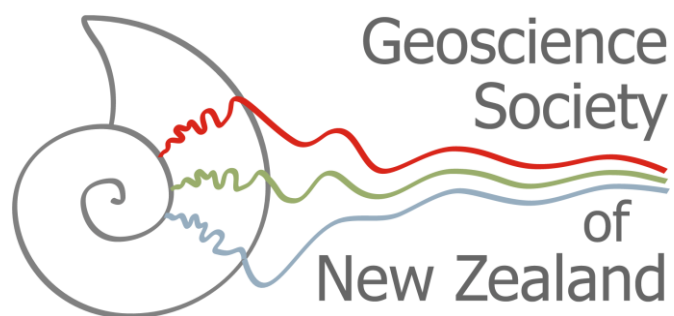


A bibliography of publications by or about James Hector (1834-1907)

Simon Nathan, Rowan Burns & Esme Mildenhall



Geoscience Society of New Zealand miscellaneous publication 133M

March 2015

Published by the Geoscience Society of New Zealand Inc, 2015

Information on the Society and its publications is given at www.gsnz.org.nz

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Geoscience Society of New Zealand miscellaneous publication 133M

ISBN 978-1-877480-44-7

ISSN 2230-4495 (Online)

ISSN 2230-4487 (Print)

This document is available as a PDF file that can be downloaded from the Geoscience Society website at: <http://www.gsnz.org.nz/information/misc-series-i-49.html>

Bibliographic Reference

Nathan, S., Burns, R., Mildenhall, E. 2015: Bibliography of publications by or about James Hector (1834-1907). *Geoscience Society of New Zealand miscellaneous publication 133M*, 52 pages.

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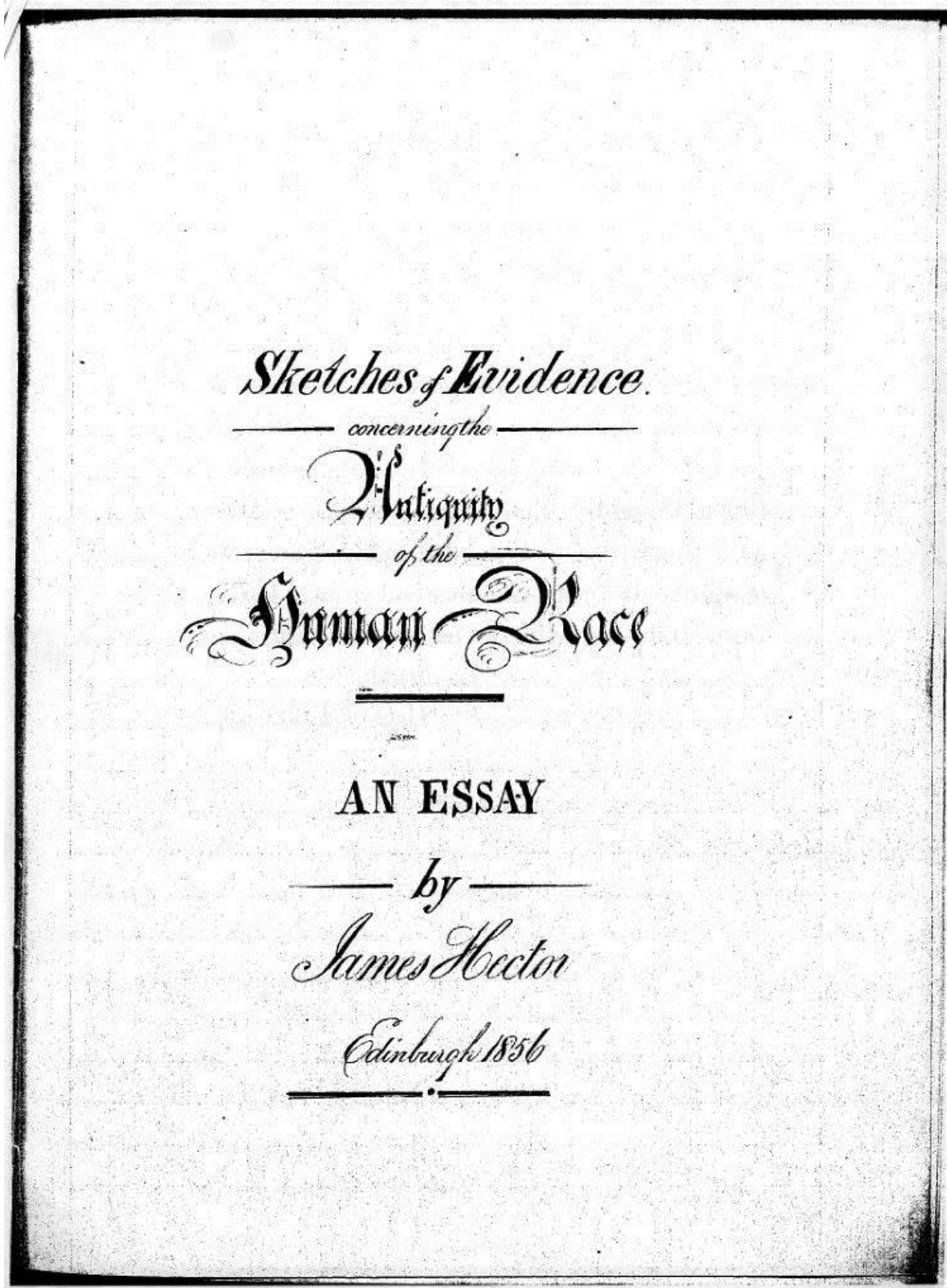


Figure 1. Cover of James Hector's MD thesis, presented to examiners at the University of Edinburgh in 1856 – his first publication.

Introduction

James Hector was the dominating personality in the small, nineteenth century scientific community in New Zealand. Appointed as the government's first professional scientist in 1865, he quickly established the New Zealand Geological Survey (now GNS Science), the Colonial Museum (now Te Papa) and the New Zealand Institute (now Royal Society of New Zealand) as well as becoming a trusted government advisor. Until he retired in 1903, Hector wrote and published a huge amount of material including scientific papers, official parliamentary reports, and annual reports for the organisations under his control as well as supervising the publication of scientific material in the annual *Transactions of the New Zealand Institute* and the *Reports of Geological Exploration*.

This bibliography has been compiled to provide an inventory of the publications that Hector produced or was responsible for as part of a wider biographical project. Our starting point was a number of older bibliographies that cover parts of Hector's output, especially his scientific publications:

- Adkin, G.L.; Collins, B.W. 1967: A Bibliography of New Zealand Geology to 1950. *New Zealand Geological Survey Bulletin* 65, pp. 97-105.
- Esplin, D.G. 1952: A Preliminary Bibliography of the Published Works of Sir James Hector. Library School, Wellington, 18 pp. [Copy available in the Alexander Turnbull Library].
- Kirk, T.W. 1887: Index to Reports of the Geological Survey of New Zealand from 1866 to 1885, inclusive. Government Printer, Wellington, 16p.
- Yaldwyn, J.C. 1982: Publications of the Colonial Museum, 1865-1907, Dominion Museum, 1907-1973, and National Museum of New Zealand, 1973-1981. *National Museum of New Zealand, Miscellaneous Series No. 4*. Wellington, 33p.

We were able to supplement these existing sources by electronic searching of digital databases, especially the National Library of New Zealand¹, University library catalogues, the *Appendices to the Journals of the House of Representatives* (AJHR)², the *Transactions of the New Zealand Institute*³ and other scientific journals.

At a late stage we decided to add a section covering publications about James Hector, and were greatly helped by an Endnote bibliography prepared by Chris Hector.

¹ <http://nlzcat.natlib.govt.nz/>

² <http://atojs.natlib.govt.nz/cgi-bin/atojs>

³ <http://rsnz.natlib.govt.nz/>

Presentation of the bibliography

With several hundred entries, there are different ways that the bibliographic data could have been organised and presented. We decided at an early stage against a single chronological list as this would have lumped together different types of publication, and eventually decided to group the data by topics that we hoped would be most helpful to users.

The first two parts of the bibliography cover Hector's work before he came to New Zealand (part 1) and during the Otago Geological Survey in 1862-65 (part 2). From 1865 onwards the entries have been grouped together by the type of publication:

3. Parliamentary reports (AJHR)
4. Reports of Geological Exploration
5. Geological maps
6. Scientific papers
7. Colonial Museum publications
8. Contributions to international exhibitions
9. Annual reports

Part 10 is a guide to surviving unpublished Hector material, and the final part (11) covers publications written about James Hector since his death in 1907.

There is minor duplication as a few entries are repeated in more than one part where it seemed relevant.

Acknowledgements

We are very grateful to librarians and archivists in different organisations who have helped and advised us.. In particular we would like to thank Kristin Garbett (GNS Science), Martin Lewis and Jennifer Twist (Te Papa), David Colquhoun (Alexander Turnbull Library) and Anna Blackman (Hocken Collections, University of Otago). Chris Hector (University of Waikato) has advised on different aspects of James Hector's publications, and kindly made his personal bibliography available to us.

We gratefully acknowledge financial assistance from the Brian Mason Science and Technical Trust which has provided financial support for this project.

Part 1: Publications before James Hector came to New Zealand

Scotland

Hector, J. (1856): *Sketches of Evidence Concerning the Antiquity of the Human Race: An Essay*, Unpublished MD Dissertation, University of Edinburgh, Edinburgh. 32 pages.

Canada

From 1857-1859 James Hector was part of an expedition exploring western Canada, under the leadership of John Palliser, and he spent the following two years writing up the results of the expedition. The following section is taken, with minor modifications, from a bibliography prepared by D.G. Esplin⁴.

GREAT BRITAIN. Parliamentary Papers, London, 1859.

Papers relative to the exploration by Captain Palliser of that portion of British North America which lies between the northern branch of the River Saskatchewan and the frontier of the United States; and between the Red River and the Rocky Mountains. London, 1859.

contains by Hector:

First general report of the geology of the country examined by the expedition ... during the season of 1857. pp. 19-23 with maps.

Observations on the temperature of soil ... p. 24.

[General Report] pp. 25-27.

