
Book review

Simon Nathan

James Hector: Explorer, Scientist, Leader

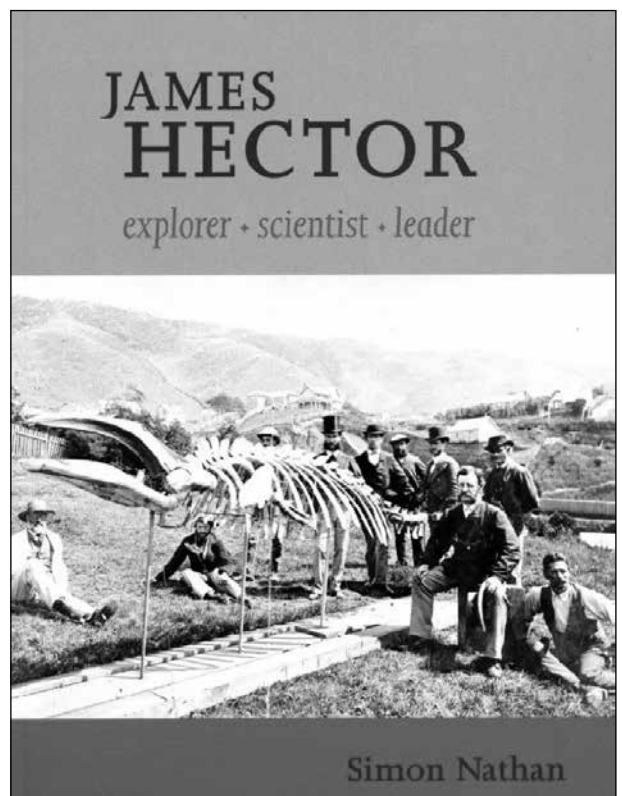
Reviewed by Geoff Gregory*

James Hector (1834–1907) was a remarkable man. After an initial decade of explorations in Canada and New Zealand, he became foundation head of all the major national scientific organisations in New Zealand and their leader for a quarter of a century, as well as adviser to government on all manner of topics. Noted as the man who ‘knows all about everything’, he dominated the scientific scene in New Zealand for forty years. Mountains and a town were named after him, as were several species of plants and animals. Despite the accolades of the past, including Fellowship of the Royal Society [of London] in 1866 and a knighthood in 1887, he is now remembered mainly because of the campaign to save Hector’s dolphin. Hitherto, no comprehensive record of his life has been written. Like his contemporary explorer, Alfred Wallace, and their predecessor, Alexander von Humboldt, he had become a ‘lost hero of science’.

However, the huge task of researching his varied and fascinating life and writing a definitive biography has now been completed by Simon Nathan. Being both a geologist with field experience over much of New Zealand and a science historian, as well as having spent several years as a science administrator, Simon is well equipped to take on this task, and he has succeeded admirably. A symposium he helped to organise for the centenary of Hector’s death highlighted the gaps in knowledge about him, which Simon was determined to fill.

A restless individual, Hector delighted in being outdoors, discovering and exploring new places and collecting specimens of rocks, fossils,

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and plants. He had studied medicine at Edinburgh University, and owing to his knowledge of geology and botany and his outdoor experience, was usually selected to lead field trips for his fellow students. After graduation, he was taken on as geologist and medical attendant for the Palliser Expedition (1857–1860) to what was then known as British North America (now the western part of Canada), to find a route through the Rocky Mountains. The arduous and hazardous crossing of uncharted and difficult terrain brought out his leadership skills, and it makes an enthralling adventure story. The small party he led found the route – called Kicking Horse Pass because of the nearly fatal kick he received from his horse – through which the Canadian Pacific Railway now runs. His reports and the specimens that he regularly sent back to London built him a firm reputation, enhanced when he returned to England and completed further reports. His mentor, Sir Roderick Murchison, recommended him for the position of field geologist for Otago Province, which he took up in 1862, arriving in Dunedin a few months after gold had been discovered at Gabriel's Gully. Setting up and organising the Otago Geological Survey, he spent the next three years on further adventures, surveying most of Otago and Southland on horseback and Fiordland by schooner and whale boat. He was able to send a copy of the first geological map of the region to Murchison in late 1864.

Next year he was head-hunted to set up a national organisation, and within four years he was in charge of the Geological Survey (now GNS Science), the Colonial Museum (now Te Papa), the New Zealand Institute (now the Royal Society of New Zealand), the Colonial Botanical Gardens (now Wellington Botanical Gardens), and the Colonial Laboratory (now the Crown research institute, ESR), and was the government's sole adviser on all things scientific. He appointed staff and over the next two decades built up the organisations. He supported a loyal staff, while completing a prodigious amount of work himself, fitting in field exploration and collecting trips around the country and writing a prolific number of papers and reports. His last major field trip was in 1878 to explore the Mokau River and to try and negotiate with the Māori for access through the King Country, although he subsequently visited his field assistants whenever he could. During the depression years of the 1880s he not only managed to retain his job and his organisations, but added responsibility for weather forecasting, and established a primitive seismograph in the Colonial Museum. On a visit to the Subantarctic Islands and Chatham Islands in 1895, he observed, nearly a century ahead of his peers, that New Zealand was part of a large submerged continent that is now accepted as Zealandia.

Organising the first major New Zealand Exhibition in Dunedin in 1865 had been what first brought Hector to nationwide attention, and he followed it in 1872 by organising in Christchurch the Colonial and Vienna Exhibition, which was to become part of the New Zealand display in the Vienna Exhibition the following year. He then managed to fit in organising, on the spot, similar displays in the Philadelphia Exhibition 1876, exhibitions in Sydney in 1879 and Melbourne in 1880, the Melbourne Centenary Exhibition in 1888, and finally, the Mineral Court display of the New Zealand and South Seas Exhibition in Dunedin in 1889.

He was a trusted impartial adviser to government, whose approach to technical and other problems would be: 'What does Dr Hector think?' However, all changed when a Liberal Government was elected in 1891, bringing in cuts in civil service expenditure, which had already been constrained. Control of the Colonial Laboratory and Geological Survey was passed to Hector's former subordinates, and the Colonial Botanical Gardens to Wellington City. His influence declined over the next decade, and in 1903 he retired.

An accomplishment of which he had been justly proud was to start the annual *Transactions and Proceedings of the New Zealand Institute* (now surviving as the *Journal of the Royal Society of New Zealand*), which he edited for 35 years. This was the main avenue of publication for his scientific contemporaries and published over 2000 papers during his time as editor.

Simon Nathan's biography is a comprehensive study of the life and times of a great man. Aimed at a general audience, it makes for absorbing reading. It is well illustrated, containing several of Hector's field sketches from his unpublished notebooks. Simon has accessed archives in New Zealand and at Kew. With the help of a small team in transcribing Hector's frequently almost indecipherable correspondence, he has been able to research and write much of the book through residency at the Stout Research Centre and as emeritus scientist at GNS Science. Transcribed letters between Hector and Joseph Hooker at Kew, Julius Haast, Frederick Hutton, and other colleagues, and also from Hector to his wife, Georgiana, have been put into a series of collections, and the eleven correspondence files together with two bibliographies are freely available online as parts of *Geological Society of New Zealand Miscellaneous Publication 133*, so there is a complete package available for scholarly study. The book is well annotated and referenced, and Simon should feel well pleased with the results of his 'obsession'.

Geoscience Society of New Zealand miscellaneous publication 140

Published 15 September 2015

Soft cover 264 pages

RRP \$45

ISBN 978-1-877480-46-1

Publisher: Geoscience Society of New Zealand, Lower Hutt