

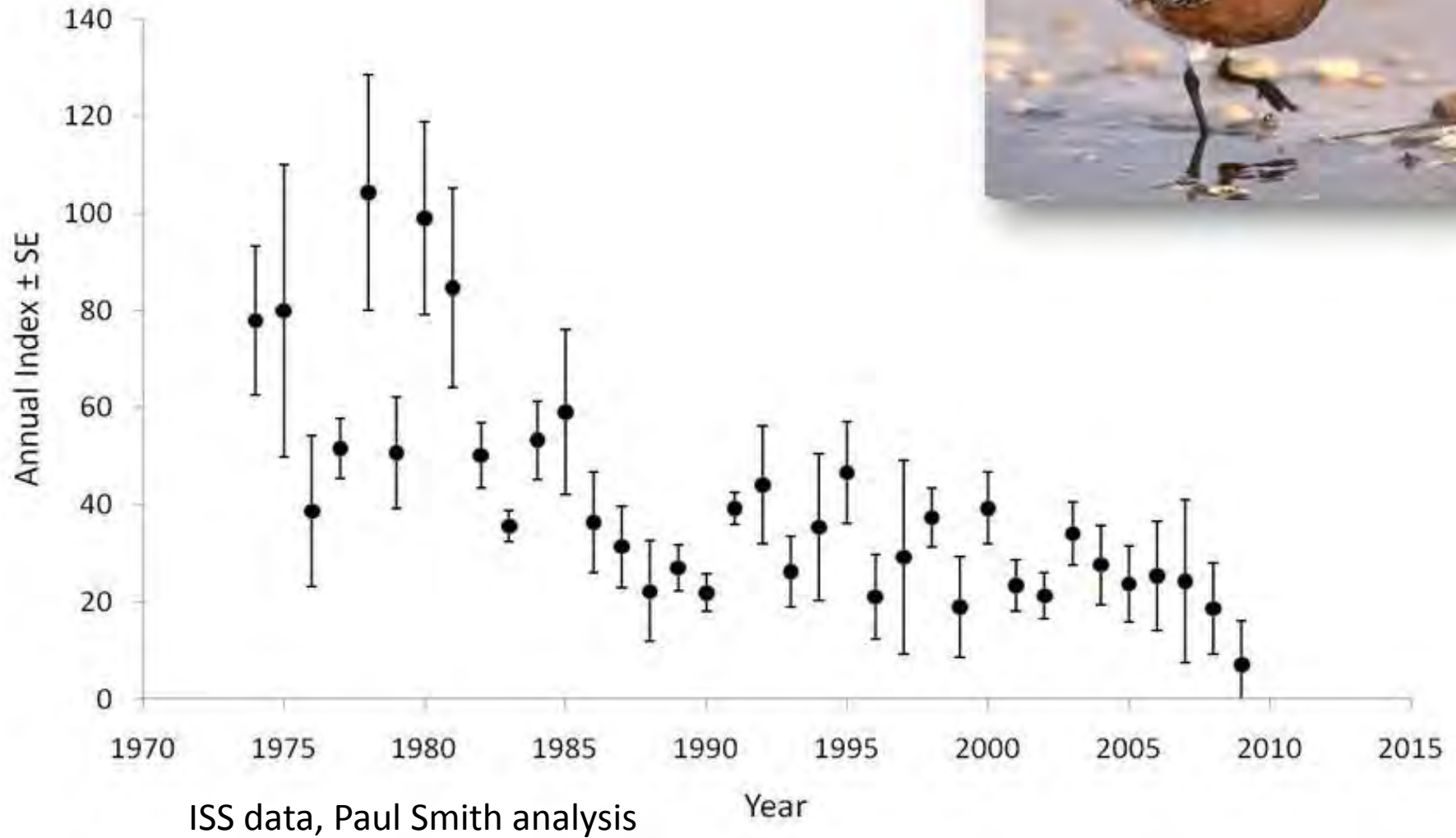
Atlantic Flyway Shorebird Conservation Business Strategy