[General Report] pp. 36-40.

[Geological observations] pp. 42-45.

Observations of latitude ... p. 46.

Discovery by Captain John Palliser, F.R.G.S., and Dr Hector, of practicable passes through the Rocky Mountains within the British possessions. *Proceedings of the Royal Geographical Society* 3 (1859):122-127.

GREAT BRITAIN. Parliamentary Papers, London, 1860.

Further papers relative to the exploration by the expedition under Captain Palliser of that portion of British North America which lies between the northern branch of the River Saskatchewan and the frontier of the United States; and between the Red River and the Rocky Mountains and thence to the Pacific Ocean. London, 1860.

contains by Hector:

8. [General Report] p. 25-28.

9. Astronomical observations, 1858-59. p. 28.

⁴ D.G. Esplin, 1952. A preliminary bibliography of the published works of Sir James Hector, Library School, Wellington, pp. 1-3.

Progress of the British North American exploring expedition under the command of Capt. John Palliser, F.R.G.S. *Journal of the Royal Geographical Society* 13 (1860): 267-314.
contains by Hector:

First general report on the geology of the country examined by the expedition during the season of 1857. pp.268-75.

Observations on the temperature of soil at various depths, and the depth of the frozen ground. pp.276-77.

[General Report] pp.277-71, pp.296-302.

Observations for latitude made by Dr Hector when detached from expedition. p. 303.

[Second Geological Report] pp. 309-14.

Latest explorations in British North America, by Captain J. Palliser, F.R.G.S., with Dr Hector and Mr Sullivan. *Proceedings of the Royal Geographical Society* 4 (1860): 228-34.

On the Rocky Mountains, by Captain J. Palliser, F.R.G.S. *Proceedings of the Royal Geographical Society* 4 (1860): 73-76.

On the course and results of the British North American exploring expedition, under his command in the years 1857, 1858, 1859, by Capt. J. Palliser. *British Association for the advancement of science 30th annual meeting*.

contains by Hector:

Addendum I. Remarks concerning the climate of the Saskatchewan district. pp. 172-73.

Hector, J. 1860: Notes on the geology of Captain Palliser's expedition to British North America. *Edinburgh New Philosophical Journal* 12: 225-218.

Hector, J. 1861: Notes on the geology of Captain Palliser's expedition in British North America. *British Association for the Advancement of Science 30th annual meeting*: 80-81.

Hector, J. 1861: On the Pleistocene deposits of North America. *Geologist* 4:461-62.

Hector, J. 1861: On the capabilities for settlement of the central parts of British North America. 1861. *Edinburgh New Philosophical Journal*: 263-68.

Hector, J. 1861: Physical features of the central part of British North America, with special reference to the botanical physiognomy. 1861. *Edinburgh New Philosophical Journal* 14: 212-40.

Hector, J. 1861: Physical features of the central part of British North America, with special reference to the botanical physiognomy. *Transactions of the Edinburgh Botanical Society* 7: 168-96.

Hector, J. 1861: British North America. Pages 200-203 in "Progress of geographical knowledge" *Proceedings of the Royal Geographical Society* 5.

Hector, J. 1861: On the geology of the country between Lake Superior and the Pacific Ocean (between the 48th and 54th parallels of latitude), visited by the government exploring expedition under the command of Captain J. Palliser (1857-60) maps & sections. *Quarterly Journal of the Geological Society* [London] 17: 388-445.

Hector, J.; Vaux, W.S.W. 1861: Notice of the Indians seen by the exploring expedition under the command of Captain Palliser. *Transactions of the Ethnological Society ns 1*: 245-61.

Hector, J. 1862: On the capabilities for settlement of the central parts of British North America. 1861. *British Association for the Advancement of Science 31st annual meeting*: 195.

GREAT BRITAIN. Parliamentary Papers, London, 1863

The Journals, detailed reports, and observations relative to the exploration, by Captain Palliser, of that portion of British North America, which, in latitude, lies between the British boundary line and the height of land or watershed of the Northern or Frozen Ocean respectively, and in Longitude, between the western shore of Lake Superior and the Pacific Ocean: during the years 1857, 1858, 1859, and 1860. London, 1863.

contains by Hector:

28. Geological report. pp.217-45.

29. Geological Sections. pp. 317-25.

Part 2: Otago Geological Survey, 1862-65

James Hector arrived in Dunedin in early 1862 to take up the position of Otago Provincial Geologist. He undertook fieldwork, covering the whole of Otago Province from 1862-64. The items listed below are best regarded as progress reports as fieldwork proceeded. Hector never completed a final report on the geology of Otago, although much of the information is summarised in his 1864 geological map.

Hector, J. (1862): Geology of the Manuherikia Valley, *Otago Provincial Government Gazette*, 5 (205): pp. 85-89.

Hector, J. (1862): Report of Progress of Geological Survey of Otago since 15th April, 1862, *Otago Provincial Government Gazette*, 5 (217): pp. 217-219.

Hector, J. (1863): Geological Expedition to the West Coast of Otago, New Zealand, *Otago Provincial Government Gazette*, 6 (274): pp. 435-468.

Hector, J. (1864): Departmental Report: Geological Survey Department, *Proceedings of the Provincial Council of Otago, Session 18, Rep. 11*: pp. 85-132.

Hector, J. (1864): On the Geology of the Province of Otago, New Zealand [abstract], *Geological Magazine*, 1 (5): p. 233.

Hector, J. (1864): Expedition to the West Coast of Otago, New Zealand; with an Account of the Discovery of a Low Pass from Martin's Bay to Lake Wakatipu, *Journal of the Royal Geographical Society*, 34: pp. 96-111.

Hector, J. (1864): Expedition to the West Coast of Middle Island, New Zealand (Otago Province), *Proceedings of the Royal Geographical Society*, 8: pp. 46-50.

Hector, J. (1864): A geological expedition to the West Coast of Otago, New Zealand, *Proceedings of the Royal Geographical Society*, 9: pp. 32-34.

Hector, J. (1864): On the Geology of Otago, New Zealand, *British Association, 34th Meeting Transactions*: pp. 54-55.

Hector, J. (1864): On the Geology of Otago, New Zealand, *Quarterly Journal of the Geological Society [London]* 21: 124-128.

Hector, J. (1864): On the Geology of Otago, New Zealand, *Geological Magazine*, 1: p.233 & 2: p. 35.

Hector, J 1864: Geological map of the Province of Otago, New Zealand.
Display map held in the Hocken Collections, University of Otago library. The map can be viewed online at: <http://www.otago.ac.nz/library/treasures/hector/index.html>

Hector, J. (1865): On the Geology of Otago, New Zealand, *Philosophical Magazine, 4th ser.*, 29: pp. 157-158.

Part 3: Parliamentary papers (Appendices to the Journals of the House of Representatives)

The results of many of the investigations that Hector undertook are published in parliamentary papers, published annually as the Appendices of the Journals of the House of Representatives – known as the AJHRs or AtoJs, and available online at <http://atojs.natlib.govt.nz>. The following list includes individual reports written by James Hector as well as contributions to and comment on other papers. A short description of each item is given in italics.

The list does not include annual reports on different organisations in the AJHR series which are included in Part 9.

AJHR (1866) A-16, Report on the Petroleum Found at Taranaki: by Dr Hector.
[General information on the origin and mode of occurrence of the Petroleum at Taranaki]

AJHR (1867) F-1, Report of the Select Committee on the Establishment of University Scholarships; together with the Proceedings of the Committee, and the Evidence.
[Submission by Hector in favour of scholarships to send New Zealand students to English universities, p. 55]

AJHR (1867) F-4, Report of the Select Committee on A Uniform Gauge for Railways Throughout the Middle Island. Together with the Proceedings of the Committee, and the Evidence.
[Hector examined about topographic options, pp. 5-8]

AJHR (1868) A-12, Reports of the Royal Commission on Prisons.
[Report by Hector on potential prison locations close to stone quarries, to “afford a remunerative employment for the convict labour”, pp. 40-42]

AJHR (1868) D-14, Third Annual Report on the Colonial Museum and Laboratory: Together with A Report of the Results of the Analyses of Soils from Various Parts of the Colony, by Dr Hector.
[Summary of investigations into New Zealand soils]

AJHR (1869) D-2, Papers Relative to the Introduction of Salmon into the Country.
[Memo by Hector, p. 2; Report by Hector on Temperature of Sea and Rivers, pp. 22-26]

AJHR (1869) D-22, Correspondence Relative to the Present Condition of the Forests of New Zealand.
[Questionnaire by Hector on condition of forests sent to Provincial Superintendents, printed alongside responses]

AJHR (1870) D-3, Papers respecting Sericulture in New Zealand.
[Remarks by Hector cautiously in favour of introducing silk worms to New Zealand, pp. 4, 12-13]

AJHR (1870) D-9, Report of The Fisheries Commission (Wellington and Kaikouras).
[Report Chaired by Hector, on state of the fishing industry.]

AJHR (1870) D-14, Report of the Flax Commissioners on the Means Employed in the Preparation of New Zealand Flax.

[Reprint of Analyses of Flax by Hector & Skey, 1863-4, pp. 19-22; Report by Hector on Samples of Fibre submitted to him by the Commission, pp. 56-58]

AJHR (1870) D-39, Correspondence relative to the Establishment of an Observatory, for the Purpose of Affording a Correct Mean Time Throughout Every Part of the Colony.

[Memos by Hector on cost and construction of Observatory, pp. 3-5]

AJHR (1870) F-1, Report of the Joint Committee on Colonial Industries, together with Minutes of Evidence and Appendices.

[Hector examined on development of mineral resources, animal products, plants, manufacturing industries pp. 1-10, & teaching of specialist science classes pp. 15-16; Memo by Hector on practicalities of teaching specialist science classes at Colonial Museum, pp. 29-30]

AJHR (1870) F-5, Report of the Committee on Weights and Measures and Adulteration of Food.

[Hector examined on proposed manner of analyses of adulterated consumables, p. 5, analyses of goods, pp. 7-9]

AJHR (1870) F-6, Interim Report of the Committee on the Public Accounts.

