

# New conservation methods for the Saimaa ringed seal in a changing climate

A close-up photograph of a young, wet ringed seal pup lying on a sandy beach. The pup's fur is matted and dripping with water, and its eyes are closed. The pup is positioned in the center-right of the frame, with its reflection clearly visible in a shallow puddle of water on the sand in the foreground. The background is a soft-focus view of the ocean waves.

Miina Auttila,  
Metsähallitus

6.10.2018 Europarc  
webinar

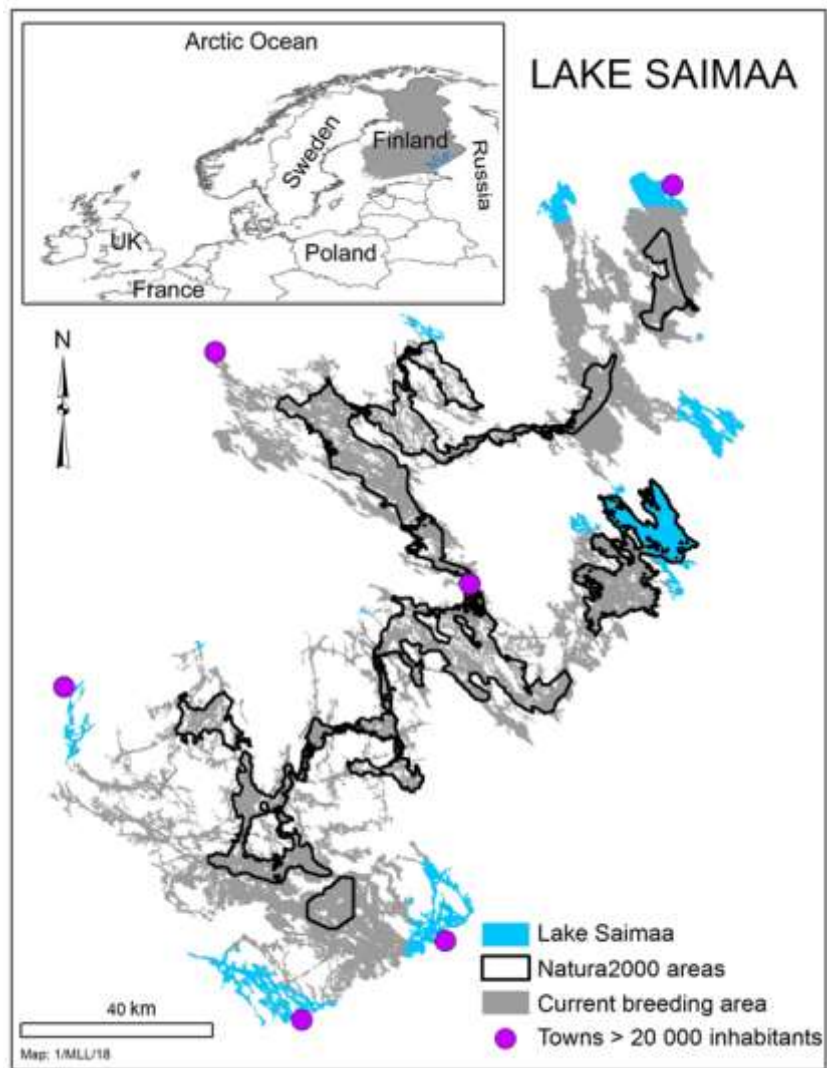
Safeguarding the Saimaa  
ringed seal LIFE+ project

Photo: Timo Seppäläinen

# Saimaa ringed seal

## Background:

- Land-locked
- Endangered
- Population size 390 seals
- 60-80 pups annually



# Breeding in snow lairs

## Background:

- Breeding success depends on ice and snow cover
- Seal excavates a lair (=den) in a snow drift



# Climate change induced problems

- Milder and shorter winters
  - Lack of sufficient snow drifts for lairs
  - Predation, harsh climate and human-induced disturbance
  - Increased pre-weaning mortality



Photo: Miina Auttila



2015.03.09 13:54:34



Photo: Juha Taskinen



Photo: Miina Auttila

# Man-made snowdrifts

- M-m drift site location plan
- Snow collected near the drift sites
- Group size 1-7 persons (majority volunteers)
- Operation time 2 weeks



