March 5, 2019

# ArCS' Program for Overseas Visits by Young Researchers Debriefing Session FY2019

## Olfactory study with seabird species Black-legged kittiwake, *Ryssa tridactyla*

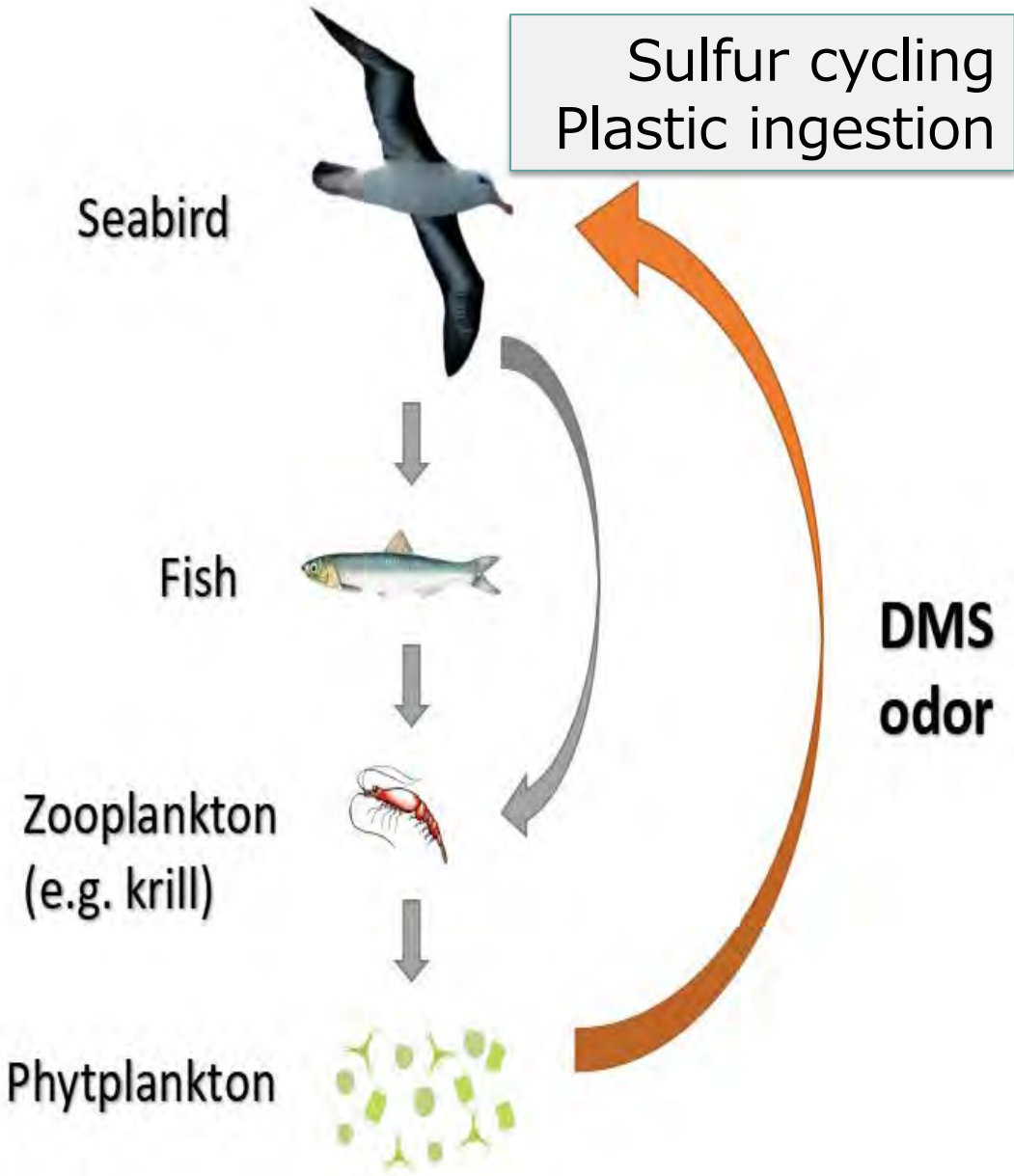
Naya Sena (Hokkaido University)

# Overview of Research Activity



- Black-legged kittiwakes *Rissa tridactyla*
- Great olfactory capacity

## Dimethyl sulfide (DMS)



# Overview of Research Activity 2

## Hypothesis

Having high olfactory capacity, Black-legged kittiwakes should respond to DMS.

