



Alaska Department of Fish and Game

Division of Wildlife Conservation



Seasonal migration routes of Rusty Blackbirds breeding in Anchorage, Alaska: results from a pilot study using geolocators.

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Seasonal migration routes of Rusty Blackbirds breeding in Anchorage, Alaska: results from a pilot study using geolocators.

Smithsonian Institution: National Zoo



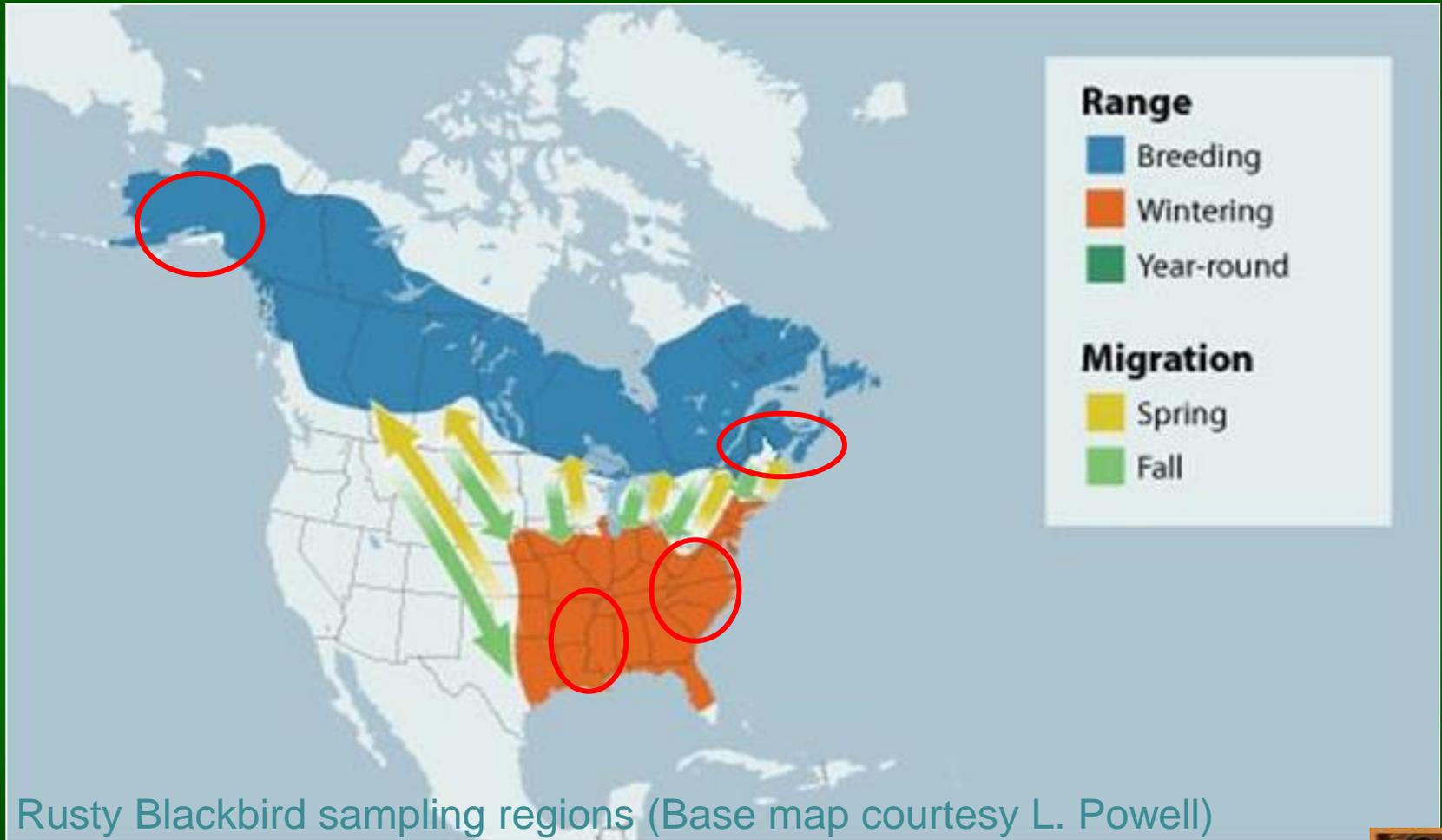
U.S. Fish and Wildlife Service



Alaska Department of Fish and Game

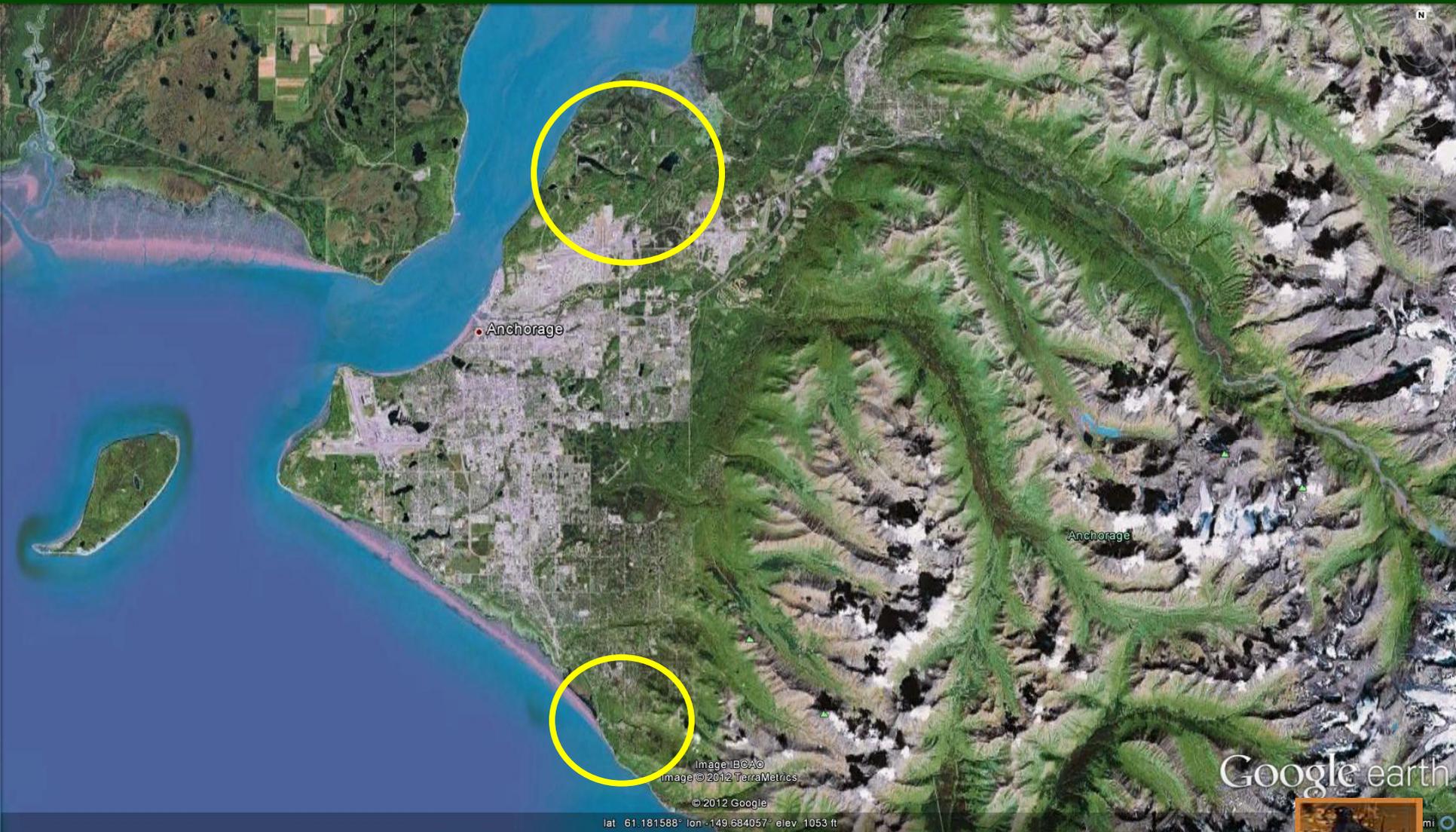


Background



Seasonal Migration Routes of Rusty Blackbirds





Seasonal Migration Routes of Rusty Blackbirds



Geolocator Deployment



Seasonal Migration Routes of Rusty Blackbirds



Geolocator Deployment

Mk10B-S, British Antarctic Survey

Synscaurum harness using teflon ribbon

The geolocator and the harness weighed 2.0 g, or 3.4% of a Rusty Blackbird's body mass



Geolocator Deployment



Seasonal Migration Routes of Rusty Blackbirds



Geolocator Deployment



Seasonal Migration Routes of Rusty Blackbirds



Geolocator Deployment



Seasonal Migration Routes of Rusty Blackbirds



Geolocator Deployment



Seasonal Migration Routes of Rusty Blackbirds



