

SCALE-DEPENDENT OCEANOGRAPHIC DRIVERS OF CO-OCCURRENCE & CONFLICT RISK BETWEEN PELAGIC FALSE KILLER WHALES & LONGLINE FISHERIES

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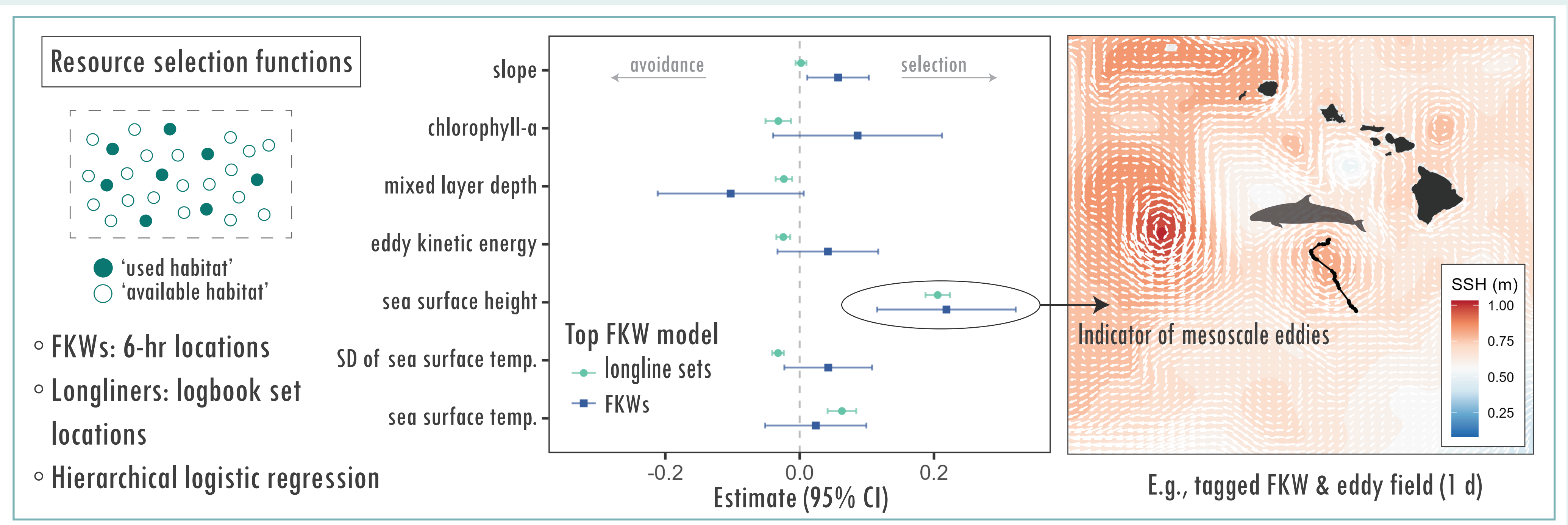
Motivation & goals

- In Hawaiian waters, pelagic false killer whales (FKWs) are known to interact with the U.S.-based longline fleet
- Bycatch rates have exceeded the Potential Biological Removal level for several years, and mitigation measures have been ineffective

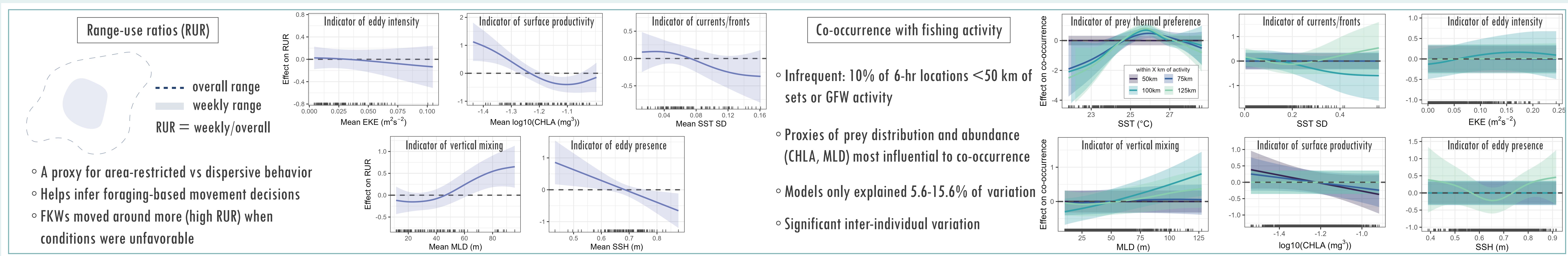
Goal: identify ecological factors shaping FKW and longliner spatial behavior and co-occurrence across scales



