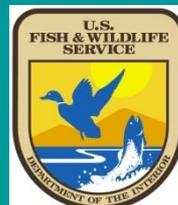
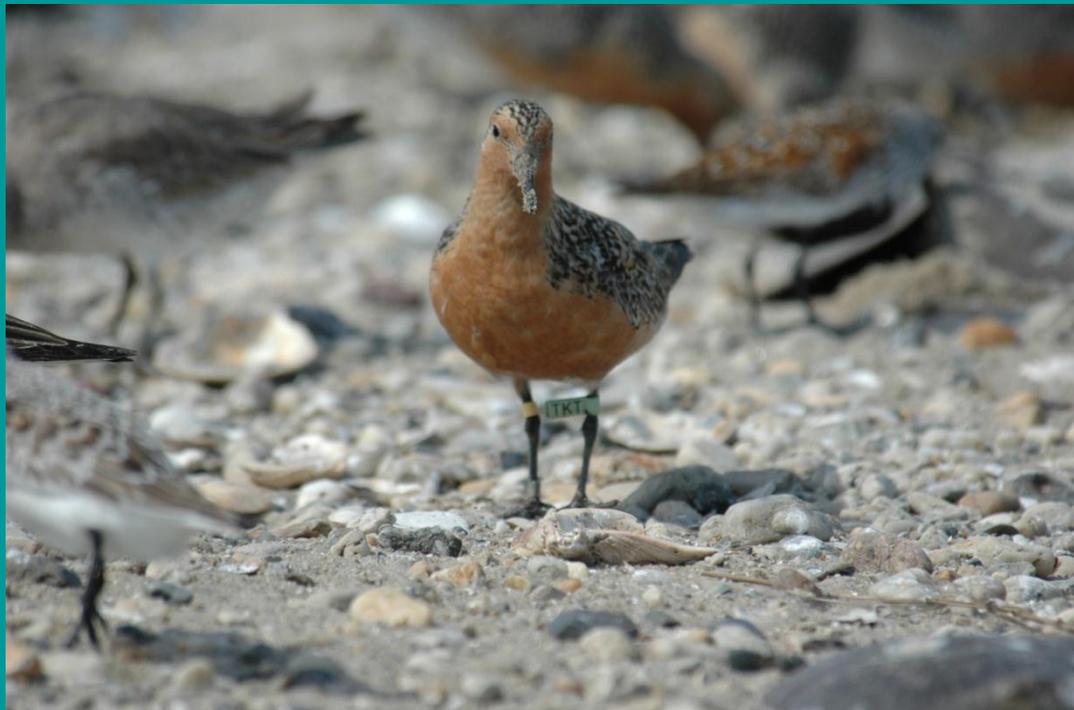


Resighting Individually Marked Birds...



Your resighting work will be part of an international effort to individually mark Red Knot (*Calidris canutus*) in the Western Hemisphere in order to better understand their ecology, population status, and trends. Ruddy Turnstone (*Arenaria interpres*), Sanderling (*Calidris alba*), and Semipalmated Sandpipers (*Calidris pusilla*) have also been marked. Approximately 10% of the red knot population in the Western Atlantic flyway has been individually marked at this point. The birds are marked with colored flags and bands.



The seasonal targets for this project at Delaware Bay are to:

1. Catch 350 birds of each species (red knot, ruddy turnstone, sanderling, and semipalmated sandpiper) spread throughout the season and habitat. This amounts to 6 or 7 catches through the season, with a target number of 50 birds of the target species per catch.
2. Estimate flocks of shorebirds and gulls
3. Collect data for a mark-unmarked estimate of population size for REKN
4. Obtain the maximum number of resightings of individual birds

Note: Each side of Delaware Bay is doing all of these tasks, so the bay-wide target for each species is 700 birds captured and marked. In practice, we will generally catch more than that due to the need to insure obtaining the target sample and the mixed flocks encountered. Due to weather and bird activity, we may not be able to accomplish all goals, for example, the Delaware side rarely can meet its targets for sanderling catches.

Birds have been marked for resighting in three different ways:

- ❖ Flags with 2 characters plus color band
- ❖ Flags with 3 characters (may have additional color bands)
- ❖ Flags with no characters plus colored bands

** You are only expected to record birds with characters on the flag.



2 characters



3 characters



No characters

Birds without characters on the Flag

Birds were primarily marked in this way as cohorts prior to 2003. A cohort means a group of birds were marked the same way. The addition of color bands made some of these birds identifiable as individuals.

Over the years some birds have lost one or more bands, which can make it uncertain whether it is cohort or individually marked. In addition there is difficulty in determining color due to fading and staining of the plastic. Finally, due to the number of bands that need to be accurately recorded there has been difficulty getting reliable observations. *For these reasons you will not be expected to record birds marked in this way.*



Birds with characters on the flag

Birds marked with flags that have characters are all marked as individuals. With one exception, all can be identified as individuals by the flag code alone.

That exception is US (lime colored) Flags that have only 2 characters (see second photo from left). In this case, duplicate codes were used and the color band (usually there is only one and it is on the opposite leg) must be recorded as well as the flag code.

This bird needs to have the Flag Code AND Band Color recorded



US



US



Chile



Argentina



Argentina



Brazil

Flag Colors by Country

Each country has been assigned a specific color flag to use. The flag colors you will most likely see are:

