

# Legislative Council Study on Sandhill Cranes

## Summary of Findings

### Relevant Findings (references in parentheses after each fact)

#### **A. General Background Facts on Sandhill Cranes**

- a. Sandhill cranes are abundant, wide-ranging and adaptable. In 2023, the USFWS estimated there were over 1.4 million sandhill cranes on the continent. (Lauer)
- b. Sandhill cranes are migratory birds with federal protections derived from the US enactment of the Migratory Bird Treaty Act in 1918. The nature of migratory birds means they are managed continentally, and within the United States by the US Fish and Wildlife Service (USFWS). Further management activities occur at the flyway level by Councils comprised of representatives from states and provinces. (Lauer)
- c. Flyway councils can promulgate management plans for migratory birds within their flyway. The Mississippi and Atlantic Flyway Councils have developed such a management plan for the cranes that migrate to or through Wisconsin. (Van Horn)
- d. The population of sandhill cranes that migrates to or through Wisconsin is categorized and managed as the “Eastern Population” of sandhill cranes. (Lauer)
- e. Cranes are long-lived birds and successfully breed around 4-5 years of age. (Lacy) Once a sandhill crane reaches sexual maturity around 2 years of age, there are few natural predators and many live beyond 30 years of age. (Van Horn)
- f. There are two social groups or cohorts of sandhill cranes: Breeding (or Territorial) birds and Non-territorial birds. Territorial birds are typically a mating pair, have small ranges when breeding, staying generally within 1 sq. mile of their wetland nesting sites. Non-territorial birds form larger groups and may roam as much as 2 miles or more from their wetland roost sites. (Lacy, Barzen)
- g. The 2010 USFWS Management Plan for the Eastern Population of sandhill crane population goal is to “Maintain an interim population index of between 30,000 to 60,000 birds”. (Van Horn)
- h. The 2023 population index of EP cranes is 112,000 birds. This is widely considered to be an undercount of the actual number of birds and both their migratory range and breeding territory is expanding. (Van Horn, Lacy, Barzen)
- i. The EP sandhill crane population is growing at 4.4% (calculated from USFWS data)
- j. There is some raw data to possibly indicate that the territorial / breeding birds may be reaching carrying capacity in Wisconsin. (Lacy, Sedinger) But no studies were presented to forecast the ultimate size of that breeding population cohort, nor the ultimate population of the Non-territorial

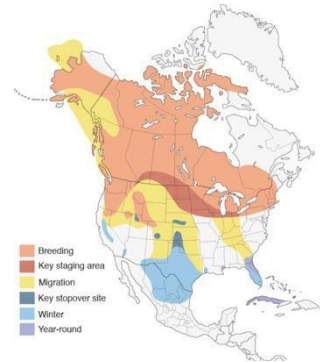
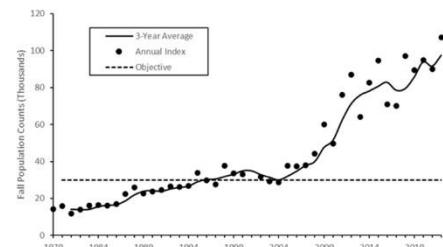


Figure 4. Approximate range of Eastern Population sandhill cranes based on various data sources including satellite telemetry data, breeding bird atlas records, and unpublished locations.



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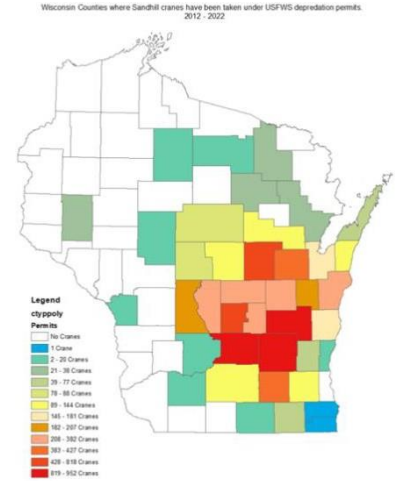
crane cohort, nor the size of the population of migratory cranes that pass through Wisconsin in the spring and fall on their way to other states/provinces.

