

## 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. Angling and lure fishing are seal friendly fishing methods. However, fishing nets are dangerous to the seal.

During winter, avoid shorelines of islands and islets, as there may be a lair in snowdrift. If the mother seal is frightened by disturbance, such as snowmobiling, this may interfere with birth or nursing.

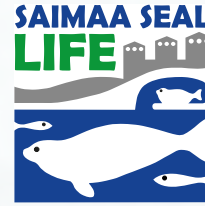
## Report seal carcasses

**It is essential for the conservation of the Saimaa seal that all dead seals are examined.**

- If you come across a seal carcass, make sure that it will not be washed away by waves.
- Inform Metsähallitus in Savonlinna about your find without delay, tel. **+358 (0)206 39 4000**, or the police.
- Provide your name and address and the time and place of the find.
- You can also report other observations relating to seals in Lake Saimaa to Metsähallitus at [www.metsa.fi/saimaannorppa](http://www.metsa.fi/saimaannorppa) or by email to [saimaannorppa@metsa.fi](mailto:saimaannorppa@metsa.fi)

## HELPING THE SAIMAA RINGED SEAL TOGETHER

Using a diverse range of measures, the LIFE Saimaa Seal project aims to enhance the conservation of the Saimaa ringed seal during 2013–2018.



The goals of the project are:

- to produce broader and updated knowledge on e.g. home range of seals and the potential threats
- to reduce by-catch mortality
- to adapt to the climate change by adopting a method of man-made snowdrifts to improve the breeding habitat during mild winters
- to reduce human-induced disturbances on seal, and
- to increase awareness about the seal and its conservation.

The project is led by Metsähallitus. The project partners are South Savo Regional Centre for Economic Development, Transport and the Environment; University of Eastern Finland; Natural Resources Institute Finland; Finnish Association for Nature Conservation; WWF Finland; Finnish Federation for Recreational Fishing and University of Turku.

Read more about the project at [www.metsa.fi/web/en/saimaaseallife](http://www.metsa.fi/web/en/saimaaseallife)



# The endangered Saimaa ringed seal

*(Pusa hispida saimensis)*





METSÄHÄLLITYS / JOUNI KOSKELA

## 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 day time onto the lakeshore rocks to dry its fur. If you find a seal basking, do not approach and frighten it. When in the water, the seal is not frightened by boats, and may follow a boat travelling at a leisurely speed.

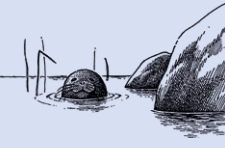
## One of the most endangered seals

The Saimaa seal is one of the most endangered and rarest seals in the world. There are slightly under 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 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. 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 the goal is that there would be at least 400 seals in the year

2025. The seal has returned to some parts of its old distribution areas, but due to the 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 disturbance during the breeding season.

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

MEASUREMENTS	Mass	Length	DIVE DURATIONS
At birth	5 kg	65 cm	Maximum more than 20 minutes  Average 3–7 minutes
At weaning	20 kg	90 cm	
At maturity	60 kg	130 cm	
AGES			
Sexual maturity	at 4–6 years		
Maximum lifespan	over 30 years		

## Biology of the Saimaa ringed seal

The Saimaa seal is well adapted to living in water. It spends most of its life submerged. In addition to its sight, it uses whiskers as sense organs in the water. Adult seals are extremely local, but they can also make long trips between the different parts of Lake Saimaa.

The seal feeds on small schooling fishes and uses both the near shore 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 classes. In addition, the ringed seal reaches sexual maturity at a late age, usually gives birth to one pup per year, and its lifespan is often less than ten years in Lake Saimaa.

## The lair shelters the pup

In February–March, the Saimaa seal gives birth to a pup in snow den (known as lair) that is dug into a lakeshore snowdrift. The mother nurses the pup in the lair, which gives shelter against predators and harsh weather conditions. The lairs are usually located at shorelines of islands and islets. The breeding success of the Saimaa seal depends on sufficient snow conditions, and during mild winters the pups are born on the lake 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.

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.



JUHA TASKINEN

# 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 takes a rest in the cave 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 suckling 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, which was born in late winter, and the pup starts to live independently.

