

Whooping crane migration and conservation in the Great Plains

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Population for 2017 totals over 800

- 431+ - Wood Buffalo /Aransas migratory flock
- 14 - Florida non-migratory flock
- 111- Eastern migratory flock
- 201 - captive flocks
- 60 - Louisiana non-migratory flock



Recover Planning: Objectives & Criteria for downlisting to Threatened (2007)

Whooping Crane:

- Objective 1: Establish and maintain wild, self-sustaining populations for 10 years
 - AWBP @ 160 individuals (40 pairs) + 2 populations @ 100 (25)
 - AWBP @ 400 individuals (100 pairs) + 1 population @ 120 (30)
 - AWBP @ 1,000 individuals (250 pairs), no add. populations
- Objective 2: Maintain genetically stable captive pop.
 - 153 individuals (21 productive pairs)
- Criteria are for down-listing in US/Canada uses IUCN
- De-listing criteria deemed not feasible in 2007
 - Opinions on pop. needed to ensure survival ranged from 1-7K
 - First, estimate min. effective pop. size to maintain gen. viability

Whooping Crane Nonessential Experimental Populations in the U.S.



AWB wintering Expansion



*with expansion
comes new
conflicts*

ATTENTION BOATERS AND HUNTERS!

This area is within the migratory path for endangered Whooping Cranes. Once numbering only 16 birds in the 1940s, the flock that winters on the Texas coast now numbers about 300 birds. During migration they stop overnight at wetlands to feed and rest. It is possible that Whooping Cranes might pass through this area from **late October through early December** and again during **April**. During 2011-12 several families of Whooping Cranes actually spent the entire winter at Granger Lake.



If you see a Whooping Crane:

- 1) Check your identification. Whooping Cranes have similar colorations to other birds — pelicans, snow geese and great egrets — but Whooping Cranes' size, red crowns and black wing tips set them apart. Adult birds can stand more than 5 feet tall. Young have reddish brown feathers interspersed. Whoopers fly with necks and legs extended. Usually whoopers are in groups of 1, 2, or 3 birds—never in groups larger than 10.
- 2) Give them room. Cranes in some areas can be amazingly tolerant of humans, but they do have built-in "danger zones" you don't want to violate. View only at a distance, do not approach the birds, and do not exit your vehicle or boat to view the cranes if you are closer than 1/2 mile. "Flushing" the birds increases their energy demands and can put them at risk of accidents, such as powerline strikes.
- 3) Waterfowl hunters beware. It is possible that cranes may fly directly over hunting areas. Their black and white color pattern is similar to snow geese, so be sure of your target, especially under poor lighting conditions. Be especially careful of small groups of black and white birds with slow wingbeats. If whoopers move into your area after you set up, be careful in your shot direction.
- 4) Report any sightings to:

www.tpwd.state.tx.us/whoopingcranes/ or whoopingcranes@tpwd.state.tx.us or 512-389-TXWW (8999)



**DO NOT DISTURB. ENJOY AT A DISTANCE.
WATERFOWL HUNTERS--BE SURE
BEFORE YOU SHOOT.**



Whooping cranes are protected under the federal Endangered Species Act. Penalties for violating the Act can be stiff, especially if a person knowingly takes (harms, harasses, wounds or kills) a protected animal or bird.