[Report into the contention that Hector failed to fulfil his obligation to provide the Otago Provincial Council and Superintendent with a Geological Report of that Province at the culmination of his contract with them (1862-1865). Decided in Hector's favour.]

AJHR (1870) F-8, Report of A Select Committee of the House of Representatives on a Bill Intituled "An Act to Amend the Laws Relating to Vaccination."

[Hector examined on practicalities of vaccination, pp. 3-4]

AJHR (1871) D-1B, Papers relating to The Construction of Roads (South Island: I. County of Westland.

[Submission by Hector & Blackett, recommending route for trunk road p. 7]

AJHR (1871) D-2, Papers relating to the Construction of Tramways: I. West Coast of the Province of Wellington.

[Memo. by Hector & Blackett, encouraging construction of tramway between Ngawhakarau and Motoa, p. 6]

AJHR (1871) D-6B, Papers relating to The Construction of Railways, South Island. III. Reports and Correspondence.

[Report by Hector & Blackett on recommended course for a railway connecting the coal mines on the Grey River with a shipping port, pp. 8-11]

AJHR (1871) D-6D, Papers relating to The Construction of Railways. V - Hon. J. Vogel's Letter on American Railways, and Correspondence Connected Therewith.

[Memo by Hector on safety at level crossings, p. 4]

AJHR (1871) D-8, Papers relating to The Supply of Water on the Gold Fields. I. Reports and Correspondence.

[Submission by Hector & Blackett on acquisition of water-races by Public Works Department and route for trunk road, pp. 13-14]

AJHR (1871) G-4, Report of the Commissioners Appointed to Enquire into the Preparation of the Phormium Fibre or New Zealand Flax.

[Commission Chaired by Hector]

AJHR (1871) G-14, Memorandum of Action Taken in Accordance with Resolutions of the Joint Committee on Colonial Industries, Adopted on the 10th September, 1870.

[Correspondence by Hector on distribution of Mulberry trees, notes on development of sericulture industry, and request for pine seeds from America, pp. 5-7, Memo on silkworm arrangements p. 9, Memo recommending Vogel procure Sorghum seed in America p. 11]

AJHR (1871) G-27, Information Obtained by The Hon. Julius Vogel Relating to the Introduction of The Use of Photo-Zincography into the Government Printing Department.

[Report initiated by Hector]

AJHR (1871) G-29, Papers Relative to the Transfer of Mr. Buller's Collection of New Zealand Birds to the Colonial Museum.

[Correspondence by Hector concerning over-valuation of Buller's collection, but necessity in acquiring it for type-specimens, pp. 3-5]

AJHR (1871) H-3, Report of The Select Committee on The Wellington Waterworks Bill; Together with Minutes of Evidence and Appendix.

[Submission by Hector on analyses of gold from various localities, pp. 7-8]

AJHR (1871) H-5, Interim Report (No. 1) of the Chinese Immigration Committee.

[Hector examined on propensity to disease, possible legislation to limit population, and sanitary habits, pp. 9-10]

AJHR (1871) H-7, Report of The Joint Committee upon Colonial Industries.

[Hector examined on climate and location for beetroot cultivation, fish curing, pp. 8-11, manufacture of paper, Taranaki iron sand processing, shipping coal from the Brunner Coal Mine, pp. 13-17]

AJHR (1872) D-3, Papers Relating to The Development of Coal Mines, etc. As Provided in Part VIII. of the Immigration and Public Works Act Amendment Act, 1871.

[Extensive Correspondence by Hector]

AJHR (1872) G-3, Report of The Commissioners Appointed to Inquire into Certain Matters Connected with the Ship "England," and Correspondence with the Agent-General Thereon.

[Hector on the Commission: report on the outbreak of smallpox on the England during its voyage to Wellington, compliance with the Passengers Act, and treatment of immigrants.]

AJHR (1872) G-11, Report on The State of the Public Buildings by The Colonial Architect.

[Memo by Hector with results of strength testing of various types of wood, p. 4]

AJHR (1872) G-16, Memorandum of Action Taken in Accordance with Resolutions of the Joint Committee on Colonial Industries, Adopted on the 30th October, 1871.
[Memos from Hector on distribution of birch trees and their use in public works, pp. 5, 7]

AJHR (1872) G-17, Further Papers Relative to the Preparation of the Phormium Fibre.
[Report by Hector on steps taken to develop Phormium]

AJHR (1872) G-26, Papers Relating to The Introduction of Salmon Ova.
[Memos by Hector recommending the experimental hatching of Salmon ova at Makarewa Ponds, pp. 5-6]

AJHR (1872) H-8, Report of The Joint Committee on Colonial Industries.
[Hector examined on development of coal industries, pp. 11-14, on the workings of the Geological Survey department, and the state of the Flax industry, pp. 17-19]

AJHR (1873) E-10, The Coal Fields of New Zealand (Reports on).
[Report by Hector]

AJHR (1873) E-10A, The Buller Coal Fields (Reports Relative to).
[Memo by Hector on the Mount Rochfort district, pp. 6-8]

AJHR (1873) H-5, The Vienna Exhibition (Papers Relating to).
[Memos by Hector on Exhibit selection and arrangement at the Exhibition, pp. 4-5]

AJHR (1873) H-12, Introduction of Salmon Ova (Further Papers Relative to).
[Correspondence by Hector on delivery of Salmon ova to Makarewa Ponds, pp. 2, 8]

AJHR (1873) H-34, Recommendations of Industrial Committee of 1872.
[Memo by Hector of actions taken on recommendations of the Joint Committee on Colonial Industries 1872, on Coal, Iron, Beet-root sugar, Paper, Fish, Flax, Timber and the Vienna Exhibition.]

AJHR (1873) I-4, Colonial Industries (Reports of the Select Committee on).
[Hector examined on Ngakawau coal, pp. 9-10; Memo by Hector on mining of Iron Ores in New Zealand, pp. 20-23]

AJHR (1874) E-3, Public Works Statement, by The Minister for Public Works, The Hon. Edward Richardson.
[Memo by Hector on development of Coal Fields of New Zealand for 1873-4, pp. 61-66]

AJHR (1874) H-5, 5A, & 5B, Papers Relating to State Forests, Their Conservation, Planting, Management, &c.
[Analyses of Questionnaire by Hector on deforestation for 1868, concludes that due to the diversity of circumstances no general preventative legislation can be applied, pp. 13-16]

AJHR (1874) H-16, Observation of the Transit of Venus (Papers Relative to).
[Memo by Hector recommending Christchurch as the most favourable site to observe the Transit, due to meteorological averages, and notes on an observatory there, pp. 2-7]

AJHR (1874) H-25, Durability of New Zealand Timbers.
[Foreword by Hector]

AJHR (1876) I-7, Native Fuel Committee (Reports of, Together with Minutes of Evidence and Appendix).
[Memo by Hector on the use of NZ Coal as Fuel, p. 10]

AJHR (1877) H-14, Introduction of Californian Salmon (Papers Relative to).
[Memo by Hector on Salmon Ova, p. 3; Memo on introduced American Salmon & white-fish, pp. 9-10; Correspondence on shipment of Salmon ova, pp. 10-15]

AJHR (1877) H-23, Philadelphia Centennial International Exhibition of 1876.
[Hector on the Commission]

AJHR (1877) H-31, Letter from the Hon. Mr. Russell, Enclosing Letters Referred to by the Hon. Mr. Ormond in His Speech of 6th September, 1877, together with Statement by the Hon. Mr. Russell.
[Memo by Hector on country at Tongariro, Rangipo & Patea, pp. 5-6]

AJHR (1877) H-32, The Colorado Potato Beetle (History and Description of).
[Diagram drawn from specimen collected by Hector]

AJHR (1877) I-4, Beet-Root Sugar Committee (Report of the).
[Memo by Hector on Analyses of Beet-Roots for Sugar, p. 3]

AJHR (1877) E-1, Public Works Statement, by the Minister for Public Works, the Hon. James MacAndrew, Tuesday, 27th August, 1878.
[Hector's Report on Coal Explorations and Inspection of Mines for 1877-78, pp. 82-83]

AJHR (1878) H-5, The Paris Exhibition (Papers Relative to).
[Memo by Hector on the manner of collecting articles for the Exhibition, p. 1]

AJHR (1878) H-11, California Salmon and Whitefish Ova, (Papers Relative to the Introduction of).
[Correspondence by Hector on distribution of Salmon ova throughout New Zealand, pp. 1-5, on proper packing of ova for long sea voyages p. 22]

AJHR (1878) H-21, D'Urville Island Copper Ore Deposits (Report on the).
[Memo by Hector on Ore Deposits, p. 1]

AJHR (1879) H-1, Report of the Royal Commission Appointed by His Excellency to Inquire into and Report upon the Operations of the University of New Zealand and its Relations to the Secondary Schools of the Colony: Together with Minutes of Proceedings, Minutes of Evidence, and Appendix.
[Hector a Commissioner, in opposition to the carried resolution that the University of New Zealand have its seat at Dunedin. Report also details recommendations for bringing Secondary education within the reach of the youth of both sexes, and endowments for colleges.]

AJHR (1879) H-9A, Jackson's Bay Commission (Minutes of Proceedings, Evidence, Correspondence, etc. in Connection with the).

[Analyses by Hector of various rocks from Jackson's Bay, pp. 103-104]

AJHR (1879) H-13, Sydney International Exhibition, 1879 (Papers Relative to the).

[Hector Executive Commissioner, Report on selection of items for Exhibition.]

AJHR (1879) H-16, Control and Inspection of Mines, (Report on).

[Hector Correspondence on accident at Kaitangata coal mine, pp. 3-4, forwards report on mines, p. 14, urging action on alleged infringements of Regulation of Mines Act 1874, p. 17]

AJHR (1879 Session II) H-14A, California Salmon and Whitefish Ova (Further Papers Relative to the Introduction of).

[Memos by Hector on distribution of whitefish ova, pp. 3, 6-7]

AJHR (1879 Session II) H-20, Boring-Machines Suitable for Testing Lands in New Zealand for Mineral Deposits (Correspondence upon the Subject of).

