

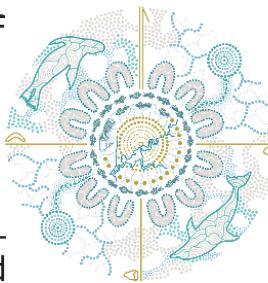


Conservation conferences of the endangered animal populations



2nd meeting of
Rare Pinniped
Conservation
Network

7.-9.3.2023 Hämeenlinna Finland



Culture and Conservation: Fishing for Change
25th Biennial Conference on the
Biology of Marine Mammals
11-15 November 2024 • Perth, Western Australia

Action E6: Conservation conferences of the endangered animal populations

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Introduction

Two international meetings were held under the Our Saimaa Seal LIFE project to strengthen the international network of researchers and stakeholders and to share valuable insights and best practices. The discussions aimed to address key topics such as conservation issues and the significance of monitoring pinniped health through carcass analysis to better understand population dynamics and inform future conservation efforts

Rare pinniped conservation network (RAPCON) meeting

The first meeting was held in Hämeenlinna, Finland during 7-9th March 2023. Overall, 61 people (50 in person) from over 10 different countries participated '*The II Rare pinniped conservation network (RAPCON)*'-workshop (Fig. 1). This group had originally established in 2019 in the World Marine Mammal Science Conference in Barcelona; (<https://www.wmmconference.org/>). The network aim is to sustain collaboration among people working to conserve rare pinniped populations all over the world. Marine Mammal Commission (an independent agency of the U.S. government) provides leadership, organizational and administrative support for the network and is updating the webpages (<https://www.mmc.gov/rapcon/>). The RAPCON-workshop in Hämeenlinna, organized by UEF together with Metsähallitus as a part of Life-project, was a success and strengthened the cooperation between people working on conservation projects of rare pinnipeds. During the workshop 21 presentations, 4 different themed discussions and posters and video night were heard (Appendix 1)



Figure 1. Group photo of the RapCon meeting participants in Hämeenlinna.

Monitoring the health of pinnipeds – what carcasses tell about the health status of populations?

The second workshop was held at the 25th Biennial Conference on the Biology of Marine Mammals 9th of November 2024 in Perth, Australia (<https://www.smmconference.org/>). The aim of this workshop was to share ongoing and planned activities in pinniped health monitoring, and to provide an opportunity to strengthen collaboration between research veterinarians and pinniped researchers (Appendix 2). Before the workshop a questionnaire (Appendix 3) was sent to the participants and the results were shared in the discussion part of the workshop. Altogether 17 people from 6 countries participated in the workshop. Four key notes were heard before the discussion (Fig 2). The small, but interactive group held fruitful discussions and shed light on the different approaches to health monitoring. A significant takeaway was the emphasized need for increased collaboration and knowledge sharing within the field to improve pinniped health monitoring efforts.



Figure 2. One of the keynote speakers, Dr. Michelle Barbieri talking about pinniped health monitoring priorities in workshop held in Perth.

Summary

The organization of these two workshops successfully enhanced international collaboration among researcher and stakeholders engaged in rare pinniped conservation, monitoring, and research, while also facilitating the exchange of experiences related to the endangered Saimaa ringed seal and the elusive Baltic ringed seals of the Archipelago Sea. These events highlighted the transferability of valuable lessons learned and underscored the significance of the LIFE programme in supporting conservation efforts.

Acknowledgements

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Appendices:

Appendix 1. Agenda of the RapCon meeting

Appendix 2. Agenda and description of the Monitoring the health of pinnipeds – what do carcasses tell us about the health of populations? workshop

Appendix 3. Questionnaire sent to health workshop participants before the workshop

RapCon -meeting 7-9 March 2023

DAY 1 (Tuesday 7th of March 2023)

 Hotel Scandic Aulanko

12:00 Opening of the meeting - Jason Baker, Samantha Simmons & Mervi Kunnasranta

12:30 - 14:00 What's up with rare pinnipeds? (few min/person)

14:00-14:30 Coffee

14:30-15:00 Keynote: *What would it take to make Arctic ringed seals rare?* - **Brendan P. Kelly** (International Arctic Research Center, University of Alaska Fairbanks)

15:00-17:00 Health Assessment and Intervention

15-15:30 Keynote: *Insights about health from live and dead animals* - **Frances M.D. Gulland** (Karen C. Drayer Wildlife Health Center, University of California)

15:30-15:45 Use of remote sensing tools for physiological measurements in pinnipeds - **Michelle Sher** (Woods Hole Oceanographic Institution)

