

# NATIONAL PROGRESS REPORT (SWEDEN)

Kylie Owen and Julia Carlström  
ASCOBANS Jastarnia Group meeting  
25-27 May 2021



Naturhistoriska  
riksmuseet



LUND  
UNIVERSITY



UPPSALA  
UNIVERSITET



Swedish University of  
Agricultural Sciences

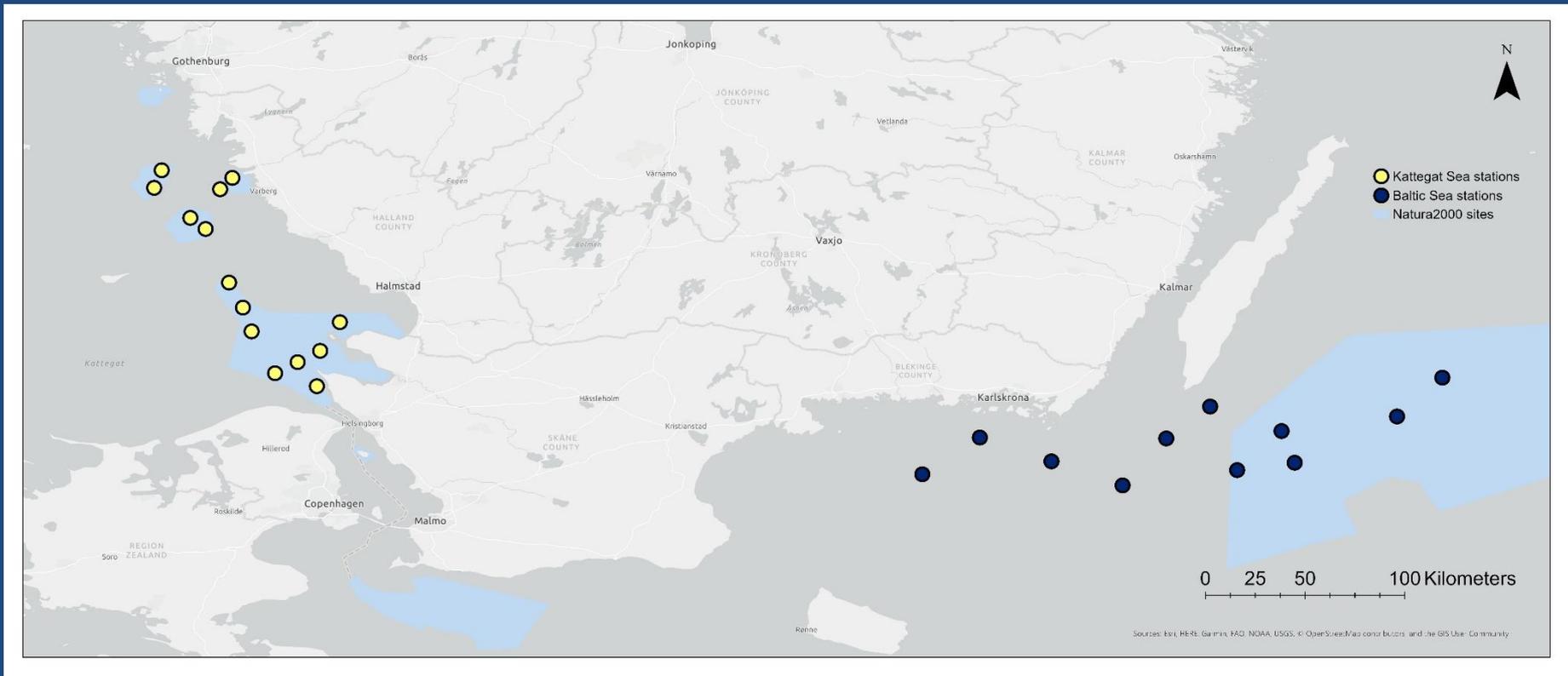


NATIONAL  
VETERINARY  
INSTITUTE

Swedish Agency  
for Marine and  
Water Management

# NATIONAL AND REGIONAL MONITORING PROGRAMS

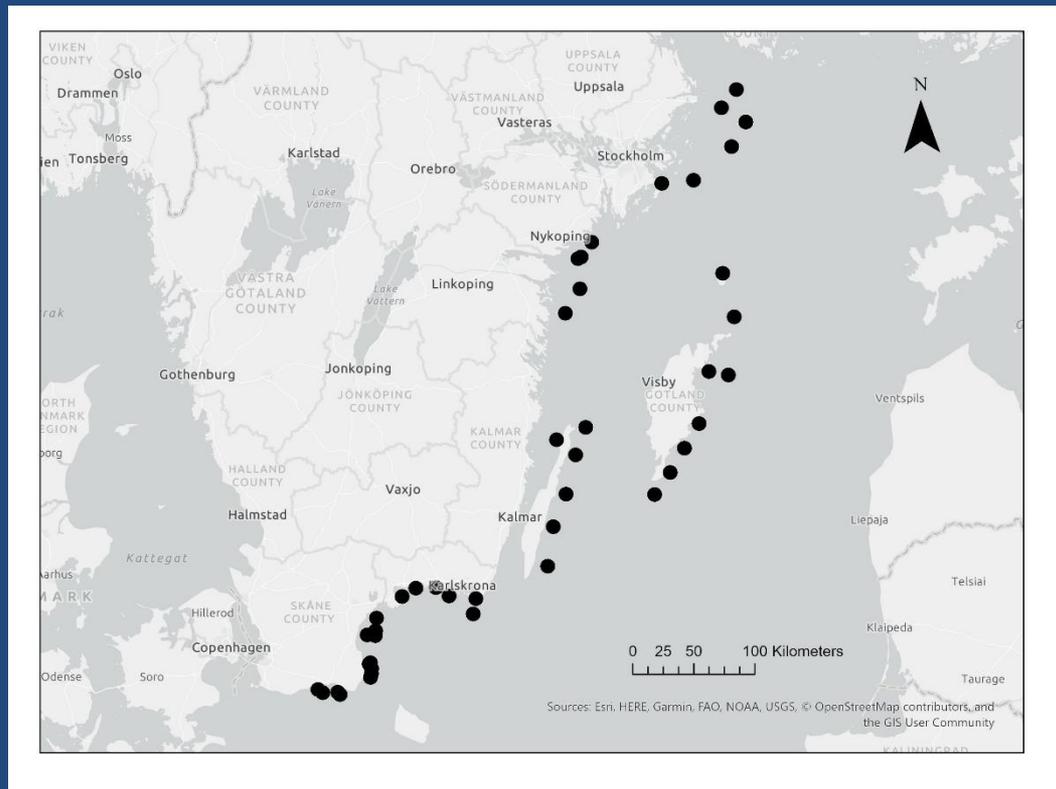
- National (SMNH): ongoing in Kattegat (2019) and Baltic (2017)



(Funded by SwAM)

# NATIONAL AND REGIONAL MONITORING PROGRAMS

- National (SMNH): ongoing in Kattegat (2019) and Baltic (2017)
- Regional (7 Counties):
  - Skåne, Blekinge, Kalmar, Gotland, Östergötland, Södermanland and Stockholm
  - 33 + stations, waiting approval to deploy asap
  - South = follow-up of protected areas, conflicts with eg fishing, etc.
  - North = finding areas that may be of importance to the porpoise to establish protection in the future.



# CONSERVATION RESEARCH PROJECTS

## **SAMBAH abundance manuscript close to submission**

- Amundin et al. Estimating the abundance of the critically endangered Baltic Proper harbour porpoise (*Phocoena phocoena*) population using passive acoustic monitoring.

## **Temporal trends analysis**

- Owen K, Sköld M, Carlström J (2021) An increase in detection rates of the critically endangered Baltic Proper harbor porpoise in Swedish waters in recent years. Conservation Science and Practice.
- 29% increase between SAMBAH + SNMP (~2.4% / year)
- Kylie Owen presentation this meeting