### **B. Relevant Agricultural Damage and Conflict Facts**

- a. The recovery of the sandhill crane population is in part due to their adaptability to the agricultural landscape. (Lacy)
- b. Crane-human conflict reports are increasing as the sandhill population increases. (Hirchert)
- c. US Department of Agriculture – Wildlife Services (USDA-WS) is the primary responding agency to collect damage reports. (Van Horn, Hirchert)
- d. Since there is little incentive for producers to report crane-caused damage and current damage claims are not verified, estimates of agricultural damage are not entirely reliable. (Lang, Finger)
- e. The following 2023 damage, from 229 Wisconsin incidents reported to the USDA-WS, total \$1,974,150:
  - i. Field Crops = \$1,811,400
    1. Corn damage=\$934,900 (52%),
    2. Potato damage= \$870,500 (48%) and
    3. Winter wheat damage= Unknown
  - ii. Other crop damage (cranberries and strawberries): \$100,000
  - iii. Conflicts with aircraft are the next highest reported conflicts with 5 incidents, no damage value reported.
  - iv. Other property damage, including golf courses, was reported at \$62,750. (Hirchert)
- f. The majority of crane-caused corn damage happens after seed planting until the corn plant is about 8-10" tall. (Finger)
- g. In addition to absorbing crane-caused crop damage, some corn producers apply Anthraquinone (commonly known under its brand name of Avipel™) to their corn seed prior to planting to prevent or mitigate crane damage (Hirchert, Gerhke)
- h. This chemical is mostly effective at protecting the corn seed and limiting crop losses. (Gehrke).
- i. In 2019, this chemical was applied to 196,476 acres of corn. The estimated cost of this Avipel application is \$10-15 per acre (Hirchert), making the application cost between \$2-3 million. (calculated)
- j. There are 2.8 million acres of corn within ¾ mile of possible sandhill crane wetland roost sites (Barzen). If all those fields are treated with Avipel it could cost as much as \$28-42 million per year. (calculated)
- k. There is no comparable chemical crane repellent for potatoes or other crops, which are nearly half (48%) of the reported financial damage (Annually). (Hirchert, calculated)
- l. There is no current financial consideration for producers to address sandhill crane damage or mitigation. Because sandhill cranes are not open to Wisconsin hunting, the hunter-funded Wisconsin Damage Abatement and Claims Program is not available to farmers to offset crane-caused damage. (Lauer, Finger, Koehle)

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- m. Producers may apply for crane depredation kill permits to the USDA-WS with final approval by the USFWS. The application fee is \$100. In 2023, over 1400 cranes were killed under those depredation permits, and over the last seven years, more than 8,000 cranes have been killed in Wisconsin under these depredation permits. (Hirchert, Finger). The crane carcasses must be left in the field, buried or burned—no human consumption is allowed by under those depredation permits. (Finger, Van Horn)
- n. The chart to the right shows the locations where sandhill depredation kill permits have been issued between 2012 and 2022 and therefore represent the areas of greatest reported sandhill crane depredation. (Finger)
- o. There are non-Avipel, non-lethal approaches to frightening cranes from fields, but they tend to be expensive, time-consuming or labor intensive, and none are uniformly effective. (Lauer, Hirchert)
- p. If a hunt is established in Wisconsin, under current law the Wisconsin Damage Abatement and Claims Assistance Program (WDACP) would be statutorily available to address farmer losses and mitigation efforts. (Lauer, Finger, Lang).
- The WDACP is an established mechanism for evaluating wildlife damage to crops and paying out damage /mitigation claims to producers. (Lauer, Lang)
  - The WDACP is funded through a surcharge added to most hunting licenses, and bonus antlerless deer permits. (Lauer, Lang)



