

EVOLUTION OF AUSTRALIAN BIOTA

Chapter 2 The evolution of Australian flora and fauna

Additional information on Darwin

Darwin's trip to Australia

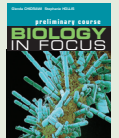
Up until the early 19th century, a ship's position in terms of longitude was difficult to determine. Sailors relied on the difference in time from Greenwich in England, to estimate longitude—the Earth rotates one degree longitude every 4 minutes. To calculate their position on the sea (latitude was easier, estimated according to the angle of the sun), they had to have accurate clocks (chronometers). Since ships list (tilt) on the sea, the pendulum clocks did not keep very precise time, so sailors had to stop at ports where there were observatories so that they could reset their clocks to astronomical times (one ship may have carried at least a dozen clocks, so that the average time could be calculated to increase accuracy). The HMS *Beagle* circumnavigated the world to check estimations of lines of longitude, and its stop in Australia was not for the purpose of biology but another scientific study. Darwin's presence as the captain's companion was merely coincidental, but turned out to be most fortunate.

Darwin's observations of plant life in Australia

'The extreme uniformity of the vegetation is the most remarkable feature in the landscape of the greater part of New South Wales. Everywhere we have an open woodland, the ground being partially covered with a very thin pasture, with little appearance of verdure. The trees nearly all belong to one family and mostly have their leaves placed in a vertical, instead of as in Europe, in a nearly horizontal position: the foliage is scanty, and of peculiar pale green tint, without any gloss.'

'The leaves are not shed periodically: this character appears common to the entire southern hemisphere, namely, South America, Australia and the Cape of Good Hope.'

'The inhabitants of this hemisphere, and of the intertropical regions, thus lose perhaps one of the most glorious, though to our eyes common, spectacles in the world—the first bursting into full foliage of the leafless tree. They may, however, say that we pay dearly for this by having the land covered by mere naked skeletons for so many months. This is true but our senses thus acquire a keen relish for the exquisite green of the spring, which the eyes of those living within the tropics, sated during the long year with the gorgeous productions of those glowing climates, can never experience. The greater number of the trees, with the exception of some of the Blue-gums, do not attain a large size; but they grow tall and tolerably straight and stand well apart. The bark of some of the Eucalypti falls annually, or hangs dead in long shreds which swing about with the wind, and give to the woods a desolate untidy appearance. I cannot imagine a more complete contrast, in every respect, than between the forests of Valdivia or Chiloe, and the woods of Australia.'



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<http://darwin.thefreelibrary.com/The-Voyage-of-the-Beagle>

This website allows access to the original text from Darwin's book *The Voyage of the Beagle*. Darwin describes his visit to Australia in Chapter 19 and the journal format makes for interesting reading. He also briefly outlines his travel route through familiar areas such as Bathurst, Parramatta and the Blue Mountains, mentioning inns he stopped at and other fascinating information.