



P L A T E 1 8 8

Feeding

KOALAS ARE ARBOREAL—also known as “tree-dwelling,” nocturnal animals that only eat eucalyptus leaves and blossoms and are solely dependent on food trees to survive in any area. There is often a misconception that koalas will eat the leaves of any eucalypt tree, but this is not the case as they have very selective palates. While there are 600 species of eucalyptus in Australia, of which koalas can eat approximately thirty-five types, koalas mostly favor an even smaller selection of only about twelve species, of which their given home range may only have two to four. One of the favorite gum leaves for koalas in southern regions is manna gum, while northern koalas favor red-, river-, and forest gum. Eucalypt trees are called “gum trees” because of the sticky sap that oozes out from the bark and flowers of the tree when cut or wounded. The term “gum” does not refer to the eucalypt leaves themselves.

Eucalyptus does not cause koalas to be intoxicated as urban legends often proclaim. We predominantly observe koalas during daytime hours when it is “bedtime” for them. Their partially opened eyes and commonly drowsy expressions are the result of being awoken from a nap. The eucalyptus leaf diet provides very little energy. Koalas need to keep a tight balance while asleep; this, too, requires constant use of energy. To concentrate their limited energy on essential tasks, koalas require eighteen to twenty hours of sleep each day.

The need for low energy consumption is a possible reason for the markedly small brains of koalas. As brains use up a lot of energy in all species, a somewhat underdeveloped brain helps to conserve it. Unusually copious amounts

of microorganisms in the digestive system assist with energy conversion. The natural fermentation occurs in the expandable appendix, or caecum, which measures up to 2.2 yards (2m) by four inches (10cm). Their digestive track also filters eucalyptus toxins that would kill most animals. Koalas consume between seven to seventeen ounces (200 to 500g) of leaves each day.

KOALAS ARE UNUSUALLY FASTIDIOUS EATERS. They need to carefully smell each gum leaf to detect possible traces of poisons such as hydrocyanic acid and phenolics that are often present in young eucalyptus leaves, which koalas also happen to favor most. On any given day, a koala might even prefer the leaves of one tree over those of another. This poses a special challenge for koalas kept in captivity. Zookeepers need to present each koala with up to five pounds of leaves from a variety of branches of different trees each day, to yield only one pound of nourishment.

The high oil content of eucalyptus leaves helps with retaining liquids within hot areas; thus, they yield all the water content koalas need. This is also why koalas rarely, if ever, drink at all. They might seek out a water source when it is exceptionally hot or when they are sick. At times, koalas descend to the ground to eat dirt. Theories suggest that they do this in order to obtain lacking minerals or to help with their digestion. In times of famine, koalas sometimes even eat the bark of eucalyptus trees.

Even though koalas are round and cuddly in appearance, they are not fat. They have strong, thick muscles, averaging only ten percent of body fat.

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