



An attempt to study on the different bray tones of donkeys (*Equus africanus asinus*) at the Koraikulam, Mannar and their contribution on Donkey-Assisted Therapy

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Abstract: Donkeys (*Equus africanus asinus*) have been an integral part of Sri Lankan history and culture for centuries. The donkey population in Sri Lanka is relatively small and concentrated primarily in certain regions of Mannar and Kalpitiya. Currently, the donkey population in Sri Lanka faces several challenges, including limited access to veterinary care, inadequate nutrition, and a lack of awareness regarding their welfare. Efforts are being made by local and international animal welfare organizations to improve the conditions for these donkeys through health camps, awareness programs, and conservation initiatives. In that way, these donkeys present at the Mannar are currently used to promote communication development in all children, including those with speech and language difficulties, which is called Donkey-Assisted Therapy (DAT). Recordings of their sound were obtained using a voice recorder, and the decibel levels were analyzed using a 'Decibel X' dB sound level meter for parameters such as maximum, minimum and average loudness, TWA (Time Weighted Average) and frequency weighting during January to April 2024. Sound data were collected both when they were alone or within their herd, ensuring only one sound was recorded at a time. A total of 36 recordings were sorted, and the analysis resulted in mean values of 99.5dB, 53.6dB, 76.55dB, 52.2dB and A-category, respectively. Of the six types of sounds produced by them, 'bray' is the loudest, can travel over several kilometres and is unique to each donkey. A survey of the patients of DAT indicated that they felt happy and excited while hearing this loud sound. In addition, various research also indicated that this particular sound of a donkey also helps reduce the pest attacks in their coconut and other cultivation. This could help to reduce feral animal behaviour and contribute to the conservation strategies and sustainable management practices to ensure the preservation and well-being of this valuable yet understudied species.

Keywords: Donkey-Assisted Therapy, Bray, Frequency weighting, Human-animal conflict