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Georgia Red Knot Resights report 2014

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Investigating Population Dynamics of Red Knot Migration along the Georgia Coast through Mark/Recapture Analysis of Resights



A Cooperative Project by: US Fish and Wildlife Service, Georgia Department of Natural Resources Non-game Program, and the Center for Conservation Biology at the College of William & Mary and Virginia Commonwealth University.

Investigating Population Dynamics of Red Knot Migration along the Georgia Coast through Mark/Recapture Analysis of Resights

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US Fish and Wildlife Service
Georgia Department of Natural Resources Non-game Program
The Nature Conservancy
The Center for Conservation Biology

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The Center for Conservation Biology is an organization dedicated to discovering innovative solutions to environmental problems that are both scientifically sound and practical within today's social context. Our philosophy has been to use a general systems approach to locate critical information needs and to plot a deliberate course of action to reach what we believe are essential information endpoints.

Contents

BACKGROUND and CONTEXT.....	01
OBJECTIVES.....	02
METHODS.....	03
Field Methods.....	03
Data Verification.....	03
Study Area.....	03
Training Session.....	07
Data Storage.....	07
RESULTS.....	07
Resighting.....	07
Aerial Survey.....	10
Discussion.....	11
Acknowledgements.....	13
Literature Cited.....	14
Appendix 1.....	18

BACKGROUND and Context

The *rufa* subspecies of the Red Knot (*Calidris canutus*) has declined precipitously over the past two decades leading to the proposed status listing under the Endangered Species Act in the United States (US Fish and Wildlife Service 2013). The Red Knot is a federally listed species in Canada (COSEWIC 2008). Evidence for the decline is seen in long-term surveys of a major spring staging site (Dunne et al. 1982, Clark et al. 1993, Niles et al. 2008) and the largest known over-wintering site (Morrison et al. 2004). In only 30 years, the estimated population has declined from 100,000-150,000 to possibly below 30,000 (Niles et al. 2007) leading some researchers to suggest the population is highly vulnerable to extinction (Baker et al. 2004).

Most research exploring the population decline has focused on studying the foraging conditions within the Delaware Bay (Atkinson et al. 2003, Baker et al. 2004, Haramis et al. 2007). The Delaware Bay is a terminal spring-staging site on the mid-Atlantic seacoast where birds refuel before moving to their breeding grounds in the high arctic (Harrington and Flowers 1996, Harrington 2001). Birds staging within this site feed nearly exclusively on the eggs of the horseshoe crab (*Limulus polyphemus*) (Tsipoura and Burger 1999) and egg densities have been related to foraging rates (Atkinson et al. 2003, Gillings et al. 2007), rates of mass gain (Robinson et al. 2003, Atkinson et al. 2007) and the associated ability of birds to reach threshold leaving weights (Baker et al. 2001, Niles et al. 2008). Leaving weights have been suggested to influence adult survivorship, providing evidence of a link between conditions within the Delaware Bay and recent population declines (Baker et al. 2004). Horseshoe crabs have been harvested commercially in the Delaware Bay for decades, and the rapid emergence of the conch industry has dramatically increased harvest pressures in recent years (Walls et al. 2002). Claims that harvest rates are impacting the strength of spawning events, resulting in egg densities well below those required by staging Red Knots, have led to conflicts between the fishing industry and conservation groups (Odell et al. 2005).

A systematic band resight program was initiated along the Georgia coastal barrier islands during the fall of 2011. The patterns observed suggest that Red Knots are using the Georgia coast in fall in large numbers when forage is abundant (B. Winn and T. Keyes pers. comm.). The fall stopover event in Georgia is used primarily by Red Knots wintering in southeastern states, throughout the Caribbean, and most recently discovered, the coast of Texas. Although movement and settlement “decisions” are likely influenced by foraging conditions throughout the network, investigations into the factors driving movement during migration is necessary to better understand Red Knot migration ecology. This is critical in developing appropriate stopover models and adaptive management tools for land managers. This will require systematic resight efforts over long time scales and large geographic areas.

The Center for Conservation Biology, the US Fish and Wildlife Service, and the Georgia Department of Natural Resources Non-game Section initiated a Red Knot resight program along the Atlantic Coast of Georgia during the spring of 2013. Prior to 2013, there was no systematic resight study of Red Knots in spring migration. Previous population counts along the South

Atlantic Coast focused on aerial or ground counts. These methods are useful for counting peak numbers but are less than ideal for estimating accumulated numbers of knots using a stopover site. The Red Knot Adaptive Modelling Group (McGowan et al. 2011) strongly recommended moving away from these types of counts to methods that use mark recapture and allow for estimation of variance from the data. Estimates of spring migration survival rates, stopover duration, and between-year fidelity rates to Georgia are needed to more accurately assess the quality of the Georgia coast as a spring migration stopover for this species.

Objectives

Expanding the Red Knot resight program to include other important staging areas along the Atlantic Coast is a stated priority of the USFWS Red Knot Spotlight Species Action Plan (2010) and the Red Knot Conservation Plan (2010). Our objectives in expanding the program into the Georgia Coast during spring migration are to:

- 1) estimate the population of Red Knots using the Georgia Coast as a spring stopover,
- 2) estimate spring stopover duration along the Georgia Coast,
- 3) determine the primary stopover locations and provide this information to local land managers,
- 4) contribute to the range-wide demographic studies and studies in migratory connectivity of the Red Knot in the Western Hemisphere, and
- 5) contribute data to the current listing process initiated by the US Fish and Wildlife Service.

Regional population estimates and identification of major stopover sites are considered to be the highest priority for the Georgia Department of Natural Resources State Wildlife Action Plan, the Atlantic Flyway Shorebird Initiative (Winn et al. 2013), the US Shorebird Plan (Brown et al. 2001), the USFWS Red Knot Action Plan (2010) and the Western Hemisphere Shorebird Reserve Network Red Knot Conservation Plan for the Western Hemisphere (Niles et al. 2010a). Providing a population estimate for various staging areas is a stated goal of the WHSRN Red Knot Conservation Plan for the Western Hemisphere (Niles et al. 2010a), the Atlantic Flyway Shorebird Strategy, and the US FWS Red Knot Action Plan (2010). The Georgia Department of Natural Resources State Wildlife Action Plan ranks the Red Knot as a high priority species (with state status of “Rare”) and ranks research of the Red Knot as one primary conservation actions needed within the state.

METHODS

Field methods

The peak of Red Knot spring migration in Georgia is from late April through early-June and Knots use barrier islands located along the entire coastline (Fig. 1). Knots are easiest to observe in Georgia when they concentrate at foraging and roost sites; therefore, we focused resight efforts from 2.5 hours before high tide (mid-rising tide) to 2.5 hours after high tide (mid-falling tide) during daylight hours. We surveyed along transects that we could cover within this 5-6 hour observation period. During each survey, we used high-quality spotting scopes fitted with 20-60x zoom eye pieces to read flag codes from individually marked Red Knots and recorded codes following a standard resighting protocol (Kalasz 2006, Smith 2013).

Data verification

Prior to analysis of mark-resight data, we reported each individually-marked Red Knot to other researchers to confirm the existence of each band combination and flag code (J. Parvin / Bandedbirds.org and P. M. Gonzales, pers. comm.). We excluded observations that did not correspond to their banding data.

Study Area:

Study sites were determined based on Red Knot concentrations in prior years (Figs 1-7). The original study sites included Wolf, Little Egg Island, Little Egg Island Bar, and Ogeechee Bar. The study area was modified (due to Red Knot distribution) to include Cabretta Island, Ossabaw Island, and South Blackbeard Island during the spring of 2013.

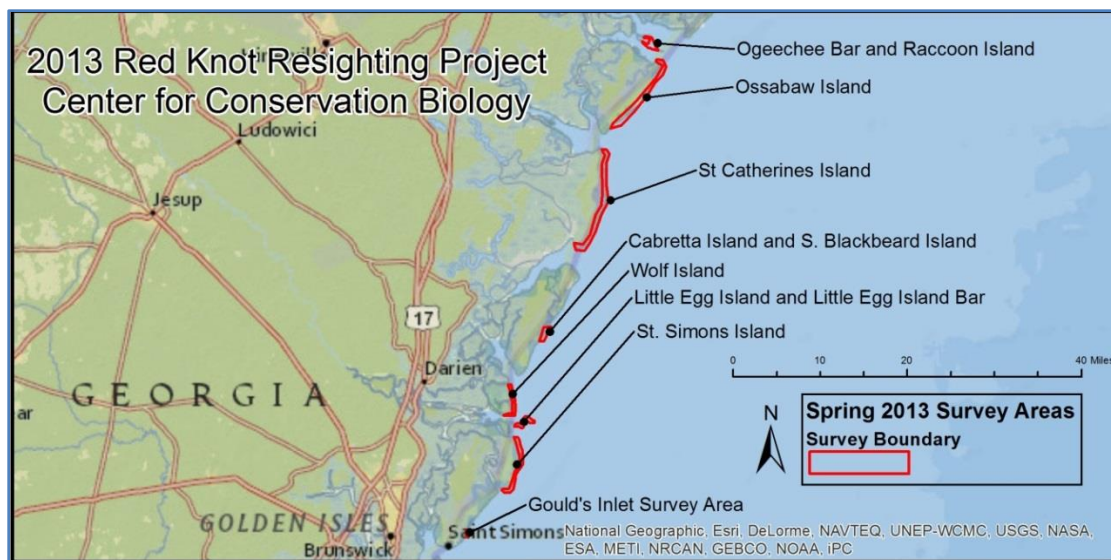


Figure 1. Overview of spring 2013 Red Knot study area.

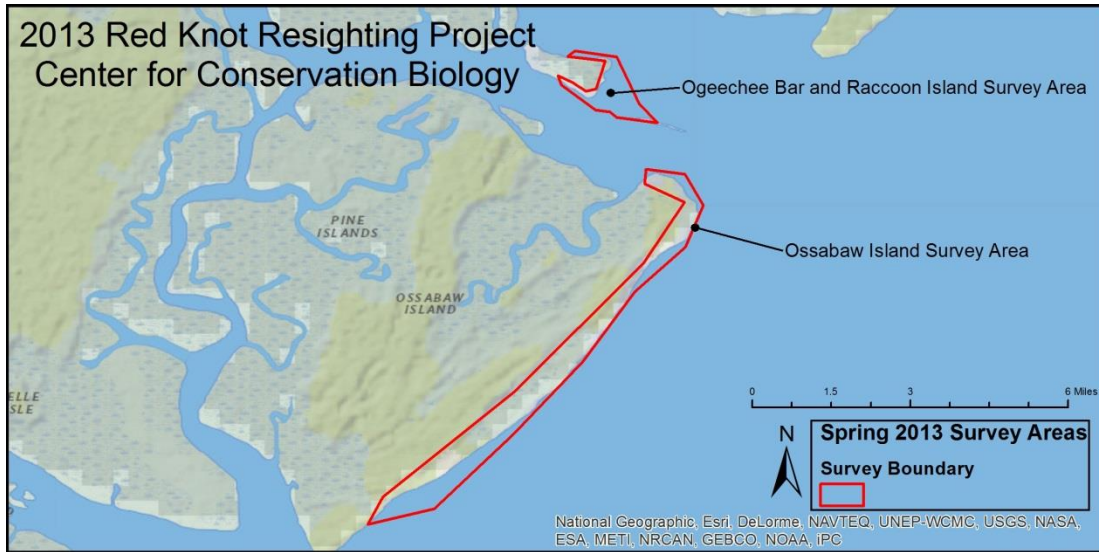


Figure 2. Ogeechee Bar, Raccoon Key, and Ossabaw Island Survey Areas. Surveys were completed by CCB and GA DNR staff.

