards documents and/or lists of certified entities found?
“Farm-Raised Sable”	Pelts of farmed sable in Russia	Research Institute of Fur Farming (NIIPZK)	furmark.com furmark.maglr.com (Furmark digital toolkit) wearefur.com (IFF) niipzk.ru mgavm.ru (Moscow State Academy of Veterinary Medicine and Biotechnology) sojuzpushnina.ru (Sojuzpushnina fur auction) furs.su (Ruspushnina fur auction)	No assurance standards documents or list of certified entities found.  Furmark certificates for six Russian fur farms are shown on the website of a Russian fur auction <sup>487</sup> but it is not clear whether these represent all Russian farms ‘certified’ under Furmark.
“Swakara”	Pelts of fetal and newborn karakul lambs farmed in Namibia	International Agricultural Academy for Africa	furmark.com furmark.maglr.com (Furmark digital toolkit) wearefur.com (IFF) i3a.co.za (International Agricultural Academy for Africa) swakara.net (Swakara Board of Namibia)	No assurance standards documents or list of certified entities found.
“North American Wild Fur”	Pelts of wild animals of various species in the USA and Canada	Baltic Control	furmark.com furmark.maglr.com (Furmark digital toolkit) wearefur.com (IFF) bccertification.com (Baltic Control) furharvesters.com (Fur Harvesters auction)	No assurance standards documents found.  Furmark website lists five auction houses involved in Furmark, <sup>488</sup> including one in North America: Fur Harvesters Inc., which shows its Furmark certificate on its website. <sup>489</sup>

'Certification Programmes' included in Furmark®	What is covered?	'Certification Bodies' claimed to be responsible for the programme	Websites searched for standards documents and lists of certified entities	Assurance standards documents and/or lists of certified entities found?
"Wild Sable"	Pelts of wild sable in Russia	Federal Centre for Hunting Development	<p>furmark.com</p> <p>furmark.maglr.com (Furmark digital toolkit)</p> <p>wearefur.com (IFF)</p> <p>sojzpushnina.ru (Sojzpushnina fur auction)</p> <p>furs.su (Ruspushnina fur auction)</p> <p>(NB. An English language Google search did not find a website for the Federal Centre for Hunting Development)</p>	<p>No assurance standards documents found.</p> <p>Furmark website lists five auction houses involved in Furmark,<sup>490</sup> including two in Russia: Sojzpushnina<sup>491</sup> and Ruspushnina,<sup>492</sup> both of which show their Furmark certificates on their respective websites.</p>
"Dressing & Dyeing"	Fur dressers and dyers internationally	FILK (Forschungsinstitut Leder und Kunststoffbahnen)	<p>furmark.com</p> <p>furmark.maglr.com (Furmark digital toolkit)</p> <p>wearefur.com (IFF)</p> <p>ifdda.info (International Fur Dressers' and Dyers' Association)</p> <p>filkfreiberg.de (FILK)</p>	<p>No assurance standards documents found.</p> <p>The Furmark digital toolkit includes a list of Furmark 'certified' dressers and dyers,<sup>493</sup> although it is not clear whether this list is comprehensive and there are no details of certification expiry dates.</p>

#### 4.3.2 Criterion 3(2): Comprehensive list of certified entities is freely available online

ISEAL (2018) states:<sup>494</sup> "The scheme owner shall ensure the following information about their assurance system and its implementation is current and publicly available: [...]"

- Current list of certified clients, their scope of assurance, and expiry date of their certificate (where expiry dates are used) (the list can be made available at the assurance provider level); and
- Basic information about the results of assessments of both clients and assurance providers."

The Furmark website lists five auction houses that are involved in Furmark:<sup>495</sup>

- Copenhagen Fur
- Saga Furs
- Sojzpushnina
- Ruspushnina
- Fur Harvesters Auction Inc.

