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Shorebird Resighting Database
Web-Based Data Management and Retrieval System for Reporting Sightings of Uniquely Marked Shorebirds

Metadata Supplement for Resighting Extract: Resighting Data Codes

First Revision (March 2011)

Background

A web-based data management system has been developed and implemented for storing and retrieving data about uniquely marked shorebirds. The data is stored in a SQLSERVER2000 database. The design of the entry system using both data forms and bulk uploads from Excel enables the tracking of individual birds based upon unique information. Birds may be marked as individuals with an engraved marker where codes are etched onto a flag or leg band. Some birds are also marked as individuals with a unique pattern of colorbands. In this case, a "code" is devised based on the colors. These individuals are identified through both banding and resighting. The capture information allows tracking by the metal bands and the engraved color markers placed on birds. The individuals can also be identified by resighting with spotting scopes and recording the unique combination of bird species, marker type/color and engraved code on the marker or pattern of colorbands. Custom programming creates and maintains the relationship of capture and resighting data, even when band changes are made to an individual, allowing the retrieval of data that details a bird's recorded history.

This document is a supplement to the FGDC compliant metadata for the resighting extract available for researchers. Detailed here are the definitions of coded attributes for the resighting data.

Projects: Codes representing the project that has ownership of the data. Codes are generated by the database.

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7	Delaware Bay Shorebird Banding Project - Delaware
8	Delaware Bay Shorebird Resighting Project - Delaware
9	Delaware Semipalmated Sandpiper Banding Project

Code	Name
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12	Virginia Coastal Islands Banding Project
13	Virginia Coastal Islands Resighting Project
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33	The Effects of Human Induced Habitat Modification on Shorebirds and Seabirds in Florida
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35	Determining Migratory Connectivity of Alaskan Red Knots
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Location Codes: These alphacodes represent the banding and resighting locations in the database. Since the list is so long, location codes are in an individual document. Please refer to the document Location Codes Metadata Supplement, which can be found in the Metadata Section at http://report.bandedbirds.org/.

Tide Stages: These numeric codes approximate the stage of tide during the time of observation.

Code	Description
1	High
2	Near High Rising
3	Near High Falling
4	Half Rising
5	Half Falling
6	Near Low Rising
7	Near Low Falling
8	Low
9	Unknown

Beaufort Codes: These codes are derived from the Beaufort Wind Force Scale, an empirical method of determining the force of the wind by observing effects on vegetation.

Beaufort #	Description
0	Calm - smoke rises vertically
1	Light Air - Smoke drift indicates wind direction, still wind vanes
2	Light Breeze - Wind felt on face, leaves rustle, vanes begin to move
3	Gentle Breeze - Leaves and small twigs constantly moving, light flags extended
4	Moderate Breeze - Dust, leaves, and loose paper lifted, small tree branches move
5	Fresh Breeze - Small trees in leaf begin to sway
6	Strong Breeze - Larger tree branches moving, whistling in wires
7	Near gale - Whole trees moving, resistance felt walking against wind
8	Whole trees in motion, resistance felt walking against wind

Visibility: These alphanumeric codes are used to denote the quality of the visibility conditions.

Code	Description
High	Light and weather conditions are optimal for successful scanning
Moderate	Light and weather conditions are average for successful scanning
Low	Light and weather conditions are poor for successful scanning

Rain: These alphanumeric codes are used to denote rain conditions.

Code
None
Fog
Mist
Light
Moderate
Heavy

Surf: These alphanumeric codes are used to denote the degree of surf.

Code	Description
Calm	Minimal wave action
Light	Slight wave action, little or no whitecapping
Medium	Moderate wave action, some whitecapping
Heavy	High wave action, too rough for birds to feed
Big	Huge waves

Scan Quality: These alphanumeric codes are used to denote the quality of the scan based on overall conditions.

Code	Description
Excellent	Environmental and physical factors permit an optimal number of the potential resightings
Good	Environmental and physical factors permit a moderate number of the potential resightings
Poor	Environmental and physical factors permit a small number of the potential resightings

Flock Activity: These alphanumeric codes are used to denote predominate flock activity(ies). Additional details may be noted in comments.

Code	Description
Feeding	Flock is predominately feeding
Loafing	Flock is predominately roosting/preening
Flying	Flock is predominately in motion with much changeover
Feeding_Loafing	Flock activity is approximately even between feeding and roosting/preening
Feeding_Flying	Flock activity is approximately even between feeding and flying
Loafing_Flying	Flock activity is approximately even between roosting/preening and flying
Feeding_Loafing_Flying	Flock exhibits all activities in approximately even proportions

Human Activity: These alphanumeric codes are used to denote predominate human activity impacting flock. Additional details may be noted in comments.