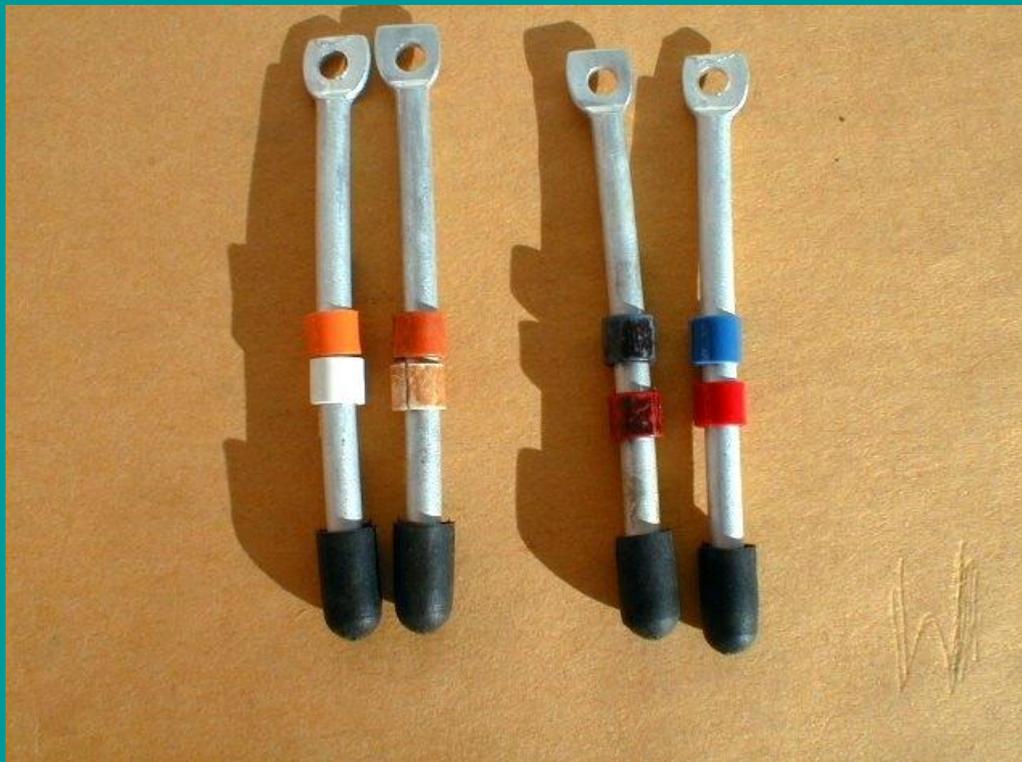
Flag colors and inscriptions:

Canada					
	Pre-2003	2003	2004	2007	
USA					
USA					
Brazil					
Brazil					
Argentina					
Argentina					
Chile					
Chile					

The convention for recording flags is to write an “F” to designate it is a flag and the first letter of the color for example: Brazil would be FB

Examples of flags and colored bands with discoloration :

Here are some examples of the plastic material that has faded or , become stained/obscured. This can make the characters on the flags difficult or impossible to read. In addition, different lighting conditions can make the colors difficult to determine. Taking your time to be certain of the observations and noting these conditions can be helpful in difficult cases. However, sometimes you will not be certain, in which case the observation cannot be used and should not be reported.



Overview

This training module is designed to teach you how to re-sight and record the information you collect. You will be part of a team of 2 or more people who will be assigned to go to a specific location and record what you see for a period of time. Your team will record three types of information.

1. **General Site Information:** where, when, who was on the team, what the conditions were, and an estimate the number of birds by species in that location. A Site Visit Form is used to record this information.
2. **Ratio of Marked to Unmarked Birds:** The ratio of marked to unmarked birds gives us an estimate of the populations size. A Ratio Form can be used to record this information.
3. **Individually Marked Birds:** Most of your time will be spent recording information on marked birds. You will “resight” any individually marked birds you see. A Field Resighting Data Sheet can be used to record this information. Accuracy is critical, otherwise the resighting data cannot be used.

You will be outside most of the time doing this. It is a good idea to dress for changing conditions, have water and snacks, as well as sunscreen and insect repellent.

Site Visit, Ratio & Scan Forms

Check if no flags Obs # REKN Sheets # RUTU Sheets # SAND Sheets # SESA Sheets FOR OFFICE USE Sheet ID: 2011

Delaware Shorebird Project
Visit summary form (aka Cover Sheet)
 DO NOT use this sheet for Mispillion surveys

Visit details (fill out on every visit even if no shorebirds present)

Observer(s): _____ Date: _____ Site: _____
 Time: - 24 Hour (00:00) _____
 Scribe: _____ Start: _____
 End: _____
Record names as first initial & last name

Time of tide (approx.) CIRCLE ONE
 1 = HIGH, 2 = near high/RISING, 3 = near high/FALLING, 4 = half/RISING, 5 = half/FALLING, 6 = low/RISING, 7 = near low/FALLING, 8 = LOW, 9 = UNKNOWN

Weather Conditions

Sky: (% overcast)	Wind: (Beaufort Scale)	Wind Direction: Onshore Offshore Alongshore	Visibility: Low Mod High	Rain: None Light Moderate
0 1 2 3 4 5 6 (circle one)	0 1 2 3 4 5 6 (circle one)			

BEAUFORT WIND SCALE: 0 - Calm; 1 - Light Air (smoke drifts); 2 - Gentle breeze (can feel wind on your face); 3 - Moderate breeze (raises dust & paper); 4 - Fresh breeze (breaks waves); 5 - Strong breeze (large tree branches swing); 6 - Strong wind (whole tree branches swing)

Bird Numbers (Enter "0" if none present) ACCURACY Please indicate in one TC = a true count, ES = an extrapolated estimate, or GE = a "guesstimate". Enter total count for each

Knot:	Turnstone:	Sanderling:
TC ES GE	TC ES GE	TC ES GE
Semi-p Sand:	S-b Dowitcher:	Other:
TC ES GE	TC ES GE	TC ES GE
Herring Gull:	Ring-billed Gull:	Laughing Gull:
TC ES GE	TC ES GE	TC ES GE

* all other shorebirds including Least Sandpiper, Willet and Am. Oystercatcher, also Least T

Flock Activity

Percent Roosting
0
25
50
75
100

Disturbances

Source	Number
Boat	_____
Pedestrian	_____
Plane	_____
Vehicle	_____
Peregrine	_____
Researcher	_____
Unknown	_____
Other	_____

Sturgeon Observation

Approximate Length _____ Photo Taken? Yes No
 Location/Condition/Comments: _____

Entered _____ Checked: _____
 Errors_Y_N _____
 Corrected: _____

Site Visit Form

Marked to Unmarked Ratio Scans

Begin scanning across a flock counting each bird you see. When you get to a bird with a coded leg flag, circle the corresponding number. If the flock flies before you scan 50 birds or the 60 line after the last bird counted. Attach this sheet to your resighting cover sheet. Complete a scan approximately every half hour.