The Furmark digital toolkit includes a list of Furmark 'certified' dressers and dyers<sup>496</sup> and Furmark manufacturers,<sup>497</sup> although it is not clear whether these lists are comprehensive and there are no details of certification expiry dates. A Furmark blog post, dated 27.09.21,<sup>498</sup> contains a link to a sample Furmark membership document for manufacturers.<sup>499</sup> This document states: "Furmark® aims to publish a Membership list on its website and in some presentations. If you do not wish your organisation to appear in this list, please tick the box below". This opt-out makes it clear that any published list of Furmark 'certified' entities is not necessarily comprehensive and therefore will not be consistent with ISEAL's Assurance Code of Good Practice.<sup>500</sup> There does not appear to be any stated intention to publish a list of Furmark 'certified' farms or even to make this information available on request.

A WelFur brochure published in 2016 states:<sup>501</sup> "On an annual basis, Fur Europe publishes reports with relevant data from the assessments. These reports provide the general public with a reliable insight into the welfare standards on European fur farms." This claim is repeated in the most recently published WelFur protocol:<sup>502</sup> "Once a year, WelFur data is analysed by scientists and industry representatives in order to identify best farm practices, shape new industry projects on animal welfare, and initiate new research [...]" For transparency purposes this work, including policies and projects designed to improve animal welfare, is published by Fur Europe in an annual WelFur report together with key data." The Furmark website also claims:<sup>503</sup> "Fur Europe will publish the aggregated results of the WelFur assessment on the Fur Europe website." However, WelFur inspections have been ongoing since 2017 and, as of 11.10.21, a search of the Fur Europe<sup>504</sup> and Furmark<sup>505</sup> websites did not find any reports on the WelFur results published by Fur Europe. The only report on the WelFur results that appears to have been published is a report (in Danish with a short summary in English) by researchers at the Department of Animal Science, Aarhus University, comparing welfare on Danish mink farms with other European mink farms using WelFur data from 2017 to 2019.<sup>506</sup>

#### 4.3.3 Criterion 3(3): Manufacturer can be identified from the product label

There appears to be a traceability system in place (ChainPoint)<sup>507</sup> and a facility to scan the Furmark label and obtain information about the product.<sup>508</sup> Although this does not appear to provide information on the specific farm(s), or even country, of origin (the example only states that the fur was farmed in "Europe") it does appear to identify the manufacturer. This is the only criterion on which Furmark is awarded a full point. However, traceability is of little value if the product being traced does not have significant sustainability benefits over other similar products (see Section 4.1.3). Since the fur is only traced if it passes through a major fur

auction, Furmark is unlikely to have a significant impact in reducing illegal trade in the fur of threatened species.

#### 4.3.4 Criterion 3(4): Clearly defined limits for certified and non-certified content of the final product carrying the label

Scheme strengths highlighted by WWF (2016) include: <sup>509</sup>“The scheme either only allows for claims on products consisting of fully segregated materials, or requires that claims

associated with products containing a physical mix of certified and non-certified materials are clearly distinguished, e.g. by use of terms such as ‘mixed’ or ‘proportion.’”

As of 11.10.21, a search of the Furmark website, <sup>510</sup> the WelFur protocols, <sup>511 512</sup> and the SafeFur standard <sup>513</sup> did not find any information regarding whether Furmark ‘certified’ fur auctions, dressers and dyers, manufacturers or retailers are permitted to also use or sell non-certified fur, or any limits for the proportion of certified content required in a product for it to carry the Furmark label.



#### Section 4 summary:

The International Fur Federation claims that “Furmark® is the comprehensive global certification and traceability system for natural fur that guarantees animal welfare and environmental standards.” Key features of Furmark were assessed using 12 criteria covering basic requirements that any credible scheme would be expected to meet. Furmark scored only 1.5 out of a possible 12 points. For comparison, two established industry schemes (one for wool and one for leather / textiles) were assessed using the same criteria and both scored 12 out of 12 points.

The standards included in Furmark are generally not set at a level that adds value relative to existing national and international minimum requirements and normal industry practice and therefore would not be expected to result in significant positive sustainability impacts. Furmark does not currently include any published standards or targets for emissions, impacts on air, soil or water quality, biodiversity impact, energy use, or any other environmental performance measures; nor does it include any published standards for social responsibility.