Living next to Whoopers



Cell tower/powerlines



Homes built on coastal marsh







Tracking Research Partnership



Aaron Pearse
Dave Brandt



Mary Harner
Greg Wright



Wade Harrell
Kris Metzger



Mark Bidwell
John Conkin



Dave Baasch
Chad Smith



Barry Hartup



Felipe Chavez-Ramirez



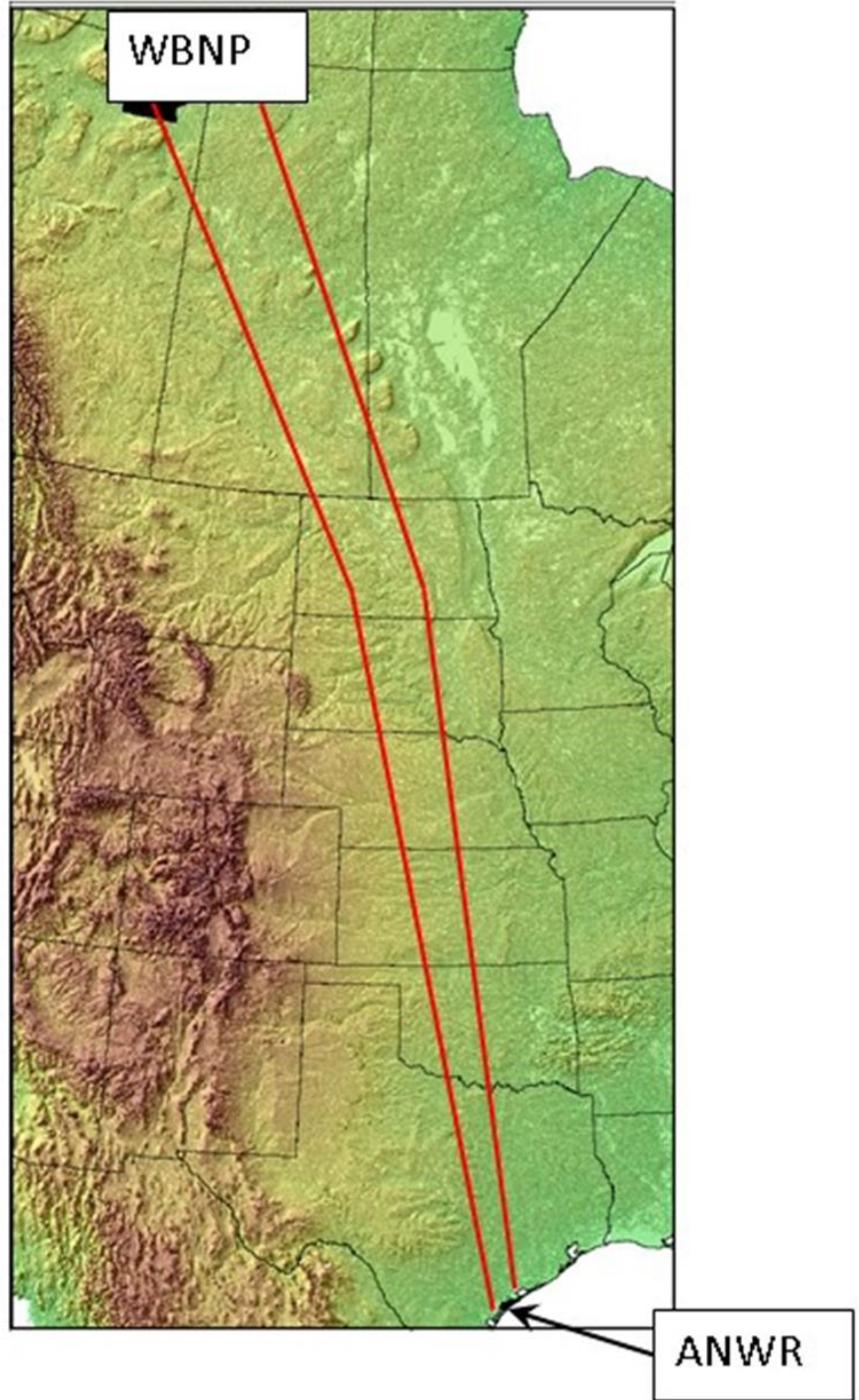
Parks Canada
Parcs Canada

Stuart MacMillan

