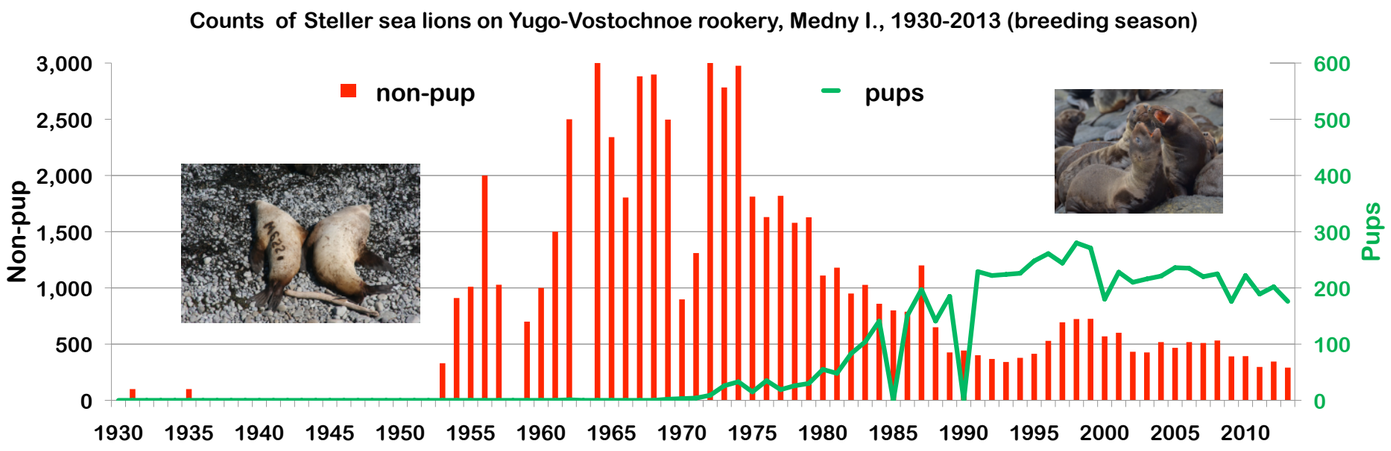
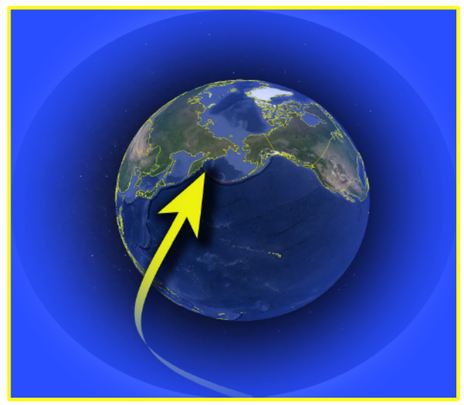
Steller Sea Lion Decline at Medny Island Rookery, Russia, in Summer 2013

Vladimir Burkanov[1,2], Anna Kirillova[3], Evgeny Mamaev[3], Sergey Ryazanov[2,4], and Thomas Gelatt[1]

[1] *National Marine Mammal Laboratory, AFSC, NMFS, NOAA, 7600 Sand Point Way NE, Building 4, Seattle, Washington, USA*
[2] *Kamchatka Branch of the Pacific Geographical Institute, FEB, RAS, 6 Partizanskaya St., Petropavlovsk-Kamchatsky, Russia*
[3] *State Nature Biosphere Reserve «Komandorski», Nikolskoe, Kamchatsky Krai, 683000, Russia*
[4] *V.I.Il`ichev Pacific Oceanological Institute, FEB RAS, 43 Baltiiskaya st., Vladivostok, 690041, Russia*





In the Commander Islands, Steller sea lions (SSL) regularly breed only at one location, on Medny Island. The Yugo-Vostochnoe rookery has been surveyed in the breeding season regularly since mid-1950s.

Composite counts, brand resights, and breeding performance of individually identifiable animals were monitored daily from May 9 to September 7, 2013 (122 days) by 2 observers and 4 time-lapse cameras. The cameras were installed throughout the rookery and took photographs at 5-min intervals from dusk to dawn.