There does not appear to be any public consultation process on draft standards for inclusion in Furmark and the views of environmental NGOs or other independent stakeholders specifically representing environmental / sustainability interests do not appear to be taken into account in standards development. There is a fundamental conflict of interest at the heart of Furmark because the fur industry itself is responsible for oversight of the scheme and there are no non-economic sector participants involved in the top-level governance of Furmark. Some of the individual schemes under the Furmark umbrella involve third party audits, although the independence of some of these audits is questionable.

There is a lack of transparency regarding both the standards and the certified entities included in Furmark. No proper standards documents or comprehensive list of certified entities are publicly available. It is not clear whether proper assurance standards have even been developed for some of the schemes, nor is there any comprehensive set of standards for the Furmark scheme as a whole. A search of the Furmark website, WelFur protocols and SafeFur standard did not find any requirement for unannounced visits or spot checks, or any clear procedures for addressing non-conformity, or any information regarding whether Furmark ‘certified’ fur auctions, dressers and dyers, manufacturers or retailers are permitted to also use or sell non-certified fur, or any limits for the proportion of certified content required in a product for it to carry the Furmark label.

Neither the Furmark website nor the International Fur Federation’s sustainability strategy sets out clear and specific sustainability objectives. It is not clear how Furmark could reduce any of the many very serious environmental impacts of the fur industry identified in this report because it fails even to adequately define what it is trying to change. Furmark lacks credibility and the scheme’s purpose appears to be more of a public relations exercise to try to convince consumers that fur is already ‘sustainable’, rather than any genuine attempt to identify, define and reduce its impacts.

The Furmark website, Furmark executive summaries, IFF’s sustainability strategy and various fur industry websites make multiple inaccurate and misleading claims regarding the content, impact and transparency of Furmark.



## 5. Are the fur industry's environmental claims 'greenwashing'?



# 5. Are the fur industry's environmental claims 'greenwashing'?

## 5.1 The 'Seven Sins of Greenwashing'

'Greenwash' or 'greenwashing' is defined by the Oxford Dictionary as "activities by a company or an organisation that are intended to make people think that it is concerned about the environment, even if its real business actually harms the environment."<sup>514</sup> As an example, it states: "A common form of greenwash is to publicly claim a commitment to the environment while quietly lobbying to avoid regulation". As has been shown in this report, there are several areas where the

fur industry is actively lobbying to avoid regulation that would, for example, allow more effective action to combat the threat to biodiversity of invasive alien species (see Section 2.2.8) or improve consumer protection against residues of hazardous chemicals in clothing (see Section 3.2.2). The fur industry invests heavily in lobbying, with Fur Europe spending more than €400,000 on lobbying annually.<sup>515</sup> The fur industry uses every greenwashing tactic available, committing all seven of the 'Sins of Greenwashing' defined by TerraChoice,<sup>516</sup> including making claims that are demonstrably false (see Table 5.1).



**Table 5.1: 'Sins of Greenwashing' committed by the fur industry.** One example is given for each 'Sin', except for the most serious 'Sin' ('fibbing'), where several examples are described.

