STUDY OF AVIFAUNA, REPTILES AND MAMMALS SIGHTED WITHIN AND SURROUNDING THE MUNICIPALITY OF AQUIDUANA, MS , Brazil

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Abstract: The objective was to quantify and verify the richness and diversity of species in the city of Aquidauana, MS. Six points were used, chosen based on geographic location, human presence, and environmental conservation, over 12 months (from June 2021 to May 2022). Observations consisted of the researcher being stationed at one of the points in the morning (7:00 AM to 9:30 AM) or afternoon (3:00 PM to 5:00 PM), with a field notebook, cameras, and a cell phone for observations. A total of 2,591 individuals were observed, belonging to 3 classes (reptiles, birds, and mammals), 29 orders, and 43 families. The most prominent families were Columbidae (n=378), Furnariidae (n=309), and Tyrannidae (n=278 individuals). The most representative order was Passeriformes (n=857), followed by Charadriiformes (n=453) and Columbiformes (n=374). The point with the most observations was in front of Lagoa Comprida, likely due to the animals being accustomed to human presence and no predation or disturbances. The most observed species were Rufous Hornero (*Furnarius* *rufus*, n=312), Wattled Jacana (*Jacana* *jacana*, n=255), and Black-bellied Whistling-Duck (*Dendrocygna autumnalis*, n=237). The month with the highest number of observations was December (n=338). Nine feeding guilds were identified: granivores, insectivores, omnivores, piscivores, frugivores, carnivores, dendritivores, herbivores, and nectarivores. Three species, Hyacinth Macaw (n=4), *Anodorhynchus hyacinthinus*, Giant Anteater (n=1), *Myrmecophaga tridactyla*, classified as vulnerable; and Blue-fronted Amazon (n=15), *Amazona aestiva*, classified as Near Threatened by IUCN (2023). Based on species occurrence frequency, the bootstrap estimator indicated the possibility of finding more species with an expanded sample effort. There was no trend of stabilization in the curve towards an asymptote. When the Shannon index was applied, the locations Lagoa Comprida-front (20.871±0.916) and behind the priests' house (19.939±1.332) did not differ significantly. Aquidauana city presents relevant biodiversity of wild species living in the urban area. Conserving wetland and forested areas within the city is a "Sinequanon" condition for maintaining species diversity.

**Keywords**: Pantanal, Conservation, IUCN, Sustainability