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Bering Sea Crab Movement and Distribution



Leah Sloan Zacher

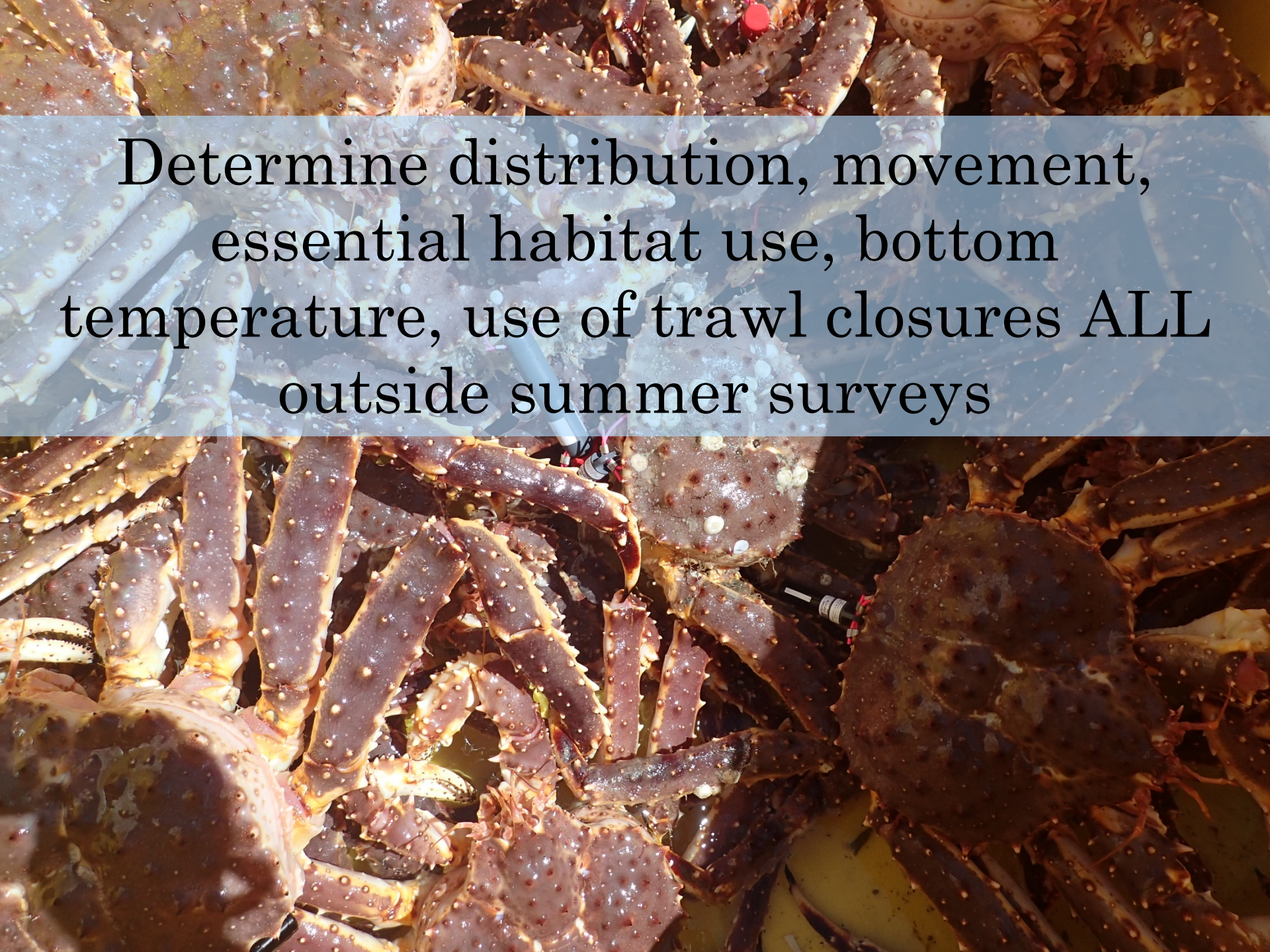


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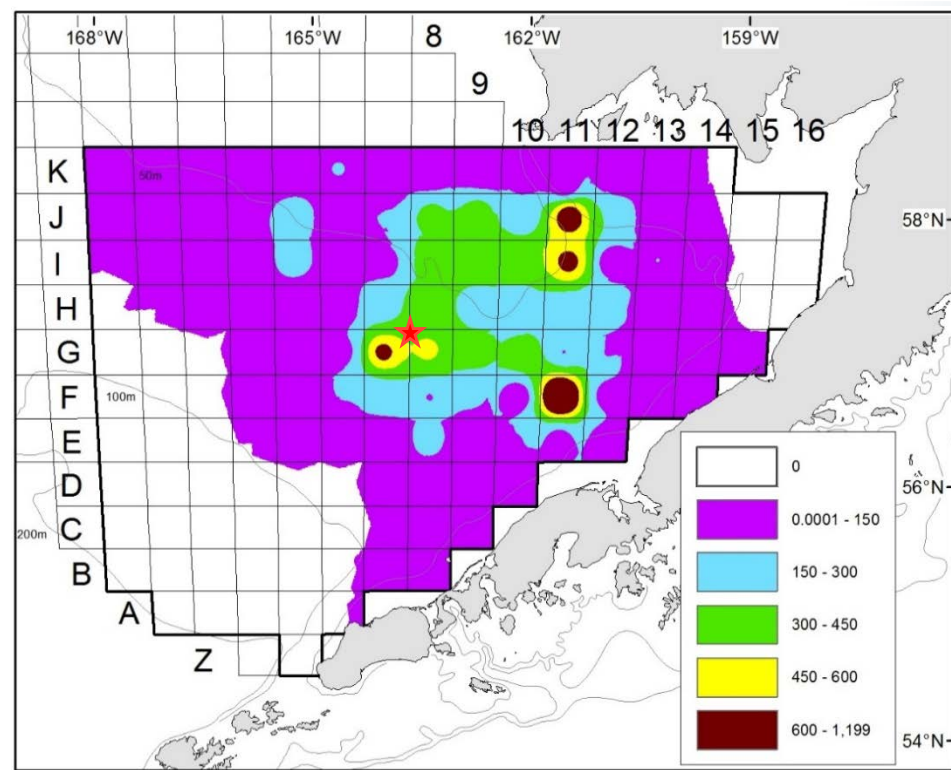
Tracking Red King Crab Movement using a Saildrone