Geolocator Deployment



Seasonal Migration Routes of Rusty Blackbirds



Geolocator Deployment

**17 birds outfitted with Geolocators in Anchorage in 2009
(12 females and 5 males - from 13 pairs)**



All behaved normally 6 weeks after deployment; 80% fledged chicks



Results

ONLY 3 Geolocators birds were recovered in 2010 (2 females ; 1 male).

None of the remaining 14 birds were observed again from 2010 – 2012.

The birds were healthy; behaved normally, and each successfully fledged chicks from different nests.

The harnesses were found to be loose fitting and had worn away the surrounding feathers on the synsacrum and inner thighs of each of the three birds.



Results

We analyzed ambient light level data to determine daily locations; using day length and timing of sunrise to estimate latitude and longitude

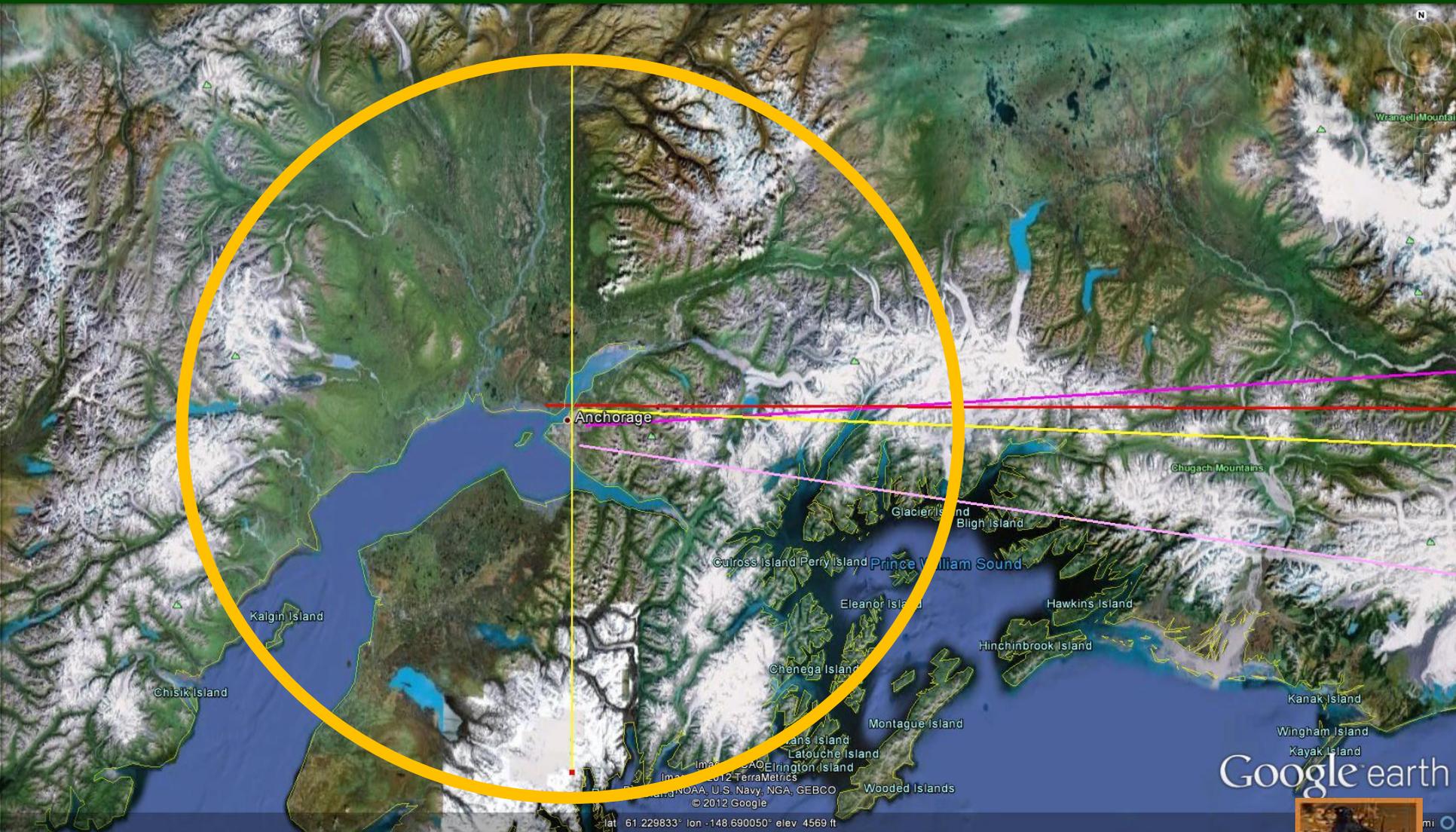
We used a low light transition threshold to account for lower ambient light levels in forested or wooded habitats

We only used data ± 15 days of the equinoxes because latitude estimates during equal day and night lengths are highly inaccurate

We estimated kernel probability densities of home ranges during autumn stopover and winter periods.