[Correspondence by Hector on diamond rock-drills in use in Australia, pp. 1-2]

AJHR (1880) H-1, Report of the Royal Commission Appointed by His Excellency to Inquire into and Report upon the Operations of the University of New Zealand and its Relations to the Secondary Schools of the Colony: Together with Minutes of Proceedings, Minutes of Evidence, and Appendix.

[Hector a Commissioner. Report includes recommendations on establishment and grants for Secondary schools, regulation of scholarships.]

AJHR (1880) H-5, Sydney International Exhibition, 1879 (Further Papers Relative Thereto).

[Hector Executive Commissioner, Report on his journey to Sydney and descriptions of Exhibition.]

AJHR (1880) H-5A, Sydney International Exhibition, 1879 (Further Papers Relative Thereto). Appendices of the Journals of the House of Representatives H-5A

[Hector Executive Commissioner, Report on the closing of the Exhibition.]

AJHR (1880) H-22, Colonial Industries Commission (Report of the).

[Hector's Report on Chalk found at Oxford, p. 64]

AJHR (1881) H-6B, Dunedin Industrial Exhibition (Report of the).

[Report by Hector, approving of work of the Exhibition in showcasing Colonial Industries.]

AJHR (1881) H-30, Intercolonial Meteorological Conference Held at Sydney in 1879 (Minutes of Proceedings of the).

[Hector present at Conference, talks principally of telegraphic communication of met. information between New Zealand and Australia.]

AJHR (1881) H-30A, Intercolonial Meteorological Conference Held at Melbourne in 1881 (Minutes of Proceedings of the).

[Report by Hector on publication of met. statistics, pp. 3-5; Hector present at Conference, talks principally of telegraphic communication of met. information between New Zealand and Australia.]

AJHR (1881) I-10, Colonial Industries and Tariff Committee (Final Report of, Together with Minutes of Proceedings and Evidence).

[Hector examined on olive cultivation, sorghum, pp. 7-10]

AJHR (1882) A-1, Despatches From the Governor of New Zealand to the Secretary of State.

[Memo by Hector on impending Transit of Venus and potential observation stations, recommending Napier, 1882, p. 6]

AJHR (1882) E-3, Education: Industrial School and Orphanages (Papers Relating to).

[Report by Hector on sanitation at Caversham Industrial School, recommends changing buildings, pp. 6-7]

AJHR (1882) H-5A, Melbourne International Exhibition, 1880 (Papers Relating to the).

[Hector Executive Commissioner, includes his Progress Reports.]

AJHR (1882) H-35, Brockley Coal Fields, Malvern Hills District (Report on, by S.H. Cox).

[Foreword by Hector]

AJHR (1882) I-6, Westport Coal Committee (Report of).

[Hector examined on extent of the Buller Coal Field, pp. 14-15]

AJHR (1883) D-2A, Canterbury and West Coast Railway Lines (Report of Commission on, appointed April 2, 1883).

[Hector's Table showing value of Coal, p. 5; Hector's Memo on Grey Coal Fields, p. 72]

AJHR (1884 Session II) H-4, Civil Service Examination Board (Annual Report of the).

[Hector on Board]

AJHR (1884 Session II) I-4A, Waste Lands Committee: Report on Petition of F.D. Rich and W.H. Williams; Together with Petition, Minutes of Evidence, and Appendix.

[Hector examined on the closing of the Shag Point mine, pp. 42-45, cross-examined pp. 48-50; Memo approving of closing the mine, p. 57]

AJHR (1884 Session II) I-6, Report of the Select Committee Appointed to Consider and Report on the Best Route for the North Island Trunk Railway: Together with Minutes of Proceedings and Evidence and Appendix.

[Hector examined on geology of the country proposed for the railway, pp. 56-59]

AJHR (1885) D-10, Connection of Collingwood Coal-Fields with Deep Water (Reports Relative to).

[Hector Correspondence on workability of coal and best site for a wharf, p. 1]

AJHR (1885) H-15, Development of Colonial Industries (Papers Relating to the).

[Memo by Hector on the Food Fishes of New Zealand, pp. 5-9]

AJHR (1885) H-15A, Development of Colonial Industries (Papers Relating to the).

[Memo by Hector on the state of Colonial Industries and Manufacturing, pp. 1-4]

AJHR (1886) C-2, Mines Statement.

[Report by Hector on the Working of the Geological Department, pp. 19-20]

AJHR (1886) H-25, The Recent Volcanic Eruptions (Preliminary Report on) by Dr Hector.
[Concludes that the eruption was hydro-thermal and that the danger has passed for the present.]

AJHR (1887) A-1, Despatches From the Governor of New Zealand to the Secretary of State.
[Correspondence by Hector on Medical Qualifications gained in New Zealand not being recognised beyond the Colony, pp. 17-18]

AJHR (1887) A-2, Despatches from the Secretary of State to the Governor of New Zealand.
[Reply to Hector's Correspondence on Medical Qualifications, p. 72]

AJHR (1887) C-5, Goldfields, Roads, Water-Races, and Other Works in Connection with Mining (Report on).
[Analyses of Silver and Gold by Hector, pp. 24-26]

AJHR (1887) H-11, Inoculation of Rabbits with Disease (Papers Relating to the).
[Correspondence by Hector, urging caution on introducing diseases, relates an experience of travelling in Canada and witnessing an outbreak, p. 2]

AJHR (1888) H-7, Seacliff Lunatic Asylum: Report of the Commission Appointed to Inquire into the Condition of the Asylum Building: Together with the Minutes of Proceedings and Notes of the Evidence Taken. Also A Statement in Reply to the Commissioners' Report by Mr. R. A. Lawson, and a Memorandum on the Same Report by the Assistant Engineer-In-Chief.
[Hector examined on the instability of the land upon which the Asylum was built, pp. 143-145; a Report of his discussed throughout.]

AJHR (1889) H-23, Centennial International Exhibition at Melbourne, 1888 (Report of the Executive Commissioners on the).
[Hector Executive Commissioner, Reports on the Exhibition from inception to close.]

AJHR (1889) H-47, Formation of a Harbour at Point Elizabeth, West Coast (Reports Relating to).
[Extract from Report by Hector & Blackett on course for a railway to connect the Grey River coal mines with a shipping port, 1871, pp. 1-2]

AJHR (1889) I-6, Westland Coalfields Committee (Report of, together with Minutes of Evidence and Appendix).
[Hector examined on state of Westland coalfields, pp. 62-65; table of estimated quantity of coal in coalfields, p. 104; extract from Report by Hector & Blackett, 1871, p. 115]

AJHR (1891 Session II) C-3, Report of the Commissioners Appointed by His Excellency the Governor to Inquire into and Report upon the Grey Valley Coal-Mines, Together with Minutes of Proceedings and Evidence and Appendix.
[Hector a Commissioner, comprehensive report on state of Grey Valley coal mines.]

AJHR (1891 Session II) C-3A, Grey Valley Coal-Mines Commission (Memoranda Relative to Report of).
[Hector Commissioner. Supplementary evidence which was not presented in time for the close of the Commission.]

AJHR (1891) H-1, Dunedin Hospital Inquiry Commission (Report of).
[Hector Commissioner, Report decrying sanitary conditions at the hospital.]

AJHR (1892) H-6, Native New Zealand Birds (Memorandum by Lord Onslow Respecting the Diminution of, and Suggestions for their Preservation, &c.)
[Hector Correspondence encouraging the placing of land reserves under Acclimatisation Societies, pp. 3-4]

AJHR (1892) I-9, North Island Main Trunk Railway Committee (Report of the, Together with Minutes of Evidence and Appendix.)
[Hector examined on geology of proposed route, pp. 45-48]

AJHR (1893) A-1, Despatches From the Governor of New Zealand to the Secretary of State.
[Extract from Report by Hector on Seals, pp. 1-3]

AJHR (1895) H-30, Christchurch Industrial Exhibition (Report on, by Sir J. Hector, K.C.M.G., M.D., F.R.S., Director Colonial Museum and Geological Survey of New Zealand).
[Positive report on the Exhibition]

AJHR (1895) H-36, Rainfall: (Return of Annual Rainfall in the Colony from 1864 to 1894).
[Report by Hector]

AJHR (1896) C-6, Brunner Coal-Mine Disaster (Report of Royal Commission Appointed to Inquire into, on 26th March, 1896).
[Hector Commissioner, report concludes that the mine was well-run in accordance with government regulations.]

AJHR (1896) D-4, New Zealand Midland Railway Arbitration: Minutes of Evidence Etc.
[Hector examined on geology with reference to a model-relief map of New Zealand, pp. 183-184]

AJHR (1897 Session II) H-17, Protection of Mullet (Report by Sir James Hector, K.C.M.G., and Evidence Taken by Him).
[Report concludes that no closed season for mullet-fishing is required, and that restrictions should be withdrawn, while noting that further study is needed.]

AJHR (1898) H-36, Annual Rainfall From 1865 to 1898.
[Report by Hector]

AJHR (1898) I-10A, Extension of Commerce Committee (Report of the) Flax Industry, Together with Minutes of Evidence.
[Extract from Hector's Flax Experiments on durability, 1871, p. 4]

AJHR (1901) C-4, Coal-Mines of New Zealand (Report of Royal Commission Appointed to Inquire and Report on the Workings of.)
[Hector examined on evidence for estimates he gave for coal tonnage in the colony, pp. 319, 322-326]

Part 4: Reports of Geological Exploration (RGEs)

Hector recorded the results of field work undertaken by members of the Geological Survey from 1866-1892 in a series of publications that became known as the Reports of Geological Explorations (colloquially referred to as the RGEs).

The first three volumes in the series were stand-alone volumes, originally printed by the Government Printer and later re-numbered as RGEs. The fourth volume was called 'Abstract Report on the Progress of the Geological Survey of New Zealand during 1866-67', and from 1868 the title Reports of Geological Explorations was adopted. Most volumes cover a two-year period.

The RGEs were set out in a standard format, starting with a Progress Report written by Hector which summarised the work undertaken during the year, with comments on scientific advances. This was followed by individual reports under the name of the geologist who had undertaken the work. Hector did not always agree with the conclusions drawn by other geologists, and would note his disagreement in his Progress Report.