Sheet ID: _____ Date: _____
 Location: _____ Observer: _____

Time: _____
 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42

Time: _____
 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42

Time: _____
 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42

Time: _____
 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42

Time: _____
 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42

Time: _____
 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42

Time: _____
 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42

Ratio Form

Sheet ___ of ___

FIELD RESIGHTING DATA SHEET
 ONLY 1 SPECIES PER SHEET

FOR OFFICE USE
 Sheet ID: 2011

Species: _____ Observer: _____ Date: _____
 Scribe: _____ Site: _____

Work down the columns. Please write clearly! See additional notes at bottom.

Time	Abdominal Profile:	# of Flag Characters:	Time	Abdominal Profile:	# of Flag Characters:
Plumage:	RUTU Sex (if known):		Plumage:	RUTU Sex (if known):	

Time	Abdominal Profile:	# of Flag Characters:	Time	Abdominal Profile:	# of Flag Characters:
Plumage:	RUTU Sex (if known):		Plumage:	RUTU Sex (if known):	

Time	Abdominal Profile:	# of Flag Characters:	Time	Abdominal Profile:	# of Flag Characters:
Plumage:	RUTU Sex (if known):		Plumage:	RUTU Sex (if known):	

Time	Abdominal Profile:	# of Flag Characters:	Time	Abdominal Profile:	# of Flag Characters:
Plumage:	RUTU Sex (if known):		Plumage:	RUTU Sex (if known):	

Time	Abdominal Profile:	# of Flag Characters:	Time	Abdominal Profile:	# of Flag Characters:
Plumage:	RUTU Sex (if known):		Plumage:	RUTU Sex (if known):	

Notes

- RESIGHTINGS FOR ONLY ONE SPECIES PER SHEET. Please write clearly!
- Place an underline in the position of an unknown character (e.g. FL, A, M) or FL (BD,_)
- Record in half hour (:00, :30) time blocks. Record all birds seen in each half hour, even if seen in an earlier block. Indicate the half hour block in the time square (e.g. 1030, 1100).
- Record observer/scribe as first initial and last name

Entered _____ Checked: _____
 Errors_Y_N _____
 Corrected: _____ Delaware Resightings Form 2011

Field Resighting Data Sheet

1. Site Visit Form

The Site Visit Form begins with general information that includes: Scan Sheets, Observers, Date and Time, Location, Tides, Weather, and Visibility.

Check if no flags Obs <input type="checkbox"/>	# REKN Sheets <u>1</u>	# RUTU Sheets <u> </u>	# SAND Sheets <u> </u>	# SESA Sheets <u> </u>	FOR OFFICE USE Sheet ID: 2011 <u> </u>
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Delaware Shorebird Project Visit summary form (aka Cover Sheet)

DO NOT use this sheet for Mispillion surveys

Visit details (fill out on every visit even if no shorebirds present)

Observer(s): <u>K Kalasz</u> <u>J Woods</u>	Date: <u>12 May 2011</u>	Site: <u>North Bowers Beach</u>
Scribe: <u>G Breeze</u>	Time: - 24 Hour (00:00)	
Record names as first initial & last name	Start: <u>0930</u>	
	End: <u>1315</u>	

Time of tide (approx.) CIRCLE ONE

1 = HIGH, 2 = near high/RISING, 3 = near high/FALLING, 4 = half/RISING, 5 = half/FALLING, 6 = low/RISING, 7 = near low/FALLING, 8 = LOW, 9 = UNKNOWN

Weather Conditions

Sky: <u>20</u> (% overcast)	Wind: (Beaufort Scale) 0 1 <u>2</u> 3 4 5 6 (circle one)	Wind Direction: <u>Onshore</u> Offshore Alongshore	Visibility: Low Mod <u>High</u>	Rain: <u>None</u> Light Moderate Heavy
--------------------------------	---	--	------------------------------------	--

BEAUFORT WIND SCALE: 0 - Calm; 2 - Light Air (smoke drifts); 3 - Gentle breeze (can feel wind on your face); 4 - Moderate breeze (raises dust & paper); 5 - Fresh breeze (trees sway); 6 - Strong breeze (large tree branches move, wires vibrate)

1. Site Visit Form: Observers, etc

Visit details (fill out on every visit even if no shorebirds present)

Observer(s): <i>K Kalasz</i> <i>J Woods</i>	Date: <i>12 May 2009</i>	Site: <i>North Bowers Beach</i>
	Time: - 24 Hour (00:00)	
Scribe: <i>G Breese</i> <small>Record names as first initial & last name</small>	Start: <i>0930</i> End: <i>1315</i>	

This section is used to record the observers, who recorded the information on the sheet, the date and time of the visit, and the location visited. Make sure to:

- Use first initial and complete last names to avoid confusion

- Write the month as a word to avoid confusion

- Use 24 hour time

- Be consistent with location names

1. 12 Hour Time vs 24 Hour Time

		8:00 am	=	08:00
morning		10:15 am	=	10:15
noon	→	12:00 pm	=	12:00
		3:20 pm	=	15:20
afternoon		4:00 pm	=	16:00
		6:30 pm	=	18:30
evening		9:57 pm	=	21:57
midnight	→	12:00 am	=	00:00
		2:00 am	=	02:00
		4:00 am	=	04:00

1. Site Visit Form: Bird Info

Bird Numbers (Enter "0" if none present) ACCURACY: Please indicate in each block whether your count is: TC - a true count, ES - an extrapolated estimate, or GE - a "guesstimate". Enter total count for each species in inset box.									
Knot: 39 5, 15, 1, 18	TC ES GE	Turnstone: -0-	TC ES GE	Sanderling: -0-	TC ES GE	Dunlin: 200	TC ES GE		
Semi-p Sand: 1000	TC ES GE	S-b Dowitcher: -0-	TC ES GE	Other*:					
Herring Gull: -0-	TC ES GE	Ring-billed Gull: 16 1, 5, 3, 7	TC ES GE	Laughing Gull: -0-	TC ES GE	Gr-Black-b Gull: -0-	TC ES GE		

* all other shorebirds including Least Sandpiper, Willet and Am. Oystercatcher; also Least Tern, Black Skimmer

Total numbers of birds are recorded on the Site Visit Form. Enter a "0" in the block for species not observed rather than just leaving it blank. This will ensure that the person entering the data knows that species were not present rather than not counted. Indicate whether it is a True Count (TC), Extrapolated Estimate (ES), or a Guesstimate (GE).

