Coastal Margins researchers cope with coronavirus restrictions

As Brenda Konar sees it, the masks and the social distancing are the easy part.

The real challenges of conducting fieldwork during a pandemic, Konar says, lie in the endless stream of paperwork, the 12-hour drives from Fairbanks to Homer without being allowed to enter a building along the way, and - most onerous of all - the two weeks her research team has had to quarantine before every week-long research trip.

"There are about seven days a month that I'm either not in the field or not in quarantine," said Konar, co-lead of the Coastal Margins component and head of intertidal and oceanic fieldwork in Kachemak Bay. "I feel like a true homebody of one or two.

Like Konar, Beaudreau has had difficulty hiring undergrads due to COVID restrictions, which has meant fewer people available to do the work. But she said all of the tasks are getting done, with one notable exception: beach seining was cancelled for year, because it was deemed impossible for research teams to maintain social distance while working at sites in close proximity to one another. Beaudreau said the cancellation is unfortunate but noted that the team has already some fish seining data for the area and will still be able to collect a multiyear database through Fines and ice. "Presumably, if next summer's normal, we're going to have two to three years of the full complement of beach seining data," she noted."

The other half of the Coastal Margins project is research by "Stream Teams," who are monitoring physical and chemical conditions on waterways on the Gulf of Alaska nearshore and the rivers of Kachemak Bay. "Which means lodging in Homer and using a commercial water taxi for transportation," said Konar.

Munk said the water taxi has presented some unexpected advantages: it saves time since Homer is actually slightly closer to most of their research sites than the lab, and the lab is also more appropriate landing sites for the water taxi. "We're working from the wee hours of the morning at first light through the evening, just to get it done," she said.

"Everything" in this case means traveling by boat along the southern shores of Kachemak Bay to wade through beaches for fish counts, to sample quadrats in the rocky intertidal zone, to collect samples for food web and other analyses, and to conduct zooplankton and phytoplankton sampling. On May or June, Konar said those first days of the pandemic were the most challenging from a fieldwork standpoint since the team has had to recruit a rotating cast of co-workers from the ranks of the project. "Part of it has been being a little more creative in finding new field partners," she said.

The other downside to COVID restrictions, Munk said, is the stream team is also laboring with too small a workforce: only four people are participating in each research trip. "We're just operating at a bare minimum to get the work done," she said.

The team also has had to address other restrictions by driving separately to and from their research sites, to make significant changes in order to continue their five-year project of data collection in the Gulf of Alaska nearshore and the rivers that feed it.

Many of Konar's challenges relate to the need to base her research out of the Kasitsna Bay Lab, but has taken a different tack this summer, enlisting the help of Kachemak Bay "Stream Team" members who are recording data at the Lax Kwee estuary with the help of the lab's research assistant, and are doing the lab's long-term YSI water series.

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"The way that this worked last year was that everything was a big team effort, so we had big intertidal crews, three to five people doing all the sampling altogether," she said. "That's something that isn't missing, is a team feeling. Most things are able to get done, but sort of the joy of fieldwork is a team work."