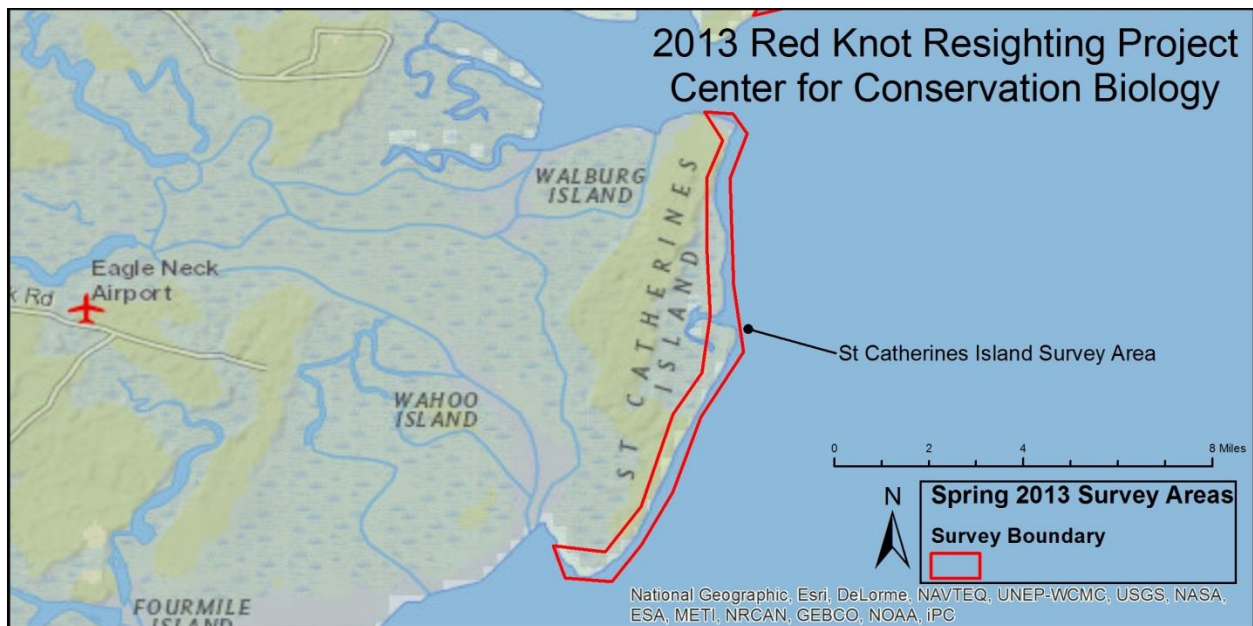


Fig 3. St Catherines Island survey area. St Catherines surveys and resighting were completed by GA DNR and St Catherines staff.

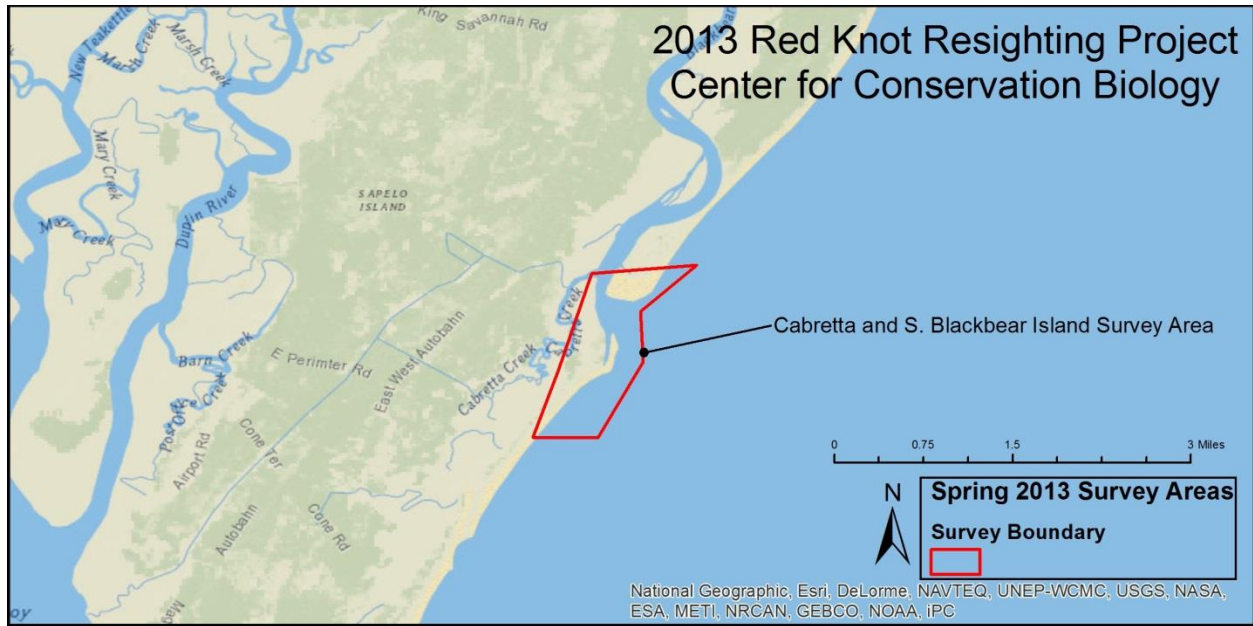


Fig 4. Cabretta Island and S. Blackbear Island. These locations were surveyed by CCB staff and GA DNR staff.

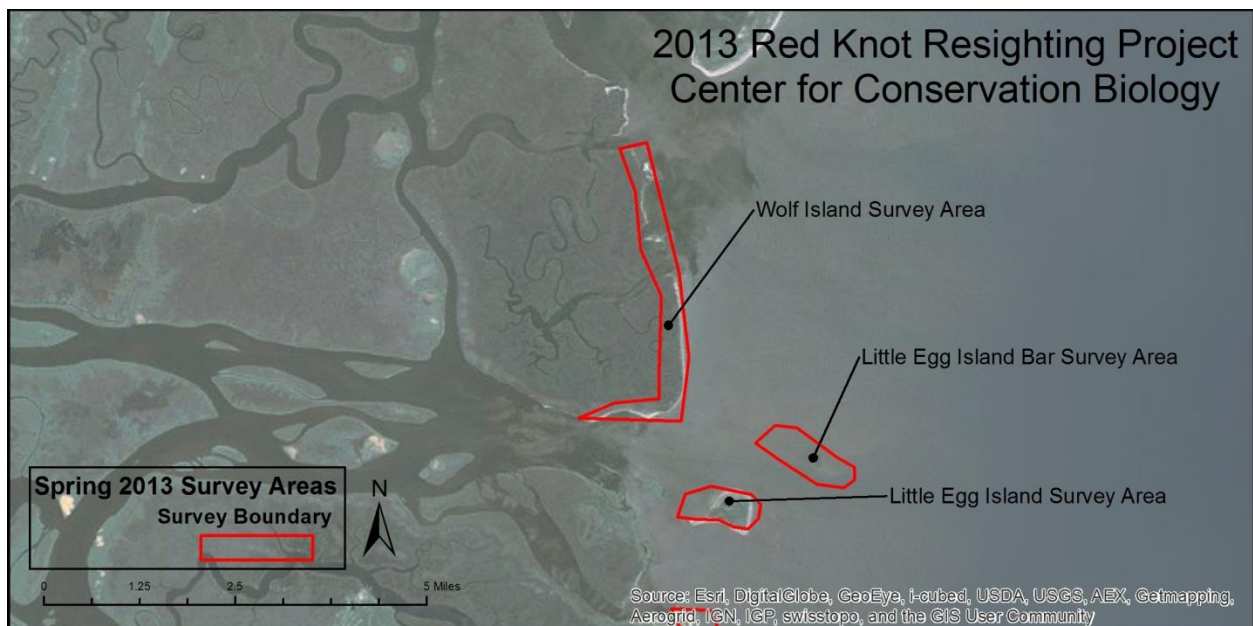


Fig 5. Wolf Island, Little Egg Island, and Little Egg Island Bar study areas. CCB staff and US Fish and Wildlife Service Staff completed the surveys.

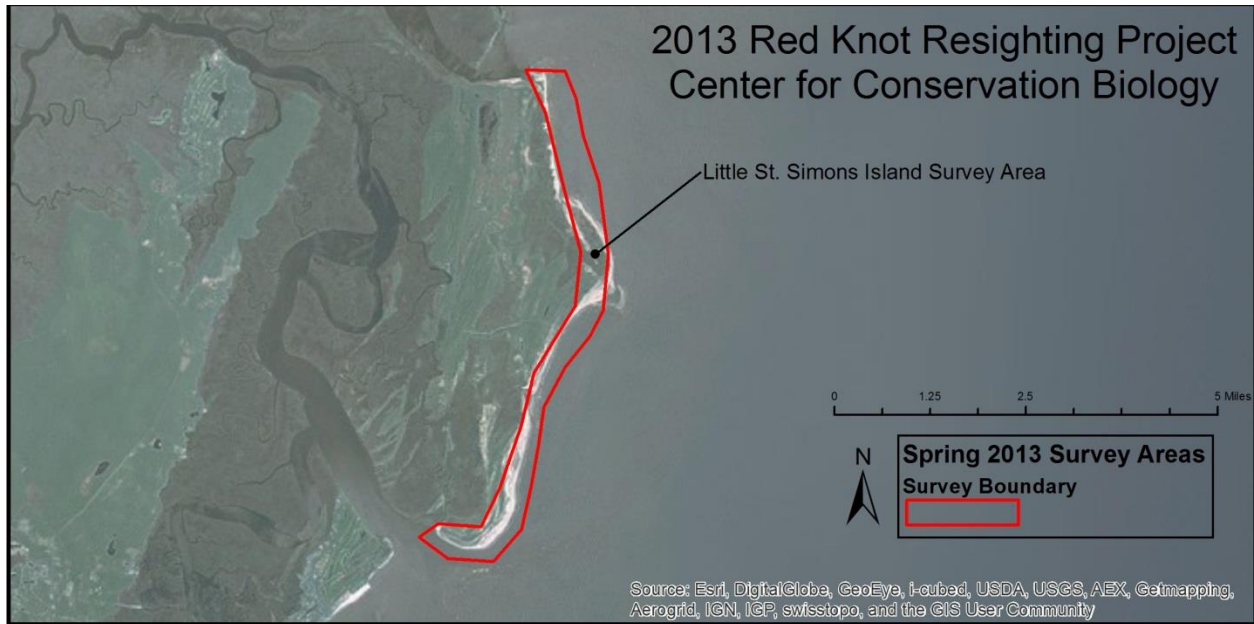


Fig 6. Little St. Simons survey area. Little St. Simons was covered by LSSI staff.

