



4th Quarter: Nov. 1, 2019 - Jan. 31, 2020

Greetings!

The Gulf Watch Alaska (GWA) program and principal investigators (PIs) are closing out the fourth quarter of monitoring year 8 by finalizing contributions to various reports including a draft science synthesis report to the *Exxon Valdez* Oil Spill Trustee Council (EVOSTC). As numbers are being crunched this winter all have been keeping an eye on the weather, will warm conditions persist? A little sigh of relief could be heard as January 2020 brought a genuine polar freeze. Here is a brief summary of our program's fourth quarter activities and accomplishments:

Science Update:

- GWA completed its draft science synthesis report summarizing their 8 years of monitoring during a period of rapid environmental change for Alaska. The synthesis focuses on the effects of a prolonged marine heatwave that had widespread effects on fisheries, subsistence, and ecotourism in the Gulf of Alaska. The report was composed of four individual manuscripts:
 - *A study of marine temperature variations in the northern Gulf of Alaska across years of marine heatwaves and cold spells*
 - *Changes in rocky intertidal community structure during a marine heatwave in the northern Gulf of Alaska*
 - *Synchronous collapse of forage species disrupts trophic transfer during a prolonged marine heatwave*
 - *Ecosystem response to a prolonged marine heatwave in the Gulf of Alaska*
- NOAA's 2019 Ecosystem Status Report containing 21 contributions from GWA and our sister program Herring Research and Monitoring was presented to the North Pacific Fisheries Management Council and is available online (<https://access.afsc.noaa.gov/REFM/REEM/ecoweb/index.php>). This report is an important contribution to ecosystem-based fisheries research in the Gulf of Alaska.

Program Management Team (PMT):

- The PMT completed and submitted the draft science synthesis report to the EVOSTC in December 2019. This is a third year deliverable for the program (FY17-21) in preparation for the February 2020 science synthesis workshop.
- The PMT facilitated a program planning meeting for PIs during the Alaska Marine Science Symposium on January 29, 2020. This meeting provides valuable facetime for scientists to share recent observations, findings, publications, and review schedules and deliverables in the near future.
- Currently the PMT is preparing for the February science synthesis workshop and helping coordinate the preparation of project annual reports due in March.

Data Management:

- All of the 44 datasets collected by GWA projects in 2018 have been finalized, documented with metadata, and loaded into the Research Workspace for sharing among program collaborators. Further, nearly all of the datasets have been published to the Alaska Ocean Observing System Gulf of Alaska data portal where they are publically accessible (see [portal link](#)).

- More than half of the datasets generated in 2019 by GWA researchers have been submitted to the Research Workspace for sharing among project collaborators.

Outreach:

- GWA team members presented 2 oral and 12 poster presentations at the January 2020 Alaska Marine Science Symposium. Rob Suryan, GWA Science Coordinator, gave a presentation at the Gulf of Alaska Plenary Session entitled, “*Ecosystem Response to a Prolonged Marine Heatwave in the GOA: Perspectives from GWA*”.
- GWA PI Dan Esler presented a talk entitled, “*Why are Sea Ducks Vulnerable to Oil Spill Effects?*” as part of Prince William Sound Regional Citizens Advisory Council’s Science Night on December 5, 2019. (<http://www.pwsrccac.org/announcements/science-night-2019/>).

Relevant Media:

- GWA scientists (John F. Piatt, M. L. Arimitsu, K. J. Kuletz, R. Kaler, H. Coletti, and R. M. Suryan) led and contributed to the publication of a paper linking the Pacific marine heatwave to the mass die-off of common murrelets and other seabirds in the Gulf of Alaska in 2015 and 2016. Multiple national and international media outlets reported on the publication (<https://gulfwatchalaska.org/gulfwatch-alaska-scientists-in-the-news/>).
- GWA PI Katrin Iken received the Emil Usibelli Distinguished Researcher Award from the University of Alaska Fairbanks (<https://gulfwatchalaska.org/gulfwatch-alaska-pi-wins-emil-usibelli-distinguished-researcher-award/>).
- GWA PIs Rob Campbell and Caitlin McKinstry were interviewed by Joe Yelverton for an article in the January 30, 2020 issue of the Anchorage Press “The Fragile World of Prince William Sound”. One of Caitlin’s photographs of a copepod graced the cover of the cover of the weekly publication. (https://www.anchoragepress.com/news/the-fragile-world-of-prince-william-sound/article_67b68770-413f-11ea-97fc-9f581d3d2d77.html)

Important Upcoming Dates:

- **February 25 - 27, 2020** - EVOSTC Synthesis Workshop
- **March 1, 2020** - FY19 annual reports due to EVOSTC staff

Gulf Watch Alaska quarterly photo:

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*Abundant young sablefish eating juvenile herring in PWS, Sept. 2019.
Photo by John Moran, NOAA.*