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Preliminary survey of nesting birds in the islands of Kalpitiya lagoon

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With the development activities planned for the Kalpitiya peninsula, the ecology of the islands in the lagoon is being threatened. Presently these islands are covered with several vegetation types including mangroves, grasslands, bushes and some large trees and are inhabited by many species of birds. They provide ideal nesting and roosting grounds for the birds as the predation pressure is minimal.

A preliminary survey was carried out in the islands of Kalpitiya to determine the importance of these islands for breeding birds. Six islands in the lagoon containing different habitat types were selected for the study Quadrate sampling was carried out using 100 m^2 quadrates and active nests, nest building and recently abandoned nests were counted.
The species utilizing the islands for nesting were mainly *Phalacrocorax, Ardea* sp., *Butorides striata*, *Bubulcus* sp., *Egretta* sp., *Corvus* sp., *Pycnonotus* sp., *Pomatostomus* sp., *Turdoides* sp, *Leptocoma* sp, *Cinnyris* sp, *Vanellusindicus*, *Amaurornis phoenicurus*, *Haliastur indus*, *Haliaeetus leucogaster* and grassland birds such as *Cisticola juncidis*. Two islands containing tall trees were utilized by *Psitta culakrameri* and *Megalaima* sp., for nesting. Maximum number of nests observed within a 100 m^2 quadrat was 26 while the minimum number was 3. Highest nest diversity was observed in islands with habitats diversity, and undisturbed by human activities. Islands visited by fisher folk contained less breeding sites and the maximum number of nests observed within a 100 m^2 area was 6. Highest number of nests recorded belonged to egrets, crows and cormorants. However it was noted that the islands were visited by many species of birds during the day for feeding and resting, and for roosting during evenings.

The survey concluded that the islands in the Kalpitiya lagoon provided safe and good breeding habitats for birds due to security with low predator pressure and availability of nesting sites as well as space. High food availability close to the breeding sites was also an advantage. Therefore, altering the vegetation structure and ecology of the islands for development activities would affect many bird species, specially cormorants, egrets and herons and may have a severe impact on their populations. Further studies are recommended to assess the anthropogenic impacts on avian diversity in the islands of Kalpitiya peninsula.

Keywords: Avifauna diversity, breeding bird survey, Bar reef sanctuary avifauna, island biodiversity, Kalpitiya biodiversity.

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