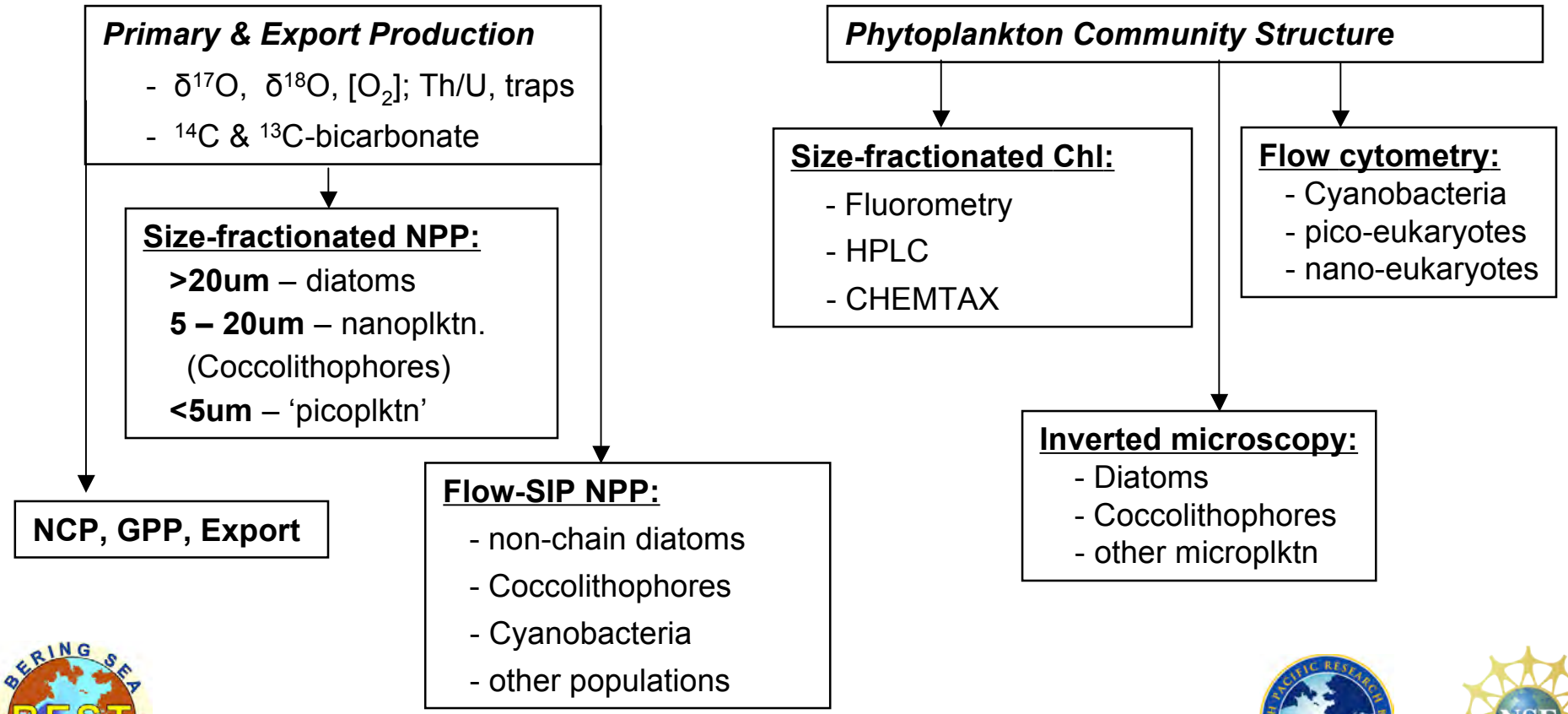
The Impact of Changes in Sea Ice Extent on Primary Production, Phytoplankton Community Structure, and Export in the Eastern Bering Sea

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…