Captive feeding programs to increase juvenile monk seal survival: A case study and future applications

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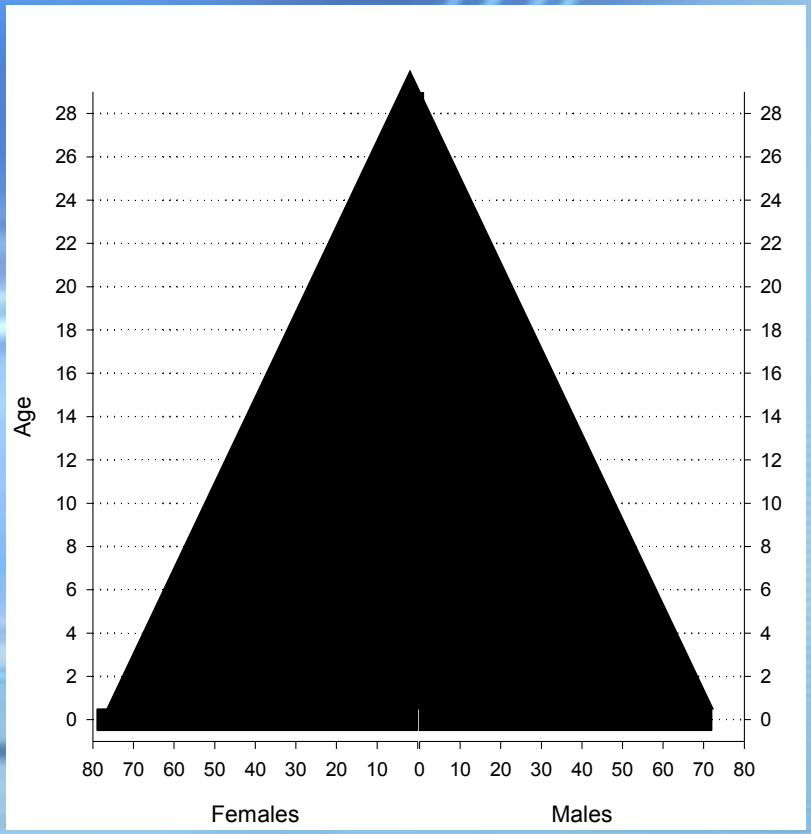
Advancing Rehabilitation, Scientific Discovery and Education

NOAA

Population Status



- Population is endangered and declining ~4% yearly
- Causes of mortality are numerous
- Juvenile survival in NWHI: < 1 in 5 seals survives to adulthood

Strategies to Increase Juvenile Survival

- Shark predation mitigation
- Aggressive males
- Relocation
- Worming
- Captive feeding and care

Objectives

- Will providing nutritional supplementation and protection enhance the survival of young female seals.
  - Would seals survive captivity?
  - Would seals gain weight?
  - Would seals forage normally after release?
  - Would seals survive post-release?
- Develop partnerships between Federal agencies and private organizations.
- Develop strategies for future applications of captive feeding programs.


Oct 3, 2007
8am
Oct 8, 2007
8am
1056 m
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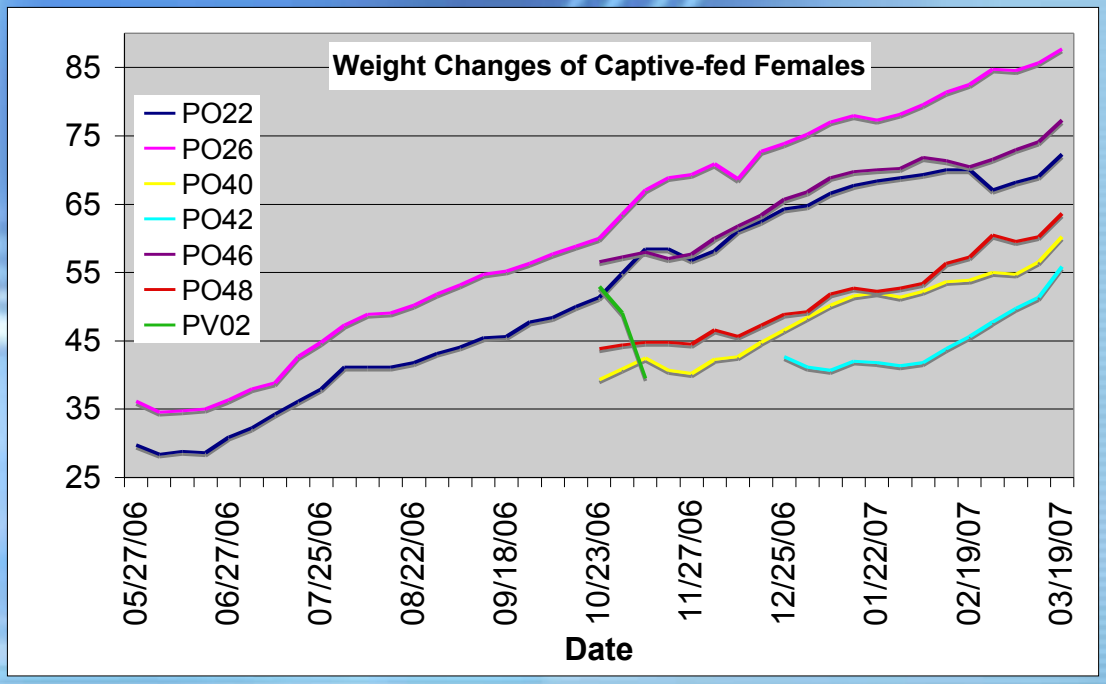
Pre-Release Results