## **SAMBAH II LIFE**

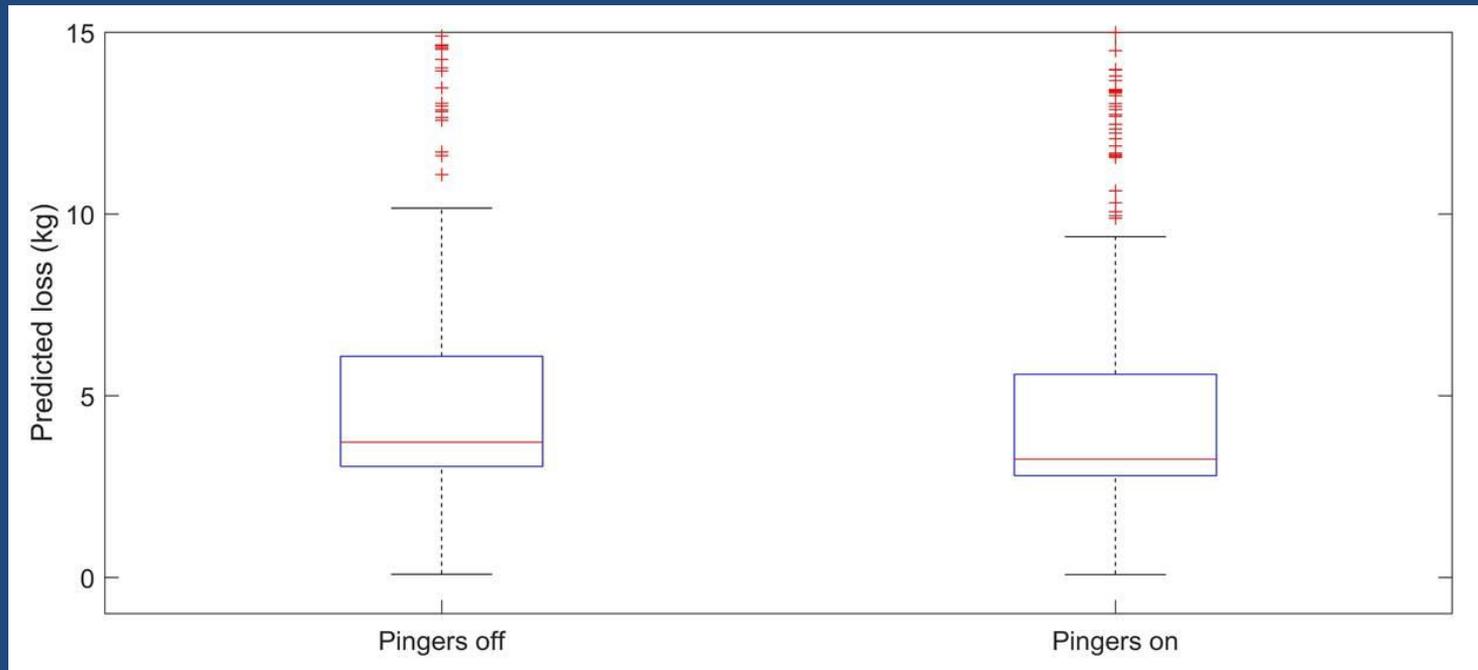
- Application submitted 17 Feb 2021
- 5 SE partners: SwAM, SMNH, CCB, SLU Aqua, SLU FRM



# CONSERVATION RESEARCH PROJECTS

## WWF funded project on the Baltic Natura 2000 site

- High frequency pingers do not cause an increase in the rate of seal damage to catch in set nets in the Baltic Proper (CCB)



# CONSERVATION RESEARCH PROJECTS

## **WWF funded project on the Baltic Natura 2000 site**

- High frequency pingers do not cause an increase in the rate of seal damage to catch in set nets in the Baltic Proper (CCB)
- Individual-based model on the effect of windfarms and pingers on the Baltic Proper harbour porpoise population is delayed due to COVID travel restrictions (CCB)

# CONSERVATION RESEARCH PROJECTS

## WWF funded project on the Baltic Natura 2000 site

- High frequency pingers do not cause an increase in the rate of seal damage to catch in set nets in the Baltic Proper (CCB)
- Individual-based model on the effect of windfarms and pingers on the Baltic Proper harbour porpoise population is delayed due to COVID travel restrictions (CCB)
- Impact of noise on porpoise detection (SMNH, FOI):
  - No influence of noise if sampled instantaneously
  - Time windows show negative correlation between excess noise and porpoise detection rate, but positive correlation with median noise.

