

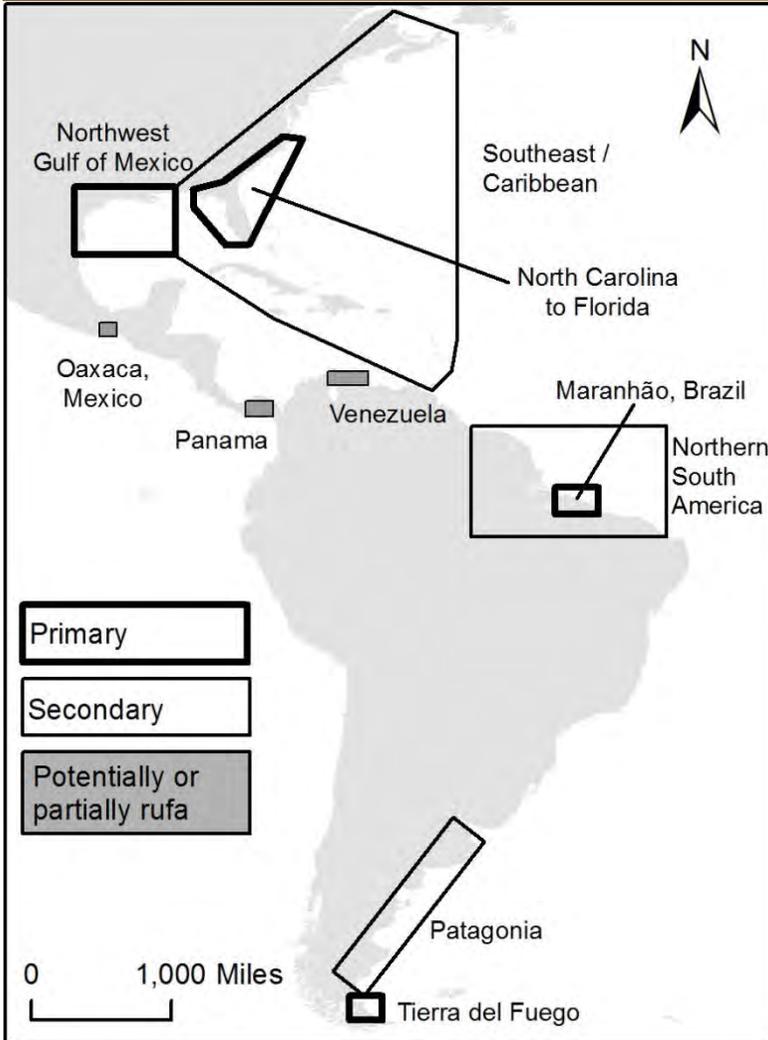


Red Knot Information Session Spring 2014



Red Knot Background Information

- The rufa red knot (*Calidris canutus rufa*) has been a candidate for Federal ESA listing since 2006.
- A candidate species is one for which we have enough information to indicate listing is warranted, but we are precluded from doing so by higher priority listing actions.
- We received funding in 2012 to work on the listing determination.
- On September 30, 2013, we proposed to list the rufa red knot as threatened throughout its entire range.
- The proposal encompasses 40 U.S. States and 24 countries and territories.
- The proposal is going through peer review and public comment.



Major Wintering Areas

Major Stopover Areas



Migration Stopovers

- primarily spring
- ▲ primarily fall
- both spring and fall



U.S. Range of Rufa Red Knot

As depicted in Sept. 2013 proposed rule

0 250 500 1,000 Miles

Cumulative E-Bird Data*

- red knot record - unknown # of birds
- record of 1 - 9 red knots
- record of 10 - 24 red knots
- record of 25 - 99 red knots
- record of 100 or more red knots