True Count: Each bird was counted

Extrapolated Estimate: Numbers were systematically estimated

Guesstimate: A quick estimate was done, basically a first impression

1. Site Visit Form: Flock Activity & Disturbance

Shorebird Activity

Percent Roosting
0
25
50
75
100

Disturbances

<u>Source</u>	<u>Number</u>
Boat	
Pedestrian	4
Plane	
Vehicle	
Peregrine	
Researcher	3
Unknown	2
Other	
None	

This section is meant to give a rough idea of bird activity and disturbance events that cause birds to take flight.

Disturbance includes non human disturbance as well as disturbance caused by humans. You are not expected to spend a lot of time on this, simply give a reasonable sense for what was occurring. Each event counts as one under the Number Column. Pay particular attention to boats and peregrine falcons and include them in disturbance events.

1. Site Visit Form: Sturgeon

Sturgeon Observation

Approximate Length _____

Photo Taken? Yes No

Condition/Comments:

Occasionally Sturgeon are encountered dead on the beach. Sturgeon are ancient fish, dating back at least 70 million years, and can be found along the entire Atlantic coast from Florida to Labrador, Canada. Sturgeon may live up to 70 years old. Since colonial times, sturgeon have supported commercial fisheries and in the late 1800s, they were second only to lobster among important fisheries with landings estimated at seven million pounds per year. Overharvesting of sturgeon for flesh and eggs (known as caviar) continued through the 1990s. Currently rare, sightings provide valuable information for scientists and managers working to conserve them.



1. Site Visit Form: Mispillion

Check if no flags Obs _____	# REKN Sheets _____	# RUTU Sheets _____	# SAND Sheets _____	# SESA Sheets _____	FOR OFFICE USE Sheet ID: 2011 _____
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Delaware Shorebird Project
Visit summary form (aka Cover Sheet)
 Use this sheet **ONLY** for Mispillion surveys

Visit details (fill out on every visit even if no shorebirds present)

Observer(s): _____	Date: _____	Site: MISPELLION HARBOR (use reverse for counts by sub-area)
Scribe: _____	Time: - 24 Hour (00.00)	
Record names as first initial & last name	Start: _____	
	End: _____	

Time of tide (approx.) CIRCLE ONE
 1 = HIGH, 2 = near high/RISING, 3 = near high/FALLING, 4 = half/RISING, 5 = half/FALLING, 6 = low/RISING, 7 = near low/FALLING, 8 = LOW, 9 = UNKNOWN

Weather Conditions

Sky: (% overcast)	Wind: (Beaufort Scale) 0 1 2 3 4 5 6 (circle one)	Wind Direction: Onshore Offshore Alongshore	Visibility: Low Mod High	Rain: None Light Moderate Heavy
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BEAUFORT WIND SCALE: 0 - Calm; 1 - Light Air (smoke drifts); 2 - Gentle breeze (can feel wind on your face); 3 - Moderate breeze (raises dust & paper); 4 - Fresh breeze (trees sway); 5 - Strong breeze (large tree branches move, wires rattle); 6 - Strong gale (whole trees in motion, wires vibrate); 7 - Storm force (trees break, wires snap); 8 - Storm force (trees broken, wires down); 9 - Hurricane force (wreckage everywhere, flying debris).

Use reverse to record shorebird and gull numbers by Mispillion Harbor sub-area. Record numbers of other bird species below*. ACCURACY: Please indicate in each block whether your count is: TC - a true count, ES - an extrapolated estimate, or GE - a "guesstimate".

Back:	Point/Center Island:
Shell:	Osprey:
DNC:	Swain's:

* all other shorebirds including Least Sandpiper, Willet and Am. Oystercatcher, also Least and Black Skimmer

Flock Activity Percent Roosting	Disturbances
0	Source Number
25	Boat _____
50	Pedestrian _____
75	Plane _____
100	Vehicle _____
	Peregrine _____
	Researcher _____
	Unknown _____
	Other _____

Sturgeon Observation

Approximate Length _____	Photo Taken? Yes No
Location/Condition/Comments: _____	
Entered _____	Checked _____
	Errors_Y_N _____
	Corrected _____

Delaware Resightings Form 2011



Please record accuracy for each count*

Shell	
Species	Count
REKN	
RUTU	
SAND	
DUNL	
SESA	
SBDO	
LAGU	
HERG	
GBBG	
RBGU	

Osprey	
Species	Count
REKN	
RUTU	
SAND	
DUNL	
SESA	
SBDO	
LAGU	
HERG	
GBBG	
RBGU	

Swain		Point/Center Island		DNC		Back	
Species	Count	Species	Count	Species	Count	Species	Count
REKN		REKN		REKN		REKN	
RUTU		RUTU		RUTU		RUTU	
SAND		SAND		SAND		SAND	
DUNL		DUNL		DUNL		DUNL	
SESA		SESA		SESA		SESA	
SBDO		SBDO		SBDO		SBDO	
LAGU		LAGU		LAGU		LAGU	
HERG		HERG		HERG		HERG	
GBBG		GBBG		GBBG		GBBG	
RBGU		RBGU		RBGU		RBGU	

*ACCURACY: Please indicate in each block whether your count is: TC - a true count, ES - an extrapolated estimate, or GE - a "guesstimate". Enter "0" if a species is not present on a particular beach.

For Mispillion Harbor, there is a modified Site Visit form. This includes more detail for bird numbers at specific Locations in Mispillion Harbor on both the front and back.

2. Ratio of Marked:Unmarked REKN & RUTU

- Use a separate sheet for each species
- Choose a representative portion of the flock and count in one direction to minimize double counting.
- Count unmarked birds until you come to a marked bird (inscribed flags only), note the marked bird, then continue counting unmarked birds
- Scan a total of 50 birds. Do not scan if less than 20 birds.
- Repeat this count every 30 min if you are there long enough
- If you cannot count 50 birds, indicate how many were counted
- If the flock takes off before you have scanned 50 birds, simply record what you have scanned
- Do not count birds unless you are sure they have or do not have inscribed flags. This may mean that you will not be able to include every bird you see in this ratio scan, and in practice you will need more than 50 birds in a flock to get a 50 birds ration scan. That is fine, what is needed is an accurate ratio.

