

Qualifications Form for MMPA Permit - Example

1. Contact Information

Name (first, middle, last): Jane D. Doe

Title: Biologist

Affiliation: NMFS Southeast Fisheries Science Center

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2. Table 1. Relevant Education

Degree	Major/Field of Study	Institution and Location	Year Received
M.S.	Marine Biology	University of Florida	2004
B.S.	Biology	Duke University	2002

3. Relevant Experience

A. Table 2. Relevant Professional History

Job Title	Role	Affiliation	Location	Dates
Biologist	Marine Mammal Biologist	NMFS Southeast Fisheries Science Center	Miami, Florida, USA	5/11- Present
Adjunct faculty	Professor	University of California, Davis	Davis, California, USA	1/15- 5/17

B. Summary of Experience

Option 1- TABLE

Table 3. Summary of Experience (example for cetacean and pinniped experience).

Procedures	Experience metrics: Estimated Number of Animals, Hours/Months/Years, Species, and Age Class	Most Recent Year Performed	Level of Experience
Photo-identification and behavioral observation of cetaceans	Conducted photo-ID and observations of more than 1,000 animals over 10 years including all age classes of bottlenose, spinner, and spotted dolphins and North Atlantic right, sperm, and pilot whales	2017	4
Remote vehicle, aerial (VTOL)/ UAS pilot	25 hours flight time piloting a UAS (VTOL) for marine mammals including all age-classes of North Atlantic right whales, blue whales, bottlenose dolphins, harbor seals, and gray seals	2019	3
Biopsy sampling of cetaceans	Successfully biopsied approximately 50 adult bottlenose dolphins and 30 adult and juvenile pilot whales over 5 years	2017	3
Suction-cup tagging of cetaceans	Successfully tagged 3 adult North Atlantic right whales, 2 adult sperm whales, and 5 adult pilot whales in one field season with pole	2012	3
Counting/surveying pinnipeds	Counted and surveyed more than 1,000 animals over 10 years including all age classes of harbor and gray seals at North Atlantic haulouts via ground surveys	2017	4
Muscle biopsy for pinnipeds	Successfully muscle biopsied approximately 50 adult Weddell seals and 30 adult crabeater seals over 5 years	2017	3
Blood sampling and Evan's blue blood for pinnipeds	Successfully performed blood sampling and Evans blue administration on three adult and two juvenile spotted seals in one field season	2015	3
Instrument, External	Successfully tagged 46 Steller sea lions, over 5 years, all age classes	2019	4

Option 2- BIOSKETCH

Example Biosketch 1 (cetacean):

Dr. Jane Doe has more than 20 years of experience in marine mammal research including: UAS Piloting: Pilot-in-Command of a hexacopter from a boat platform to obtain overhead photogrammetry images of medium to large whales. Has flown 50 flight missions (>15 hours).

Photogrammetry: 10 years of experience in developing and using novel approaches for photogrammetry of free-ranging cetaceans, including boat-based “laser-metrics”, and using helicopter and UAS platforms to estimate size and body condition of all age classes of small, medium, and large cetaceans.

Photo-identification: 20+ years of experience operating from small boats, live-aboard boats and large ship platforms for photo-identification for over 500 small, medium, and large cetaceans of various age classes.

Biopsy: 15+ years of experience in biopsy sampling cetaceans (juvenile and adults) ranging from small dolphins to large whales, successfully sampled approximately 100 animals.

Tagging: 10 years of experience in remote deployment (crossbow, pneumatic rifle) of dart (Type II) tags on approximately 50 cetaceans ranging from medium-size odontocetes to large whales (juveniles and adults).

Example Biosketch 2 (cetacean):

Mr. Jones has 20 years’ experience in cetacean field research. Since 1995, he has conducted numerous photo-ID and behavioral studies of all age-classes of humpback, blue, gray, fin, and Cuvier’s beaked whales and Risso’s dolphins, including photo-ID data collection, photo processing, catalog management, analysis. He has successfully collected crossbow and rifle biopsies from approximately 100 animals of all common cetacean (juveniles and adults) species in the eastern North Pacific, including sample collection and processing, and also collected environmental samples including prey, feces, and mucous. Mr. Jones has successfully deployed both suction-cup and dart (Type II) tags on ~25 large baleen whales (juveniles and adults) since 2008, and has driven for hundreds of close tagging approaches on both baleen whales and smaller odontocetes throughout that time. He has collected passive acoustic data using autonomous and over-the-side hydrophone systems, and played a key role in the design and implementation of behavioral response studies using active playback of simulated sonar and other signals to tagged cetaceans, including on-water response data collection, processing, and analysis.

Example Biosketch 3 (pinniped):

Mr. Smith has 20 years’ experience in pinniped field research. Since 1995, he has conducted numerous studies involving the live capture of phocid and otariid species, including handling, sampling, tagging, data collection, photo processing, catalog management, analysis, and publication of results. He has collected muscle and blubber biopsies from more than 100 juveniles and adults of several phocid and otariid species (ice seals, harbor seals, and Steller sea lions) in the eastern North Pacific, using a trocar and biopsy punch. In addition, he has also collected blood and whiskers from more than 100 pups, juveniles, and adults, as well as environmental samples including scat, spew, and molt. Mr. Smith has deployed both epoxy-adhered GPS tags as well as flipper tags and PIT tags on more than 50 juvenile and adult seals and sea lions (ice seals, harbor seals, and Steller sea lions) since 2008. He also has extensive experience, conducting Evan’s blue administration and blood sampling, as well as blood sampling and ultrasound on adult and juvenile seals and sea lions during the above mentioned captures. In addition, Mr. Smith has conducted captures, blood sampling, and flipper tagging on approximately 25 neonate ice seals.

4. **Relevant Training, Certificates, or Licenses**

- UAS Certifications/Training: I have been an FAA Pilot in Command since 2010 (License No. 12345). I was trained by John Smith in 2009. Since 2009, I have logged over 100 flights, totaling over 25 hours of flight time, including 50 flights for cetaceans and pinnipeds.
- Biopsy Sampling: I was trained by Dr. X in 2005 including instruction and practicing on stationary targets. I successfully biopsy sampled 25 dolphins under the supervision of Dr. X during my training period.
- Coast Guard Captain's license, expires February 2019
- PADI Open Water Diver Certified (2012)
- CPR/AED Certification (2010, 2012)
- Water Safety Instructor (WSI) Certification (2010-2016)
- Boating safety course (NOAA), April 2016
- Wilderness First Responder (exp: Jan 2019)
- Leave No Trace Trainer (since June 2000)

5. **Relevant Peer-reviewed Publication History** (2 pages maximum)

Doe, J. and J. Smith. 2016. Unmanned aircraft systems for marine mammals. *Marine Mammal Science*. 10(1): 1-5.

6. **Relevant Reports and Presentations** (1 page maximum)

Report: Doe, J. 2015. Implementing biopsy sampling in the Southeast, 2010-2015. Final report to NOAA SERO, award number 1234.

Invited speaker: "Unmanned aircraft systems for marine mammals". NOAA Northeast Fisheries Science Center, Woods Hole, MA, October, 2016.

Poster presentation: Doe, J. Unmanned aircraft systems for marine mammals. Biennial Conference on the Biology of Marine Mammals, Tampa, FL, December, 2011.

Book chapter: Doe, J. 2010. Biopsy sampling. Pages 1-10 in *Encyclopedia of Marine Mammals*, Second Edition. Edited by W.F. Perrin, B. Wursig and J.G.M. Thewissen. Academic Press, San Diego, CA.