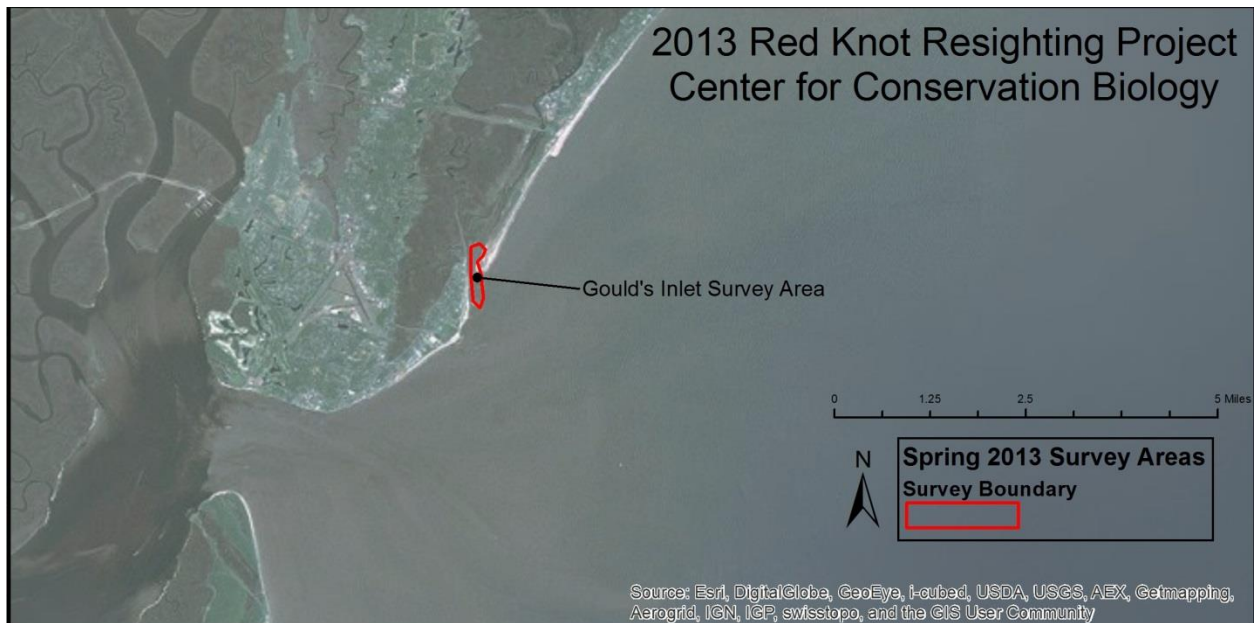


Fig 7. Gould's inlet survey area. Gould's inlet was surveyed by CCB staff.

Training:

A Red Knot resighting training session was held during the spring Georgia Shorebird Alliance meeting in March 2013. During this training session, a CCB biologist trained field biologists and land managers in standardized protocols (Kalasz 2006, Smith 2013) used to collect Red Knot resight data. Several technicians or interns were trained in the resight protocols during the migration season.

Data Storage:

Data is stored on Bandedbirds.org servers, under the Georgia Shorebird Resighting Project portal. This data is accessible to the larger demographic studies being conducted for this species. Copies of the database are also backed up on the Center for Conservation Biology's server.

RESULTS:

Resighting:

A total of 10 barrier islands were surveyed for Red Knots during the 2013 migration season: Gould's Inlet, Little St. Simons Island, Wolf Island, Little Egg Island, Little Egg Island Bar, Cabretta Island and South Blackbeard, St. Catherines Island, Ossabaw Island, and Ogeechee Bar. Four locations were intensively surveyed: Little St. Simons Island, Cabretta Island, Ossabaw Island, and Ogeechee Bar. CCB staff surveyed a total of 33 out of 50 potential days during the spring migration window. Project partners were able to cover an additional 28 days of surveys of islands outside of the main study areas. A nor'easter between April 28th and May 4th kept us from performing work on the barrier islands. Transects were initially set up on the highest Red Knot use islands from previous years, but were repositioned to cover the areas with high Red Knot use in spring 2013. During the 2013 season, Wolf Island, Little Egg Island, and Little Egg Island Bar were dropped as primary survey/resight locations by CCB staff due to low Red Knot use. US Fish and Wildlife staff covered those islands during the migration and recorded all Red Knot use of those islands during the migration window. Biologists, technicians, and volunteers covered St. Catherines Island, Little St. Simons Island, and assisted on Cabretta Island. CCB staff surveyed Ossabaw Island, Ogeechee Bar, and Cabretta Island intensively. In total, we accumulated 73.9 hours of resight effort from non-CCB staff on Little St Simons, St Catherine, and Cabretta Islands.

A total of 18,552 Red Knots were detected on resight surveys, of which 616 individually banded Red Knots were resighted (See Figures 8 and 9 for cumulative resight summaries and Appendix 1 for a list of all individually banded Red Knots). A total of 61 marked to unmarked ratios were recorded during the field season, with an average of 3.6% of Red Knots banded. A total of 277 individually marked Red Knots were detected at least once during the spring 2013 migration season. These individuals were resighted on a total of 505 separate encounters.

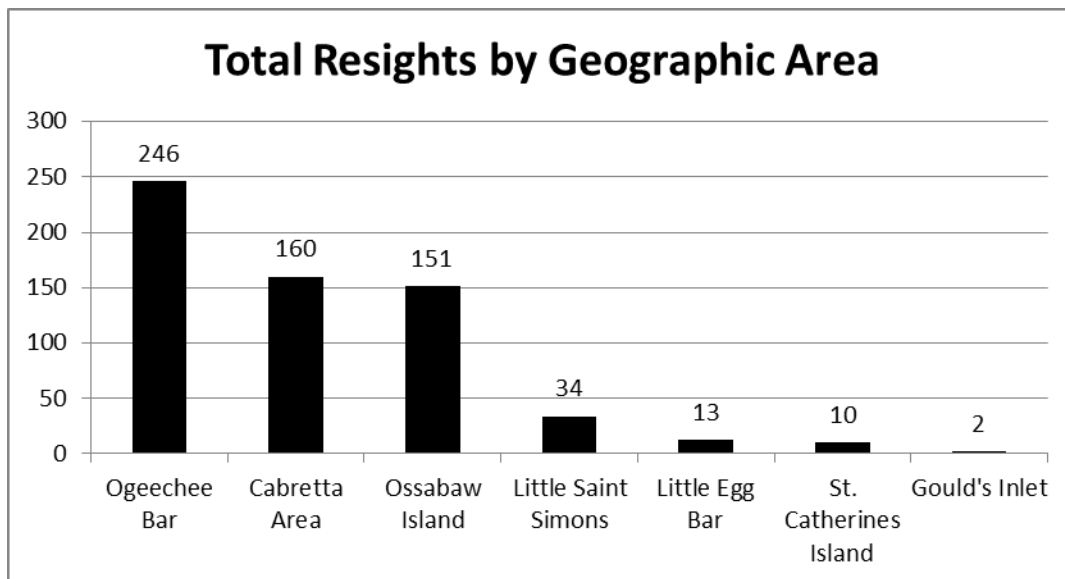


Figure 8. Cumulative individually banded Red Knots encountered by geographic area during the 2013 spring season.

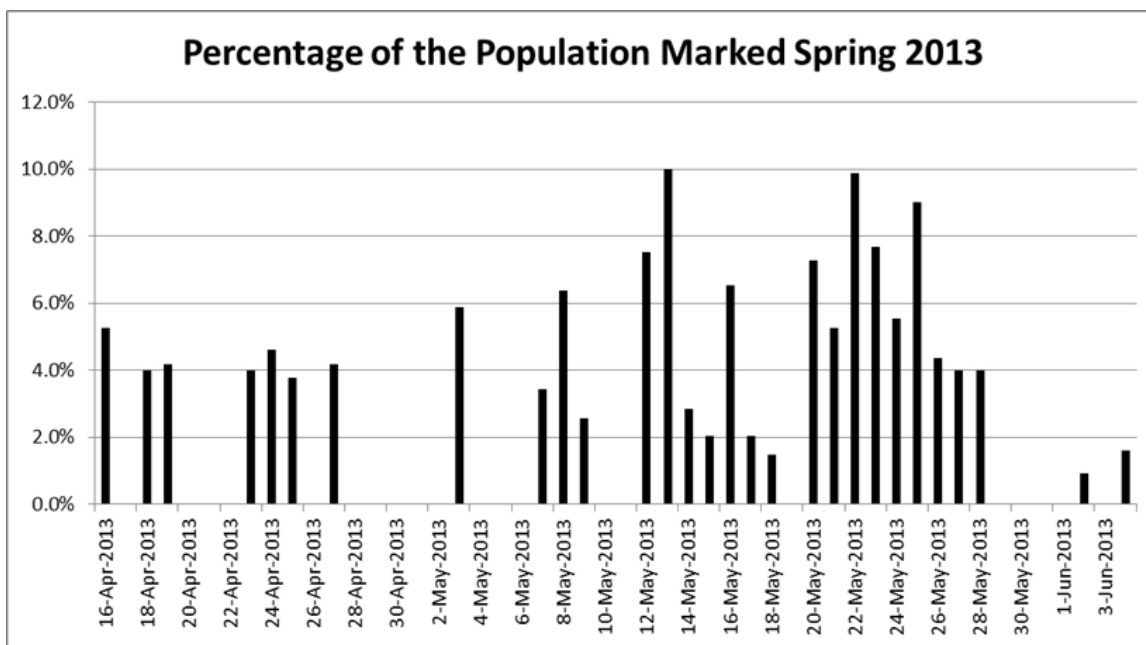


Figure 9. Percentage of individually banded population encountered during spring 2013 migration season. Banded Red Knot percentages increased towards the end of the season, presumably with increases in Red Knots from long-distance migrant populations.

The numbers of knots using the barrier islands as a stopover site changed temporally. During the 3 week peak of migration (May 7th to May 27th), 85.7% of total Red Knot resights were recorded.



Figure 10. Image depicts a known long distance migrant Red Knot (orange flag indicates that it was banded in Argentina). The first detection of a known long distance migrant was on May 10th and the detections of these birds increased to the peak in the 3rd week of May. A total of 28 individually banded Red Knots (of 277 total individually banded knots) were known to be of the long distance migratory population due to their orange or red (banded in Chile) flags.

Aerial Survey

CCB staff performed an aerial Red Knot survey during the GA DNR turtle/marine mammal stranding survey on May 16th 2013. All Red Knots were counted and mapped to location (Figures 11 and 12). The survey took place between 10:02am and 11:15am. A total of 1,999 Red Knots were detected along the Georgia Coast on this date.

