

**HIGHLIGHTS**

**OceanObs'19** – AOOS and IOOS had a major presence at this decadal conference (the third), held in Honolulu HI Sept 16-20. Molly gave 3 lightning talks: one at the NOAA booth on Bering Sea ecosystem changes, one on the AIS decision support tools for the National Academy of Sciences' booth (one of the AIS projects was funded by NAS), and a third talk at one of the major conference sessions on Integrating Ocean Observations Across Geographic Scales, which highlighted marine heatwaves, climatologies, and observations supported by AOOS and the 3 west coast IOOS regions: the Southern California Coastal Ocean Observing System (SCCOOS), Central and Northern California Ocean Observing System (CeNCOOS), and Northwest Association of Networked Ocean Observing System (NANOOS). Molly also co-lead a 2-hour session on Arctic observing with US AON executive director Sandy Starkweather. Key recommendations from that session included support for a fully developed and implemented Arctic ocean observing system, consideration of an Arctic GOOS node or regional alliance, and support for inclusion of Indigenous knowledge in Arctic observing and planning. Carol was a lead on two peer-reviewed conference papers that are now published in *Frontiers in Marine Science*, available at the following links: <https://tinyurl.com/yxe8v9mh>, and <https://tinyurl.com/y5arjma8>, and Molly was co-author on a number of other papers in the *Frontiers* journal.



*Molly presenting a lightning talk at the National Academy of Sciences Booth entitled "Data tools for coastal community planning". Photo Credit: Kayla Schommer.*



*Carven Scott, Alaska Regional Director National Weather Service.*

**Farewell to Carven** – Alaska regional director for the National Weather Service (NWS) Carven Scott retired from federal service September 30. We bid him best wishes as he embarks on new adventures in retirement. Carven has been an avid supporter of AOOS and was instrumental in getting NWS funding to help kickstart a number of projects including the freeze-up detection buoy and the use of GPS/GNSS stations for water level observation platforms in remote sections of Alaska's coastline that are subject to flooding and erosion.

**Farewell to Kayla** – Our Alaska Sea Grant fellow Kayla Schommer ended her year with AOOS in September. Kayla focused primarily on helping coordinate the Alaska Harmful Algal Bloom Network. Her final duty was presenting a poster on AHAB at Ocean Obs'19. Good luck Kayla!



*Kayla Schommer*



**CONFERENCES/MEETINGS/PRESENTATIONS**

**Ocean Acidification State to State Action Plan Conference** – Darcy and Alaska OA Network steering committee members Dorothy Childers and Shallin Busch attended a conference in NYC Sept 26-27 to learn about the state-led ocean acidification action plans of other coastal states, and to brainstorm ideas for moving the issue forward through legislation, industry and community partnerships.

**Unitarian Universalists** – Darcy gave a presentation on ocean acidification to the Anchorage chapter of the Unitarian Universalist Church on Sept 15. A discussion on climate change and generational perspectives followed the talk.

**Kodiak Mariculture Workshop** – Darcy also presented on ocean acidification to the Kodiak Mariculture Workshop on Sept 11.

**Arctic Futures 2050** – Molly attended the 3 day conference in Washington DC Sept 4-6. The international conference, convened by the [Study of Environmental Arctic Change](#) (SEARCH), was designed to enhance collaboration between Arctic scientists from many disciplines, diverse Indigenous knowledge holders, and policy makers from all levels of government in response to rapid environmental change in the Arctic. More than 70 Indigenous representatives participated. Each session included a scientist, policy maker, and an Indigenous knowledge holder. For more information about the conference, see: <https://www.searcharcticsscience.org/arctic-2050>

**UN Decade of Ocean Science for Sustainable Development** – Molly was invited by PICES to Tokyo, Japan July 31-August 2 to participate in a North Pacific planning session in preparation for the UN Decade of Ocean Science 2021-2030. She was able to speak to issues relating to sea ice, coastal erosion, rapid ecosystem changes, and ocean acidification and harmful algal blooms. Work groups developed research priorities for issues ranging from sea level rise and tsunamis, to harmful algal blooms, to sustainable fishing. Similar planning sessions are being held around the globe. One for the Arctic is currently under discussion by a number of potential co-hosts. For more information about the UN Decade, see: <https://en.unesco.org/ocean-decade>.

