Issued and signed MBNMS Permits, Amendments and Authorizations (8/2/2021 to 9/28/2021)

Report created for the October 15, 2021 Monterey Bay National Marine Sanctuary Advisory Council Meeting

MBNMS-2021-026

Permit Type: Research and Education

Permit Holder Names (Affiliation): John O'Sullivan and Andre Boustany (Monterey Bay

Aquarium)

Project Title: Monterey Bay Aquarium tagging and collecting activities

Permitted Activity: The following activities are authorized by this permit to support research and education programs conducted by Monterey Bay Aquarium: Tagging of juvenile white sharks: Discharge of 12 satellite tags (electronic pop-up MiniPAT]); Tagging of sea otters (as authorized by a valid United States Fish and Wildlife Service [USFWS] permit): Discharge of 18 flipper tags, 7 VHF Radio Transmitters, 2 Time Depth Recorders (TDR), 15 Passive Integrated Transponders (PIT) tags; Tagging of fish (not including white sharks): Discharge of 30 Floy mark-recapture tags, 15 acoustic tags, 10 archival tags, 10 pop-up tags and 15 PIT tags; Abandonment of tags, limited to incidental loss; and Two-day deployments of 12 float pairs, each connected to one to three baited fish traps including Placement on the submerged lands of the sanctuary and recovery of fish traps, Discharge of locally caught bait in the fish traps; and Discharge and recovery of associated plastic floats and lines with the fish traps.

Project Location(s): Juvenile white shark tagging activities are permitted to be conducted within surface waters of the Monterey Bay shoreline and up to five (5) nm offshore between Davenport and Yankee Point with the majority of field tagging occurring within 3 nm of the Aptos region; Sea otter and fish (not including white shark) tagging is allowed throughout MBNMS if authorized by a valid USFWS permit; and Fish traps are allowed to be deployed on soft substrate within MBNMS but will not be deployed within California State Marine Protected Areas unless authorized by California Department of Fish and Wildlife (CDFW).

Permitted dates: September 24, 2021 and December 31, 2022

Comments/Notes: Permitted take of biological resources shall be consistent with applicable USFWS and CDFW permits.

MULTI-2021-009

Permit Type: Research

Permit Holder Name (Affiliation): George Shillinger (Upwell Turtles)

Project Title: Application of uncrewed aircraft systems (UAS) for surveying Western Pacific

leatherbacks in critical foraging habitat off the Pacific Coast, USA

Permitted Activity: Low overflight at a minimum altitude of 10 meters above sea level (ASL) by uncrewed aircraft systems (UAS) for up to 6 flights per day for approximately 30 field days per year within NOAA regulated overflight zones in OCNMS, GFNMS, and MBNMS to conduct aerial surveys to obtain Pacific leatherback sea turtle estimates and information on habitat utilization.

Project Location(s): Within offshore NOAA regulated overflight zones of OCNMS, GFNMS, and MBNMS.

Permitted dates: from September 13, 2021 through December 31, 2025

Comments/Notes: OCNMS lead; ESA permit was not required so long as cumulative overflight time per individual is less than 5 minutes based on NMFS interim definition of 'harass' under NMFSPD 02-110-19.

MBNMS-2021-031 Permit Type: Research

Permit Holder Name (Affiliation): Anne Dekas (Stanford University)

Project Title: Field Trip for Stanford Course ESS 210: Techniques in Environmental

Microbiology

Project Location(s): The permitted activity is allowed in the soft substrate of Monterey Bay within one (1) kilometer of the following location(s) 36.7969 N, 121.8664 W and 36.8038 N, 121.8296 W

Permitted Activity: Alteration of soft submerged lands to collect two sediment samples (approximately 0.25 cubed m of soft sediment) with a Van Veen sampler as part of a graduate level course on environmental microbiology.

Permitted dates: September 27, 2021 through October 1, 2021

Comments/Notes: Previous permits issued to Dr. Dekas for this activity were MBNMS-2017-

012 and MBNMS-2018-005

MULTI-2019-020-A4

Permit Type: Research/Education

Permit Holder Name (Affiliation): Barbara Block and Taylor Chapple (Stanford University,

Hopkins Marine Station)

Project Title: Ecology and Population Dynamics of White Sharks in the Northeastern Pacific

Project Locations (summarized): specific locations within MBNMS and GFNMS

Permitted Activity (summarized): White shark attraction which includes discharge of tags (pop-up satellite archival tags (PAT), internal stomach tags, biologging clamp tags and acoustic tags) and discharge of marine mammal scent; altering the submerged lands of the sanctuaries for the installation, maintenance, and removal (when feasible) of the anchors for a total of two (2) bottom-mounted VR2AR acoustic release receivers, abandoning into the sanctuaries up to six (6) iron anchors used to anchor the VR2 receivers, and discharging chum to attract blue sharks, common thresher and shortfin make shark, discharging and recovering PAT, SPOT and daily diary biologging camera tags on pelagic sharks.