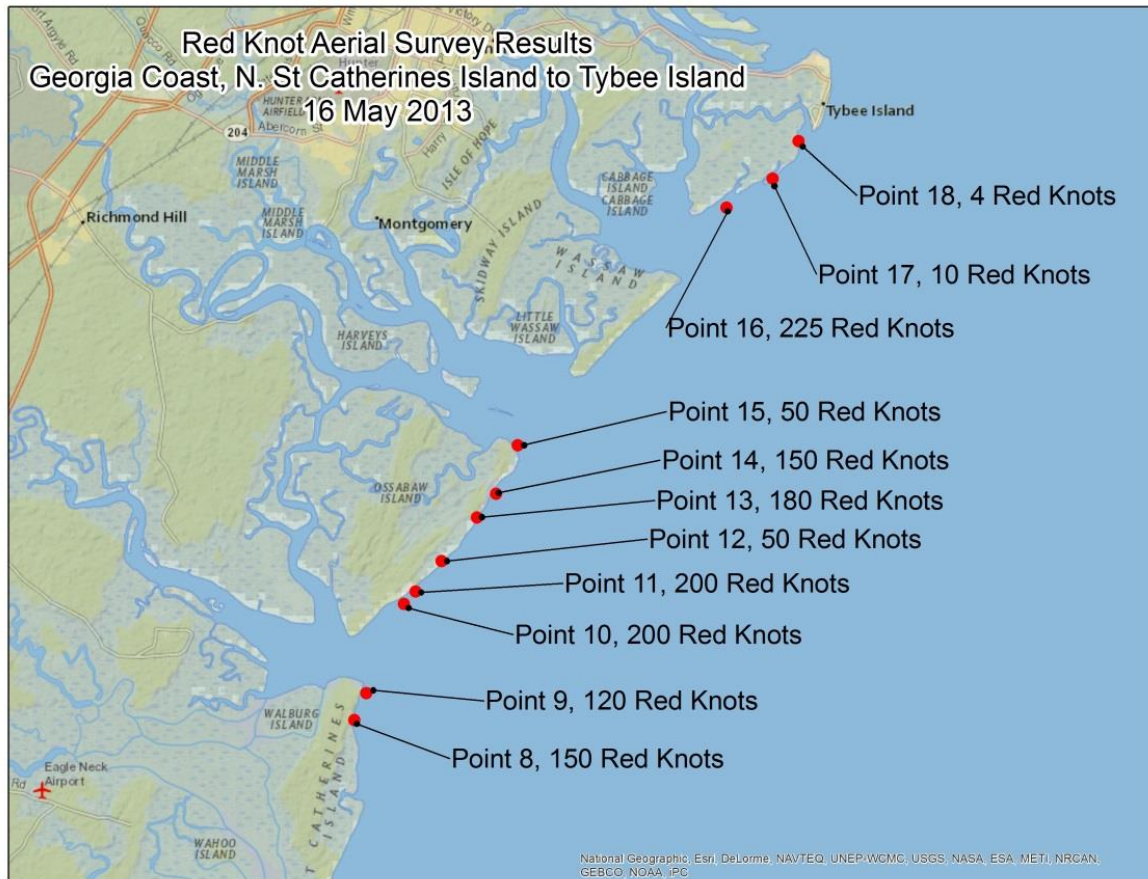


Figure 11. Location of Red Knots along the Georgia Coast. Locations between N. St Catherines Island and Tybee Island.

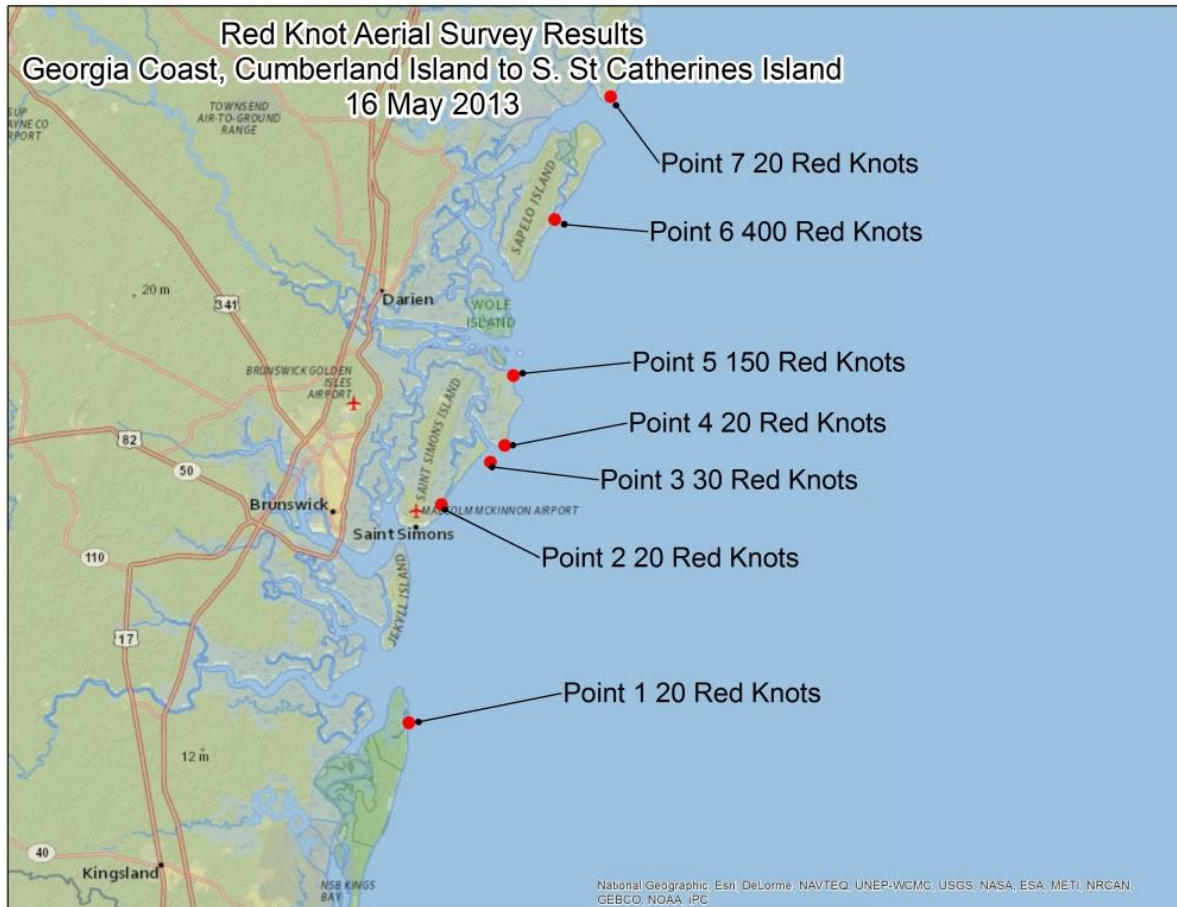


Figure 12. Location of Red Knots along the Georgia Coast. Locations between Cumberland Island and S. St Catherines Island.

Discussion:

The numbers of Red Knots that utilize the barrier islands along the Georgia Coast varies year to year based on changes in abundance and distribution of the bivalves *Mulinia lateralis* and *Donax variabilis* (T. Keyes and B. Winn pers. comm.). This behavior is similar to other stopover sites across the hemispheres (Alerstam et al. 1992, Truitt et al. 2001). Red Knots will also opportunistically forage on horseshoe crab eggs during peak crab spawning years (B. Winn pers. comm.). During periods when the bivalve prey base cycles upwards, many thousands of Red Knots will use Georgia for migration stopover and in certain years for wintering (Niles et al. 2010b). These fall stopover and wintering sites likely play an important role in the long-term persistence of the declining Red Knot population. While studies have been initiated to look at critical demographic parameters of the fall Red Knot population in Georgia, very little work has been conducted in spring migration. Estimates of spring migration survival rates, stopover duration, and between-year fidelity rates to Georgia are needed to more accurately assess the quality of the Georgia coast as a spring migration stopover for this species. Analysis of the data collected during spring 2013 will elucidate some of these questions.

The horseshoe crab spawning event of spring 2013 coincided perfectly with the arrival of large numbers of Red Knots on to the Georgia Coast. The aerial survey of May 16th detected 1,999 Red Knots along the entire coast. Horseshoe crab spawning increased towards the third week of May, and a total of 2,500 Red Knots were observed on May 24th at Ogeechee Bar alone, foraging on horseshoe crab eggs. The increase in knots during the peak of crab spawning was substantial at all of the sites monitored by CCB staff, with high counts of 800 Red Knots at Cabretta Spit on May 24th and 1,500 Red Knots on Ossabaw Island on May 22nd. The importance of crab eggs to the survival of Red Knots in Delaware Bay is well documented, and further studies should be undertaken to monitor the cycles of horseshoe crab abundance and spawning along the Georgia Coast. It is unknown whether Red Knots sampled other stopover locations before descending on Georgia en masse, and that question could be answered through a larger resight analysis.

The numbers of Red Knots utilizing the Georgia Coast in spring migration are split between two populations. The “Southeastern” population winters along the South Atlantic Coast into the Caribbean and Texas Coast, and the long distance migrants winter from Brazil to southern South America. The strategies that these two populations use to survive are quite different, though there appears to be much habitat use overlap between the two in Georgia. Just over 10% (N=28) of all individually banded Red Knots detected in spring 2013 were known long distance migrants. Georgia is well documented as an important stopover and wintering location for the “southeastern” population (Harrington et al. 2007), and is likely more important for the long distance migrants than previously thought. Further analysis looking at the connectivity of the knots migrating through Georgia can shed light on this subject. The increase in the use of geolocators on the species has already shown the importance of stopover sites in the South Atlantic and has shown that the “Southeastern” wintering Red Knots are of the subspecies *rufa*, not *roselaari* as was previously thought (Niles et al. 2012, Newstead et al. 2013).

One of the most important conservation issues on the Georgia Coast is the human disturbance issue (see Figure 13). The focus of regulatory agencies has typically been on resident nesting birds (the Georgia Shorebird Alliance (comprised of federal, state, and private biologists and land managers with the goal of protecting breeding waterbird habitat), Georgia Department of Natural Resources State Wildlife Action Plan). Migratory shorebirds utilize many of the same habitat types as the resident breeding birds and also need disturbance free stretches of beach to replenish fat stores before migrating thousands of miles from the Georgia Coast to arctic habitats. Towards the end of the migration window (last week of May to the first week of June) human disturbance increased on Ogeechee Bar and Blackbeard Island, two of the most critical feeding areas for Red Knots and numerous other migratory shorebirds. The monitoring of this issue moving forward should be a focus of biologists and land managers protecting these resources.



Figure 13. Image shows south Blackbeard Island, one of the highest use Red Knot sites during the spring of 2013. The location of the recreational activities in this picture overlap with the primary shorebird foraging areas of the south tip of Blackbeard. Photo taken by Cory Gregory in late May, during the peak of Red Knot use of the island due to the increase in horseshoe crab spawning on Cabretta Spit and S. Blackbeard Island. Three days prior to this photograph 550 Red Knots were seen in the area. Fewer than 100 Red Knots were observed in the area on this date, perhaps due to disturbance or simply that the birds migrated.

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Appendix 1. Date, location of resight, flag color and alpha-numeric combination, and country of banding origin for all individually tagged Red Knots resighted in Georgia during spring migration 2013.