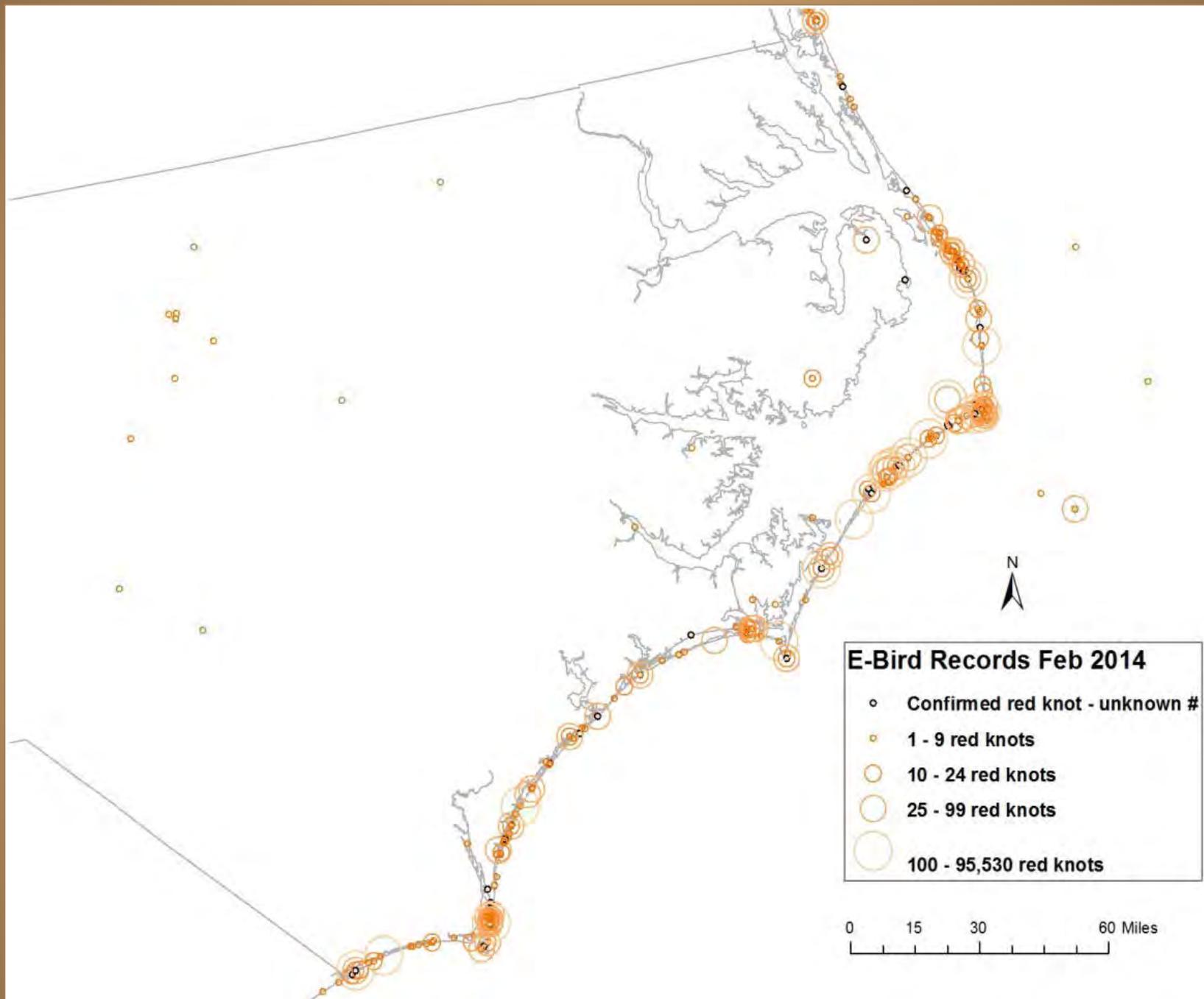
eBird Basic Dataset. Version: EBD_reIFeb-2014.
Cornell Lab of Ornithology, Ithaca, New York.
February 2014.



*All records from 1911 through Feb. 2014.

More than 80% of records are from the past 20 years.

There can be more than one record for a particular bird or flock, especially where the species is rare.





