



FREQUENTLY ASKED QUESTIONS

What is a Southern Cassowary?

The Southern Cassowary is a large, distinctive flightless rainforest bird, with black, hairlike feathers, large powerful feet and legs, a colourful neck and a helmet-like structure called a casque atop its head. Its scientific name (species binomial) is *Casuarius casuarius johnsonii*. Cassowaries are members of the ratite family, like their closest relative the emu. Ratites are flightless, mostly large-bodied birds that are found on the southern continents of Australia (and New Zealand), Africa and South America. Other ratites include the African ostrich and kiwis of New Zealand.

Where do Southern Cassowaries live?

Southern Cassowaries live in the tropical rainforests of Far North Queensland. Two populations live in the north of Cape York, and a larger population lives further south in the Wet Tropics, between Cooktown and Townsville.

Are there any other types of cassowaries?

There are two other species of cassowary, the Dwarf Cassowary (*Casuarius bennetti*) and the Northern Cassowary (*Casuarius unappendiculatus*). These two species live on the large island of New Guinea, to the north of Australia. They are both smaller than the Southern Cassowary.

What do Southern Cassowaries eat?

Southern Cassowaries are frugivores, which means that they mainly eat fruit. The majority of their diet is made up of fleshy rainforest fruits. Cassowaries do not have a tongue and must toss food with their beaks to back of their throats. Cassowaries prefer fallen fruits but have also been observed eating low-hanging fruits from shrubs and trees.

Southern Cassowaries eat the fruit of at least 238 rainforest trees and plants, such as the blue quandong, and cassowary and Davidson plums. Cassowaries don't just eat fruits and also consume other foods such as plant leaf matter, fungi, carrion, as well as insects, snails and small animals such as lizards and rodents.

Do cassowaries live in groups or families? How do they breed?

Adult cassowaries are solitary for most of the year and tend to avoid each other. However, during the breeding season males and females will form courting pairs. Female cassowaries are larger than males and are the dominant sex. As in many ratites, the male bird is the sole care provider for the eggs and chicks. After mating, the female will lay an average of four eggs which she will leave in the care of the father. The female may then seek another mate. The male bird will incubate the eggs for

around 50 days, and then look after his chicks for around 9 months, when the next breeding season has arrived.

Cassowaries may also be seen in groups at times of food abundance or scarcity, to take advantage of available food sources.

What is that thing on top of a cassowary's head?

The helmet-like structure on a cassowary's head is called a *casque*. The inside of the casque is spongy and connected to ear canals, while the outer layer is usually light to dark brown in colour and resembles the material found on a turtle shell.

Each cassowary has a unique casque which can be used to identify individual birds. Some scientists believe that the casque is a receptor of sound for low frequency vocalisations, which allow cassowaries to communicate over long distances in their dense rainforest homes.

How many Southern Cassowaries are there in Australia?

In 1988 the Wet Tropics cassowary population was estimated at between 2500 – 4000 adults but in 2001, it was assessed at less than 1500 adults. It is unknown how many cassowaries remain but it is believed that there could be fewer than 1000 individuals remaining in the wild.

What kind of noises do cassowaries make?

Cassowaries make a range of noises, including hissing, rumbling, coughing and booming noises. Cassowaries may not vocalise frequently, when they do the main purposes are probably to attract and court a mate during the breeding season, to warn other cassowaries of their presence, and for family communication between fathers and chicks. Like most young birds, cassowary chicks are known to chirp or whistle to communicate with Dad.

Cassowaries have been recorded making very low-frequency, booming calls, at the lowest end of human hearing. These low frequency noises are referred to as infrasound and are thought to allow communication over long distances through the dense rainforest foliage (Mack & Jones, 2003). These booming calls have been described as strange and unsettling by humans who have been lucky enough to witness them. These are the lowest known vocalisations of all birds. Elephants are also known to communicate with infrasound. Emus, the closest relatives of the cassowaries, make similar booming calls that can be heard over long distances. The cassowary's casque may assist the birds by acting as an amplifier or receiver for this infrasound communications.

Why are Southern Cassowaries important?