Resight Date	Location ID	Band Combination	Band Origin
16-Apr-2013	Cabretta Island	FL:5L6	USA
18-Apr-2013	Cabretta Island	FL:030	USA
18-Apr-2013	Cabretta Island	FL:034	USA
18-Apr-2013	Cabretta Island	FL:1H2	USA
18-Apr-2013	Cabretta Island	FL:4H5	USA
18-Apr-2013	Cabretta Island	FL:5L6	USA
18-Apr-2013	Cabretta Island	FL:C4V	USA
18-Apr-2013	Cabretta Island	FL:JT3	USA
18-Apr-2013	Cabretta Island	FL:PEP	USA
18-Apr-2013	Cabretta Island	FL:T45	USA
18-Apr-2013	Cabretta Island	FL:TLN	USA
18-Apr-2013	Cabretta Island	FL:1H2	USA
18-Apr-2013	Cabretta Island	FL:4H5	USA
18-Apr-2013	Cabretta Island	FL:5L6	USA
18-Apr-2013	Cabretta Island	FL:C4V	USA
18-Apr-2013	Cabretta Island	FL:CJ6	USA
18-Apr-2013	Cabretta Island	FL:JT3	USA
18-Apr-2013	Cabretta Island	FL:MHX	USA
18-Apr-2013	Cabretta Island	FL:T45	USA
18-Apr-2013	Cabretta Island	FL:TLN	USA
18-Apr-2013	Ossabaw Island	FL:071	USA
18-Apr-2013	Ossabaw Island	FL:0E8	USA
18-Apr-2013	Ossabaw Island	FL:163	USA
18-Apr-2013	Ossabaw Island	FL:1H5	USA
18-Apr-2013	Ossabaw Island	FL:255	USA
18-Apr-2013	Ossabaw Island	FL:7C5	USA
18-Apr-2013	Ossabaw Island	FL:7CY	USA
18-Apr-2013	Ossabaw Island	FL:9AH	USA
18-Apr-2013	Ossabaw Island	FL:9C9	USA
18-Apr-2013	Ossabaw Island	FL:9NX	USA
18-Apr-2013	Ossabaw Island	FL:CX9	USA

Appendix 1 cont... Date, location of resight, flag color and alpha-numeric combination, and country of banding origin for all individually tagged Red Knots resighted in Georgia during spring migration 2013.

Resight Date	Location ID	Band Combination	Band Origin
18-Apr-2013	Ossabaw Island	FL:E2V	USA
18-Apr-2013	Ossabaw Island	FL:H5J	USA
18-Apr-2013	Ossabaw Island	FL:UXH	USA
18-Apr-2013	Ossabaw Island	FL:X1V	USA
18-Apr-2013	Ossabaw Island	FL:XYV	USA
18-Apr-2013	Ossabaw Island	FL:YT9	USA
19-Apr-2013	Gould's Inlet	FL:NJ6	USA
19-Apr-2013	Gould's Inlet	FL:PA4	USA
23-Apr-2013	Ossabaw Island	FL:9NX	USA
24-Apr-2013	Cabretta Island	FL:030	USA
24-Apr-2013	Cabretta Island	FL:335	USA
24-Apr-2013	Cabretta Island	FL:030	USA
24-Apr-2013	Cabretta Island	FL:332	USA
24-Apr-2013	Cabretta Island	FL:335	USA
24-Apr-2013	Cabretta Island	FL:C4V	USA
24-Apr-2013	Cabretta Island	FL:VLC	USA
24-Apr-2013	Little St Simons Island	FL:007	USA
24-Apr-2013	Little St Simons Island	FL:36P	USA
24-Apr-2013	Little St Simons Island	FL:7ET	USA
24-Apr-2013	Little St Simons Island	FL:H21	USA
24-Apr-2013	Little St Simons Island	FL:LM6	USA
24-Apr-2013	Little St Simons Island	FL:YL4	USA
25-Apr-2013	Little Egg Island Bar	FL:155	USA
27-Apr-2013	Ossabaw Island	FL:255	USA
27-Apr-2013	Ossabaw Island	FL:258	USA
27-Apr-2013	Ossabaw Island	FL:4C2	USA
27-Apr-2013	Ogeechee Bar	FL:112	USA
27-Apr-2013	Ogeechee Bar	FL:255	USA
27-Apr-2013	Ogeechee Bar	FL:258	USA
27-Apr-2013	Ogeechee Bar	FL:339	USA
27-Apr-2013	Ogeechee Bar	FL:3MJ	USA

Appendix 1 cont... Date, location of resight, flag color and alpha-numeric combination, and country of banding origin for all individually tagged Red Knots resighted in Georgia during spring migration 2013.

Resight Date	Location ID	Band Combination	Band Origin
27-Apr-2013	Ogeechee Bar	FL:4C2	USA
27-Apr-2013	Ogeechee Bar	FL:5L6	USA
27-Apr-2013	Ogeechee Bar	FL:9C7	USA
27-Apr-2013	Ogeechee Bar	FL:9NX	USA
27-Apr-2013	Ogeechee Bar	FL:AE6	USA
27-Apr-2013	Ogeechee Bar	FL:CN4	USA
27-Apr-2013	Ogeechee Bar	FL:EU5	USA
27-Apr-2013	Ogeechee Bar	FL:H2Y	USA
27-Apr-2013	Ogeechee Bar	FL:H5J	USA
27-Apr-2013	Ogeechee Bar	FL:JT6	USA
27-Apr-2013	Ogeechee Bar	FL:KT3	USA
27-Apr-2013	Ogeechee Bar	FL:VKN	USA
27-Apr-2013	Ogeechee Bar	FL:Y19	USA
3-May-2013	Cabretta Island	FL:LB:O	USA
7-May-2013	Ossabaw Island	FL:PHC	USA
8-May-2013	Little Egg Island Bar	FL:332	USA
8-May-2013	Little Egg Island Bar	FL:48T	USA
8-May-2013	Little Egg Island Bar	FL:48T	USA
8-May-2013	Little Egg Island Bar	FL:7C3	USA
8-May-2013	Little Egg Island Bar	FL:7C3	USA
8-May-2013	Little Egg Island Bar	FL:9C7	USA
8-May-2013	Little Egg Island Bar	FL:9C7	USA
8-May-2013	Little Egg Island Bar	FL:ETK	USA
8-May-2013	Little Egg Island Bar	FL:ETK	USA
8-May-2013	Little Egg Island Bar	FL:TU4	USA
8-May-2013	Little Egg Island Bar	FL:TU4	USA
9-May-2013	Cabretta Island	FL:1XX	USA
9-May-2013	Cabretta Island	FL:4H5	USA
9-May-2013	Ogeechee Bar	FL:244	USA
9-May-2013	Ogeechee Bar	FL:339	USA
9-May-2013	Ogeechee Bar	FL:UC3	USA

Appendix 1 cont... Date, location of resight, flag color and alpha-numeric combination, and country of banding origin for all individually tagged Red Knots resighted in Georgia during spring migration 2013.

Resight Date	Location ID	Band Combination	Band Origin
9-May-2013	Ossabaw Island	FL:124	USA
9-May-2013	Ossabaw Island	FL:255	USA
9-May-2013	Ossabaw Island	FL:339	USA
10-May-2013	St. Catherines Island	FR:HJL	Chile
12-May-2013	Cabretta Island	FL:007	USA
12-May-2013	Cabretta Island	FL:1XX	USA
12-May-2013	Cabretta Island	FL:CN9	USA
12-May-2013	Cabretta Island	FL:LC1	USA
12-May-2013	Cabretta Island	FL:NX8	USA
12-May-2013	Cabretta Island	FL:1XX	USA
12-May-2013	Cabretta Island	FL:3H4	USA
12-May-2013	Cabretta Island	FL:48T	USA
12-May-2013	Cabretta Island	FL:7C3	USA
12-May-2013	Cabretta Island	FL:7C3	USA
12-May-2013	Cabretta Island	FL:9C7	USA
12-May-2013	Cabretta Island	FL:CN9	USA
12-May-2013	Cabretta Island	FL:ETK	USA
12-May-2013	Cabretta Island	FL:H1C	USA
12-May-2013	Cabretta Island	FL:H1C	USA
12-May-2013	Cabretta Island	FL:K4J	USA
12-May-2013	Cabretta Island	FL:KH3	USA
12-May-2013	Cabretta Island	FL:LC1	USA
12-May-2013	Cabretta Island	FL:NX8	USA
12-May-2013	Cabretta Island	FL:NX8	USA
12-May-2013	Cabretta Island	FL:032	USA
12-May-2013	Cabretta Island	FL:332	USA
12-May-2013	Cabretta Island	FL:3NM	USA
12-May-2013	Cabretta Island	FL:48T	USA
12-May-2013	Cabretta Island	FL:4H5	USA
12-May-2013	Cabretta Island	FL:7C3	USA
12-May-2013	Cabretta Island	FL:9C7	USA

Appendix 1 cont... Date, location of resight, flag color and alpha-numeric combination, and country of banding origin for all individually tagged Red Knots resighted in Georgia during spring migration 2013.

Resight Date	Location ID	Band Combination	Band Origin
12-May-2013	Cabretta Island	FL:A9U	USA
12-May-2013	Cabretta Island	FL:ETK	USA
12-May-2013	Cabretta Island	FL:H2C	USA
12-May-2013	Cabretta Island	FL:K4J	USA
13-May-2013	Ossabaw Island	FL:Y7N	USA
13-May-2013	Ossabaw Island	FL:25X	USA
13-May-2013	Ossabaw Island	FL:35A	USA
13-May-2013	Ossabaw Island	FL:369	USA
13-May-2013	Ossabaw Island	FL:3JJ	USA
13-May-2013	Ossabaw Island	FL:KT3	USA
13-May-2013	Ossabaw Island	FL:Y7N	USA
14-May-2013	Cabretta Island	FL:2AC	USA
14-May-2013	Cabretta Island	FL:VK7	USA
14-May-2013	Cabretta Island	FO:AEM	Argentina
14-May-2013	Cabretta Island	FW:5P	Canada
15-May-2013	Ossabaw Island	FL:25X	USA
15-May-2013	Ossabaw Island	FL:AV0	USA
15-May-2013	Ossabaw Island	FL:H2E	USA
15-May-2013	Ossabaw Island	FL:ME3	USA
15-May-2013	Ossabaw Island	FL:TU3	USA
15-May-2013	Ossabaw Island	FL:Y7N	USA
15-May-2013	Ossabaw Island	FO:AGA	Argentina
16-May-2013	Cabretta Island	FL:1XX	USA
16-May-2013	Cabretta Island	FL:4H5	USA
16-May-2013	Cabretta Island	FL:7C3	USA
16-May-2013	Cabretta Island	FL:7C3	USA
16-May-2013	Cabretta Island	FL:9C7	USA
16-May-2013	Cabretta Island	FL:H1C	USA
16-May-2013	Cabretta Island	FW:5P	Canada
16-May-2013	Little Egg Island Bar	FL:P63	USA
16-May-2013	Little St Simons Island	FL:104	USA

Appendix 1 cont... Date, location of resight, flag color and alpha-numeric combination, and country of banding origin for all individually tagged Red Knots resighted in Georgia during spring migration 2013.