2. Ratio Form

Marked to Unmarked Ratio Scans

Begin scanning across a flock counting each bird you see. When you get to a bird with a coded leg flag, circle the corresponding number. If the flock flies before you scan 50 birds or the flock is smaller than 50 birds, draw a line after the last bird counted. Attach this sheet to your resighting cover sheet. Complete a scan approximately every half hour.

Sheet ID: 2010-003

Date: 17 May 2010

Species: REKN

Location: Mispyllion - Back Beach Observer: Gregory Breeze

Time: 15:30

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50

Time: 16:00

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50

The first ratio scan @15:30 in this example was of 50 birds, and five of those had inscribed flags on, noted by circling the appropriate numbers.

The 16:00 scan took place when only 30 birds were present, three of which had inscribed flags. The total number in the flock is indicated by the vertical line.

Remember any bird **without an inscribed flag is an unmarked** bird and any **inscribed flag of any color is a marked** bird, for this purpose.

Some people simply record ratio scans in their notebook. If you do this, you need to record: Species scanned, the number with inscribed flags, and the total number of birds scanned. For example:

REKN 4 Flagged, total scanned 37

3. Field Resighting Data Sheet

Sheet 1 of 1

FIELD RESIGHTING DATA SHEET
ONLY 1 SPECIES PER SHEET

FOR OFFICE USE

Sheet ID: 2009_ _____

Species: <i>Red Knot</i>	Observer: <i>KKalasz</i>	Date: <i>12 May 2009</i>	Site: <i>North Bowers Beach</i>
	Scribe: <i>GBreese</i>		

Work down the columns. Please write clearly! See additional notes at bottom.

Time <i>1030</i>	<i>FL(NAC)</i> <i>L</i>	Abdominal Profile:	# of Flag Characters: <i>3</i>
	<i>-</i> <i>M</i>	Plumage:	RUTU Sex (if known):

Time		Abdominal Profile:	# of Flag Characters:
	—	Plumage:	RUTU Sex (if known):

The task that you will spend most of your time on will be recording individually marked birds using the Field Resighting Data Sheet. Accuracy is critical. The next few slides will describe how birds are marked, what to observe, and how to record the information properly. Until you are experienced, do not fill out the Abdominal Profile, Plumage, or RUTU Sex boxes.

Recording Information for Individually Marked Birds:



Information to record: Species flag color 3 character code

In this photo: Red Knot Orange Flag CNP

Or to write it more efficiently: REKN FO (CNP)

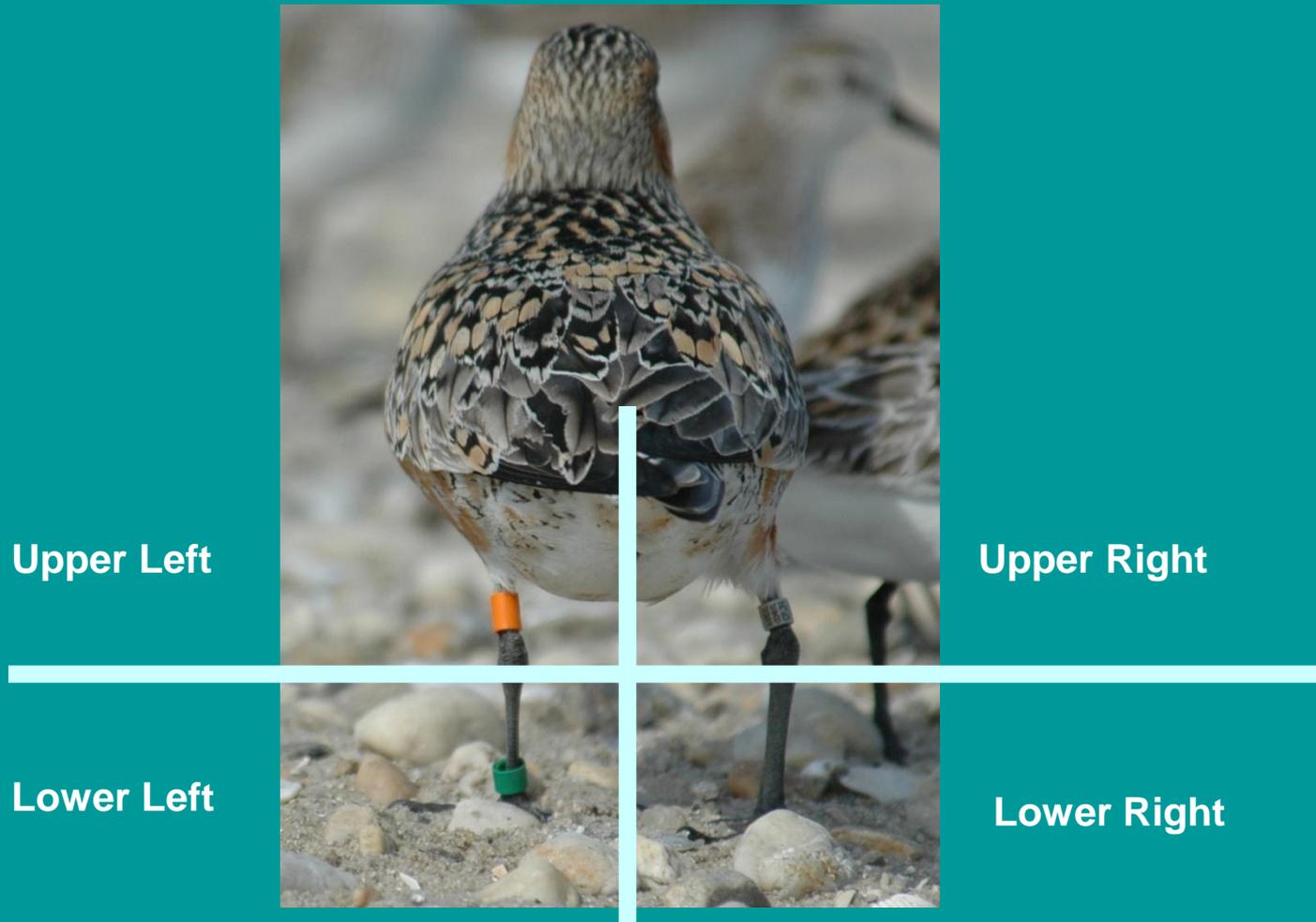
Species Codes

- Red Knot = REKN
- Ruddy Turnstone = RUTU
- Sanderling = SAND
- Semipalmated Sandpiper = SESA

Note: This code (which is widely used for birds) uses the first two letters of the first and last word, or, in the case of the bird having only one word for its common name, the first 4 letters.