We conservatively defined each bird's core stopover and wintering areas using the 50% density contour





Seasonal Migration Routes of Rusty Blackbirds



A

7 Sep - depart
30 Apr - arrive

20-25 Apr

23 Oct - 19 Nov

20 Nov - 13 Apr

0 500 1,000 KM



B

9 Sep - depart
6 May - arrive

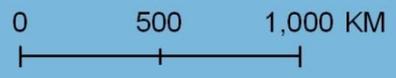
1-4 May

13-19 Apr

19-30 Oct

31 Oct - 29 Nov

30 Nov - 5 Apr



C

9 Sep - depart
30 Apr - arrive

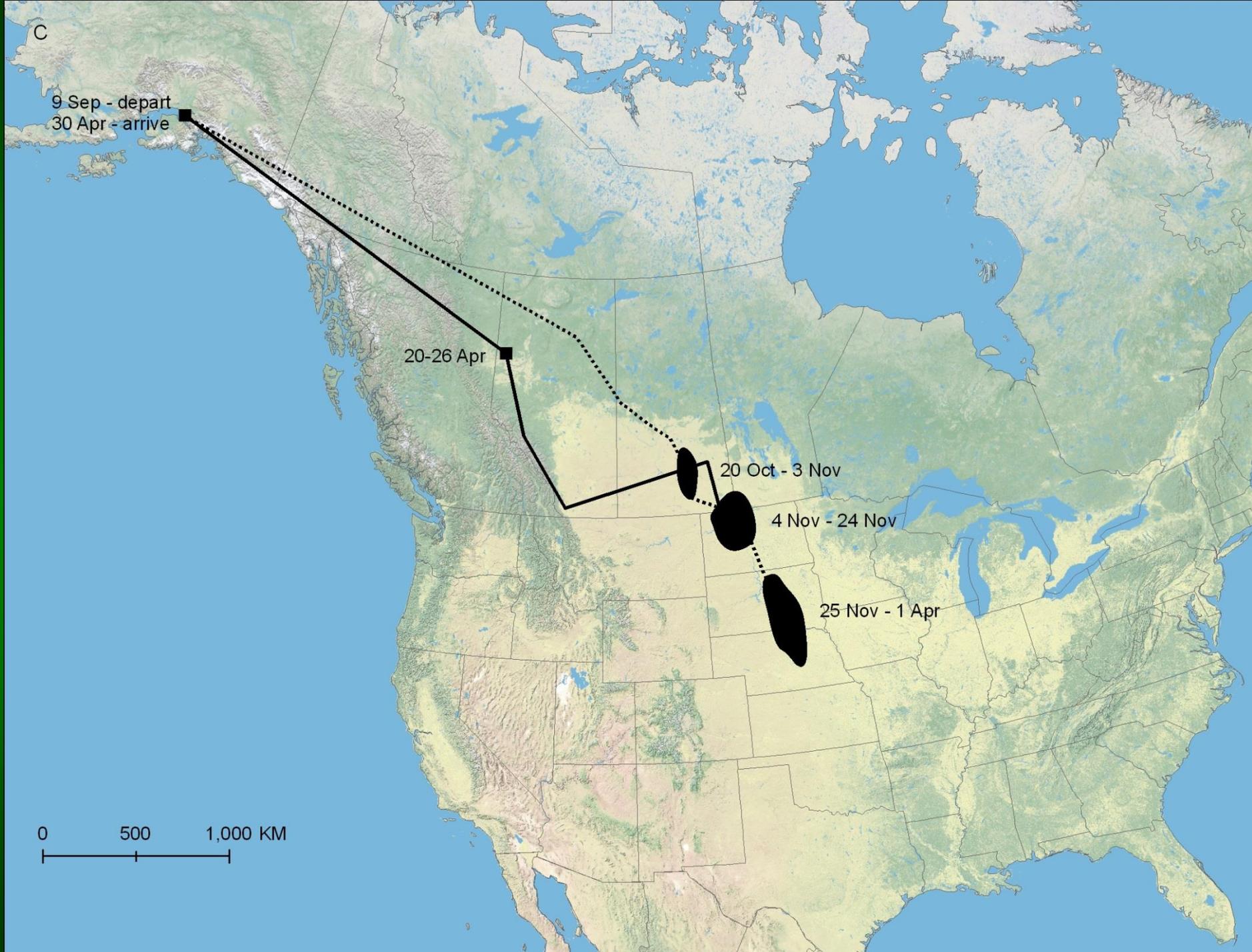
20-26 Apr

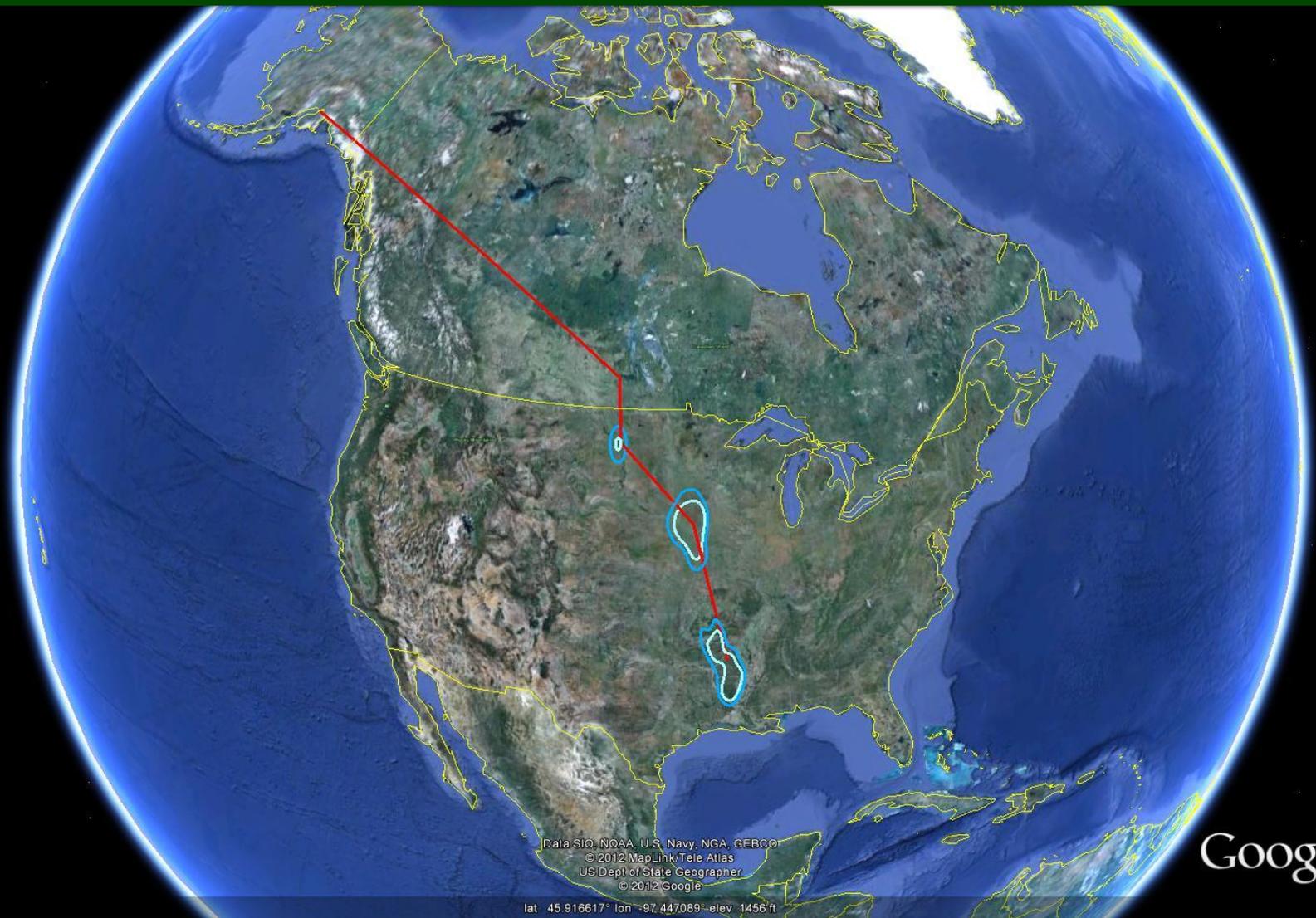
20 Oct - 3 Nov

4 Nov - 24 Nov

25 Nov - 1 Apr

0 500 1,000 KM





Data SIO NOAA U.S. Navy, NGA, GEBCO
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US Dept of State Geographer
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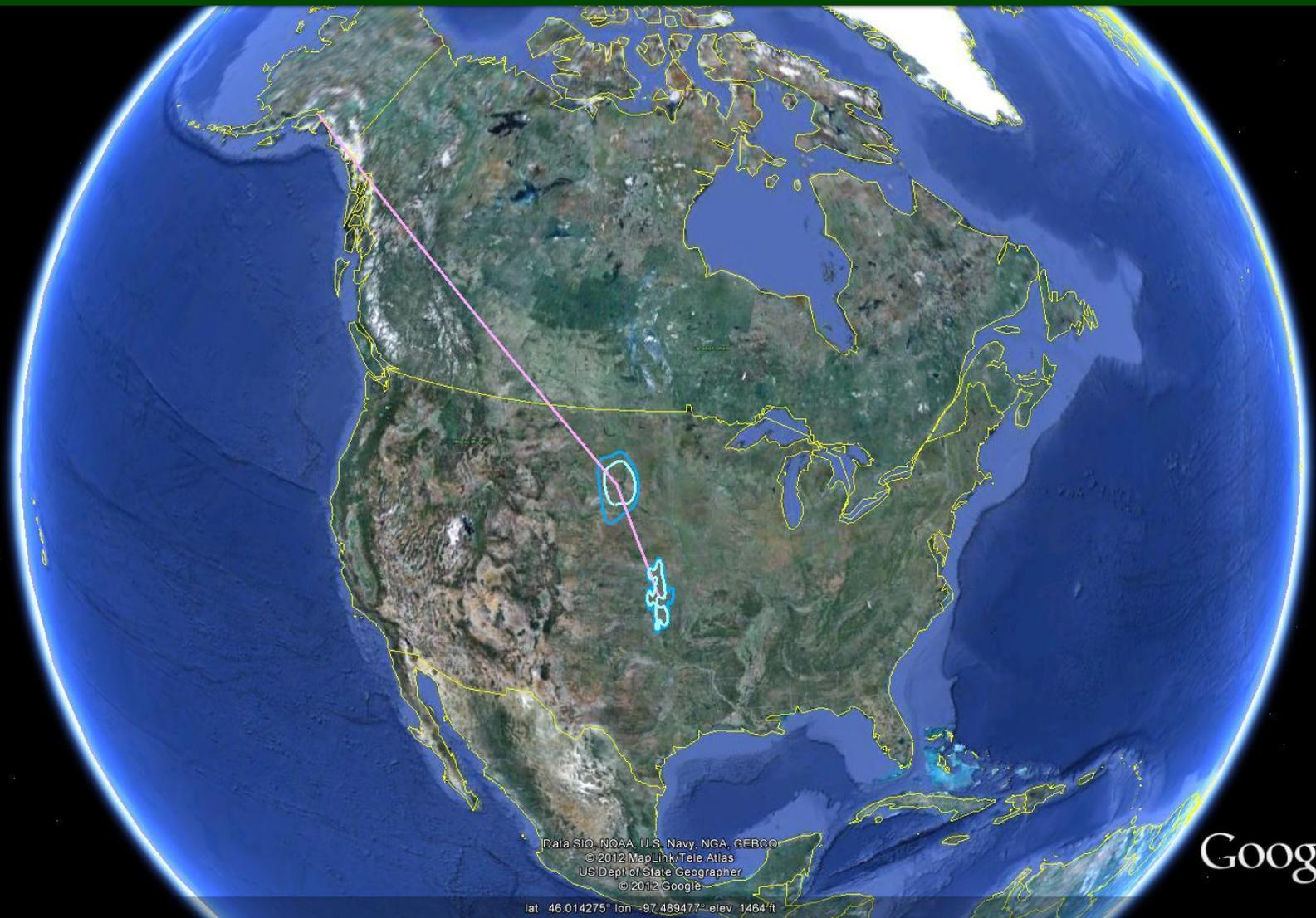
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Google earth