Resight Date	Location ID	Band Combination	Band Origin
16-May-2013	Little St Simons Island	FL:14C	USA
16-May-2013	Little St Simons Island	FL:155	USA
16-May-2013	Little St Simons Island	FL:163	USA
16-May-2013	Little St Simons Island	FL:165	USA
16-May-2013	Little St Simons Island	FL:166	USA
16-May-2013	Little St Simons Island	FL:170	USA
16-May-2013	Little St Simons Island	FL:1MU	USA
16-May-2013	Little St Simons Island	FL:1U4	USA
16-May-2013	Little St Simons Island	FL:9JY	USA
16-May-2013	Little St Simons Island	FL:9KM	USA
16-May-2013	Little St Simons Island	FL:H1J	USA
16-May-2013	Little St Simons Island	FL:JN6	USA
16-May-2013	Little St Simons Island	FL:JX3	USA
16-May-2013	Little St Simons Island	FL:KV4	USA
16-May-2013	Little St Simons Island	FL:LC1	USA
16-May-2013	Little St Simons Island	FL:ML3	USA
16-May-2013	Little St Simons Island	FL:NX2	USA
16-May-2013	Little St Simons Island	FL:NYE	USA
16-May-2013	Little St Simons Island	FL:TU5	USA
16-May-2013	Little St Simons Island	FL:YL2	USA
16-May-2013	Little St Simons Island	FO:B8	Argentina
16-May-2013	Little St Simons Island	FO:U3Y	Argentina
17-May-2013	Ossabaw Island	FL:2H4	USA
17-May-2013	Ossabaw Island	FL:7C9	USA
17-May-2013	Ossabaw Island	FL:01A	USA
17-May-2013	Ossabaw Island	FL:067	USA
17-May-2013	Ossabaw Island	FL:0E8	USA
17-May-2013	Ossabaw Island	FL:0H6	USA
17-May-2013	Ossabaw Island	FL:116	USA
17-May-2013	Ossabaw Island	FL:1T6	USA
17-May-2013	Ossabaw Island	FL:1YM	USA

Appendix 1 cont... Date, location of resight, flag color and alpha-numeric combination, and country of banding origin for all individually tagged Red Knots resighted in Georgia during spring migration 2013.

Resight Date	Location ID	Band Combination	Band Origin
17-May-2013	Ossabaw Island	FL:255	USA
17-May-2013	Ossabaw Island	FL:25X	USA
17-May-2013	Ossabaw Island	FL:266	USA
17-May-2013	Ossabaw Island	FL:268	USA
17-May-2013	Ossabaw Island	FL:284	USA
17-May-2013	Ossabaw Island	FL:2H0	USA
17-May-2013	Ossabaw Island	FL:2H4	USA
17-May-2013	Ossabaw Island	FL:311	USA
17-May-2013	Ossabaw Island	FL:339	USA
17-May-2013	Ossabaw Island	FL:3MJ	USA
17-May-2013	Ossabaw Island	FL:48T	USA
17-May-2013	Ossabaw Island	FL:5L6	USA
17-May-2013	Ossabaw Island	FL:63V	USA
17-May-2013	Ossabaw Island	FL:9A7	USA
17-May-2013	Ossabaw Island	FL:AT5	USA
17-May-2013	Ossabaw Island	FL:AV0	USA
17-May-2013	Ossabaw Island	FL:CX9	USA
17-May-2013	Ossabaw Island	FL:E1P	USA
17-May-2013	Ossabaw Island	FL:E2T	USA
17-May-2013	Ossabaw Island	FL:E6K	USA
17-May-2013	Ossabaw Island	FL:EA7	USA
17-May-2013	Ossabaw Island	FL:EKA	USA
17-May-2013	Ossabaw Island	FL:HM4	USA
17-May-2013	Ossabaw Island	FL:ME3	USA
17-May-2013	Ossabaw Island	FL:MP9	USA
17-May-2013	Ossabaw Island	FL:NH4	USA
17-May-2013	Ossabaw Island	FL:NV2	USA
17-May-2013	Ossabaw Island	FL:P0K	USA
17-May-2013	Ossabaw Island	FL:THE	USA
17-May-2013	Ossabaw Island	FL:TT6	USA
17-May-2013	Ossabaw Island	FL:TU3	USA

Appendix 1 cont... Date, location of resight, flag color and alpha-numeric combination, and country of banding origin for all individually tagged Red Knots resighted in Georgia during spring migration 2013.

Resight Date	Location ID	Band Combination	Band Origin
17-May-2013	Ossabaw Island	FL:UC3	USA
17-May-2013	Ossabaw Island	FL:UE6	USA
17-May-2013	Ossabaw Island	FL:VKN	USA
17-May-2013	Ossabaw Island	FL:VT6	USA
17-May-2013	Ossabaw Island	FL:VYA	USA
17-May-2013	Ossabaw Island	FL:X1V	USA
17-May-2013	Ossabaw Island	FL:X7J	USA
17-May-2013	Ossabaw Island	FL:XH6	USA
17-May-2013	Ossabaw Island	FL:Y7N	USA
17-May-2013	Ossabaw Island	FO:AGH	Argentina
17-May-2013	Ossabaw Island	FO:AKH	Argentina
17-May-2013	Ossabaw Island	FO:CIJ	Argentina
17-May-2013	Ossabaw Island	FO:Y3H	Argentina
17-May-2013	Ossabaw Island	FL:112	USA
17-May-2013	Ossabaw Island	FL:128	USA
17-May-2013	Ossabaw Island	FL:1YM	USA
17-May-2013	Ossabaw Island	FL:5L6	USA
17-May-2013	Ossabaw Island	FL:7C9	USA
17-May-2013	Ossabaw Island	FL:C1V	USA
17-May-2013	Ossabaw Island	FL:X5J	USA
18-May-2013	Cabretta Island	FL:4H5	USA
18-May-2013	Cabretta Island	FL:7C3	USA
18-May-2013	Cabretta Island	FL:9C7	USA
18-May-2013	Cabretta Island	FO:AEM	Argentina
18-May-2013	Cabretta Island	FL:1XX	USA
18-May-2013	Cabretta Island	FL:73C	USA
18-May-2013	Cabretta Island	FL:9C7	USA
18-May-2013	Cabretta Island	FL:LC1	USA
18-May-2013	Cabretta Island	FL:NX8	USA
18-May-2013	Cabretta Island	FO:AEM	Argentina
20-May-2013	Cabretta Island	FL:2AC	USA

Appendix 1 cont... Date, location of resight, flag color and alpha-numeric combination, and country of banding origin for all individually tagged Red Knots resighted in Georgia during spring migration 2013.

Resight Date	Location ID	Band Combination	Band Origin
20-May-2013	Cabretta Island	FL:TN:G	USA
20-May-2013	Cabretta Island	FL:V6A	USA
20-May-2013	Cabretta Island	FO:C9C	Argentina
20-May-2013	Ossabaw Island	FL:07V	USA
20-May-2013	Ossabaw Island	FL:103	USA
20-May-2013	Ossabaw Island	FL:255	USA
20-May-2013	Ossabaw Island	FL:255	USA
20-May-2013	Ossabaw Island	FL:2H4	USA
20-May-2013	Ossabaw Island	FL:311	USA
20-May-2013	Ossabaw Island	FL:315	USA
20-May-2013	Ossabaw Island	FL:C4V	USA
20-May-2013	Ossabaw Island	FL:HAU	USA
20-May-2013	Ossabaw Island	FL:HAU	USA
20-May-2013	Ossabaw Island	FL:JM6	USA
20-May-2013	Ossabaw Island	FL:LM6	USA
20-May-2013	Ossabaw Island	FL:ME3	USA
20-May-2013	Ossabaw Island	FL:P0K	USA
20-May-2013	Ossabaw Island	FL:T3U	USA
20-May-2013	Ossabaw Island	FL:TJ4	USA
20-May-2013	Ossabaw Island	FL:TU3	USA
20-May-2013	Ossabaw Island	FL:VTM	USA
20-May-2013	Ossabaw Island	FL:VXY	USA
20-May-2013	Ossabaw Island	FL:XH6	USA
20-May-2013	Ossabaw Island	FL:YN3	USA
20-May-2013	Ossabaw Island	FO:AGA	Argentina
20-May-2013	Ossabaw Island	FO:ZW	Argentina
20-May-2013	Ossabaw Island	FR:HJL	Chile
20-May-2013	Ossabaw Island	FL:25X	USA
20-May-2013	Ossabaw Island	FL:E2T	USA
20-May-2013	Ossabaw Island	FL:EKA	USA
20-May-2013	Ossabaw Island	FO:AGA	Argentina

Appendix 1 cont... Date, location of resight, flag color and alpha-numeric combination, and country of banding origin for all individually tagged Red Knots resighted in Georgia during spring migration 2013.

Resight Date	Location ID	Band Combination	Band Origin
21-May-2013	Cabretta Island	FL:104	USA
21-May-2013	Cabretta Island	FL:104	USA
21-May-2013	Cabretta Island	FL:146	USA
21-May-2013	Cabretta Island	FL:14C	USA
21-May-2013	Cabretta Island	FL:14C	USA
21-May-2013	Cabretta Island	FL:166	USA
21-May-2013	Cabretta Island	FL:1XV	USA
21-May-2013	Cabretta Island	FL:1XX	USA
21-May-2013	Cabretta Island	FL:1XX	USA
21-May-2013	Cabretta Island	FL:2AC	USA
21-May-2013	Cabretta Island	FL:332	USA
21-May-2013	Cabretta Island	FL:7C3	USA
21-May-2013	Cabretta Island	FL:7C3	USA
21-May-2013	Cabretta Island	FL:7EN	USA
21-May-2013	Cabretta Island	FL:7EN	USA
21-May-2013	Cabretta Island	FL:9C7	USA
21-May-2013	Cabretta Island	FL:9KA	USA
21-May-2013	Cabretta Island	FL:CN9	USA
21-May-2013	Cabretta Island	FL:CN9	USA
21-May-2013	Cabretta Island	FL:E6M	USA
21-May-2013	Cabretta Island	FL:ETK	USA
21-May-2013	Cabretta Island	FL:EY5	USA
21-May-2013	Cabretta Island	FL:EY5	USA
21-May-2013	Cabretta Island	FL:H1C	USA
21-May-2013	Cabretta Island	FL:H1C	USA
21-May-2013	Cabretta Island	FL:H1C	USA
21-May-2013	Cabretta Island	FL:HU6	USA
21-May-2013	Cabretta Island	FL:KV4	USA
21-May-2013	Cabretta Island	FL:MU:O	USA
21-May-2013	Cabretta Island	FL:VK7	USA
21-May-2013	Cabretta Island	FO:AEM	Argentina

Appendix 1 cont... Date, location of resight, flag color and alpha-numeric combination, and country of banding origin for all individually tagged Red Knots resighted in Georgia during spring migration 2013.

