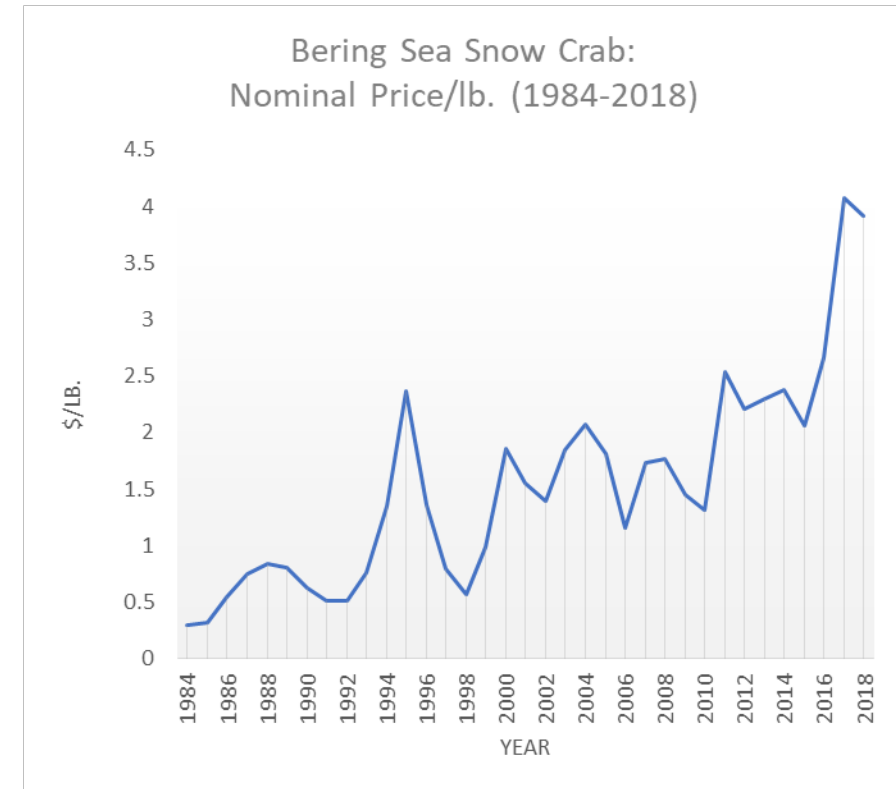


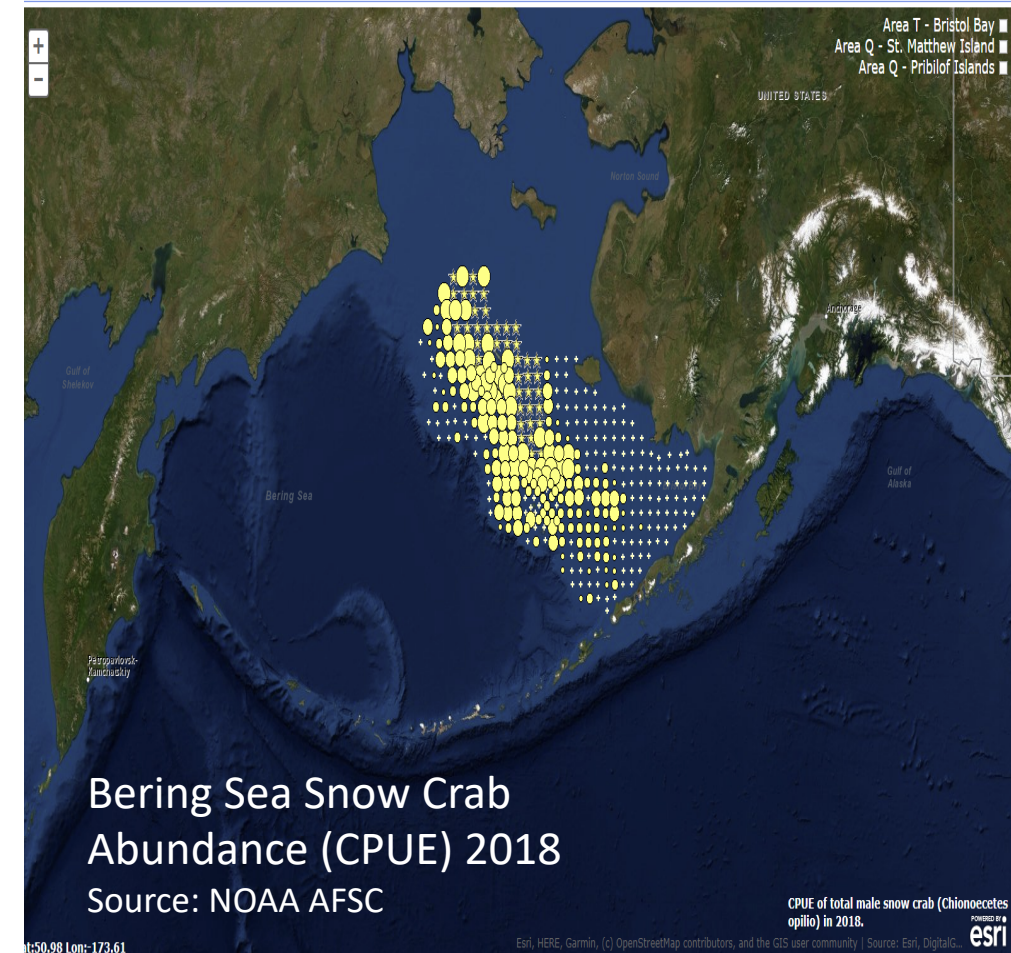
## Supporting Bering Sea Crabbers with Seasonal Sea Ice Forecasts

- Bering Sea crab fishery commercially important
  - Bering Sea crab harvests comprise 23% of ex vessel value of all commercially harvested fish in the Bering Sea Aleutian Island Region (approx. \$220 million 2015/2016 season)
- Timing of crab season (Oct. 15-May 15)
  - Currently use short term sea ice forecasts from NWS
  - Evaluate stakeholder need for seasonal sea ice forecast
  - Engage crab fishery stakeholders (approx. 75-100 quota share holders) using online survey
  - Level of interest in seasonal scale sea ice forecast
  - Potential uses for seasonal scale sea ice forecast



## Supporting Bering Sea Crabbers with Seasonal Sea Ice Forecasts

- Areas of Survey Focus
  - Timing of forecasts
    - Priority months for seasonal forecast (Jan.-April)
  - Logistics
    - Planning for fuel purchases
    - Resupply
  - Location
    - Access to St. Paul Island for delivery
  - Please Contact:
    - Hajo Eicken (heicken@alaska.edu)
    - Joe Little (jmlittle2@alaska.edu)



