



Katiti: Myths unfurl

Professor Massimo Pandolfi and Dr. Michele Barilari from Urbino University –Italy which has an MOU with Nature Seychelles have for the last couple of years been conducting research on Seychelles Kestrel (Katiti). Here they give a sneak preview of their stirring findings exploring the diverse myths on this inimitable bird of prey.



The Seychelles Kestrel (Katiti in Creole) is endemic to the granitic Seychelles and little is known about its ecology and behaviour. Its ancestors came from Africa and Madagascar and the life in small and isolated islands, principally covered by a wide and deep tropical forest, made it a tiny raptor (no more than 90 g, the smallest kestrel in the world) with wide wings and long tail like Sparrow hawks. The life on the Seychelles forest changed not only its aspect, but transformed deeply its behaviour from a grassland hunter into a small raptor able to move and hunt inside dense forests.

The low detectability of the Katiti, due to the nature of its habitat and behaviour, makes difficult the observation and the study of this bird, but the high conservation value of the species (classified as Threatened by IUCN) and its importance in the Seychelles ecology motivated us to spend long hours searching for this enigmatic bird in the forests of Seychelles.

The Katiti today has a world population of only 350 pairs and the distribution

of the species is not uniform in the archipelago: the largest part of the population (near 300 pairs) is confined to Mahè and Satellite islands, 40-50 pairs on Silhouette, only a few pairs in North and Praslin.

At the beginning of the century the Seychelles Kestrel was extinct on Praslin till the reintroduction of 13 birds in 1977. During the following years the population reached 10 pairs (Watson, 1989), but recent studies (2003), carried out by Nature Seychelles, demonstrate that the reintroduction was not a complete success because on the island were present only 6 pairs and most of them were not attempting to nest or failed in the first phase of the breeding season.

An island of the size of Praslin could be expected to hold more than 90 pairs, based on observation of the Mahè population done by Dr. J. Watson in 1980. We can wonder now if some ecological aspects of Praslin could be a limiting factor for the local population or if the reduction of the population is the result of a normal dynamic (statistical fluctuations) of a small and (almost) isolated population.

A study group of the Urbino University directed by the ornithologist M. Pandolfi began to follow the Katiti with a first survey on Silhouette in 2004 where, with the help of Justin Gerlach, some observations on the species were done and blood samples for the genetic evaluation collected.

Later, in 2006-2007, another survey was done in Mahè analyzing the distribution and the ecological preferences of the Katiti population in two different, forest and urban, areas.

In 2008, with the collaboration of Dr. Nirmal Shah and Nature Seychelles, a group of us, Massimo Pandolfi and Michele Barilari, with three Master thesis students of the Urbino University, Diego Tarini, Carlotta Di Biase and Emily

Pasquini, began a study on the critical Katiti population of Praslin with the aim to characterize which causes determine the different dynamics of the population between Mahè and Praslin. In the study we are trying to evaluate which ecological parameters might be limiting factors in the Praslin population. The distribution and breeding success of the pairs and some ecological parameters (and potential limiting) factor as predation, inter-specific competition, prey and nest site availability are being analyzed.

In order to evaluate the predation pressure on the island, we placed "eggs models" in artificial cavities. Eggs models were made by moulding plasticine that retains impression of the bill or teeth of the predator aiding the identification. Plasticine eggs have been located in different habitat: forest, urban and sub-urban. Predation index was calculated as number of artificial cavities predated/days of exposure.

Relative abundance of the main katiti preys, Green Day Gecko (*Phelsuma* spp.) and Skinks (*Mabuya secellensis*), was evaluated with a *Phelsuma* index (scanning with binoculars 100 trees in each territory at a distance of 30m). The height from the ground of the single geckoes on the trees had been evaluated too. Skinks abundance was evaluated with transects of 500m x 3m in different habitat.

We evaluated the local density of a nest site competitor and potential nest predator too, the Indian Mynah (*Acridotheres tristis*). Plots (300m radius) with a 10 minutes of observation had been realized.

Once we characterize the distribution of the population and the limiting factor/s on Praslin we will underline a conservation program to increase the critically endangered population of Praslin.

Photos: Katiti on a tree and with prey on Praslin © Professor Massimo Pandolfi, in photo

The Seychelles Kestrel

The Seychelles Kestrel is the only native day-flying bird of prey in the central Seychelles and one of the only two in Seychelles (the other is Madagascar Kestrel found on Aldabra). It eats a variety of small animals, mainly lizards. Pairs of birds defend a territory, keeping other kestrels out. They do not construct a nest but lay their eggs on the ground among rocks, on cliffs or on ledges of buildings such as church towers. Traditionally, people have thought of this bird as unlucky and even killed it. Now, it is protected by law. Nature Seychelles has recently conducted research on the population status of this bird on Mahe and Praslin. Most of the surviving Seychelles Kestrel live on Mahe. The conservation goal is to secure a stable breeding population of at least 500 pairs distributed among four of the larger granitic islands or island groups to reduce the threat of extinction, and allow reclassifying the species from Vulnerable to Near threatened by 2012.

Scientific name: *Falco araea*

Conservation status: Globally Threatened, Vulnerable

Population in Seychelles 420-430 pairs

Distribution in Seychelles: Breeds on Mahe and near by small islands, Praslin (where very rare), Silhouette, North Island and Felicite

Habitat: Woodland, scrub, cliffs, coconut plantations, urban and cultivated areas from sea level to high altitudes

Nest: Nest on cliffs, in buildings and sometimes tops of coconut palms or trees. Two to three eggs laid

Diet: Geckos and skinks, small birds and insects

Identification: The only resident small falcon. Grey head, red-brown back



More bird facts at www.natureseychelles.org