Southern Cassowaries play a very important ecological role in the tropical rainforests of Far North Queensland. It is the "Rainforest Gardener", the most important seed dispersing species in these ecosystems. Their main food is rainforest fruits, and the gentle treatment of these fruits in the cassowary's digestive system means that the seeds are passed unharmed and ready for germination in their own "compost heap" of dung.

Southern Cassowaries are the only native animal capable of dispersing the seeds of large-fruited plants and trees over long distances, ensuring the continued balance and biodiversity of the rainforest plant community. Without cassowaries assisting with seed dispersal, these plants and trees would only occur in concentrated pockets around parent trees or in places where dispersal by gravity can occur, such as gullies or the bottom of slopes. The Southern Cassowary ensures the continued balance and biodiversity of the rainforest for all the animals that live there.

Where does the cassowary's name come from?

The name cassowary is derived from two Papuan words, *kasu* (meaning 'horned') and *weri* (meaning 'head'), in reference to the bird's distinctive casque.

Is the cassowary dangerous to humans?

Cassowaries have a perhaps undeserved reputation as a dangerous bird. Due to their large size and the dagger-like claw on their inner toes, they have the ability to cause injury if provoked and – like all wild animals – should be treated with caution and respect and not approached.

75% of all attacks on humans by cassowaries in Australia involved birds that had previously been fed by humans. Hand-feeding wild animals can alter their behaviour and reduce their natural cautiousness towards humans, increasing risk to both the animals and people. 22% of incidents involved cassowaries acting either in self-defence or defence of chicks.

Are cassowaries related to dinosaurs?

Yes! All modern birds are descended from a group of bipedal (walking on two legs), mainly carnivorous dinosaurs known as 'theropods'. Many features we associate with modern birds, such as feathers, hollow bones, nesting, egg-brooding and care for young first appeared in this group of dinosaurs. Ratites are one of the oldest lineages of modern birds, and cassowaries share similarities with some theropod dinosaurs such as the structure of their feet and respiratory systems. The male parental care common to most ratites is also thought to have originated in theropods.

Why can't cassowaries fly?

Cassowaries lack some anatomical structures associated with bird flight, such as a keelbone to which flight muscles attach. While they do have wings, they are small and rudimentary. Their feathers are also not suitable for flying and their large size makes it extremely unlikely that they would be able to fly anyway. Losing the ability to fly allowed cassowaries and their ratite relatives such as ostriches and emus to attain the large size they now have, as flying is the most energy-expensive form of movement which prevents most flighted birds from growing as large as the ratites.

Why are Southern Cassowaries endangered?

Unfortunately, an increasing human population in the Southern Cassowary's home has had a serious impact on these magnificent birds. Habitat loss and fragmentation due to human activities are the main threats to Queensland's cassowaries as they can separate cassowary populations, reduce food availability and increase their exposure to other threats.

Roads divide cassowary home ranges and lead to injury and death due to vehicle strikes. Roads can also increase the distance cassowaries must travel for fresh water and fruits. Vehicle strikes are the leading cause of mortality for cassowaries in Australia.

Attacks on cassowaries by uncontrolled domestic and feral dogs are the second leading cause of death after car accidents. Hand-feeding alters the natural behaviour of cassowaries and can lead to dangerous inter-species interactions. Disease and natural disasters such as cyclones affect cassowaries at an individual and population level.

Why is the Southern Cassowary the focus of this campaign?

Save The Cassowary is not a single-species conservation campaign but aims to continue Rainforest Rescue's important work in preserving and protecting rainforests forever. The Southern Cassowary has been chosen as an ambassador species to represent the tropical rainforest ecosystems of Far North Queensland. It is an umbrella species,

What could happen if Southern Cassowaries become extinct?

Due to the vital role Southern Cassowaries play in maintaining the balance and diversity of rainforest vegetation, their extinction could have devastating effects for other rainforest animals (such as the endangered northern quoll and mahogany glider). Many rainforest trees are entirely dependent upon the Southern Cassowary for seed dispersal. Without the cassowary performing this important task, the balance of Queensland's tropical rainforests would be disrupted with potentially devastating consequences.