Determine distribution, movement,
essential habitat use, bottom
temperature, use of trawl closures ALL
outside summer surveys

Tag Deployment



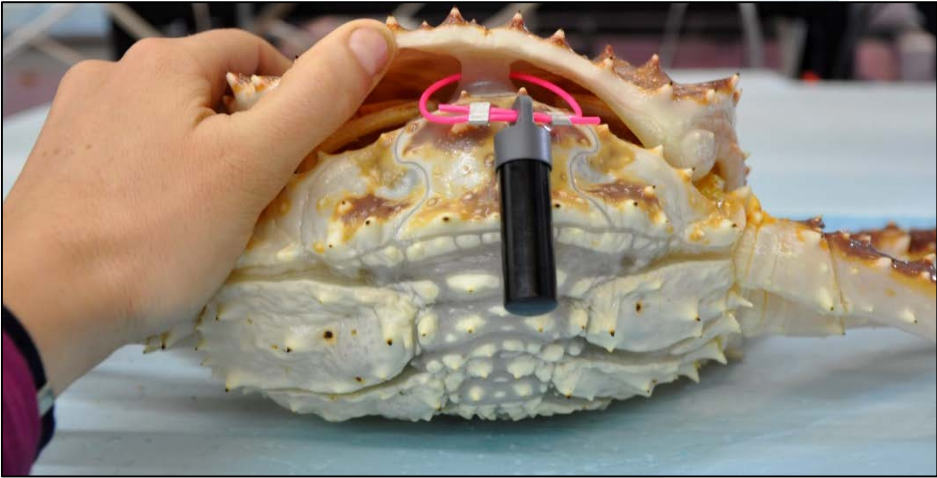
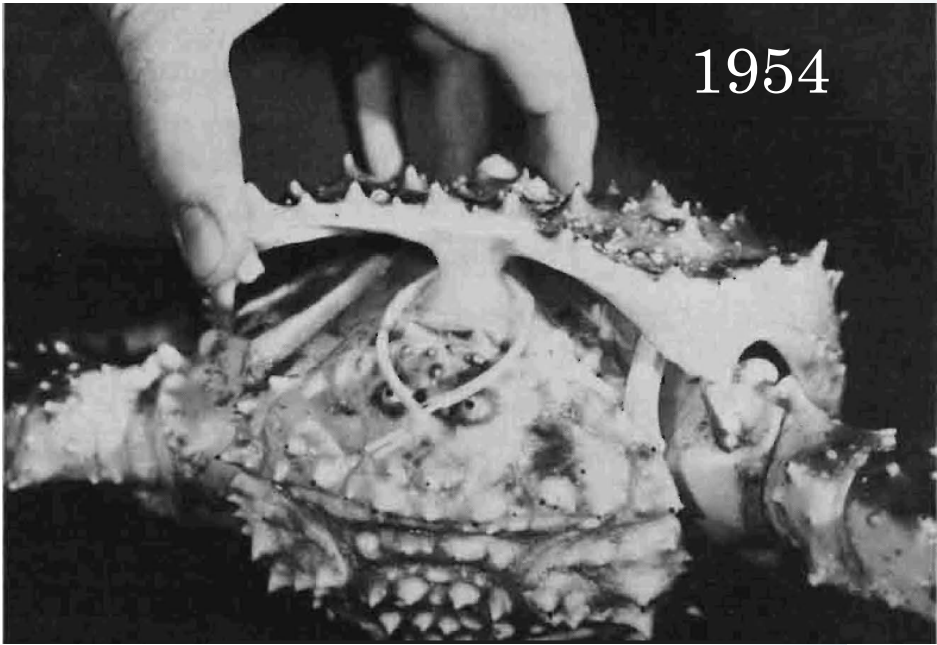
2019 Bristol Bay Red King Crab Mature Males