# CONSERVATION RESEARCH PROJECTS

## Porpoise foraging behaviour (LU)

- Ortiz et al. (2021) Group hunting in harbour porpoises. Can. J Zool.
- Role specialization, which is considered the most sophisticated form of collaborative hunting

## Miniscans (TiHO, AU, NRM)

- Signe Sveegaard presentation this meeting



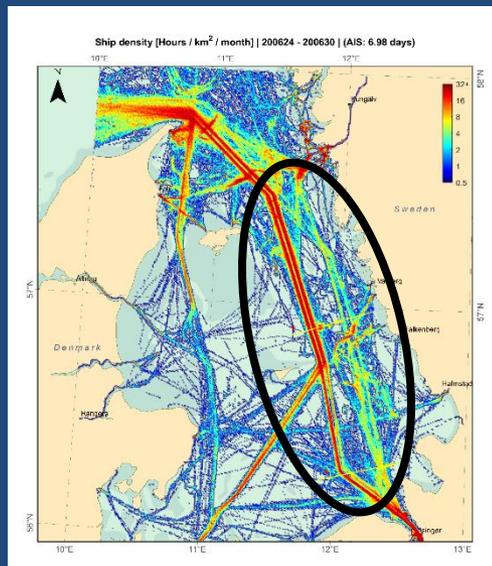
Photo: Bill Keener / Golden Gate Cetacean Research

# CONSERVATION RESEARCH PROJECTS

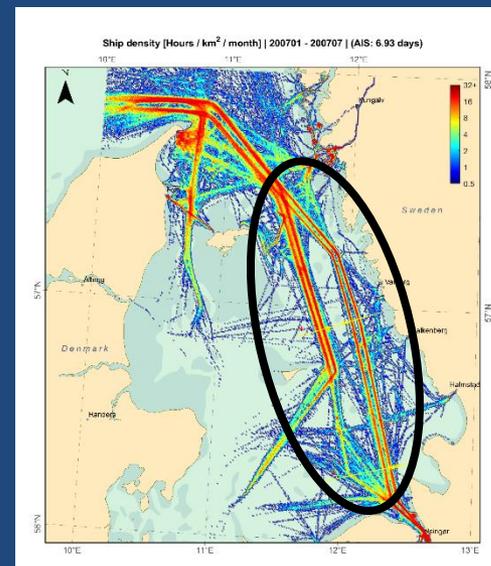
## TANGO STUDY (AU, FOI, SMNH):

- Impact of re-routing a major shipping lane (1 July 2020)
- Data collection due to finish 30 June 2021 (1 year after change)
- Data analyses and manuscript completed by 31 Dec 2021

Before  
(last week of  
June 2020)



After  
(first week of  
July 2020)



# BYCATCH PROJECTS

- Analysis planned to calculate PBR for Belt Sea population using OMMEG PBR code and ASCOBANS conservation objective in time for HOLAS III (SMNH)

## SLU

- Estimating bycatch numbers in Kattegatt and Öresund (Helcom Action project)
- Bycatch risk maps for Kattegatt, Öresund and Central Baltic (Helcom Action Project)
- Developed a camera system to monitor bycatch in small-scale fisheries



Photo: Sara Königson

# BYCATCH PROJECTS

## SLU Continued

- Monitoring bycatch in gillnet fisheries in Kattegatt and Öresund (140 days of fishing observed during 2020)
- Studying the effect of pingers on porpoise bycatch and abundance (Seal-safe Banana pinger, Banana pinger and Future Ocean pinger)
- Developing passive gears for small scale fisheries (pots, trap-nets and fyke-nets)



Photo: Sara Königson

# BYCATCH MEETINGS/REPORTS

- ICES. 2020. Workshop on fisheries Emergency Measures to minimize BYCatch of short-beaked common dolphins in the Bay of Biscay and harbour porpoise in the Baltic Sea (WKEMBYC). ICES Scientific Reports. 2:43. 354 pp. <http://doi.org/10.17895/ices.pub.7472>
- ICES. 2020. Working Group on Bycatch of Protected Species (WGBYC). ICES Scientific Reports. 2:81. 209 pp. <http://doi.org/10.17895/ices.pub.7471>
- ICES ADGBYC. 2020. Bycatch of protected and potentially vulnerable marine vertebrates – review of national reports under Council Regulation (EC) No. 812/2004 and other information. *ICES Advice Ecoregions in the Northeast Atlantic and adjacent seas Published 22 September 2020 ICES Advice 2020 – byc.eu* – <https://doi.org/10.17895/ices.advice.7474>
- ICES ADG WKEMBYC. 2020. EU request on emergency measures to prevent bycatch of common dolphin (*Delphinus delphis*) and Baltic Proper harbour porpoise (*Phocoena phocoena*) in the Northeast Atlantic. *ICES Special Request Advice Northeast Atlantic ecoregions Published 26 May 2020 ICES Advice 2020 – sr.2020.04* – <https://10.17895/ices.advice.6023> 1
- ICES WGCATCH. Working group on Commercial Catches. Incorporating bycatch information into Eumap.