Permitted dates: September 16, 2021 and December 31, 2022

Comments/Notes: GFNMS lead; The permittee has been issued a scientific collection permit (SCP) from the California Department of Fish and Wildlife (CDFW). S-191290003-19129-001 is valid through 9/15/2022

MBNMS-2021-025

Permit Type: Research

Permit Holder Name (Affiliation): Ryan Searcy (Stanford University)

Project Title: The Cowell Beach circulation project: hydrodynamic experiments to characterize

the circulation of a chronically polluted beach

Permitted Activity: Placement on the soft submerged lands of MBNMS of eight (8) moorings, associated instruments, steel plates, and weights for two separate month-long deployments; alteration of the soft submerged lands of MBNMS to insert sand anchors into up to 1 meter of sand; discharge of up to one liter of rhodamine WT dye per release on two separate occasions; and temporary discharge of five surface drifters for approximately four separate deployments, each lasting only one full tidal cycle.

Project Location(s): Offshore of Cowell Beach (36°57.7' N, 122°1.5' W) in Santa Cruz, CA **Permitted dates:** September 16, 2021 and August 31, 2022

Comments/Notes: The permittee is working with the Cowell Working Group (CWG) to prepare communications for this project. The CWG is composed of city and county agencies (including the Harbormaster's office) and local environmental non-profit organizations, all of which have a link to the Santa Cruz community. These organizations will help in notifying the public when drifters and dye are released, and will help mitigate anchoring near the mooring deployments. A one-pager detailing the motivation and methods of this project will be available via a URL or QR code attached to the instruments and to social media posts from local partners. The permittee will also have printed versions available during all days of fieldwork. The permittee has notified the City and County of Santa Cruz, the Harbormaster, and the State Water Resources Control Board of this project.

MBNMS-2021-028

Permit Type: Special Use Permit

Permit Holder Name (Affiliation): Christian Hyatt (MacGillivray Freeman Films)

Project Title: Educational Sea Otter Clip for a Large Format Exhibition.

Permitted Activity: Conducting low overflights with Uncrewed Aircraft Systems (UAS) within the Elkhorn Slough NOAA regulated overflight zone (NROZ) for one day to film sea otters, as follows: the Alta X may be flown no lower than 198 feet (60 m) Above Sea Level (ASL); and the DJI Inspire 2 may be flown no lower than 66 feet (20 m) ASL

Project Location(s): Within the NROZ in lower Elkhorn Slough between Highway 1 bridge and Seal Bend area.

Permitted dates: during daylight hours for one day between September 14, 2021 and September 17, 2021

Comments/Notes: The permittee contacted all personnel suggested by the MBNMS permit coordinator including Moss Landing Harbor, CDFW, USFWS and ESNERR staff.

MBNMS-2021-021 Permit Type: Research

Permit Holder Name (Affiliation): Jamie McDevitt-Irwin (Hopkins Marine Station)

Project Title: Consumer arrival timing in the rocky intertidal

Permitted Activity: To evaluate how herbivore arrival timing influences algae community succession after a disturbance: discharge and alteration of submerged lands of the sanctuary: to use a chisel to scrape up to 100 plots (25 cm by 25 cm each) and remove epoxy at the end of the experiment; to use a small blowtorch after the chisel to further prepare the plot for the experiment; to mark the upper left and bottom right corners of each plot with epoxy or bolts and a single labeled washer attached to the bolt or epoxy to identify each plot; to deploy and retrieve up to 50 stainless-steel mesh fences (eight cm high) attached with associated bolts (up to four (4) bolts per fence and totaling up to 200 bolts associated with the fences); to deploy and retrieve up to 15 stainless-steel cages (25cm X 25cm X 10cm) and associated bolts (up to four (4) bolts per cage and totaling up to 60 bolts associated the cages); to deploy and retrieve up to

ten settlement tiles and associated equipment for up to two weeks for up to five repetitions; and to collect up to 100 medium sized rocks (i.e. smaller than a softball, maximum diameter of 15cm).

Project Location(s): In the intertidal area of Soberanes Point **Permitted dates:** August 31, 2021 through August 31, 2023

Comments/Notes: California Department of Fish and Wildlife (CDFW) issued a Specific Use Scientific Collecting Permit (ID: S-211520004-21152-001) to Jamie M McDevitt-Irwin for the project "Consumer arrival timing in the rocky intertidal" with an effective date of July 29, 2021 and an expiration date of July 29, 2022.

If you are interested in learning more about a specific permit, amendment or authorization action, please contact:

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