

**DIET AND FEEDING PREFERENCES OF THE SRI LANKAN JACKAL
(*CANIS AUREUS NARIYA*)**

U. Jayaweera and S.S. Seneviratne*

*Laboratory for Molecular Ecology and Evolution, Department of Zoology and Environment Sciences,
University of Colombo, Colombo, Sri Lanka
sam@sci.cmb.ac.lk

The Sri Lankan jackal (*Canis aureus nariya*) is the only wild canid species and the third largest carnivore on the island. However, no dietary analysis has been reported from Sri Lanka. The main aim of this study is to fill this research gap. A total of 32 likely jackal faecal samples were collected across the country. Two road-killed carcasses were dissected, and the stomach, foregut, hindgut and rectum were separately extracted. Microscopic hair analysis was conducted to identify mammalian prey species in the diet. The gut compartments and faecal matter were examined under a dissecting microscope at the laboratory. The frequency of occurrence and percentage of biomass consumed from different food items were calculated for dissected guts and known faecal (n=8) samples. Four food types were identified in the jackal diet: small mammals (e.g. Rodents such as *Rattus* sp.), plant materials (e.g. jackfruit, banana peels and cooked rice), birds (e.g. Munias such as *Lonchura* sp.), and invertebrates (e.g. beetles and insect larvae/maggots). The main food type in terms of percentage biomass consumed was small mammals (64.1%) followed by plant material (32.9%), birds (2.4%), and invertebrates (0.6%). In terms of percentage frequency of occurrence, the most important food item in the diet was plant material (60.0%), followed by small mammals (26.7%), birds (6.7%), and invertebrates (6.7%). The majority of the plant material in the food consisted of plant-derived human food. A dichotomous key was constructed to identify jackal faecal samples from that of other sympatric carnivores of Sri Lanka. Despite the small sample size, our results suggest that the Sri Lankan jackal is an omnivorous opportunistic forager that relies on a diverse diet consisting of invertebrates, birds, small mammals, fruits and other edible plant-based foods. Our results further indicate that they frequent human habitations in search of food. The knowledge generated through this study on feeding preferences and diet will help future conservation planning of Sri Lankan jackals.

Financial assistance from the Department of Zoology and Environment Sciences, Faculty of Science, University of Colombo, is acknowledged.

Keywords: Canidae, Carnivore, Faeces, Feeding Ecology, Nariya