



TIMO SEPPÄLÄINEN

Use seal-friendly fishing methods and avoid snowdrifts

By-catch mortality is the most serious immediate threat to the seal population. Pups, in particular, easily get entangled in fishing nets and may follow fish into a fish trap, from which they cannot escape. Therefore, use a trap in which the maximum width of the opening is 15 cm, even when stretched. There are regional and temporal restrictions for net fishing and for the use of other fishing gears dangerous to the seals. You can check the fishing restrictions at: kalastusrajoitus.fi. However, fishing nets are still dangerous to the seal even outside the restriction periods.

When moving on frozen lake Saimaa during winter, please avoid shorelines of islands and islets, as there may be a seal lair in snowdrift. If the mother seal is frightened by disturbance, such as snowmobiling, this may disrupt birth or nursing.

Report sick or injured seals and seal carcasses

- If you notice a seal that may need help, observe it from a distance with, for example, binoculars but do not approach the seal or disturb it. You can also take a picture.
- If you come across a seal carcass, make sure it won't be washed away by waves.
- Inform Metsähallitus in Savonlinna about your find without delay, tel. +358 (0)206 39 5000, or the police.
- Provide your name and contact information and the time and place of the find.
- You can also report other observations relating to seals in Lake Saimaa to Metsähallitus by email to saimaannorppa@met.fi.



Helping the Saimaa ringed seal together

Using a diverse range of measures, the Our Saimaa Seal LIFE project aims to enhance the conservation of the Saimaa ringed seal during 2020–2025.

The goals of the project are:

- to develop new conservation actions and population estimation methods in a changing climate
- to gain new information about the health of the Saimaa ringed seal
- to increase awareness about the seal and its conservation
- to supervise fishing restrictions relating to the seals, in addition to advising and guiding people
- to act for improving the situation of the Baltic ringed seal as well.

The project is led by Metsähallitus Parks and Wildlife Finland.

The project partners are DocArt; South Karelian Foundation for Recreation Areas; South Savo and North Karelia Regional Centres for Economic Development; Finnish Association for Nature Conservation; Finnish Food Authority; Natural Resources Institute Finland; Turku University of Applied Sciences; University of Eastern Finland; University of Helsinki; WWF Finland; and the government of the Region of Åland.

Read more about the project at www.metsa.fi/en/project/our-saimaa-seal-life

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METSÄHALLITUS PARKS & WILDLIFE FINLAND.

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The endangered Saimaa ringed seal (*Pusa hispida saimensis*)





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Summer, Saimaa and seals

Although the Saimaa ringed seal is very rare, you may most likely see it towards the end of May when it moults and basks also at daytime on the lakeshore rocks to dry its fur. If you find a seal basking, do not approach and frighten it. In the water the seal is usually not frightened by boats, and may even follow a boat travelling at a leisurely speed.

One of the most endangered seals

The Saimaa seal is one of the most endangered and rarest seals in the world. There are slightly over 400 Saimaa seals in the world, and they all live in Lake Saimaa. Due to land uplift after the Ice Age, the Saimaa seal became isolated from other ringed seal subspecies more than 9,000 years ago. The Saimaa ringed seal is Finland's only endemic mammal. You may spot it anywhere in the Lake Saimaa area, but most likely in the Pihlajavesi and Haukivesi basins near Savonlinna. The Linnansaari and Kolovesi National Parks are located in its main distribution areas.

In the early 20th century, Saimaa seals were regarded as competitors to fishing and a bounty was paid for killing them until 1948. The Saimaa ringed seal was protected in 1955. However, the seal population continued to decline until the early 1980s, when there were less than 200 individuals left. Thanks to the protection measures taken, the size of the population has grown, and at present there

THE SAIMAA RINGED SEAL (*Pusa hispida saimensis*)

Mass

- at birth 5 kg
- at weaning 20 kg
- at maturity 60 kg

Length

- at birth 65 cm
- at weaning 90 cm
- at maturity 130 cm

Sexual maturity

- at 4–6 years

Lifespan

- maximum over 30 years

Dive duration

- average 3–7 minutes
- maximum more than 20 min

are more than 400 seals. The seal has returned to some parts of its old distribution areas, but due to human activities, there is less suitable area left for breeding. Today, the greatest threats to the seal population are by-catch mortality of fishing, climate change, small and fragmented population, and human-induced disturbance during the breeding season.