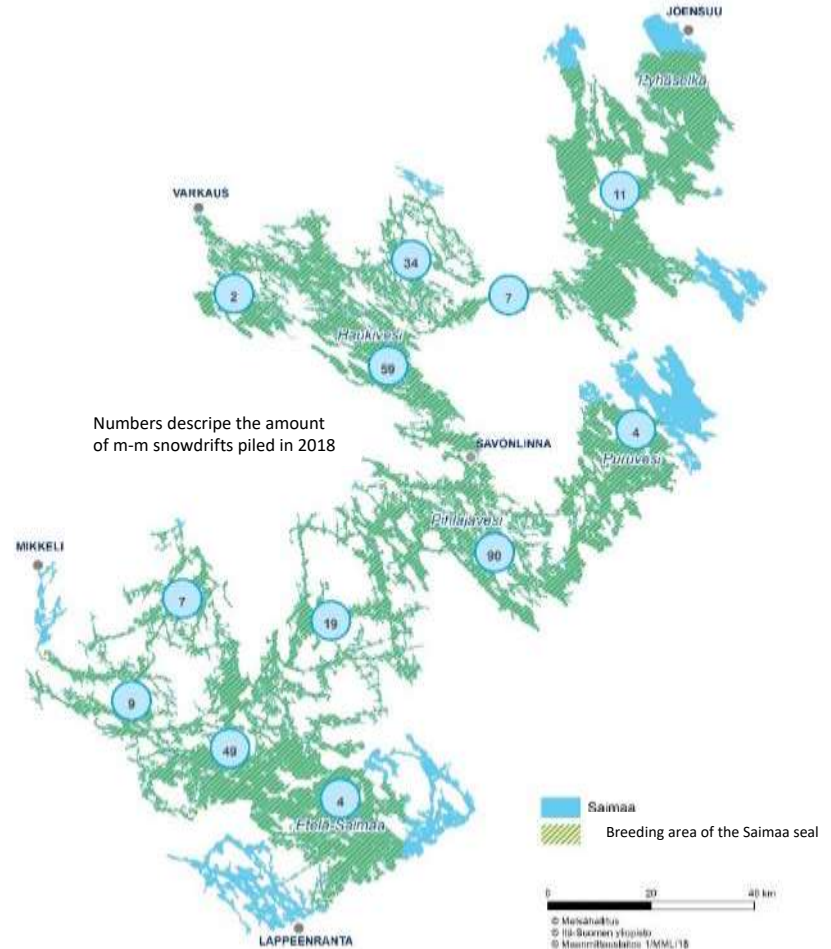
# Man-made snowdrifts (2014-2018)



# Man-made snowdrifts as a conservation act (2014-18)

## Results

- 1 086 m-m drifts piled
  - ✓ 75% used by seal
  - ✓ 264 pups born in those drifts
- Pre-weaning mortality only 14%
- Effective method



# Artificial nest structures

Metsähallitus, University of Eastern Finland and Elomatic Oy

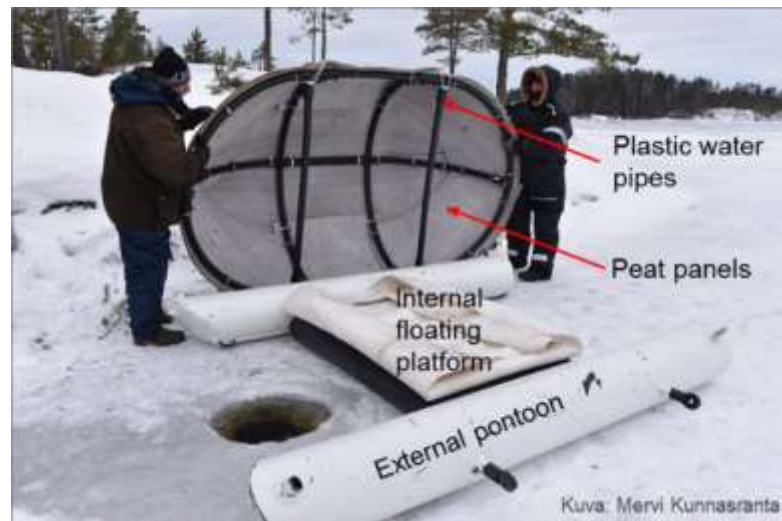
For winters without sufficient ice and/or snow cover





