

## The kiwi – is New Zealand’s national symbol critically endangered?

The kiwi is a unique creature, which can only be found in New Zealand. There are at least four different species, the best known of which is the brown kiwi.

Depending on the species the kiwi can grow to a size of 35-85cm and reaches an average age of 25 years. Although the kiwi is classified as a bird, it is not able to fly. Due to the early geographical isolation of New Zealand its wings decreased in size over the generations: The kiwi hardly had any natural enemies; that is why kiwis, which were not able to fly, were at an advantage and were thus able to become prevalent.

The primary organ of sense - unusual for a bird - is olfaction. For this reason the nostrils are at the tip of the bird’s 15-20cm long beak.

The kiwi is a nocturnal animal. Nevertheless it only spends about 4 hours a day searching for prey; the rest of the day is spent in its dens.

The omnivorous animals prefer earthworms or snails. The long beaks with the nostrils enable the birds to extract these out of the ground without previously seeing them. However, they also eat insects and fruits which are lying on the ground.

In relation to other birds the reproduction cycle of Kiwis is long. They mate between August and October; after three weeks the hen lays a single egg with a maximum weight of 0.5kg. The egg is 15-20% of the female’s body volume. The male then incubates the egg over a period of approximately 80 days. Compared to other birds, incubation takes a long time, due to the fact that the body temperature of kiwis averages only 37-38°C, whereas the normal body temperature of birds is 39-45°C. Kiwis live monogamously.

After hatching the little Kiwis have to be independent after only a few days. However, it is several years before they reach sexual maturity.

Kiwis are found all over New Zealand, but especially the North and South Islands, Stewart Island and some small offshore islands.

The kiwis’ original habitat was largely forests, although some lived isolated in the highlands. Nowadays they also live in populated areas, preferably landscapes with shrubs. Loose topsoil is always important for them to be able to find food.

There are a number of reasons for the rapid decrease of the kiwi population. All kiwi species are now classified as endangered and in 1991 the New Zealand government founded a Kiwi Recovery Program to prevent the extinction of the country’s national animal.

### Questions:

1. Why do kiwis only exist in New Zealand? Establish a hypothesis.
2. What are the causes of the decrease of the Kiwi population? Take human influences into account.



**Fig. 1:** A North Island Brown Kiwi at Rainbow Springs Kiwi Wildlife Park in Rotorua, North Island, New Zealand. (Anonymous, 2010)

<b>Class</b>	<a href="#">Aves</a>
<b>Order</b>	<a href="#">Apterygiformes</a>
<b>Family</b>	<a href="#">Apterygidae</a>
<b>Genus</b>	<a href="#">Apteryx</a>

## Helpful information

### *The evolution of New Zealand*

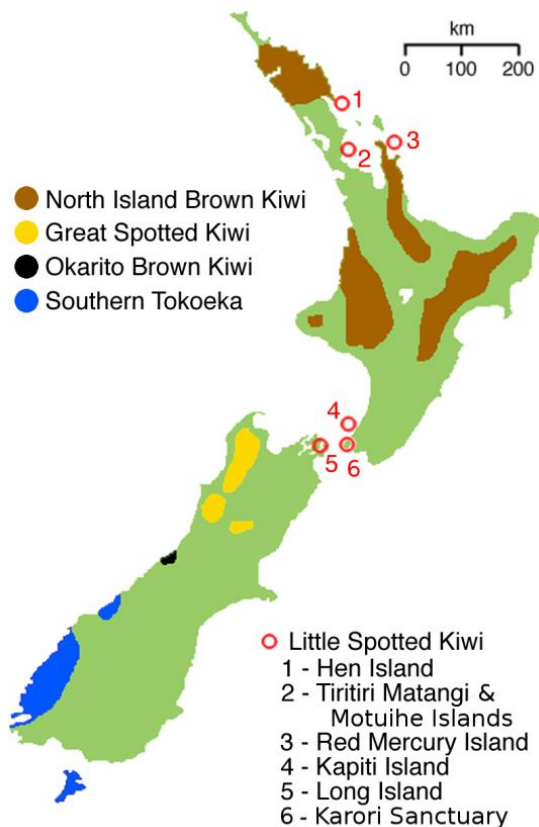
A few million years ago New Zealand broke off from the huge continent Gondwana. Today the borderline of two tectonic plates, the Pacific and the Australian plate, crosses the country, causing many earthquakes and frequent changes in the landscape. New Zealand also belongs to the Pacific ring of fire which causes volcanic eruptions.

In the 13th and 14th century New Zealand was settled by Polynesian settlers who created the Maori culture.



**Fig. 2.:** Tāwhiao, second Māori King, died 26th Aug. 1894 (Anonymous, ca. 1894)

## Maps of New Zealand



**Fig. 3:** Map showing distribution of kiwi (Dignan, J., n.d.)



**Fig. 4:** New Zealand relief map (Anonymous, 2010)

### **Task:**

Create working groups. Each group should find information about one kiwi species. Use the Internet to find information about habitat, geographical range, special characteristics and the population. Make a chart where you can enter your results. Then present your results to the other groups.

### **List of figures**

**Figure 1:** Anonymous, (2010): A North Island Brown Kiwi at Rainbow Springs Kiwi Wildlife Park in Rotorua, North Island, New Zealand. Wikimedia Commons. - ([http://commons.wikimedia.org/wiki/File:Apteryx\\_mantelli\\_-\\_Rotorua,\\_North\\_Island,\\_New\\_Zealand-8a.jpg?uselang=de](http://commons.wikimedia.org/wiki/File:Apteryx_mantelli_-_Rotorua,_North_Island,_New_Zealand-8a.jpg?uselang=de); 19.11.2013)

**Figure 2:** Anonymous, (ca. 1894): Tāwhiao, second Māori King, died 26th Aug. 1894. Wikimedia Commons. - ([www.commons.wikimedia.org/wiki/File:TawhiaoNLA.jpg](http://www.commons.wikimedia.org/wiki/File:TawhiaoNLA.jpg); 20.11.2013)

**Figure 3:** Dignan, J. (o.J.): Map showing distribution of kiwi. Wikimedia Commons. - ([www.commons.wikimedia.org/wiki/File:NZ-kiwimap.png?uselang=de](http://www.commons.wikimedia.org/wiki/File:NZ-kiwimap.png?uselang=de); 20.11.2013)

**Figure 4:** Anonymous, (2010):. New Zealand relief map Wikimedia Commons. - ([www.commons.wikimedia.org/wiki/File:New\\_Zealand\\_relief\\_map.jpg](http://www.commons.wikimedia.org/wiki/File:New_Zealand_relief_map.jpg); 18.11.2013)

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Wikimedia Foundation Inc. (2006): Kiwis. Wikipedia. - San Francisco (USA) ([www.de.wikipedia.org/wiki/Kiwis](http://www.de.wikipedia.org/wiki/Kiwis); 19.11.2013)