Code	Description
None	No human disturbance observed
Walkers	Beach walkers without dog(s)
DogWalkers	Beach walkers with dog(s)
Birders	People recreationally watching birds
Research	People engaged in scientific study
Fishermen	Fishing at or near the shoreline
Swimmers	Swimming at or near the shoreline
Leisure	Sitting/resting in one location on beach
Motorboat	Any type of motorized watercraft
NonMotorboat	Any type of non-motorized watercraft such as kayaks
Aircraft	Any type of aircraft flying low enough to disturb flock
Vehicle	Motorized vehicle on or near habitat

Species: These four character codes are based on the alpha codes required for reporting bandings to the Bird Banding Laboratory. Following are codes in use in this database. A complete list of all species may be accessed via http://www.pwrc.usgs.gov/BBL/DEFAULT.HTM.

Code	Common Name	Latin Name
AMAV	American Avocet	Recurvirostra americana
AMGP	American Golden Plover	Pluvialis dominica
AMOY	American Oystercatcher	Haematopus palliatus
BADE	Banding Code: Band Destroyed	
BALO	Banding Code: Band Lost	
BBPL	Black-bellied Plover	Pluvialis squatarola
BLSK	Black Skimmer	Rynchops niger
BNST	Black-necked Stilt	Himantopus mexicanus
BOGU	Bonaparte's Gull	Larus philadelphia
CLRA	Clapper Rail	Rallus longirostris
COPL	Collared Plover	Charadrius collaris
COTE	Common Tern	Sterna hirundo
DCCO	Double-crested Cormorant	Phalacrocorax auritus
DUNL	Dunlin	Calidris alpina
FOTE	Forster's Tern	Sterna forsteri
GBBG	Great Black-backed Gull	Larus marinus
GBHE	Great Blue Heron	Ardea herodias
GLGU	Glaucous Gull	Larus hyperboreus

Code	Common Name	Latin Name
GLIB	Glossy Ibis	Plegadis falcinellus
GRYE	Greater Yellowlegs	Tringa melanoleuca
HERG	Herring Gull	Larus argentatus
HUGO	Hudsonian Godwit	Limosa haemastica
KILL	Killdeer	Charadrius vociferus
LAGU	Laughing Gull	Larus atricilla
LBCU	Long-billed Curlew	Numenius americanus
LBDO	Long-billed Dowitcher	Limnodromus scolopaceus
LESA	Least Sandpiper	Calidris minutilla
LETE	Least Tern	Sterna antillarum
LEYE	Lesser Yellowlegs	Tringa flavipes
LGUL	Unidentified Large Gulls	Larus spp.
MAGO	Marbled Godwit	Limosa fedoa
MERL	Merlin	Falco columbarius
PEEP	Unidentified Small Sandpipers	
PEFA	Peregrine Falcon	Falco peregrinus
PIPL	Piping Plover	Charadrius melodus
RBGU	Ring-billed Gull	Larus delawarensis
REKN	Red Knot	Calidris canutus
REPH	Red Phalarope	Phalaropus fulicarius
RNPH	Red-necked Phalarope	Phalaropus lobatus
ROST	Roseate Tern	Sterna dougallii
ROYT	Royal Tern	Sterna maxima
RUFF	Ruff	Philomachus pugnax
RUTU	Ruddy Turnstone	Arenaria interpres
SAND	Sanderling	Calidris alba
SATE	Sandwich Tern	Sterna sandvicensis
SBDO	Short-billed Dowitcher	Limnodromus griseus
SEPL	Semipalmated Plover	Charadrius semipalmatus
SESA	Semipalmated Sandpiper	Calidris pusilla
SGUL	Unidentified Small Gulls	Larus spp.
SNEG	Snowy Egret	Egretta thula
SNPL	Snowy Plover	Charadrius alexandrinus
SOSA	Solitary Sandpiper	Tringa solitaria
SPSA	Spotted Sandpiper	Actitis macularia
STSA	Stilt Sandpiper	Calidris himantopus
UDOW	Unidentified Dowitchers	Limnadromos sp.
UGUL	Unidentified Large Gulls	Larus sp.

Code	Common Name	Latin Name
USHO	Unidentifed Shorebirds	
UYEL	Unidentified Yellowlegs	Tringa sp.
WESA	Western Sandpiper	Calidris mauri
WHIM	Whimbrel	Numenius phaeopus
WILL	Willet	Catoptrophorus semipalmatus
WIPL	Wilson's Plover	Charadrius wilsonia
WRSA	White-rumped Sandpiper	Calidris fuscicollis

Flag Color: The term "flag color" is archaic and left from when the database only handled birds marked with flags. These codes represent any type of marker type that in conjunction with a code can determine individuality of a bird.

Flag Code	FlagColor
CB	Bands Only: No engraving or flag
FB	Dark Blue Flag
FBk	Black Flag
FBl	Light Blue Flag
FBlFW	Lt Blue/White Flags
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FRFO	Red/Orange Flag(s)
FRFW	Red/White Flag(s)
FRFY	Red/Yellow Flag(s)

Flag Code	FlagColor
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FWFY	White flag over yellow flag
FY	Yellow Flag
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FRFO	Red/Orange Flag(s)
FRFW	Red/White Flag(s)

Flag Code	FlagColor
FRFY	Red/Yellow Flag(s)
FW	White Flag
FWFY	White flag over yellow flag
FY	Yellow Flag
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