June 2019 – Set pots in high density red king crab area indicated by NMFS survey



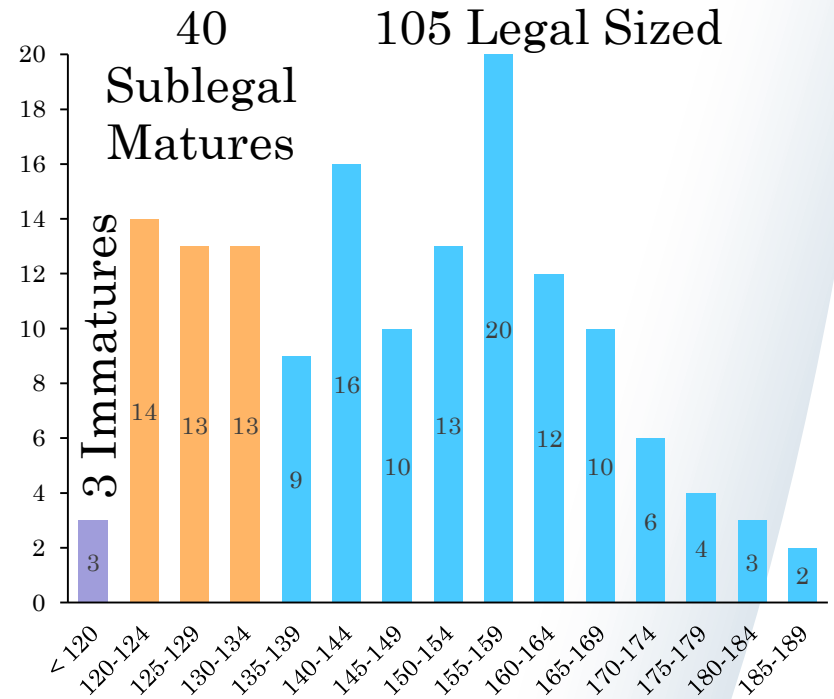
Tag Deployment



Tag Deployment



148 Tagged Crabs



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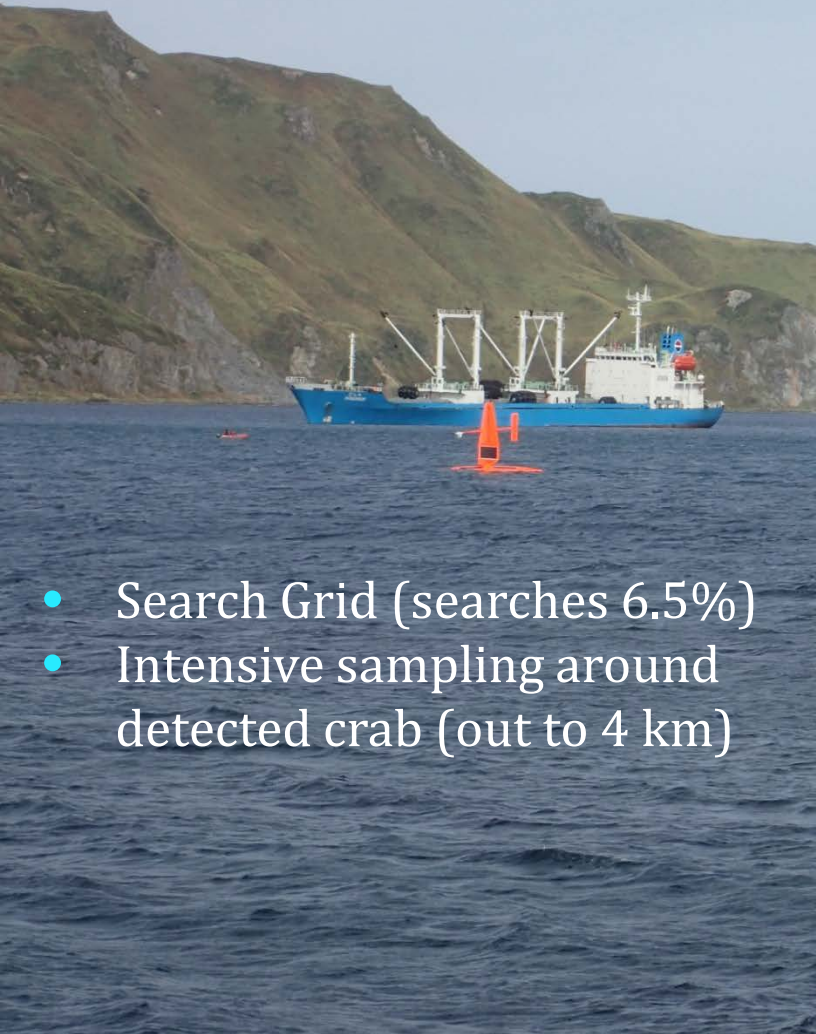
Tag Re-Locations