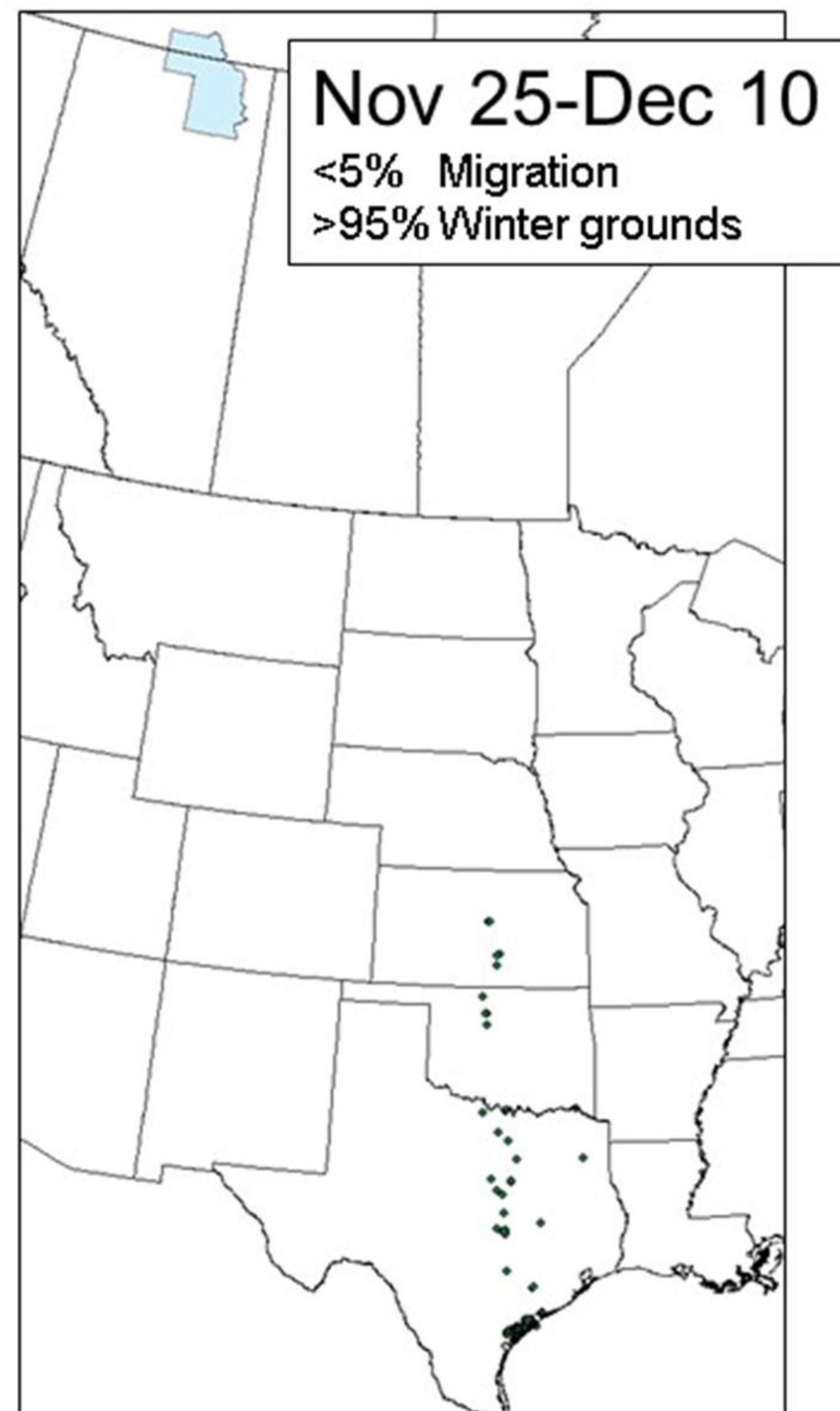
Capture and marking







2010-2016
68 cranes marked



Migration

3,860 km (2,400 mi)
14-86 days to complete

Fall = 48.5 days (7 weeks)
Spring = 27.7 days (4 weeks)

Average stops = 11-12

Distance between stops = 300 km

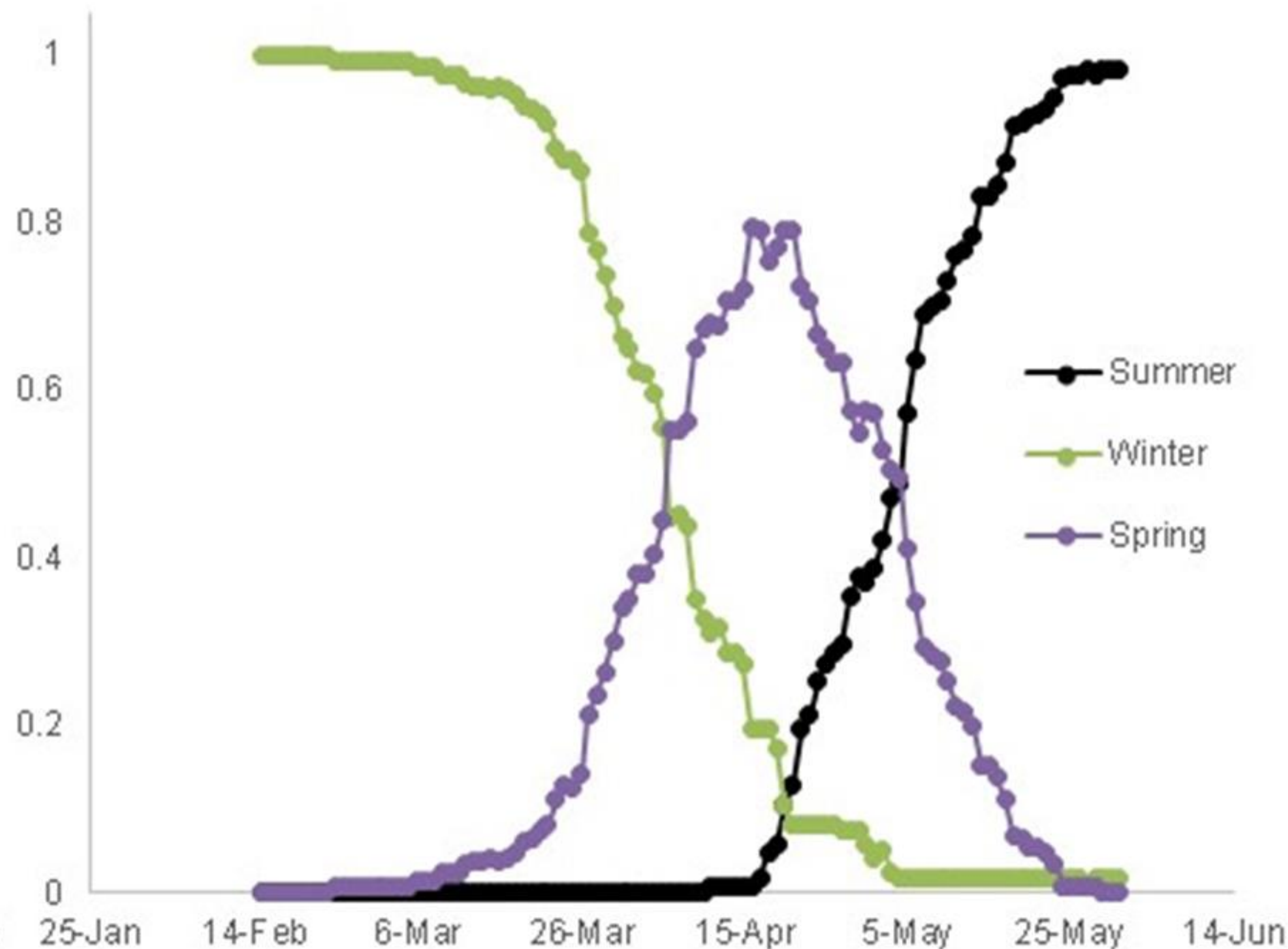
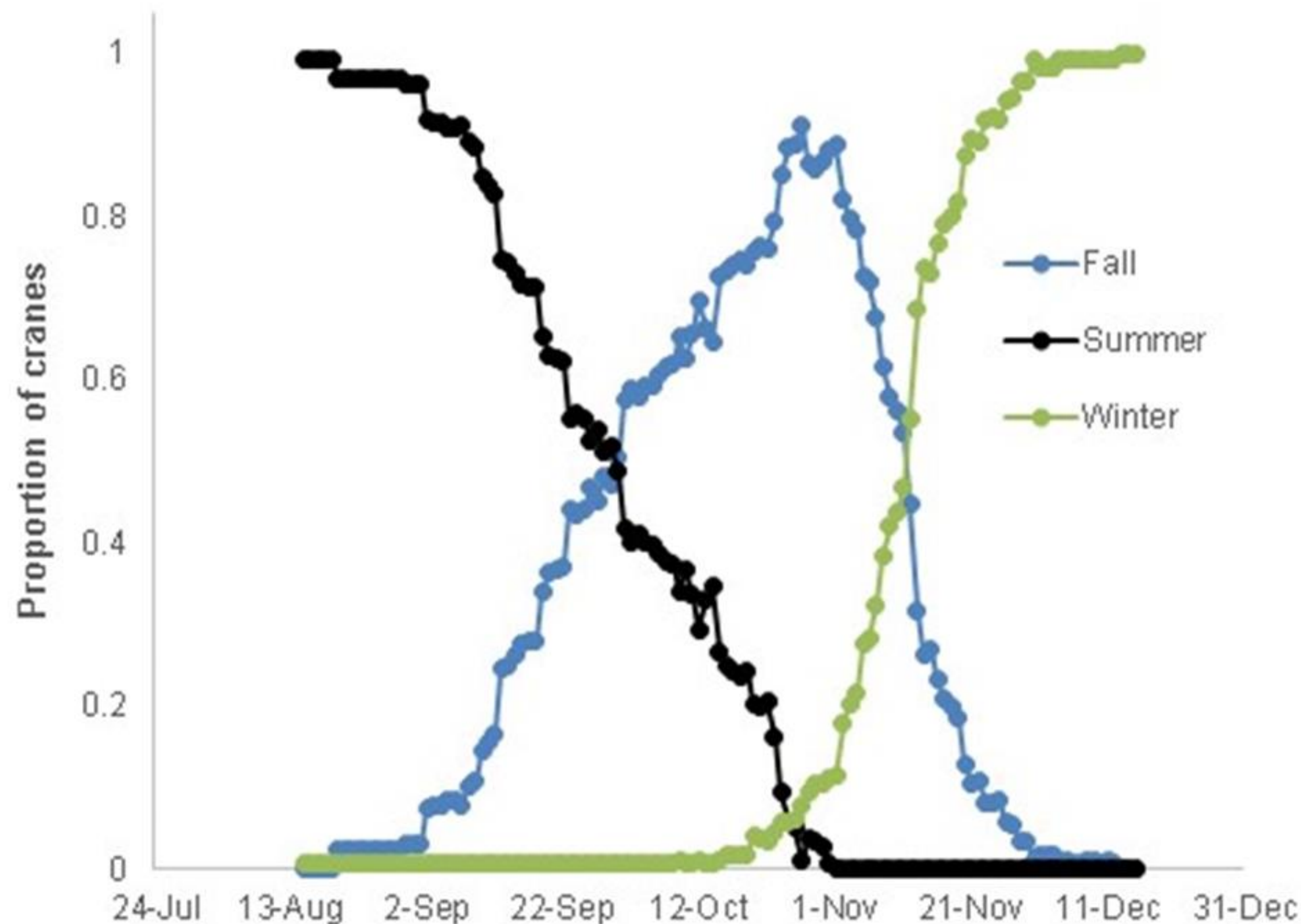
15% of stops on public land



