USFWS Data Management Plan

Project Information

Project Title

Double-crested Cormorant Survey Pacific Flyway

Last Updated

2024-05-09 12:41

Project Description

Management guidelines for permitting the lethal take of double-crested cormorants (DCCO) in the U.S. are now guided by a 2020 EIS developed by the U.S. Fish and Wildlife Service. As part of the EIS an assessment was done to estimate allowable annual lethal take of DCCO. In addition, the USFWS also called for a monitoring where DCCO population size is estimated every 5 years in the Pacific Flyway. At about the same time the EIS was completed the Pacific Flyway asked the USFWS to examine and suggest improvements to its existing sampling design to estimate DCCO annual abundance. This review and redesign of the survey was completed and the survey of colonies will commence summer 2024.

FWS Cost Center

FF09M25000

Primary USFWS Program

Migratory Birds

Primary USFWS Region

Region 9 Headquarters

Partner Organizations

Keywords

Cormorant

Roles and Responsibilites

Data Trustee

Richkus, Ken (ken_richkus@fws.gov)

Data Steward

Seamans, Mark (Mark_Seamans@fws.gov)

Data Custodian

Sanders, Todd (todd_sanders@fws.gov)

Data Producer

Seamans, Mark (Mark_Seamans@fws.gov)

Data Management Timeline

Project Timeline

Ongoing

Project Start Date

2024-05-10

Project End Date

Data Review Schedule

Annual

Data Aquisition and Collection

Types of Data to be Collected

Tabular, Relational Database (SQL, Access, GDB, etc)

Exisiting Data

Data Storage and Access

Data Storage Location
Local Storage, OneDrive

Project Reference Number
Pending

Data Storage Links
IFWL-4L5RYY3

Data Access
Open

Data Access Justification

Required Resources

Required Resources
Data will be stored on an existing local and existing digital library on the IFW server. Data will be entered into a relational database (Microsoft Access).

Data and Metadata Standards

Data Standard
Not Applicable

Metadata Standard
Not Applicable

Quality Assurance and Quality Control

Data Quality Assurance
A stratified random design will be used for monitoring in 2024 to estimate the number of breeding DCCO. A count of nests will be done at each colony selected for sampling. The number of breeding birds will be estimated as two times the estimated number of nests. The sampling frame is defined by the historic colony sites. A database of historic colony sites was reviewed by biologists in each state and updated during summer and fall 2023. The number of strata and their boundaries will be allowed to change over time to accommodate changes in the number of colonies and distribution of colony sizes in the population. Stratification for the 2024 sample is being done using the R package 'SamplingStrata' (Barcoroli 2014) and stratification is based on the DCCO nest count at individual colonies when they were last surveyed. Other auxiliary information (e.g., state, coastal versus interior sites, land ownership, physical characteristics of a colony) can be used to inform stratification but will not be included in the 2024 sample draw. Given a desired level of precision, the SamplingStrata package can determine the oprimal stratification for a population frame at the minimum cost. For the Pacific Flyway the cost to sample individual colonies was not provided, thus it was assumed that the cost to survey was the same across colonies.

Data Quality Control
At the completion of each year of data collection, data will be entered into the database and checked for defects. Any defects will be corrected immediately by reviewing field data sheets to determine the solution and if not resolved then the technician that submitted the data will be contacted to find a solution. If the data defect cannot be resolved, then the record will be deleted from the database. Once the annual data are entered and initial checks for data defects are completed, then a QAQC program (written in program R) will be run with the data to check for any detectable problems. Any detected data problems will be corrected as described above during data entry. Meta data and documentation will be maintained describing the databased and data entry and QAQC procedures.

Records Management

Records Schedule

PROJ-100 Project Files (NC1-22-78-1/37) These surveys are conducted to compile information about fish and wildlife. The data is used for writing reports and other publications. The surveys for Cormorants were conducted to compile information needed for analysis and report writing.

Records Disposition

Temporary, destroyed when 20 years old

Records Types

Survey information, data and summary reports of fish and wildlife numbers, locations, habitat.

Additional Information

File Attachments

Comments