- 30 day deployments
 - October 2019
 - March/April 2020

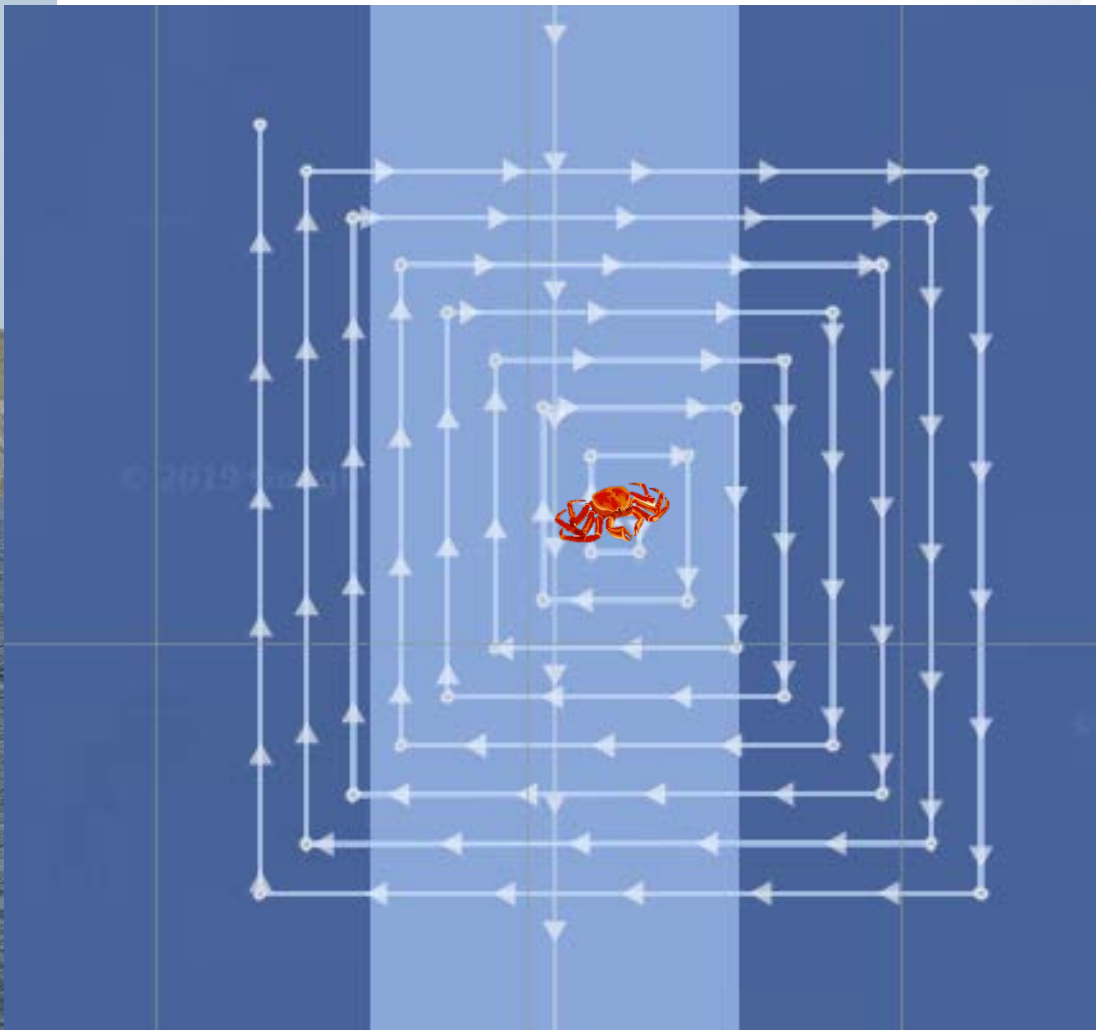


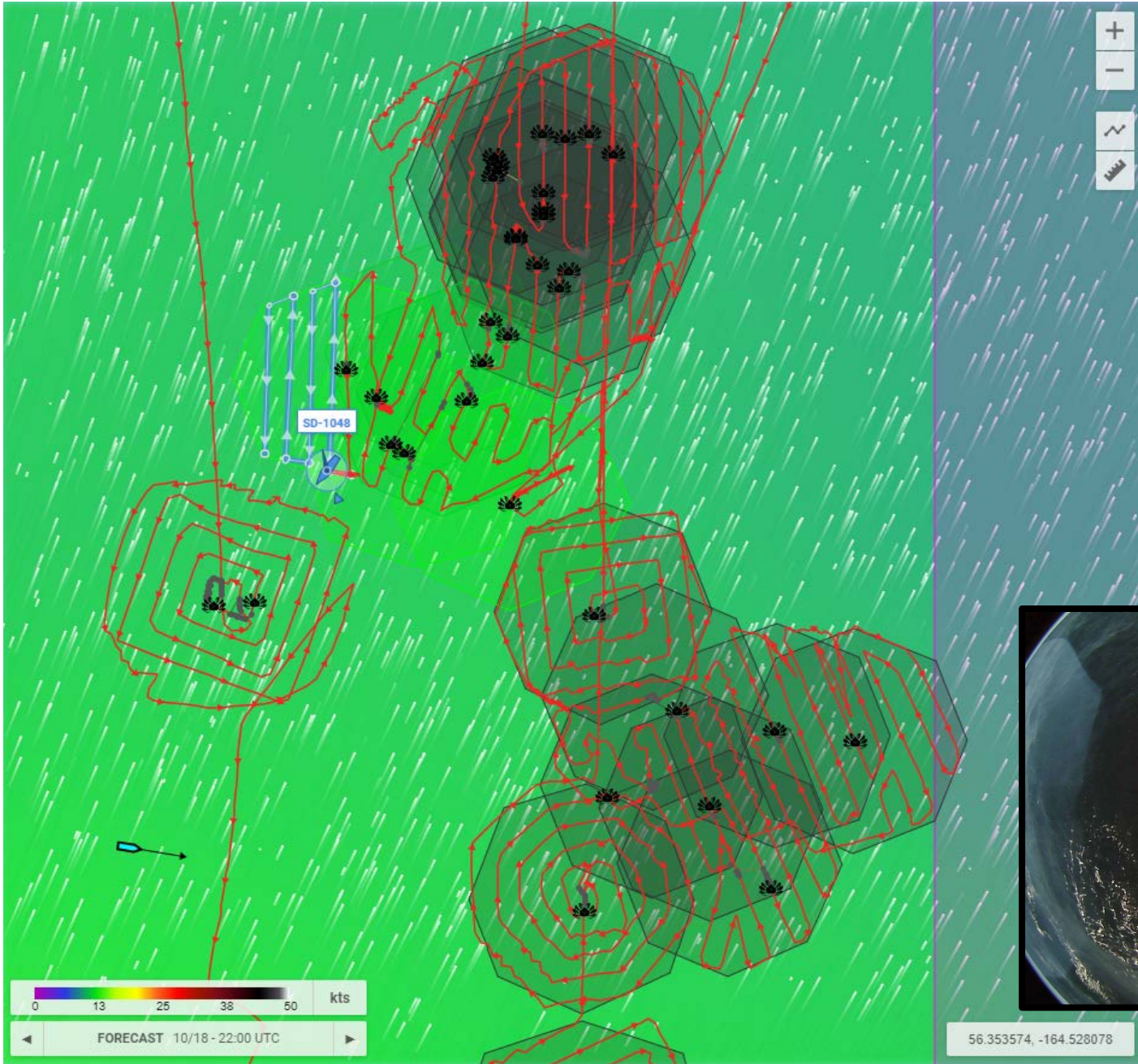
Acoustic receiver

Tag Re-locations



