

The Steenbok Nature Reserve Spotted Eagle Owls

The world bird species list is in the order of 10,000. The total species for South Africa is just over 700, this number comprises of residents and migrants. Probably the smallest bird in South Africa, found in the North West, is the grey Pendulin-Tit at 8-9 cm and weighing 6.5 g. The Ostrich is the world's largest bird growing up to 2m and weighing 70 kg. The original wild Ostriches are mainly confined to Namibia, Botswana, Northern Cape and Kruger National Park. South Africa has twelve species of owls, in our area it is possible to see about half of these.

The birds nesting in the box in Steenbok Nature Reserve are Spotted Eagle Owls, they are the fourth largest of our South African owl species, 45 cm and weighing 700g. The Cape Eagle Owl is similar but larger and has orange eyes, not yellow as in the case of the Spotted Eagle Owl. Spotted Eagle Owls can be found throughout the country whereas the Cape Eagle Owl has a more specific habitat requirement, it likes rocky outcrops in flat country and the cliffs and gorges of the Drakensberg.

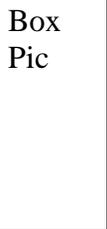
In general terms all birds are similar in that they are light weight, have feathers, a beak and lay hard shell eggs. Individual species have evolved and adapted themselves in remarkable ways to different environments and ways of life. For instance the albatross spends most of its life in the air far away from land. No less amazing is the Ruff breeds in Russia and then navigates thousands of kilometers south to escape the Northern winter in order to enjoy the South Africa summer. As our winter approaches the Ruff returns north again. There are main other bird species with equally remarkable ways of life.

Owls, being creatures of the night, are correctly acknowledged for their fantastic night vision. While this is true they also have the most acute sense of hearing which they use for finding and catching their prey. Many owls have tufts of feathers on their head which look like ears. These apparent ears are in fact not ears at all but are another adaptation generally found on owls which spend time in treed type of habitat. Conversely, owls living in a grassland environment generally do not have these tufts. What are these tufts of feathers for? The opinion is that they are used for communication, different movements being used to convey different messages. They are also probably used for camouflage. An owl's real ears, being under its feathers, are not visible and are positioned lower down on their head, in some cases they are not even positioned symmetrically about their face. This asymmetric configuration enables them to have the remarkable ability to make an enhanced form of sound triangulation such that they can locate, identify and catch prey which they are unable to see. Some say that an owl has the ability to rotate its head three hundred and sixty degrees, this is not true but some can manage two hundred and seventy degrees, more usual is one hundred and eighty degrees. This capability has evolved because they cannot move their eyes in their heads. Much like a professional tennis player waiting to receive a service owls are often seen to sway their heads. Unlike creatures that can move their eyes in their heads owls do this in order to achieve depth perception. Owls are masters of stealth which enables them to silently swoop onto unsuspecting prey. Their wings are large and rounded creating lots of lift, this enables them to fly with fewer noisy beats. Their feathers are also unique and have

adapted in different ways. For noise absorption their feathers are a velvety down and do not repel water like other birds. When most birds fly turbulence formed by air rushing over their wings creates a gushing noise. The most unique adaptation is the comb-like leading edge on their primary wing feathers called “flutings”. This effectively muffles the rushing sound. In some owl species the first lot of wing feathers grow to produce a wing of greater area than what happens after subsequent molts. The smaller the wing becomes the higher the wing performance but the harder it is to fly. It is thought that as the bird grows older its flying experience and ability improves and so it is able to manage better with smaller high performance wings.

For a number of years a pair of Spotted Eagle Owls have nested in Steenbok Nature Reserve in the gum trees along Links Drive. They are monogamous but if something happens to their partner it has been observed that in a short time, as short as ten days, a new one moves in. It is almost certain that this is the pair that have now nested in the box by the tennis courts. It is suspected that last year crows got their eggs or chicks, whatever happened they were unsuccessful in raising any young. During the beginning of 2009 a number of Islanders were worried that the adult birds had left the island but it was noticed that a pair were living in Kingfisher Creek. This triggered the idea of putting up a box. Farmers in the Overberg area, concerned at the ever increasing use of Rat Poison for the control of rodents which damage their crops, experimented with the idea of providing nesting boxes for owls. This was very successful and the idea is now being used through the country. WESSA has been involved with this, as a community project the branch in George (Christen Schmaufer 044 873 4203 or Loraine McGibbon 044 870 7038) make and sell boxes, in one year they have sold more than one hundred. Searching the internet one finds a number of sites with information on the construction of owl boxes. This design by Gerry Cassidy was chosen for our box on Leisure Island.

It is interesting to note that the Spotted Eagle Owl likes an open type of box shown on the right so that it can see all around whereas the Barn Owl prefers a more private closed arrangement shown on the left. Unlike what one would imagine, by far the majority of Spotted Eagle Owls chose to nest on the ground (more than 60%), typically on a rocky outcrop although they do use trees and even man made structures such as buildings etc.



It is often asked how one got the owl to move into the box. This was relatively simple, one knew that the correct style of nesting box would be readily acceptable. When they nest in trees they generally go for a large one. They like a spot where a big thick branch joins the main trunk a few meters above the ground, therefore it makes sense to position the box in such a position. They nest in the same place year after year, there is record of the same bird using the same site for twenty one years, but if disturbed are known to then look for another place. With this information the chances of success looked quite promising.