The 'Seven Sins of Greenwashing' (as described by TerraChoice <sup>517</sup> )	Examples of 'greenwashing' committed by the fur industry
1) Sin of the Hidden Trade-off: committed by suggesting a product is "green" based on an unreasonably narrow set of attributes without attention to other important environmental issues. Paper, for example, is not necessarily environmentally-preferable just because it comes from a sustainably-harvested forest. Other important environmental issues in the paper-making process, including energy, greenhouse gas emissions, and water and air pollution, may be equally or more significant.	In 2018, the fur industry launched a campaign video "to highlight the colossal environmental damage caused by plastic based fake fur." <sup>518</sup> In an interview, IFF Chief Executive Mark Oaten said: <sup>519</sup> "There is a lot of talk about fake fur these days, for me it makes no sense to use a product full of chemicals and plastics when you can have a natural and biodegradable fashion item like real fur". Several fur industry websites and publications claim that fur "is completely biodegradable" <sup>520</sup> The fur industry's focus on the use of plastic in faux fur and the issue of biodegradation ignores the whole picture: evidence shows that the environmental impact of a mink fur coat is many times higher than that of a faux fur coat (on a large number of measures including climate impact and various measures of pollution and resource use) (see Section 3.3). Even on the specific point being raised, the claim that fur is "completely biodegradable" is inaccurate. A study commissioned by the fur industry found that biodegradation of fur samples plateaued at between 6.6% for dyed fox fur and 25.8% for undyed mink fur, indicating that the fur products were only partially biodegradable under the test conditions <sup>521</sup> (see Section 3.4).
2) Sin of No Proof: committed by an environmental claim that cannot be substantiated by easily accessible supporting information or by a reliable third-party certification. Common examples are tissue products that claim various percentages of post-consumer recycled content without providing any evidence.	The fur industry claims that fur garments have a much longer life span (~30 years) compared with other textiles but presents no supporting evidence (see Section 3.3.3). The actual average longevity of garments made from the most common types of fur is no more than 5-10 years (<10 years for mink, <7 years for arctic fox and <5 years for red fox). <sup>522</sup> Long-term research in Russia has established the average service life of classic-cut fur products to be 3-6 years for hats and 5-8 years for coats. <sup>523</sup> It is possible for an individual fur garment to last for several decades, for example if it is composed of the most durable types of fur, if it is worn only occasionally, and if it is placed in seasonal cold storage. However, when the fur industry refers to fur coats having a lifespan of 30 years or more, these are exceptional individual cases being passed off as the norm. <sup>524</sup>
3) Sin of Vagueness: committed by every claim that is so poorly defined or broad that its real meaning is likely to be misunderstood by the consumer. "All-natural" is an example. Arsenic, uranium, mercury, and formaldehyde are all naturally occurring, and poisonous. "All natural" isn't necessarily "green".	The fur industry makes many vague, absolute and unsubstantiated claims that fur is 'natural', 'biodegradable', 'sustainable', 'eco-friendly', 'responsible' and 'ethical'. Independent advertising standards authorities in several countries have judged these claims to be misleading (see Section 5.2).

The 'Seven Sins of Greenwashing' (as described by TerraChoice )	Examples of 'greenwashing' committed by the fur industry
4) Sin of Irrelevance: committed by making an environmental claim that may be truthful but is unimportant or unhelpful for consumers seeking environmentally preferable products. "CFC-free" is a common example, since it is a frequent claim despite the fact that CFCs are banned by law.	The Furmark SafeFur standard defines numerous pesticides that are already globally prohibited and/or not commonly used but fails to define some pesticides that are still widely produced and used. <sup>525</sup>
5) Sin of Lesser of Two Evils: committed by claims that may be true within the product category, but that risk distracting the consumer from the greater environmental impacts of the category as a whole. Organic cigarettes might be an example of this category, as might be fuel-efficient sport-utility vehicles.	The promotion of WelFur 'certified' fur as part of Furmark risks misleading consumers into thinking that this fur is produced in a fundamentally different way from non-certified fur. WelFur 'certified' fur still comes from animals farmed in cage systems with the same inherent welfare problems that cannot be overcome by any kind of welfare monitoring scheme. <sup>526</sup>



