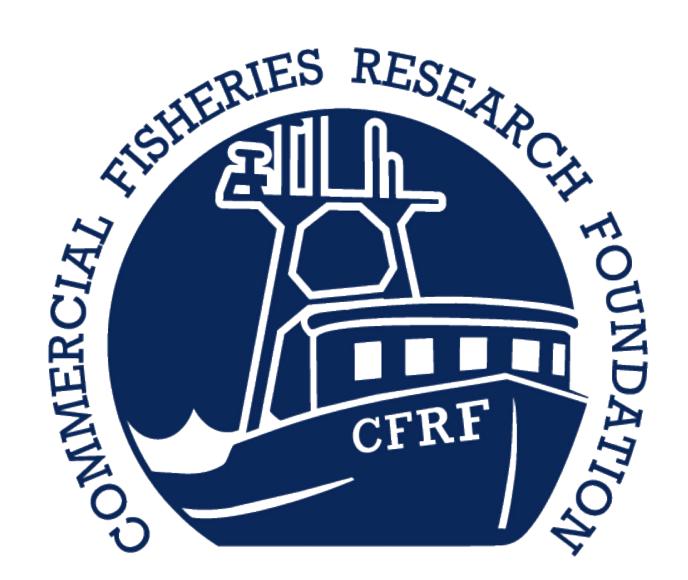


# Monitoring Offshore Wind Effects on Fisheries Over Varied Habitat Types

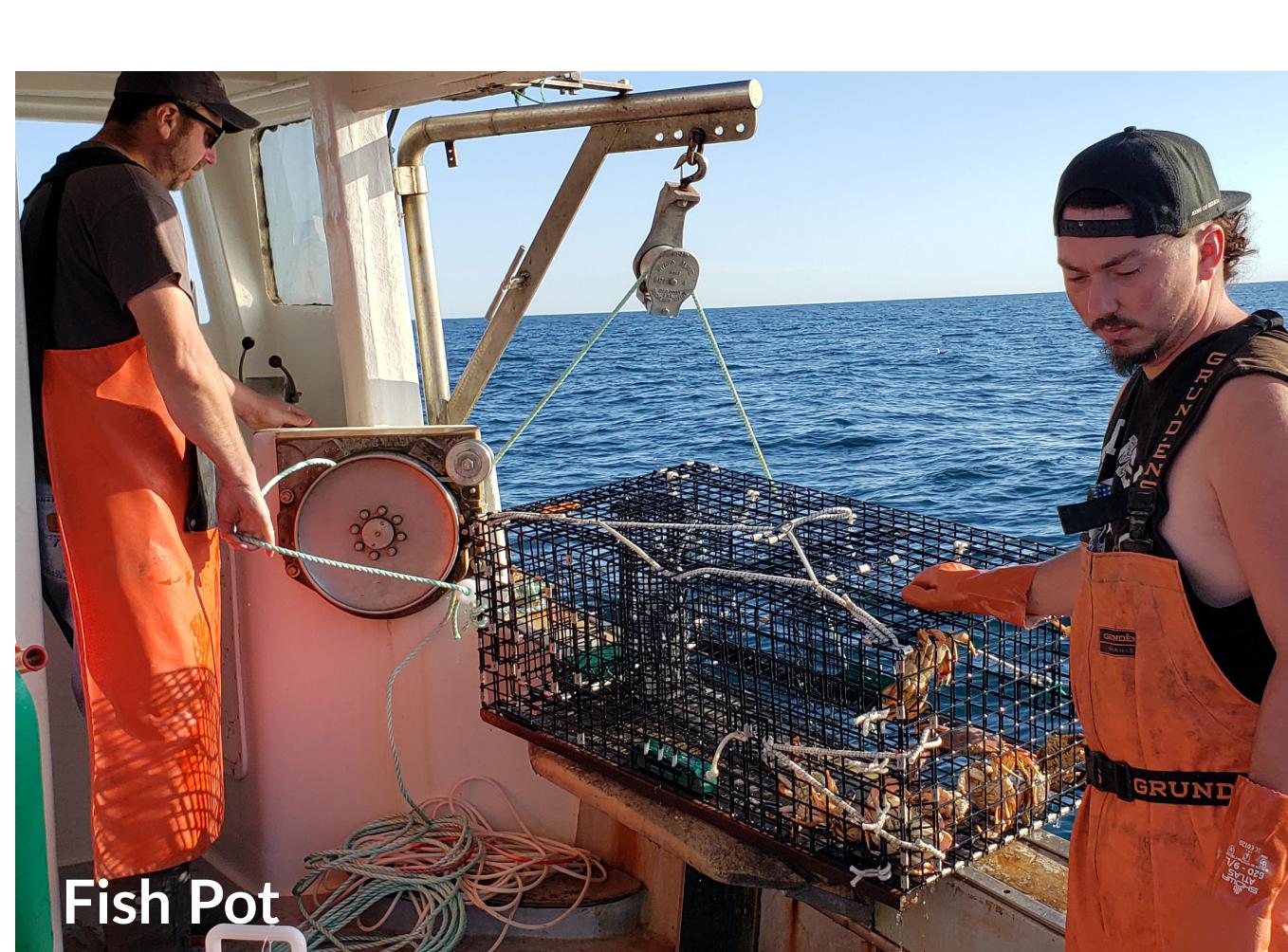
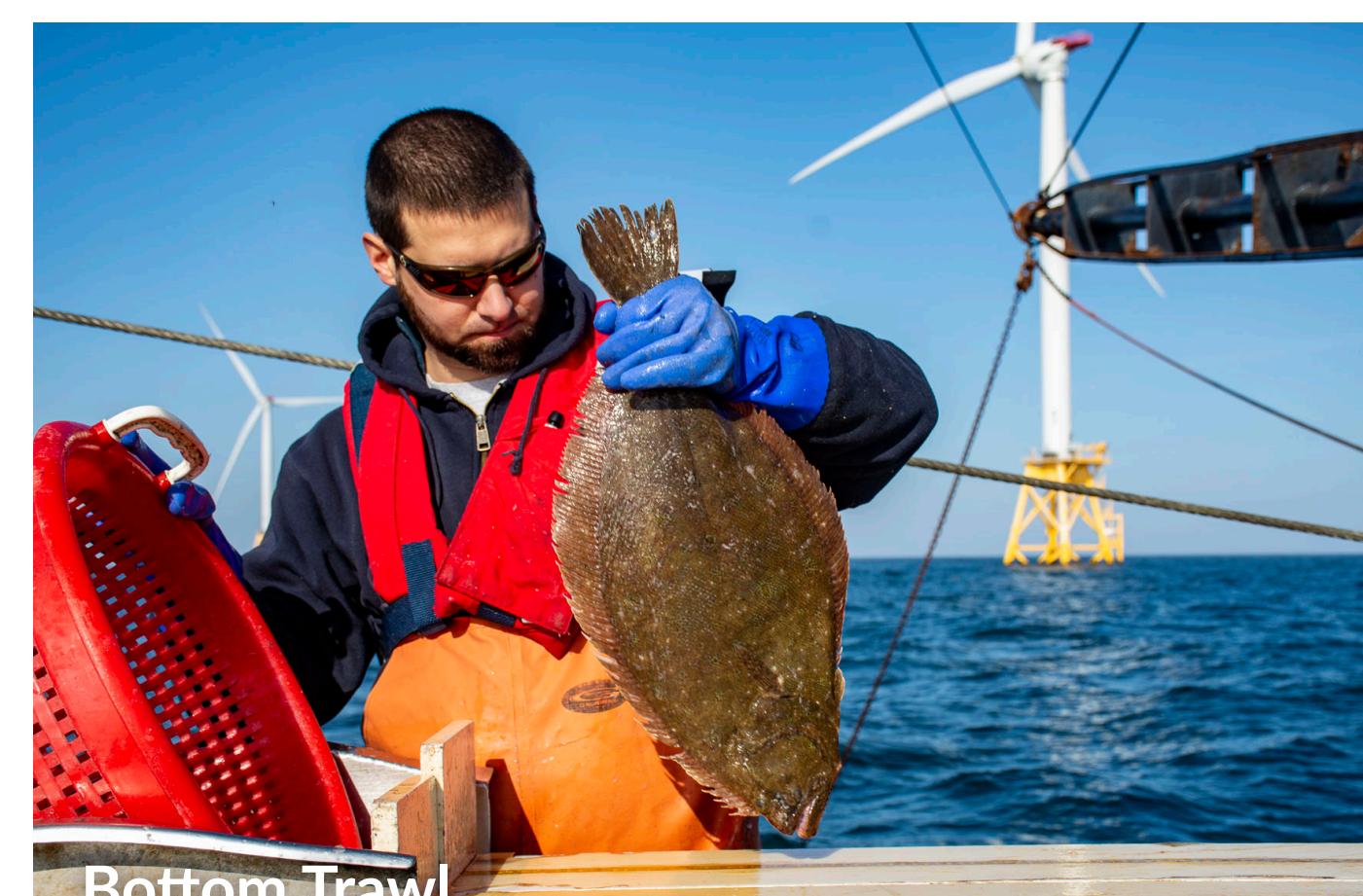
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## Background

We employ multiple monitoring methods to assess fish, crustacean, and highly migratory species interactions with offshore wind farm foundations and scour protection layers.