winter



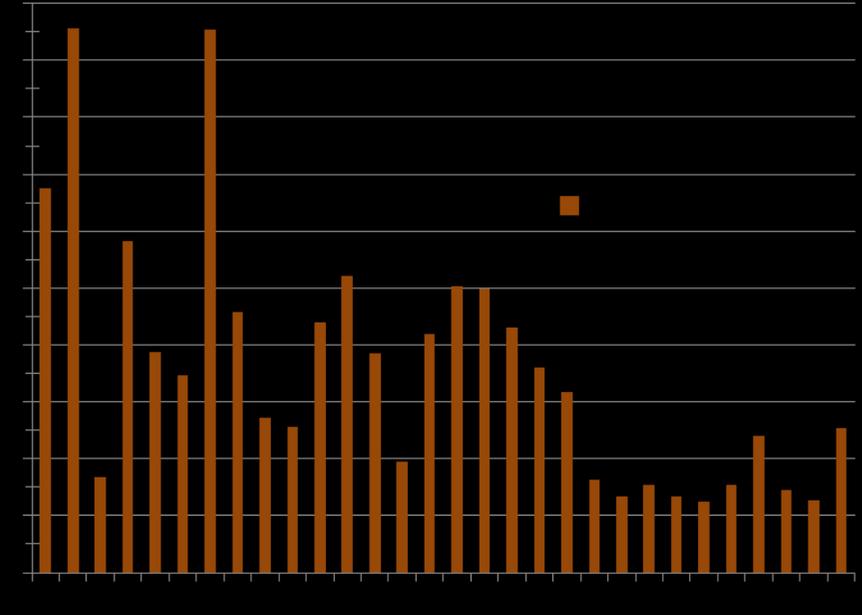
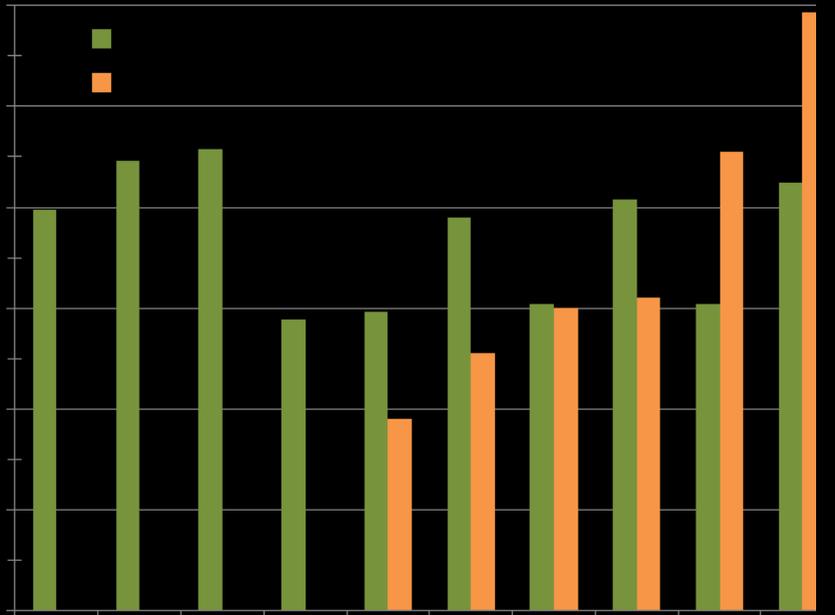
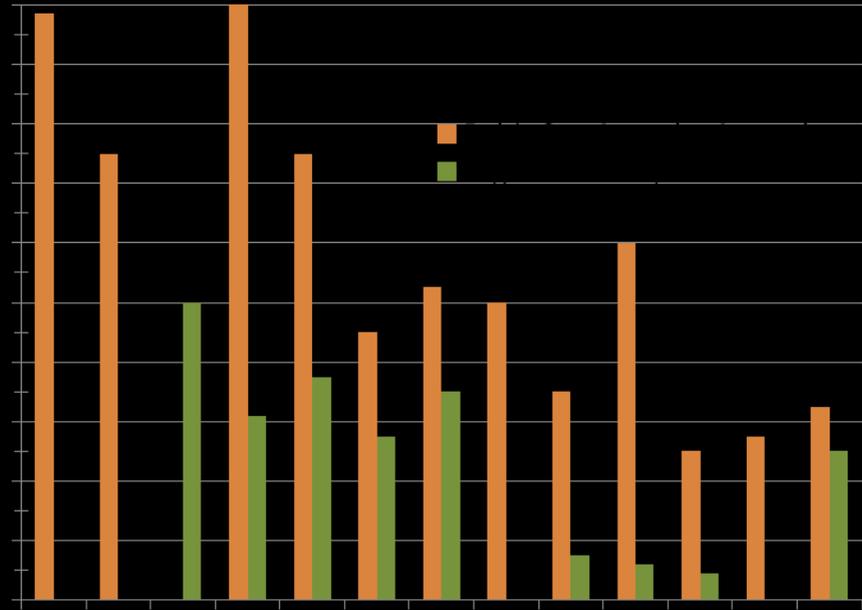
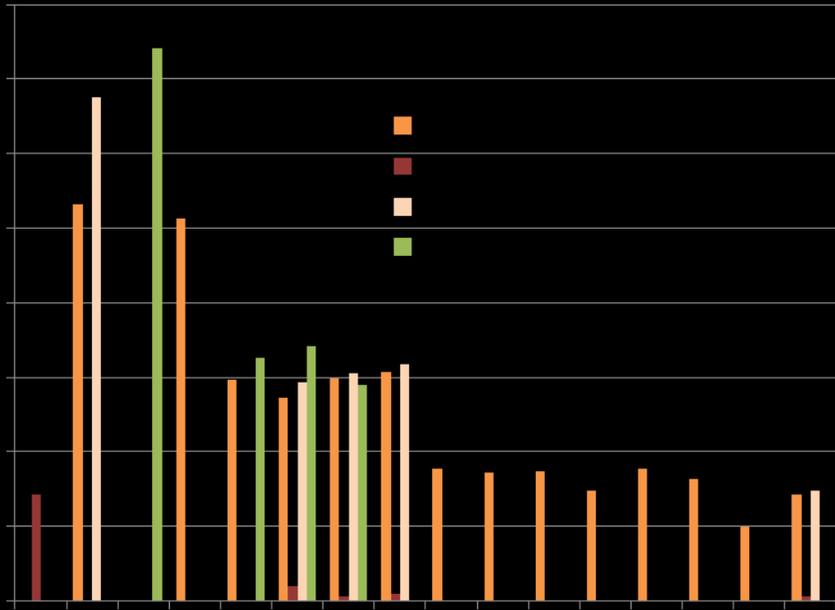
migration



