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THE PLIGHT OF THE ROCK IGUANA



The Rock Iguana is only found on the Sister Islands. — PHOTO: STEPHEN CLARKE

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The story of the Blue Iguana is one of the most uplifting environmental success stories in the world. An iconic species that was bordering on extinction in the wild was brought back from the brink thanks to the efforts of a small but dedicated team. Although the Blue is not quite out of the woods yet, things are certainly looking up for this regal creature.

However, in alarming contrast to the fortunes of the Blue Iguana, it's cousin, the Sister Islands Rock Iguana, is sliding inexorably closer to a point where drastic intervention will be required to save it.

The Sister Islands Rock Iguana is a unique subspecies of the Cuban Rock Iguana and is found only in the Sister Islands, which makes it imperative that Cayman protects these creatures.

The Cayman Islands Department of Environment hosted a meeting recently at which the fate of the Rock Iguana was dis-

cussed in detail and those details were not very encouraging.

According to Gina Ebanks-Petrie, director of the Department of Environment, the department drew up a biodiversity action plan as part of its Darwin Project. Part of this plan was drawing up action plans for individual species and habitats in need of protection, with the rock iguana being one of these species.

"It is an evolving thing because as situations change, as we get more information, we have to change and adapt

the plans. We wrote this plan around two years ago because we recognised that it was a species on the Sister Islands that needed some immediate attention," she says.

DWINDLING NUMBERS

Although the Rock Iguana is nowhere close to being in the same position the Blue Iguana was in prior to the Blue Iguana Recovery Programme being put in place, there are signs that the species

READ MORE ON PAGE 3

The plight of the Rock Iguana

CONTINUED FROM PAGE 1

could end up in trouble.

According to Fred Burton, director of the Blue Iguana Recovery Programme, a number of surveys have been conducted over the last couple of years in order to ascertain the number of Rock Iguanas remaining in Little Cayman.

"We have a very approximate current population estimate resulting from work in recent years (2007, 2008 and 2010) by Matt Goetz from the Durrell Wildlife Conservation Trust, which suggest there are currently about 1,600 iguanas remaining on Little Cayman - at any rate, between 1,000 and 2,000 - and perhaps 60 on Cayman Brac," he says.

Although the numbers on Cayman Brac are based on rough estimates, it is actually the bigger population on Little Cayman that is of greater concern, as it is believed that the Little Cayman population has experienced a dramatic decline over the last couple of years.

"I and others have memories of interior iguana densities on Little Cayman in the 1980s. In good iguana habitat in the interior, at the right time of day, it was normal to see three iguanas or so from any one location. Now you have to travel considerable distances through the interior before hearing one, so we have formed an impression that the interior population is now an order of magnitude lower than it used to be," says Burton.

"The net result is that we suspect the wild population may have once been of the order of 10,000 to 20,000 and is now a tenth of that."

However, the impression many visitors to Little Cayman get is that there are iguanas all over the Island in relative abundance. This is based on interaction with iguanas along



Gina Ebanks - Petrie, Director of Environment - PHOTOS: FILE

the coast, which may not be representative of the situation.

"It is important to understand that the iguanas located on Little Cayman are not naturally distributed across the Island," says Paul Watler, environmental programmes manager designate with the National Trust.

"They are being drawn closer to human habitations and one negative effect is the perception that the iguana population is doing well. In fact, the population is in decline and people do not realise that they see the same groups of individual iguanas in the same places over and over, and that there are not as many in wild places as would naturally be the case," he says.

The sentiment is echoed by Burton, who said that at man-modified coastal sites like Mahogany Bay and the Little Cayman Museum it is common to see high densities



Fred Burton, director of the Blue Iguana Recovery Programme

of iguanas, especially where they are offered food, something strongly discouraged by the Department of Environment.

"This gives casual observers the impression that the population is thriving. But, Goetz did study these populations and what is striking is that all these high density clusters combined, represent a mere 10 per cent of the entire surviving population, at best," says Burton.

NUMEROUS THREATS

There are numerous reasons for the decline in the numbers of the rock iguana, but all of these reasons in some way link back to the development of the island.

"What we believe is happening is that the coastal clusters of iguanas in contact with people are suffering an extremely high mortality to road kills and dog attacks. We

estimate at least 100 road deaths a year," says Burton.

According to Ebanks-Petrie, the road kill situation was probably a contributing factor to the Blue Iguana coming very close to extinction as well.

"It was a long time before we built the Queen's Highway - the road stopped at Tortuga Club, so when that portion of the road was constructed, that was the nail in the coffin of our population of blues," she says.

