NORTHEAST REGION MARINE MAMMAL HEALTH AND STRANDING RESPONSE PROGRAM (MMHSRP)
RESEARCH NEEDS AND PRIORITIES

NOAA's National Marine Fisheries Service
Northeast Regional Office, Protected Resources Division

January 2014
WORKING MATRIX

Background

The NMFS Marine Mammal Health and Stranding Response Program (MMHSRP) was formalized by the 1992 Amendments to the Marine Mammal Protection Act and NMFS was designated as the lead agency to coordinate stranding networks, responses/investigations of mortality events, biomonitoring, tissue/serum banking, and analytical quality assurance. NMFS works cooperatively with several agencies within the northeast region, making up the Northeast Region Stranding Network. Currently, NMFS Northeast Region has fourteen Stranding Agreement holders/government responders that respond to stranded marine mammals. Throughout the region, there are seven rehabilitation facilities. All seven facilities rehabilitate pinnipeds and five are authorized to rehabilitate small cetaceans. The MMHSRP holds a scientific research permit (Permit No. 932-1905-MA-009526) to conduct necropsy examinations on endangered marine mammals, including large whale species. Through this permit, authorization is delegated by NMFS to authorized stranding network participants to conduct necropsy examinations and tissue/sample collection of endangered species. More information on the MMHSRP can be found at: http://www.nmfs.noaa.gov/pr/health/.

The Northeast Region's MMHSRP, through close coordination with National Stranding Networks, has the following objectives: (1) improve the rescue, care and treatment of stranded marine mammals; (2) reduce the health risk to animals, humans, and the ocean environment during response to, and rehabilitation and release of, stranded marine mammals; (3) collect life history, biological, and biomedical data from live and dead stranded marine mammals; (4) develop baseline reference data on the health of wild marine mammal populations, normal stranding rates, and causes of morbidity and mortality; improve the rapid detection of morbidity and mortality events; (5) collect archival samples for future retrospective studies on causes of mortality or illness, including genetics and genomics, and for placement in the Nationa Marine Mammal Tissue (and Serum) Bank and other properly curated, professionally accredited archival facilities; and (6) refine and/or utilize comprehensive and consistent guidance for the rescue and rehabilitation of stranded marine mammals, collection of specimens, quality assurance, and analysis of tissue samples.

For further information or questions: Please visit our website at http://www.nero.noaa.gov/prot_res/stranding/ or contact Mendy Garron, NMFS Northeast Region Marine Mammal Stranding Coordinator, at Mendy.Garron@noaa.gov or 978-282-8478.

Northeast Region Marine Mammal Health and Stranding Response Program (NER MMHSRP) - RESEARCH NEEDS		
Research Topic	**Research Activity**	**Priority (1 highest; 5 lowest)**
BIOLOGICAL INFORMATION		
Research objectives to test hypotheses about marine mammal strandings, health, or rehabilitation techniques utilizing data from living and dead stranded marine mammals.	Collect and analyze specimens and/or data (using quality control procedures) from stranded marine mammals to retrospectively or prospectively assess health trends and anthropogenic factors in wild populations of cetaceans and pinnipeds, with emphasis on infectious (i.e., zoonotic, epidemic) agents and diseases.	1
	Collect and analyze samples and/or data for baseline information, trends and correlations between population demographics, life history, biology, movement and distribution, diet, health, and environmental parameters (e.g., environmental oscillations or harmful algal blooms), as they relate to strandings and overall population health.	1
	Develop new tools or use developed tools to assess auditory capabilities of, or anthropogenic sound-related impacts on, stranded marine mammals (e.g., baseline sensory capabilities; physiology, resolution, and pathophysiology of gas bubbles in stranded cetaceans) and investigate potential effects of age, natural factors, ototoxic drugs, chemical contamination, infections, and other anthropogenic impacts on marine mammal auditory capabilities.	2
	Develop new tools, use developed tools, or validate tools to assess the health or specific disease(s) of stranded marine mammals including molecular diagnostic tools such as genomics, proteomics, metabonomics, PCR, and diagnostic imaging.	3