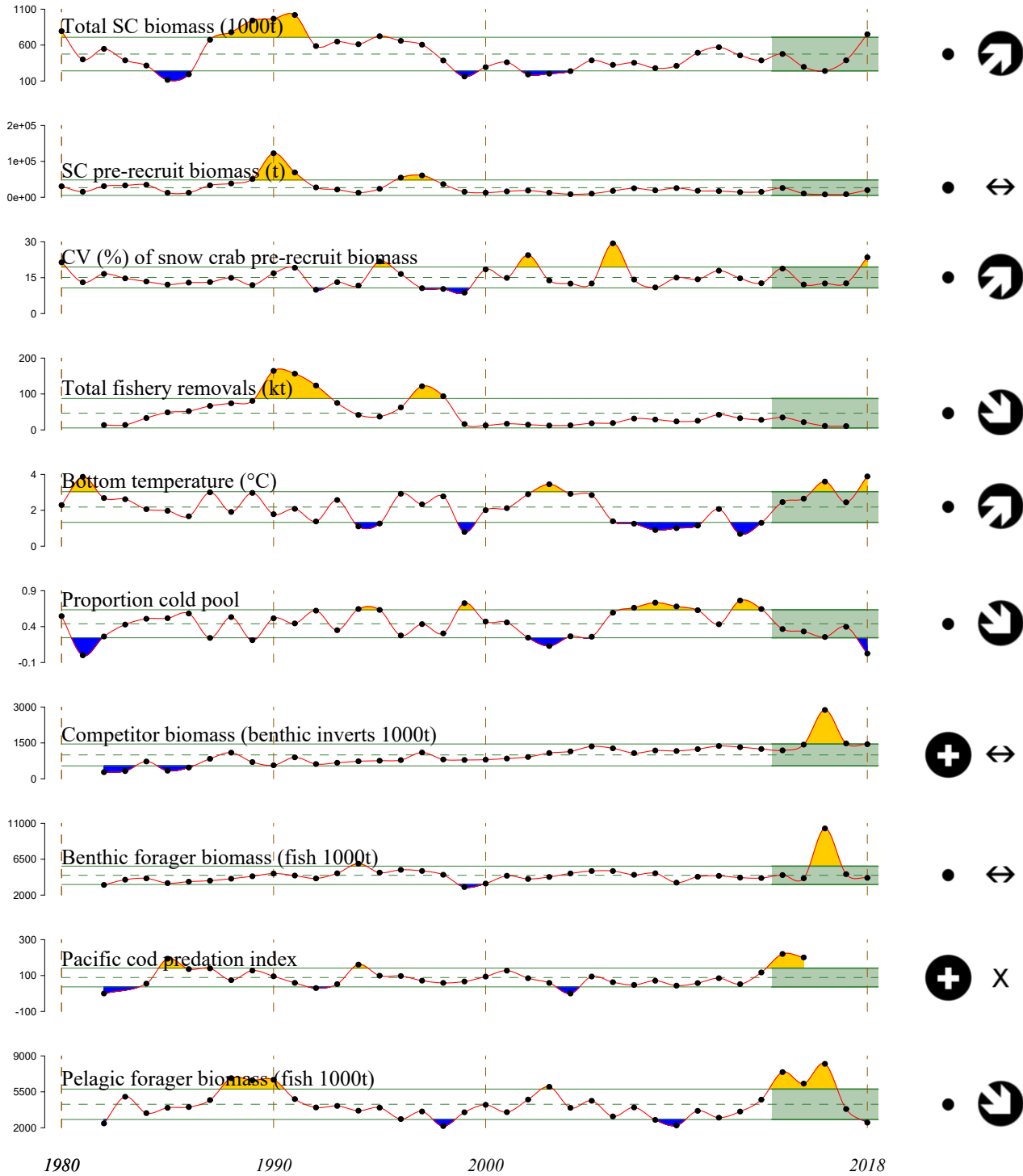


# Eastern Bering Sea Snow Crab



## 2014-2018 Mean

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

## 2014-2018 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

## Ecosystem Indicators used for EBS Snow Crab

**Total snow crab biomass:** index for overall productivity of the stock. Includes all size ranges and both sexes.

**Snow crab pre-recruit (95-101 mm CW) biomass:** index for future abundance of legal crab. Includes male crabs (95-101 mm CW) that will likely enter the fishery (reach minimum preferred size) the following year.

**Coefficient of variation of snow crab pre-recruit biomass:** index for variability in pre-recruit biomass. Variation is likely the result of spatial and temporal patterns of snow crab abundance within the eastern Bering Sea snow crab management area.

**Total fishery removals:** total catch and bycatch mortality biomass. Includes total retained catch, as well as discarded catch and trawl bycatch estimates.

**Bottom temperature:** impacts spatial distribution and reproductive dynamics of snow crab.

**Proportion cold pool:** index of the southern extent of the cold pool.

**Competitor biomass:** likely competitors with juvenile and adult crabs for food. Includes sea star, hermit crab, urchin, and sea cucumber biomass from NOAA bottom trawl surveys.

**Benthic forager biomass:** likely predators of juvenile and adult crabs. Includes sculpin, flatfish, pacific cod, eelpout, octopus, and skate biomass from NOAA bottom trawl surveys.

**Pacific cod predation index:** index for top-down estimates of Pacific cod predation on snow crab from groundfish diet data on NOAA bottom trawl surveys.

**Pelagic forager biomass:** likely predators of crab larvae. Includes walleye pollock, herring, capelin, salmon, eulachon, and sand lance biomass from NOAA bottom trawl surveys.

# EBS Snow Crab 2018 Report Card

- The 2018 **total snow crab biomass** was **well above the long-term average**, with an increasing trend in the past 3 years. **Pre-recruit** (males 95-101 mm CW) biomass has remained **below the long-term average** for the past 5 years.
- The **CV of pre-recruit biomass increased** in 2018, with large aggregations of snow crab concentrated between St. Matthew Island and the Pribilof Islands.
- **Summer bottom temperatures were above average** in 2018, and **the cold pool extent** was one of the **lowest on record** in the EBS snow crab management area.
- **Survey biomass of competitors, benthic foragers, and pelagic foragers all increased in 2016** due to high catches of sea stars, Pacific cod, yellowfin sole, and pollock. Since 2016, **competitor biomass has remained high** while pelagic forager biomass is decreasing.
- **Pacific cod predation** on snow crab **increased** in 2014 and 2015.