Hector edited the RGEs, and often corrected and shortened reports written by his staff, or sometimes added footnotes. He usually did not suppress conflicting opinions, but often deleted what he felt was unnecessary wordiness. Many of the originals, with Hector's editorial markings, are held in the Te Papa Archives.

Hector had hoped that geological reports in the RGEs would be accompanied by coloured geological maps. This was usually too expensive, and nearly all the maps have been redrawn in black-and-white, with colours replaced by patterns. The hand-coloured originals of many of the maps were retained by the Geological Survey, and are now held in Archives New Zealand (mainly in collection ABLP W4464)

On the Coal Deposits of New Zealand, by Dr Hector, [no. 1], 1866. 46 pages

On the Lower Waikato District, by Captain Hutton, [no. 2], 1867. 8 pages + geological map

On the Thames Goldfields, by Captain Hutton, [no. 3], 1867. 12 pages + geological map.

Abstract Report on the Progress of the Geological Survey of New Zealand during 1866-67, [no. 4], 1868.

'Abstract Report of the Progress of the Geological Survey of NZ during 1866-67, by Dr Hector', pp. 1-34 [includes notes on visit to a portion of the Province of Taranaki, Kaikoura district].

'Notes on the Coast and Harbour from Milford Sound to Hokitika, by Dr Hector', pp. 42-48.

Reports of Geological Explorations during 1868-9, [no. 5], 1869.

'Progress Report by Dr Hector', pp. i-xiii [Report on journey through Taupo District, pp. i-ii. Hurried visit to Otago, pp. ii-iii. Report on visit to Southern Gold Fields, pp. vi-viii. Report of visit to Longwood Range Gold Field, pp. viii-x].

'Notes on the Composition of Specimens forwarded by Captain Hutton, by Dr Hector', pp. 39-44.

'Geology of Kawau Island, by Dr Hector', pp. 45-48.

Reports of Geological Explorations during 1870-1, [no. 6], 1871.

[Progress Report of the Director to be published with a Geological Map of New Zealand]
'On the Geological Structure of the Malvern Hills District, by Dr Hector', pp. 46-55.
'On the Geology of the Cape Colville District, by Dr Hector', pp. 88-103.
'Notes on the Geology of the Hawk's Bay District, by Dr Hector', pp. 158-164.

Reports of Geological Explorations during 1871-2, [no.7], 1872.

[No Progress Report]⁵
'Reports on the Gold Mines in the Province of Marlborough, by Dr Hector', pp. 119-129.
'Report on the Coal Mines in the Western District of the Province of Nelson, by Dr Hector', pp. 129-141.
'Further Report on Malvern Hill Coal, Canterbury, by Dr Hector', pp. 146-148.
'Report on the Coal Seams at Wangaroa and Mongonui, Auckland, by Dr Hector', pp. 153-158.
'Report on the Collingwood Mine, Nelson, by Dr Hector', pp. 158-165.
'Report on the Clutha and Green Island Coal Fields, by Dr Hector', pp. 165-172.
'General Report on the Coals of New Zealand, by Dr Hector', pp. 172-181.

Reports of Geological Explorations during 1873-4, [no. 8], 1877.

'Progress Reports', pp. iii-xx [Hector visited West Coast coal fields, pp. ii-v. Examined East Coast of Wellington, p. ix. Examined Marlborough and Amuri Districts, pp. ix-xiii. Examined West Coast District, pp. xiv-xvi. Examined East Cape District, pp. xvi-xx.]

Reports of Geological Explorations during 1874-6, [no. 9], 1877.

'Progress Reports by Dr Hector', pp. iii-xiii, [September – November 1874 in North Auckland Province, with brief visit to Coromandel, pp. iii-vi. Hector overseas for most of 1875-6, Mantell in charge of Geological Survey].

Reports of Geological Explorations during 1876-7, [no. 10], 1877.

'Progress Report, 1876-77, by Dr Hector', pp. iii-xx, [Comparative Table of Classifications, pp.iii-v]
'Kaitangata Coal Mine', pp. 140-143.

Reports of Geological Explorations during 1877-8, [no. 11], 1878.

'Progress Reports by Dr Hector', pp. i-xv, [on account of ill health, Hector visited Australia & Tasmania during September-October, and obtained information on coal fields. Brief mention of visits to Otago, Southland, and the interior of the North Island, p. i].
'Report on the Golden Point Quartz Reef, Queen Charlotte Sound, by Dr Hector', pp. 1-5.
'Report on the Phoenix Mine, Collingwood, by Dr Hector', pp. 6-7.
'Report on the Richmond Hill Mine, by Dr Hector', pp. 8-9.

Reports of Geological Explorations during 1878-79, [no. 12], 1879.

'Progress Reports by Dr Hector', pp. 1-41 [being required to attend the Supreme Court sitting in Hokitika in September, Hector examined Westland, pp. 17-20. Examined Mokau in November-December with the Native Minister and Rewi Maniapoto, pp. 20-22. Examined Thames Gold Field in February, pp. 22-23. Examined Macetown Reefs in March, pp. 23-24.]

⁵ The Preface says that the Progress Report will be produced later to accompany a Geological Map of New Zealand. The map was published in 1873, but it appears that the missing Progress Report was never published.

Reports of Geological Explorations during 1879-80, [no. 13], 1881.

‘Progress reports by Dr Hector’, pp. i-xxx, [Hector busy with work for Sydney Exhibition. Extract from lecture on comparison of NZ and Australian geology given by Hector in Sydney, pp. ii-iv. Visited Longwood Range Gold Field in March, pp. viii-x.]

Reports of Geological Explorations during 1881, [no. 14], 1882.

‘Progress Report by Dr Hector’, pp. ix-xxxii [Hector busy with work for Melbourne Exhibition].

‘Report on Chrome Ores, by Dr Hector’, pp. 1-3.

Reports of Geological Explorations during 1882, [no. 15], 1883.

‘Progress Report, by Dr Hector,’ pp. ix-xxx.

Reports of Geological Explorations during 1883-1884, [no. 16], 1884.

‘Progress Report, by Dr Hector’, pp. x-xxxviii, [inspecting Hydraulic Mining in Westland, pp. xxviii-xxx].

‘Naseby Deep-Sinking, by Dr Hector’, pp.44-45.

Reports of Geological Explorations during 1885, [no. 17], 1886.

‘Progress Report, by the Director’, pp. ix-xl [Hector busy with Wellington Industrial Exhibition].

‘Coal Strata in Palmerston South, by Dr Hector’, pp. 182-184.

Reports of Geological Explorations during 1886-87, [no. 18], 1887.

‘Progress Report, by the Director’, pp. ix-li.

‘On the Mokihinui Coalfield, by Dr Hector’, pp. 156-160.

‘On the Recent Volcanic Eruptions at Tarawera, by Dr Hector’, pp. 240-253.

Reports of Geological Explorations during 1887-88, [no. 19], 1888.

‘Progress Report, by the Director’, pp. ix-xl, [Hector busy with Melbourne Exhibition. Examined Seaford coal area, pp. ix-xiii. Report on Richmond Hill, pp. xiii-xviii. Report on Red Hill Mine, pp. xix-xx. Report on Owen District, pp. xx-xxiv. At the request of its Directors, made a special examination of the Champion Copper Mine, Nelson, pp. xxv-xxx].

Reports of Geological Explorations during 1888-89, [no. 20], 1890.

‘Progress Report, by the Director’, pp. ix-lviii [Hector busy with Melbourne Exhibition. Inspected Victorian Coal Fields, pp. x-xiii. Reports on Maharahara Copper Mine, pp. xxiv-xxvii. Reports on Henui Ironworks in New Plymouth, pp. xxvii-xxx].

Reports of Geological Explorations during 1890-91, [no. 21], 1891.

‘Progress Report, by the Director’, pp. ix-lxxxiv [Hector busy with Dunedin Exhibition and two Commissions. Report on Collingwood Gold Field, pp. x-xxii. Report on Blue Spur, Tuapeka, pp. xxii-xxvi. Report on Maharahara Copper, pp. xxvi-xxviii. Report on Endeavour Inlet-Antimony Mine, pp. xxix-xxx. Report on Mount Rail Ironstone, p. liii. Report on Henley Breccias, pp. lv-lix].

‘Minerals of New Zealand, by Sir James Hector’, pp. 105-120.

Reports of Geological Explorations during 1892-93, [no. 22], 1894.

‘Progress Report, by the Director’, pp. x-xliii [Hector exploring Northern Auckland for one month, p. x].

Part 5: Geological Maps

When he was appointed to set up the New Zealand Geological Survey in 1865, James Hector hoped to publish a set of coloured geological maps of different regions that would be similar to geological maps then being produced in Great Britain and several European countries. Unfortunately it proved too expensive and time-consuming to produce many coloured maps, and most of the geological maps published by the Geological Survey in the 19th century were simplified and reduced black-and-white versions in the *Reports of Geological Explorations*. The hand-coloured originals were held for many years by the Geological Survey, and have now been transferred to Archives New Zealand, where they are mainly part of collection W4464. Claren Kidd's compilation of New Zealand geological maps⁶ includes details of surviving manuscript maps produced during the years that Hector was in charge of the Geological Survey. Although many of the maps bear Hector's name (and sometimes his signature) as Director of the Geological Survey, most were produced by others.

From 1865 onwards, one of Hector's major preoccupations was to prepare and publish a national geological map of New Zealand. Four different versions were produced, progressively revised as more information came to hand.

The following short list includes maps produced by Hector, specifically for colour publication (although not all were actually published).

Hector, J 1864: Geological map of the Province of Otago, New Zealand.

Display map held in the Hocken Collections, University of Otago library. The map can be viewed online at: <http://www.otago.ac.nz/library/treasures/hector/index.html>

Hector, J. 1865: Sketch map of the geology of New Zealand.

Manuscript map held at Archives New Zealand, ABLP W4464 11, record 1584 (R17916934)

Hector J. 1866: Geological sketch map of the northern district of the Province of Auckland.