The 'Seven Sins of Greenwashing' (as described by TerraChoice )	Examples of 'greenwashing' committed by the fur industry
6) Sin of Fibbing: the least frequent Sin, is committed by making environmental claims that are simply false. The most common examples were products falsely claiming to be Energy Star certified or registered.	<p>IFF claims:<sup>527</sup> "Thanks to strict regulations and professional, independent management, the most important North American and Russian furbearers are as plentiful today as they have ever been."</p> <p>While it may be true that populations of certain species are currently killed at levels that do not appear to pose an imminent threat to the survival of the species, other important furbearer species, such as the European mink, have been driven close to extinction by the fur industry and the present-day actions and ongoing impacts of the fur industry continue to play a role in preventing their recovery (see Sections 2.1.4 and 2.2.8).</p> <p>According to the website of one of the major global fur auctions (Kopenhagen Fur):<sup>528</sup> "Fur has a 100% zero waste supply chain".</p> <p>The evidence presented in Sections 3.1-3.3 demonstrates that there is a substantial environmental burden associated with waste from both fur farms and fur dressers and dyers. Based on IFF research involving associations across 12 countries representing around 3000 fur farms, 80% of farm waste is valorised to be used as fertilizer or biofuel.<sup>529</sup></p> <p>It is not clear how the information was collected and data of this kind are often skewed due to farmers who feel proud of their management practices being more likely to participate in surveys. However, even this best-case scenario indicates that at least 20% of fur farm waste has no useful outlet.</p> <p>IFF claims:<sup>530</sup> "Farmed fur animals eat food that is prepared from the waste products of the meat, fish and dairy processing industries, preventing this waste from being disposed of into the environment."</p> <p>Some of the fish used in fur animal feed is caught specifically for this purpose, rather than being by-products of fishing for human consumption, and fish by-products are not waste: fishmeal and fish oil are valuable commodities and there is inadequate supply to meet the requirements of the rapidly expanding aquaculture sector (see Section 3.3.2). There are also other uses for by-products from the meat and dairy industries. The recent decision to lift the ban on feeding animal by-products to pigs and poultry in the EU<sup>531</sup> is likely to lead to a large increase in demand for these products.</p>

The 'Seven Sins of Greenwashing' (as described by TerraChoice )	Examples of 'greenwashing' committed by the fur industry
<p>7) Sin of Worshiping False Labels: The Sin of Worshiping False Labels is committed by a product that, through either words or images, gives the impression of third-party endorsement where no such endorsement actually exists; fake labels, in other words.</p>	<p>The Natural Fibers Alliance is "a coalition of producers and associations that support the use of natural sustainable materials in clothing, accessories, and other goods."<sup>532</sup> Its website promotes Furmark and refers to it as "an ISO-certified program".<sup>533</sup> ISO develops standards but the ISO website is clear that ISO is not involved in certification and a product or system should never be labelled as "ISO-certified".<sup>534</sup> A product or system can be identified as certified to an ISO-standard if it has been certified by an independent certification body as meeting an ISO standard. However, although FILK<sup>535</sup> and Baltic Control<sup>536</sup> are certified to various ISO standards, the Furmark scheme itself does not appear to have been certified to any ISO standard, in which case the claim would be misleading, indicating a third-party endorsement of Furmark that does not exist.</p>



### 5.2 Misleading advertising

The fur industry makes many vague, absolute and unsubstantiated claims that fur is 'natural', 'biodegradable', 'sustainable', 'eco-friendly', 'responsible' and 'ethical'. Independent advertising standards authorities in several countries have banned fur industry advertisements making such claims because they are likely to be misleading for consumers.

In 2018, the French Board of Advertising Ethics ruled that both the text and the image used in an IFF advertising campaign in Vogue Paris were misleading.<sup>537</sup> The advertisement was entitled "Natural wonder" and stated: "Sustainable and beautiful, ethical and exquisite – the magic of fur is irresistible".

Also in 2018, the Advertising Standards Authority for Ireland ruled that 'cruelty-free' claims, relating to false eyelashes made from mink fur, were misleading.<sup>538</sup>

In 2017, the Dutch Advertising Standards Authority ordered the fur brand Airforce to remove false claims from its labels. The company was selling jackets with raccoon dog fur trims labelled as "ethical" and "responsible".<sup>539</sup>

In 2012, a European Fur Breeders' Association (now Fur Europe) magazine advertisement claiming that it is "eco-friendly to wear fur" was ruled misleading by the Advertising Standards Authority in the UK.<sup>540</sup> The advertisement included claims that fur is "naturally long-lasting", can be "recycled easily and biodegrades" and is "one of the most ecologically balanced systems in agriculture".