Eye alt 5509.54 mi

Seasonal Migration Routes of Rusty Blackbirds





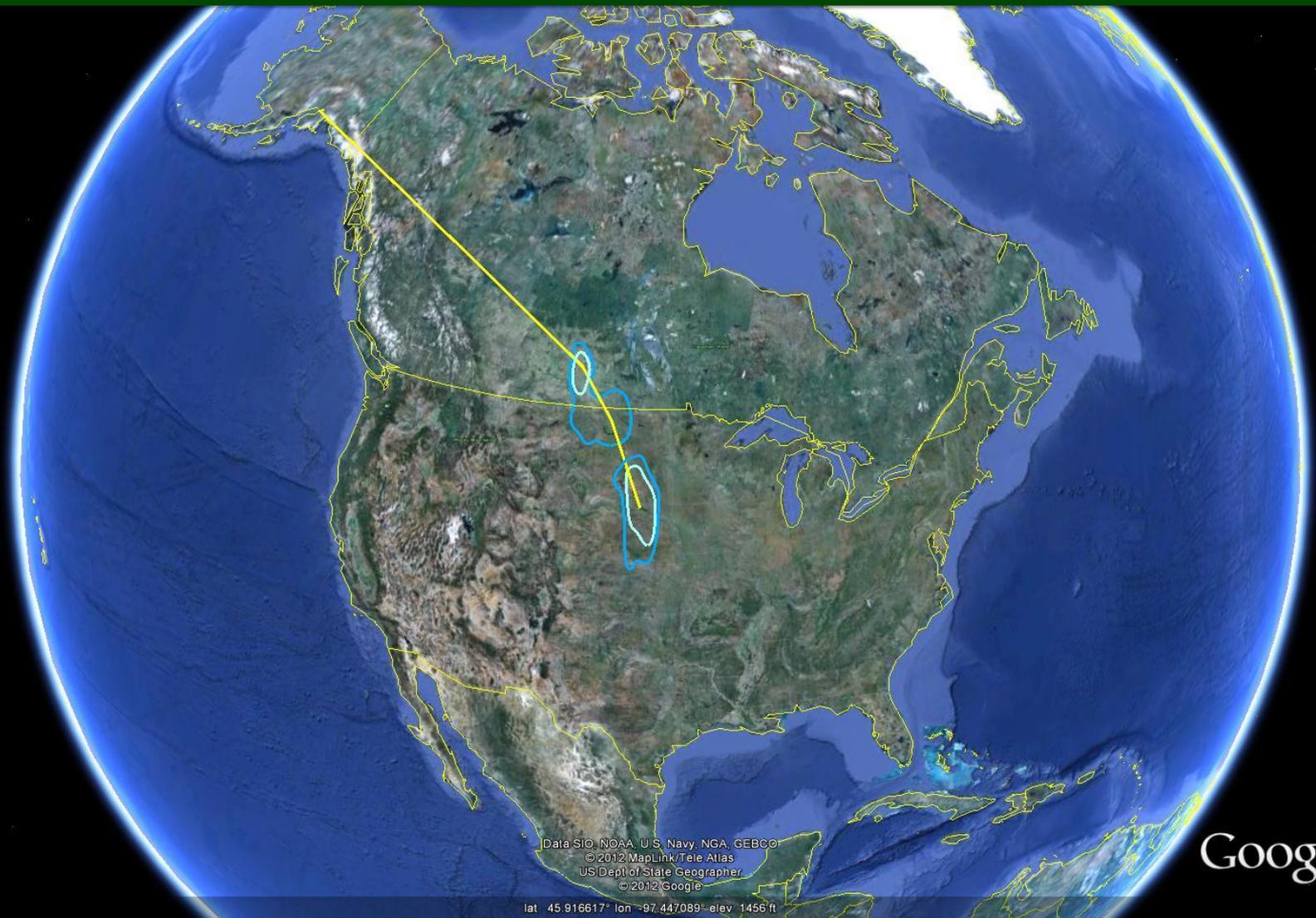
Data SIO NOAA U.S. Navy, NGA, GEBCO
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© 2012 Google
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Google earth

Eye alt 5508.57 mi

Seasonal Migration Routes of Rusty Blackbirds





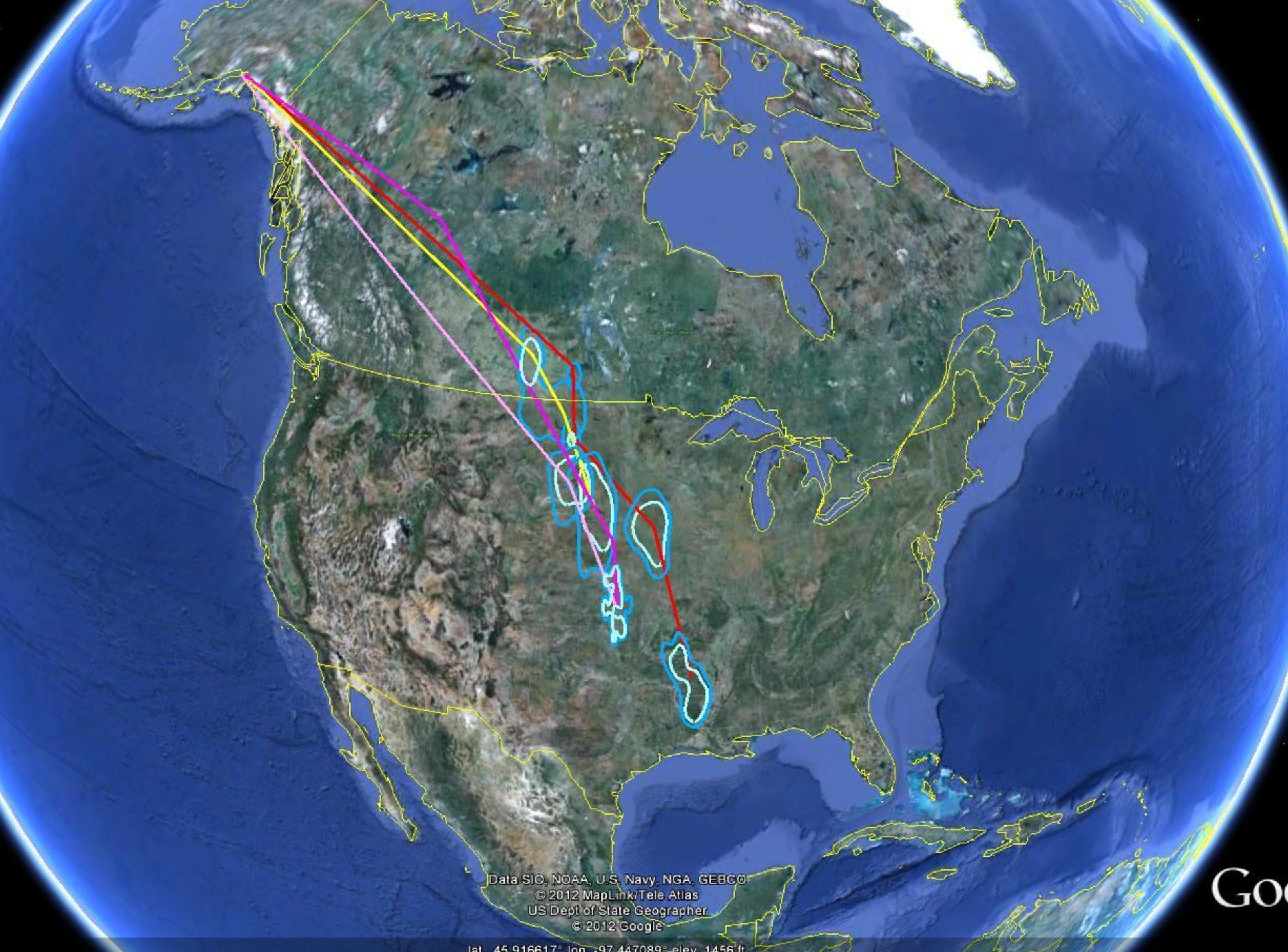
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Seasonal Migration Routes of Rusty Blackbirds