Manuscript map held at Archives New Zealand, ABLP W4464 Box 33. The map can be viewed on line at:

http://cdn.onlinehosting.co.nz/~gsnz/siteadmin/uploaded/gs_downloads/MP133G.pdf

The Northland geological map is on page 54

Hector, J. 1869: Sketch map of the geology of New Zealand. Single sheet, published by New Zealand Geological Survey. Copy held at Archives New Zealand, ABLP W4464 8 record 1477 (R17916896)

Hector, J. 1873: Geological sketch map of New Zealand. Single sheet published by New Zealand Geological Survey. Copy held at Archives New Zealand, ABLP W4464 7 record 1429 (R17916894)

Hector, J. 1883: Geological map of New Zealand. Published as a sheet bound into *Reports of Geological Exploration during 1883-84*

⁶ Kidd, Claren M. 1996: Union list of archival, manuscript, and theses geological maps of New Zealand. *Geological Society of New Zealand miscellaneous publication 93*, 486 pages.

Part 6: Scientific papers published by James Hector

This list includes papers published in recognised scientific journals as well as a few other items that might be overlooked, and is arranged in chronological order.

Hector, J. 1860: Notes on the geology of Captain Palliser's expedition to British North America. *Edinburgh New Philosophical Journal* 12: 225-218.

Hector, J. 1861: Notes on the geology of Captain Palliser's expedition in British North America. *British Association for the Advancement of Science 30th annual meeting*: 80-81.

Hector, J. 1861: British North America. Pages 200-203 in "Progress of geographical knowledge" *Proceedings of the Royal Geographical Society* 5.

Hector, J. 1861: On the Pleistocene deposits of North America. *Geologist* 4:461-62.

Hector, J. 1861: On the capabilities for settlement of the central parts of British North America. 1861. *Edinburgh New Philosophical Journal*: 263-68.

Hector, J. 1861: Physical features of the central part of British North America, with special reference to the botanical physiognomy. 1861. *Edinburgh New Philosophical Journal* 14: 212-40.

Hector, J. 1861: Physical features of the central part of British North America, with special reference to the botanical physiognomy. *Transactions of the Edinburgh Botanical Society* 7: 168-96.

Hector, J. 1861: On the geology of the country between Lake Superior and the Pacific Ocean (between the 48th and 54th parallels of latitude), visited by the government exploring expedition under the command of Captain J. Palliser (1857-60) maps, secs. *Quarterly Journal of the Geological Society* [London] 17: 388-445.

Hector, J.; Vaux, W.S.W. 1861: Notice of the Indians seen by the exploring expedition under the command of Captain Palliser by James Hector and W.S.W. Vaux. 1861. *Transactions of the Ethnological Society ns 1*: 245-61.

Hector, J. 1862: On the capabilities for settlement of the central parts of British North America. 1861. *British Association for the Advancement of Science 31st annual meeting*: 195.

Hector, J. (1864): On the Geology of the Province of Otago, New Zealand [abstract], *Geological Magazine*, 1 (5): p. 233.

Hector, J. (1864): Expedition to the West Coast of Otago, New Zealand; with an Account of the Discovery of a Low Pass from Martin's Bay to Lake Wakatipu, *Journal of the Royal Geographical Society*, 34: pp. 96-111.

Hector, J. (1864): Expedition to the West Coast of Middle Island, New Zealand (Otago Province), *Proceedings of the Royal Geographical Society*, 8: pp. 46-50.

- Hector, J. (1864): A geological expedition to the West Coast of Otago, New Zealand, *Proceedings of the Royal Geographical Society*, 9: pp. 32-34.
- Hector, J. (1864): On the Geology of Otago, New Zealand, *British Association, 34th Meeting Transactions*: pp. 54-55.
- Hector, J. (1864): On the Geology of Otago, New Zealand, *Quarterly Journal of the Geological Society of London*. 21: pp. 124-128.
- Hector, J. (1864): On the Geology of Otago, New Zealand, *Geological Magazine*, 1: p.233 & 2: p. 35.
- Hector, J. (1865): On the Geology of Otago, New Zealand, *Philosophical Magazine, 4th ser.*, 29: pp. 157-158.
- Hector, J. (1865): Origin of Rock Basins in New Zealand, *Geological Magazine*, 2: pp. 377-378.
- Hector, J. (1865): Notes on the Moa-bones in the New Zealand Exhibition of 1865, *Proceedings of the Zoological Society London, 1865*: pp. 749-751.
- Hector, J. (1867): Notice of an Egg of the Great Moa (*Dinornis gigantea*), Containing Remains of an Embryo, Found in the Province of Otago, New Zealand, *Proceedings of the Zoological Society London, 1867*: pp. 991-992.
- Hector, J. (1868): Geological Report on the River Waimakariri, *Proceedings of the Provincial Council of Canterbury, Session 29*: pp. 3-4.
- Hector, J. (1868): On the Geographical Botany of New Zealand. Explanatory of a Series of Essays by Sir David Monro, and Messrs. Travers and Buchanan. *Transactions and Proceedings of the New Zealand Institute I*: pp. 3-5.
- Hector, J. (1868): Notice on a Swordfish, *Transactions and Proceedings of the New Zealand Institute I*: p. 44.
- Hector, J. (1868): On New Zealand Mean Time, *Transactions and Proceedings of the New Zealand Institute I*: pp. 48-50.
- Hector, J. (1868): On the Recent Earthquakes and Wave Phenomena observed in New Zealand. *Transactions and Proceedings of the New Zealand Institute I*: pp. 93-98.
- Hector, J. (1868): Second Communication on the Recent Earthquakes and Wave Phenomena. *Transactions and Proceedings of the New Zealand Institute I*: pp. 98-99.
- Hector, J., with Knox, F.J. (1869): *On the Balænidæ or Whales with Baleen [Knox]... With Notes on the Cetacea, in the Colonial Museum, Wellington [Hector], Transactions and Proceedings of the New Zealand Institute II*: pp. 21-28.

Hector, J., with anatomical observations by Knox, F.J. (1869): On a species of *Ophisurus*, found on the Coast of New Zealand. *Transactions and Proceedings of the New Zealand Institute II*: pp. 34-40.

Hector, J. (1869): Notes on the Geology of the Outlying Islands of New Zealand; with Extracts from Official Reports. *Transactions and Proceedings of the New Zealand Institute II*: pp. 176-186.

Hector, J. (1869): On Mining in New Zealand. *Transactions and Proceedings of the New Zealand Institute II*: pp. 361-383.

Hector, J. (1869): Comparative Review of the mode in which Gold occurs in the North and South Islands of New Zealand [abstract]. *Transactions and Proceedings of the New Zealand Institute II*: pp. 400.

Hector, J. (1869): Preliminary Notes on the Bones of a Fossil Penguin [abstract]. *Transactions and Proceedings of the New Zealand Institute II*: pp. 403.

Hector, J. (1869): Introductory Chapter on the Geological Structure of New Zealand. T.A. Bowden, *Manual of New Zealand Geography*: pp. 49-56.

Hector, J. (1870): Glacial Epoch in New Zealand. *Geological Magazine*: 7: pp. 95-96.

Hector, J. (1870): [Geological Structure of the Kaimanawa Range], *Transactions and Proceedings of the New Zealand Institute III*: pp. 16-17.

Hector, J. (1870): [Notes on specimens of *Adipocere*; abstract], *Transactions and Proceedings of the New Zealand Institute III*: pp. 73-74.

Hector, J. (1870): On the Salmonidæ of New Zealand. *Transactions and Proceedings of the New Zealand Institute III*: pp. 133-136.

Hector, J. (1870): On a New Species of Fish, *Coryphænoides Novæ Zelandiæ*; Native name, Okarari. *Transactions and Proceedings of the New Zealand Institute III*: pp. 136.

Knox, F.J., with notes by Hector, J. (1870): Observations on the Ziphidæ, a Family of the Cetacea. *Transactions and Proceedings of the New Zealand Institute III*: pp. 125-129.

Hector, J. (1870): Notes on the Geology of White Island. With Observations on the Crystalline forms of the Specimens of Sulphur obtained, *Transactions and Proceedings of the New Zealand Institute III*: pp. 278-285.

Hector, J. (1870): Further Notes on the Thermal Springs of the Hanmer Plains, *Transactions and Proceedings of the New Zealand Institute III*: pp. 297-298.

Hector, J., with notes by Gray, Dr J.E. (1870): List of the bones of seals and whales in the Colonial Museum, Wellington, New Zealand, *Annals and Magazine of Natural History London*, 4th series, 5, pp. 220-224.

- Hector, J. (1871): Neue Moa-funde Neuseeland. *Globus*, 20: pp. 60-2.
- Hector, J. (1871): Aurora Australis, *Nature* 3, 6 April: p. 447.
- Hector, J. (1871): On Recent Moa Remains in New Zealand, *Nature* 4, 6 July: pp. 184-186, 221.
- Hector, J. (1871): Recent Moa Remains in New Zealand, *Nature* 4, 20 July: p. 228.
- Hector, J. (1871): On Recent Moa Remains in New Zealand, *Transactions and Proceedings of the New Zealand Institute IV*: pp. 110-120.
- Hector, J. (1871): Notes on the Fur Seal of New Zealand, *Arctocephalus cinereus*, Gray (?), *Transactions and Proceedings of the New Zealand Institute IV*: pp. 196-199.
- Hector, J. (1871): On the Remains of a Gigantic Penguin (*Palaeudyptes antarcticus*, Huxley) from the Tertiary Rocks on the West Coast of Nelson. *Transactions and Proceedings of the New Zealand Institute IV*: pp. 341-346.
- Hector, J. (1871): Notice of a Meteor observed all over New Zealand [abstract]. *Transactions and Proceedings of the New Zealand Institute IV*: pp. 354-355.
- Hector, J. (1871): Description of Additions to the Collections in Colonial Museum [abstract], *Transactions and Proceedings of the New Zealand Institute IV*: pp. 363-364.
- Hector, J. (1871): On the Wreck of a Vessel found inland on the West Coast [abstract], *Transactions and Proceedings of the New Zealand Institute IV*: pp. 373-374.
- Hector, J. (1871): Introduction of English Trout into Wellington, and mention, of New Fishes [abstract]. *Transactions and Proceedings of the New Zealand Institute IV*: pp. 379-380.
- Hector, J. (1871): Notes on New-Zealand eared seals, *Annals and Magazine of Natural History London*, 4th series, 8, pp. 29-31.
- Hector, J. (1871): Notes on the New-Zealand eared seal (*Phoca ursins*, Forster; *Arctocephalus forsteri*, Gray.), *Annals and Magazine of Natural History London*, 4th series, 8, p. 427.
- Hector, J. (1871): Report on the chemical properties of the water available for the supply of the City of Wellington. Reports and Proceedings of the City Council on the water supply to the city: 8–12.
- Hector, J. (1872): On the Whales and Dolphins of the New Zealand Seas, *Transactions and Proceedings of the New Zealand Institute V*: pp. 154-170.
- Hector, J. (1872): [Presidential Address, Wellington Philosophical Society.] *Transactions and Proceedings of the New Zealand Institute V*: 407-424.
- Hector, J. (1872): Account of Turner [Gold] Reef, near Jackson Harbour, Marlborough Sounds [abstract], *Transactions and Proceedings of the New Zealand Institute V*: p. 432.