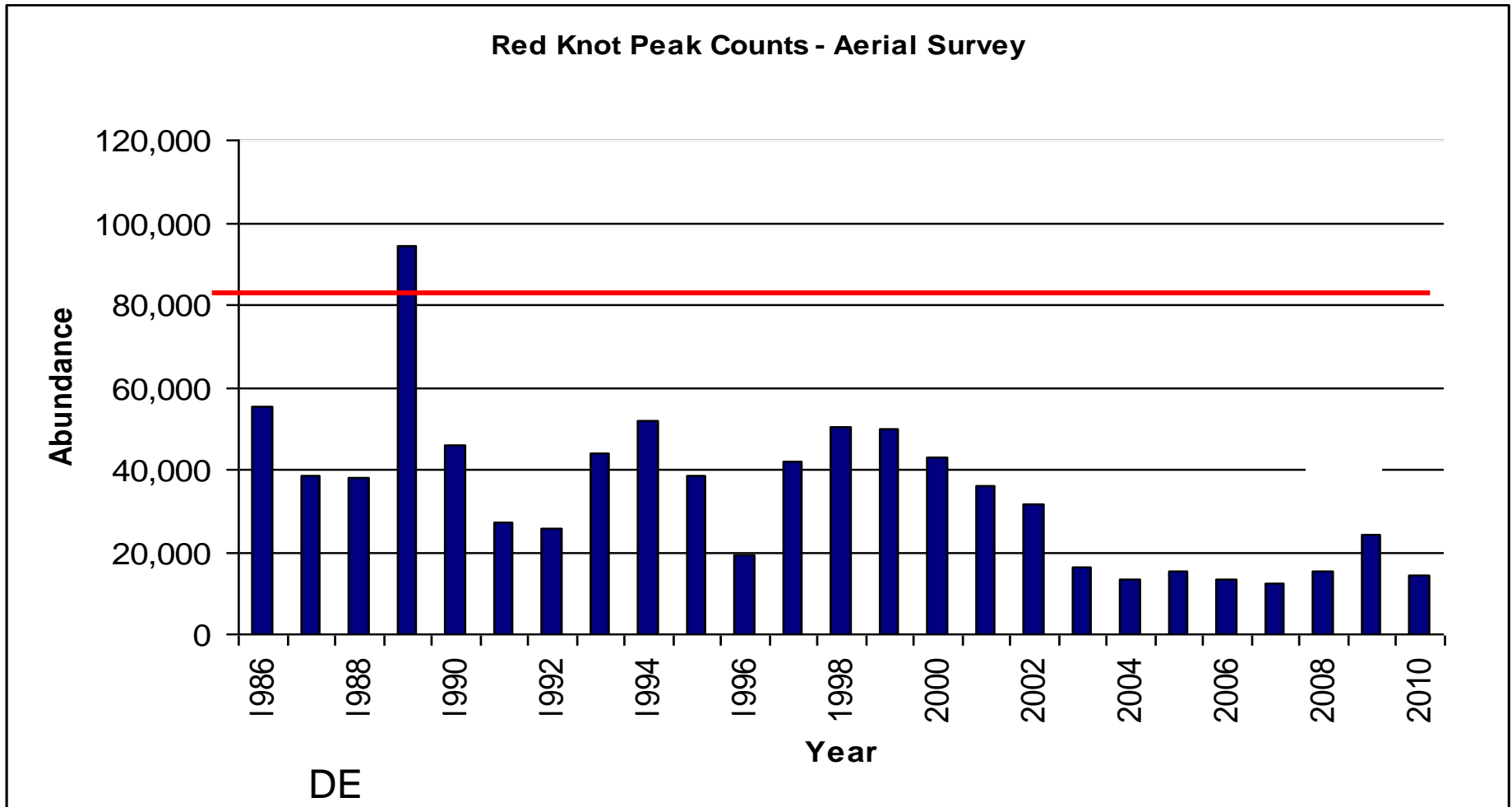
Brad Winn
Stephen Brown
Scott Johnston
Caleb Spiegel

Red Knot

23 species appear
to be in long term decline



Red Knots in Delaware Bay declined by 70% since 1998




Source: N.J. Division of Fish & Wildlife

Atlantic Flyway Shorebirds

- ❖ **Approximately 70% of Arctic-nesting shorebirds have been declining (R.I.G. Morrison).**
- ❖ **Semipalmated Sandpiper & Ruddy Turnstone down by as much as 80% on Delaware Bay (L. Niles et al.).**
- ❖ **Semipalmated Sandpiper, Ruddy Turnstone, and yellowlegs down by as much as 90% in northern South America (D. Mizrahi et al.).**
- ❖ **Whimbrel, Short-billed Dowitcher, Dunlin, & Sanderling substantial declines (R.I.G. Morrison).**

AF Shorebird Conservation Business Strategy

A photograph of a shorebird, possibly a sandpiper or similar, standing in shallow, rippling water. The bird has brown and white mottled plumage on its back and wings, and a dark, straight bill. It is facing right. The background is a soft-focus view of the water and distant shoreline.