**Coastal Resilience Assessment for Alaska Advisory Committee** – The committee met by webinar September 20 to hear about plans for NOAA's Alaska assessment, which will be conducted jointly by the National Fish and Wildlife Foundation and NOAA's Office of Coastal Management over the next year. More information about past assessments can be found at <https://tinyurl.com/yyz8hurw>.

**Congressional staff visit** –Senate Appropriations Committee staffers Matt Womble and Blaise Sheridan; House Appropriations Committee Staffer TJ Lowdermilk; Tanya Dobrzynski (Deputy Director, NOAA Office of Legislative & Intergovernmental Affairs); Mark Seiler (NOAA Chief Financial Officer); and Stuart Levanbach (NOAA Chief of Staff) visited Alaska during the Congressional August recess. Carol and Rob (Axiom) joined NPRB's Betsy Baker and Danielle Dickson along with Amy Holman (NOAA) on August 7 to brief them on the status of AOOS programs and thank them for their support for AOOS/IOOS. Participants were particularly interested in the data management aspects of the AOOS program.

#### **ADMINISTRATIVE**

**Debra Esty visit** – The IOOS management and program analyst Debra Esty visited AOOS and our fiscal sponsor Alaska SeaLife Center on Sept 23-24. Debra is the chief financial/admin person we work with in the IOOS office. It was very helpful to be able to talk to Debra about our trials and tribulations navigating NOAA's grant requirements, and for her to gain a better understanding of how AOOS/ASLC operates.

**AOOS Budget** – The final budget and work plan for this year's cooperative agreement with NOAA was submitted to the IOOS office on August 30 for final review and approval. We are able to spend funds for those projects approved in past years, but any new activities need new approval.

#### **IOOS**

**IOOS Assoc 20<sup>th</sup> anniversary celebration and annual mtg** – Many of the original founders of the IOOS Program were honored at an event September 17 celebrating the 20<sup>th</sup> anniversary of IOOS. More than 400 people joined us in acknowledging the achievements in ocean observing made over the past 20 years. Representatives of all 11 IOOS Regional Associations then convened September 20, following the conclusion of OceanObs'19 in order to re-elect officers and approve the association's annual budget. Debra Hernandez, executive director of SECOORA, will continue as association chair for another 2 years. Molly will continue as chair of the association's Public Policy Committee.

**IOOS Federal Advisory Committee** – The IOOS FAC, of which Molly is an appointed member, met by virtual phone call August 21 to identify priorities for the coming year. The next meeting is February, 2020 in Washington, D.C.

#### **PROJECT HIGHLIGHTS**

**HF radars deployed** – Two new HF radar installations are underway in Wales and Shishmaref. At the moment, there is no real-time outlet, but the installation teams are working out GCI cell modem data issues and reports from the setup in Wales were of excellent data returns. The UAF HF radar team Hank Statscewich, Rachel Potter, Jordi Maisch and Seth Danielson hope to have some radial maps to share on the AOOS Real Time Sensors page on the data portal shortly.

**UNAVCO meeting with Ken Austin** – Carol met with Ken Austin to discuss the status of the St. Michael's GNSS/GPS installation funded by AOOS and the National Weather Service for making much needed water level observations in this western Alaska community. The station has been operational with no interruptions for 16 months now. Data are being evaluated by multiple parties to resolve data processing methodologies that hopefully will provide a data solution for this and future GNSS/GPS installations. Jacqui Overbeck (AK DNR-DGGS) incorporated winter 2019 results from this station for a post storm report that impacted western Alaska in mid-February 2019. Data were processed by Kristen Larson, who has been evaluating UNAVCO GNSS/GPS systems suitability for various parameter measurements, including water levels, over the past 10 years.



*New Bering Strait HF radar installed in Wales, mid-September 2019.*

**Kodiak Wave Buoy** – AOOS has entered an agreement with the National Renewable Energy Laboratory to take over the operations and maintenance of their offshore wave buoy near Kodiak Island. AOOS is staging to service this buoy in October with the help of the Coastal Data Information Program (CDIP). Stay tuned for updates next month with photos! The data from this buoy can currently be viewed on the [Real Time Sensors page](#) of the AOOS Data Portal.



**New Alaska OA Video** – Alaska Sea Grant, with support from the Alaska OA Network, produced a short video on ocean acidification research and impacts in Alaska, highlighting efforts in Kachemak Bay.

<https://www.youtube.com/watch?v=TwoNF5ZQuOU>

**Electronic IEA project** – AOOS has received \$50K this year to help broaden the utility of NOAA Fishery's ecosystem status reports and Integrated Ecosystem Assessments. The first planning meeting with NMFS was held September 25. The results of this effort will be used by several other IOOS regions to do something similar.