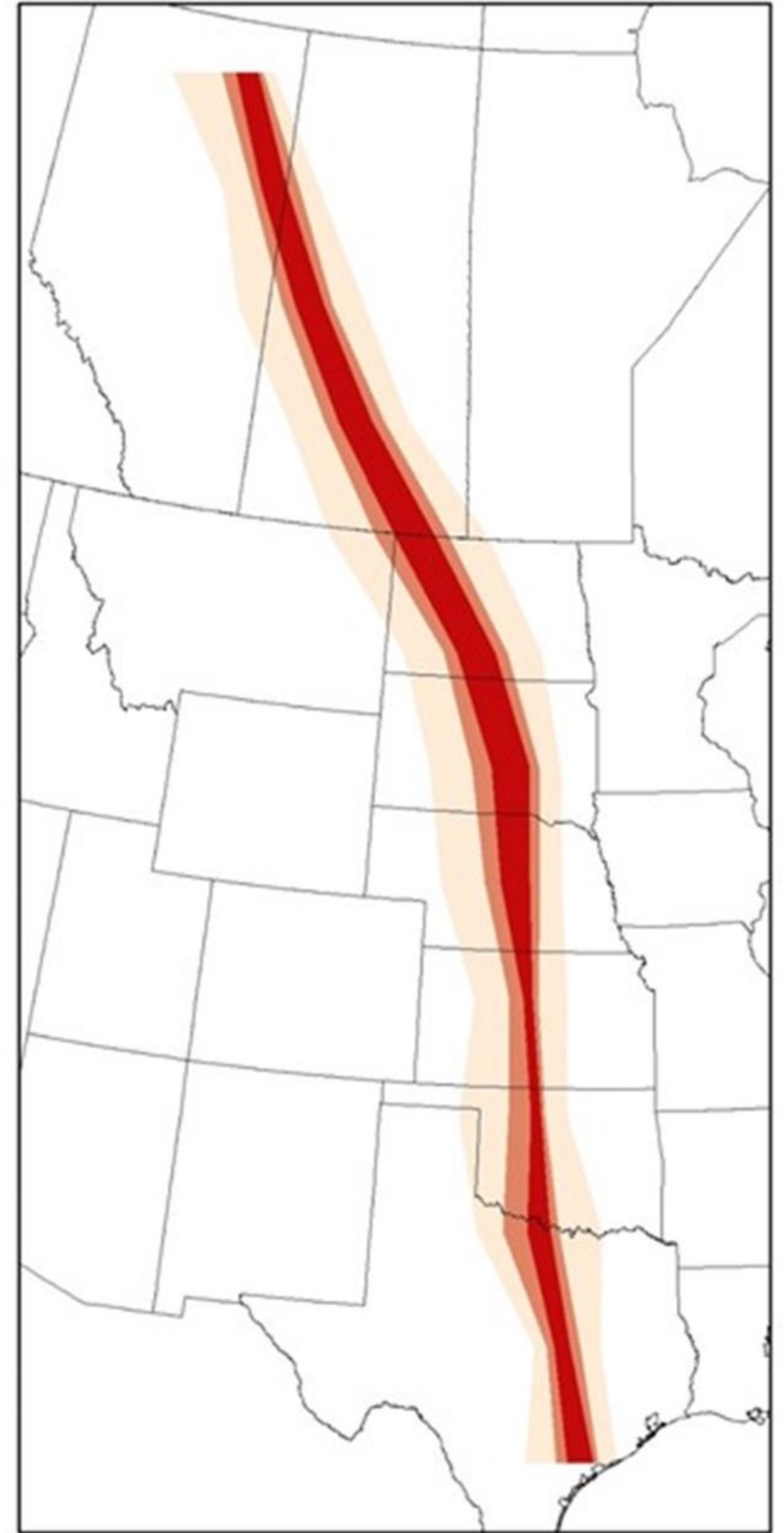
Timing

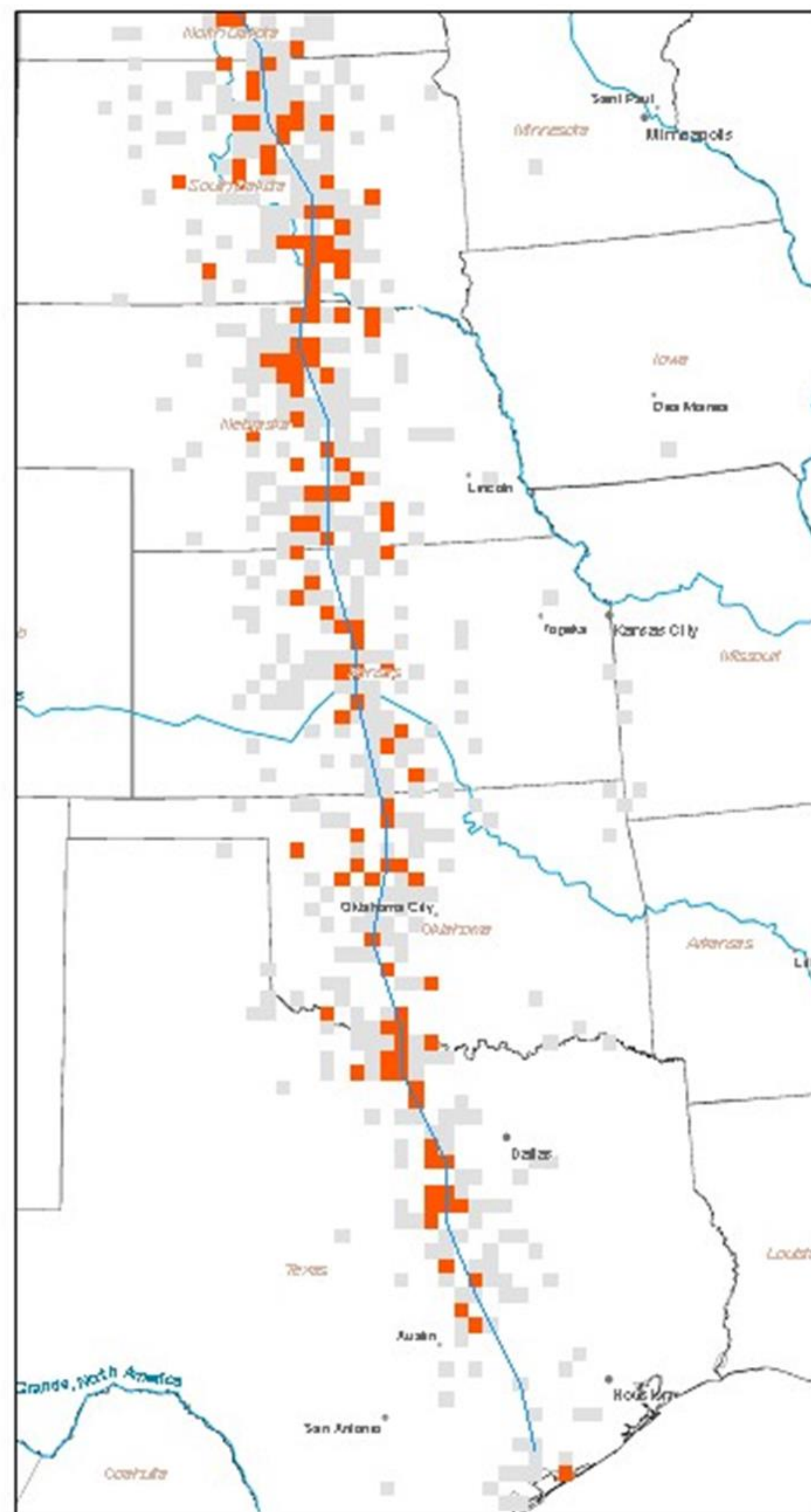
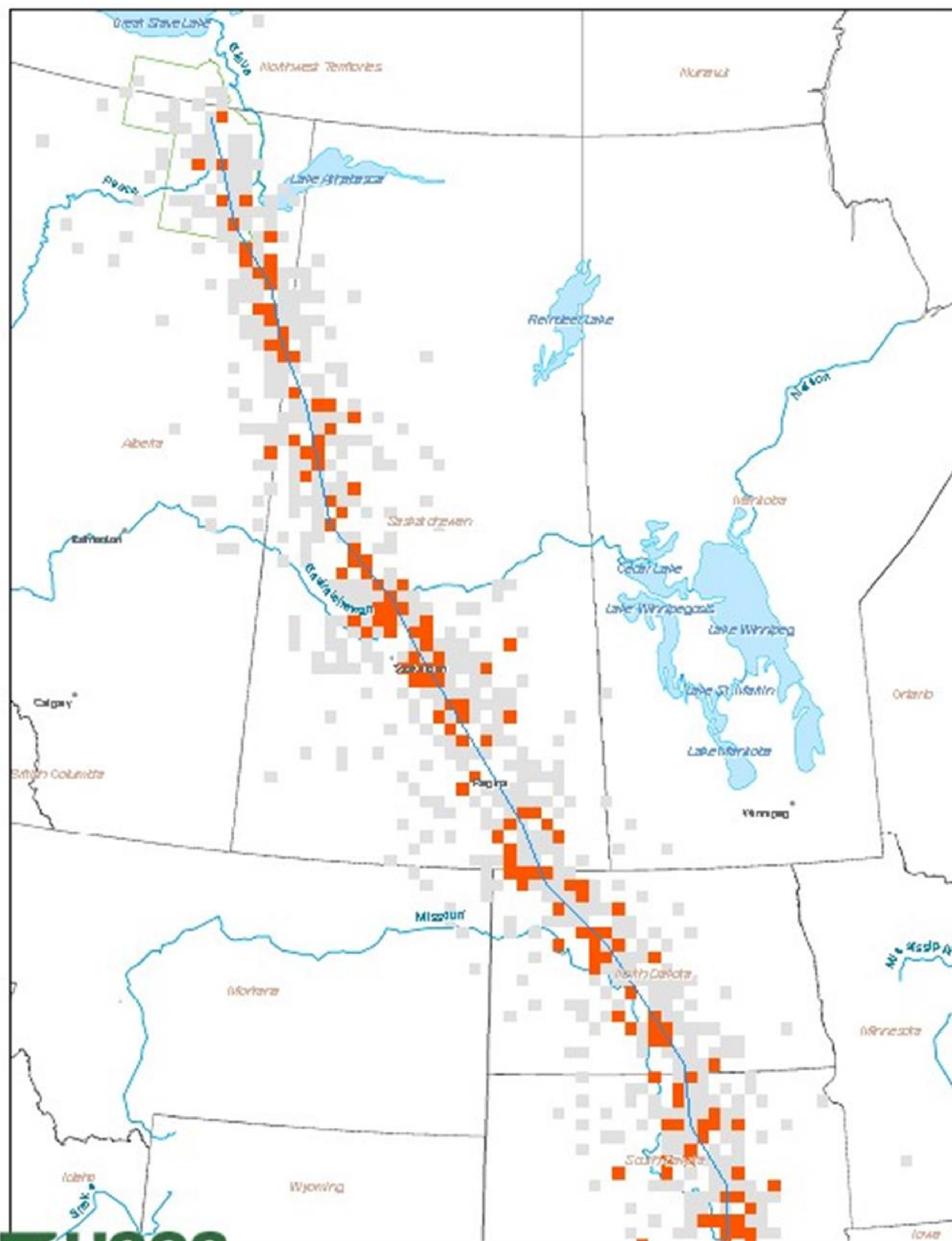
Fall departure = 27 Sep.
Fall arrival = 11 Nov.

