

Cyclone Survival

By Kimberley Jennings

As I touched down on the tiny atoll of Aitutaki in the Cook Islands I couldn't believe my eyes. It is a quintessential "desert island" where sparkling white sand beaches are set against lush green foliage and a never ending blue sky. Aitutaki is literally a jewel shining in the middle of the South Pacific. It is surrounded by the most stunning lagoon in varying shades of vibrant aquamarine. My eyes ached from the onslaught of colour, especially since I'd just left a dull grey Yorkshire summer behind.

I was in the Cook Islands as part of my Masters course at the University of Leeds, UK. The Cook Islands Natural Heritage Trust and the World Parrot Trust both supported me in my research on the population and ecology of the Blue Lorikeet (*Vini peruviana*).

While Aitutaki appeared utterly flawless to my untrained eye, it was in fact, still recovering from a devastating cyclone which hit the island in February 2010. Gusts up to 80-100 km/h (50-62 mph) blasted over the tiny atoll and destroyed many houses and much of the island's precious vegetation. Disturbances like this can have a significant impact on small, fragmented populations like the Blue Lorikeet's.



The Blue Lorikeet is sacred to the Cook Islanders and fondly referred to as the "Nun Bird." The population is hanging on despite a devastating cyclone in 2010.



© Peter Odekerken

The focus of my research was to quantify how many lorikeets survived and if the cyclone affected their behavioural ecology. Aitutaki is of paramount importance as it is home to the world's largest Blue Lorikeet breeding population.

I spent my first few days finding my way around the island by bike. I promptly gave that up after falling off head first down a hill! One bandaged hand and leg later, I limped off early one morning on my first transect route. I hadn't even made it out the garden surrounding my lodge when two energetic and loud lorikeets flew across my path.

So far so good...at least two had survived! Over the next few weeks, I found if I sat quietly on my veranda, lorikeets would feed on the flowering plants right in front of me. Witnessing their intricate feeding behaviour was an unbelievable experience. The birds have short necks and cannot reach the nectar hidden in the tubular flowers. Instead they nip the bottom and use their long tongues to gather food. I've seen a lorikeet visit ten or more flowers on a single hibiscus tree.

I believe this behaviour helped the remaining Blue Lorikeets survive. My research showed that the birds moved away from their primary food sources of coconut, banana, mango and kapok flowers in favour of smaller, more herbaceous plants which began to re-flower relatively quickly after the cyclone damaged the island.

The good news is the Blue Lorikeet has survived. The bad news is that the direct hit by Cyclone Pat caused the loss of over 50% of the population, leaving an estimated 1,448 birds. The demographics of the population were completely altered as virtually all the juvenile birds were killed.

Despite the clear catastrophic impact Cyclone Pat caused, behavioural observations reveal that the lorikeet has benefited from being a habitat generalist. While their distribution, habitat and feeding preferences have changed, a relatively large proportion of the population survived the cyclone and there is every chance the population will increase in number again.