- Search Grid (searches 6.5%)
- Intensive sampling around detected crab (out to 4 km)



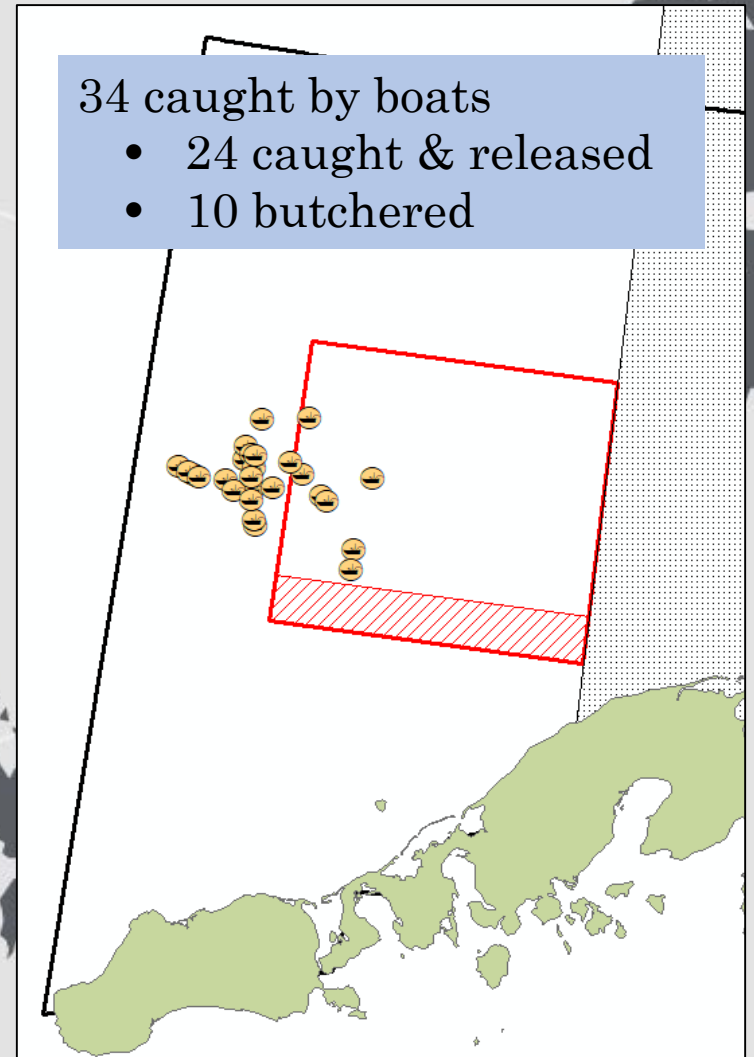
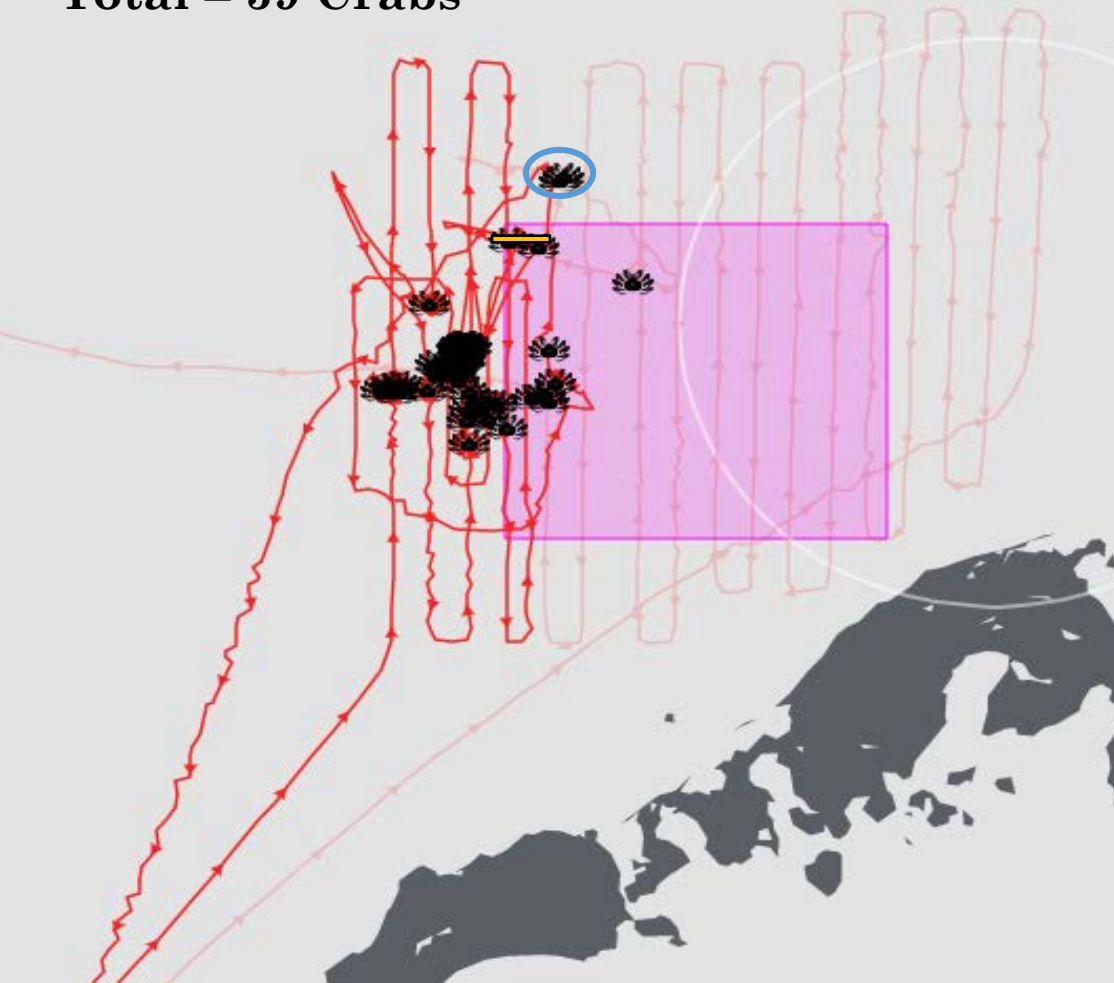