Spring departure = 6 Apr.
Spring arrival = 4 May

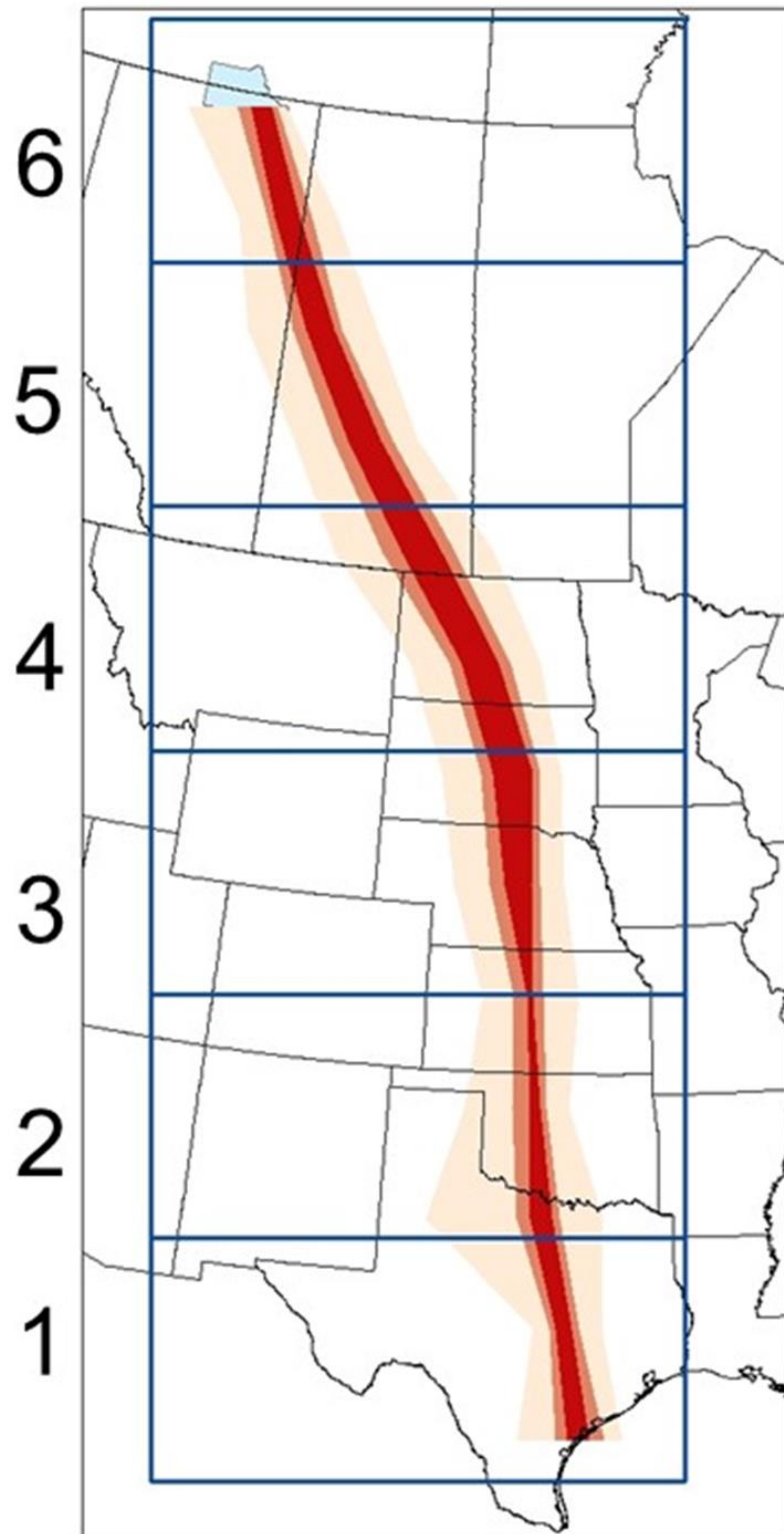
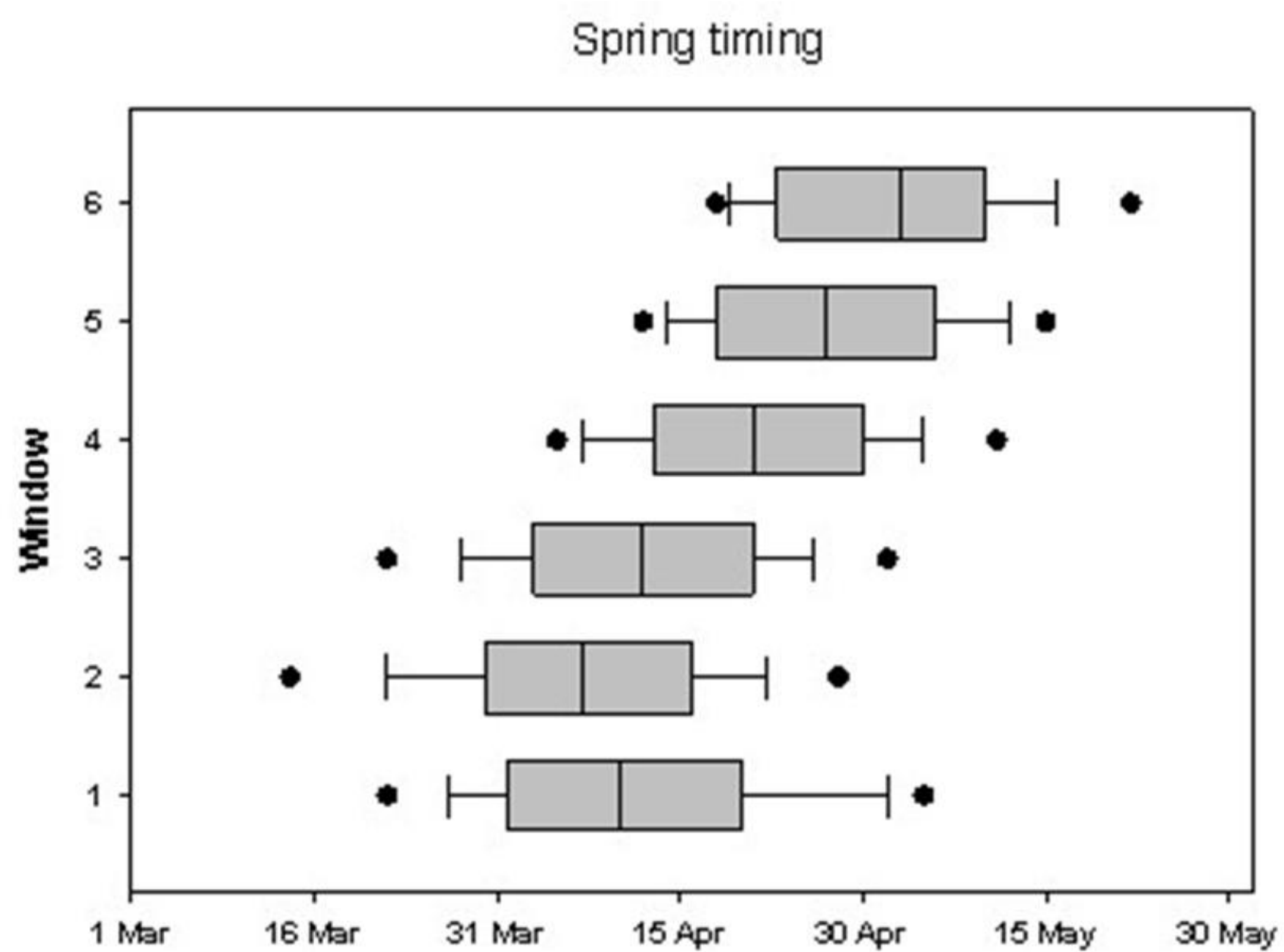
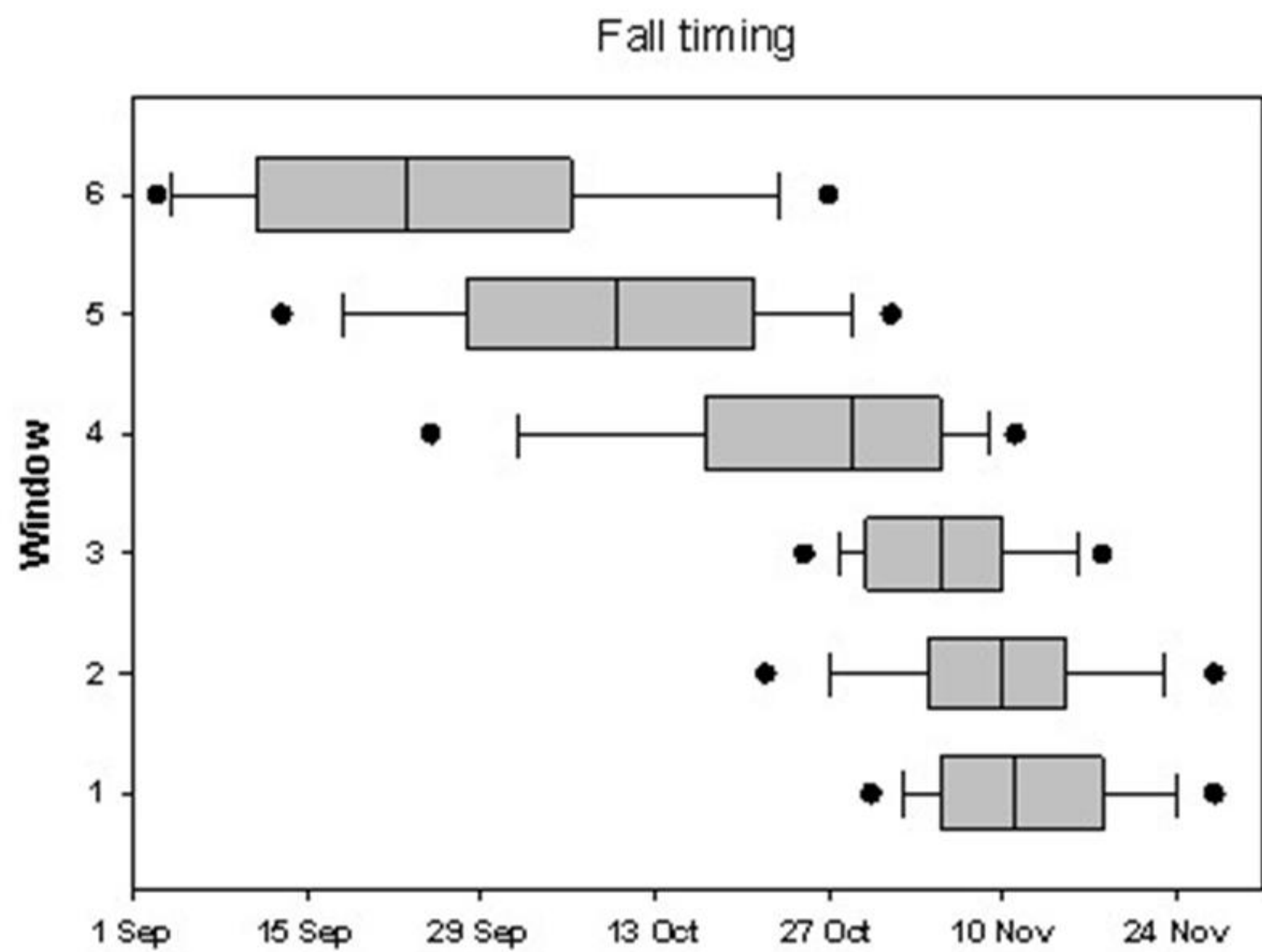