15:45-16:00 Diseases of conservation concern - **Kathleen M. Colegrave** (Zoological Pathology Program, University of Illinois)

16.00-16:15 Field based health interventions in Hawaiian monk seals - **Michelle Barbieri** (National Oceanic and Atmospheric Administration, Hawaiian Monk Seal Research Program)

16:15-17:00 Discussion: health - **Marja Niemi** leading (University of Eastern Finland)

SPA

19:00 Get together-dinner

DAY 2 (Wednesday 8th of March 2023)

📍 Hotel Scandic Aulanko

9:00 - 10:15 Genetics

9:00-9:30 **Keynote:** *What are Saimaa seals made of?* - **Jukka Jernvall** (University of Helsinki)

9:30-9:45 Spot the Monk: a non-invasive approach for detecting the monk seal presence by means of eDNA analysis - **Elena Valsecchi** (University of Milano-Bicocca)

9:45-10:00 What do parasite genomes tell us about the past and present of the Saimaa ringed seal? -**Tommi Nyman** (Norwegian Institute of Bioeconomy Research)

10:00-10:15 Genomic resources for evolutionary and conservation studies of pinnipeds - **Simon Goodman** (University of Leeds)

10:15 - 11:15 Novel monitoring and conservation tools/solutions

10:15-10:30 Assisted gene flow as a conservation method for the Saimaa ringed seal - **Mia Valtonen** (Natural Resources Institute Finland)

10:30-10:45 Seal Codex - Automating identification and collaboration in conservation - **Tanya Stere** (Wild Me)

10:45-11:00 Automatic image-based re-identification of ringed seals - **Ekaterina Nepovinnykh** (LUT university)

11:00-11:15 Nest boxes of the Saimaa ringed seal – a potential tool for conservation and research - **Mervi Kunnasranta** (University of Eastern Finland)

11:15 - 12:15 Lunch Break

12:15 - 13:15 Novel monitoring and conservation tools/solutions

12:15-12:30 Conservation of Mediterranean monk seal *Monachus monachus* along Turkish coasts – **Cem Kirac** SAD-AFAG (Underwater Research Society - Mediterranean Seal Research Group)

12:30-12:45 Fisher support for sustainability and alternative livelihoods can reduce incentives for illegal fishing in a small-scale fishery with high rates of marine mammal bycatch – **Linas Svolkinas** (University of Leeds)

12:45-13:00 Implementation and evaluation of effective mitigation of Australian sea lion bycatch in a gillnet fishery- **Simon Goldsworthy** (South Australian Research and Development Institute – SARDI (Aquatic Sciences)
REMOTE TALK

13:00-13:15 The results of research on the Caspian seal (*Pusa caspica*) in the Kazakhstan part of the Caspian Sea from 2015 to 2022 - **Assel Baimukanova** (Institute of Hydrobiology and Ecology)

13:15-13:30 Mediterranean monk seal tracking using GPS bracelets - **Pablo Fernandez de Larrinoa** (Monk Seal Conservation Program, Fundación CBD-Habitat)

13:30 - 14:00 Coffee

14:00 - 15:15 Habitat, Ecology, Demography

14:00-14:30 Keynote: Lessons learned at the leading edge of Arctic seal research – **Josh London** (Alaska Fisheries Science Center, NOAA Fisheries)

14:30-14:45 How to get a reliable population estimate – **Samu Mäntyniemi** (Natural Resources Institute Finland)

14:45-15:00 **Linking Saimaa ringed seal behaviour to environmental variability - Milja Nykänen** (University of Eastern Finland) **CANCELLED**

14:45-15:00 The Global Ocean Observing System and RAPCON: Contributing to delivery of the marine mammal essential ocean variable (EOV) - **Samantha Simmons** (SMRU Consulting) **REMOTE**

15:00-15:10 Break

15:10 - Other key gaps: discussions

- Discussion on other key gaps - **Simon Goodman** leading (University of Leeds)
- Discussion on challenges and possibilities in project financing - **Mikko Tiira** leading (Metsähallitus)

SPA

19:00 video night, posters

Day 3 (Thursday 9th of March 2023)

📍 **Aulanko nature activity center** (1.4 km from the hotel Scandic Aulanko, ~20 minutes walk)

<https://luontoliikuntakeskus.fi/aulanko-nature-activity-center>

10:00-11:00 Future perspectives discussion

- **How to continue? – Jason Baker**
- Directory of people working on various subjects.

11 → Light lunch

Possibility for sauna/ice swimming, walking tours etc.



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Monitoring the health of pinnipeds – what do carcasses tell us about the health of populations?

