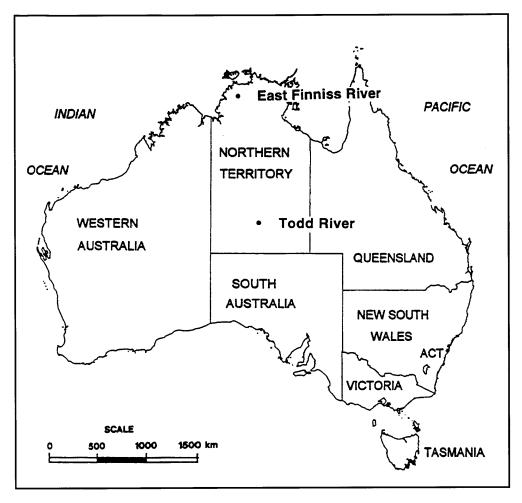
Australia

Australia-3: Todd River

Australia-4: East Finniss River



Introduction

The continent of Australia is the lowest, the flattest and, with the exception of Antarctica, the driest of the continents with a total land area of 7,682,000 km². The land lies between latitudes 10° 41'S (Cape York) and 43° 39'S (South East Cape, Tasmania) and between longitudes 113° 09'E (Steep Point) and 153° 39'E (Cape Byron). The latitudinal distance between Cape York and South East Cape, Tasmania is 3,680 km. The longitudinal distance between Steep Point and Cape Byron is about 4,000 km. There are two major classes of rivers in Australia, those of the coastal margins with moderate gradients and those of the central plains with very slight gradients. The continent has a wide range of climatic zones, from the tropical regions of the north, through the arid expanses of the interior, to the temperate regions of the south. Seasonal fluctuations can be great, with the temperatures ranging from above 50° C to well below zero. The continent often experiences natural disasters, particularly droughts, floods, tropical cyclones, severe storms and bushfires. While the mean annual precipitation is 460 mm in Australia, it varies from 100 mm in the arid central plains to over 4,000 mm in the region with the highest mean annual rainfall on the north east coast of Queensland near the township of Tully. The overall population of Australia in 1993 was 17.7 million. The overall population density was 2 persons/km² with most of the population concentrated in coastal regions.

The two rivers catalogued in this volume are the Todd and the East Finniss, both of which are located in the Northern Territory. The Todd River is located in the centre of Australia and is representative of arid river systems in Australia (mean annual rainfall of 260 mm). It has zero to very little flow for 95% of the year on average. Flow events are sporadic and fast rising and flashy in nature. The land use within the catchment is a mix of National Park and grazing. As a contrast, the East Finniss River is located in the humid tropic area of central northern Australia (mean annual rainfall of 1,400 mm). The flow records for the East Finniss River exhibit a distinctive wet and dry season pattern. The most significant feature of the East Finniss River catchment is that it contains an extensive area of mine site rehabilitation and associated water quality monitoring.

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