

Contents

About the Symposium	vii
The Lowell Wakefield Symposium Series and Endowment	viii
Proceedings Acknowledgments.....	viii

Physiological Ecology

Organochlorines in Steller Sea Lions (<i>Eumetopias jubatus</i>) from the Western North Pacific <i>Hiroshi Hoshino, Shouichi Fujita, Yoko Goto, Takeomi Isono, Tsuyoshi Ishinazaka, Vladimir N. Burkanov, and Yasunori Sakurai</i>	1
Female Attendance and Neonatal Pup Growth in Steller Sea Lions (<i>Eumetopias jubatus</i>) <i>Randall W. Davis, Elisif A.A. Brandon, Donald G. Calkins, and Thomas R. Loughlin</i>	13
Oxygen Stores of California Sea Lion Pups: Implications for Diving Ability <i>Carey E. Kuhn, David Aurioles-Gamboa, Michael J. Weise, and Daniel P. Costa</i>	31
Heavy Metal Distribution in Southern Sea Lions (<i>Otaria flavescens</i>) from Argentina <i>Marcela Gerpe, Diego Rodríguez, Jorge Moreno, Ricardo Bastida, and Julia Aizpún</i>	45
Chromium Cytotoxicity in Steller Sea Lion Lung, Skin, and Testes Cells <i>John Pierce Wise Sr., Caroline E.C. Goertz, Sandra S. Wise, Andrew T. Morin, J. Lawrence Dunn, Frances M.D. Gulland, Mary Bozza, Shannon Atkinson, and W. Douglas Thompson</i>	57
Foraging Ecology	
Predictability of Prey Available to Steller Sea Lions in Southeastern Alaska <i>Scott M. Gende and Michael F. Sigler</i>	69
The Diet of <i>Otaria flavescens</i> in Chile: What Do We Know? <i>L.A. Hückstädt and T. Antezana</i>	83
Potential Effects of Short-Term Prey Changes on Sea Lion Physiology <i>David A.S. Rosen, Dominic J. Tollit, Andrew W. Trites, and Arliss J. Winship</i>	103

Geographical Variation in Steller Sea Lion Prey Quality in Alaska
Lawrence Schaufler, Elizabeth Logerwell, and Johanna Vollenweider 117

Relationship between Steller Sea Lion Diets and Fish Distributions
in the Eastern North Pacific
Emma L. Bredesen, Andrea P. Coombs, and Andrew W. Trites..... 131

Temporal Variation in Steller Sea Lion Diet at a Seasonal Haul-Out
in Southeast Alaska
Jamie N. Womble and Michael F. Sigler 141

Estimation of Seasonal Energy Content of Steller Sea Lion
(*Eumetopias jubatus*) Diet
Johanna Vollenweider, Jamie Womble, and Ron Heintz..... 155

Food Consumption by Sea Lions: Existing Data and Techniques
*Arliss J. Winship, Andrea M.J. Hunter, David A.S. Rosen, and
Andrew W. Trites* 177

Studying Diving Energetics of Trained Steller Sea Lions in the
Open Ocean
Gordon D. Hastie, David A.S. Rosen, and Andrew W. Trites..... 193

Using Simulations to Evaluate Reconstructions of Sea Lion Diet
from Scat
Ruth Joy, Dominic J. Tollit, Jeffrey L. Laake, and Andrew W. Trites 205

Steller Sea Lion Feeding Habits in the Russian Far East, 2000-2003
Jason N. Waite and Vladimir N. Burkanov 223

Techniques for Real-Time, Active Tracking of Sea Lions
Mary-Anne Lea and Ben Wilson..... 235

Three-Dimensional Diving Behavior of a South American Sea Lion
(*Otaria flavescens*)
*Gabriele Müller, Rory P. Wilson, Flavio Quintana, and
Claudio Campagna*..... 255

Nearshore Fish Assemblages in the Vicinity of Two Steller Sea Lion
Haul-Outs in Southeastern Alaska
John F. Thedinga, Scott W. Johnson, and David J. Csepp 269

