The Impact of Changes in Sea Ice Extent on Primary Production, Phytoplankton Community Structure, and Export in the Eastern Bering Sea

**Obj. #1.** Quantify the magnitude and variability of gross PP and NCP in open-water and MIZ blooms.

**Obj. #2.** Quantify the main floristic patterns and autotrophic cell size distributions in open-water and MIZ blooms.

**Obj. #3.** Quantify the export flux of particulate organic carbon in shelf/slope waters (>300m).
BEST: The Impact of Changes in Sea Ice Extent on Primary Production, Phytoplankton Community Structure, and Export in the Eastern Bering Sea

**Locations and type of station where sampling is necessary:**

**Locations** – Ice-free regions on and off shelf
Ice edge (as it recedes) on and off shelf

**Type** – All core process stations (most samples collected by CTD)
Off shelf process stations (sediment traps)

**Equipment to be used for collection**

**On-shelf Process stations** – CTD for sample collection, deck-board flowing seawater incubators for isotopic incubations, large volume filtration rig (HPLC samples).

**Off-shelf Process stations** - CTD for sample collection, deckboard flowing seawater incubators for isotopic incubations, large volume filtration rig (HPLC samples). Sediment traps.

**Coordination** - Sambrotto/Sigman (PP, N-sampling, O2/MIMS)
- Devol/Shull (OC burial, sediment O2 utilization, Rn analysis)
- Sherr’s microzooplankton rate measurements
- others…