The reason for the iguanas crossing the road is simple - they need to nest. As there is a lack of soil depth in the interior of the island, the iguanas nest on the beaches. And the road runs between their natural habitat in the interior and their favoured nesting sites.

"Iguanas make their homes in the shrubland of the interior, though females may migrate to the coast in order to lay their eggs in sand. As reptiles, they are naturally drawn to sunny places where they are able to bask. Roads are an unnatural addition to their habitat that they are able to utilise in this fashion," says Watler.

On Little Cayman, the situation is aggravated by the Rock Iguanas' rather unique communal nesting sites, which can lead to a much higher concentration of breeding females in one location.

"We knew where there were at least one of the key coastal communal nesting sites. One of the things about the Little Cayman population is that they do have these communal nesting sites, which are extraordinary. We've had that site mapped now for many years. Coincidentally it is also a turtle nesting beach," says Ebanks-Petrie.

The 100 road kills represent only one element of the rock iguana mortality on Little Cayman.

READ MORE ON PAGE 4 »

The plight of the Rock Iguana

CONTINUED FROM PAGE 3

"That doesn't include natural mortality, it doesn't include the young that are being taken by feral animals or any accidental kill from domestic cats and dogs, so that's only one part of the total mortality. From an animal ecology perspective that's getting very, very dangerous. It is totally unsustainable," says Ebanks-Petrie.

The young iguanas are especially vulnerable to predation by feral and domestic animals.

"Recruitment of young to the breeding population is being slammed by domestic and feral cats, which hunt and kill hatching and yearling iguanas. Most big, fecund females move to the coast to nest as there are few deep soil basins inland and it is the coast where most of the cats live," says Burton.

However, due to the desirability of the coastal territories, when the iguanas that inhabit those areas are killed due to their greater exposure to various dangers, others are quick to fill the void left.

"As their territories are 'vacated' in this way, iguanas move out from the interior to take up these favoured artificial spots, where they get killed in turn, and so gradually the interior population of adults gets more and more thinned out," says Burton.

THE ROAD FORWARD

Although the recovery programme's work with the Blue Iguana has shown that it is possible to pull a species back from the brink of extinction, it is much easier to take preventative measure to protect the Rock Iguana.

"There is no need to get into expensive captive breeding efforts, for instance. We can get far more conservation bang for our buck by addressing the causes of the decline and letting the population recover naturally," according to Burton.

However, one of the important pieces of the puzzle is having the right legislation in place to empower conservation authorities.

"It is going to take a concerted effort from everyone and we are going to need the proper legislative framework to allow us to put the protections in place that we need to put in place for these animals - another reason we need the National Conservation Legislation," says Ebanks-Petrie.



The Rock Iguana's numbers are dwindling. - PHOTO: STEPHEN CLARKE

One of the key element highlighted by Burton and Ebanks-Petrie is the need for measure to protect iguanas attempting to cross the road, as road kill is the major factor contributing to the rapid decline in breeding iguanas.

"Observing the island-wide 25mph speed limit would reduce the road kill enormously. Given human nature, some low profile speed bumps in the key iguana areas would also help a lot," says Burton.

Ebanks-Petrie agreed and said that even temporary speed bumps that would just be in place in key nesting areas during the nesting period would already be a big help.

The killing of young and yearling iguanas by domestic and feral animals is another area of concern that needs to be addressed.

"Most domestic cats on Little Cayman have already been neutered and micro-chipped. This needs to be kept up, and a

feral cat control effort on quite a large scale would pay huge dividends," according to Burton.

Although cats only take younger iguanas, dogs can take iguanas that are already of breeding age.

"Enforcing the leash law for domestic dogs would prevent some very preventable killings. There aren't many dogs on Little Cayman, and if they are all restrained or confined when at home and leashed at all other times, as the law does actually require, then we need find no more eviscerated nesting females on Little Cayman's normally tranquil beaches," says Burton.

One of the most important measures that can be taken in the protection of the iguanas is to protect the iguanas' habitat. However, Ebanks-Petrie is quick to point out that any land acquisition should not be rushed into and should be backed up by solid science, as the iguanas are quite par-

ticular about their preferred locations.

"We've earmarked the one communal nesting site as a target for protection - we're hoping that jointly the government and the National Trust can come up with the necessary means to protect that area, probably through acquisition."

However, for Ebanks-Petrie, the ideal is to see the Sister Islands Rock Iguana protected in a way that would allow the iguanas to live free as they currently do.

"Little Cayman could continue to develop in a way that was sensitive to the environment, that respected the limits of the natural environment," she says.

"We wouldn't necessarily have to set up vast protected areas with fences for these iguanas, but the iguanas could live everywhere on Little Cayman and be protected and respected - that, to me, would be what success would look like for the Sister Islands Rock Iguanas."