## **DATA MANAGEMENT**

**Axiom Business Plan & Quarterly Review** – Molly and Carol met with the Axiom Data Science team on September 10 to review the past quarter of data management activities, as well as the latest draft of the Axiom/AOOS business plan. We also scoped out work plan activities for the coming year.

**OceanObs'19**- Rob Bochenek joined OceanObs'19 conference to participate in adjoining sessions with the Animal Telemetry Network (ATN) and to celebrate 20 years of IOOS as a Silver Level sponsor.

**Axiom All Hands Meeting**- AOOS's technical infrastructure team at Axiom Data Science gathered for their annual all-hands meeting from Sept 23 to Sept 27 in Anchorage, AK. The Axiom team of 18 travelled from 4 distributed offices (Wickford, RI; Portland, OR; and Homer and Fairbanks, AK) to take stock on organizational projects and discuss technical solutions at a deep and thoughtful level to create synergy towards future developments.

**ATN Pacific Island Data Workshop**- Axiom's Chris Turner and Ian Gill are leading a 4-day workshop from Sept 30 to Oct 3 at the NOAA Inouye Regional Center in Honolulu, HI with the ATN Data Coordinator, Megan McKinzie. This workshop is an introduction to the ATN and its Data Assembly Center, which is housed at AOOS and leverages the AOOS data infrastructure. At the workshop participants learn about data and metadata standards, and have the opportunity to work one-on-one with the ATN Data Coordinator and Axiom staff to upload, visualize, archive, and preserve their current or historic satellite telemetry datasets.

## **COLLABORATIONS**

**Marine Debris tag-up** – Molly, Darcy and Amy Holman met with NOAA’s Alaska marine debris lead Peter Murphy by phone September 24 to discuss plans for several marine debris planning sessions in the coming year. AOOS plans to hold a marine debris town hall at the Alaska Marine Science Symposium focusing on research needs, followed by a one-day session in conjunction with the Alaska Forum on the Environment focusing on micro-plastics: current research on biological and human health impacts, and community and Indigenous concerns.

**AK Marine Policy Forum** - The latest forum was held September 25 and highlighted report-outs on the Arctic Futures and Ocean Obs conferences, as well as the introduction of the Young Fisherman’s Development bill and a discussion on impacts to the Alaska Marine Highway System from recent budget cuts.

**ACCAP** – Molly sits on the center’s advisory committee which met for a virtual update August 22. ACCAP is a NOAA Regional Integrated Sciences and Assessments Program that focuses on climate change in Alaska.

**CIRCAC Environmental Monitoring Committee** – Molly was re-elected chair of the committee during its August 20 meeting in Homer. Molly is the Municipality of Anchorage representative on CIRCAC – the Cook Inlet Regional Citizens Advisory Council.

## **UPCOMING EVENTS**

Oct 2	Alaska OA Network steering committee
Oct 7-8	NOAA Science Advisory Board’s Ecosystem Services Management WG – Portland OR, Molly
Oct 10	Alaska HAB Network monthly call
Oct 8-10	EVOS Gulf Watch AK and Herring Program PI meeting – Homer, Carol, Stacey and Chris (Axiom)
Oct 11	EVOSTC Fall Meeting, Carol
Oct 8-10	IOOS Data Code Sprint - Ann Arbor, MI- Rob, Will, Jessica, Dave, Jesse, Brian (Axiom CI team)
Oct 10-12	Arctic Circle - Iceland
Oct 16-19	AFN - Fairbanks
Oct 22-24	IOOS Coastal and Ocean Modeling Testbed – Washington, D.C., Molly and Jesse Lopez (Axiom)
Oct 23	Ocean acidification presentation to Board of Fish
Oct 23-24	Consortium for Ocean Leadership (COL) – Washington DC, Molly
Oct 23-24	MARES synthesis meeting – Seattle, Chris Turner (Axiom)
Oct 24	Adapt Kodiak Workshop - Darcy
Oct 25	COL industry forum – wind power, Molly
Oct 27-Nov 1	Oceans ‘19 – Seattle, Carol
Oct 31	Halloween!!!
Oct 31-Nov 3	Sitka Sound Science Center Whalefest
Nov 6	ACCAP advisory committee, Anchorage – Molly

**Molly McCammon, Carol Janzen, Holly Kent, Darcy Dugan, and Stacey Buckelew**