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Part 7: Publications of the Colonial Museum & New Zealand Institute

Once the Colonial Museum was firmly established, Hector started to produce a series of catalogues and handbooks covering the flora and fauna of New Zealand. He also compiled four editions of 'The Handbook of New Zealand' between 1879 and 1886. This following list has been compiled from catalogues produced by T.W. Kirk⁷ and J. Yaldwyn⁸, with some minor modifications and additions. Yaldwyn numbered the publications, but as these numbers have never been used, we have not reproduced them.

Hector was the author of only a small number of the publications listed below, but was closely involved with initiating them, obtaining funding and editing almost all of them.

Buchanan, J. 1867: Botanical notes on the Kaikoura Mountains and Mount Egmont. (Government Printer). 16 pages.

Hector, J. 1870: Catalogue of the Colonial Museum, Wellington, New Zealand. (J. Hughes, Printer, Wellington). 237 pages.

Hutton, F.W. 1871: Catalogue of the birds of New Zealand, with diagnoses of the species. (James Hughes, Printer, Wellington). 85 pages

Catalogue of the samples of fibres and manufactured articles prepared from the *Phormium tenax*: exhibited by the Flax Commissioners, in the Colonial Museum, Wellington, August, 1871. 1871. (Thomas W. McKenzie, Printer, Wellington). 35 pages.

Hector, J. (ed.). 1872. *Phormium tenax* as a fibrous plant. Being selections from the reports of the Commissioners appointed by the New Zealand Government – 1870 to 1872. (Government printer). 134 pages.

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⁷ Kirk, T.W. 1887: Index to Reports of the Geological Survey of New Zealand from 1866 to 1885, inclusive. Government Printer, Wellington, 16p.

⁸ Yaldwyn, J.C. 1982: Publications of the Colonial Museum, 1865-1907, Dominion Museum, 1907-1973, and National Museum of New Zealand, 1973-1981. *National Museum of New Zealand, Miscellaneous Series No. 4*. Wellington, 33p.

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- Hector, J. 1880. Handbook of New Zealand. [Prepared for distribution at the Melbourne Exhibition, 1880.] 2nd edition, revised. (Lyon & Blair, Printers, Wellington). 112 pages.
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- Hutton, F.W. 1881 Catalogue of the New Zealand Diptera, Orthoptera, Hymenoptera; with descriptions of the species. (Government Printer). 132 pages.
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Hector, J. 1886. Indian and Colonial Exhibition, London, 1886. New Zealand Court. New Zealand Geological Survey Department. Detailed catalogue and guide to the geological exhibits, including a geological map and general index to the reports, and a list of publications of the Department. (Government Printer). 101 pages.

Hector, J. 1886. Handbook of New Zealand with maps and plans. 4th edition, revised. (Government Printer). 120 pages.

Kirk, T.W. 1887. *Index to Reports of the Geological Survey of New Zealand from 1866 to 1885, Inclusive*. (Government Printer). 16 pages.

Purdie, A. 1887. Studies in biology for New Zealand students. No. 3 The anatomy of the common mussels (*Mytilus latus*, *edulis*, and *magellanicus*). (Government Printer). 45 pages.

Parker, T.J. 1889. Studies in biology for New Zealand students. No. 4. The skeleton of the New Zealand crayfishes (*Palinurus* and *Paranephrops*). (Government Printer). 25 pages.

Hector, J. 1890. Catalogue of the Colonial Museum Library. (Government Printer). 56 pp. (2nd edition, 1900). 156 pages.

Hamilton, A. 1901. The art workmanship of the Maori race in New Zealand: a series of illustrations from specially taken photographs, with descriptive notes and essays on the canoes, habitations, weapons, ornaments and dress of the Maoris, together with lists of the words in the Maori language used in relation to the subjects. (Fergusson & Mitchell). [previously published in five parts, 1896-1900]. 438 pp.

Part 8: James Hector's contributions to major exhibitions

Hector was interested in large-scale exhibitions as a way of disseminating information about industries and natural resources as well as publicity for his growing museum. Between 1864 and 1890 he devoted a large amount of time to the organisation of different exhibitions. His individual contribution is often hard to identify as many exhibition catalogues do not identify authors. The list below is based largely on a collection of exhibition catalogues and reports held in the library of GNS Science, supplemented by reports published in the AJHRs, and is almost certainly incomplete.

Information on many of the Exhibitions is given in the *Encyclopedia of World's Fairs and Expositions* (edited by John E. Findling and Kimberly D. Pelle), McFarland & Co, 2008.

New Zealand Industrial Exhibition, 1865, Dunedin

Hector was one of 14 commissioners, but he and Dr Alfred Eccles were the only two who worked full-time on exhibition preparation and administration. The exhibition included large collections of rocks, mineral and plants made by the Otago Geological Survey.

Official Catalogue of the New Zealand Exhibition 1865. Printed for the Commissioners by Mills, Dick & Co., Dunedin. 156 pp.

New Zealand Exhibition, 1865. Report and Awards of the Jurors, and Appendix. Printed for the Commissioners by Mills, Dick & Co, Dunedin, 531 pages.

Colonial & Vienna Exhibition, 1872-1873, Christchurch Weltausstellung, 1873, Vienna

The New Zealand government agreed to contribute a display to an international exhibition to be held in Vienna in 1873. The Colonial and Vienna exhibition was held in Christchurch over the 1872-73 summer to collect together material that would be used in the New Zealand display at the Vienna exhibition. Haast was on the Christchurch-based Executive Committee. Hector sent a large collection of rocks, minerals and flax products from the Colonial Museum.

Catalogue of Colonial and Vienna Exhibition held in Christchurch, Canterbury, New Zealand, 1872-73.

The Vienna Exhibition (Papers Relating to).
Appendices to the Journal of the House of Representatives H-5: 1-23 (1873)
[Includes memos by Hector on exhibit selection and arrangement, pp. 4-5]

At the close of the exhibition much of the New Zealand material was shipped to London where it was put into storage. Hector retrieved some of the items to use in the 1876 Philadelphia Exhibition.

Centennial Exhibition, Philadelphia USA, 1876

To mark the centenary of the declaration of the Declaration of Independence, the USA organised a large international exhibition in Philadelphia in 1876, and the New Zealand government agreed to take part. James Hector, who was already in London, was asked to be executive commissioner responsible for organising the exhibition. Some material was shipped from New Zealand; some was re-used from the 1873 Vienna exhibition, and Hector assembled some New Zealand material that was already held in US museums. Hector's letters about the exhibition have been transcribed, and give a detailed account of the problems he had to overcome⁹¹⁰.

Philadelphia Centennial Exhibition of 1876.

Appendices of the Journals of the House of Representatives H23: 1-64 (1877).

[Report by Hector on the exhibition]

Exposition Universelle, Paris, 1878

Although Hector recommended that New Zealand be represented at the Paris Exhibition, the government eventually decided not to send an exhibit.

The Paris Exhibition (Papers Relative to). *Appendices to the Journal of the House of Representatives H-5: 1-8 (1878).*

[Memo by Hector (p. 1) outlining how items should be collected and prepared for the Exhibition].

International Exhibition, Sydney, 1879-80

Hector was executive commissioner, responsible for the New Zealand court, which included a large display of specimens from the Colonial Museum. Hector prepared the first edition of the Handbook of New Zealand for distribution at the exhibition.

New Zealand Court. Appendix to the Official Catalogue. George Didsbury, Government printer, Wellington. 67 pages (1879).

Sydney International Exhibition, 1879 (Papers Relative to the).

Appendices to the Journals of the House of Representatives H-13: 1-13 (1879)

[Hector, as Executive Commissioner, reported on selection of items for the exhibition.]

Sydney International Exhibition, 1879 (Further Papers Relative Thereto).

Appendices to the Journals of the House of Representatives H-5: 1-8 (1880)

[Hector reported on his journey to Sydney and described the exhibition.]

AJHR (1880) H-5A, Sydney International Exhibition, 1879 (Further Papers Relative Thereto).

Appendices to the Journals of the House of Representatives H5A: 1-11 (1880)

[Hector reported on the closing of the exhibition.]

⁹ Burns, R.; Nathan, S. 2012: "A quick run home: correspondence while James Hector was overseas in 1875-76. Geoscience Society of New Zealand miscellaneous publication 133E, pp. 48-59.

¹⁰ We have not seen a copy of the official catalogue, which was printed in Philadelphia. In correspondence Hector commented that the catalogue did not bear much resemblance to what was actually displayed.

Hector, J. 1879. Handbook of New Zealand. Sydney International Exhibition, 1879. (Lyon & Blair, Printers, Wellington). 105 pages.

International Exhibition, Melbourne, 1880-81

Hector was one of the vice-presidents of the exhibition as well as being executive commissioner for New Zealand. Many of the exhibits from the Sydney exhibition were moved directly to Melbourne. Hector prepared the second edition of the Handbook of New Zealand for distribution at the exhibition.