October 2019: Out of 148 Tagged Crabs

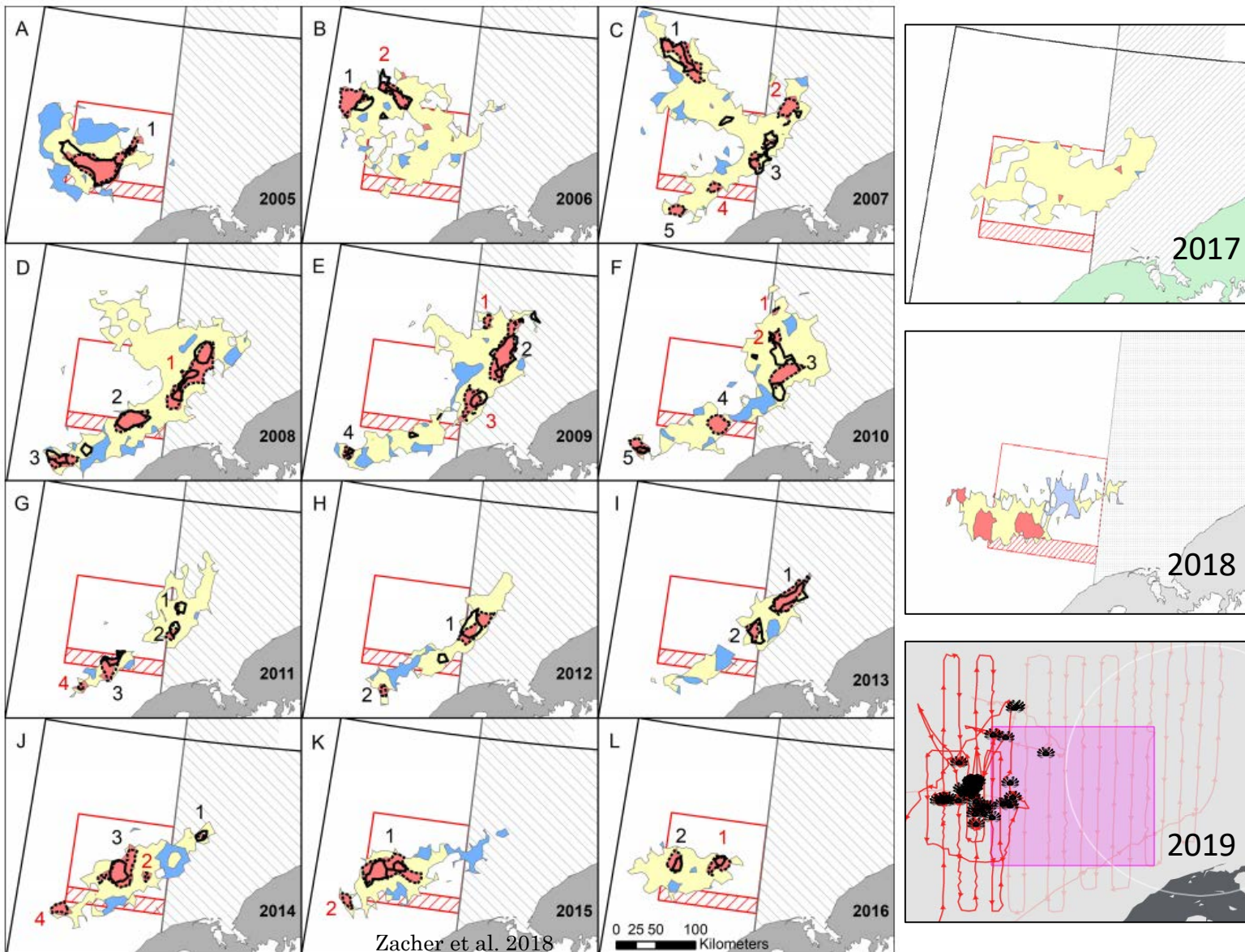
50 located with drone

- 48 presumed alive (16 large; 32 small)
- 2 presumed dead

Total = 59 Crabs

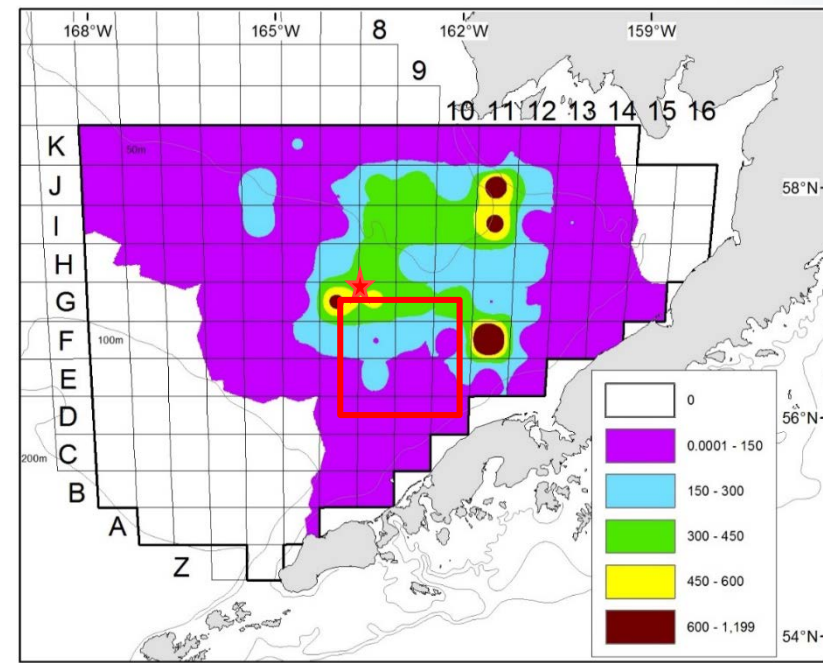
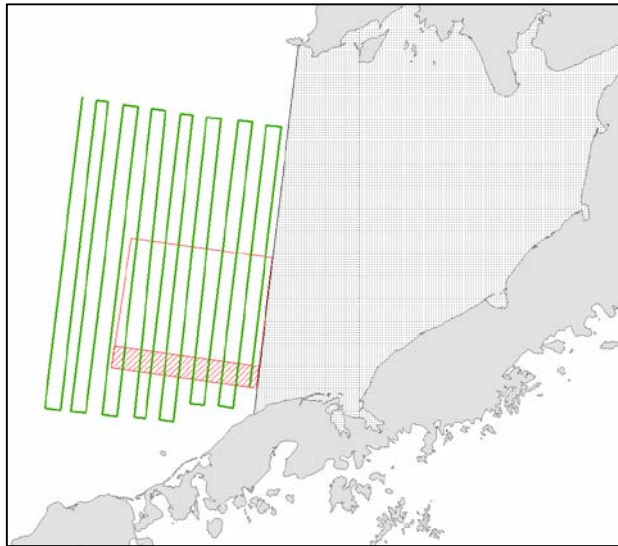


