



Rainforest Rescue

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The Southern Cassowary

The Southern Cassowary (*Casuarius. c. Johnsonii*) is listed as an endangered species, yet it continues to lose more habitat every year and are threatened and killed by vehicles and dogs.

Conservative estimates predict that there are only 1000 Cassowaries left in the wild! Cassowaries are of great cultural significance to many Indigenous rainforest peoples, and are an Icon of tourism in Far North Queensland. We must act to ensure this special rainforest bird is given a secure future.



The Importance of Cassowaries

Cassowaries are a keystone species in the Wet Tropics Rainforests. This means that they play an integral part in the maintenance of the forest ecosystem. Their most significant contribution to the ecology of the forest is to disperse rainforest fruits. As Cassowaries eat up to 150 different fruit species, it is estimated that 70 to 100 plant species depend almost entirely on the Cassowary for seed dispersal.



Cassowaries are the only native animals large enough to eat many of the larger fleshy rainforest fruits with large seeds. Their digestive system is gentle on the seed. The seed remains in the Cassowaries gut for 10 hours, ensuring they are deposited some distance away from the parent tree.

When they are excreted the seeds are embedded in the dung, making something like a mini compost pile. The smell from the dung keeps seed predators, such as the white tailed rat, away from the seeds and the fertiliser helps to keep the seed moist and feed the germinating seedling.

Threats to Cassowaries

Habitat Destruction: Whether it is land clearing for farming, urban development or logging, habitat loss is the major threat to the survival and well-being of Cassowaries. Most animals that lose their habitat due to clearing are not successful in establishing themselves elsewhere and usually die due to stress, predation and or starvation.

Fragmentation of Habitat: Clearing results in isolated and fragmented pockets of habitat. As a result, Cassowaries are forced to cross hostile environments such as open fields and roads, exposing them to vehicle impacts and dogs. Fragmentation results in genetically isolated subpopulations, reducing the genetic variability.

Clearing: The average rate of land clearing between 1975 and 1983 throughout the wet tropics region was calculated to be 1, 424 ha/year.

- By 1997, 80% of all natural vegetation in the region had been cleared.
- Cassowaries in the Wet Topics have been separated into 10 subpopulations due to the fragmentation of their habitat.

Vehicles: Between 1989 -1998, 40 Cassowaries were reported dead due to traffic. Many birds may have several roads passing through their territory, and dispersing birds many have to cross numerous roads before finding a suitable area to settle. People also mistakenly feed Cassowaries, attracting them to human habitat and exposure to death and injury from cars and dogs.

Dogs: The second most drastic recorded source of Cassowary mortality is dog attack. Dogs affect the feeding, movement and behaviour of Cassowaries, e.g. chasing them from potential food and water sources. Many people living around and within Cassowary habitat own dogs. It is essential that owners restrict dogs from roaming where they can impact on native fauna. The last Cassowary to survive on Mt. Whitfield - a hill right behind Cairns, was killed by dogs.

Feral Pigs: Feral (introduced) pigs require much of the same food as Cassowaries do. Apart from having a similar diet, and therefore causing drastic effects in times when food is scarce, pigs also destroy Cassowary nests and eat their eggs. Feral pigs contaminate water sources and are potential dispersal agents for die-back, a fungal disease that kills off forests.

Cassowary Life History

Breeding: The mating time for cassowaries begins around May - June. Females mate with more than one male - known as polyandry. The female will mate with one male until a clutch is laid, she will then mate with another male, until several clutches have been laid. Breeding usually occurs from June to October, when fruit sources are at their peak.



Nesting: Nests are made from leaves and grass on the forest floor, 1 metre in diameter. The females lay an average of 4 blue/green eggs, 10 cm by 16 cm, weighing 500 to 600 grams.

Incubation: Solely the male's responsibility. A male will sit on the nest for 50 days, generally going without food and water.

Chicks: The newly hatched chicks are striped black/dark brown and cream with pale brown heads and tiny wattles for the first 7 months. They follow the adult male and imitate his actions, learning how to forage for fruits and insects and find feeding sites and water areas.



Sub-Adults: Young cassowaries are most vulnerable at this stage in their lives. The male abandons the sub-adults when they are between 7 and 16 months of age, evicting them from his territory. Those who survive the initial separation slowly develop adult characteristics - the skin on their heads begins to turn blue in colour, their wattles turning pink and the casque (horny protuberance on top of the head) develops.

Adult: The life-span of a Cassowary in the wild is uncertain, however in captivity they can live to 40 years of age. Adults have a coarse, glossy black plumage, a tall helmet (casque) and a brilliant blue neck and red wattles. Females are usually larger than the males - (1.8 meters tall and 60 kilograms in weight compared to 1.5 meters and 35 kilograms in weight).

Current Status of Cassowaries

There are three species of Cassowary - the Single Wattle Cassowary found in Northern New Guinea, the Dwarf Cassowary found in the mountainous rainforest of New Guinea, and the Southern Cassowary (*Casuarius. c. Johnsonii*) found in north eastern Australia. Cassowaries are listed as Endangered under both Queensland and Commonwealth legislation.

Australia has two separate populations of Cassowaries, one in the Wet Tropics Rainforests region between Townsville and Cooktown. The second population is in a small number of scattered blocks of rainforest along the East Coast of Cape York Peninsula as far south as the McIlwraith Range. Although the Cassowary has a wide range within the Wet Tropics area, they are not regularly distributed, and in most places population numbers are quite low.

Interesting Cassowary Facts

- Cassowaries are capable swimmers.
- Europeans first saw Cassowaries in 1597 when one was taken from Banda Islands and brought to Amsterdam on a Dutch merchant vessel.
- The last recorded human fatality was in 1926 when a 16 year-old boy was killed near Mossman by a bird, which he and/or his dogs had been attacking.
- Cassowaries were traditional food for the Aborigines.
- Adult Cassowaries are shy and solitary, however they will attack to protect their chicks or in self-defence.

Take Action

To survive, Cassowaries need large areas of rainforest. There is a need for protection of existing habitat and greater control of dogs and pigs. As well as creating protected areas such as national parks, Rainforest Rescue and our project partners are establishing nurseries of Cassowary food plants to restore rainforest on cleared land and are protecting rainforest corridors to link remaining patches of vegetation and habitat for Cassowaries.

GET INVOLVED

You can support Cassowaries by becoming an Ongoing Giver to Rainforest Rescue. For as little as \$1 a day, you can make a real difference to Cassowary habitat in the Daintree. Find out more about it and join us now on our website www.rainforestrescue.org.au