These methods include surveys that sample using mobile extractive (bottom and beam) trawls, fixed gear (fish pot and ventless trap), and non-extractive methods, including imagery (ROV, BRUV, Plan View), water collection (eDNA), and acoustic telemetry.

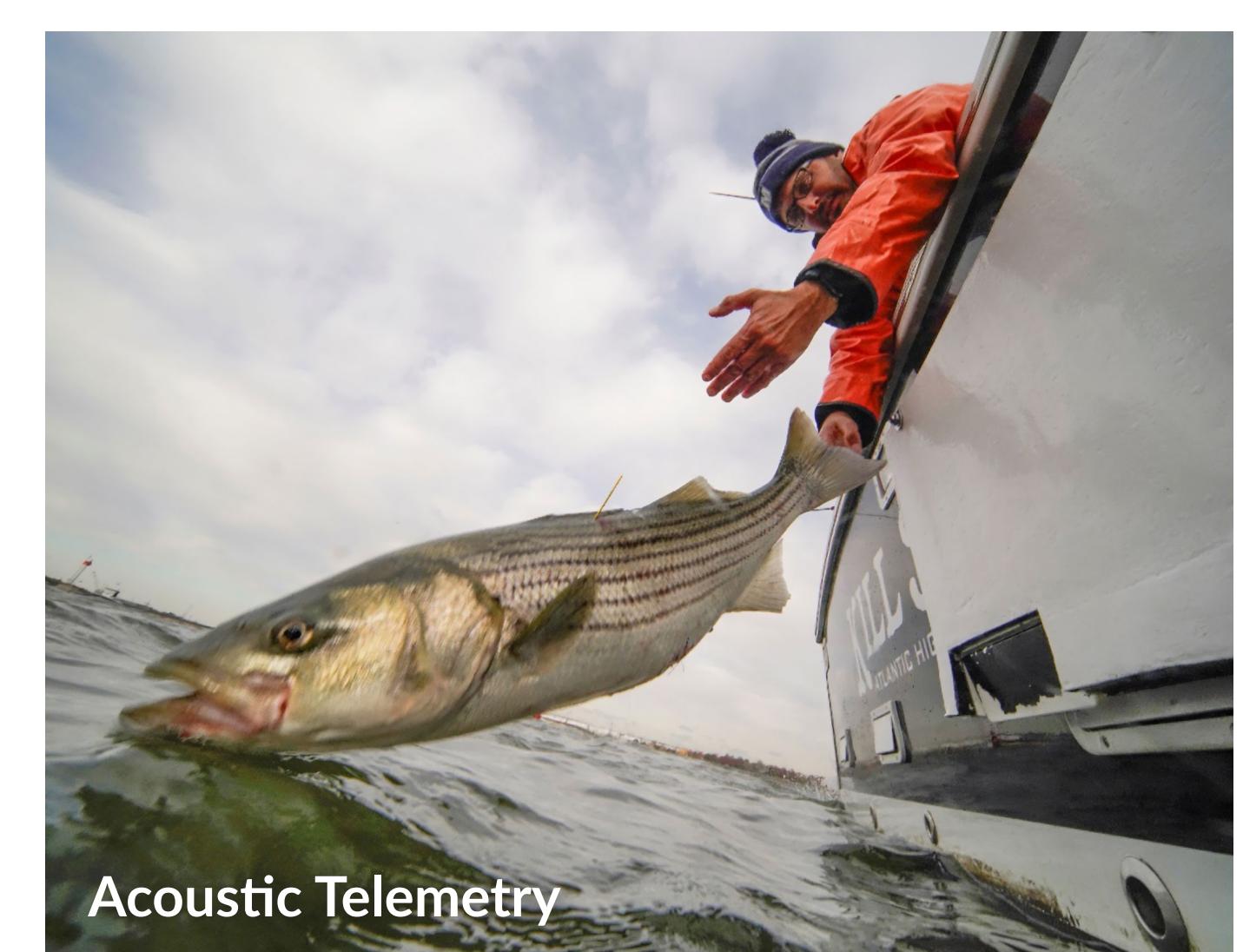
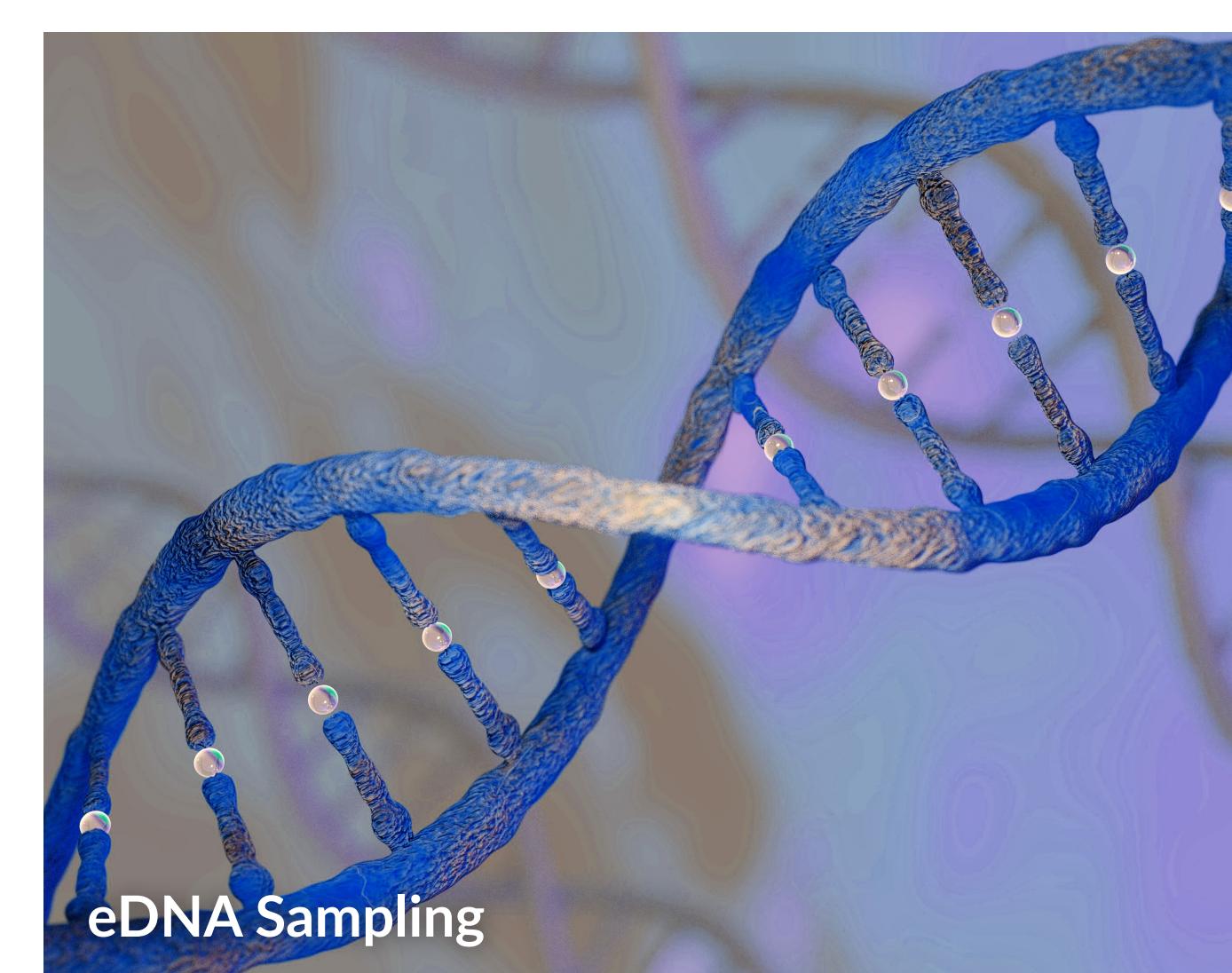


### Extractive Methods:

- + Quantitative data on relative catch rates
- + Size, sex, diet, condition
- + Fixed gear suited to gradient designs
- + Regional fisheries-independent surveys provide long-term context
- Substantial bycatch
- High fish mortality
- Stochastic data lowers statistical power

### Non-Extractive Methods:

- + Useful in simple and complex bottom habitat types
- + Relative abundance for selected species
- + Low mortality
- + Limited bycatch
- + Imagery and telemetry suited to gradient designs
- + Consistent with Tribal values
- Life history information can be limited
- Imagery data limited to field of view and visibility
- eDNA limited by DNA persistence/degradation and taxa markers in the database



Offshore wind fisheries monitoring is conducted in coordination with members of the commercial fishing industry during the planning, implementation, and analysis portions of the monitoring efforts, commonly using fisher's knowledge, experience, vessels, and crew to direct and conduct the sampling efforts.