Recent October Distribution Shifts



Future Directions

Spring 2020 re-locate same crab



2019 BBRKC Mature Males

Future Directions

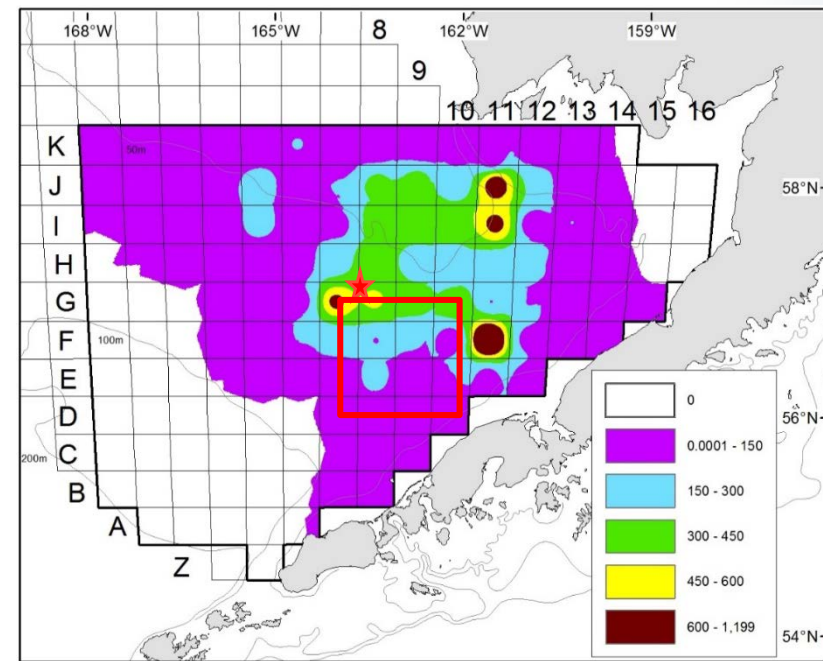
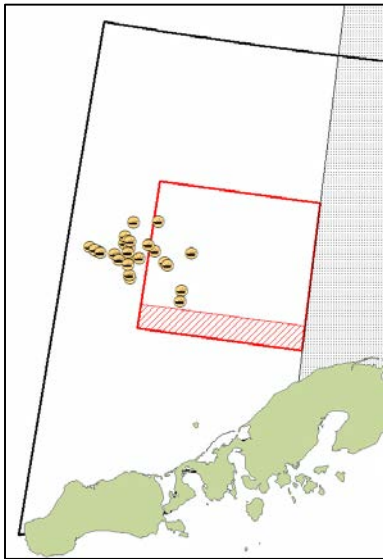
Extended Tagging Effort Summer 2020

