

OCTOBER 21 –23, 2003– MEETING AGENDA

Tuesday, October 21st

Session 1 (8:30am – 12:30pm)

Introductory session

8:30 - 8:40 Welcome & Introductions
 8:40 - 8:45 Workshop Goals and Objectives

Introduction to Population Modeling, Parameterization, and Analysis

8:45 - 10:05 The Basics of the Deterministic Matrix
 Population Model
 10:05 - 10:25 Perturbation Analysis
 10:25 - 10:50 Break
 10:50 - 11:15 Short-term Population Dynamics
 11:15 - 11:45 Stochastic Models
 11:45 - 12:15 Integrating Long-term, Indirect, and
 Cumulative Effects

Lunch (12:15pm – 1:30pm)*

Session 2 (1:30pm – 5:30pm)

Hands-on Database Demonstration (With case studies)

1:30 - 1:50 Overview and Goals
 1:50 - 2:20 Data Entry
 2:20 - 3:50 Literature Search Engine and Bibliography
 Creator
 2:50 - 3:15 Break
 3:15 - 3:45 Data Extractor and Link to Modeling Package
 3:45 - 4:45 Question and Answer/ Feedback and
 Suggestions

Wednesday, October 22nd

Session 3 (8:30am– 12:30am)

Demonstration of Modeling Software

8:30 - 9:50 The Basic Package:
 Walk Through with Case Studies
 9:50 - 11:10 The Advanced Package:
 Walkthrough with Case Studies
 11:10 - 12:10 Break out into groups: Try the Software Using
 Sample Date Sets

Lunch (12:10 pm – 1:30 pm)

Session 4 (1:30pm – 4:30pm)

Case Studies

1:30 - 2:30 Question and Answer / Feedback and
 Suggestions
 2:30 - 2:50 Species with "Abundant" Data I:
 Arctic Tern
 2:50 - 3:10 Break
 3:10 - 3:30 Species with "Sparse" Data I:
 Arctic Loon
 3:30 – 3:50 Summary of Modeling Approaches
 3:50 - 4:30 Approaches and Options Feedback
 Session

*Due to the short lunch break on this day, we
 will arrange to have lunch catered to the
 participants at a small cost.

For information and updates see:
www.auburn.edu/~grandjb

Thursday, October 23rd

Session 5 (9:00am – 11:45pm)

Wrap-up and Discussion

9:00 - 9:15 Introduction and Identification of Topics to
 be Discussed
 9:15 - 11:30 Facilitated Discussion
 11:30 - 11:45 Workshop Summary



Understanding the Impacts of Catastrophes on Marine Bird Populations: An Introduction to Aves Modeler

Background:

In 2001, the USGS Alaska Science Center and the Alabama Cooperative Fisheries and Wildlife Research Unit (ALCFWRU) began a research project intended to develop modeling tools that would be useful to biologists and managers for predicting the recovery and/or extinction of Beaufort Sea water bird populations following a catastrophic-mortality event such as a major oil spill. Here we present the first prototype of this tool, Aves Modeler, which includes a database of literature on all species considered and a multifaceted modeling tool. This workshop is the second in a series of workshops that began in 2001 in Seward, AK on estimating the effects of oil related losses on the birds of the Beaufort Sea.

What is Aves Modeler?

Aves Modeler is an interactive database and population modeling software package for bird species. The initial prototype of Aves Modeler, has been designed specifically for marine birds of the Beaufort Sea. Its user-friendly interface allows individuals to extract data, search the literature, access PDF files of all references cited in the database, and enter their own data into the master database. Additionally, even with minimal knowledge of population modeling, individuals can access and create matrix population models for any bird species. These models are both deterministic and stochastic and can be used to assess population growth rate, sensitivities, extinction probabilities, recovery times, etc.

Workshop Goals and Objectives:

1. To introduce, or refresh, individual's knowledge of matrix population models and their use in management and conservation.
2. To present and demonstrate Aves Modeler using a series of case studies and hands-on examples.
3. To provide a forum for feedback and questions regarding Aves Modeler.
4. To present case studies which introduce alternative methods of modeling and parameterization and to receive feedback on the methodology and type of output that would be appropriate to attain the goals of users.

Workshop Organizers

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Alaskan

Science Center

Anchorage, Alaska

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HOSTED BY:

U.S. GEOLOGICAL SURVEY
ALASKA SCIENCE CENTER
AND
ALABAMA COOPERATIVE FISH AND WILDLIFE
RESEARCH UNIT