## The ringed seal moults

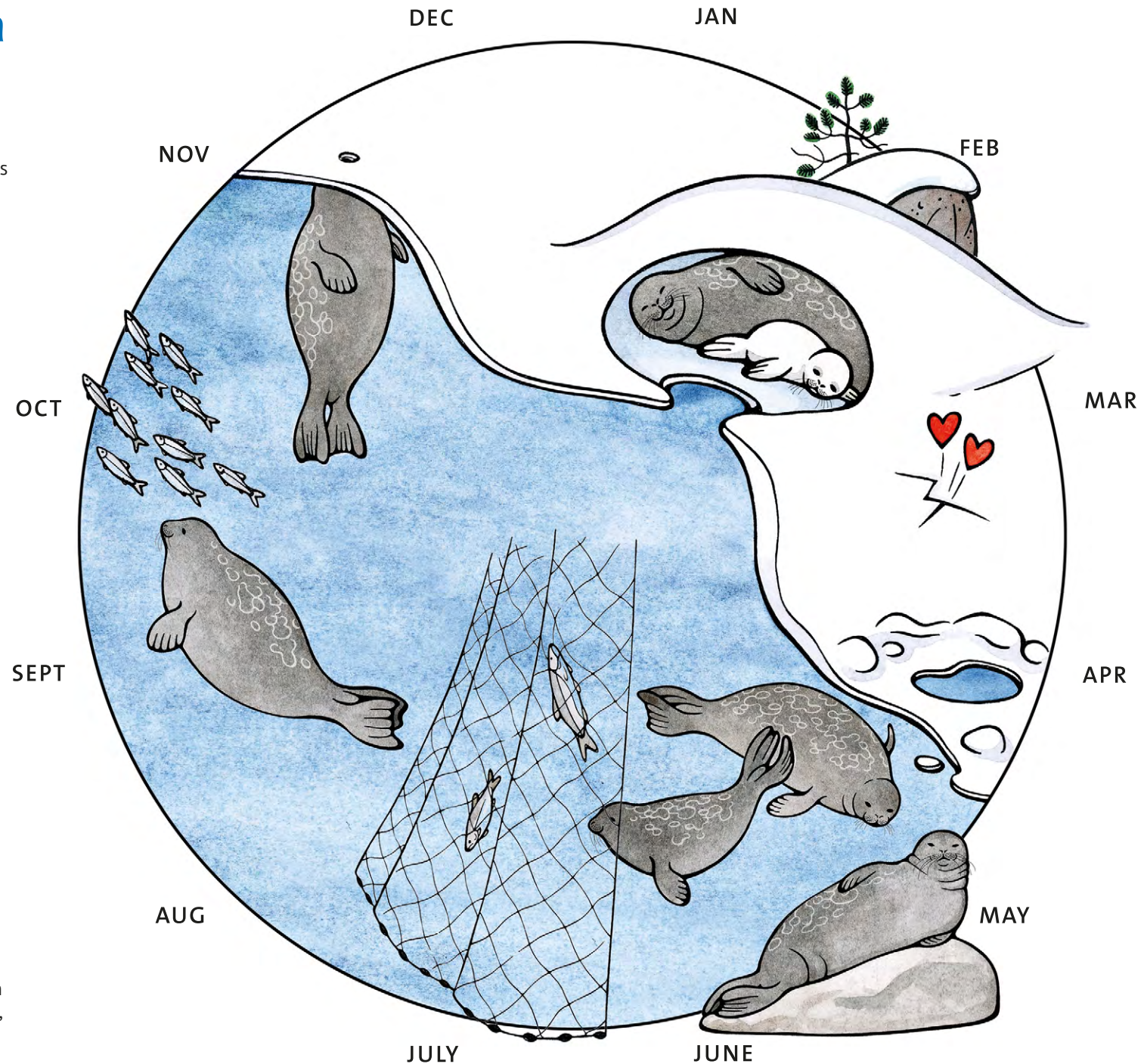
The end of May is the moulting season for grown-up ringed seals. That is when they can be spotted lolling on lakeshore rocks. Do not disturb a seal drying its fur.

