



Non-profit organizations, individuals and government agencies joining forces to bring a migratory population of whooping cranes back to eastern North America

WHOOPING CRANES (*GRUS AMERICANA*) AND HUMAN CAUSED MORTALITY: CONSIDERATIONS REGARDING SHOOTING OCCURRENCES AND HUNTING SEASONS (2-19-13)

Issue and Recommendation:

Recent initiatives in some eastern states regarding the managed hunting of sandhill cranes (*Grus canadensis*) and other large-bodied and/or white-colored sympatric species [e.g. trumpeter swans (*Cygnus buccinator*), tundra swans (*Cygnus columbianus*)] have reinforced the need to provide states with educational materials and information aimed at protecting whooping cranes (*Grus americana*). The Whooping Crane Eastern Partnership (WCEP), as the partnership charged with managing this population, has a responsibility and is in the best position to assist these states with implementing frameworks that attempt to mitigate potential risks to whooping cranes from managed hunts.

Background:

The Whooping Crane Eastern Partnership (WCEP) established a small breeding population of migratory whooping cranes in Wisconsin beginning in 2001 to bolster the recovery of the species continent-wide. This population is usually termed the eastern migratory population (EMP) to differentiate it from reintroduced non-migratory populations in Louisiana and Florida and the distinct migratory population further west. Currently, this population numbers just over 100 individuals that generally migrate between Wisconsin and the Southeastern United States. At such low numbers, any mortality factors, particularly those affecting adult breeding birds, are the primary drivers of long-term population viability and persistence.

Accidental or intentional shooting is a known cause of mortality in whooping cranes. The EMP whooping cranes follow a similar migration route as the eastern population of sandhill cranes to their wintering areas in Southeastern U.S. Also similar to sandhill cranes, some whooping cranes are increasingly wintering in other Southeastern and lower Midwestern states as far north as Indiana. A hunting season on eastern sandhill cranes or other sympatric species that can be mistaken for whooping cranes could result in accidental shooting of EMP birds during the course of legal hunting activities. Since 1955, three whooping cranes in the Aransas-Wood Buffalo population (AWBP) that migrates from northern Canada to coastal Texas are known to have been killed by waterfowl hunters engaged in legal hunting activities. Another potential issue is a disturbance to whooping cranes by hunters possibly forcing them out of good habitat areas.

In addition to accidental shooting deaths in the AWBP due to misidentification during legal hunting, there have been three or four known cases of whooping cranes being killed by hunters engaging in illegal hunting activities. While these cases could ostensibly be due to misidentification of the targeted species, they are separated here since they involved unethical and illegal hunting that cannot be construed as normal hunting activities.

The primary known cause of all mortalities in EMP whooping cranes is predation and relatively few shooting deaths of any kind have been documented; however, the cause of death is not known for 85-90% of missing whooping cranes that are presumed to be dead because a carcass has never been located. For example, known mortalities related to utility lines collisions are likely over represented in the data as it is typically easier to find the carcasses of birds killed in this manner compared to most other mortality causes. Furthermore, mortalities caused by purposeful or accidental shootings are, presumably, one of the hardest causes to identify as the perpetrators have an incentive to cover up such incidents.



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Because the EMP, as well as non-migratory Louisiana and Florida populations of whooping cranes, are reintroduced populations, they are considered nonessential experimental populations (NEPs). Because of this NEP designation, whooping cranes in the eastern U.S. are not protected under the Federal Endangered Species Act (FESA) if the take of an NEP whooping crane occurred accidentally and incidental to an otherwise legal activity [66 Fed. Reg. 123 (June 26, 2001) (to be codified at 50 CFR pt. 17)]. In other words, if the NEP whooping cranes are accidentally shot or killed during the course of lawful activities the shooting would not be considered in violation of the FESA. Intentional shootings do not fall under this same exemption. However, other penalties may still be applicable under the Federal Migratory Bird Treaty Act in the case of accidental shootings.

While accidental shooting deaths have not been documented in the EMP, there have been seven known instances of EMP whooping cranes being shot as acts of vandalism (the shootings were not believed to be accidental or cases of misidentification) and there is one additional case still under investigation involving two more birds. Thus, the absence of a sandhill crane hunting season or other hunting season of another sympatric species that is morphologically similar to whooping cranes in the EMP range does not guarantee that shootings of whooping cranes will not occur. Nonetheless, the potential for accidental take of whooping cranes theoretically increases as hunting seasons on other similar and sympatric species expand geographically and temporally.

While the likelihood of accidental shootings of EMP whooping cranes may be small based on experiences with the AWBP population, there is an important distinction to make regarding the management of the two populations. For the AWBP, federal authorities can close areas to hunting when whooping cranes are present. The NEP designation of the EMP (and other reintroduced eastern populations) does not provide federal authority for such closures and thus this is not a tool that can be utilized unless individual states elect to enact such measures.

Another consideration is that authorities along the flyway of the AWBP have done considerable outreach and education to try to prevent accidental shootings of whooping cranes. Such efforts could be replicated along the EMP flyway. Likely the most effective strategies for minimizing accidental shootings are best developed locally with assistance from WCEP. These strategies include provisions for minimizing potential impacts to whooping cranes through hunter education materials or other types of public outreach.

EMP whooping crane migrations are closely monitored and historical habitat use and temporal occupancy data are available. Also available would be current whooping crane locational data and maps that could be provided upon request or at regular intervals. All of these sources of information could assist jurisdictions in the planning and management of hunting seasons via actions such as setting season dates, enacting closure areas, disseminating whooping crane presence alert notices, *etc.*

An example of such a program that incorporates some of aforementioned tools can be found in Kentucky, which currently is the only state that allows sandhill crane hunting along the EMP flyway. In this jurisdiction, the beginning of the hunting season is delayed so that the probability that the EMP whooping cranes will have already migrated through the state is increased. It is worth noting that while this strategy can be effective, whooping cranes are beginning to overwinter in Kentucky and farther north. Kentucky also does not allow sandhill crane hunting until after sunrise to ensure optimal lighting under most weather conditions. Additionally, all hunters are required to pass an online identification test prior to



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being issued any permit to hunt sandhill cranes. This test is largely based on similar courses developed in other states such as Kansas that have a long history of sandhill crane hunting where whooping cranes are sympatric. More information on Kansas's sandhill crane hunting season and the associated hunter education requirements can be found here: <http://www.kdwpt.state.ks.us/news/Hunting/Migratory-Birds/Sandhill-Crane>.

As the lead partnership in charge of the EMP whooping cranes, WCEP is available to assist state and local agencies to attempt to reduce or eliminate the possibility of the accidental take of EMP whooping cranes during the course of legal hunting activities.

Conclusion:

Recent hunting initiatives in states occupied by EMP whooping cranes amplify the need to provide information to reduce risk of accidentally shooting these cranes. Given the relatively low number of whooping cranes that exist in the wild overall, and in particular the low numbers of whooping cranes found in eastern North America, any mortality factors are highly important drivers of population trends. While the known shooting deaths of whooping cranes during legal hunting activities are very low in the Aransas-Wood Buffalo population and absent in the EMP, any potential mortality factors that can be mitigated are critical to identify and address. Ostensibly, accidental shootings due to hunter errors while engaging in legal hunting activities are one such factor that can be mitigated via education and information. As the partnership in charge of the EMP whooping cranes, WCEP is available to work with the appropriate state and local agencies to assist with the development of a comprehensive education and outreach program, training requirements, and other management tools aimed at reducing or eliminating the accidental take of whooping cranes.