Join by computer at: https://noaanmfs-meets.webex.com/noaanmfs-meets/j.php?MTID=mcc18c76bd7dda6407df660fc58b8a65b
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NOAA FISHERIES
National Marine Fisheries Service
Alaska Fisheries Science Center

2021 AFSC Seminar Series

Leah Zacher, AFSC Shellfish Assessment Program

Tuesday, April 27th @ 10 am Pacific

Tracking Crabs with Drones: Seasonal Distribution of King Crabs in Bristol Bay

Much uncertainty still exists on the distribution of Bering Sea crab stocks outside summer survey periods, making it challenging to delineate essential habitats across life stages, define environmental predictors of abundance and distribution, and mitigate bycatch in other fisheries. One key management tool to reduce king crab bycatch are fixed closures that prohibit bottom trawl gear. However, a static closure for a highly mobile species, immediately presents problems. Most king crab distribution data comes from summer surveys, while bycatch in trawl fisheries primarily occurs in winter, making it difficult to evaluate the effectiveness of closure areas. To address this mismatch, the AFSC Shellfish Assessment Program began a collaborative research effort with the Bering Sea Fisheries Research Foundation to elucidate year-round Bristol Bay red king crab distributions. Crabs were tagged with acoustic tags that continuously transmit a unique identification number and the bottom water temperature. To re-locate crabs, autonomous surface drones equipped with acoustic receivers were deployed to search for tagged crabs by performing transects across Bristol Bay. In contrast to traditional tagging, this tagging method has the advantage of being fishery independent; in addition, because acoustic tags can be retained through a molt, the same tagged individuals can potentially be located over several years.

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