

Mobility and flexibility enable resilience of human harvesters to environmental perturbation.

Owen R. Liu¹, Mary Fisher^{2,3}, Blake E. Feist¹, Briana Abrahms⁴, Kate Richerson⁵, Jameal F. Samhouri¹

1 Conservation Biology Division, Northwest Fisheries Science Center, National Marine Fisheries Service, National Oceanographic and Atmospheric Administration, 2725 Montlake Blvd E, Seattle, Washington 98112 USA

2 School of Environmental and Forest Sciences, University of Washington, Seattle, WA 98195

3 NSF Graduate Research Internship Program, Northwest Fisheries Science Center, National Marine Fisheries Service, National Oceanic and Atmospheric Administration, Seattle, WA 98112

4 Center for Ecosystem Sentinels, Department of Biology, University of Washington, Seattle, WA 98195.

5 Fishery Resource Analysis and Monitoring Division, Northwest Fisheries Science Center, National Marine Fisheries Service, National Oceanographic and Atmospheric Administration, Newport, OR, 97365

* **Corresponding author:** Owen R. Liu; Conservation Biology Division, Northwest Fisheries Science Center, National Marine Fisheries Service, National Oceanographic and Atmospheric Administration, 2725 Montlake Blvd E, Seattle, Washington 98112 USA; 781-622-8343; owen.liu@noaa.gov

Keywords: climate change adaptation | environmental perturbation | marine heatwave | fisheries dynamics

Acknowledgements: The authors thank D. Bradley and S. Jardine for reviews on earlier versions of this manuscript.

Funding: M. Fisher was supported in part by the NSF's Graduate Research Fellowship Program (Grant DGE-612 1762114). This research was performed while O. R. Liu held an NRC Research Associateship at NOAA Northwest Fisheries Science Center.