Developing Conceptual Model for Eastern Pacific Marine Mammal Data Integration and Visualization Platform

Marine wildlife face a multitude of health threats, many of which are exacerbated by the impacts of climate change and other anthropogenic stressors. Increases in harmful algal blooms, changes in pathogen prevalence and distribution, and climate-driven shifts in marine animal habitat use and movements have potential impacts on the health of marine mammal populations. Early detection is critical for a timely response to threats in marine ecosystems. A surveillance system that aggregates pre-diagnostic marine mammal data in near-real time can facilitate early detection. When integrated with environmental parameters, the data could improve our understanding of the impacts of environmental changes on marine ecosystem health and increase our capacity to prevent or mitigate impacts on marine populations.

The Coalition is conducting an assessment to improve our understanding of needs and priorities regarding marine data management, integration, and visualization among stakeholders in the Eastern Pacific. We are also developing a conceptual model for online platforms in which multiple sources of marine animal and oceanographic data could be integrated to help tease apart the complex drivers of marine animal health as well as facilitate greater situational awareness, early detection, and timely response to marine mammal health threats.