# REPORTING SCHEME & HEALTH ASSESSMENTS

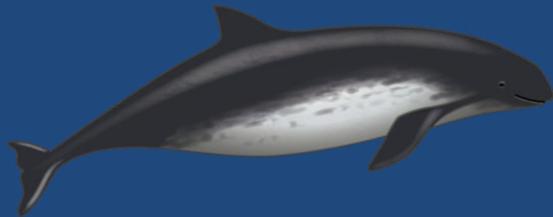
- Launch of a new web reporting form (<https://tumlare.nrm.se/>) for live and dead observations (SMNH, funded by SwAM)
- Rappen (SwAM) updated reporting site for marine species (including porpoises)
- SMNH collects reports of dead porpoises. Collection and necropsies are completed in collaboration with SVA (funded by SwAM)
- Roos (2021) Contaminant analyses of harbour porpoises. Report to the Swedish Environmental Protection Agency. 22/23 porpoises analysed for:
  - Organochlorines, PBDEs, HBCDD and CPs in blubber,
  - PFAS and OCTs in liver,
  - Metals and Se in muscle and liver, and
  - SI ( $\delta C_{13}$  and  $\delta N_{15}$ ) in muscle.

# A NATIONAL HEALTH AND DISEASE SURVEILLANCE PROGRAM OF MARINE MAMMALS IN SWEDEN

Collaboration between the National Veterinary Institute (SVA) and the Swedish Museum of Natural History (SMNH) since 2008 to examine health, biology, and cause of death of harbour porpoises in Sweden

## Year 2020

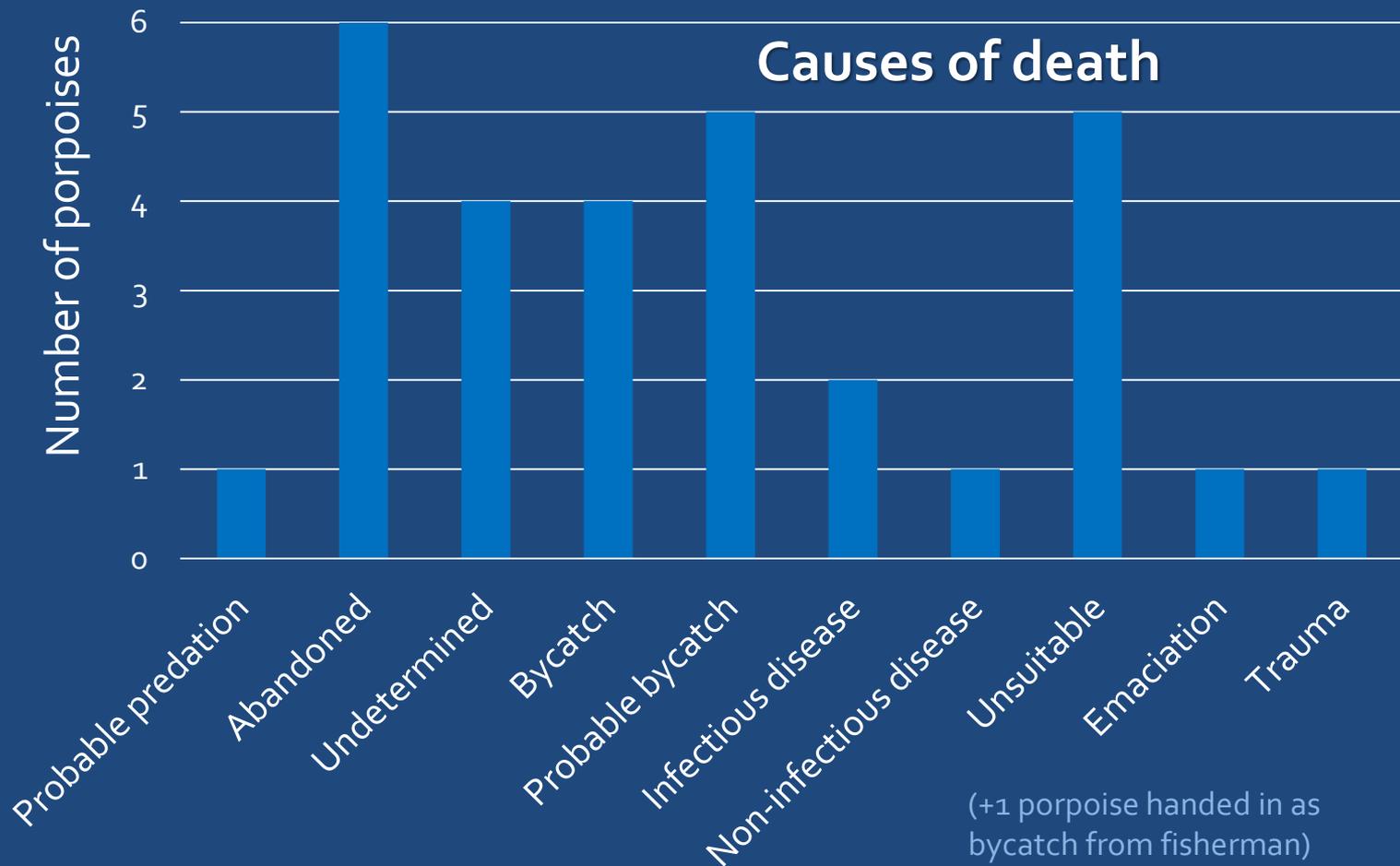
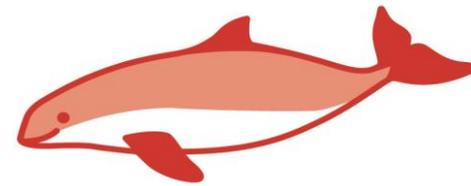
Designed the new surveillance program, which includes seals, porpoises and occasional strandings of larger whale