## Objective

To test the behavioral response of Black-legged kittiwake chicks to DMS.

# Overview of Research Activity 3

## Time and place of study:

07th - 31st of July
Abandoned radar tower
Middleton island, Gulf of Alaska
U.S.

## Host organization:

Institute for Seabird Research and Conservation, Alaska
U.S.

## Host Researcher:

Prof. Kylle Elliot, McGill University
Canada


Emma Linklater

# Overview of Research Activity



Mélanie & Kyle Elliott

# Overview of Research Activity 5

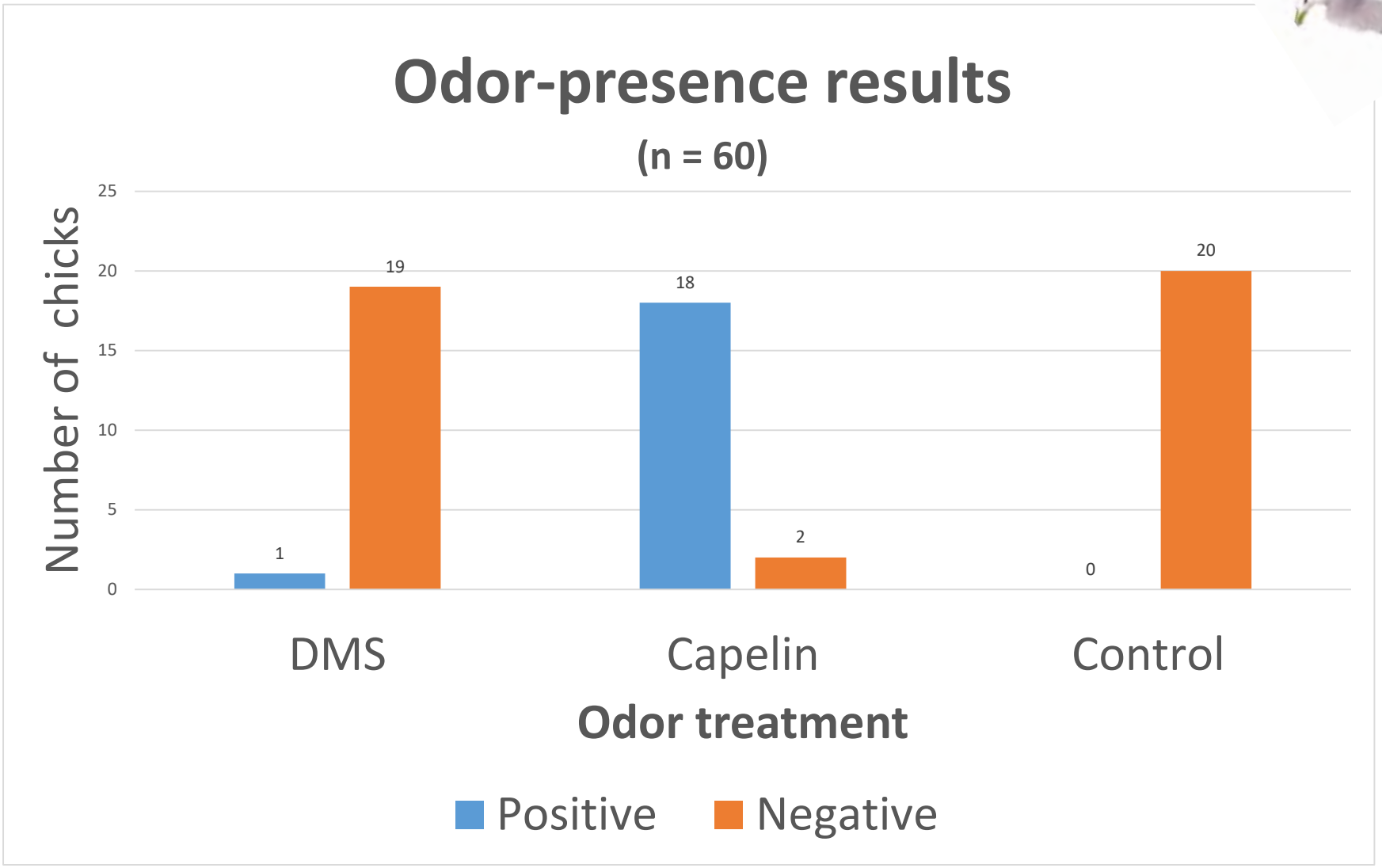