Resight Date	Location ID	Band Combination	Band Origin
21-May-2013	Cabretta Island	FO:E7H	Argentina
21-May-2013	Cabretta Island	FO:E7H	Argentina
21-May-2013	Cabretta Island	FO:LAN	Argentina
21-May-2013	Cabretta Island	FR:HPC	Chile
21-May-2013	Cabretta Island	FL:104	USA
21-May-2013	Cabretta Island	FL:14C	USA
21-May-2013	Cabretta Island	FL:155	USA
21-May-2013	Cabretta Island	FL:165	USA
21-May-2013	Cabretta Island	FL:166	USA
21-May-2013	Cabretta Island	FL:170	USA
21-May-2013	Cabretta Island	FL:1MU	USA
21-May-2013	Cabretta Island	FL:1XX	USA
21-May-2013	Cabretta Island	FL:2AC	USA
21-May-2013	Cabretta Island	FL:2YJ	USA
21-May-2013	Cabretta Island	FL:332	USA
21-May-2013	Cabretta Island	FL:4H5	USA
21-May-2013	Cabretta Island	FL:7C3	USA
21-May-2013	Cabretta Island	FL:9C7	USA
21-May-2013	Cabretta Island	FL:9KA	USA
21-May-2013	Cabretta Island	FL:A9U	USA
21-May-2013	Cabretta Island	FL:CN9	USA
21-May-2013	Cabretta Island	FL:E6M	USA
21-May-2013	Cabretta Island	FL:ETK	USA
21-May-2013	Cabretta Island	FL:EY5	USA
21-May-2013	Cabretta Island	FL:H1C	USA
21-May-2013	Cabretta Island	FL:HU4	USA
21-May-2013	Cabretta Island	FL:HU6	USA
21-May-2013	Cabretta Island	FL:KH3	USA
21-May-2013	Cabretta Island	FL:KV4	USA
21-May-2013	Cabretta Island	FL:MYP	USA
21-May-2013	Cabretta Island	FL:NX8	USA

Appendix 1 cont... Date, location of resight, flag color and alpha-numeric combination, and country of banding origin for all individually tagged Red Knots resighted in Georgia during spring migration 2013.

Resight Date	Location ID	Band Combination	Band Origin
21-May-2013	Cabretta Island	FL:PA4	USA
21-May-2013	Cabretta Island	FL:VK7	USA
21-May-2013	Cabretta Island	FL:YL4	USA
21-May-2013	Cabretta Island	FO:AEM	Argentina
21-May-2013	Cabretta Island	FO:E7H	Argentina
21-May-2013	Cabretta Island	FO:H6M	Argentina
21-May-2013	Cabretta Island	FO:LAN	Argentina
21-May-2013	Cabretta Island	FR:HPC	Chile
21-May-2013	Ogeechee Bar	FR:CC	Chile
22-May-2013	Ogeechee Bar	FL:067	USA
22-May-2013	Ogeechee Bar	FL:07V	USA
22-May-2013	Ogeechee Bar	FL:0E8	USA
22-May-2013	Ogeechee Bar	FL:128	USA
22-May-2013	Ogeechee Bar	FL:255	USA
22-May-2013	Ogeechee Bar	FL:273	USA
22-May-2013	Ogeechee Bar	FL:284	USA
22-May-2013	Ogeechee Bar	FL:2HU	USA
22-May-2013	Ogeechee Bar	FL:2YJ	USA
22-May-2013	Ogeechee Bar	FL:311	USA
22-May-2013	Ogeechee Bar	FL:3MJ	USA
22-May-2013	Ogeechee Bar	FL:48T	USA
22-May-2013	Ogeechee Bar	FL:4C2	USA
22-May-2013	Ogeechee Bar	FL:5L6	USA
22-May-2013	Ogeechee Bar	FL:79X	USA
22-May-2013	Ogeechee Bar	FL:7C2	USA
22-May-2013	Ogeechee Bar	FL:9JT	USA
22-May-2013	Ogeechee Bar	FL:AY8	USA
22-May-2013	Ogeechee Bar	FL:C4Y	USA
22-May-2013	Ogeechee Bar	FL:H2E	USA
22-May-2013	Ogeechee Bar	FL:H8C	USA
22-May-2013	Ogeechee Bar	FL:JM6	USA

Appendix 1 cont... Date, location of resight, flag color and alpha-numeric combination, and country of banding origin for all individually tagged Red Knots resighted in Georgia during spring migration 2013.

Resight Date	Location ID	Band Combination	Band Origin
22-May-2013	Ogeechee Bar	FL:MP9	USA
22-May-2013	Ogeechee Bar	FL:NH4	USA
22-May-2013	Ogeechee Bar	FL:NV2	USA
22-May-2013	Ogeechee Bar	FL:NX2	USA
22-May-2013	Ogeechee Bar	FL:PV4	USA
22-May-2013	Ogeechee Bar	FL:T1K	USA
22-May-2013	Ogeechee Bar	FL:T3U	USA
22-May-2013	Ogeechee Bar	FL:TT6	USA
22-May-2013	Ogeechee Bar	FL:TU3	USA
22-May-2013	Ogeechee Bar	FL:UA2	USA
22-May-2013	Ogeechee Bar	FL:UA7	USA
22-May-2013	Ogeechee Bar	FL:UC3	USA
22-May-2013	Ogeechee Bar	FL:UE6	USA
22-May-2013	Ogeechee Bar	FL:VCE	USA
22-May-2013	Ogeechee Bar	FL:VKY	USA
22-May-2013	Ogeechee Bar	FL:VM4	USA
22-May-2013	Ogeechee Bar	FL:VT6	USA
22-May-2013	Ogeechee Bar	FL:VTM	USA
22-May-2013	Ogeechee Bar	FL:X5J	USA
22-May-2013	Ogeechee Bar	FL:YN3	USA
22-May-2013	Ogeechee Bar	FL:YT9	USA
22-May-2013	Ogeechee Bar	FO:AGA	Argentina
22-May-2013	Ogeechee Bar	FO:C9H	Argentina
22-May-2013	Ogeechee Bar	FO:CIJ	Argentina
22-May-2013	Ogeechee Bar	FO:ELE	Argentina
22-May-2013	Ogeechee Bar	FO:S3X	Argentina
22-May-2013	Ogeechee Bar	FR:HJL	Chile
22-May-2013	Ogeechee Bar	FW:PN	Canada
22-May-2013	Ossabaw Island	FL:103	USA
22-May-2013	Ossabaw Island	FL:13U	USA
22-May-2013	Ossabaw Island	FL:75X	USA

Appendix 1 cont... Date, location of resight, flag color and alpha-numeric combination, and country of banding origin for all individually tagged Red Knots resighted in Georgia during spring migration 2013.

Resight Date	Location ID	Band Combination	Band Origin
22-May-2013	Ossabaw Island	FL:75X	USA
22-May-2013	Ossabaw Island	FL:E6K	USA
22-May-2013	Ossabaw Island	FL:HAU	USA
22-May-2013	Ossabaw Island	FO:AKH	Argentina
22-May-2013	Ossabaw Island	FL:060	USA
22-May-2013	Ossabaw Island	FL:07V	USA
22-May-2013	Ossabaw Island	FL:0H2	USA
22-May-2013	Ossabaw Island	FL:128	USA
22-May-2013	Ossabaw Island	FL:266	USA
22-May-2013	Ossabaw Island	FL:311	USA
22-May-2013	Ossabaw Island	FL:63V	USA
22-May-2013	Ossabaw Island	FL:E4E	USA
22-May-2013	Ossabaw Island	FL:T3U	USA
22-May-2013	Ossabaw Island	FL:UC3	USA
22-May-2013	Ossabaw Island	FL:VTM	USA
22-May-2013	Ossabaw Island	FL:X7J	USA
22-May-2013	Ossabaw Island	FL:XH6	USA
22-May-2013	Ossabaw Island	FO:CIJ	Argentina
22-May-2013	Ossabaw Island	FO:S3X	Argentina
22-May-2013	Ossabaw Island	FR:HJL	Chile
22-May-2013	St. Catherines Island	FL:0C4	USA
22-May-2013	St. Catherines Island	FL:2H7	USA
22-May-2013	St. Catherines Island	FL:369	USA
22-May-2013	St. Catherines Island	FL:3MU	USA
22-May-2013	St. Catherines Island	FL:5XK	USA
22-May-2013	St. Catherines Island	FL:8C5	USA
22-May-2013	St. Catherines Island	FL:JH6	USA
22-May-2013	St. Catherines Island	FL:T4E	USA
22-May-2013	St. Catherines Island	FO:E4X	Argentina
23-May-2013	Cabretta Island	FL:E6M	USA
23-May-2013	Little St Simons Island	FL:1UH	USA

Appendix 1 cont... Date, location of resight, flag color and alpha-numeric combination, and country of banding origin for all individually tagged Red Knots resighted in Georgia during spring migration 2013.

Resight Date	Location ID	Band Combination	Band Origin
23-May-2013	Little St Simons Island	FL:7EN	USA
23-May-2013	Little St Simons Island	FL:TU6	USA
24-May-2013	Ogeechee Bar	FL:0H2	USA
24-May-2013	Ogeechee Bar	FL:0H2	USA
24-May-2013	Ogeechee Bar	FL:0K6	USA
24-May-2013	Ogeechee Bar	FL:0K6	USA
24-May-2013	Ogeechee Bar	FL:1XK	USA
24-May-2013	Ogeechee Bar	FL:339	USA
24-May-2013	Ogeechee Bar	FL:339	USA
24-May-2013	Ogeechee Bar	FL:50T	USA
24-May-2013	Ogeechee Bar	FL:75X	USA
24-May-2013	Ogeechee Bar	FL:75X	USA
24-May-2013	Ogeechee Bar	FL:7CY	USA
24-May-2013	Ogeechee Bar	FL:7XT	USA
24-May-2013	Ogeechee Bar	FL:99C	USA
24-May-2013	Ogeechee Bar	FL:9C3	USA
24-May-2013	Ogeechee Bar	FL:E3J	USA
24-May-2013	Ogeechee Bar	FL:K3T	USA
24-May-2013	Ogeechee Bar	FL:MP9	USA
24-May-2013	Ogeechee Bar	FL:NH4	USA
24-May-2013	Ogeechee Bar	FL:NH4	USA
24-May-2013	Ogeechee Bar	FL:PV4	USA
24-May-2013	Ogeechee Bar	FL:T4E	USA
24-May-2013	Ogeechee Bar	FL:X7J	USA
24-May-2013	Ogeechee Bar	FL:XYV	USA
24-May-2013	Ogeechee Bar	FO:AGA	Argentina
24-May-2013	Ogeechee Bar	FO:AGA	Argentina
24-May-2013	Ogeechee Bar	FO:E4P	Argentina
24-May-2013	Ogeechee Bar	FO:J4C	Argentina
24-May-2013	Ogeechee Bar	FO:U3H	Argentina
24-May-2013	Ogeechee Bar	FO:Y3H	Argentina

Appendix 1 cont... Date, location of resight, flag color and alpha-numeric combination, and country of banding origin for all individually tagged Red Knots resighted in Georgia during spring migration 2013.