Aleksija Neimanis<sup>1</sup>, Jasmine Stavenow<sup>1</sup> and Anna Roos<sup>2</sup>

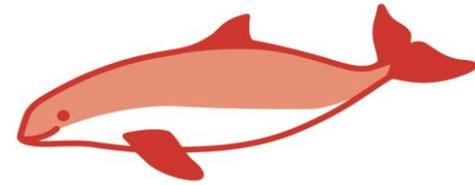


# RESULTS FROM 2020



(+1 porpoise handed in as bycatch from fisherman)

# RESULTS FROM 2020



## 31 porpoises examined

### Age distribution

12 calves / 12 juveniles / 7 adults

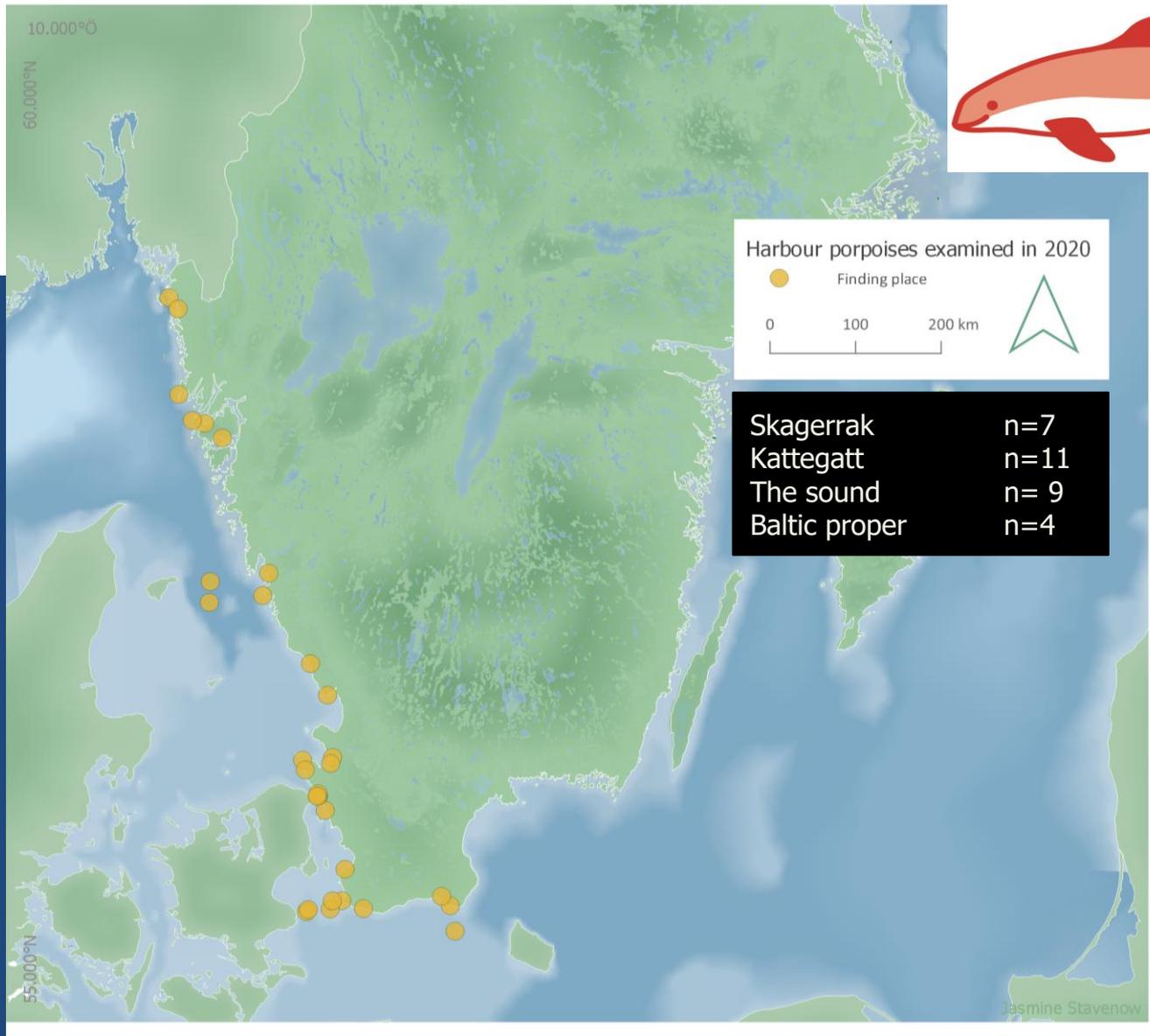
### Sex distribution

19 females / 12 males

### Sex distribution of adults

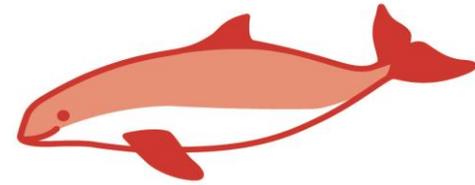
5 females / 2 males





Map by Jasmine Stavenow. Map layers: © Lantmäteriet (Sverigekartan), HELCOM Open Street Maps (©OpenStreetMaps contributors), and Seifert, Torsten, Franz Tauber, and Bernd Kayser. "A high resolution spherical grid topography of the Baltic Sea—revised edition." Proceedings of the Baltic Sea Science Congress, Stockholm. 2001, SVA Open Data Cetacean Necropsy findings 2020

# RESULTS FROM 2020

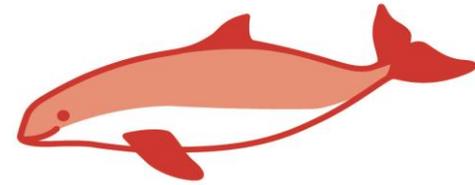


## Year 2021

- Published open data from the 2020 marine mammal necropsies ([www.dataportal.se](http://www.dataportal.se))
- Will perform up to 30 porpoise examinations (15 stranded + 15 bycaught)
- Keep developing the program, our methods and networks



# RESULTS FROM 2020



Questions, ideas or interested in collaborating?

