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EVALUATION OF VERTEBRATE HABITATS IN THE KNUCKLES REGION

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The Knuckles range of forests, covering an area of 20,000 hectares, is located within the Kandy and Matale districts of Sri Lanka. This range is geologically a part of central massif of the island but isolated from the main mountain mass by the upper middle part of the Mahaweli river basin known as the Dumbara valley. The mountain range runs from Laggala-Pallegama in the northwest to Medamahanuwara in the southeast, for a length of 22 miles. The main ridge has many peaks rising over 1000 meters. Some of the important peaks are Gombaniya-the highest (1952 m) Knuckles (1669 m), Kalupahana peak (1942 m), Dotalugala (10630 m) and Lakegala (1356 m) situated in the eastern sector of the Knuckles range. Several streams, both perennial and seasonal originate form this range of hills and therefore have a high watershed value. Climatically the Knuckles region is unique in that the entire variety of climatic conditions of the island is reproduced within a small area ranging from the extreme wet to the almost dry. The Knuckles range probably contains a more diverse set of forest types than any like-sized area elsewhere in Sri Lanka. The Knuckles forest range harbors a high diversity of fauna, of which majority are endemic and relict forms. Fish species such as *Puntius srilankensis*, *P.martenstyn*, *Garra phillipsi* and *Danio aequipinnatus* are restricted to the Knuckles range. Of the amphibians present in this region, the endemic and relict species *Nannophrys marmorata* is found no where else in Sri Lanka. Seventeen species of reptiles were recorded from the area, of which 11 were endemic. These include the endemic and relict lizard *Ceratophora tennenti* found only in the Knuckles region. Fifteen species of endemic birds have been recorded from this region. Rare mammals found in the knuckles region include the leopard, otter and loris, which are globally threatened as well. Habitats of these unique faunal types have been badly affected due to agricultural expansion, conversion of lands to plantation crops such as coffee and tea, shifting cultivation, cardamom cultivation, and illicit felling and gem mining. In order to determine the wildlife-habitat correlation, habitat use of some selected vertebrates in the knuckles region was evaluated using a Life-Form model.