Kerala is one of the biodiversity rich states of India that is well known for its wetlands with a total area of 160,590ha (National Wetland Atlas: Kerala 2010). Wetlands are important as it improves water quality, reduce flood damage, reduce erosion and as an ecosystem that provide food, shelter, breeding and resting places for an incredible number of species of plants, mammals, birds, reptiles, amphibians, fish and other invertebrates. Wetlands provide the critical habitat for many such organisms to survive (Buckton 2007). Wetlands also support livelihood of the people around it.

Vellayani-Punjakari wetlands are home to many resident birds and a major landing site for several migratory birds. Vellayani Lake is one of the most important fresh water lakes of the capital city of Kerala, Thiruvananthapuram. It is one of the three rain-fed freshwater lakes of Kerala. The lake is aligned in north-south direction and lies between 8°24’09”–8°26’30”N & 76°59’08”–76°59’47”E. Vellayani-Punjakari wetland is also a rich repository of flora and fauna and is renowned for its bird diversity.

Birds have become of interest as indicators of wetland quality and as parameters of restoration success and regional biodiversity. Kerala is a bird paradise and to date a total of 500 species of birds have been documented within its boundary (Praveen 2015). Vellayani has been a hotspot for birding, for it has an abundant diversity of water birds. The lake with its lush green surroundings is also home to many species of birds other than wetland birds. Several species of migratory birds have been documented over the years from Vellayani Lake and the surrounding area.

There are 391 species of parrots recorded worldwide, of which 12 species are found within India (Praveen et al. 2014). Kerala is home to five species of parakeets namely, Alexandrine Parakeet Psittacula eupatria, Rose-ringed Parakeet Psittacula krameri, Plum-headed Parakeet Psittacula cyanocephala, Blue-winged Parakeet Psittacula columboides and Vernal Hanging-parrot Loriculus vernalis.

Red-breasted Parakeet or Moustached Parakeet Psittacula alexandri is among the most widespread species of the genus (del Hoyo et al. 1997) and is known for most of its geographical variations. Most of the variants of the species are limited to small islands. The variation has been documented in sub-species level and one among them occurs in Andaman Islands with its partial range along the foothills of the Himalaya and northeastern India. Psittacula alexandri is classified as near threatened (NT) species by IUCN.

Red-breasted Parakeet is easily identified from its Sighting of Red-breasted Parakeet

Psittacula alexandri (Linnaeus, 1758) (Psittaciformes: Psittaculidae) from Vellayani, Thiruvananthapuram, Kerala, India

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congeners by its “moustache” like black stripe below its beak that gives the name Mustached Parakeet. The other dominant feature of the species being uniform grey-blue head, narrow line from forehead to eye, breast and upper abdomen salmon pink, upper side of middle tail-feature blue with green yellow tips and outer tail feather blue-green.

**Materials and Methods:** The study is in progress since 06 November 2014. The aim of the survey was to survey a 1km line transect twice every week, in order to gather a run of comparable data and ideally surveyed by the same person over the year. Sampling was targeted to record the species diversity, number of individuals of each species and nesting (Buckland et al. 2001; Gibbons & Gregory 2006). A 1km transect was identified through the core area of Puncakari-Vellayani wetland (Image 1). Surveys were carried out in the early morning (06:00–07:30 hr) to coincide with maximum bird activity. The average time for the survey visit was around 90 minutes. For better spotting of birds an Olympus DPS I 10x50 binocular was used. The identification of birds was confirmed following the field guide of Grimmett et al. (1998).

**Result:** The survey of Vellayani-Punjakari wetlands revealed an amazing diversity of birds including the sighting of Red-breasted Parakeet. To date, the study has recorded 129 species of birds. On 18 April 2015 two birds were sighted on a coconut palm standing along the side of the road, running parallel to the canal which was along the 1km transect route. The two birds were later identified as males from photographs (Image 2). The two parakeets came to be noticed by the distress calls made by them that were significantly different from the familiar calls of Rose-ringed Parakeet of Vellayani. The birds were unfamiliar to the resident birds which was evident from the behavior of crows chasing them.

**Discussion:** Across invader taxa, ecosystem types and geographic locations, invasive species are capable of altering ecosystem services by affecting populations, community interactions, ecosystem processes, and abiotic variables.

The biodiversity of India is threatened by numerous factors and the last decade has seen serious threat to diversity from invasive species. African Catfish *Clarias gariepinus*, Red-bellied Piranha *Pygocentrus nattereri* and South American Suckemouth Armoured Catfish (*Pterygoplichthys* spp.) have invaded our fresh water ecosystem and depleted populations of our endemic fish species pushing them to extinction (Krishnakumar et al. 2011; Singh et al. 2014). *Lantana camara*, *Wedelia trilobata*, *Mimosa diplotricha* and other floral invasive species have replaced many native species in
Red-breasted Parakeet in Vellayani

it's difficult to attribute the impacts of any one particular alien species. The Red-breasted Parakeet presently shows no evidence of any serious impact on native ecology in India. However, an increased population size of these species may pose problems in the long term through seed predation of native plant species or competition with native birds for similar resources such as food and hole-nests. In this context, it is necessary to address the pet trade and impose serious checks on the import of exotic species. In addition, there is a need of generating public awareness on alien species and their impact on ecology.

Reference


Molur, S., K. Krutha, M.S. Paingankar & N. Dahanukar (2015). Asian strain of Batrachochytrium dendrobatidis is widespread in the Western Ghats, India. Diseases of Aquatic Organisms 112: 251–255; http://dx.doi.org/10.3354/dao02804
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Erratum


Text currently reads on page 8567 under RESULTS: Habitat requirements of S. zanklon:
Somanniathelphusa zanklon was mostly found either in lowland watercourses or wetlands/marsh, with all records below 220m.

should read: Habitat requirements of S. zanklon:
Somanniathelphusa zanklon was mostly found either in lowland watercourses or wetlands/marsh, with all records below 430m.