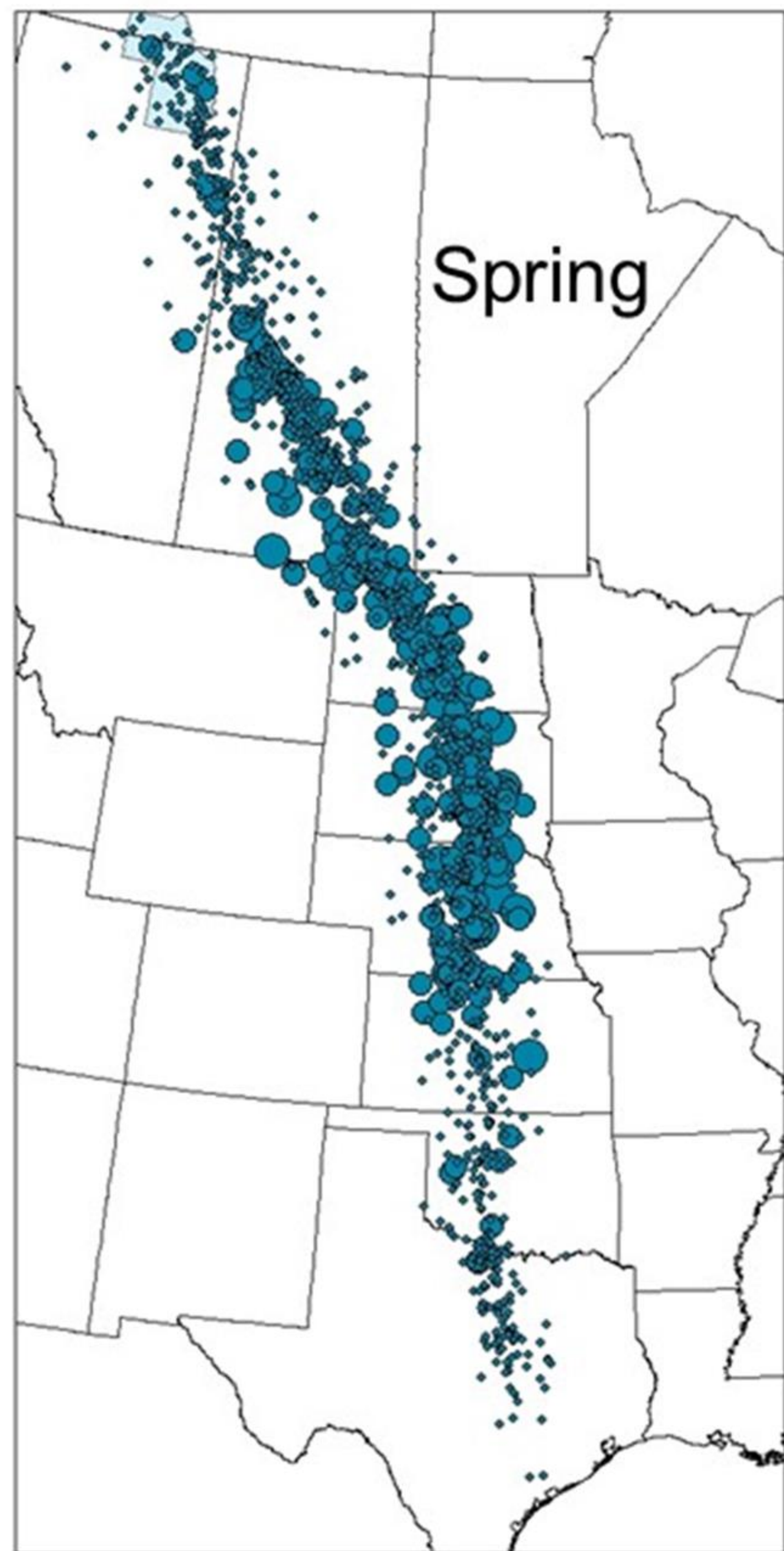
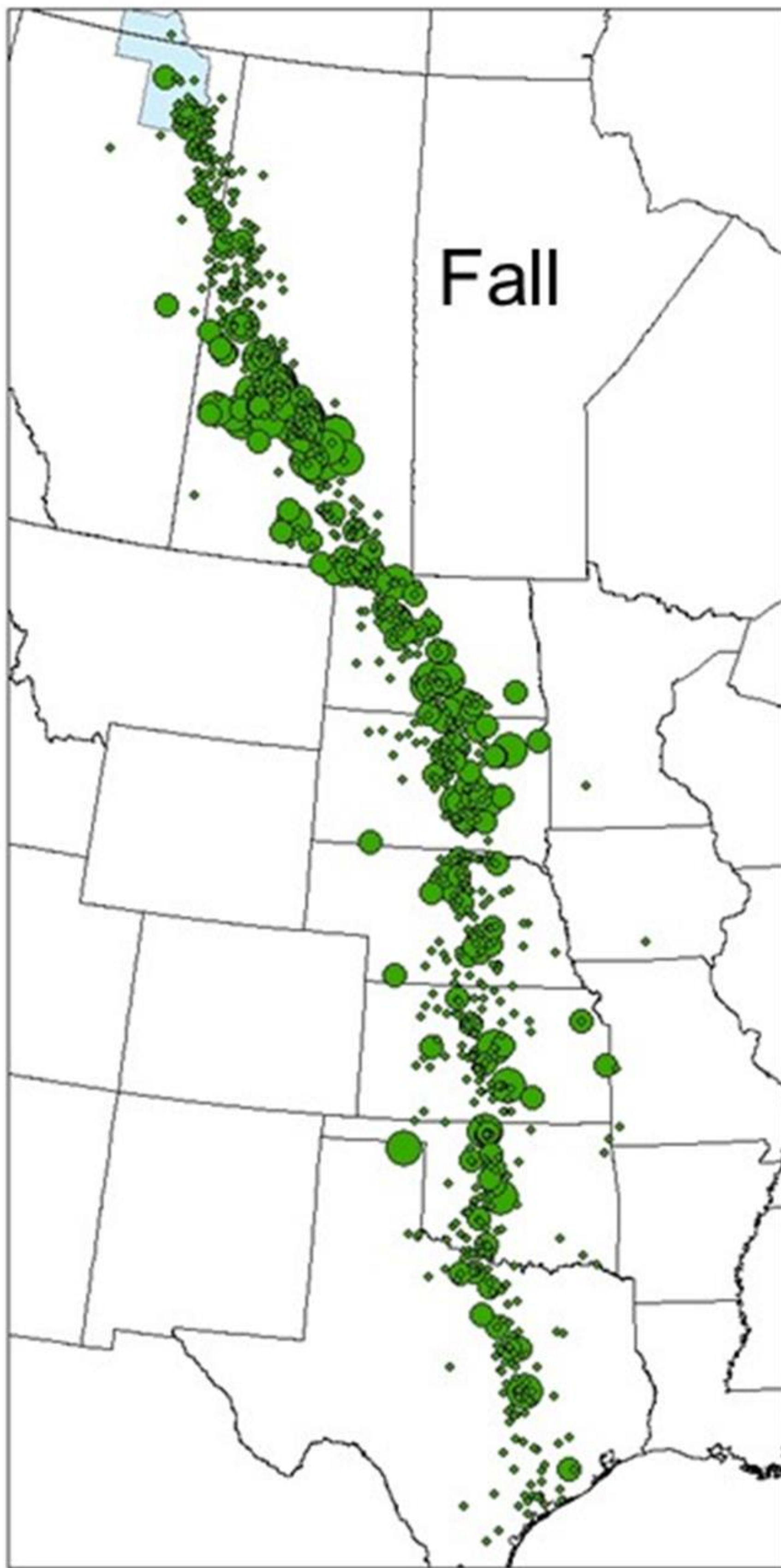
Migration Corridor





Pearse, A.T., Brandt, D.A., Harrell, W.C., Metzger, K.L., Baasch, D.M., and Hefley, T.J., 2015, Whooping crane stopover site use intensity within the Great Plains: U.S. Geological Survey Open-File Report 2015-1166, 12 p., doi: 10.3133/ofr20151166.





1 0.5 0 Miles



Median distance from
center = 0.7 km (1/2
mile)

95 percentile = 5.5
km (3.5 miles)



