202510\_GR\_G **Application Not Verified** Application: Iteration Name: Grad Program Applying To: MES MES Program Name: Recommendation Information Recommended By: Renee Mercaldo-Allen Recommenders Title: Research Fisheries Biologist NOAA NMFS NEFSC Recommenders Institution: Barbara Bevacqua Contact Name: Recommendation Waiver Waive Access to I choose to waive my right to Recommendation Ltrs: review this recommendation. Choice: Recommendation Form Recommendation Status: Received Submitted: Received Date: Recommender Assessment: I recommend this applicant 12/22/2023 11:33 AM without reservation. Recommendation Type: General Recommender Form: Letter of Recommendation Recommendation Entity ID: 1024000111373598 Josephine Bernier Recommendation Owner: Recommender Form Questions How long have you known Applicant ability as applicant: self-directed learner: Time since last contact with Applicant as productive applicant: member of group: Relationship with Applicant: Applicant most significant strengths: Ability to complete rigourous Responsibility/reliability: grad program: Communication Skills - Oral: Communication skills written: Service Ability to work independently: Orientation-sensitivity/empathy: Ability to handle stress: Ability to think critically: Ability to analyze/problem Ability to think creatively: solve: Openness to feedback: Potential for leadership: Personal/professional Ability to work in a team: reflection: **Description Information** Description: Form URL: https://evergreenstatecollege.radius Other Information

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## UNITED STATES DEPARTMENT OF COMMERCE National Oceanic and Atmospheric Administration

NATIONAL MARINE FISHERIES SERVICE Northeast Fisheries Science Center Milford Laboratory, 212 Rogers Avenue, Milford CT 06460

December 22, 2023

To Whom It May Concern:

As a 2019 NOAA Hollings Scholar, Barbara "Bobbi" Bevacqua participated in a 9-week internship with the GoPro Aquaculture Habitat Project Team, studying fish interactions with oyster aquaculture cages using video collected with underwater cameras. Bobbi participated in twice-weekly camera deployment and retrieval trips aboard our 51-foot research vessel the Victor Loosanoff. Her responsibilities included handing of camera equipment, current meters and temperature/light loggers and collection of temperature, salinity and dissolved oxygen measurements using environmental meters. To characterize the community of colonizing organisms on each cage, Bobbi volunteered to photograph 10 quadrats on each of 12 cages per sampling trip and carefully cataloged and labelled the photo collection. She also assisted with collection of seawater samples for environmental DNA analysis. By assuming these duties, Bobbi contributed to the efficiency of field efforts, and collected valuable data in support of the science mission.

Bobbi's independent project addressed the question "Does anthropogenic noise influence habitat quality for fish associated with oyster aquaculture and natural structured habitats?" Bobbi analyzed audio associated with video segments to assess whether anthropogenic sound (from shellfish harvesting) influences fish abundance differently in oyster cage and boulder reef environments. She evaluated a variety of methods for measuring sound in video (i.e., phone apps) before deciding to utilize the linguistics software PRAAT. This novel approach allowed her to measure sound levels more effectively, an innovative method to address a science question. She enlisted the advice of an expert on marine sound in shaping her experimental design and methods, but worked independently once a robust approach was developed. Bobbi learned to use the software program Observer XT for accessing fish abundance data and the R-software package for statistical analysis. She presented her findings in posters for World Aquaculture Society and Coastal Research Federation conferences.

Bobbi worked alongside a diverse team of NOAA scientists and crewmembers under sometimes-challenging weather and sea conditions aboard the R/V Loosanoff. She was one of four crew on board when a fire broke out below decks. Bobbi handled herself exceptionally well under pressure, maintained situational awareness, mustered on deck, and took notes for the Captain. By remaining calm during a tense situation, Bobbi contributed to a positive outcome during this shipboard emergency.

Creativity and a sense of humor are strategies that Bobbi frequently uses to navigate challenges. She is a bright and resourceful scientist who reliably completed assigned tasks requiring little oversight. Bobbi showed initiative and a natural curiosity that enhanced the quality of her contributions to our project team. These attributes will serve Bobbi well in her pursuit of a career in science and she will make a strong contribution to any academic or research endeavor she undertakes. Bobbi has my highest endorsement.

Regards, Renee Mercaldo-Allen

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Research Fisheries Biologist, 860-304-3534

