THE **HEAT** IS **ON**

Species feeling the effects of climate change

Harp Seal

Pagophilus groenlandicus

Region:
Arctic

Area affected:
Eastern Canada

Climatic change:
Loss of ice

Impact:
Pup mortality

ABOUT THIS SPECIES

The harp seal's scientific name means "ice-lover from Greenland," a name that attests to its fidelity to sea ice. The young are famous for their snow-white fur, which helps them absorb more warmth from the sun until they build up an insulating layer of blubber. Seal pups only sport white coats for a brief period before beginning the "molting" process, making the transition to mottled gray with a dark "saddle" across the back. Females give birth on the southern edge of the ice in February or March, shortly before the spring ice breakup begins. Pups nurse for just 12 days, gaining about five pounds per day. They are then left alone on the ice, during which time they are highly vulnerable to predators and early ice breakup. They are finally able to swim six weeks after their mothers leave themand, as the weather warms, migrate toward the Arctic. Harp seals feed on a wide variety of fish and invertebrates. While foraging, they can make dives up to 1,200 feet for up to 16 minutes.

DESCRIPTION OF IMPACT

As the pups are left alone on the ice for weeks, harp seal breeding success is strongly tied to ice cover. Fluctuations in ice cover due to a natural climatic phenomenon known as the North Atlantic Oscillation (NAO) have a strong effect on pup mortality. In some years, the NAO leaves plenty of ice in the harbor seal's northernmost breeding areas east of Greenland and north of Finland, and produces less ice in the species' more southerly breeding areas off the east coast of Canada. In other years the NAO has the reverse effect, hence the term "oscillation." However, imposed on these natural fluctuations is the ominous reality of the overall decline of annual ice cover at a rate of about 5% per year due to warming in the northern latitudes and up to almost 9% in the Gulf of St. Lawrence. The sea ice cover here was at its lowest recorded measurement in 2021. Without sturdy ice pans, seal pups are forced to the shore and risk death from broken chunks of ice, drowning, or predation from land-based predators. **As sea ice melts faster, more pups lose their ice platform before they are able to swim. In some years, like 2010, none of the pups born have survived.**

References

CBS. 2021. Scientists Say Harp Seal Pups Are Being Affected By Climate Change. https://www.cbsnews.com/pittsburgh/news/harp-seals-and-climate-change/

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