Biology of the Saimaa ringed seal

The Saimaa seal is well adapted to living in water. It spends most of its life submerged and can even sleep in the water. In addition to its sight, it uses whiskers as sense organs in the water.

Adult seals exhibit extreme site fidelity, but both adults and pups can also make long trips between different parts of Lake Saimaa.

The seal feeds on small schooling fishes and uses both the nearshore and open water habitats for capturing prey. The body mass, especially the amount of fat, varies strongly seasonally, being at its highest in early winter after the open water season.

The population size grows slowly due to the high mortality of young age groups. In addition, the ringed seal reaches sexual maturity at a late age, usually gives birth to one pup per year, and many of the pups born do not reach maturity in Lake Saimaa.

The lair shelters the pup

In February–March, the Saimaa seal gives birth to a pup in a snow den (known as lair) that it has dug into a lakeshore snowdrift. The mother nurses the pup in the lair, which gives shelter against predators and cold. The lairs are usually located at shorelines of islands and islets. The breeding success of the Saimaa seal depends on sufficient snow conditions. During mild winters the pups are born on the bare ice without the shelter of a lair, exposing the pups to predation and disturbance. In recent years, man-made snowdrifts have provided shelter for the seal pups born in winters with poor snow conditions. Artificial nests have also been developed for winters completely lacking snow.

The seal mother weans her pup around mid-May after the ice break up and the pup starts to enlarge its home range. Already in June, the pup may have travelled dozens of kilometres from its birth site.



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The year of the Saimaa ringed seal

The winter lair in the snow gives shelter

In the middle of the winter the Saimaa ringed seal remains hidden from the human eye. It keeps a few breathing holes open in the lake ice and occasionally rests in a lair it has dug into a lakeshore snowdrift.

The pup is born

In late February, the seal mother gives birth to a pup in the lair dug into the drift of snow. At that time the mother and the pup need peace for nursing and are most vulnerable to disturbance.

In the spring, the ringed seals mate

The new pups are conceived in late March–early April.

In late spring, the pup leaves the mother

In mid-May, the mother weans her pup, and he/she starts to live independently.