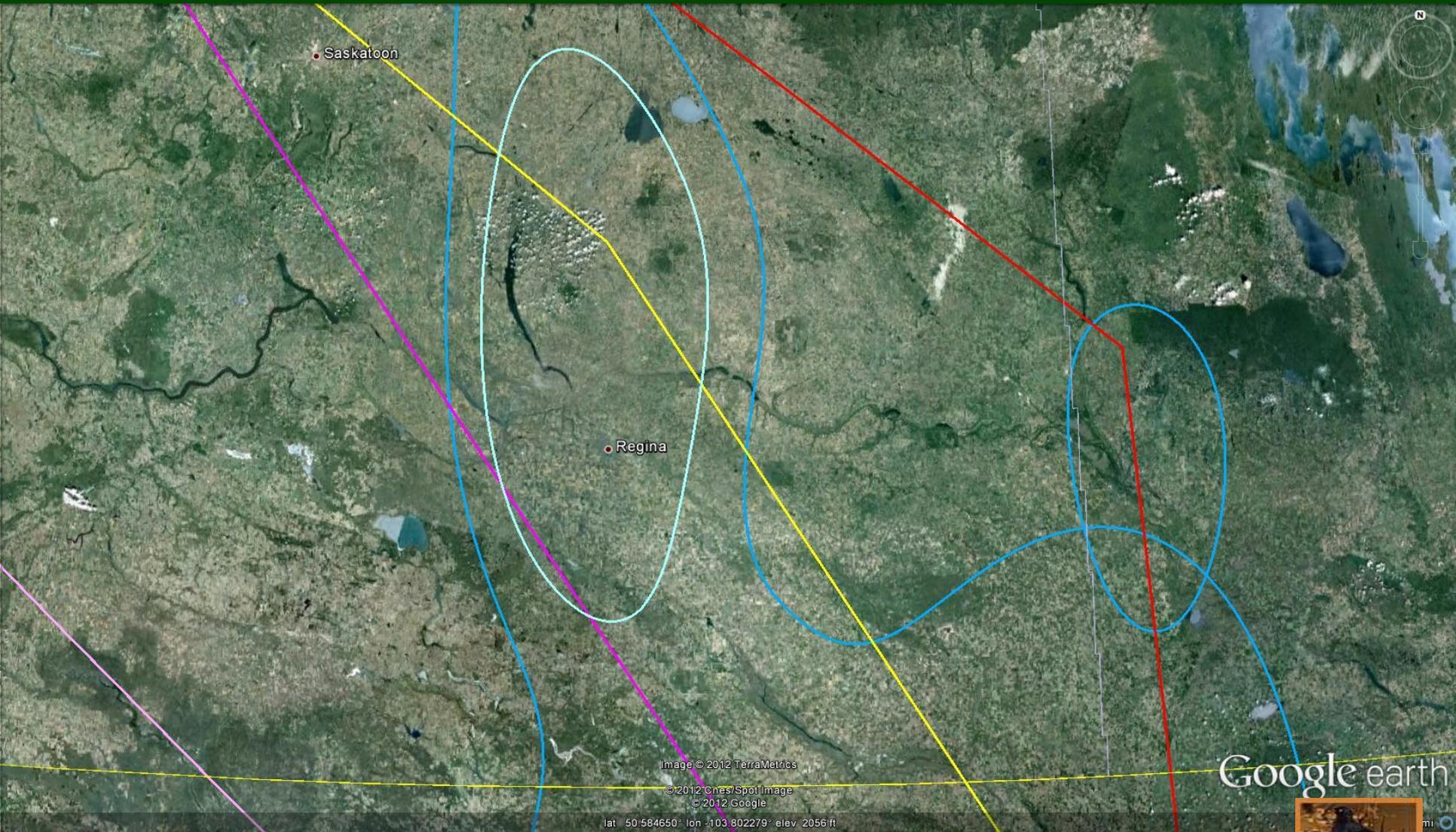




Data SIO, NOAA, U.S. Navy, NGA, GEBCO
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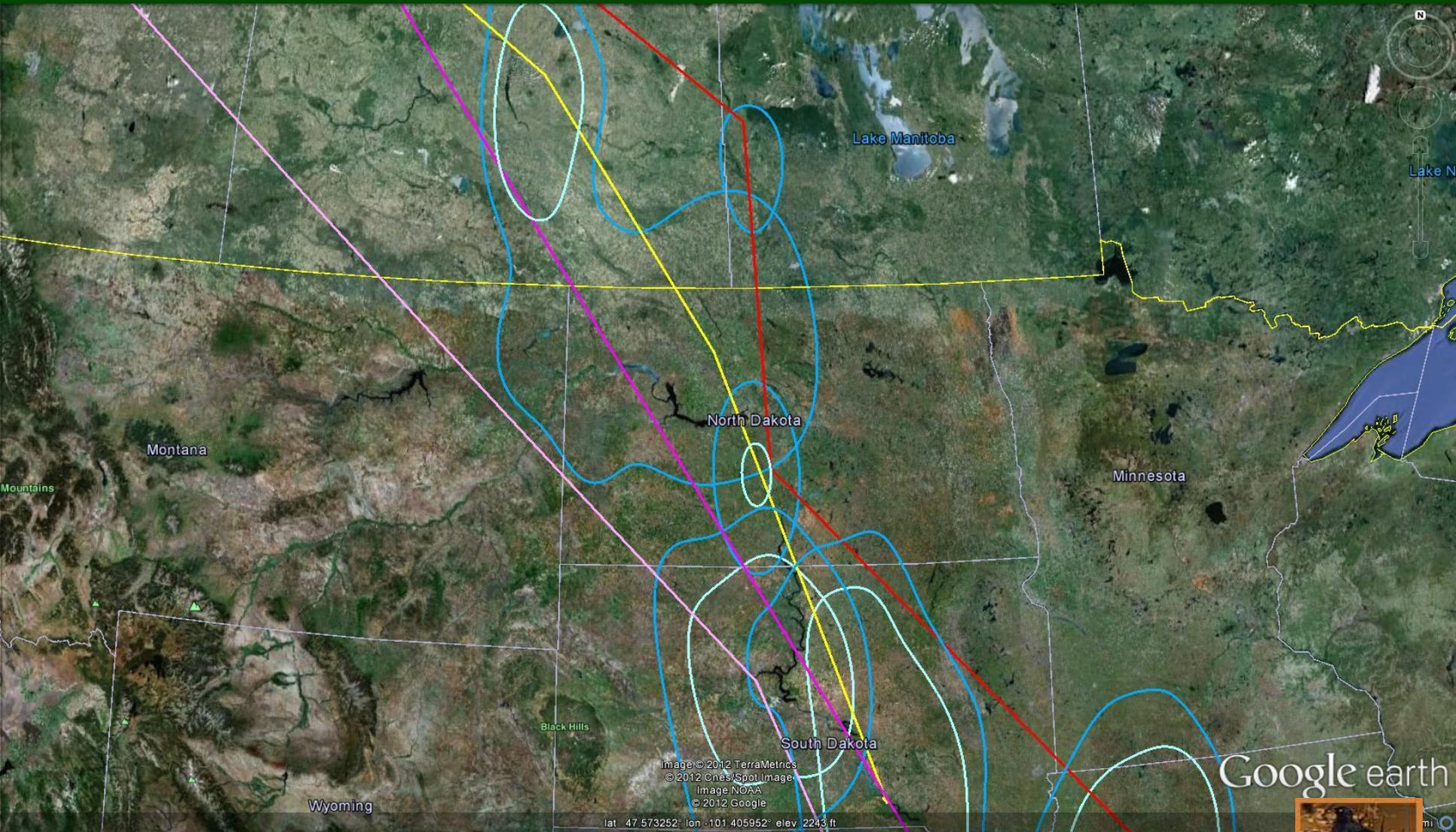
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Go