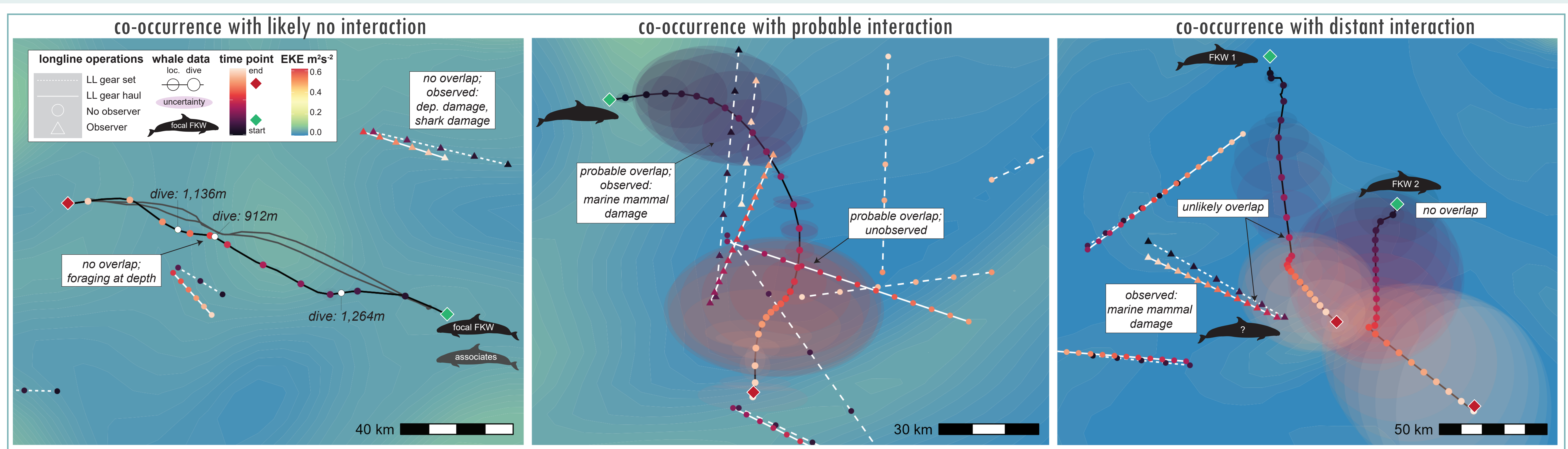
Key finding 1: FKWs & longliners share range-wide affinities for eddies



Key finding 2: FKWs ranged more widely & were more likely to co-occur with fishing activity under unfavorable conditions



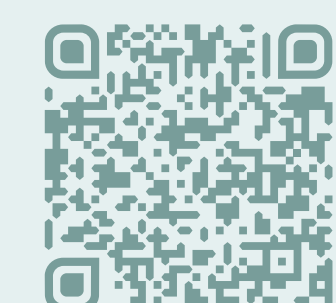
Key finding 3: Physical & social environments shape the nature of approaches to longliners



Informing mitigation strategies

- Integrate FKW movement-environment relationships into predictive bycatch avoidance tools
- Captains' behavior: consider collectively temporarily pausing fishing after depredation to dilute opportunities for nearby FKWs
- Consider measures that would decrease the strategic value of longline gear to FKWs
- Continue exploration of gear handling methods & tools to reduce serious injury when FKWs are bycaught

Learn more about our work:



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