Chris Bailey



Chris Bailey



07.05.2013 17:18

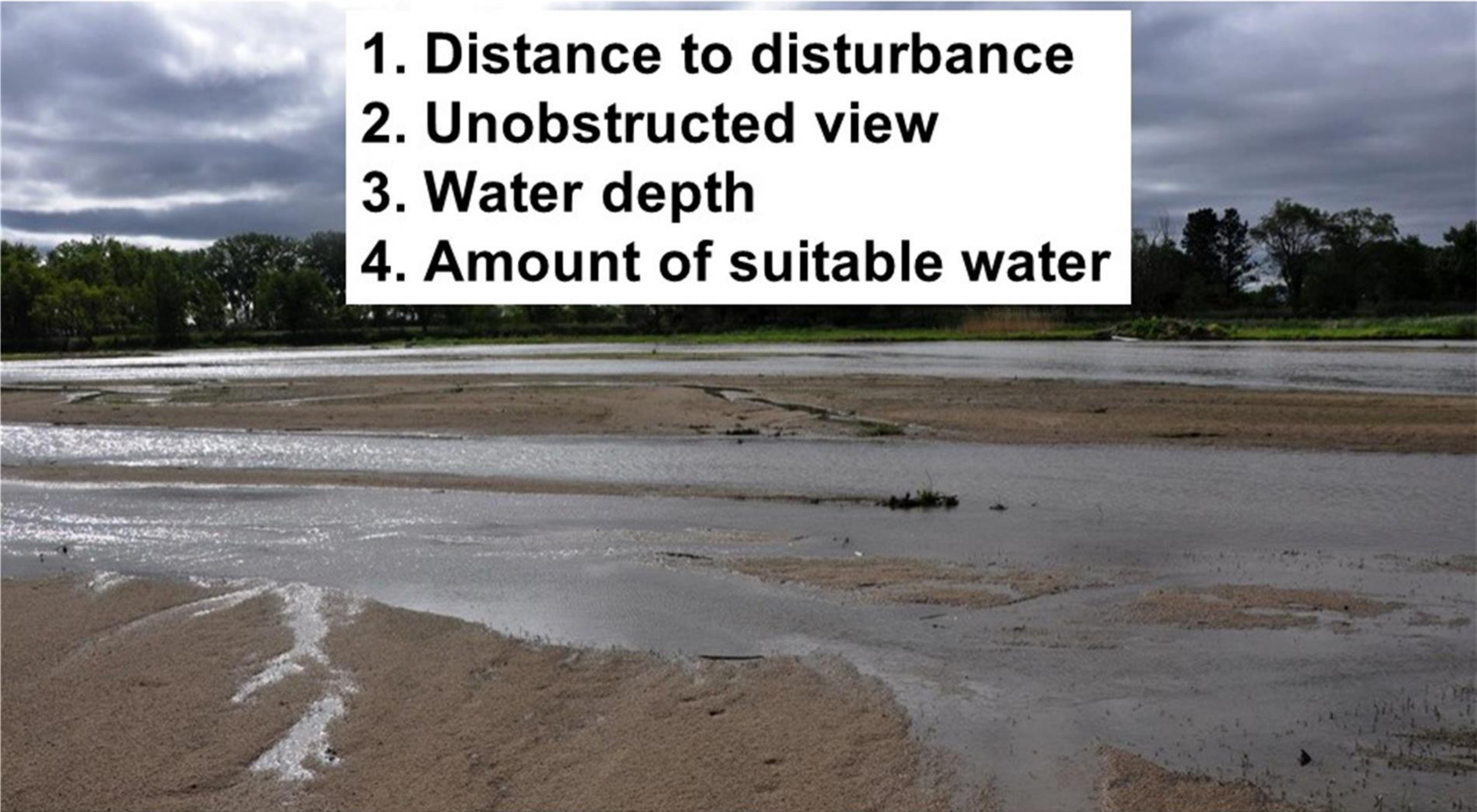


10.23.2014 10:27

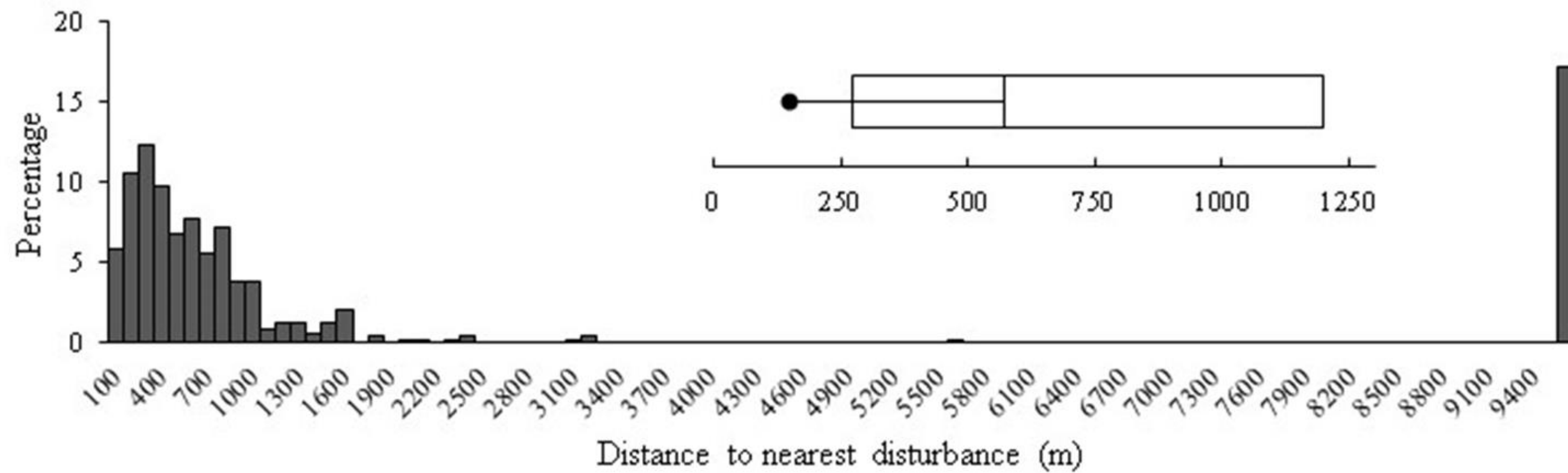


Stopover crane habitat?

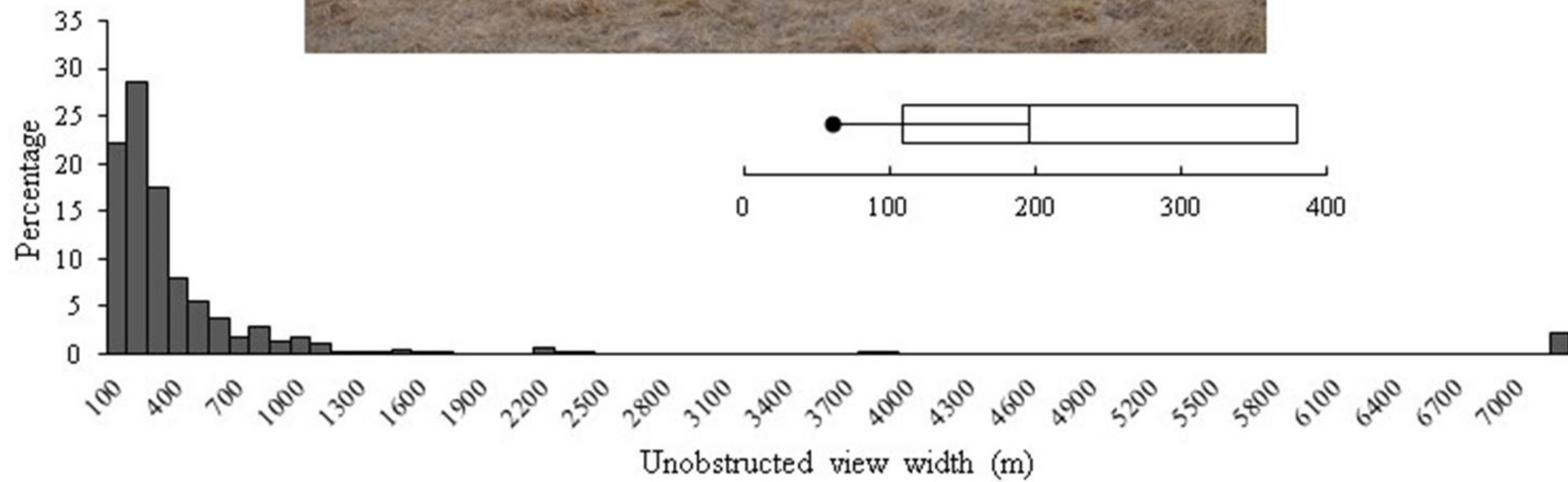
- 1. Distance to disturbance**
- 2. Unobstructed view**
- 3. Water depth**
- 4. Amount of suitable water**