### **C. Relevant Hunting Facts**

- Sandhill cranes have been hunted in the United States for over 6 decades. (Van Horn, Scott)
- The international (US and Canada) migratory bird management community has 62 years of experience managing the hunting of sandhill cranes. (Van Horn, Scott)
- 18 US states, 4 Canadian provinces, and Mexico currently hunt sandhill cranes. (Van Horn)
- The International Crane Foundation does not identify hunting as a threat to sandhill crane populations. (Lacy)
- The Flyway Councils charged with responsibility for managing migratory birds apply an adaptive harvest management approach that incorporates relevant science and annual bird counts to annually adjust harvest of migratory gamebirds. (Scott, Finger, Ross)
- Migratory gamebird populations (waterfowl) under this approach have positive population trends that exceed most other North American bird populations--waterfowl are up 56% in the last 50 years in contrast to most other bird populations' collective decline of 3 billion birds. (Lazewski, Ross)
- The Eastern Population of sandhill cranes has grown 646% in that same timeframe. (calculated from USFWS data)
- The minimum population to justify a sandhill crane hunt, according to the relevant 2010 USFWS crane management plan, is 30,000. The current population index stands at 112,000. (Finger, Van Horn, Scott)
- The USFWS Management Plan for Sandhill Cranes plan includes a goal to provide sandhill crane hunt opportunities. Goal 4: "Through federal mandated quotas and

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- permits, provide hunting opportunity consistent with long-term welfare of the resource”. (Scott, Ross)
- j. Hunting of EP cranes began in 2011 in Kentucky and are now hunted in three states (KY, TN, AL) under a more controlled system than found in western states in the Central Flyway. Tribal hunting of sandhill cranes is allowed in the ceded territories of WI, MN, MI, and two Canadian provinces are moving forward with a hunt proposal as well. (Van Horn, Scott, Ross)
  - k. Research indicates that a sandhill crane hunt can manage future population growth (Barzen)
  - l. Any state desiring to establish a sandhill crane hunt must apply to the USFWS and include specific approaches to the unique circumstances of that state. This is a 2-3 year process to receive permission for “experimental” hunting seasons that if successful, lead to a permanently authorized hunt. (Scott, Finger)
  - m. Every year, USFWS adjusts each state’s harvest authorizations based on several factors that include the overall population size and health. The USFWS reports that expected fall harvest levels in Wisconsin would be below that of current depredation kills in the spring. (Scott, Hirschert)
  - n. All current limited drawing permit systems are established in statute. State permit fees require legislation. (DNR response to Chair Tittl’s questions)
  - o. Sandhill Crane hunting began in the Central Flyway 62 years ago and has been managed alongside the only wild migratory population of whooping cranes, which has been slowly increasing during this period. (Van Horn)
  - p. The USFWS does not expect states with whooping cranes to forego a sandhill crane hunt. However, a state proposing a hunt must have educational tools and communications that will help hunters understand how to avoid harvest of whooping cranes and other non-target species. (Scott)
  - q. International Crane Foundation (ICF) research indicates no legally authorized sandhill crane hunter has misidentified and shot a whooping crane. (Ross)
  - r. The Wisconsin Constitution provides that “[t]he people have the right to fish, hunt, trap, and take game subject only to reasonable restrictions as prescribed by law.” Article 1, Section 26. (Ross)
  - s. There will be additional costs to the DNR’s establishment and ongoing administration of a sandhill crane hunt. Such costs are generally offset by hunter user fees. (DNR response to Chair Tittl’s questions)
  - t. If there are more hunters wishing to participate in a hunt than the number of tags authorized by the USFWS, the DNR must conduct a lottery system to down-select to the number of tags authorized by the USFWS. (DNR response to Chair Tittl’s questions)

### ***D. Relevant Eco-tourism Facts***

- a. The USFWS Management Plan for Sandhill Cranes has a goal to “provide for and monitor non-consumptive uses and develop public education opportunities.” (Scott, Ross)
- b. Crane-based eco-tourism occurs in several states, including those that have crane hunting. (Ross)
- c. In the fall, certain “staging areas” see large gatherings of sandhills that are important to the bird’s migratory life cycle. These gatherings provide public viewing that supports eco-tourism opportunities. (Ross)
- d. Sandhill cranes are a powerful symbol of Wisconsin’s conservation success, and many in Wisconsin have contributed to this success. (Lazewski)

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### **E. Other issues**

- a. A Wisconsin Sandhill Crane Management Plan is not required to apply for federal permission to establish a sandhill crane hunt but could bring all the relevant management issues (agricultural damage, eco-tourism, hunting) under a single plan. (DNR answers to Chair Tittl's questions, Ross).

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