## Methods

- Odor-presence experiment
- Chicks (n = 60)
- Odors:
  DMS
  Capelin, *Mallotus villosus*, (fish)
  Distilled water (control)
- Positive response:
  Multiple pecking at odor spot

# Research Results



## Results



# Life and Experiences



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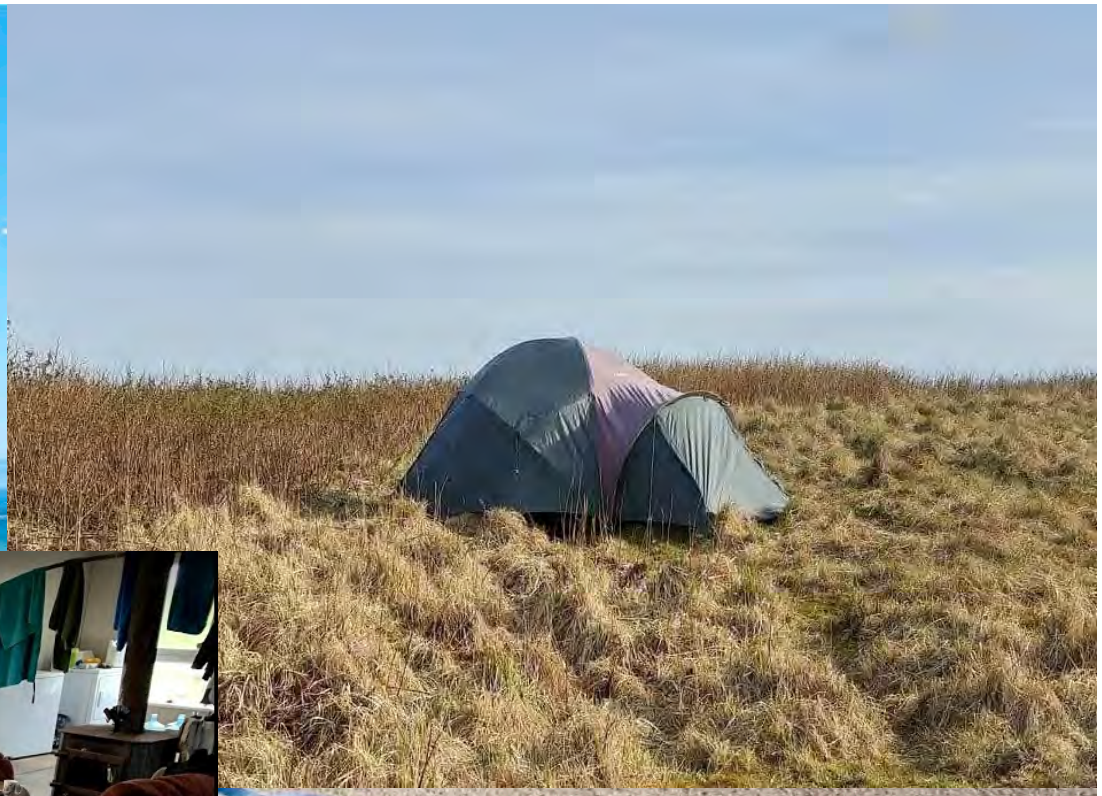

# Life and Experiences



Hanna Weipert

Sierra Pete

Mélanie & Kyle Elliott

# Acknowledgments




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- Middleton field crew