There have also been multiple cases of mislabelling, for example in the UK<sup>541</sup> and US,<sup>542</sup> where real fur has been passed off as faux fur in clothing.

### Section 5 summary:

The fur industry publicly claims a commitment to sustainability while actively lobbying to avoid regulation that would, for example, allow more effective action to combat the threat to biodiversity of invasive alien species or improve consumer protection against residues of hazardous chemicals in clothing.

The fur industry uses every greenwashing tactic available, committing all seven of the 'Sins of Greenwashing', including making claims that are demonstrably false.

The fur industry makes many vague, absolute and unsubstantiated claims that fur is 'natural', 'biodegradable', 'sustainable', 'eco-friendly', 'responsible' and 'ethical'. Independent advertising standards authorities in several countries have judged these claims to be misleading.



## 6. The current situation and the way forward



## 6. The current situation and the way forward

Fur farming has already been banned, or is being phased out, in the UK, Austria, Slovenia, Republic of Macedonia, Croatia, Luxembourg, Czech Republic, Serbia, The Netherlands, Belgium, Norway, Slovakia, Estonia, Bosnia and Herzegovina, France, and Ireland.<sup>543</sup> Many other countries have partial bans or effective bans as a result of other legal requirements.<sup>544</sup> Stricter animal welfare requirements have made fur farming uneconomic in Switzerland, Germany (for mink) and Sweden (for fox and chinchilla). Denmark has banned fox and raccoon dog farming. Hungary has banned the breeding of mink, foxes, polecats and coypu for fur. New Zealand has banned the import of mink, which effectively bans mink farming in the country. In Japan, legislation on invasive alien species prohibited the construction of new mink fur farms and all existing farms have now closed. Construction of new mink farms is also not permitted in Spain due to concern about the effect of escaped mink on remaining populations of the European mink. Proposed legislation to prohibit fur farming is currently being considered in Bulgaria, Lithuania, Montenegro, Poland and Ukraine.<sup>545</sup>

Bans on the sale of fur have been, or are being, introduced in Israel, the US state of California, and several US cities,<sup>546</sup> and a similar ban is under consideration in the UK.<sup>547</sup> Given that the UK banned fur farming two decades ago, and prohibited leg-hold trapping long before that, it is hypocritical to continue to allow fur to be imported and sold in the UK when the main methods of obtaining fur are considered too cruel to be permitted. There is considerable public and political support for such a ban.<sup>548</sup> The sale of cat and dog fur<sup>549</sup> and seal products (with some

exceptions)<sup>550</sup> is prohibited in the EU. In addition to the growing surge in regulatory moves to ban fur farming and the sale of fur, more and more luxury fashion brands and department stores are choosing to turn their back on fur.<sup>551 552</sup> According to People.com:<sup>553</sup>

**“The hottest trend in fashion right now is going fur-free.”**

In June 2021, the European Commission committed to proposing legislation to end the use of cages for animals farmed for food, including laying hens, sows, calves, rabbits, pullets, broiler breeders, layer breeders, quail, ducks and geese.<sup>554</sup> The proposal is expected by the end of 2023 as part of the revision of EU animal welfare legislation, with a view to the proposed legislation entering into force from 2027. It would be illogical and unjustifiable to continue to allow animals to be farmed for fur in cages while prohibiting cages for animals farmed for food.

Also in June 2021, The Netherlands and Austria, supported by Belgium, Germany, Luxembourg and Slovakia, called for a ban on fur farming across the EU:<sup>555</sup>

**“Austria and the Netherlands have taken the initiative for a joint note to ask the Commission to take appropriate action to end fur farming in the European Union. We, together with our co-signers, believe that – now that many mink have been culled and several Member States have banned fur farming and breeding in their own countries – the time has come for the European Union to move forward on this topic and express their respect for animal welfare and their**

**willingness to end an economic activity that is without doubt harmful for the wellbeing of animals kept in small cages for the sole or main purpose of obtaining fur.”**

Many other member states have expressed their support for the initiative, including Italy, Poland, Bulgaria, Estonia, Slovenia, Ireland and Slovakia.<sup>556</sup>