Meet the need head-on by:
Defining threats
Develop overarching strategies
Design actions within strategies
Secure funding (investor language)
Implement conservation actions



7 Billion and Growing

Hard for Beach Obligates, nesting and migrants



Faulk

Spink

Hyde

Hand

Beadle

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Image USDA Farm Service Agency

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lat 44.818968° lon -98.883468° elev 1421 ft



Prinsburg

Roseland


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1992

lat 44.953446° lon -95.131450° elev 1102 ft



Engineered Inlet = Shorebird Depauperate

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11 1995

lat 26.093104° lon -80.108225° elev 0 ft

Ey





*Cumulative Footprint
SkyTruth Image*

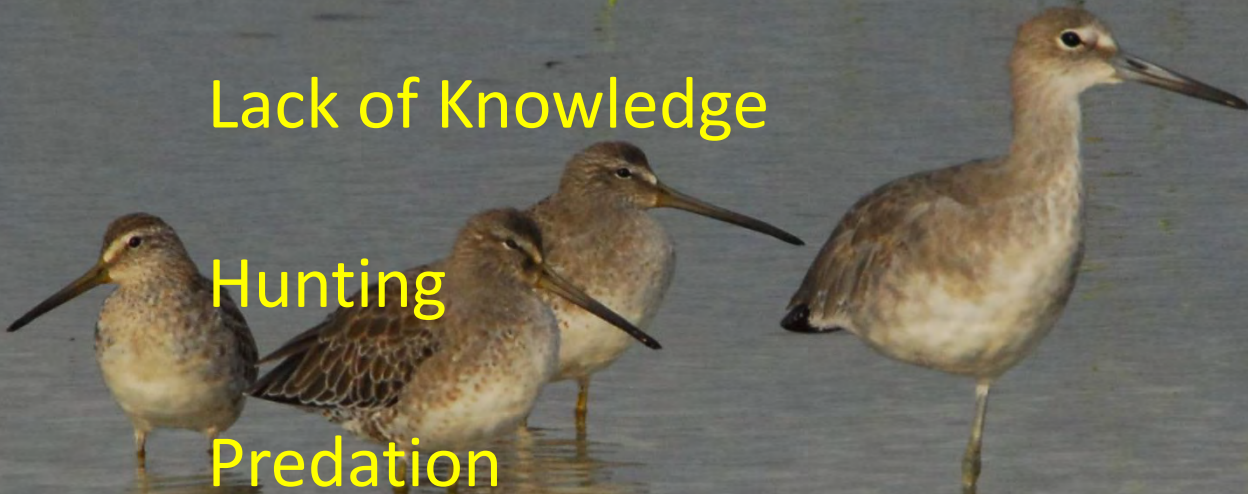
Human Disturbance

Habitat Loss and Change

Lack of Knowledge

Hunting

Predation



The background image shows a vast, flat landscape, possibly a coastal plain or a large field, covered with a massive number of shorebirds. The birds are densely packed in some areas and more sparse in others, extending across the entire horizon. The sky is a clear, pale blue, and the overall scene conveys a sense of a large-scale natural gathering or migration.

Seven key strategies were developed
to characterize conservation activities necessary
to address major threats to shorebirds:

- ❑ Reducing Threats to Populations
- ❑ Habitat Management and Protection
- ❑ Strengthening Conservation Regulations
- ❑ Developing Shorebird Conservation Constituencies
- ❑ Hemispheric Partnership Engagement
- ❑ Population Assessment and Monitoring
- ❑ Reducing Gaps in Knowledge of Limiting



Large scale focal geographies are as follows:

