FY 2021 Survey of Federally Funded Marine Mammal Research Date of data download: 2023-04-23

OBJECTIVE	FUNDING
Stock Assessment and Population Dynamics	\$24,710,000
Distribution and Movements (surveys, tagging)	\$7,751,000
Size / abundance (surveys, estimation)	\$5,637,000
Stock assessment	\$4,203,000
Trends	\$1,979,000
Vital rates (survival, mortality, growth, R)	\$1,899,000
Population dynamics (modeling, sustainability, K, OSP)	\$1,352,000
Population genetics /stock delineation	\$1,075,000
Structure (ages, sex ratio)	\$814,000
echnology Development	\$13,181,000
Acoustic detection, classification and localization algorithms / models / software	\$1,930,000
Tags / Telemetry devices	\$1,908,000
Imaging / Image analysis (e.g., photographic, satellite, digital)	\$1,124,000
Mathematical / Statistical / Simulation models	\$1,086,000
Biological sampling devices (e.g., biopsy, blow, feces)	\$1,069,000
Biological testing methodologies	\$1,050,000
Database design / development / maintenance / archiving	\$1,013,000
Sampling platforms (e.g., gliders, UASs)	\$981,000
Habitat mapping / modeling	\$881,000
Acoustic density estimation models / software	\$852,000
Acoustic devices	\$318,000
Line transect methodology	\$295,000
Oceanographic sampling devices (e.g., physical, chemical)	\$166,000
Photo-ID	\$155,000
Cameras (e.g., visible, IR)	\$149,000
GIS	\$145,000
Fisheries gear modification or alternatives	\$59,000
cology	\$11,903,000
Habitat use	\$3,232,000
Trophic Interactions / Diet / Foraging ecology	\$3,127,000
Habitat characterization (oceanographic, prey-field factors)	\$2,306,000
Ecosystem / Environmental studies	\$1,496,000
Behavioral ecology	\$1,135,000
Population ecology	\$562,000
Traditional ecological knowledge	\$45,000
Conservation and Management	\$10,586,000
Conservation	\$3,999,000
Management	\$3,137,000
Population protection / recovery	\$2,809,000
	\$641,000 \$641,000
Co-management	\$10,011,000
Biology (Organismal)	
Physiology / Endocrinology / Biochemistry / Neurology / etc.	\$3,497,000
Behavior – Diving / Foraging / Feeding	\$1,594,000
Bioacoustics – sound reception	\$966,000
Genetics / Taxonomy	\$927,000

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Biology (Organismal) continued	
Behavior – Social / Reproductive	\$745,000
Behavior – Kinematics / Activity budgets / Energy budgets	<i>\$742,000</i>
Reproduction / Growth / Aging	\$643,000
Bioacoustics – sound production	\$573,000
Anatomy / Morphology	\$254,000
Paleontological studies	\$70,000
Anthropogenic Sound Impacts	\$6,813,000
Military activities - sonar and explosives	\$5,175,000
Characterization / Analysis of sound budgets / soundscapes	\$844,000
Energy development – seismic surveys	\$298,000
Industrial activity — shipping	\$292,000
Industrial activity — pile driving	\$95,000
Energy development – drilling	\$54,000
Energy development – platform removal	\$54,000
Energy development – high resolution geophysical surveys (non-seismic)	\$1,000
Animal Health	\$3,084,000
Monitoring / Assessment	\$1,501,000
Disease	\$597,000
Body condition	\$468,000
Contaminants	\$392,000
Biotoxins	\$126,000
Human Dimensions	\$2,125,000
Social science (inc. education/outreach)	\$1,885,000
Economics	\$240,000
Fishery Interactions	\$2,025,000
Bycatch – mitigation	\$1,095,000
Bycatch - entanglement (inc. observer program)	\$804,000
Indirect / competitive interactions	\$126,000
Pollution Impacts	\$1,147,000
Persistent toxins (e.g., PCBs, dioxins, pesticides, heavy metals, TBT, endocrine disrupters, radioactive	40.40.000
waste)	\$848,000
Marine debris – inc. plastics	\$137,000
Hydrocarbon spills/leaks (inc. dispersants)	\$102,000
Marine debris – derelict fishing gear	\$38,000
Nutrient runoff / HABs	\$22,000
Other Anthropogenic Impacts	\$948,000
Disturbance	\$512,000
Vessel strikes	\$321,000
Tourism - observing (whale watching, rookery viewing)	\$107,000
Coastal development / Dredging	\$4,000
Tourism - feeding / swim-with	\$4,000
Major Marine Mammal or Multidisciplinary Scientific Conference	\$250,000
Major marine mammal or multidisciplinary scientific conference (inc. support for SMM, ECS, etc.)	\$250,000