Movements of a Juvenile Southern Sea Lion in La Plata River
Estuary (Argentina-Uruguay)
*Diego Rodríguez, Ricardo Bastida, Donald G. Calkins, and
Randall W. Davis* 285

Estimating Diet Composition in Sea Lions: Which Technique to Choose?
Dominic Tollit, Susan Heaslip, Bruce Deagle, Sara Iverson, Ruth Joy, David Rosen, and Andrew W. Trites..... 293

Sea Lions in Drag, Fur Seals Incognito: Insights from the Otariid Deviants
J.P.Y. Arnould and D.P. Costa..... 309

Population Ecology and Dynamics

Trends in Abundance of Australian Sea Lions, *Neophoca cinerea*, at Seal Bay, Kangaroo Island, South Australia
Peter D. Shaughnessy, Rebecca R. McIntosh, Simon D. Goldsworthy, Terry E. Dennis, and Mel Berris..... 325

Mark-Recapture Estimates of Pup Production for the Australian Sea Lion (*Neophoca cinerea*) at Seal Bay Conservation Park, South Australia
Rebecca R. McIntosh, Peter D. Shaughnessy, and Simon D. Goldsworthy 353

Population Status and Trends of the California Sea Lion (*Zalophus californianus californianus*) in the Gulf of California, Mexico
Diana Szteren, David Aurioles, and Leah R. Gerber 369

Klebsiella pneumoniae Epidemics: Possible Impact on New Zealand Sea Lion recruitment
Ian S. Wilkinson, Pádraig J. Duignan, Aurelie Castinel, Alex Grinberg, B. Louise Chilvers, and Bruce C. Robertson..... 385

Modeling Spatial Dynamics of Steller Sea Lions (*Eumetopias jubatus*) Using Maximum Likelihood and Bayesian Methods: Evaluating Causes for Population Decline
Gavin Fay and André E. Punt..... 405

Can Experimental Manipulation Be Used to Determine the Cause of the Decline of Western Stock of Steller Sea Lions (*Eumetopias jubatus*)?
André E. Punt and Gavin Fay 435

Conservation and Management

Conservation Management Issues and Status of the New Zealand (*Phocarcctos hookeri*) and Australian (*Neophoca cinerea*) Sea Lion
R.A. Campbell, B.L. Chilvers, S. Childerhouse, and N.J. Gales..... 455

An Integrated Bayesian Evaluation of Hooker’s Sea Lion Bycatch Limits <i>P.A. Breen and S.W. Kim</i>	471
Status and Conservation of Otariids in Ecuador and the Galápagos Islands <i>Juan Jose Alava and Sandie Salazar</i>	495
Uncertain Management or Management of Uncertainty: Steller Sea Lion—a Case Study <i>Robert J. Small and Douglas P. DeMaster</i>	521
Avoidance of Artificial Stimuli by the Steller Sea Lion <i>Kohji Iida, Tae-Geon Park, Tohru Mukai, and Shoji Kotani</i>	535
Characteristics of Vocalizations in Steller Sea Lions <i>Tae-Geon Park, Kohji Iida, and Tohru Mukai</i>	549
Organochlorines in Walleye Pollock from the Bering Sea and Southeastern Alaska <i>Ron Heintz, Margaret M. Krahn, G.M. Ylitalo, and Frank Morado</i>	561
A Review of the Potential Effects of Disturbance on Sea Lions: Assessing Response and Recovery <i>Laura Kucey and Andrew W. Trites</i>	581
Southern Sea Lions and Artisanal Fisheries in Piriápolis, Uruguay: Interactions in 1997, 2001, and 2002 <i>Diana Szteren and Cecilia Lezama</i>	591
Roundtables	
Telemetry Instruments and Analysis	605
Telemetry Attachment Techniques	613
Quantifying Predation on Sea Lions: Identifying Key Parameters and Data Needs	621
Assessing the Diets of Sea Lions: Current Techniques and Future Challenges	627
Participants	635
Index	645