breeding

Population Status

- There are few population estimates for fall migration or breeding areas because birds are too dispersed.
- Available data (wintering and/or spring migration) from Brazil, the Gulf coast, and the southeast U.S. vary in geographic coverage and level of effort. The Service concluded no trends should be inferred.
- Surveys with more consistent observers, methods, and coverage include:
 - Tierra del Fuego and the Argentine coast (winter)
 - East coast of South America (spring)
 - Virginia (spring)
 - Delaware Bay (spring)



Primary Threats

- Habitat Loss and Degradation
 - Sea level rise
 - Shoreline stabilization
 - Coastal development
 - Arctic warming



Coastal development example

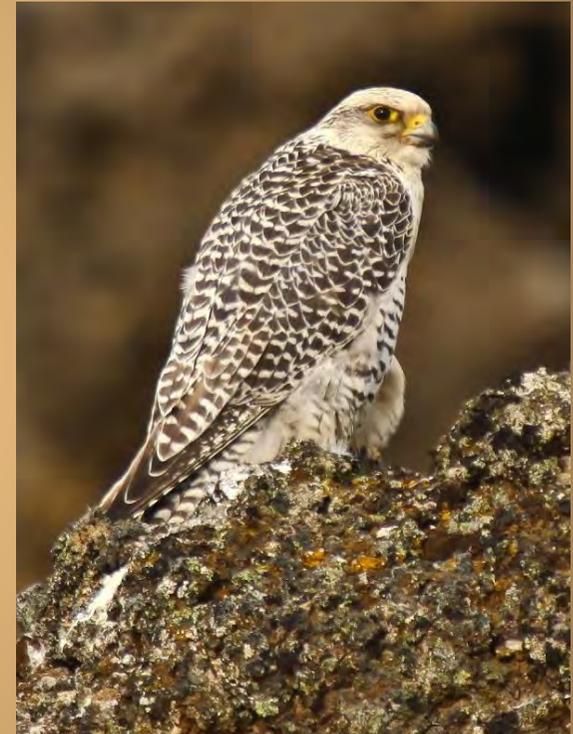
Food resource (mussel) example

- Quantity and Quality of Food Resources
 - Trampling and ORV use
 - Sediment placement
 - Ocean acidification
 - Warming ocean temperatures
 - Disease and parasites
 - Horseshoe crab harvest

Primary Threats

- Asynchronies (Timing “Mismatches”) in the Annual Cycle
 - Late arrivals in Delaware Bay
 - Horseshoe crabs / water temperatures
 - Storms
 - Arctic insect abundance
 - Arctic snow cover, time of melting

Spawning horseshoe crabs



Arctic predator example

- Predation on the Breeding Grounds
 - Breeding success closely tied to predation levels
 - Predation levels cycle with lemmings
 - Lemming cycles are being disrupted
 - Potential for prolonged periods of low breeding success

Contributing Threats

- Human Disturbance
- Harmful algal blooms (*e.g.*, red tides)
- Oil spills
- Wind energy development
- Predation in non-breeding areas
- Legal and illegal hunting



Opportunity For Public Comment

- The second red knot proposed listing public comment period ends on May 19, 2014.
- Comments submitted during the first comment period do not need to be resubmitted. They are already part of the record.
- Our formal public hearing starts tonight at 7:00 pm. Registration is required if you wish to present oral testimony.
- You may submit written comments:
 - At the public hearing: Fill out the comment card.
 - On the internet: Go to www.regulations.gov, search for docket # FWS–R5–ES–2013–0097, and click the “Comment Now!” box.
 - By mail: Public Comments Processing, Attn: FWS–R5–ES–2013–0097; Division of Policy and Directives Management; U.S. Fish and Wildlife Service; 4401 N. Fairfax Drive, MS 2042–PDM; Arlington, VA 22203.
- The Service will make a final decision on the proposal by Sept. 30, 2014.

Red Knot Critical Habitat Process

- The Service is still reviewing information to inform a proposed critical habitat designation.
- A proposed rule will be available for public review and comment within the next several months.



Photo credit: FWS

- Critical habitat is not typically designated everywhere the species occurs. It is focused on those specific areas essential to the species' conservation and which may need special management considerations.