

**Whooping Crane Diurnal Behavior and Natural History during Migration in the Central
Great Plains: Progress Report – Fall 2023**



Photo Credit: Matthew Urbanski

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During the fall of 2023, we observed 22 unique whooping crane groups that were comprised of 93 individuals including 78 adult and 15 juvenile whooping cranes. We collected 1,587 instantaneous scan samples of whooping crane groups which totaled 6,387 individual behaviors documented. We obtained hundreds of photographs and videos and observed whooping cranes utilizing several different landcover classes including corn field (n=2,464), palustrine wet meadow (n=55), lacustrine wetland (n=210), and river (n=3,658). During the fall of 2023, much of the whooping crane use we documented occurred in the Platte and Niobrara River Valleys. Foraging and/or drinking was the most common behavioral activity recorded in all landcover classes except lacustrine wetlands where loafing was most commonly observed (Table 1). Social interactions were somewhat infrequently documented, however, when observed they most commonly occurred within palustrine wet meadows and river channels.

We observed 7 potential aircraft-whooping crane interactions involving 30 adult and 2 juvenile whooping cranes during fall 2023. During these instances the aircraft were small fixed-wing planes (n=5), helicopters (n=1) or chinooks (n=1) flying at an altitude of 235-500 m above ground level. During the instances small fixed-wing planes were involved the whooping crane showed no reaction while during the instances the helicopter and chinook were involved the whooping cranes displayed an alert posture or began to jump and looked like they were going to take flight, but didn't.

We were able to confirm whooping cranes consuming six fish including river carspsuckers or quillbacks (Catostomidae family), gizzard shad (Dorosomatidae family), and a river chub (Cyprinidae family). Five of these fish were 4-5 inches long and one was approximately eight inches long. One instance involved an adult capturing a fish and passing it on to a juvenile.



We also observed 4 bald eagle-whooping crane interactions involving 15 adult and 2 juvenile whooping cranes during fall 2023. During one instance the whooping cranes chased off the bald eagle, during another instance the whooping cranes took flight, and during the last 2 instances the whooping cranes did not react to the presence of the eagles.



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Table 1. Behavioral activities of whooping cranes (*Grus americana*) observed within each landcover class during the fall 2023 migration season.

Behavior	Landcover Class				All Landcover Classes
	Corn Field	Palustrine Wet Meadow	Natural Lacustrine	River	
Alert/Defensive	13.6%	3.6%	0.5%	3.4%	7.2%
Flying/Walking	14.5%	12.7%	2.9%	19.1%	16.8%
Foraging	48.9%	45.5%	39.5%	35.5%	40.9%
Social Interspecific	0.2%	0.0%	0.0%	0.5%	0.3%
Social Conspecific	0.5%	3.6%	0.0%	2.4%	1.6%
Preening	2.6%	3.6%	0.0%	10.1%	6.8%
Loafing	19.6%	30.9%	57.1%	29.1%	26.4%