The mean number of non-pup SSLs on rookery at the peak of the breeding season (June 20-July 10) was 244±8.6 (95%CI) individuals, which was 28% less than the mean count over the last 10 years The maximum SSL non-pup count during the last 10 years dropped from 532 in 2008 to 291 individuals in 2013 (-43.5%). It is the lowest count on this rookery season since the 1960s. (Figs. 1 and 2)

A total of 167 pups were born on Medny I. (-21% to 10 years average) in 2013. It was the lowest pup production in 25 years. Over the last 10 years pup production has fallen 3.3% per year. The general condition of SSLs during the breeding season was normal and postnatal pup mortality was only 2.4 %.

Since 1986, a total of 1,021 pups were branded on Medny I.. A total of 108 (10.6%) branded SSL were recorded on the rookery during summer 2013 (Fig. 3), which is only 3.3% less than the 10 years mean (13.9±2.08%; 96%CI).

- Large differences in numbers and trends of non-pups and marked SSLs on the Medny rookery suggest that the actual decline in non-pup SSL abundance is much lower than calculations based on visual counts

- We suggest that the majority of non-pup SSLs return or visit the rookery during summer, but for a short time only and that mature seals tend <u>not to breed</u> at Medny

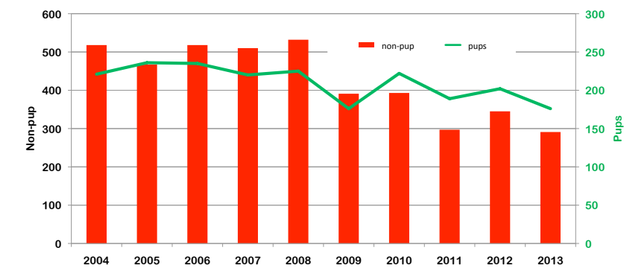


Fig. 1. Maximum counts of Steller sea lions on Medny I., 2004-2013

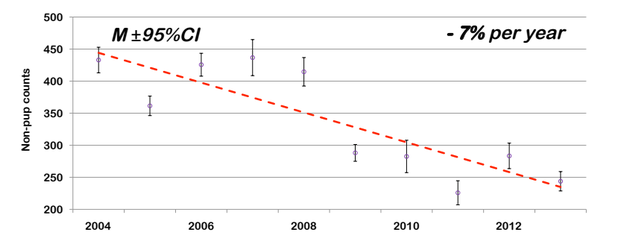


Fig. 2. Ten year trend in abundance of Steller sea lions on Medny I., 2004-2013

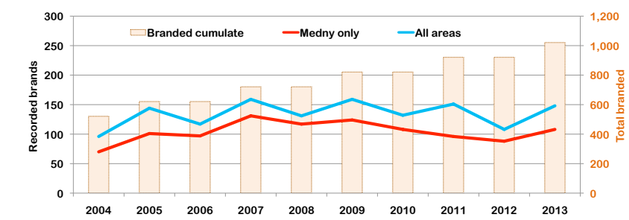


Fig. 3. Steller sea lion brand recording on Medny I., 2004-2013

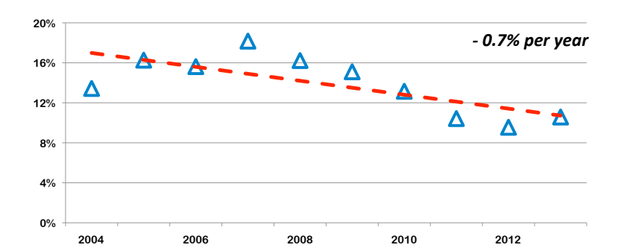


Fig. 4. Ten year trend in marked Steller sea lion returns on Medny I., 2004-2013

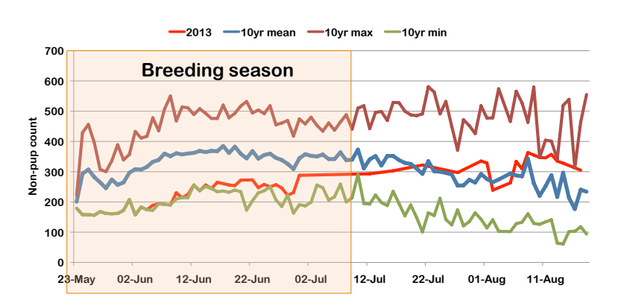


Fig. 5. Seasonal counts of Steller sea lions on Medny I., 2004-2013

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