NAMMCO/ICES Expert Workshop on Seal Modelling (WKSEALS)

Online, 4-6 November 2020

PURPOSE: To compare approaches used by different research teams for modelling populations of a range of northern phocid species with similar life histories, focusing on species for which abundance estimates are fundamentally based on pup counts.

GENERAL STRUCTURE: 3 plenary online meetings for 2 hours each day (CET 17:00–1900), with informal online meetings of regional sub-groups to workshop the models in between.

CO-CHAIRS: Kimberly Murray (NOAA) & Sophie Smout (SMRU).

AGENDA

DAY 1 PLENARY SESSION: *4th November 17:00 CET (16:00 UTC; 11:00 EST; 08:00 PST; 07:00 AKST)*

1. Welcome & Introductions, housekeeping for this meeting (10 mins)
   Kimberly Murray (NOAA), Fern Wickson (NAMMCO), Ruth Fernandez (ICES)

2. Brief Background to this Meeting (10 mins)
   Kimberly Murray (NOAA), Sophie Smout (SMRU), Ruth Fernandez (ICES)
   - The ICES/NAFO/NAMMCO Working Group on Harp & Hooded Seals (WGHARP) and its objectives
   - The 2021 WGHARP & Benchmarking Meetings

3. Introduction to Seal Population Models (10 mins)
   Sophie Smout (SMRU), Martin Biuw (IMR)

4. Short Talks on Existing Seal Population Models & Abundance Estimation Approaches
   (Where possible, speakers make available links to online modelling resources, code, and data)

   4.1. Northeast Atlantic Harp & Hooded Seals (10 mins)
      Martin Biuw (IMR), Tor Arne Øigard (NR)
   4.2. Canadian Harp Seals (10 mins)
      Mike Hammill (DFO)

BREAK - 10 minutes

   4.3. Canadian Hooded Seals (10 mins)
      Garry Stenson (DFO)
   4.4. UK Grey Seals (10 mins)
      Len Thomas (SMRU) or Debbie Russell (SMRU) (TBC)
   4.5. Netherlands Grey Seals (10 mins)
      Geert Aarts & Sophie Brasseur (TBC)
   4.6. US/Canada Grey Seals (10 mins)
      Mike Hammill with assistance from Cornelia den Heyer (DFO)

5. Wrap Up & Planning for Day 2 (10 mins)
   Sophie Smout (SMRU), Kimberly Murray (NOAA), Martin Biuw (IMR)

End of Day 1 Plenary Session by 19:00 CET (18:00 UTC; 13:00 EST; 10:00 PST; 09:00 AKST)

Sub-Group Workshopping Session 1: participants can explore code and run models with guidance from their curators prior to the start of the Day 2 plenary session.

American/Canadian Participants: *4ᵗʰ November 14:00–17:00 EST, 11:00–14:00 PST, 10:00–13:00 AKST*

UK/European Participants: *5ᵗʰ November 13:00–16:00 CET, 12:00–15:00 UTC*

DAY 2 PLENARY SESSION: *5ᵗʰ November 17:00 CET (16:00 UTC; 11:00 EST; 08:00 PST; 07:00 AKST)*
Chaired by Sophie Smout (SMRU) & Kimberly Murray (NOAA)

1. Comparison of Models - Question & Answer Session

   Comparing and contrasting the models considering:
   - Modelling approach, assumptions, deterministic/stochastic
   - Data input required, data sampling frequency
   - Fitting methods and time
   - Improvements?

BREAK - 10 minutes

2. Plans for modelling tasks and experiments to be conducted before the next plenary session

End of Day 2 Plenary Session by 19:00 CET (18:00 UTC; 13:00 EST; 10:00 PST, 09:00 AKST)

Sub-Group Workshopping Session 2: participants explore code and run models with guidance from their curators prior to the start of the Day 3 plenary session.

American/Canadian Participants: *5ᵗʰ November 14:00–17:00 EST, 11:00–14:00 PST, 10:00–13:00 AKST*

UK/European Participants: *6ᵗʰ November 13:00–16:00 CET, 12:00–15:00 UTC*

DAY 3 PLENARY SESSION: *6ᵀᴴ November 17:00 CET (16:00 UTC; 11:00 EST; 08:00 PST, 07:00 AKST)*
Chaired by Sophie Smout (SMRU) & Kimberly Murray (NOAA)

1. Review of model runs/results

BREAK - 10 minutes

2. Discussion
   - Problems with modelling approaches and how to solve them
   - Results of modelling with additional covariates: problems that might be solved with additional data (what data are needed and are feasible to collect?)
   - Using the models: objectives for future research

3. Wrap up/Next steps for Benchmarking meeting

End of Day 3 Plenary Session by 19:00 CET (18:00 UTC; 13:00 EST; 10:00 PST, 09:00 AKST)