Flag/Band Position

The position that a band or flag has on the legs of a bird can be significant. The scheme used is as if you are looking at the bird from the rear:



Information to record for birds with a 2 character Lime Flag:

Information to record:

Species

flag color

2 character code

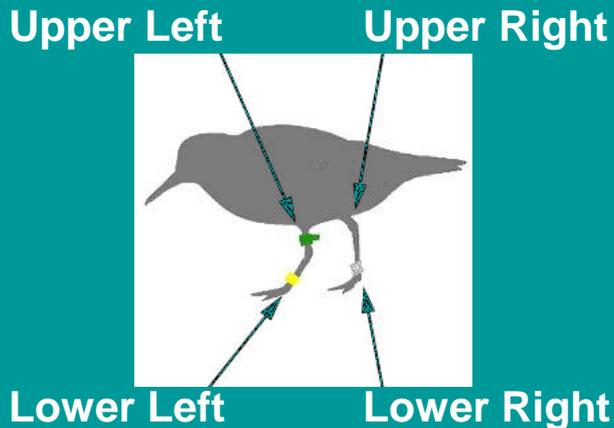
Colored Band(s)

Position on legs



In this photo:

REKN	FL (XL)		O
	--	+	m



Note: Use “—” to indicate that there were no bands at that position on the leg. Use “ ” to indicate that you do not know if there were any bands at that position on the leg. Use “m” to indicate metal band which you may be able to see.

The Field Resighting Data Sheet are designed to follow this method of recording. You do not need to fill out all 4 quadrants if the code does not require it. For instance, in the example below you could have simply entered "FL (NAC)" in the upper left quadrant. As recorded this tells you that the red knot had a lime flag on the upper left leg with the characters "NAC" inscribed on the flag, nothing on the lower left leg, a lime band on the upper right leg, and a metal band on the lower right leg.

Sheet 1 of 1

FIELD RESIGHTING DATA SHEET
ONLY 1 SPECIES PER SHEET

FOR OFFICE USE

Sheet ID: 2009_ _____

Species: <i>Red Knot</i>	Observer: <i>K Kalasz</i>	Date:	Site:
	Scribe: <i>G Breese</i>	<i>12 May 2009</i>	<i>North Bowers Beach</i>

Work down the columns. Please write clearly! See additional notes at bottom.

Time <i>1030</i>	<i>FL(NAC)</i>	<i>L</i>	Abdominal Profile:	# of Flag Characters: <i>3</i>
	<i>-</i>	<i>M</i>	Plumage:	RUTU Sex (if known):

Time			Abdominal Profile:	# of Flag Characters:
			Plumage:	RUTU Sex (if known):

Remember: Lime colored flags with only 2 characters also need to have the colored bands recorded in the appropriate quadrants. Accuracy is critical. Write clearly. Do not put more than one species per sheet. Indicate how many sheets per species in the upper right corner.

Time should be recorded at the start and then every 30 minutes, on the hour and half hour. Try not to duplicate birds within one time period. Do record the same bird in different time periods. This provides information on turnover rates.

Sheet 1 of 1

FIELD RESIGHTING DATA SHEET

ONLY 1 SPECIES PER SHEET

FOR OFFICE USE

Sheet ID: 2009_ _____

Species: <i>Red Knot</i>	Observer: <i>KKalasz</i>	Date:	Site:
	Scribe: <i>GBreese</i>	<i>12 May 2009</i>	<i>North Bowers Beach</i>

Work down the columns. Please write clearly! See additional notes at bottom.

Time	Abdominal Profile:	# of Flag Characters:
<i>1030</i>		<i>3</i>
	Plumage:	RUTU Sex (if known):
<i>FL(NAC)</i>		
<i>L</i>		
<i>-</i>		
<i>M</i>		

Time	Abdominal Profile:	# of Flag Characters:
	Plumage:	RUTU Sex (if known):

Generally you will not be using the Number, Abdominal Profile, Plumage, or RUTU Sex boxes until you have further training and experience beyond the scope of this module.

Resighting Transcription Sheet & Ratio Scan Sheet

Sheet ___ of ___

RESIGHTING TRANSCRIPTION SHEET						FOR OFFICE USE	
PLEASE write clearly! Record names as first initial and last name						Sheet ID: 2011 _____	
Species:	Observer:	Date:		Site:			
Scribe:							

Instructions: ONLY 1 SPECIES PER SHEET. Work down the columns. Indicate each half hour time block (00, 30). Group by flag color. Draw line down column for repeating entries (i.e. flag color). RECORD extra color on opposite leg for 2-character time flags.

Time	Flag Color	Flag Code	Extra Color	Sex (RUTU)	Ab / Pl	Time	Flag Color	Flag Code	Extra Color	Sex (RUTU)	Ab / Pl
1					/						/
2					/						/
3					/						/
4					/						/
5					/						/
6					/						/
7					/						/
8					/						/
9					/						/
10					/						/
11					/						/
12					/						/
13					/						/
14					/						/
15					/						/
16					/						/
17					/						/
18					/						/
19					/						/
20					/						/
21					/						/
22					/						/
23					/						/
24					/						/
25					/						/

time	 — 	Abdominal Profile:	# Chars:	time	 — 	Abdominal Profile:	# Chars:
		Plumage:	RUTU Sex:			Plumage:	RUTU Sex:

Entered _____

Checked _____
Errors_Y_NL _____
Corrected _____

Delaware Resightings Form 2011

When you return to the Shorebird House at the end of the day, you will fill out a transcription sheet for data entry. Note that with experience, some people fill out all their data in field notebooks and then fill out the Site visit, ratio scan, and resighting transcription forms at the house.