Sat November 9th
the Perth Convention and Exhibition Centre, Room 10, Level 2

Agenda

8:30-8:45 Welcome – Dr. Marja Niemi, University of Eastern Finland

8:45-9:05 Helcom (Helsinki Commission – Baltic Marine Environment Protection Commission) protocols – Dr. Mervi Kunnasranta, Senior researcher, University of Eastern Finland and Natural Resources Institute Finland, FIN & et al.

9:10-9:30 Pinniped health monitoring priorities from the U.S. Marine Mammal Health Monitoring and Surveillance Plan – Dr. Michelle Barbieri, Supervisory Veterinary Medical Officer, NOAA's Pacific Islands Fisheries Science Center, USA

9:35-9:45 & 9:45-9:55 Health surveillance in Australasia's endangered pinnipeds – Dr. Rachael Gray, Associate Professor, Sydney School of Veterinary Science, The University of Sydney, AUS & Prof. Wendi Roe, Professor, School of Veterinary Science, Massey University, NZ

10-10:30 Coffee

10:30-12:30 Pre-questionaries summaries and discussion

Monitoring the health of individuals is one of the priorities for population status and risk assessments of marine mammals. As top predators, marine mammals are indicators of overall ecosystem health. Moreover, in a changing climate there is an increased need for efficient tools to collect data on marine mammal health parameters. In this proposed workshop, we focus on novel and best practices in pinniped health surveillance, based mainly on by-caught, stranded and/or hunted individuals. The objective of the workshop is to share ongoing and planned activities in pinniped health monitoring, and to provide an opportunity to strengthen collaboration between research veterinarians and pinniped researchers. We intend to invite key experts to share their knowledge on health monitoring of pinnipeds worldwide, with a specific focus on improving accuracy of post-mortem investigations. Through this, we hope to introduce different monitoring approaches, and necropsy and sampling protocols (e.g., Marine Mammal Commission, HELCOM) from varied species and locations. In addition, the workshop will facilitate discussion on the challenges that the participants may face in health monitoring, as well as provide opportunities to share good practices and novel tools used in this field. The workshop activities would include presentations from invited speakers and free discussions. We hope that this workshop will result in improved capacity and updated health monitoring guidelines for pinnipeds. It also fits to the conference theme “Culture and conservation: fishing for change” by improving the assessment of pinniped mortality attributable to bycatch.

Monitoring the health of pinnipeds

Thank you for your registration to the workshop on pinniped health monitoring. We would like to ask you to spend a few minutes filling in this questionnaire. We will prepare a summary of the answers and present it in the workshop with the purpose of highlighting the most crucial current issues in pinniped health monitoring.

1. Personal information

First name

Last name

Country you are representing

Organisation

2. What seal species/population are you working with?

3. What are the objectives in your country/region for doing necropsies on seals?

4. Is seal culling permitted in your country/region regarding species you are working with?

Yes

No

yes for some species, please specify

5. If you answered yes to the previous question, are the culled individuals examined post mortem for health monitoring?

- Yes, they are all examined
- Yes, but not all of them are examined
- No, they are not examined at all

6. Who is carrying out the health monitoring of your species/population in your country? (One or several organisations, other?)

7. In your country/region, are all seal carcasses going through necropsies?

- Yes
- No
- If no, what is the percentage that is examined? _____

8. Are the number of necropsies carried out sufficient to reach the objectives (in question 3)?

9. Are the necropsies done by a veterinarian?

- Yes

- No
 - Some of them
-

10. Do you follow a sampling protocol during seal necropsies?

- Yes
- No
- I don't know

11. What samples are you collecting during necropsy

- muscle
- liver
- kidney
- blubber
- reproductive organs
- lungs
- heart
- stomach
- intestines
- others (specify) _____
- none

12. Can you briefly describe the sampling procedure. If it is too complicated, you may answer N/A.

Example: when a seal carcass is found, the overall condition is assessed and measurements are taken. If the carcass is relatively fresh, it is frozen for subsequent necropsy. During necropsies, samples from lungs and muscle are taken for bacterial analyses. Histology are made from XXX organs/tissue. Tissue samples are stored for subsequent analyses.

13. If you are following a specific health monitoring programme, do you have a manual/guidelines? Are they publicly available? If so, could you provide a link?

14. Which diseases are you or have you been monitoring? Do you also monitor pollutants?

15. What diseases are found in your species/population?

- Distemper virus
- Brucellosis
- Pox virus
- Other

16. What parasites are found in your species/population?

17. Did these findings lead to specific actions? Could you give some examples of the actions taken?

18. Do you have any questions for the panel of experts?

19. Free words for the organizers
