

S3

BIO Topic Session

Factors affecting distribution, foraging ecology, and life histories of top predators in the northwestern Pacific Ocean and its marginal seas

Co-Convenors: Hidehiro Kato (Japan), Alexander Kitaysky, William Y. Sydeman (U.S.A.) and Andrew Trites (Canada)

Top predators may integrate fluctuations in lower trophic levels and ocean climate, and may therefore serve as reliable indicators of change. But, how ubiquitous are these patterns, spatially and temporally? What are the time lags between the occurrence of an environmental change and the responses of top predators? What taxa, guilds and parameters would be best suited to serve as ecosystem “samplers” and “monitors?” This multi-disciplinary, multi-trophic level topic session will examine the oceanographic and ecological factors determining the distribution, foraging ecology, and life history dynamics of top marine predators in the northwestern North Pacific and its marginal seas, focusing on the Sea of Okhotsk/Oyashio and western Bering Sea. Focal organisms include predatory marine fish, marine birds and mammals, and their prey resources (copopeds, euphausiids, squids, forage fishes). We invite presentations describing spatio-temporal variation in distribution, abundance, life history, demography, and food habits of predators and/or prey species or communities in relation to atmospheric and physical oceanographic variability, including ice cover. In particular, we hope to deepen our understanding of the response of top predators to ocean climate variability and change in the northwestern Pacific Ocean regions. These questions are critical to future efforts to monitor the North Pacific, as well as important to fisheries oceanography in the Sea of Okhotsk and western Bering Sea.

Tuesday, October 4, 2005 08:30-12:30

08:30-08:40 **Introduction by Convenors**

08:40-09:10 **Konstantin Rogachev** (Invited)

Physical forcing of marine ecosystems and long-term oceanographic changes in the Sea of Okhotsk (S3-2232)

09:10-09:30 **Andrew W. Trites and David A.S. Rosen**

Marine mammals in the North Pacific as indicators of ecosystem change (S3-2498)

09:30-09:50 **Yuri B. Artukhin**

Distribution of seabird colonies in the far-eastern region of Russia (S3-2261)

09:50-10:10 **Yutaka Watanuki, Motohiro Itoh and Hiroshi Minami**

Do parents of seabirds feed chicks with prey that is different from their own? (S3-2349)

10:10-10:30 **Coffee Break**

10:30-10:50 **Aleksey Yu. Merzlyakov, Elena P. Dulepova and Valeriy I. Chuchukalo**

Modern state of pelagic communities in the Okhotsk Sea (S3-2330)

10:50-11:10 **Tomio Miyashita, Valery L. Vladimirov and Hidehiro Kato**

Current status of cetaceans in the Sea of Okhotsk (S3-2489)

11:10-11:30 **Valeriy I. Fadeev**

Benthos and food supply of the Okhotsk-Korean gray whale population (S3-2276)

11:30-11:50 **Yuri M. Yakovlev and Olga Yu. Tyurneva**

Photo-identification of the western gray whale (*Eschrichtius robustus*) on the northeastern Sakhalin shelf, Russia, 2002-2004 (S3-2353)

- 11:50-12:10 **Alexander S. Kitavsky and Elena Yu. Golubova**
Reproductive responses of planktivorous and piscivorous birds to climate variability in the northern Sea of Okhotsk (S3-2385)
- 12:10-12:30 **Edward J. Gregg, Stephen Ban, Ryan Coatta and Andrew W. Trites**
Ecological characterization of Steller sea lion rookeries and haulouts in the North Pacific (S3-2529)

Posters

Svetlana V. Naydenko and Natalia T. Dolganova
Estimation of hydrobiont consumption food by the basic nekton species in the upper epipelagic Russian economic zone of the Japan/East Sea (S3-2454)

Seong-Hwan Pae
Ecologically important areas for waterbirds in Yellow Sea (S3-2616)

Larisa A. Zelenskaya
Inter-annual and inter-colonial variability in the diet of Slaty-backed Gulls (*Larus schistisagus*) (S3-2351)