Resighting Transcription Sheet

Sheet 1 of 1

RESIGHTING TRANSCRIPTION SHEET

PLEASE write clearly! Record names as first initial and last name

FOR OFFICE USE

Sheet ID:2011 _____

Species: REKN	Observer: J Woods	Date: 12 May 2010	Site: South Bowers
	Scribe: G Breese		

Instructions: ONLY 1 SPECIES PER SHEET. Work down the columns. Indicate each half hour time block (:00, :30). Group by flag color. Draw line down column for repeating entries (i.e. flag color). RECORD extra color on opposite leg for 2-character lime flags.

	Time	Flag Color	Flag Code	Extra Color	Sex (RUTU)	Ab / Pl
1	10:30	L	AAB			/
2			POE			/
3			L9T			/
4			H5T			/
5		O	ATM			/
6		R	UW			/
7	11:00	L	JL8			/
8			POE			/
9			PPC			/
10			UC	O		/
11						/
12						/

Notes:

Only one species per sheet

Indicate half our time segments

Vertical line indicates repeated data

Please group your observations by time and flag color to make data entry easier

Do not repeat birds within the ½ hr

Do repeat birds across ½ hr segments, for example flag code “POE” is in both 10:30 and 11:00 half hour segments

Site Visit Form: After You have Finished Resighting

Check if no flags Obs ____	# REKN Sheets <u>1</u>	# RUTU Sheets ____	# SAND Sheets ____	# SESA Sheets ____	FOR OFFICE USE Sheet ID: 2009 ____
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After you have finished transcribing your resighting observations onto the Resighting Transcription Sheets, fill out the header on the Site Visit Form, indicating how many Transcription Sheets go with that Site Visit Form. Staple the Transcription Sheets and Ratio Scan Forms (please group by observer, then species, with Ratio Scan Forms first followed by the Resighting Transcription Sheets) to the Site Visit Form and place them with the others waiting to be entered into the database.

Please double check and make sure you have filled out all parts of each form. This helps the people doing data entry and data error checking (quality control). If data is missing, there may be no way to get it later, potentially rendering the associated data useless.

Be sure to complete this when you get back to the house and definitely before you leave the house for the day. Data on “orphaned” forms may have to be discarded or the data entered out of the normal sequence for error checking, increasing the chance of making mistakes.

To Help you gain expertise in resighting and recording these observations, here are some examples

- Note what is being recorded and how it is written down
- Remember that it is written as if you are seeing the bird from the rear.

To refresh your memory, there are four species of birds that may be flagged, can you identify them?



Note: The Shorebird Identification Module should be taken if you are not confident with shorebird identification.

To refresh your memory, there are four species of birds that may be flagged, can you identify them?



red knot - REKN



ruddy turnstone - RUTU

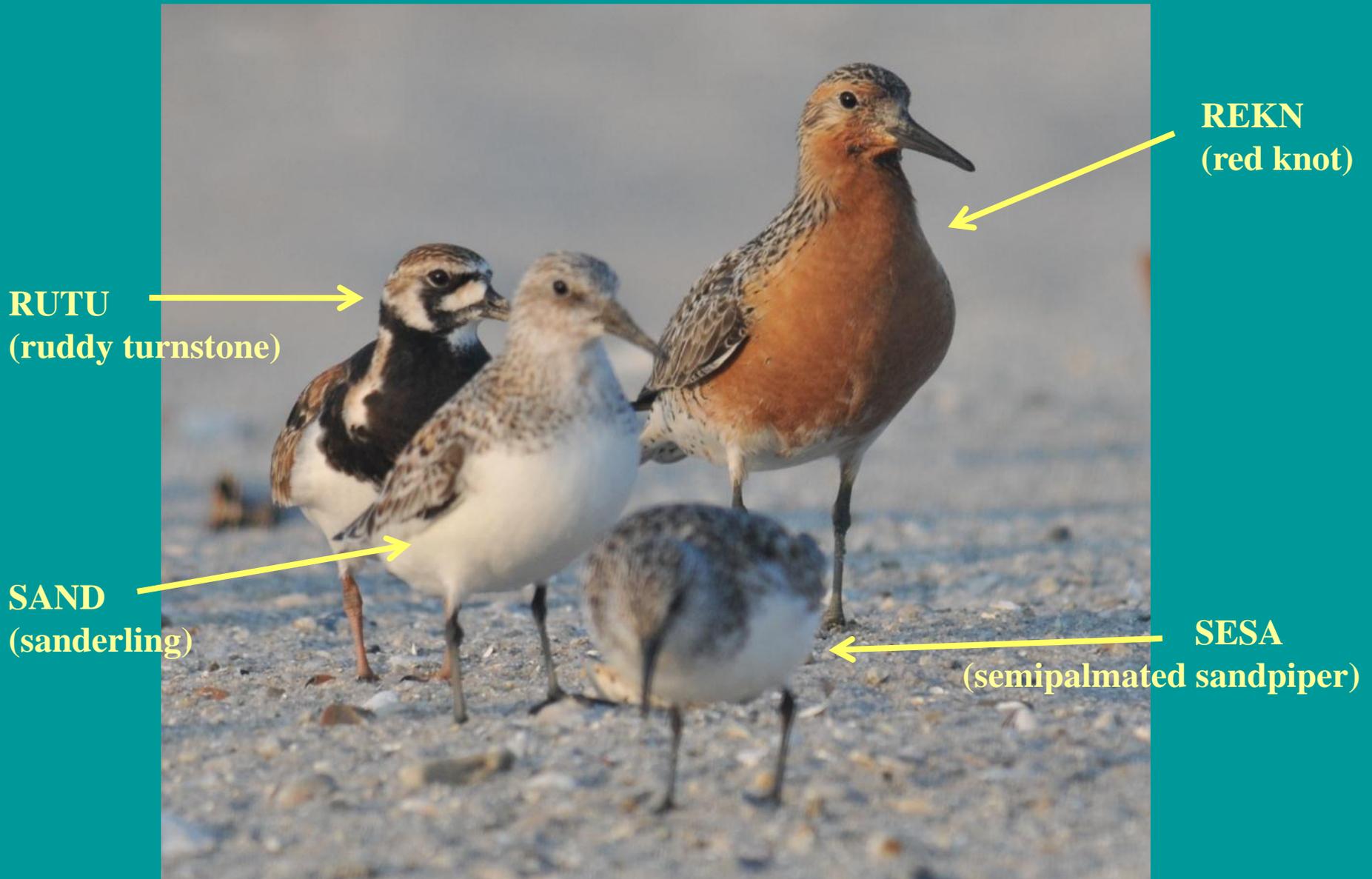


Sanderling - SAND



semipalmated sandpiper - SESA

Relative sizes and colors:



Example 1



Example 1



Since this is a 3 character flag this is all the information needed.