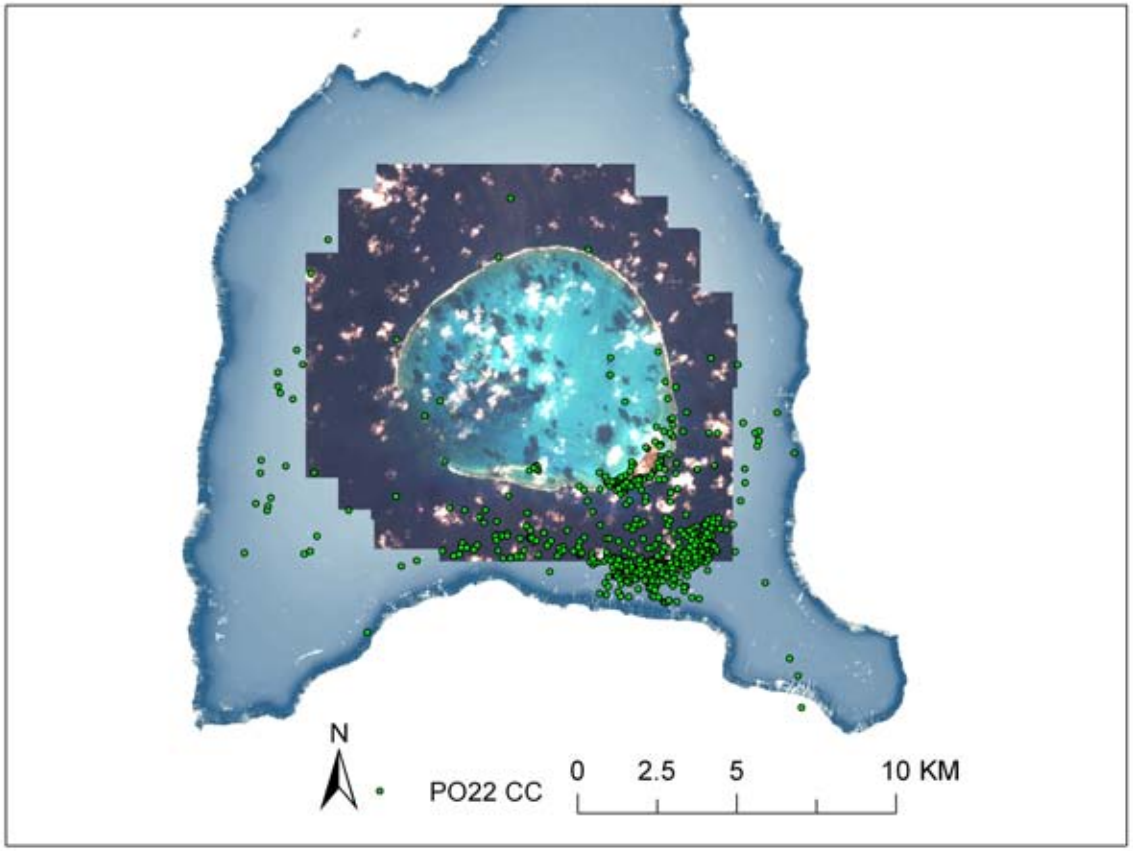


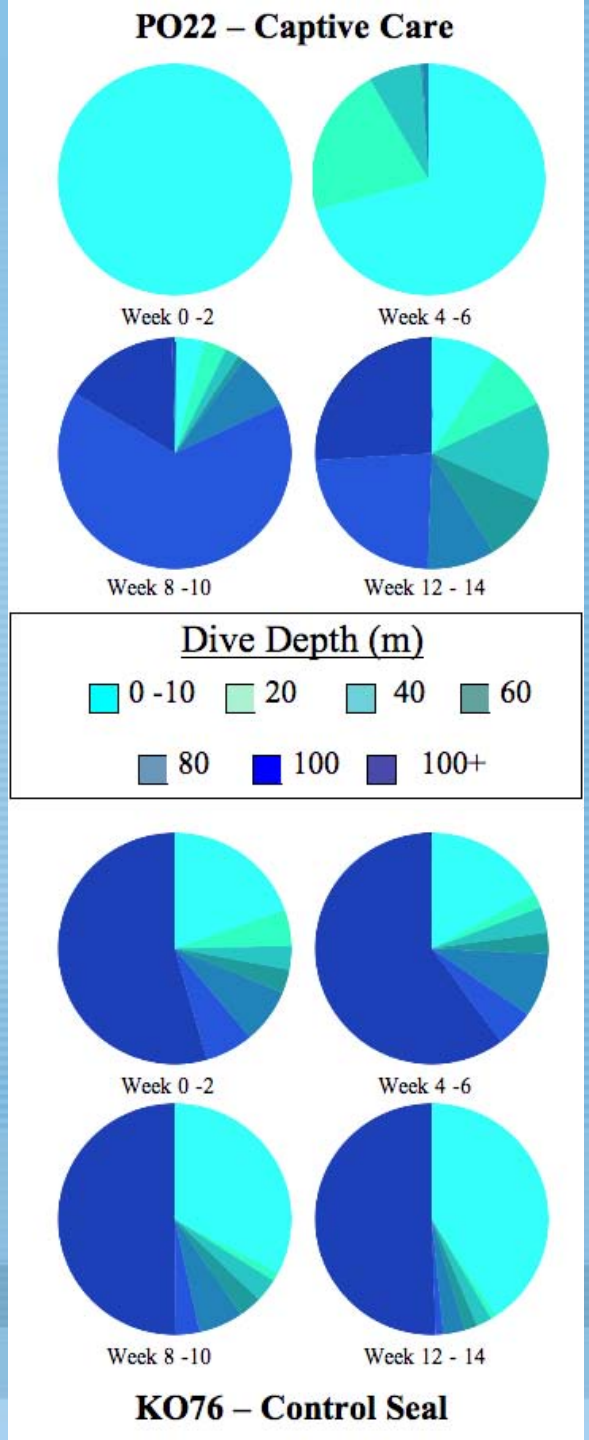
- Weaners were in captivity for 89 - 297 days.
- Change of body weight from 31 - 143%.
- PV02 (yearling) held for 23 days and eventually died.

Post-Release Monitoring

- Seals were tracked for between 38 - 96 days.
- Seals initially lost weight.
  - Two continued to deteriorate in body condition
  - Four stabilized or improved.
- The captive-fed seals foraged in shallow waters (< 20 m) after release and progressively dive deeper.

Post-Release Monitoring





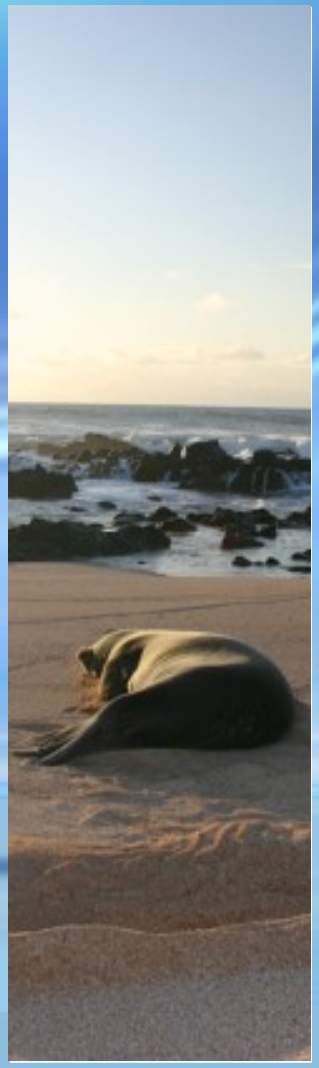
Post-Release Monitoring

- Seals initially lost weight.
  - Two continued to deteriorate in body condition
  - Four stabilized or improved.
- Seals were tracked for between 38 - 96 days.
- The captive-fed seals foraged in shallow waters (< 20 m) after release and progressively dived deeper
- Four seals disappeared while in good condition.

  One continued to lose condition.

  One disappeared over the winter/spring.

Conclusions and Considerations



- Demonstrated that young seals could be held in captivity and successfully fed.
- Older juvenile seals (age 1-3 years) may be more susceptible to stress in captive care.
- Benefit to allowing seals time to free forage before capture.
- Low post-release survival. Issues of dealing with predation, continued nutritional stress, etc.
- Need for controlled environment.
- Partnerships work.

Acknowledgements

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