

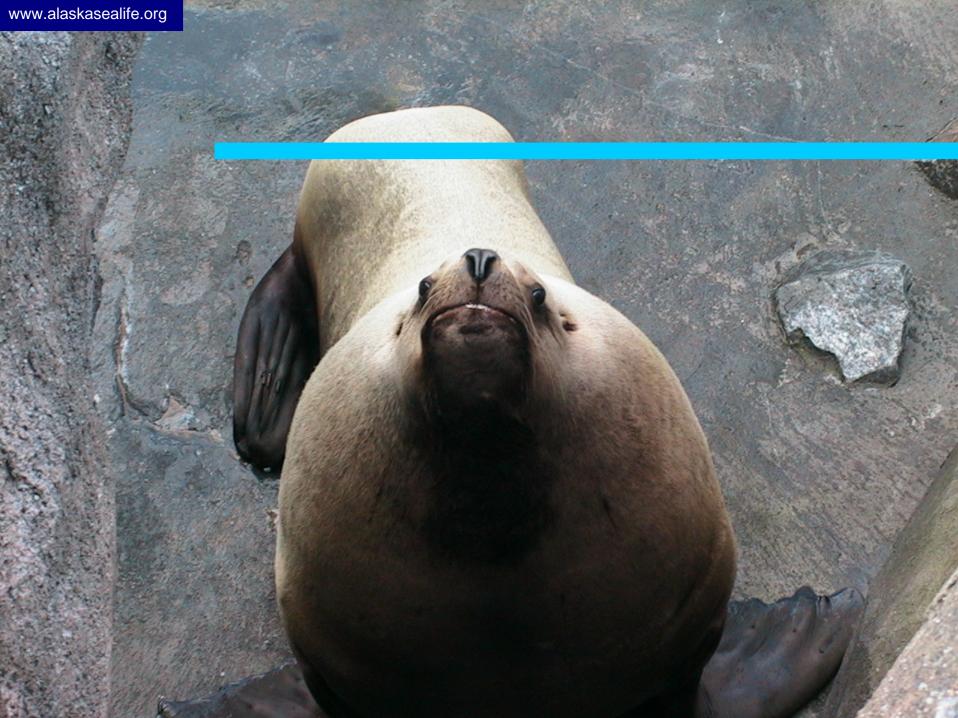
## Alaska SeaLife Center<sup>®</sup> windows to the sea

# Steller sea lion research

a brief overview

Shannon Atkinson, Science Director Don Calkins, Program Manager

Jo-Ann Mellish, Scientist



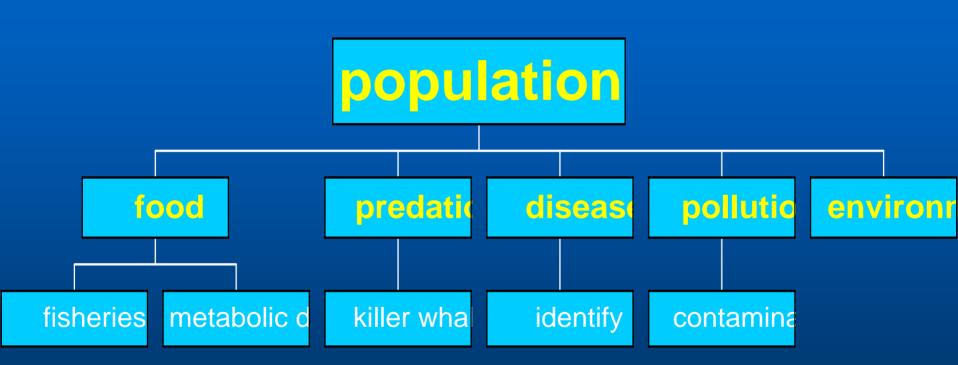
# Steller sea lion program

QuickTime<sup>™</sup> and a TIFF (Uncompressed) decompressor are needed to see this picture.