Example 2



Example 2

RUTU FL (HYC)



Note this is a ruddy turnstone. Since this is a 3 character Lime colored flag this is all the information needed.

Example 3



Example 3



Since this is a 2 character flag you need to record where colored bands are. Note that if you cannot see part of the leg, you should leave that quadrant blank (“ ”) as opposed to a “—” for no bands or flags on that part of the leg.

You do not need to record everything, but must record any color bands in addition to the flag. It would also be acceptable to record this as:



The next 20 slides will give you practice

- Pretend you are in the field
- Decide whether to record the information or not
- Write down flag codes and other information
- After every 5 slides you will see what should have been recorded.
- Accuracy is more important than speed
- If you cannot make out the characters, note what you saw and were able to observe, along with notes on the staining or other conditions that made it difficult or impossible to determine the code.

Example 4



Example 5



Example 6



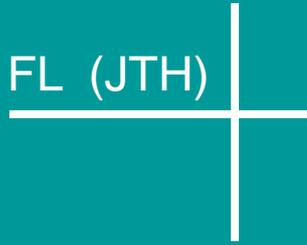
Example 7



Example 8

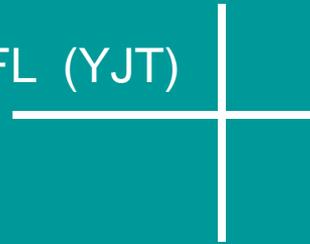


Example 4: REKN FL (JTH)



Example 5: nothing to record for this sanderling (SAND)

Example 6: REKN FL (YJT)



Example 7: REKN FL (UUP)



Example 8: REKN FL (UKV)



Example 9



Example 10



Example 11



Example 12



Example 13



Example 9: nothing to record (REKN)

Example 10: SAND FL (VKX)

Example 11: REKN FL (KM3)

Example 12: RUTU FL (XMC)

Example 13: REKN FL (KEJ)

Example 14



Example 15



Example 16



Example 17



Example 18



14: RUTU FL (KPN) |
-- | m

15: REKN FO (NJ) | m or FO (NJ) |
G | G |

16: nothing to record on this REKN

17: REKN Flag obscured DO NOT Report this bird

18: REKN FR (EN) |

Example 19



Example 20



Example 21



Example 22



Example 23



19: REKN FO (CNP) |

20: REKN FL (HM7) |

21: REKN | FL (N7K)

22: REKN FL (X4) | G

23: RUTU FL (AJK) |

Lower legs were obscured

Example 24



Example 25



Example 26



Example 27



Example 28



Example 29



24: REKN FL (EHC)

25: REKN FL (T6M)

26: REKN FB (AB)

Y

27: REKN FL (87)

O

28: RUTU FL (LNA)

29: REKN FO (K4S)

Tagged Horseshoe Crabs



If you find a tagged Horseshoe Crab Record that too.

Two different tags have been used, each has a unique tag number and a phone number. Record the information on the Data Sheet:

Tag #

Telephone Number on the Tag

Date

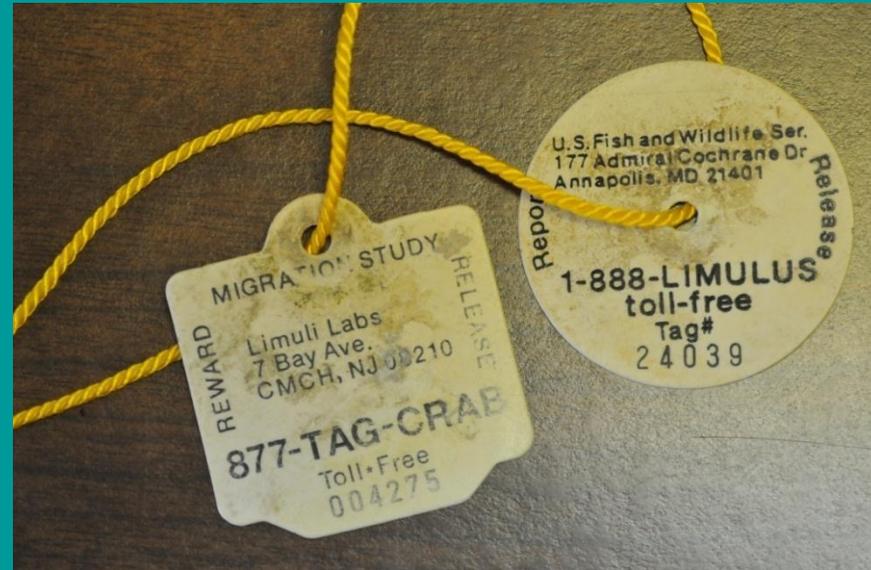
Location

Alive or Dead

Tag removed or not

Observer

Notes



Horseshoe Crab Resightings Data Sheet

Year:

Tag #	Telephone Number (1-888-LIMULUS or 877-TAG-CRAB)	Date	Location	Animal alive or dead?	Tag Removed?	Observer(s)	Notes
1							
2							
3							

Further Information

You will be provided additional information in the form of verbal instruction, written instructions, and practical experience with more advanced team members.

Please ask questions when you are uncertain.

Remember, it is better to have only a few resightings that you are sure about, than a lot of uncertain resightings. Take time to be certain.

Credits

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