Resight Date	Location ID	Band Combination	Band Origin
24-May-2013	Ossabaw Island	FO:AKH	Argentina
24-May-2013	Ogeechee Bar	FL:0H2	USA
24-May-2013	Ogeechee Bar	FL:1E9	USA
24-May-2013	Ogeechee Bar	FL:339	USA
24-May-2013	Ogeechee Bar	FL:75X	USA
24-May-2013	Ogeechee Bar	FL:7XT	USA
24-May-2013	Ogeechee Bar	FL:C4Y	USA
24-May-2013	Ogeechee Bar	FL:ENC	USA
24-May-2013	Ogeechee Bar	FL:NH4	USA
24-May-2013	Ogeechee Bar	FL:TV6	USA
24-May-2013	Ogeechee Bar	FL:Y4P	USA
24-May-2013	Ogeechee Bar	FO:AGA	Argentina
24-May-2013	Ogeechee Bar	FO:E4P	Argentina
24-May-2013	Ogeechee Bar	FO:Y3H	Argentina
24-May-2013	Ogeechee Bar	FL:092	USA
24-May-2013	Ogeechee Bar	FL:311	USA
24-May-2013	Ogeechee Bar	FL:50T	USA
24-May-2013	Ogeechee Bar	FL:99C	USA
24-May-2013	Ogeechee Bar	FL:MM4	USA
24-May-2013	Ogeechee Bar	FL:MP9	USA
24-May-2013	Ogeechee Bar	FL:T4E	USA
24-May-2013	Ogeechee Bar	FL:X7J	USA
24-May-2013	Ogeechee Bar	FL:XYV	USA
25-May-2013	Ogeechee Bar	FL:067	USA
25-May-2013	Ogeechee Bar	FL:092	USA
25-May-2013	Ogeechee Bar	FL:098	USA
25-May-2013	Ogeechee Bar	FL:0H2	USA
25-May-2013	Ogeechee Bar	FL:0H6	USA
25-May-2013	Ogeechee Bar	FL:1A8	USA
25-May-2013	Ogeechee Bar	FL:1MV	USA
25-May-2013	Ogeechee Bar	FL:1XX	USA

Appendix 1 cont... Date, location of resight, flag color and alpha-numeric combination, and country of banding origin for all individually tagged Red Knots resighted in Georgia during spring migration 2013.

Resight Date	Location ID	Band Combination	Band Origin
25-May-2013	Ogeechee Bar	FL:258	USA
25-May-2013	Ogeechee Bar	FL:25P	USA
25-May-2013	Ogeechee Bar	FL:266	USA
25-May-2013	Ogeechee Bar	FL:273	USA
25-May-2013	Ogeechee Bar	FL:311	USA
25-May-2013	Ogeechee Bar	FL:339	USA
25-May-2013	Ogeechee Bar	FL:369	USA
25-May-2013	Ogeechee Bar	FL:3C4	USA
25-May-2013	Ogeechee Bar	FL:3MJ	USA
25-May-2013	Ogeechee Bar	FL:3ML	USA
25-May-2013	Ogeechee Bar	FL:3MU	USA
25-May-2013	Ogeechee Bar	FL:3TU	USA
25-May-2013	Ogeechee Bar	FL:48T	USA
25-May-2013	Ogeechee Bar	FL:50T	USA
25-May-2013	Ogeechee Bar	FL:59T	USA
25-May-2013	Ogeechee Bar	FL:5C8	USA
25-May-2013	Ogeechee Bar	FL:6C9	USA
25-May-2013	Ogeechee Bar	FL:7CY	USA
25-May-2013	Ogeechee Bar	FL:7XT	USA
25-May-2013	Ogeechee Bar	FL:84X	USA
25-May-2013	Ogeechee Bar	FL:8C5	USA
25-May-2013	Ogeechee Bar	FL:9C3	USA
25-May-2013	Ogeechee Bar	FL:C4V	USA
25-May-2013	Ogeechee Bar	FL:C4Y	USA
25-May-2013	Ogeechee Bar	FL:C8T	USA
25-May-2013	Ogeechee Bar	FL:E2V	USA
25-May-2013	Ogeechee Bar	FL:E6A	USA
25-May-2013	Ogeechee Bar	FL:E6K	USA
25-May-2013	Ogeechee Bar	FL:EKA	USA
25-May-2013	Ogeechee Bar	FL:EU5	USA
25-May-2013	Ogeechee Bar	FL:H1T	USA

Appendix 1 cont... Date, location of resight, flag color and alpha-numeric combination, and country of banding origin for all individually tagged Red Knots resighted in Georgia during spring migration 2013.

Resight Date	Location ID	Band Combination	Band Origin
25-May-2013	Ogeechee Bar	FL:H1U	USA
25-May-2013	Ogeechee Bar	FL:JH6	USA
25-May-2013	Ogeechee Bar	FL:LE6	USA
25-May-2013	Ogeechee Bar	FL:LK3	USA
25-May-2013	Ogeechee Bar	FL:MM4	USA
25-May-2013	Ogeechee Bar	FL:NH4	USA
25-May-2013	Ogeechee Bar	FL:PP5	USA
25-May-2013	Ogeechee Bar	FL:PV4	USA
25-May-2013	Ogeechee Bar	FL:T4E	USA
25-May-2013	Ogeechee Bar	FL:THE	USA
25-May-2013	Ogeechee Bar	FL:TU3	USA
25-May-2013	Ogeechee Bar	FL:TV6	USA
25-May-2013	Ogeechee Bar	FL:VP6	USA
25-May-2013	Ogeechee Bar	FL:X3T	USA
25-May-2013	Ogeechee Bar	FL:X3X	USA
25-May-2013	Ogeechee Bar	FL:XE4	USA
25-May-2013	Ogeechee Bar	FL:XH6	USA
25-May-2013	Ogeechee Bar	FL:YN3	USA
25-May-2013	Ogeechee Bar	FL:XV4	USA
25-May-2013	Ogeechee Bar	FL:XYV	USA
25-May-2013	Ogeechee Bar	FL:Y4P	USA
25-May-2013	Ogeechee Bar	FL:YT9	USA
25-May-2013	Ogeechee Bar	FO:AGA	Argentina
25-May-2013	Ogeechee Bar	FO:AKH	Argentina
25-May-2013	Ogeechee Bar	FO:E4P	Argentina
25-May-2013	Ogeechee Bar	FO:E7H	Argentina
25-May-2013	Ogeechee Bar	FO:ELE	Argentina
25-May-2013	Ogeechee Bar	FO:S3X	Argentina
25-May-2013	Ogeechee Bar	FO:Y3H	Argentina
25-May-2013	Ogeechee Bar	FW:PN	Canada
25-May-2013	Ogeechee Bar	FW:VL	Canada

Appendix 1 cont... Date, location of resight, flag color and alpha-numeric combination, and country of banding origin for all individually tagged Red Knots resighted in Georgia during spring migration 2013.

Resight Date	Location ID	Band Combination	Band Origin
26-May-2013	Cabretta Island	FL:1H4	USA
26-May-2013	Cabretta Island	FL:KV4	USA
27-May-2013	Ogeechee Bar	FL:052	USA
27-May-2013	Ogeechee Bar	FL:052	USA
27-May-2013	Ogeechee Bar	FL:0K9	USA
27-May-2013	Ogeechee Bar	FL:184	USA
27-May-2013	Ogeechee Bar	FL:255	USA
27-May-2013	Ogeechee Bar	FL:255	USA
27-May-2013	Ogeechee Bar	FL:273	USA
27-May-2013	Ogeechee Bar	FL:301	USA
27-May-2013	Ogeechee Bar	FL:369	USA
27-May-2013	Ogeechee Bar	FL:3MU	USA
27-May-2013	Ogeechee Bar	FL:3MU	USA
27-May-2013	Ogeechee Bar	FL:48T	USA
27-May-2013	Ogeechee Bar	FL:6C9	USA
27-May-2013	Ogeechee Bar	FL:6C9	USA
27-May-2013	Ogeechee Bar	FL:72C	USA
27-May-2013	Ogeechee Bar	FL:75X	USA
27-May-2013	Ogeechee Bar	FL:75X	USA
27-May-2013	Ogeechee Bar	FL:7C2	USA
27-May-2013	Ogeechee Bar	FL:9JT	USA
27-May-2013	Ogeechee Bar	FL:AC9	USA
27-May-2013	Ogeechee Bar	FL:AL6	USA
27-May-2013	Ogeechee Bar	FL:ANJ	USA
27-May-2013	Ogeechee Bar	FL:EKA	USA
27-May-2013	Ogeechee Bar	FL:JHC	USA
27-May-2013	Ogeechee Bar	FL:KT6	USA
27-May-2013	Ogeechee Bar	FL:KV4	USA
27-May-2013	Ogeechee Bar	FL:VEM	USA
27-May-2013	Ogeechee Bar	FL:VJ6	USA
27-May-2013	Ogeechee Bar	FL:VJ6	USA

Appendix 1 cont... Date, location of resight, flag color and alpha-numeric combination, and country of banding origin for all individually tagged Red Knots resighted in Georgia during spring migration 2013.

Resight Date	Location ID	Band Combination	Band Origin
27-May-2013	Ogeechee Bar	FL:VP6	USA
27-May-2013	Ogeechee Bar	FL:VP6	USA
27-May-2013	Ogeechee Bar	FL:VTM	USA
27-May-2013	Ogeechee Bar	FL:X5J	USA
27-May-2013	Ogeechee Bar	FL:X5J	USA
27-May-2013	Ogeechee Bar	FL:YN3	USA
27-May-2013	Ogeechee Bar	FL:YN3	USA
27-May-2013	Ogeechee Bar	FO:C9H	Argentina
27-May-2013	Ogeechee Bar	FO:C9H	Argentina
27-May-2013	Ogeechee Bar	FO:CIJ	Argentina
27-May-2013	Ogeechee Bar	FO:CIJ	Argentina
27-May-2013	Ogeechee Bar	FO:E4X	Argentina
27-May-2013	Ogeechee Bar	FO:ELE	Argentina
27-May-2013	Ogeechee Bar	FO:J4C	Argentina
27-May-2013	Ogeechee Bar	FO:J4C	Argentina
27-May-2013	Ogeechee Bar	FO:U94	Argentina
27-May-2013	Ogeechee Bar	FO:U94	Argentina
27-May-2013	Ogeechee Bar	FR:CC	Chile
28-May-2013	Little St Simons Island	FO:CPM	Argentina
29-May-2013	Ogeechee Bar	FL:273	USA
29-May-2013	Ogeechee Bar	FL:48T	USA
29-May-2013	Ogeechee Bar	FO:ELE	Argentina
29-May-2013	Ogeechee Bar	FO:J4C	Argentina
2-Jun-2013	Ogeechee Bar	FL:188	USA
2-Jun-2013	Ogeechee Bar	M/Y:FR/RYY	Chile
4-Jun-2013	Ogeechee Bar	FL:188	USA
4-Jun-2013	Ogeechee Bar	FO:104	Argentina
4-Jun-2013	Ogeechee Bar	M/Y:FR/RYY	Chile