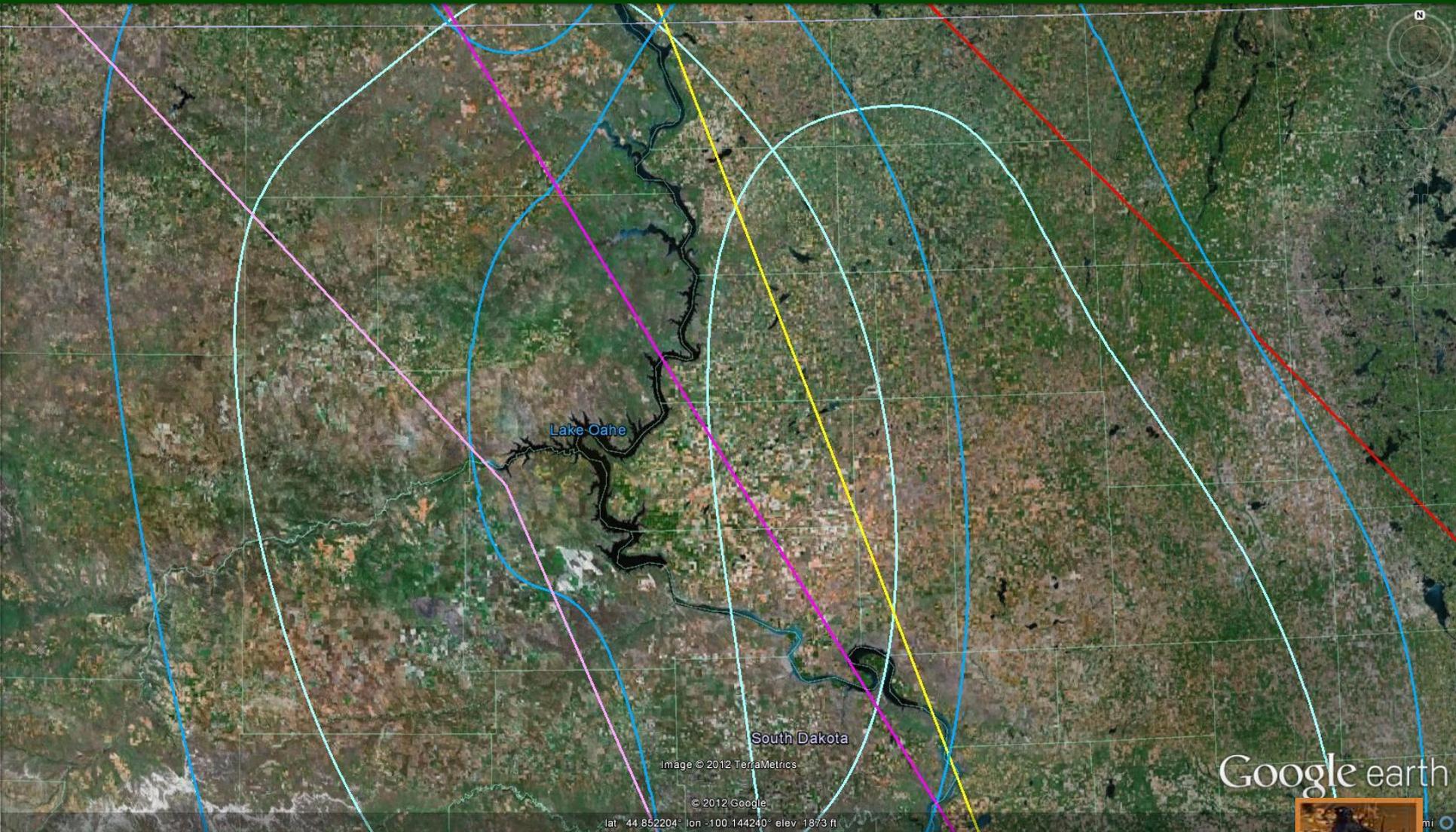
Seasonal Migration Routes of Rusty Blackbirds





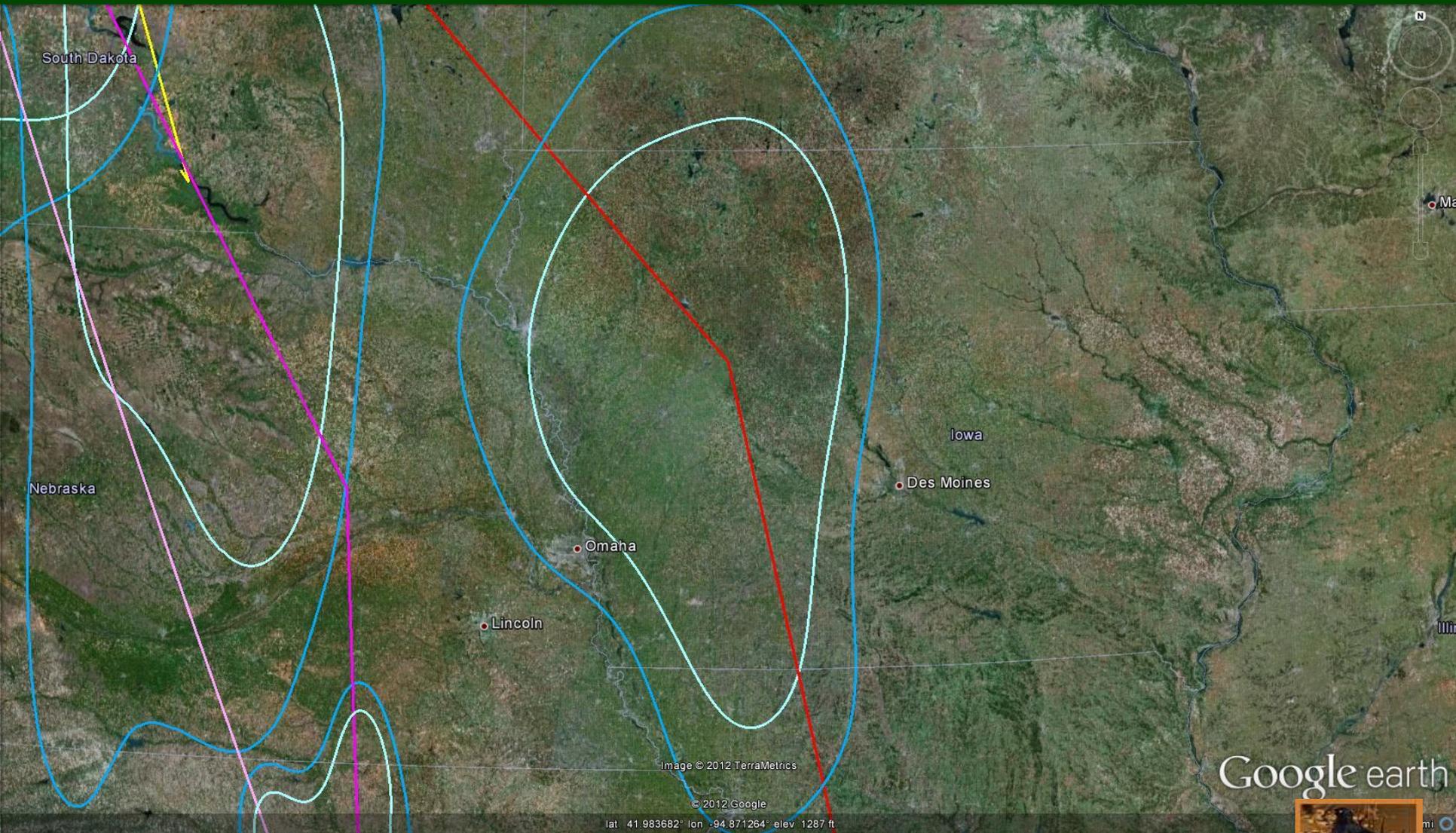
Seasonal Migration Routes of Rusty Blackbirds





