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**Recruitment Status of the Indian Crested Porcupine (*Hystrix indica*) at Udawattekele Reserve Forest, Kandy, Sri Lanka**

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**Abstract**

The monitoring of the Indian Crested Porcupine (*Hystrix indica*) at the Udawattekele Reserve Forest (URF) (7°17'58"N 80°38'20"E) included the study of pup survival rate and subsequent recruitment. Porcupine counts were taken twice a month for a period of nineteen months from September 2019 to June 2021 from seven transects (T) within the reserve, T1 (1 km), T2 (1.55 km), T3 (0.83 km), T4 (0.32 km), T5 (0.65 km), T6 (0.1 km) (bordering the reserve on the North), and T7 (0.58 km), as well as observations made near burrow sites and data taken from captive populations from private owners. The counts enabled the extrapolation of necessary information needed to determine the growth stage and gender of the porcupine pups. The highest number of newborn pups were recorded between the months of June 2020 to June 2021. A chart was developed to help identify growth stages based on the growth of individuals observed from captive populations. Pups were divided according to body length and size, color of prickles, the time of appearance from the den, weaning, sexual maturity and the appearance of mammary glands in females. Porcupines at one year are sexually mature yet weaned by six months. The family groups continue to stay together in a complex burrow system that often houses more than one family of porcupines, until the pup can move out with a mate or in the case of a male offspring, lead a solitary life until successful mating. A significant change in the appearance of mammary glands and variation of color and size was predominant in the months of March 2020 to May 2021 showing a 90% increase in clarity by June 2021, while mating related behavior was apparent by mid-June 2021. The use of the Munsell's soil color chart was used in determining gender and color variation of quills. The newborn pup status was recorded by dividing the total number of newborn pups with the total number of adult boars and sows during the period of observation, concluding the ratio of newborn pup to adult at 0.15. The highest mean number of pups was 32±1.5 and at six months the highest mean number of individuals had fallen to 20±0.27 by December-January. By one and a half years the numbers had fallen to 05±0.2. By the time newborn pups reached six months there showed a 66% rate of survival. This is due to their lives being mostly spent in the burrow. By the time the pups had reached a year and a half, the number had fallen to 25% survival rate. Results show that pup survival rate is necessary to determine the population and structure of the porcupines at Udawattekele. The management of the porcupine population at Udawattekele should consider that 30% of Indian crested porcupine survive beyond six months of age.

**Keywords:** Indian Crested Porcupine, Pups, Survival, Udawattekele