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The Distribution, Natural History and the Conservation Status of *Batrachostomus Moniliger* (Aves: Podargidae) in Last Two Decades from Sri Lanka

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Abstract

The Sri Lanka frogmouth (*Batrachostomus moniliger*) is a small-sized nocturnal bird largely restricted to tropical lowland forests with thick undergrowth. The motionless roosting posture as well as their plumage coloration and color patterns (which resemble that of tree stems and branches) enable them to camouflage and thereby avoid predation. Through opportunistic field surveys over a 20-year period (January 1998-February 2018), we surveyed different bioclimatic regions of Sri Lanka covering 500 sites, and documented presence of Sri Lankan frogmouth in 83 of sites. In these 83 sites, we recorded 136 birds including seven nesting pairs and chicks. Our survey confirmed frogmouth presence in four floristic regions of Sri Lanka, particularly from lower elevations (11-767 m). Most sightings were made in lowland rainforests while savannah woodlands had the least number of records; no frogmouths were recorded inside anthropocentric land-cover types such as commercial-scale farmlands or plantations. According to the habitat suitability model we constructed (MaxEnt-based), much of the lowland wet zone, particularly the southwestern corner, was predicted as the most suitable areas for Sri Lankan Frogmouth while the northeastern coastal plains, and the mid-western and northwestern parts of Sri Lanka seemed least suitable. According to The Maxent model's internal jackknife test of variable importance, temperature seasonality is the most important predictor of frogmouth's distribution. Sri Lanka frogmouths have a high fidelity for their roosting sites as they remained in the same tree at least for a week; preferred roosting trees were medium-sized Dicot species with a dense canopy cover and variable canopy heights. These roosting sites are relatively cool, humid with little exposure to direct sunlight. Both roosting and nesting trees were relatively isolated from neighboring canopy trees, thus, the understory surrounding the roosting tree was dense. Six of the nesting sites observed were located in the lowland wet zone rainforests while the other was in savannah woodlands of the intermediate zone. These nests were positioned approximately 66% of maximum canopy height of the host tree. Nests were constructed on relatively thin branches that formed an acute angle against the main stem. These nests are shallow, circular-shaped pads. The nest interior was cushioned with cotton, parts of fishtail palm, and down feathers while the nest exterior contained pieces of lichens and tree bark. Sri Lanka Frogmouth's home ranges appeared to be very small in nesting season, a maximum of 60 m radius area around the roosting site. Both male and female birds alternate nest-guarding duties through most of the night-time. The major threat for the frogmouth in Sri Lanka includes habitat loss due to expansion of commercial-scale agriculture and monoculture plantations, illicit forest encroachments, and clear-cutting.

***Keywords*:** Ecology, Frogmouth, Habitat modeling, Nesting, Threats