THIRTY YEARS OF MORTALITY ASSESSMENT IN WHOOPING CRANE REINTRODUCTIONS: PATTERNS AND IMPLICATIONS

BARRY K. HARTUP
International Crane Foundation

Marilyn G. Spalding
University of Florida

Nancy J. Thomas
USGS National Wildlife Health Center

Gretchen A. Cole
University of Wisconsin

Young Jun Kim
Seoul National University

Follow this and additional works at: http://digitalcommons.unl.edu/nacwgproc

Part of the Behavior and Ethology Commons, Biodiversity Commons, Ornithology Commons, Population Biology Commons, and the Terrestrial and Aquatic Ecology Commons
THIRTY YEARS OF MORTALITY ASSESSMENT IN WHOOPING CRANE REINTRODUCTIONS: PATTERNS AND IMPLICATIONS

BARRY K. HARTUP, International Crane Foundation, E-11376 Shady Lane Road, Baraboo, WI 53913, USA
MARILYN G. SPALDING, Department of Infectious Diseases and Pathology, College of Veterinary Medicine, University of Florida, Box 110880, Gainesville, FL 32610, USA
NANCY J. THOMAS, USGS National Wildlife Health Center, Madison, Wisconsin 53711, USA
GRETCHEN A. COLE, School of Veterinary Medicine, University of Wisconsin, 2015 Linden Drive, Madison, WI 53706, USA
YOUNG JUN KIM, Seoul National University, Seoul, Republic of Korea

Abstract: We reviewed postmortem data to identify primary causes of mortality in reintroduced whooping cranes (Grus americana) and assess their potential for mitigation in future reintroduction efforts. In total, 240 cases from 3 populations were reviewed for causes of death, including the Rocky Mountain migratory population (n = 24, release dates 1975-1989), the Florida resident population (n = 186, 1993-2005), and the Wisconsin migratory population (n = 30, 2001-ongoing). Traumatic injury was the leading cause of mortality among the reintroduced whooping cranes, most commonly from predation (n = 120 or 50%, range 8-58% per project) or collision with fixed structures such as electrical power lines or fences (n = 22 or 9%, range 3-46%). Disease of infectious etiology (including confirmed cases of bacterial, viral, fungal and parasitic infection) was the second leading cause of mortality (n = 19 or 8%, range 3-17%). The data were limited by the large number of undetermined causes of death due to scavenging and decomposition of carcasses (n = 64 or 27%, 8-40%). Molting and poor roosting behavior or habitat quality may have increased the risk of predation in these populations. Preventive measures for power line collisions (marking devices) are impractical except at significant roost or migration stopover sites. Health evaluations of release candidates should continue in order to minimize losses from endemic or emerging diseases and prevent the introduction of novel pathogens into native ecosystems.

PROCEEDINGS OF THE NORTH AMERICAN CRANE WORKSHOP 11:204

Keywords: Grus americana, mortality, reintroduction, whooping crane.