## Contact us

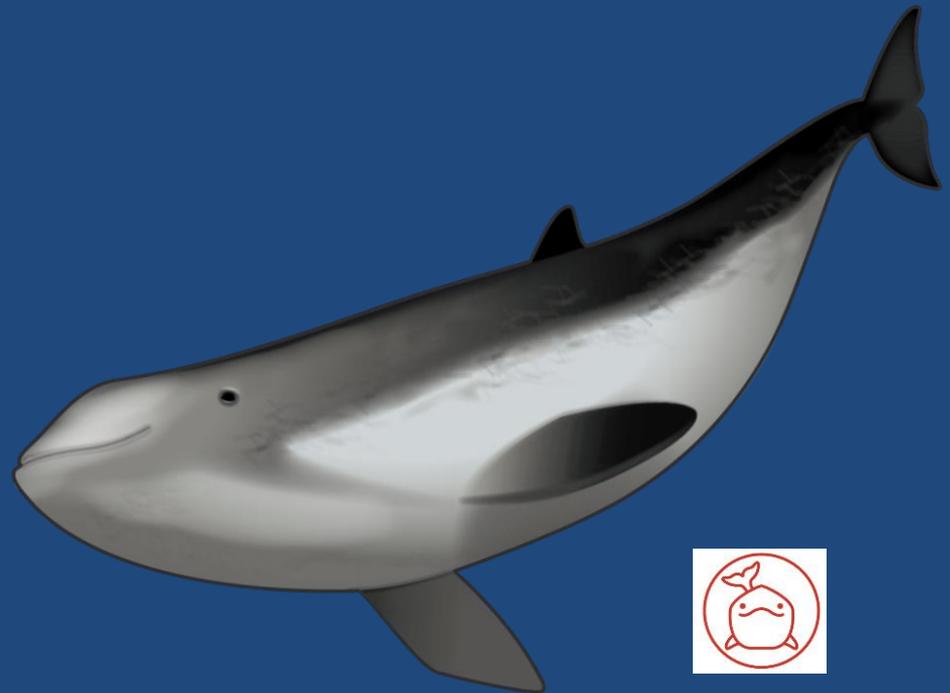
Aleksija Neimanis, [aleksija.neimane@sva.se](mailto:aleksija.neimane@sva.se),

Jasmine Stavenow, [jasmine.stavenow@sva.se](mailto:jasmine.stavenow@sva.se)

Anna Roos, [anna.roos@nrm.se](mailto:anna.roos@nrm.se)

## Funding provided by

Swedish Agency  
for Marine and  
Water Management



# WORKING GROUPS

- ICES WGBYC (SLU Aqua)
- ICES WGCATCH (SLU Aqua)
- ICES WGMME (SMNH)
- ASCOBANS JG, NSG, MOP (SMNH, SVA, SwAM)
- Development of HELCOM indicators on porpoise distribution, abundance, and bycatch (SMNH)
- HELCOM EGMAMA (SMNH)
- OSPAR MMEG (SMNH)
- FAO (SLU Aqua)
- STECF (SLU Aqua)



# OTHER ACTIONS

## HELCOM BLUES (SE = SLU Aqua, SMNH, SwAM)

### 2.1 Bycatch indicators (including harbour porpoises)

- Regional bycatch risk maps and corresponding confidence evaluation for key species,
- Test cases evaluations for bycatch.
- Improved state indicator assessment for bycatch.

### 2.4 Harbour porpoise indicators

- Joint OSPAR-HELCOM workshop harmonising indicators for abundance
- Qualitative assessment of distribution and abundance of the Baltic Proper population
- Trend analysis for the Belt Sea population (TiHO)



# OTHER ACTIONS

- Updating of the monitoring program for National implementation of the Marine Strategic Framework Directive (SwAM).
- Finalising National Action Plan for harbour porpoises (SwAM, SMNH)
  - Public comment (February/March)
  - Due to be wrapped up.
- Assisted with development methods for the delivery of acoustic monitoring data to HELCOM Biodiversity database (SMNH)
- ASCOBANS small MPA workshop (May/June 2021) (SMNH)
- "Species in focus" article for International Baltic porpoise day (SMNH)

# OTHER ACTIONS

- **Legal action from the EU July 2020.** SE has:
  - Not taken sufficient action to monitor bycatch in their waters (HD Art 6.2)
  - Failed to complete the obligation on protective measures within Natura 2000 sites to avoid disturbance of marine species (HD Art 12.4)



Photo: <https://hakuresearch.wordpress.com/research/completed-projects/ongoing-project/>

# OTHER ACTIONS

## SE response to EU legal action:

- In 4 months, the Government will provide time plans for (a) how to analyse how to improve the monitoring, and (b) how to evaluate the needs for further protection measures
- SwAM to develop a proposal for fisheries regulations in protected areas
- Agrees that Swedish environmental legislation has not been applied for fishing permits, and other legislation implementing Art 6.2 is not fully applied on fisheries.
- Develop a proposal on improved incorporation of Art 6.2 and 12.4 in national legislation by end of 2021.
- SwAM to finalise the National action plan for harbour porpoises by 31 March 2021

# ACKNOWLEDGEMENTS



Naturhistoriska  
riksmuseet



LUND  
UNIVERSITY



UPPSALA  
UNIVERSITET



Swedish University of  
Agricultural Sciences



NATIONAL  
VETERINARY  
INSTITUTE

Swedish Agency  
for Marine and  
Water Management