



Synthesis Opportunity

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Collaboration and Synthesis



How will reductions in Arctic sea ice and the associated changes in the physical environment influence the flow of energy through the ecosystem in the Chukchi Sea?

Specific research areas

- Transport, seasonal composition, distribution, and production of phytoplankton, particulate matter, zooplankton, fishes, benthic invertebrates, seabirds, and marine mammals
- Timing, magnitude and fate of the primary and secondary productivity
- Partitioning/flux of energy between pelagic and benthic realms
- Distribution, condition, and standing stocks of large crustacean zooplankton that serve as the prey base for upper trophic level fishes and seabirds
- Assemblages, distributions, abundances, and condition of larval and early juvenile fishes that influence the recruitment success of later life stages
- Density of marine mammals and seabirds
- Human use of and interaction with the marine environment

Plans for synthesis

- NPRB intends to provide \$1 M and is seeking funding partners.
- Commitment needed by August 2021 and funds will be expended beginning in May 2022.
- Expected project duration two years.

Plans for synthesis

- NPRB invites input from funding partners.
- Modeling studies that use novel rate measurements to examine ecosystem dynamics or to extrapolate results to a pan-Arctic scale are of interest.

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