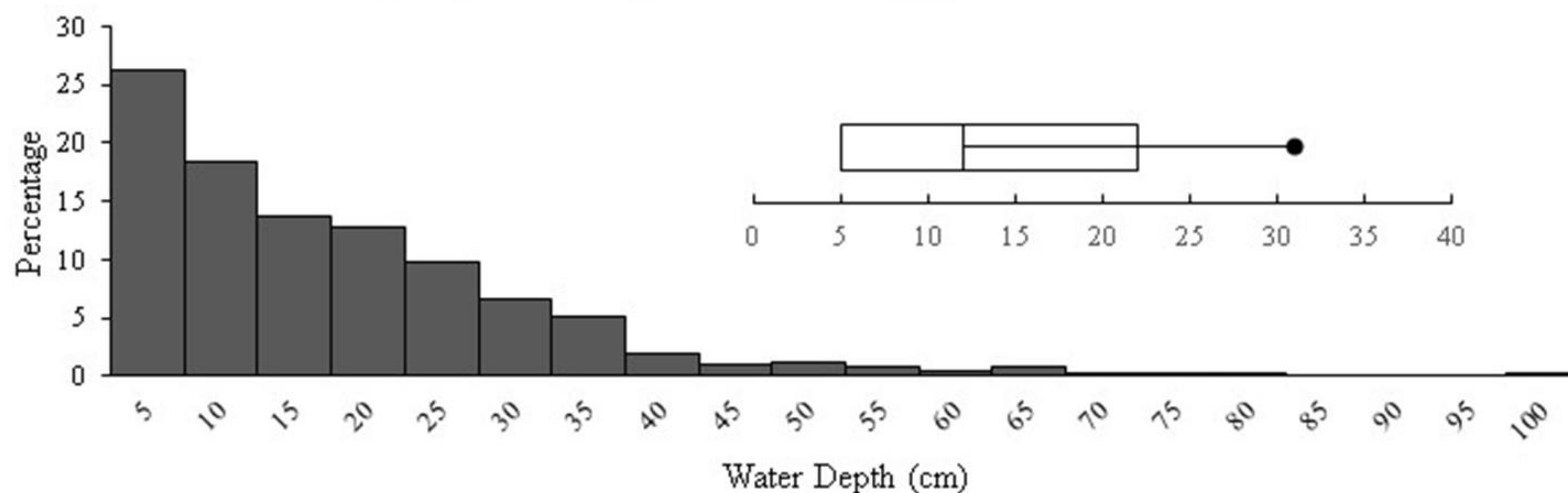
1. Disturbances



2. Open areas



3&4. Water depth and area



5 2.5 0 Miles

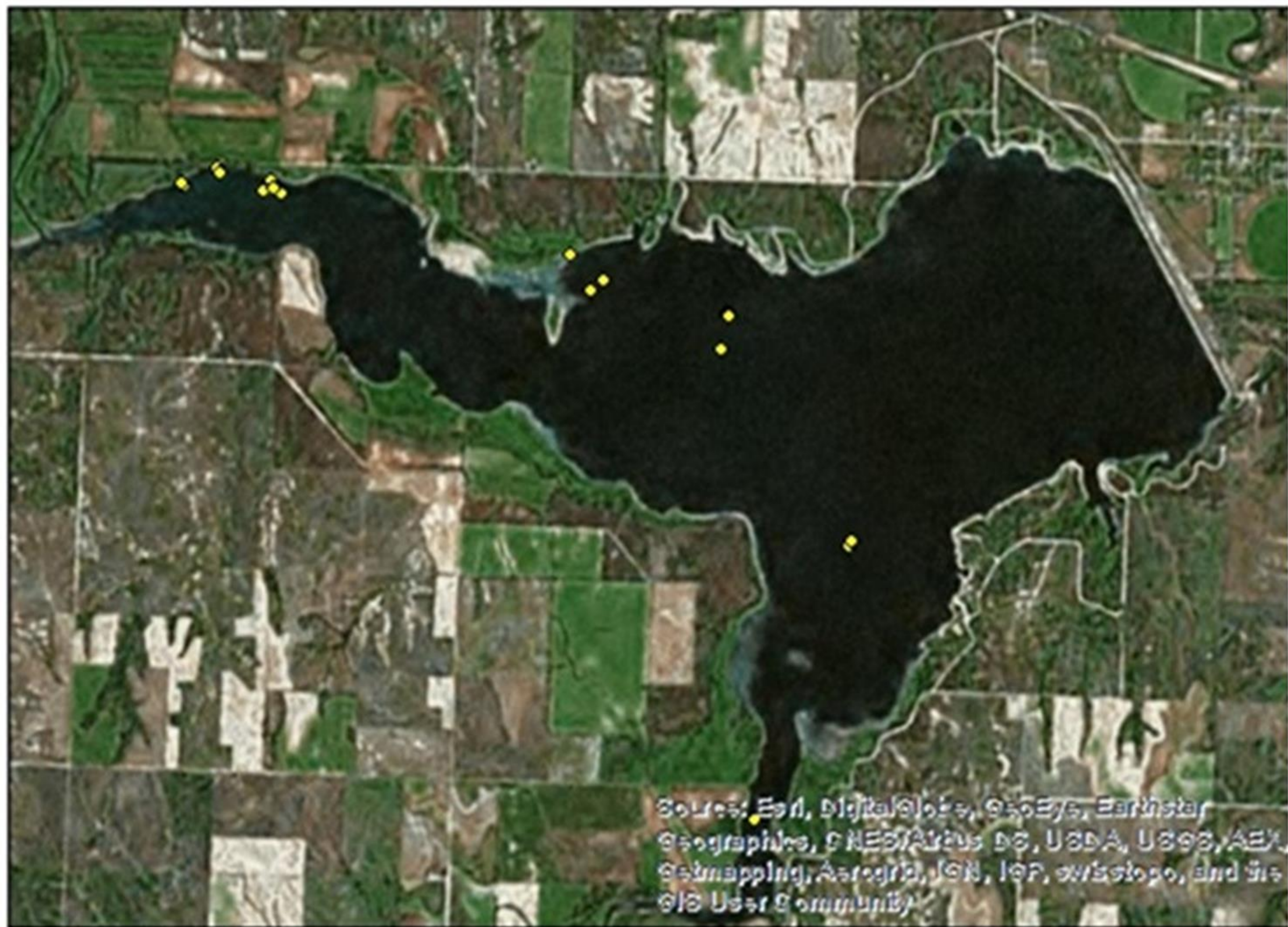


5 2.5 0 Miles



Sources: Esri, DigitalGlobe, GeoEye, Earthstar
Geographics, CNES/Airbus DS, USDA, USGS, Aero
Satmapping, AerGRID, IGN, IGP, swisstopo, and the
GIS User Community

3 1.5 0 Miles





04.23.2014 13:57



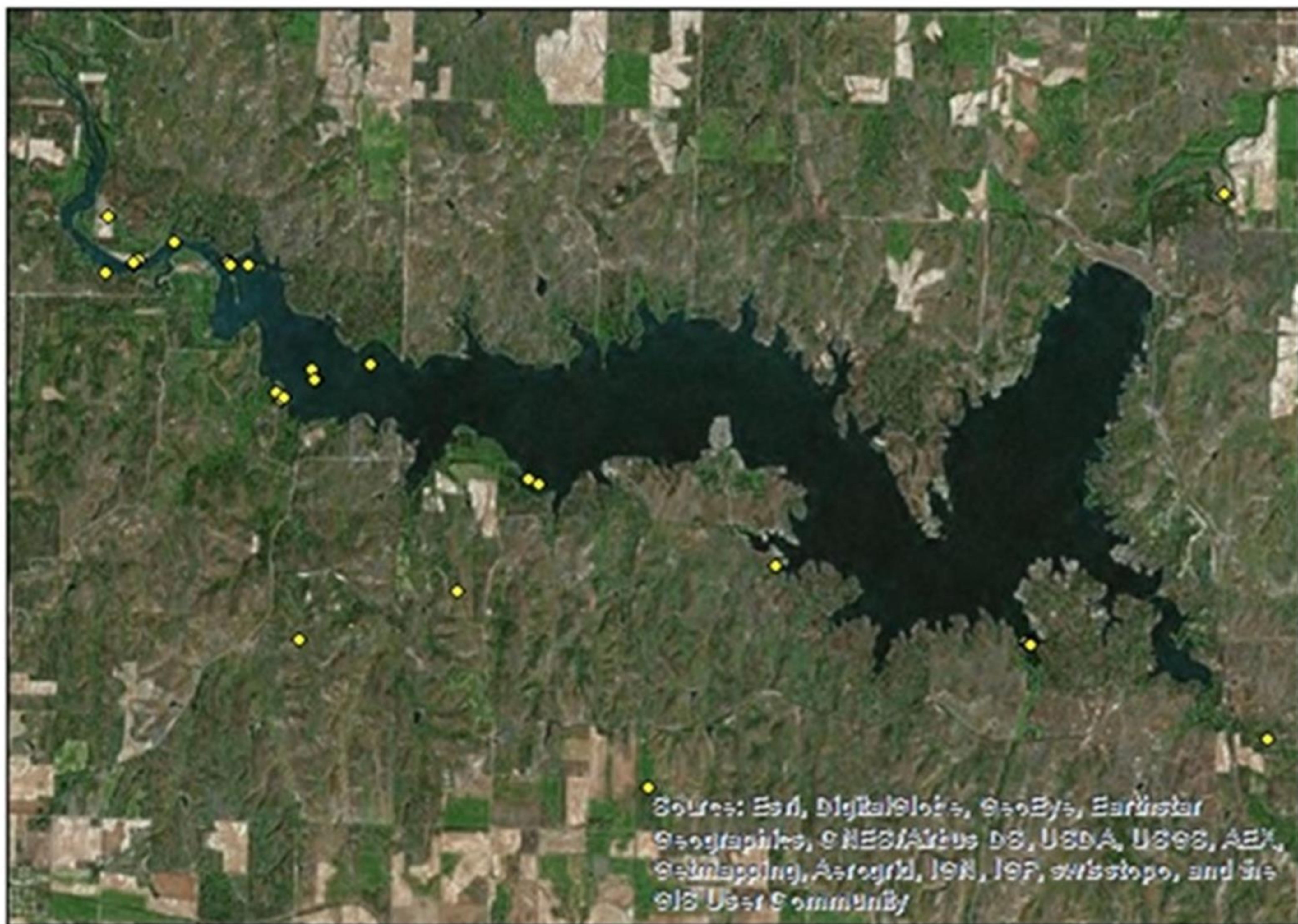




6

3

0 Miles







19.11.2013 17:22



03.20.2014 13:46

Summary

- Cranes are recovering, AWB population is key.
- Cranes need places to stop during migration; wide range of places likely suffice.
- Open areas with few disturbances and shallow water defines potential crane habitat.
- Large water bodies used by cranes, probably more important in dry years.

Thank you for your attention!



Whooping crane research partnership:

U.S. Geological Survey

The Crane Trust

Canadian Wildlife Service

U.S. Fish and Wildlife Service

Platte River Recovery Implementation Program

International Crane Foundation

Gulf Coast Bird Observatory

Parks Canada