

Bancroft, Thomas Lane (1860-1933). Aust. Diet. Biog. 7:164-165.

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BANCROFT, THOMAS LANE (1860-1933), medical naturalist, was born on 2 January 1860 at Lenton, Nottinghamshire, England, son of Dr Joseph Bancroft [q.v.3] and his wife Anne, née Oldfield. The family arrived in Brisbane in October 1864. From the Normal School and the Brisbane Grammar School, Bancroft entered Edinburgh University in 1878, graduated M.B., Ch.M. in 1883 with the bronze medal for botany, and then spent a year at the Manchester Infirmary where he became an expert photographer. As a boy, he had assisted in his father's experiments and his own interests lay in scientific inquiry, but his ambition to hold a full-time research appointment was never fulfilled.

Bancroft spent 1885-86 working in the hospital at Geraldton (Innisfail), Queensland, where in the rain forest he found new poisonous plants. He began pharmacological studies and in 1886-94 tasted over one thousand plants, tested more than 150 extracts and published ten papers. After

a year at Christchurch Hospital, New Zealand, he practised from 1889 to 1894 in Ann Street, Brisbane, with his father and his cousin Peter Bancroft. In 1892 he investigated 'Birdsville disease' in horses and 'zamia poisoning' in cattle for the Queensland government, and in 1893 published the first Australian record of bacteria in the root-nodules of legumes.

Bancroft inherited his father's experimental farm and pemmican factory at Deception Bay, moved there in 1894, and next year on 10 July married Cecilia Mary (1868-1961), daughter of Archdeacon Thomas Jones of Brisbane. Of their two children, Mabel Josephine (1896-1971) became a noted parasitologist. At Deception Bay he did his best work: he discovered that female mosquitoes, thought to be short lived and dependent on blood meals, would survive for weeks on banana. In 1899, using *Culex fatigans* mosquitoes which he had reared and fed on a patient with filariasis, he defined and illustrated each stage of the larval worm over a developmental period of about sixteen days. In 1904, working with the related heart-worm of the dog, he proved that the infective larvae break out from the tip of the mosquito's proboscis, thus completing research begun by Patrick Manson in 1878.

Moving to Brisbane in 1904, Bancroft served as quarantine officer for the port of Brisbane, and held temporary appointments with the State Health Department in 1905-06 to investigate dengue fever, beriberi and suspected cases of plague. Dengue was thought to be transmitted by *Culex fatigans*; he correctly suspected but failed to prove that the day-biting *Aedes aegypti* was the carrier. In 1908 he published a review of Queensland mosquitoes.

Bancroft became government medical officer that year at Stannary Hills, a mining settlement west of Cairns, then in 1910 at Eidsvold on the Burnett River. Here he investigated the Queensland lung-fish *Neoceratodus forsteri*, which he believed nearly extinct. He set up a rearing-tank to provide embryological and other material for research workers, discovered that the hatchlings briefly became amphibious, and thus succeeded in fostering them through the difficult early stages; his proposal for a hatchery and laboratory on Stradbroke Island elicited meagre support. Appointed medical officer at Palm Island in 1930 – a frustrating experience – in 1932 he retired to Wallaville on the Burnett River, where he died of cerebral haemorrhage on 12 November 1933. He was buried in Toowong cemetery, Brisbane.

Bancroft undertook many other investigations ranging from blood parasites of birds to Aboriginal food-plants and hy-

bridization of cotton. From 1884 to 1932 he collected plants for the Queensland Herbarium and animals for the Queensland Museum, and freely provided material for fellow scientists which led to recognition of many new species in such diverse groups as freshwater algae, eucalypts, mosquitoes, fruit-flies, spiders, fish and snakes, many of which were named after him. He was elected a corresponding member of the Zoological Society of London in 1923.

Shy, kindly and generous, Bancroft shunned publicity. He was uncompromising on matters of principle and could not be persuaded to modify opinions based on his own observations. This sometimes led him into public debate that embarrassed the departments he worked for. In the absence of suitable employment, his potential as a research scientist was unfulfilled. Absorbed in natural history, however, he made indirect contributions to knowledge over an even wider field than his personal research on which he published eighty-four papers.

I. M. Mackerras and E. N. Marks, 'The Bancrofts: a century of scientific endeavour', Roy Soc Qld, *Procs*, 84 (1972), and for bibliog.

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