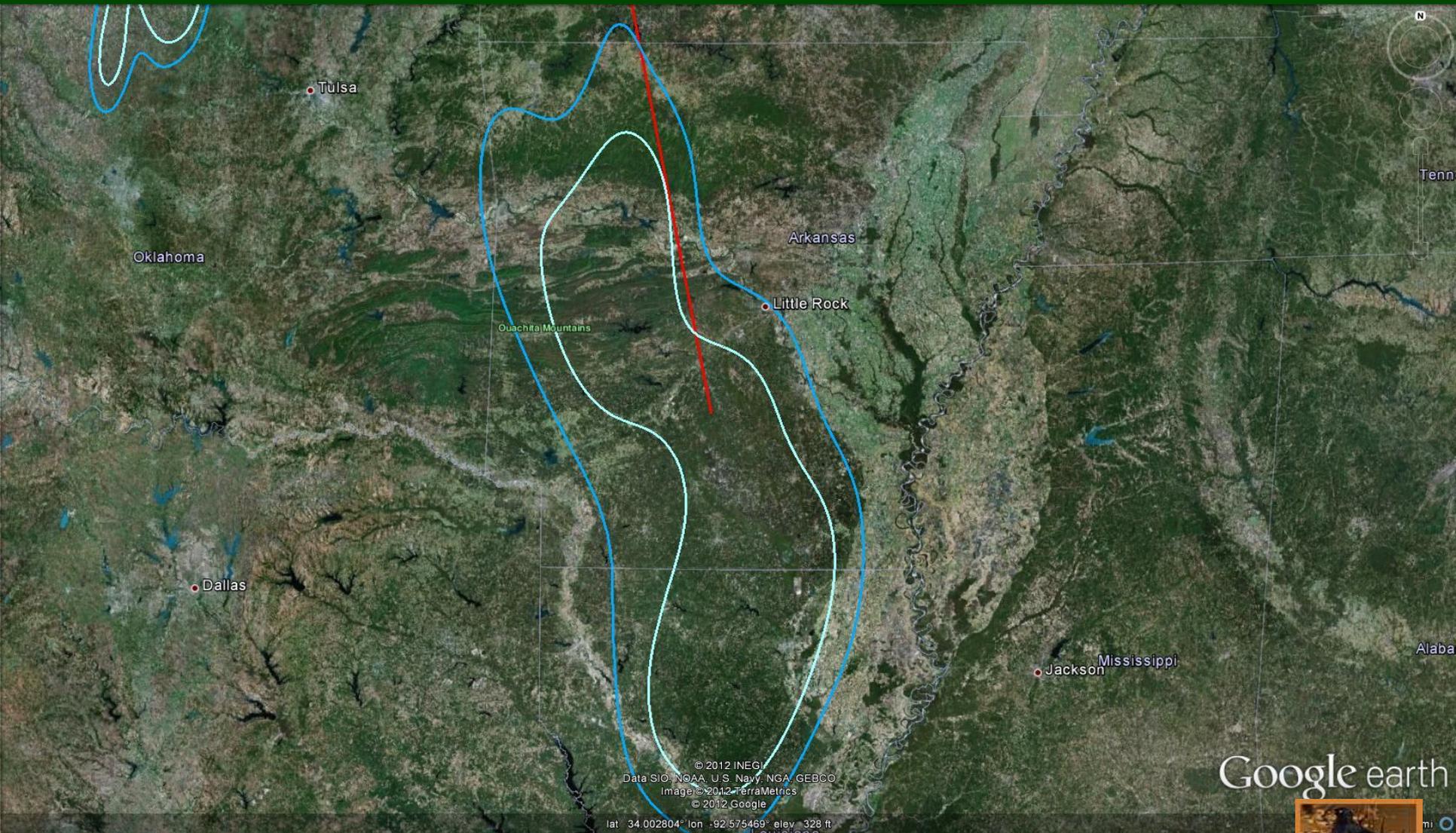
Seasonal Migration Routes of Rusty Blackbirds





Seasonal Migration Routes of Rusty Blackbirds





Seasonal Migration Routes of Rusty Blackbirds



Thanks for your attention!



Seasonal Migration Routes of Rusty Blackbirds



Rusty Blackbird in Alaska



Coordinated research effort across Alaska

What can you do to help?

Watch for banded RUBL

Report all RUBL observations

Concentrations of nesting RUBL

Age ratios of migrating RUBL

Over-wintering RUBL



Rusty Blackbird in Alaska



Identifying Age Class and Sex of Migrating RUBL

Females

Gray: rump and belly –
lighter overall

Face Mask: Grayer

Males

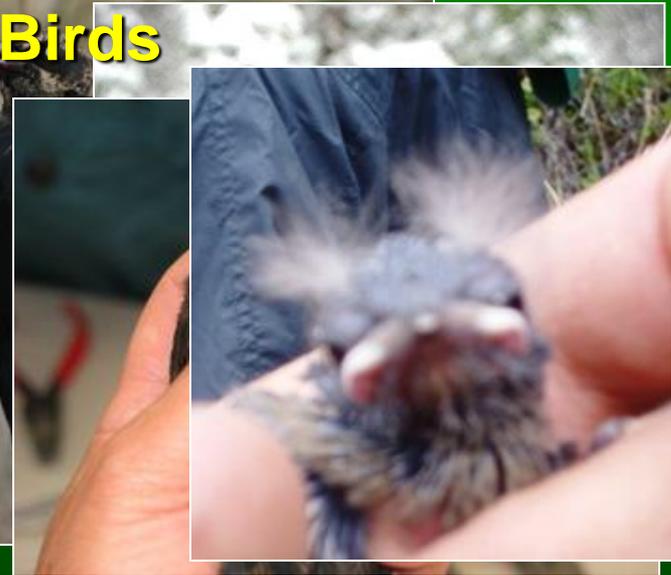
Glossy Black: wings,
tail, rump, and belly

Face Mask: Black

Hatch Year Birds

Dark Eyes

Broken Light Eying



Rusty Blackbird in Alaska



Quiz