The ringed seal moults

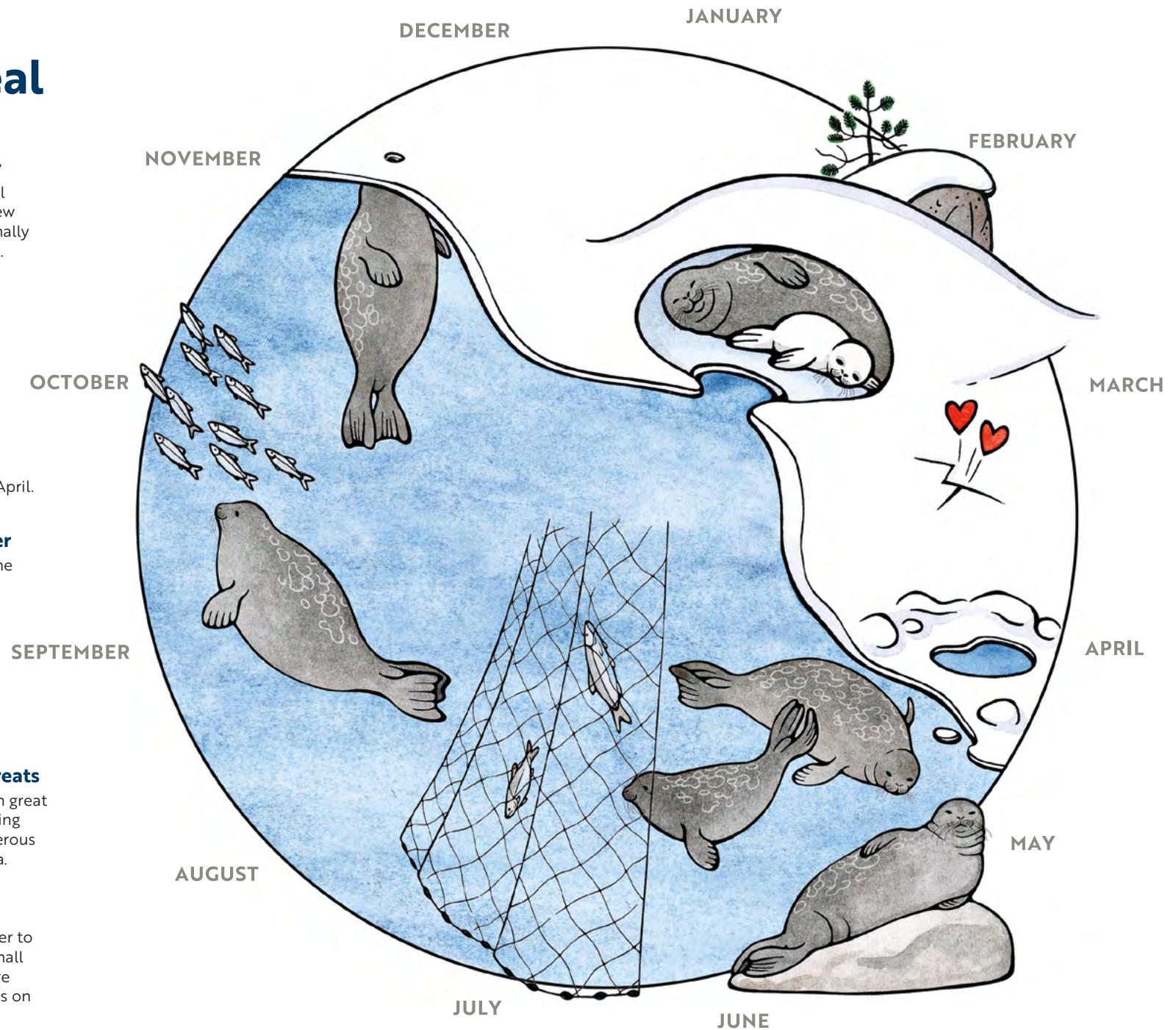
The end of May is the moulting season for grown-up ringed seals. That is when they can be spotted lolling on lakeshore rocks. Do not disturb a seal drying its fur.

In the summer, the ringed seal faces threats

When learning to live independently, the pup is in great danger of getting entangled in a fishing net or being caught in a fish trap. The use of fishing gear dangerous to ringed seals has been restricted in Lake Saimaa.

The ringed seal gains weight in autumn

In autumn, the ringed seal eats a lot of fish in order to build up the blubber under its skin. It feeds on small fish that move about in shoals. Its favourite fish are vendace, roach, smelt and perch. The seal requires on average 2–3 kilos of food per day.





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Conservation and monitoring of the population

The Saimaa ringed seal, its winter lairs and the basking sites are protected under the Nature Conservation Act. In addition, restrictions on landing on shores and other restrictions on access have been imposed in national parks and other protected areas. The requirements of the seal are also taken into account in land-use planning, and the use of the fishing gears dangerous to the seals has been restricted.

To ensure the growth of the seal population, people are guided to use seal-friendly fishing gear and advised to secure a peaceful breeding season from December to April. Man-made snowdrifts are plowed in the winter, and artificial nests are being developed for winters lacking snow to secure breeding conditions.




The monitoring of the population helps to assess the effectiveness of the conservation measures taken, and to respond to potential threats quickly. The amount of snow at the breeding sites, birth rate, mortality and the causes of death are monitored annually. The collected information is valuable for conservation of the seal. Metsähallitus Parks & Wildlife Finland is responsible for monitoring and most of the conservation acts of the Saimaa ringed seal. The conservation work is carried out in cooperation with authorities, researchers, and hundreds of volunteers.



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More information on the Saimaa ringed seal
is available at www.nationalparks.fi/saimaa-ringed-seal

Main breeding grounds of the Saimaa ringed seal

-  Breeding areas in the 1990's
-  Breeding area in 2010–2022
-  Saimaa, original breeding area

