

Institutionalizing Marine Mammal Rescue Expertise: Lessons from the Taiwan Cetacean Conservation Network

Chao-Feng Shih

Assistant Professor, Central Police University, Taoyuan City, Taiwan

Jung-Yuan

Central Police University, Taoyuan City, Taiwan

Chia-Jui Chang

Central Police University, Taoyuan City, Taiwan

Chih-Yu Liu

Central Police University, Taoyuan City, Taiwan

Tung Yu Hsuan

Central Police University, Taoyuan City, Taiwan

Heng-Yi Wang

Central Police University, Taoyuan City, Taiwan

Abstract

In island nations, effective marine mammal conservation requires sustained institutional capacity, which often depends on the tacit knowledge of experienced practitioners. This paper presents a comprehensive framework for documenting, standardizing, and disseminating marine mammal rescue expertise. Developed in close collaboration with Taiwan's leading cetacean rescue experts and the National Stranded Rescue Network over a six-month period, this framework identified five key skills essential for successful rescue operations through participatory observation, semi-structured interviews, and field capacity assessments: species identification and rapid health assessment, secure anchoring and transport, release feasibility decisions, inter-agency coordination, and post-release monitoring. Standardized training programs based on this framework significantly improved rescue coordination efficiency and established a set of standard operating procedures through the MRNA system. Our research demonstrates that systematically preserving practitioners' expertise can substantially enhance marine mammal conservation effectiveness while building resilient conservation networks to address emerging challenges posed by climate change and increasing human pressures. This framework offers a replicable model for other island nations seeking to strengthen their marine wildlife rescue capabilities through evidence-based capacity building.

Keywords

Marine mammal rescue, Cetacean stranding response, Knowledge transfer, Island state conservation, International collaboration.