

# TABLE OF CONTENTS

	Page
<b>Executive Summary</b> .....	v
<b>Report of the 2001 BASS/MODEL Workshop</b>	
To review ecosystem models for the subarctic gyres .....	1
<b>Report of the 2001 MONITOR Workshop</b>	
To review progress in monitoring the North Pacific .....	9
<b>Sonia D. Batten</b>	
PICES Continuous Plankton Recorder pilot project.....	10
<b>Phillip R. Mundy</b>	
GEM (Exxon Valdez Oil Spill Trustee Council's "Gulf Ecosystem Monitoring" initiative) and U.S. GOOS plans in the North Pacific .....	12
<b>Ron McLaren and Brian O'Donnell</b>	
A proposal for a North Pacific Action group of the international Data Buoy Cooperation Panel .....	13
<b>Gilberto Gaxiola-Castrol and Sila Najera-Martinez</b>	
The Mexican oceanographic North Pacific program: IMECOCAL .....	14
<b>Sydney Levitus</b>	
Building global ocean profile and plankton databases for scientific research.....	17
<b>Report of the 2001 REX Workshop</b>	
On temporal variations in size-at-age for fish species in coastal areas around the Pacific Rim.....	19
<b>Brian J. Pyper, Randall M. Peterman, Michael F. Lapointe and Carl J. Walters</b>	
Spatial patterns of covariation in size-at-age of British Columbia and Alaska sockeye salmon stocks and effects of abundance and ocean temperature .....	20
<b>R. Bruce MacFarlane, Steven Ralston, Chantell Royer and Elizabeth C. Norton</b>	
Influences of the 1997-1998 El Niño and 1999 La Niña on juvenile Chinook salmon in the Gulf of the Farallones .....	25
<b>Olga S. Temnykh and Sergey L. Marchenko</b>	
Variability of the pink salmon sizes in relation with abundance of Okhotsk Sea stocks.....	29
<b>Ludmila A. Chernovanova, Alexander N. Vdoven and D.V. Antonenko</b>	
The characteristic growth rate of herring in Peter the Great Bay (Japan/East Sea) .....	34
<b>Nikolay I. Naumenko</b>	
Temporal variations in size-at-age of the western Bering Sea herring .....	37
<b>Evelyn D. Brown</b>	
Effects of climate on Pacific herring, <i>Clupea pallasii</i> , in the northern Gulf of Alaska and Prince William Sound, Alaska.....	44
<b>Jake Schweigert, Fritz Funk, Ken Oda and Tom Moore</b>	
Herring size-at-age variation in the North Pacific.....	47

<b>Ron W. Tanasichuk</b>	
Implications of variation in euphausiid productivity for the growth, production and resilience of Pacific herring ( <i>Clupea pallasii</i> ) from the southwest coast of Vancouver Island.....	57
<b>Chikako Watanabe, Ahihiko Yatsu and Yoshiro Watanabe</b>	
Changes in growth with fluctuation of chub mackerel abundance in the Pacific waters off central Japan from 1970 to 1997 .....	60
<b>Yoshiro Watanabe, Yoshiaki Hiyama, Chikako Watanabe and Shiro Takayana</b>	
Inter-decadal fluctuations in length-at-age of Hokkaido-Sakhalin herring and Japanese sardine in the Sea of Japan .....	63
<b>Pavel A. balykin and Alexander V. Buslov</b>	
Long-term variability in length of walley pollock in the western Bering Sea and east Kamchka.....	67
<b>Alexander A. Bonk</b>	
Effect of population abundance increase on herring distribution in the western Bering Sea.....	69
<b>Sergey N. Tarasyuk</b>	
Survival of yellowfin sole ( <i>Limanda aspera</i> Pallas) in the northern part of the Tatar Strait (Sea of Japan) during the second half of the 20 <sup>th</sup> century .....	71
<b>Report of the 2002 MODEL/REX Workshop</b>	
To develop a marine ecosystem model of the North Pacific Ocean including pelagic fishes.....	77
<b>Summary</b> .....	77
<b>Workshop overview</b> .....	77
<b>Workshop presentations</b> .....	80
<b>Bernard A. Megrey, Kenny Rose, Francisco E. Werner, Robert A. Klumb and Douglas E. Hay</b>	
A generalized fish bioenergetics/biomass model with an application to Pacific herring .....	80
<b>Robert A. Klumb</b>	
Review of Clupeid biology with emphasis on energetics .....	88
<b>Douglas E. Hay</b>	
Reflections of factors affecting size-at-age and strong year classes of herring in the North Pacific .....	94
<b>Shin-ichi Ito, Yutaka Kurita, Yoshioki Oozeki, Satoshi Suyama, Hiroya Sugisaki and Yongjin Tian</b>	
Review for Pacific saury ( <i>Cololabis saira</i> ) study under the VENFISH project .....	97
<b>Alexander V. Leonov and Gennady A. Kantakov</b>	
Formalization of interactions between chemical and biological compartments in the mathematical model describing the transformation of nitrogen, phosphorus, silicon and carbon compounds .....	100
<b>Herring group report and model results</b> .....	107
<b>Saury group report and model results</b> .....	114
<b>Model experiments and hypotheses</b> .....	119
<b>Recommendations</b> .....	120
<b>Achievements and future steps</b> .....	122
<b>Acknowledgements</b> .....	122
<b>References</b> .....	122
<b>Appendix 1</b> List of participants.....	129
<b>Appendices 2-5</b> FORTRAN codes .....	131