With apparently the main criteria for a box having been met it was placed in the tree during April 2009. Whatever tree is selected it is important that it has a rough bark because before the chicks can fly they will climb out of the box and walk out onto the

branches. If they cannot grip they will slip and fall to the ground where they will prematurely become vulnerable. Bear in mind that at some point the chicks will probably spend time on the ground before they can fly so they need to be in a place where they will be safe from being run over by cars or attacked by dogs and cats. Although they breed nearly all year round the peak time is August to October. Initially not much was expected to happen but if they were to change their nesting site at some point they would probably scout around before deciding on a place. Although the birds were in the vicinity nothing happened for four months until on the 14th of August when in the evening the female was seen sitting in the centre of the box. How did one know it was the female? The female is larger than the male. She did not spend a lot of time there before flying off but over the proceeding days she was seen visiting again, this became more frequent and for longer periods. On two occasions she spent the whole day there. Shortly before the end of August the birds were seen mating so the cast must surely have been set. On the 1st of September she was again in the box, this time in a more flat position, but this time did not fly away. A bird's feathers act a bit like a blanket, they keep warmth in so to sit on eggs with feathers insulating them from their bodies is not a very effective way of keeping the eggs warm.

To overcome this, most birds, when they incubate they lose feathers on their abdomen called the brood spot so that the eggs are in direct contact with their bodies. This would explain why the owl was lying down, she was incubating. Some birds such as ducks lay a clutch of eggs and then sit, this results in the chicks all hatching at the same time. Other birds immediately sit and incubate from the day the first egg is laid resulting in the brood hatching on different days. It appears that the Spotted Eagle Owl is in the later category which explains why the one chick is smaller than the other, it hatched later and is apparently two or three days younger than the other. It is recorded that they lay every 48 hours and might lay up to six eggs, the size of the brood is related to the food supply. The eggs are incubated by the hen and she only leaves the nest briefly in the evening while incubating. The male remains in the vicinity and helps with feeding. The incubation period is more or less 31 days. By our calculation the first chick hatched early in the first week in October. They make their first flight seven weeks after hatching, this ties up with what happened, the larger baby owl was found on the ground near the tree with the box on the morning of the 18th of November and that evening it was seen to make short flights on the bowling green. By Friday it was able to fly up onto the roof of Leisure Isle Bowling Club while on the same day the smaller baby made its first flight and flew down to the ground from the box. By Sunday the smaller owl was able to make it onto the Club House roof. The chicks are dependant on the adults for about five weeks after they can fly when they will be chased away to make a life of their own.

Why encourage them to nest on the island? This is an old story but as the human population grows so in most cases population of wild life declines. What's in it for us? I don't think it is a question of what is in it for us but as people often look at life from this perspective lets look at it. Unwittingly, people generally encourage the growth of the rat and mouse population around where they live by creating a source of food. Over the years the number of people on Leisure Island has increased, more rubbish therefore more rats, but the number of owls has decreased. A few years ago one resident can remember

seeing five Spotted Eagle Owls on a morning walk. The Spotted Eagles Owls diet consists mainly of small rodents, birds and insects. One owl will probably account for at least one rat or mouse day but when they are raising and feeding their young this number of rats and mice goes up dramatically. A family will account for twenty or more a day. This is a lot of rats and mice but because the young birds grow so fast they require a lot of food. They digest their food at a very high rate, in some species it is recorded that a mouse will be digested in as little as one hour. They do not have crops, after they swallow their food and the digestion process starts and indigestible pieces such as hair, bones, feathers and pieces of insects are periodically brought up and spat out as a pellet. Where birds are hand reared on meat it must be mixed with roughage such as cotton wool otherwise the birds get sick and die. People that have reared birds brought in from the wild have found, when cuddling them, that sometimes around their mouths there are traces of their digestive juice which causes a strong skin irritation. Their liquid requirement is provided in the food they eat.

From the point of view of being an echo friendly way of helping control the rat and mouse population they are of great use to us. Judging by the number of residents and visitors to the Island going to see the birds it appears that a lot of people have had a lot of pleasure watching them rear their two chicks. From an environmental and ecological perspective they have a place on the Island so because of this they have a right to be here. What determines whether they are around or not? Primarily they require a source of food, this would appear to be in good supply. They require a place to nest, a completely natural site in a tree is not always easy to find so this is where we can help by strategically providing a box. A pair of Spotted Eagle Owls at Delta Park Environmental Centre in Johannesburg only raised one chick over nine years using a natural site in a tree. Once a nesting box was provided thirty two chicks were raised in the next eleven years. In some cases the birds need to be protected from people, some of the indigenous population see them as casting a curse and being responsible for death. It is not only some people that do not like the owls, some other bird species also do not like them around, often their efforts to chase them away can be seen. Playing a recording of some species of owl calls results in a number of other types of birds immediately responding and moving in toward the source of the call, this is to chase the apparent intruder away. If rat poison must be used the only product Bird Life Africa recommends is Racumin, EcoMouse and EcoRat, however the real purists say do NOT use any form of poison. Poison is poison and ultimately it has to go somewhere, that somewhere is our environment.

A funny sequel to positioning the box was while the chicks were growing a gentleman told me that he saw that fellow put that box up there and at the time said to himself “what an idiot, does he rally think that an owl is going to make its home in there”!