

Digital Aerial Baseline Survey of Marine Wildlife in Support of Offshore Wind Energy

Spring 2019 Target Extraction
Summary Report



NYSERDA



**NORMANDEAU
ASSOCIATES**

ENVIRONMENTAL CONSULTANTS



Digital Aerial Baseline Survey of Marine Wildlife in Support of Offshore Wind Energy

Spring 2019 Target Extraction Summary Report

Prepared for

New York State Energy Research and
Development Authority
17 Columbia Circle
Albany, NY 12203-6399



Prepared by

Normandeau Associates, Inc.
4581 NW 6th Street, Suite A
Gainesville, FL 32609
352-372-4747
www.normandeau.com



with

APEM, Inc.
747 Southwest 2nd Avenue, Suite 226
Gainesville, FL 32601



October 2019



Introduction

Target extraction for the Spring 2019 survey for the NYSERDA Offshore Planning Area (OPA) was started in August 2019. All target extraction and quality control of target extraction was completed in October 2019.

Overview

A total of 320,793 images were collected over the OPA providing an analyzed survey area of 3,153.84km² (Table 1). The vast majority of the images collected contained no evidence of living organisms, with almost 98% of the images from the OPA being blank (Table 2). There were 31,409 (10%) of the blank images sent for QC, and 44 were determined to contain targets (living organisms) that had been missed in the initial target extraction. The overall quality rate of the extraction was 99.86%, well within the quality control criteria established for the project (Table 3). Only endangered species found during target extraction QC are incorporated into the dataset and sent to taxonomists for identification. Within the Spring 2019 data no endangered species were found during target extraction QC (Table 4). Extracted targets found to contain organisms, boats, and buoys were uploaded to ReMOTe for taxonomists to access for identification.

A total of 13,721 targets were sent to taxonomists for identification (Table 5). Fish shoals are loaded to ReMOTe for measurement. No fish shoals were found in the data.

Table 1. Total Images and Area Surveyed

Area	Total Number of Images Collected	km ² of Analyzed Images within the Survey Area	Percent Coverage	Survey Area (km ²)
OPA	320,793	3,153.84	7.2	43,745.20

Table 2. Blank Images Detected

Area	Total Images Analyzed	Blank Images			
		Number Detected	Total Percent Blank	Number Sent for QA	Total Percent QA
OPA	320,793	313,983	97.88	31,409	10.00

Table 3. Target Extraction Quality Control Results

Number of Images for QC	Number of Images QCd as Blank	Number of Images QCd Not Blank	% Agreement Reached
31,409	31,364	44	99.86

Quality Control Results

Table 4. Number of images containing each represented taxonomic group

Group Found in Image during Extraction QC	Number of Images*
Avian	24
Sharks	5
Large Bony Fish	13
Fixed Structures	2
Total	44

*Some images contained multiple taxonomic groups, and some contained multiple individuals of the taxonomic group

Table 5. Targets Detected and Sent for Identification

Group	# Individuals
Avian	12,019
Marine Mammals	814
Turtles	3
Sharks	512
Rays	1
Large Bony Fish	362
Vessels	7
Fixed Structures	3
Total	13,721