Presumed 2019 Exploitation Rate

- 13% of legal males

Tagged Crab Exploitation Rate

- 27% (28 tagged legals caught)



2019 BBRKC Mature Males



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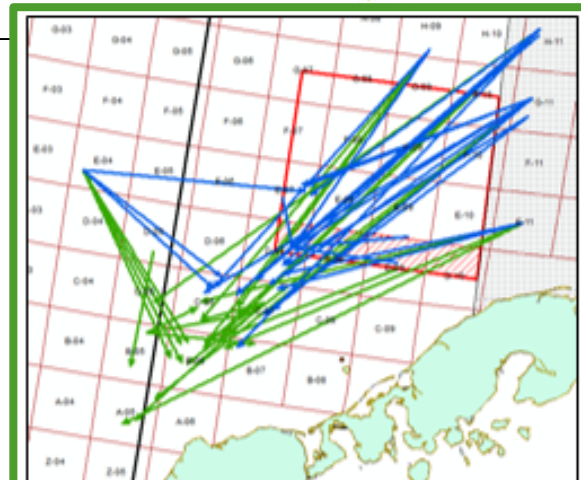
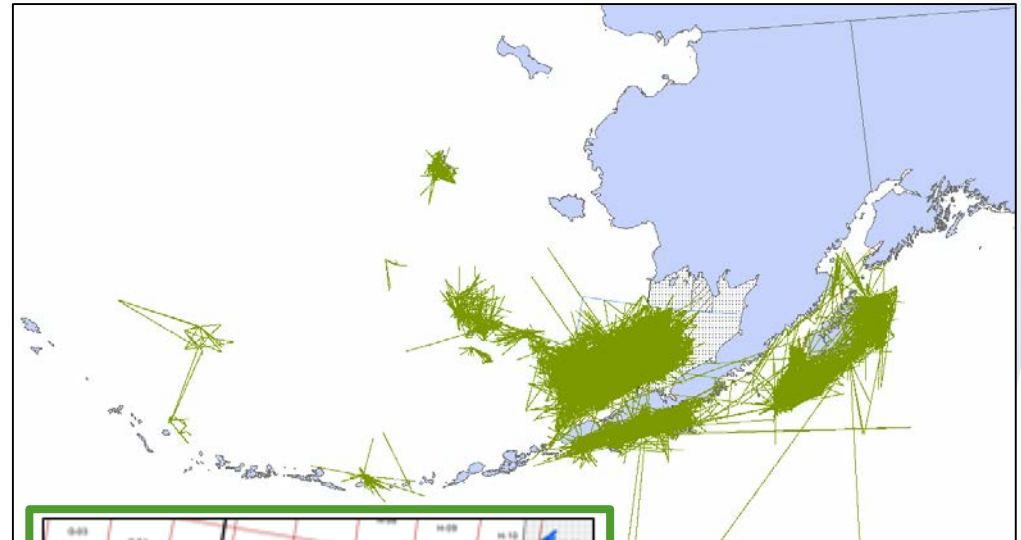
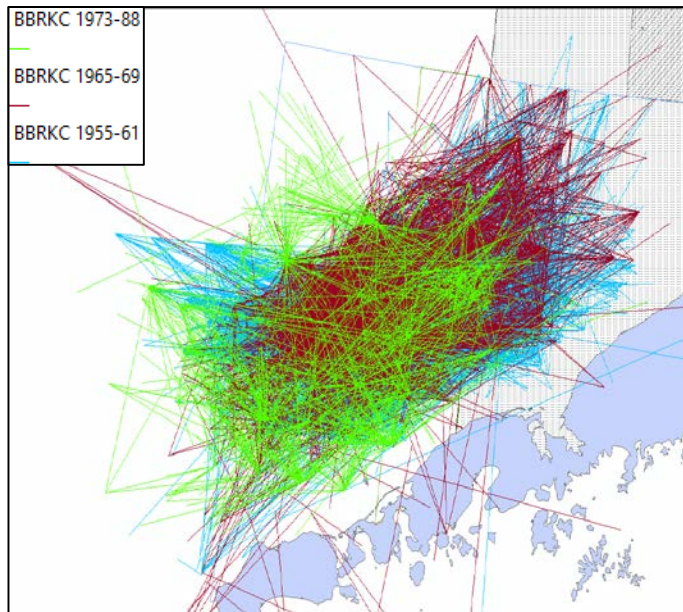


Historical Tagging



Historical Tagging Efforts

- 1955-61
- 1966-71
- 1973-88



Red king crab tagged in June 1973
and recaptured in April 1974 (green)
and May 1974 (blue)



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Questions?



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