## Information needs of regional ice information product users (1/2)

- **Input and engagement**

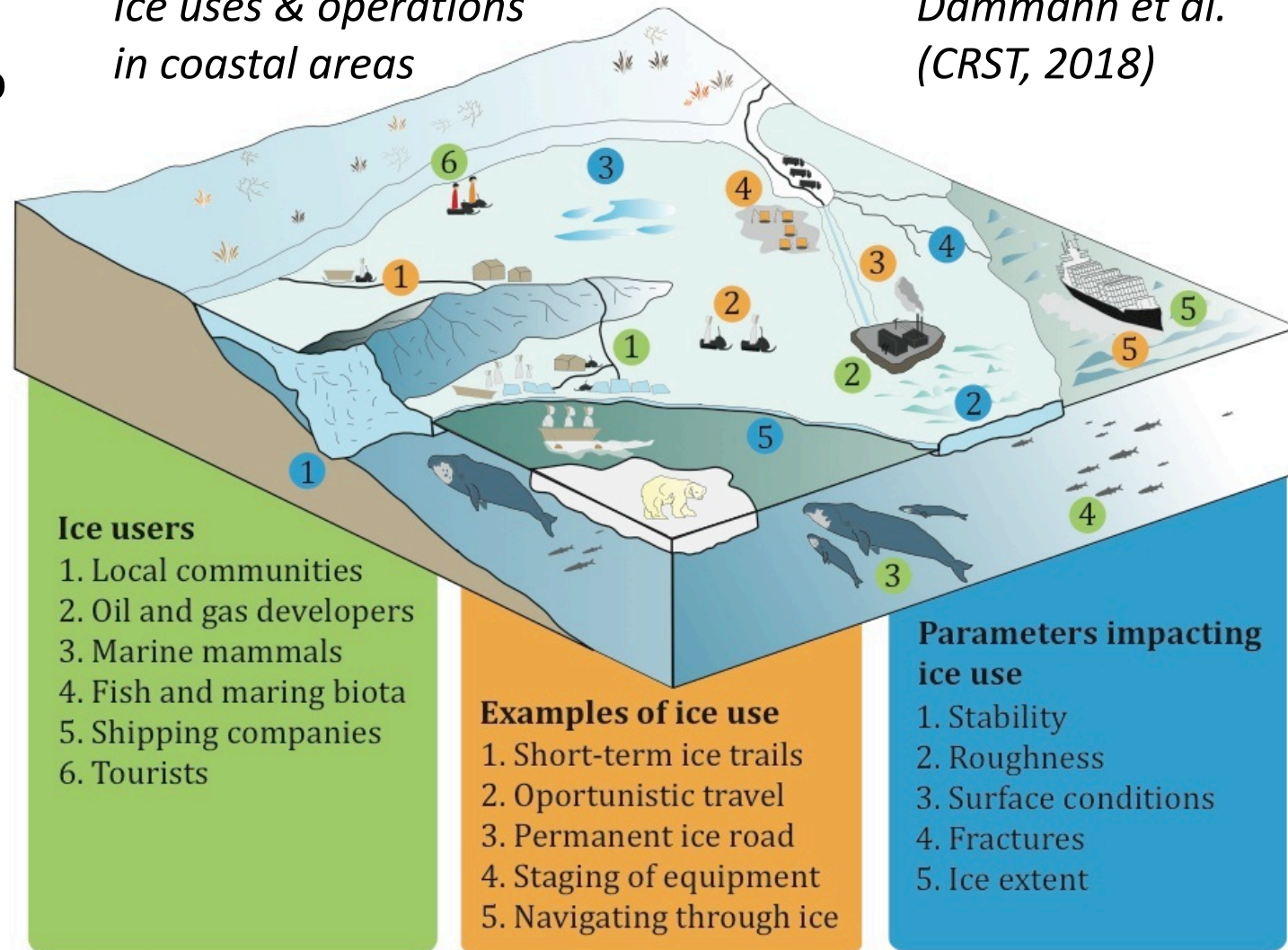
- National Weather Service Alaska Region  
Don Moore, Decision Support Lead
- Alaska Arctic Observatory & Knowledge Hub ([arctic-aok.org](http://arctic-aok.org))
  - Bering Strait to Barter Island
- Sea Ice for Walrus Outlook (SIWO) – Bering Straits
- Ikaagvik Sikukun – Kotzebue Sound

- **Key points**

- Ice uses & ice hazards change with changing environmental conditions
- Ice quality information needed

*Ice uses & operations in coastal areas*

*Dammann et al. (CRST, 2018)*



## Information needs of regional ice information product users (2/2)

- **Key user identified priorities**
  - Information (ice chart & ice forecast) related to use of coastal ocean/ice during freeze-up period
  - Slush ice vs. sheet ice during freeze-up
  - Coastal ice berms
  - Landfast ice thickness
  - Ice stability
- **Potential observation/prediction variables**
  - Mixed layer supercooling
  - Surface wind stress (slush vs sheet ice)
  - Wave height
  - Onshore component of ice convergence
  - ...

Photo: Billy Adams,  
Utqiagvik, 18 Nov 2019



Photo: Billy Adams,  
Utqiagvik, 7 Dec 2019

