

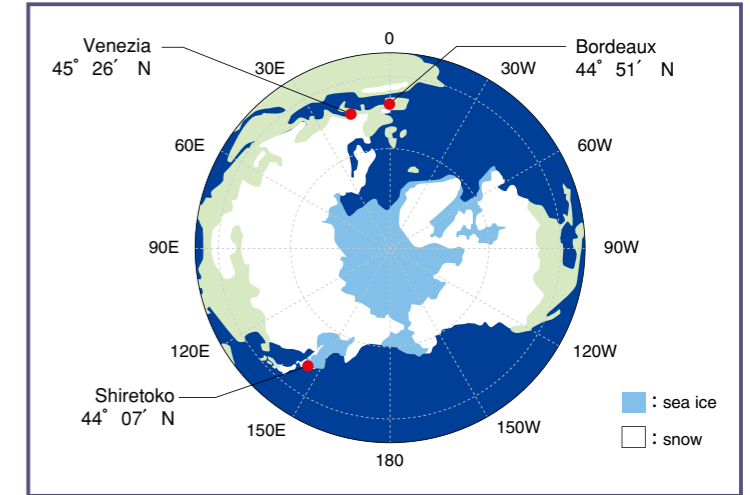
Sea Ice, the Supporter of Abundant Wildlife

Shiretoko forms the dynamic food chain based on vast amount of plankton brought by sea ice, and links ecosystems of seas, rivers and forests. The Sea of Okhotsk is located at the lowest latitude in the world where seasonal sea ice forms. This is due to three unique conditions affecting the Sea of Okhotsk: the doubled-layer water structure having different levels of salinity; being sheltered by a surrounding land mass, thus affording little exchange of seawater with the open sea; and weather patterns whereby cold air from Siberia effectively chills the seawater.

A formation of sea ice increases convective activity of seawater, circulating nutrients from the bottom to the surface of the sea. The layer of seawater just under the ice is a perfect habitat for phytoplankton, since there are desirable level of sunlight and temperature. The phytoplankton multiply rapidly once the ice begins to melt, and these activities occur earlier in the waters around Shiretoko Peninsula than anywhere else in the Sea of Okhotsk. Phytoplankton provide food for zooplankton and support a food chain that extends to higher level consumers such as large fish, marine mammals, and terrestrial wildlife.

Toute une biodiversité née des glaces marines

A Shiretoko, le plancton produit en abondance grâce aux glaces flottantes est à la source de la chaîne alimentaire qui unit de manière dynamique les écosystèmes marin, fluvial et forestier. C'est en effet dans la Mer d'Okhotsk que se forment, à la plus basse des latitudes de l'hémisphère nord, des glaces marines saisonnières. La zone aquatique directement en dessous de ces glaces flottantes est un habitat idéal pour le phytoplancton. Dès qu'elles commencent à fondre, le phytoplancton s'y multiplie très rapidement, un phénomène précoce qui intervient au tout début du printemps dans les eaux entourant la péninsule de Shiretoko, bien en avance sur le reste de la Mer d'Okhotsk.



The latitude of Shiretoko Peninsula (latitude of 44° 07' N) is lower than that of the famous wine region of Bordeaux, France (latitude of 44° 51' N) and the canal-filled city of Venice, Italy (latitude of 45° 26' N)

Shiretoko

The sea ice season is essential in the life cycle of marine species, coinciding with birth of walleye pollack and weaning of seal pups that need the large amount of food resources of good quality.

Biological Diversity and Threatened Species

A food chain starts from phytoplankton that consists mainly of diatoms that nurtures zooplankton such as krill, which become a source of food for small fish, benthos, crustacean and shellfish, then these animals become food sources of large migratory fish, marine mammals and birds, which finally feed terrestrial mammals.



Sea ice



Larga seal *Phoca largha*



Japanese scallop *Patinopecten yessoensis*
Scopaenidae
Sea bat *Asterine pectinifera*



Sea ice



Krill