## 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. It requires on average 2–3 kilos of food per day.

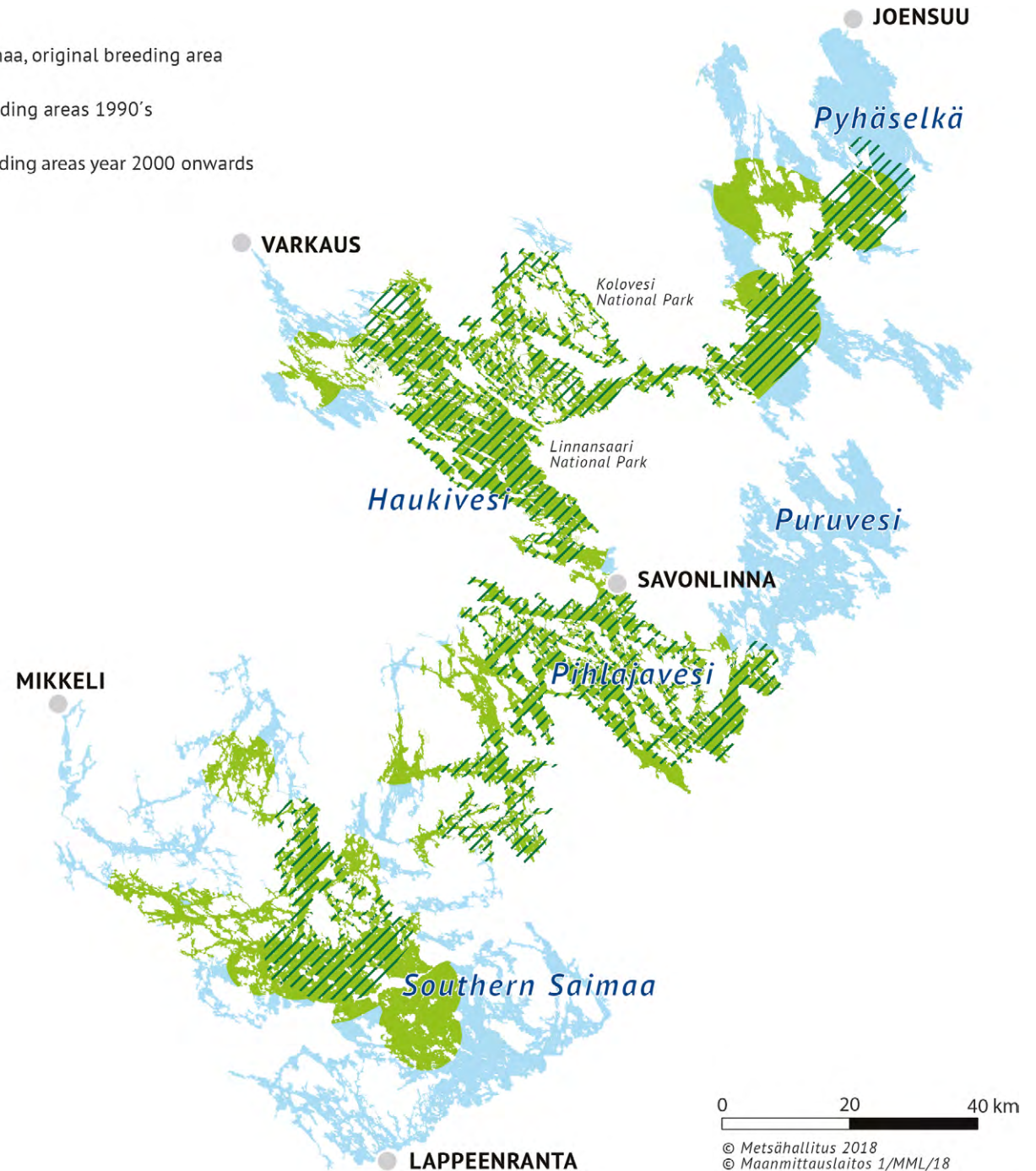




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## Main breeding grounds of the Saimaa ringed seal

- Saimaa, original breeding area
- Breeding areas 1990's
- Breeding areas year 2000 onwards



## 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.

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 is responsible for most of the conservation and monitoring measures of the Saimaa seal. The conservation work is carried out in cooperation with authorities, researchers and hundreds of volunteers.

More information on the Saimaa ringed seal is available at [www.metsa.fi/saimaannorppa](http://www.metsa.fi/saimaannorppa).