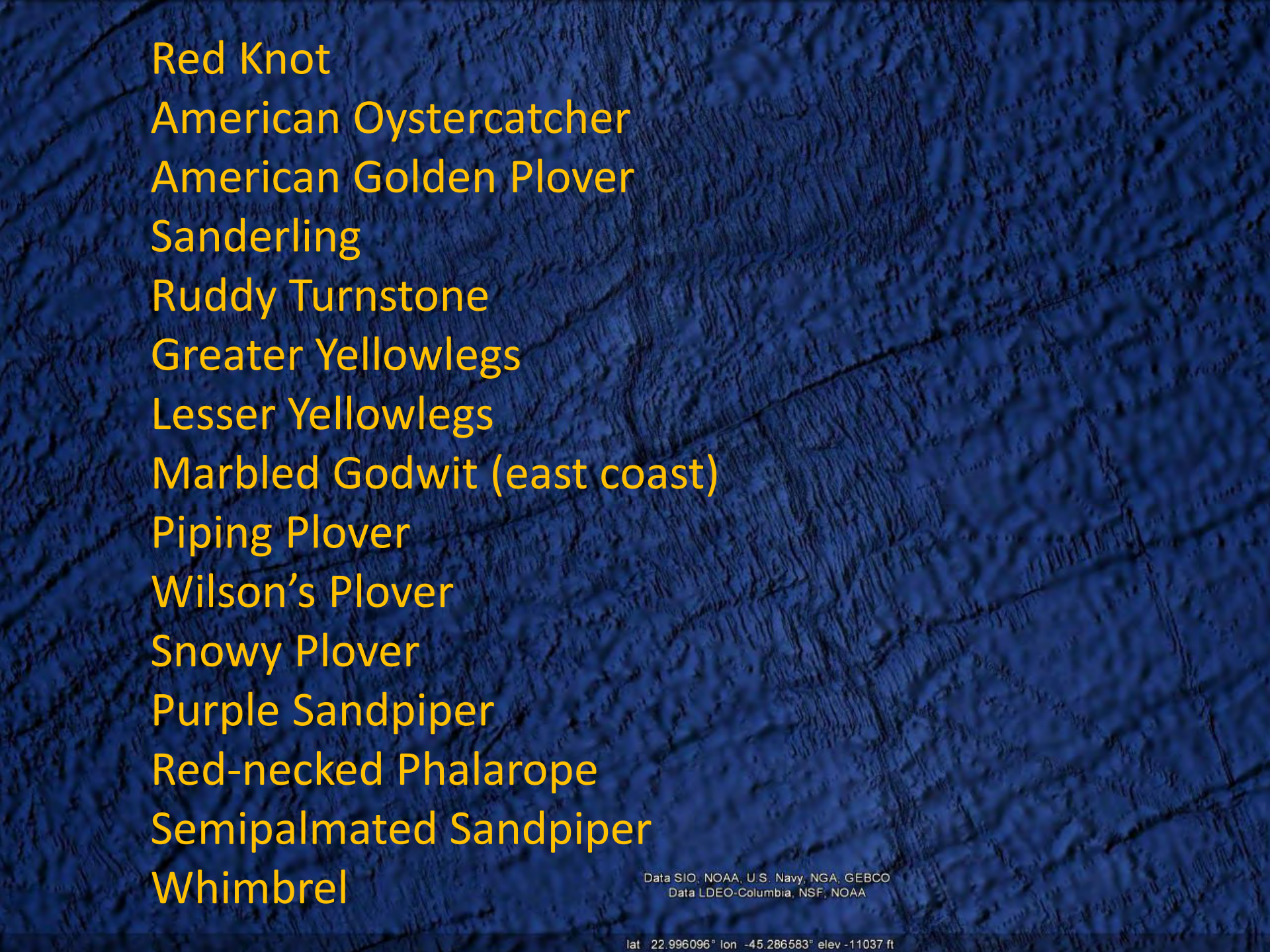
- Eastern Arctic & Subarctic
- Maritime Canada & Northeastern U.S.
- Mid-Atlantic & Southeastern U.S.
- Caribbean
- Northern South America
- Southern South America

Broken into finer scale



Focal Species

1. highly imperiled or of high concern;
2. represent important habitat suites in the flyway; and
3. have existing conservation plans to make implementation more practical.



Red Knot
American Oystercatcher
American Golden Plover
Sanderling
Ruddy Turnstone
Greater Yellowlegs
Lesser Yellowlegs
Marbled Godwit (east coast)
Piping Plover
Wilson's Plover
Snowy Plover
Purple Sandpiper
Red-necked Phalarope
Semipalmated Sandpiper
Whimbrel

Data SIO, NOAA, U.S. Navy, NGA, GEBCO
Data LDEO-Columbia, NSF, NOAA