## **Background Information for the Teacher**

## Endangerment

"Seal populations are developing differently around the world. In Germany, too, seals were hunted rigorously and the population decreased dramatically up until the 1970s. With the cessation of hunting and the protection of the Wadden Sea – in the form of a national park in Germany – the population has recovered well. This recovery of seal population was interrupted by the canine distemper virus in 1988 and 2002. In both years, this virus extirpated half of the respective seal population. Scientists assume that the virus infected a population in the North Sea which, at that point, was not immunised and was further weakened by pollution and contaminants.

Today, the population in the Wadden Sea has recovered and exceeds 15,000 seals. On the Baltic coast, however, seals were fully extirpated and rarely ever seen. The total population worldwide is estimated at around 500,000 seals. On a global scale, they are not in danger of extinction. On the IUCN (International Union for Conservation of Nature) red list of threatened species, the seal, together with its subspecies, is categorised as "Least Concern". In Germany, however, the seal is listed as endangered. In the Habitats Directive (Council Directive 92/43/EEC on the Conservation of natural habitat and of wild fauna and flora), the seal is listed in appendix II. The habitats of species that are listed in appendix II are to be preserved and protected by the designation of appropriate protective areas.<sup>1</sup>

Today, worldwide maritime pollution poses the greatest threat to the seal besides hunting and the diminishment of its natural habitat. Dangerous and highly toxic substances like polybrominated diphenyl ethers (PBDE), the insecticide DDT and polychlorinated biphenyls (PCB) are major causes of maritime pollution. Although the use of PCB and DDT is prohibited in Germany, these toxins are not easily degradable and therefore transported into our coastal waters from developing countries where they are still used on a large scale. If the concentration of these substances becomes too high, the animals are weakened and become more prone to infections. The high concentration of toxins also causes other diseases, of which the morbid change of the womb (leading to infertility of the cows) is one of the most severe."

Tourism also accounts for an extremely disruptive factor. Shipping traffic, surfers and mudflat hikers are disrupting the breeding and molting of seals.<sup>3</sup>

<sup>&</sup>lt;sup>1</sup> See: http://www.wwf.de/themen-projekte/artenlexikon/seehund/ [date: 08.12.2014]

<sup>&</sup>lt;sup>2</sup> ibid.

<sup>&</sup>lt;sup>3</sup> Cf. Bundesamt für Naturschutz http://www.natursportinfo.de/14292.html [date: 08.12.2014]

## Protection

Protecting the natural habitat of the seals and ceasing to hunt them are vitally important if the population is to remain viable. Both have been accomplished in the Wadden Sea over the course of decades, not least thanks to the endeavours of the WWF. Today, the Wadden Sea is protected in Germany by three national parks in Schleswig-Holstein, Hamburg and Lower Saxony. Large protective areas have also been called into existence in Denmark and the Netherlands.<sup>4</sup>

The breeding of seals by humans is dangerous, as pathogenic organisms can be passed on to the wild population when the animals are released back into the wild. Furthermore, the breeding of baby seals is not necessary to protect the population and cannot provide an adequate substitute for the mother. Do not breed baby seals, but stay away from them!<sup>5</sup>

<sup>4</sup> See: http://www.wwf.de/themen-projekte/artenlexikon/seehund/ [date: 08.12.2014]

<sup>&</sup>lt;sup>5</sup> Cf. Bundesamt für Naturschutz http://www.natursportinfo.de/14292.html [date: 08.12.2014]