There have also been prominent calls for a ban on fur farming in China,<sup>557</sup> North America<sup>558</sup> and around the world.<sup>559</sup> Writing in *Science*, Xia *et al.* (2020)<sup>560</sup> applaud the ban on mink production in The Netherlands

in the wake of coronavirus outbreaks, and urge the other major mink-producing nations to take similar steps:

**“China, Denmark, and Poland should support and extend the immediate and complete ban of mink production [...] The unsustainable use of natural resources by the mink industry impedes our response and recovery from the pandemic, puts animals in harmful conditions, and jeopardizes our ability to achieve the United Nations’ Sustainable Development Goals.”**

### Section 6 summary:

Legislation explicitly or effectively banning fur farming of some or all species has already been introduced in more than 20 countries and is currently being considered in several others. Some jurisdictions have banned the sale of fur and more and more luxury fashion brands and department stores are choosing to turn their back on fur.

The European Commission has committed to proposing legislation to end the use of cages for animals farmed for food and several Member States have called for a ban on fur farming across the EU. It would be illogical and unjustifiable to continue to allow animals to be farmed for fur in cages while prohibiting cages for animals farmed for food. There have also been prominent calls for a ban on fur farming in China, North America and around the world. It is hypocritical for countries that have prohibited fur farming to continue to allow the import and sale of fur.



## 7. Conclusions and recommendations



## 7. Conclusions and recommendations

The fur industry has been, and continues to be, responsible for biodiversity loss on a massive scale, via historical over-exploitation, ongoing killing of target and non-target (including threatened) species, deliberate past introductions and ongoing escapes of invasive alien species from fur farms, lobbying to prevent effective action to control invasive alien species, and pollution of the natural environment.

The environmental impact of fur (on a large number of measures including climate impact and various measures of pollution and resource use) is many times higher than that of other common textiles, including faux fur. The production of fur conflicts with efforts to achieve several UN Sustainable Development Goals, including Goal 2 (zero hunger), Goal 3 (good health and well-being), Goal 6 (clean water and sanitation), Goal 12 (responsible consumption and production), Goal 13 (climate action), Goal 14 (life below water), and Goal 15 (life on land).

Furmark® – the fur industry’s ‘certification’, traceability and labelling scheme – lacks transparency and credibility and fails to address the environmental impacts of the fur industry. The standards included in Furmark are generally not set at a level that adds value relative to existing national and international minimum requirements and normal industry practice and therefore would not be expected to result in

significant positive sustainability impacts. Furmark does not currently include any published standards or targets for emissions, impacts on air, soil or water quality, biodiversity impact, energy use, or any other environmental performance measures; nor does it include any published standards for social responsibility.

The fur industry uses every greenwashing tactic available, committing all seven of the ‘Sins of Greenwashing’, including making claims that are demonstrably false and many vague, absolute and unsubstantiated claims that fur is ‘natural’, ‘biodegradable’, ‘sustainable’, ‘eco-friendly’, ‘responsible’ and ‘ethical’. Independent advertising standards authorities in several countries have judged these claims to be misleading.

The European Commission has committed to proposing legislation to end the use of cages for animals farmed for food and several Member States have called for a ban on fur farming across the EU. It would be illogical and unjustifiable to continue to allow animals to be farmed for fur in cages while prohibiting cages for animals farmed for food. There have also been prominent calls for a ban on fur farming in China, North America and other countries around the world that have not already banned the practice. It is hypocritical for countries that have prohibited fur farming to continue to allow the import and sale of fur.

**The evidence presented in this report demonstrates the considerable environmental damage caused by the fur industry and adds to the overwhelming case – on ethical, animal welfare, human and animal health, as well as environmental grounds – for a ban on fur farming and the sale of fur. Now is the time for the European Union, China, and all other countries that have not already done so, to take decisive action to end the farming of animals for their fur and the sale of fur products.**

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To see more of Jo-Anne's work visit [www.weanimals.org](http://www.weanimals.org) or email her at [info@weanimals.org](mailto:info@weanimals.org)



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