



PROGRAM ON THE ENVIRONMENT

UNIVERSITY *of* WASHINGTON

SAVING THE ENDANGERED BLACK ABALONE: RECOMMENDATIONS FOR TRANSLOCATIONS AND CHARACTERIZING JUVENILE RECRUITMENT HABITAT

Session Day 2, In-Person

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Black abalone is an endangered species of marine snail found along the California coast in rocky intertidal and shallow subtidal reefs. In the 1980s to 2000s, the withering syndrome (bacterial disease) triggered mass mortality events throughout black abalone's range, and the population is still struggling to rebound. The purpose of this study was to work with NOAA Fisheries to recommend the best practices and methods for translocations and characterizing juvenile recruitment habitat in two white papers. To accomplish this task, I completed an expert elicitation, interviewing twelve black abalone experts. Expert interview responses and key lessons from literature were thematically organized and synthesized to inform effective methods and to identify research gaps. The concluded recommendations of the study were derived from analyzing these materials. Experts' opinions and literature revealed three main takeaways: (1) understanding how black abalone habitat contributes to translocation success, (2) clarifying experimental methodologies, and (3) developing a deeper understanding of the biotic and abiotic needs of juvenile abalone. Recommendations focused on restoration site selection criteria, challenges with tracking abalone movement and translocation success, improvements on tagging and monitoring methods, and the use of dedicated focused surveys and juvenile recruitment modules for studying reproduction and dispersal patterns. As a key species, black abalone restoration stabilizes California's intertidal ecosystem and encourages cultural development by near-shore activities and tribes. The methodology of this research, distilling expert perspectives and literature, is an effective method for creating a blueprint of ideal current methods and future research directions for endangered species protection globally.