

Wasgamuwa National Park: Effectiveness of Biological Corridors in Maintaining Elephants' Movements

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Abstract

Elephants (*Elephas maximus maximus*) are highly mobile and migratory animals, with reasons ranging from genetic factors to a seasonal carrying capacity that affects their ability to reach ecological niches. Wasgamuwa National Park is one of the primary habitats for elephants, located in the Matale and Monaragala districts within the Mahaweli Wildlife Region. Five biological corridors facilitate elephants' migration to various destinations, while the park's remaining boundaries are secured by electric fences. This research aims to assess the effectiveness of the biological corridors in supporting elephants' movements within Wasgamuwa National Park. Fieldwork was conducted on several occasions in and around the park. Purposive sampling was employed to identify respondents. Four discussions were held with park guides, guards, and volunteers. An interview was conducted with the park warden regarding the elephants in the park, the status of the electric fences, and the corridors. Additionally, five group discussions were carried out in several villages adjacent to the park. According to the findings, approximately 140 to 170 elephants inhabit the park, and around 70 to 90 elephants migrate primarily between June and October through five major corridors that facilitate free movement to various destinations: Northern Via Angamadilla National Park to Minneriya National Park known as the Minneriya Jungle Corridor, North-Eastern Flood Plain National Park, South-Eastern Maduru Oya National Park, Western Elahara Sanctuary, and South-Western Pitwala Pathana. Minneriya Jungle corridor is highly used by the elephants during the dry season which falls from June to October. The second most used corridor is the North-Eastern corridor to the Flood Plain National Park, which is connected to Somawathiya National Park. Comparatively the rest of the three corridors are less used by the elephants. The findings underscore that the elephants' corridors towards Northern and North-Eastern directions are more effective. The elephant herds travel from Wasgamuwa towards various directions using corridors in search of food, water and mates. This Elephant migration pattern is common annually from June to October. These elephants reach the 'Minneriya Elephant Gathering' in December and January and return back to Wasgamuwa in May.

Keywords: Wasgamuwa National Park, Elephants, Biological Corridors, Electric Fences