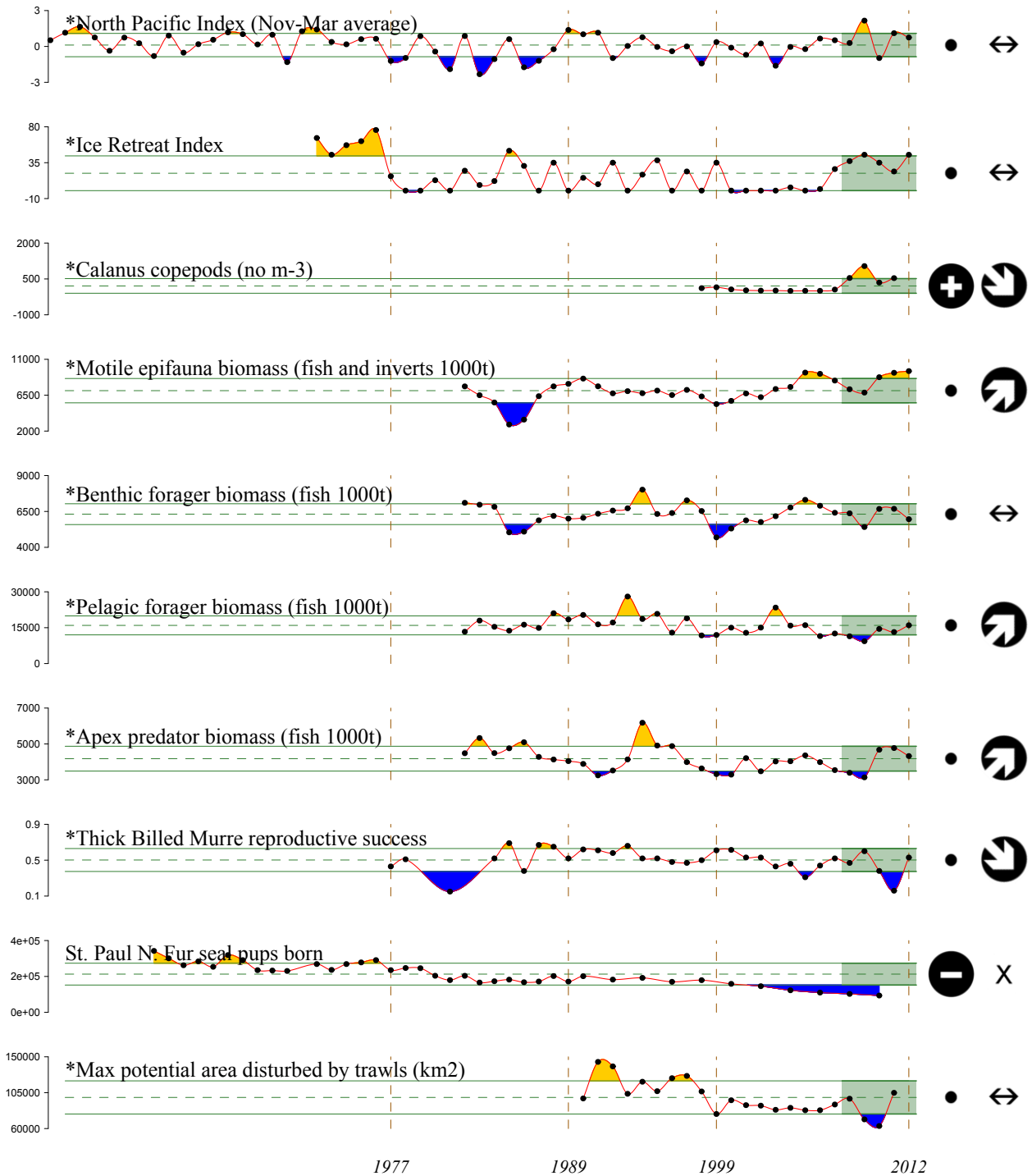


Eastern Bering Sea 2012 Report Card

- The North Pacific atmosphere-ocean system reflected a combination of a **response to La Niña and intrinsic variability**. The combination of the **neutral to weak El Niño expected this winter** and a continuation of reduced ice cover in the central Arctic should yield **a lighter ice year for the Bering in 2013**.
- **Ocean temperatures remained cold and sea ice remained extensive**, similar to 2008 and 2010. Ice retreat this year (and 2009) was the latest recorded since 1985. Summer was calm and cool, but had the **most extensive cold pool area of the recent decade**.
- The summer ***Calanus* copepod time series showed an increase in abundance** in 2011 relative to 2010, but remained below the 2009 peak. 2011 was **the fourth year that concentrations remained well above average**, following patterns also seen in fall zooplankton abundance during cold years. This suggests that prey availability for planktivorous fish, seabirds, and mammals continued to be high during the summer of 2011.
- **Jellyfish remain abundant**, although peak abundances observed in fall 2010 and summer 2011 declined by fall 2011 and summer 2012.
- **While commercial crab stocks are relatively low**, overall **motile epifauna biomass remains stable or increasing** since the late 1980s. Higher levels since 2003 are driven by increases in brittle stars and echinoderms, although these series show high within-year variances in the survey.
- **Biomass of benthic foragers has remained stable** since 1982, with interannual variability driven by short-term fluctuations in yellowfin and rock sole abundance.
- **Biomass of pelagic foragers has increased to nearly average** from record survey lows in 2009. While pollock has increased from low levels, the overall increase is additionally driven by increases in capelin seen in 2010-2012.
- **Fish apex predator biomass has increased appreciably in the last few years**, driven primarily by the increase in Pacific cod from lows in 2007-2009 to higher levels in 2010-2012. Arrowtooth flounder biomass has decreased from all-time survey highs during 2004-2005, though it remains high relative to pre-1989 levels.
- **Thick-billed murre reproductive success on St. George Island was near average** in 2012, a substantial increase from the record low in 2011. This suggests that **foraging conditions were favorable for piscivorous seabirds**.
- **Northern fur seal pup production for St. Paul Island has declined over the long term**. The most recent pup production estimates for St. Paul and St. George Islands in 2010 were 8.8% and 1.0% less than the 2008 estimates.
- The maximum potential **area of seafloor habitat disturbed by trawl gear increased in 2011** to the highest level since 1998. The cause of this increase is currently unknown.

Hot topic In September the Department of Commerce declared commercial king salmon fisheries in the Yukon and Kuskokwim rivers failures after extremely low returns over the summer. The two leading hypotheses for the reduced runs are climate change and fishing.



2008-2012 Mean

- ⊕ 1 s.d. above mean
- ⊖ 1 s.d. below mean
- within 1 s.d. of mean
- X fewer than 2 data points

2008-2012 Trend

- ↗ increase by 1 s.d. over time window
- ↘ decrease by 1 s.d. over time window
- ↔ change <1 s.d. over window
- X fewer than 3 data points

Figure 1: Eastern Bering Sea ecosystem assessment indicators; see text for descriptions. * indicates time series updated in 2012.