## Artificial nests (2016-18)

- Two nest structures developed and tested :
  - Pontoon nest (floating)
  - Reed nest (needs ice platform)
- Set on the ice before the breeding season
- Inspected in early spring during the lair censuses



# Pontoon nest



Photo: Mervi Kunnasranta



Kuva: Miina Auttila



Kuva: Mervi Kunnasranta



Kuva: Miina Auttila



Photo: Mervi Kunnasranta



Kuva: Miina Auttila

# Reed nest



Photo: Miina Auttila



Kuva: Juha Taskinen



Kuva: Miina Auttila



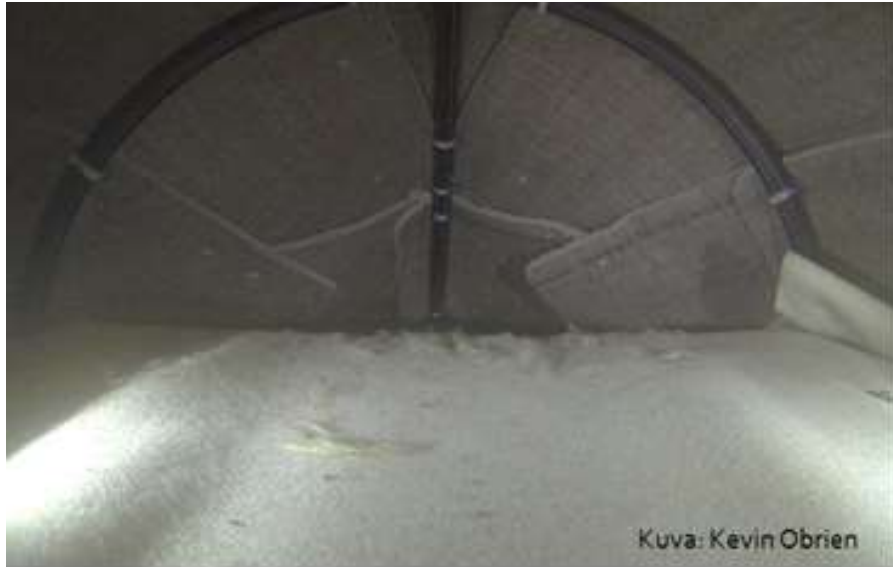
Kuva: Juha Taskinen



Photo: Mervi Kunnasranta

## Pontoon nest (2016-2018)

- 10 nests placed on ice
  - 50% used by seals (4 for resting or breathing and 1 as a birth lair)



## Reed nest (2017-2018)

- 8 nests placed on ice
  - 75% used by seals (5 for resting or breathing and 1 as a birth lair)



# Future of the Saimaa seal

- Main threats: climate change, small population size, bycatch mortality, land use & human disturbance
- Active conservation work is essential (old & new methods)

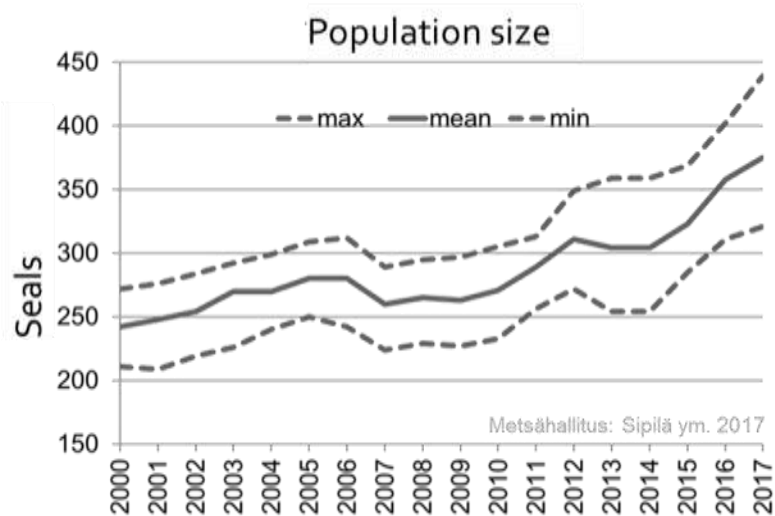


Photo: Mervi Kunnasranta

# Thank You!

More information

Saimaa seal LIFE project: <http://www.metsa.fi/web/en/saimaaseallife>

Saimaa seal research: <https://www.uef.fi/web/norppa>

Photo-ID gallery: <http://norppagalleria.wwf.fi/gallery.jsp>

