

Bellbird on flax: K. Dolman



One of the favourite foods of birds like the tui and the bellbird (pictured) is the nectar in the flowering heads of the flax plant. Flax or harakeke, is just one of a number of native flowers especially adapted for pollination by birds of the honeyeater family. Others are kowhai (pictured, top right), puriri and kaka beak — what these flowers share in common is that the nectar is found at their base, and that it takes something with a long beak, like a

tui or bellbird, to bring the nectar out.

The tui also enjoys other foods such as insects and berries. *Coprosma* berries (bottom right) are favoured, along with mahoe, supplejack, maire and karaka berries. The famous bird lover, Sir Walter Buller, reported in the 1870s that “at certain seasons of the year, when its favourite berries are fully ripened, the tui becomes exceedingly fat” — a bit like humans at Christmas perhaps!



Kowhai — Gordon Ell



Coprosma — Gordon Ell

People need plants

Without plants we would all be dead in three minutes.

That's about how long we would live without oxygen. All the oxygen in the air comes from plants — from trees, shrubs, herbs and grass on the land and from algae and tiny phytoplankton (plant plankton) in the sea.

Plants take carbon dioxide out of the air and water from the ground. They use carbon from the carbon dioxide and hydrogen from the water to make carbohydrates — sugar, starch and cellulose. There is a lot of oxygen left over which the plants release into the atmosphere.

Oxygen is a very reactive element which can't exist for very long by itself. It joins together with other elements very easily in a process called oxidation. Fires, rotting vegetation, animals breathing and oxidising minerals take oxygen out of the atmosphere as fast as plants can put it back.

Even if we had some magical or scientific way of supplying ourselves with oxygen we would not last very long without plants. We would starve to death.

All our food comes from plants. Seeds, roots, leaves, flowers and fruit are eaten by people all around the world. And the animals we eat are fed on leaves and seeds.

Cereals are the most important human food. They are made from the seeds of cultivated grasses — wheat, rice, maize,



oats, rye and barley. And these aren't the only seeds we eat — there are peas, nuts and many different kinds of beans.

We also eat leaves like cabbage, puha and spinach, flowers like cauliflower and broccoli, and hundreds of different kinds of fruit. Without the vitamins and minerals they contain we would be very ill.

The meat we eat comes from cattle, sheep, pigs and chickens, and all of these eat grass, green crops, root crops or cereal grains. Even our food fishes eat smaller fish which eat plant plankton.

Many people around the world burn wood to cook their food and to heat their homes in cold weather. Millions of hectares of trees are cut down every year by people who depend on wood for fuel. Most are never replanted.

The world's industries burn millions of tonnes of coal every year as raw

Rata (*Metrosideros fulgens*), Abel Tasman National Park Photo: David Gregorie

material, or to heat furnaces or generate electricity. And coal is fossilised plants that grew millions of years ago.

In New Zealand and Japan most of our houses are made from timber and we use wood for partitions, doors, cupboards and furniture. We make wallboard, cardboard and paper from the *Pinus radiata* trees in our exotic forests.

Plant fibres are used for clothing and cordage. Cotton cloth is made from the fluffy seed-heads of the cotton plant, linen is made from the leaves of linen flax and ropes and string are made from hemp and from New Zealand flax (*Phormium tenax*).

The native trees in our national parks and state forests are more important than most people realise. They protect steep