- Science Director
  - Shannon Atkinson
- Program Manager
  - Don Calkins
- Scientists
  - Russ Andrews
  - Jo-Ann Mellish
- Research Associates (4)
- Graduate Research Assistants (6)
- Research Technicians (1)
- Lab Managers (2)
- Field Coordinator (1)
- Vet Services (4)
- Interns
- Subcontracts/collaborators



### conceptual model



### **Russian studies**

- mother-pup energetics and metabolism
- remote-sensing tag development
- population census
- brand resight
- biosampling
- estimates of mortality rates and causes
- diet studies



# demography & behavior

### Chiswell remote video system

- SeeMore Wildlife
- University of Texas Medical Branch
- Texas A&M University at Galveston

### Video Data Acquisition Platform (VDAP)

Texas A&M University at Galveston





# transient juvenile project

- up to four juveniles
- 3 months research
- specialized quarantine facility
- collaborative research platform
- free-range studies PWS



QuickTime<sup>™</sup> and a TIFF (Uncompressed) decompressor are needed to see this picture.

# stress, disease and immunology

### contaminants

- University of Southern Mississippi
- University of Hawaii
- cortisol
  - population baseline
  - predator/environmental stress
- reproductive hormones
  - population baseline
- effects of early nutrition
  - University of California Santa Cruz





## prey and predation

- predation by killer whales
  - False Pass/GOA
- Russia Far East Orca Study
- Chiswell video monitoring
- forage fish
- Orca energetics
  - University of California Santa Cruz

### instrument development

QuickTime™ and a TIFF (Uncompressed) decompressor are needed to see this picture.



- innovations in remote monitoring
- Orca tag development
- heart monitor implantation
  - University of Birmingham
- LHX transmitters
  - Texas A&M University at Galveston

## long-term captive research

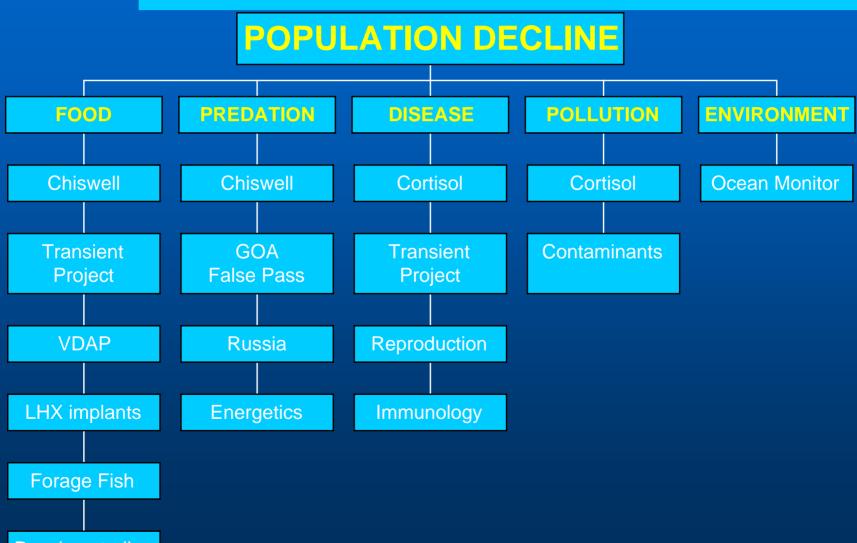




### 1 male, 2 females

- nutrition
- metabolism
- reproduction
- instrument development

### conceptual model



Russian studies

### featured studies

Steller sea lion research in the Russian Far-East

Jason Waite, Research Associate, PhD candidate

New techniques to assess prey availability and predation

Sarah Norberg, Research Associate

#### Remote video studies

John Maniscalco, Research Associate

#### Steller sea lion decline and fisheries

Daniel Hennen, Scientist

#### Contaminants in Stellers sea lions

Matt Myers, PhD candidate

**Transient Juvenile Project** 

Jo-Ann Mellish, Scientist

