## RELATIONSHIP BETWEEN TURKEY VULTURES AND GREAT BLUE HERONS AT ISLAND LAKE, ALBERTA

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During the summer of 2018, on an island known locally as Boy Scout Island, I first witnessed interactions between the Great Blue Heron (*Ardea herodias*) and the Turkey Vulture (*Cathartes aura*). The island is home to a heron rookery that has been active since at least 2016 (Justin Gilligan, pers. comm.), and has more than 30 active nests (personal observation). As a naturalist and wildlife photographer, I was very curious to learn more about the relationship between these two large bird species.

Boy Scout Island (~40 ha in size) is situated on Island Lake, Alberta (Figure 1), and is located approximately 150 km north of Edmonton. Great Blue Herons are known to tolerate the presence of other birds and have been observed nesting near eagles, vultures, and various other predatory birds.<sup>1</sup> To corroborate this point, the herons share Boy Scout Island with Ospreys (*Pandion haliaetus*), Barred Owls (*Strix varia*), Turkey Vultures and Common Ravens (*Corvus corax*).

Herons begin arriving on the island in early spring, before the lake becomes ice-free (personal observations). In early May, the herons build and repair their nests and begin nesting (Figure 2). Based on my observations, heron chicks in this rookery begin hatching the last week of May (Figure 3). Research shows herons incubate their eggs 26-29 days.<sup>2</sup>

In 2021, I began conducting field observations in earnest and noted the first Turkey Vultures arrived in the rookery in mid-May. The number of vultures increased, to a maximum count of 14, once the heron chicks had hatched. The vultures can be seen perched in the rookery (Figure 4), and often circling the nests (Figure 5).

The Turkey Vultures were never observed directly contacting the heron



FIGURE 1. Boy Scout Island, Island Lake, AB. Google Maps image. 2023.



FICURE 2. Great Blue Heron nesting on Boy Scout Island, 11 May 2023. Photo credit: Monica Dahl.



FIGURE 3. Egg shells found at base of tree where Great Blue Herons are nesting, 29 May 2023. Photo credit: Monica Dahl.



FIGURE 4. Turkey Vulture perched near Great Blue Heron nest, 11 July and 2 June, 2023. Photo credit: Monica Dahl.



chicks, but the circling behaviour seemed to induce stress regurgitation. Young herons may vomit over the side of the nest when alarmed; this discourages



FIGURE 5. Turkey Vulture circling Great Blue Heron nests on Boy Scout Island, 7 July 2021. Photo credit: Monica Dahl.

predators. Juvenile herons could be seen regurgitating (Figure 6) over the edge of the nest when vultures circled above. Afterward, remains of fish could be seen



FIGURE 6. Juvenile Great Blue Heron preparing to vomit over the side of the nest, 7 July 2021. Photo credit: Monica Dahl.



FIGURE 7. Remains of White Sucker (Catostomus commersonii) found after heron chick regurgitated over the nest, 7 July 2021. Photo credit: Monica Dahl.



FIGURE 8. Remains of juvenile Great Blue Heron found in downed nest after storm. Boy Scout Island, 23 June 2023. Photo credit: Monica Dahl.



FIGURE 9. Downed heron nest with heron remains and a Turkey Vulture feather. Boy Scout Island, 28 June 2023. Photo credit: Monica Dahl.

at the base of the nesting tree (Figure 7), which vultures later consumed.While researching the relationship between these two species, I found one similar observation. In 1967<sup>2</sup> a naturalist observed "After landing on a herons' nest which contained two, three-week-old young, the vulture beat the young herons with its wings and jabbed at them with its beak. This caused the young herons to regurgitate their last meal. The vulture then stopped beating them, ate the mass of semi-digested food, and returned to its own nest to feed its young..."<sup>4</sup>

Although my observations are similar to Temple's, I did not witness the vultures physically harassing the herons or feeding their own young with regurgitated fish. The rookery seems to provide a good source of food for the vultures, through scavenged regurgitated fish from the young herons, and scavenged dead herons.

Throughout my years of observing this rookery, I have noticed regular mortality of young herons (Figure 8). Although I cannot say for certain, some explanations of this mortality may be extreme weather events, accidental falls and sibling aggression.<sup>3</sup> For example, after a particularly stormy week in 2023, I visited the rookery and noted two downed nests with dead young. Feathers left behind suggest that Turkey Vultures scavenged the heron remains (Figure 9). This steady supply of food likely explains the relationship between the vultures and herons on Boy Scout Island.

1. All About Birds. Cornell Lab of Ornithology, Ithaca NY. Accessed July 13, 2023. https://birdfact. com/articles/great-blue-heron-nesting

2. All About Birds. Cornell Lab of Ornithology, Ithaca NY. Accessed July 13, 2023. https://birdfact. com/articles/great-blue-heron-nesting

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4. Temple SA (1967) A case of Turkey Vulture piracy on Great Blue Herons. Laboratory of Ornithology, Cornell University, Ithaca, New York 14850:94.

5. All About Birds. Cornell Lab of Ornithology, Ithaca NY. Accessed July 13, 2023. https://birdfact. com/articles/great-blue-heron-nesting 🔎