New Zealand Court, International Exhibition, 1880, Melbourne, Catalogue. (Mason, Firth & McCutcheon, Printers, Melbourne). 91 pp.

Melbourne International Exhibition, 1880 (Papers Relating to the).
Appendices to the Journals of the House of Representatives H-5A: 1-18
[Includes several reports by Hector on the exhibition]

Hector, J. 1880. Handbook of New Zealand. [Prepared for distribution at the Melbourne Exhibition, 1882.] 2nd edition, revised. (Lyon & Blair, Printers, Wellington). 112 pages.

New Zealand Industrial Exhibition, Wellington, 1885

Although Hector apparently did not have an official position on the organising committee, the *Report of Geological Exploration for 1885* mentions that he spent several months on preparing displays, and he is mentioned specifically in the Governor's opening speech as one of the key people associated with the exhibition.

The Official Record. [New Zealand Industrial Exhibition, 1885, Wellington].
George Didsbury, Government Printer, Wellington. 2 vols, both 123 pages.

Indian and Colonial Exhibition, London, 1886

Although Hector was one of the one of the commissioners for the exhibition, Haast was appointed executive commissioner, and he organised most of the exhibits and travelled to London. Hector prepared the geological exhibits from the collections of the Colonial Museum, as well as a revised version of the Handbook of New Zealand.

Hector, J. 1886. Indian and Colonial Exhibition, London, 1886. New Zealand Court. New Zealand Geological Survey Department. Detailed catalogue and guide to the geological exhibits, including a geological map and general index to the reports, and a list of publications of the Department. (Government Printer). 101 pages.

Hector, J. 1886. Handbook of New Zealand with maps and plans. 4th edition, revised. (Government Printer). 120 pages.

Centennial International Exhibition, Melbourne, 1888-1889

Hector was vice president of the New Zealand Commission as well as executive commissioner.

New Zealand Court Catalogue, Centennial International Exhibition, Melbourne 1888. (Mason, Firth & McCutcheon, Printers, Melbourne). 100 pp.

Centennial International Exhibition at Melbourne, 1888 (Report of the Executive Commissioners on the). 1889.

Appendices of the Journals of the House of Representatives H-23: 1-29
[Reports by Hector on exhibition from inception to close].

New Zealand and South Seas Exhibition, Dunedin, 1889-1890

Hector was vice president, and contributed a large display from the Colonial Museum.

Official Record of the New Zealand and South Seas Exhibition held at Dunedin, 1889-90. Geo Didsbury, Government Printer, Wellington. 117 pages

Industrial Exhibition, Christchurch, 1895

Hector was asked by the government to report on the exhibition. He gave a very positive report.

Christchurch Industrial Exhibition (Report on, by Sir J. Hector, K.C.M.G., M.D., F.R.S., Director Colonial Museum and Geological Survey of New Zealand).
Appendices of the Journal of the House of Representatives H-30: 1-4 (1895)

Part 9. Annual reports signed by Hector

Hector produced annual reports for all the organisations he controlled. This must have been a major commitment of time every year. Many of the reports were probably compiled by his clerk and administrator, Richard Gore, but there is good evidence that Hector checked and amended every report before he signed it off.

The New Zealand Institute was the parent organization that controlled the Colonial Museum, the Colonial Laboratory, the Geological Survey, the Colonial Observatory and the Colonial Botanical Gardens. These organisations are usually mentioned in the NZI reports, but more detail is given in the individual reports.

The work of the Geological Survey was described in the annual reports of Geological Exploration (RGE), which are listed in Part 4.

After 1892 Hector was aging and becoming overwhelmed by his responsibilities. After a change of government, the Geological Survey and Colonial Laboratory were taken out of his control. From this time onwards his reports became shorter, and in some years he produced only the annual report of the New Zealand Institute.

Colonial Museum¹¹

Hector, J. (1866): Memorandum concerning the Colonial Museum, *Appendix to the Journals of the House of Representatives*, D-9.

Hector, J. (1867): Colonial Museum Report; including an abstract of the contents of the Museum, and a list of presentations and deposits, 1866-1867. *Colonial Museum and Laboratory 2nd Annual Report* Geological Survey of New Zealand. 1867.

Hector, J. (1868-1892): Museum and Laboratory Report *in: 3rd to 27th Ann. Rept. Colonial Museum and Laboratory* published by Geological Survey of New Zealand (3rd-6th) then by Colonial Museum and Geological Survey of New Zealand (7th-27th), Wellington.

In 1892 there was a major reorganization, and the Geological Survey and Colonial Laboratory were moved from Hector's control. The 28th to 31st Reports of the Colonial Museum were apparently never published, although the reports of the Colonial Laboratory continued to be published in the same numbering series as the Museum reports. The Museum was, however, mentioned in the annual reports of the New Zealand Institute. In 1898 a separate report was produced for the Museum:

Hector, J. (1898), *32nd Annual Report on the Colonial Museum together with a list of donations and deposits to 1st July 1898*, New Zealand Institute, Colonial Museum and Geological Survey of New Zealand, Wellington.

¹¹ This section is derived from Yaldwyn, J.C., 'Publications of the Colonial Museum, 1865-1907, Dominion Museum, 1907-1973, and National Museum of New Zealand, 1973-1981', Wellington (1982).

This was the last separate report for the Colonial Museum produced while Hector was Director, although the museum continued to be covered in the annual reports of the New Zealand Institute.

New Zealand Institute

a. Parliamentary Reports

Hector, J. (Manager) (1869-1870): First [to] Second Annual Report of the Governors of the New Zealand Institute, *Appendix to the Journals of the House of Representatives*, D-9 (1869) D-25 (1870).

Hector, J. (Manager) (1871-1874): Third [to] Sixth Annual Report of the Governors of the New Zealand Institute, *Appendix to the Journals of the House of Representatives*, G-17 (1871), G-38 (1872), H-25 (1873), H-31 (1874).

Hector was overseas during 1874-1874 and Walter Mantell was acting Manager.

Hector, J. (Manager) (1876-1887): Eighth [to] Nineteenth Annual Report of the New Zealand Institute, *Appendix to the Journals of the House of Representatives*, [various locations in H].

Hector was overseas in 1888 and Walter Mantell was acting Manager.

Hector, J. (Manager) (1889-1903): Twenty-First [to] Thirty-Fifth Annual Report of the New Zealand Institute, *Appendix to the Journals of the House of Representatives*, [various locations in section H].

b. Transactions & Proceedings of the New Zealand Institute

As well as the Parliamentary Reports, the annual *Transactions and Proceedings of the New Zealand Institute* contain annual reports which largely duplicate the Parliamentary Reports, but sometimes contain more detail, especially about acquisitions at the Colonial Museum.

Volume 3 of the *Transactions and Proceedings of the New Zealand Institute* (1870) contains the first and second annual reports for 1868 and 1869. There after each annual volume contains the annual report for the preceding year, signed by James Hector as Manager. The last report he signed was volume 36 (1904), containing the 35th annual report for 1903.

Hector retired as Manager of the New Zealand Institute in 1903, but was appointed President in early 1906 to replace F.W. Hutton who had died suddenly. His report for 1906, signed as President, is Hector's last publication:

Hector, J. (President)(1906): Thirty-Eighth Annual Report of the New Zealand Institute. *Transactions and Proceedings of the New Zealand Institute* 39: 525-528.

Colonial Botanic Garden

Hector, J. (Secretary), (1871-1874): Second [to] Fifth Annual Report of the Botanic Garden Board, *Appendix to the Journals of the House of Representatives*, G-21 (1871), G-39 (1872), H-26 (1873), H-32 (1874).

Hector was overseas in 1875, and Walter Mantell was acting Manager

Hector, J. (Director), (1876-1880): Seventh [to] Eleventh Annual Report of the Botanic Garden Board, *Appendix to the Journals of the House of Representatives*, [various locations in H].

Hector, J. (Manager), (1881-1887): Twelfth [to] Eighteenth Annual Report of the Botanic Garden Board, *Appendix to the Journals of the House of Representatives*, [various locations in H].

Hector was overseas and Walter Mantell was Acting Manager for 1888

Hector, J. (Manager), (1889-1891): Twentieth [to] Twenty-Second Annual Report of the Botanic Garden Board, *Appendix to the Journals of the House of Representatives*, [various locations in H].

Meteorological Records

Hector, J. (1868): Meteorological Report for 1868, with Abstract of all Returns for New Zealand prior to that date, *Colonial Museum and Geological Survey Department*.

Hector, J. (1869-1884): Meteorological Report, *Colonial Museum and Geological Survey Department* [published biennially as 1869-70, 1871-72, 1873-74, 1875-76, then as 1877-79, 1880-82, 1883-84].

University of New Zealand

Hector was Chancellor of the University of New Zealand from 1885-1903, and signed the annual report each year during this period in the AJHR:

Hector, J. (Chancellor), (1885-1905): Education: University of New Zealand, *Appendix to the Journals of the House of Representatives*, E-5 (1885-1897), E-6 (1898-1905).

Part 10: Unpublished material produced by James Hector

Although this compilation is primarily concerned with published material produced by James Hector – that is, material written to be seen by others and released for publication – there is an equally large volume of unpublished material. This includes correspondence and a variety of documents, and maps. Hector was a conscientious correspondent for over 40 years in public life, and his letters are held in a number of archives, both in New Zealand and overseas. Recently seven collections of letters have been transcribed and published as parts of *Geoscience Society of New Zealand miscellaneous publication 133*. These are available as PDF files from the Geoscience Society website, www.gsnz.org.nz¹³, and can also be accessed directly through the highlighted links below:

["My Dearest Georgie": transcriptions of 24 letters from James Hector to his wife Georgiana](#) by Judith Nathan & Simon Nathan. *Geoscience Society of New Zealand miscellaneous publication 133A* (2nd edition), 42 pages.

["My Dear Hooker": transcriptions of letters from James Hector to Joseph Dalton Hooker between 1860 & 1898](#) by Rowan Burns & Simon Nathan. *Geoscience Society of New Zealand miscellaneous publication 133B*, 208 pages.

["My Dear Dr Haast": transcriptions of selected letters from Robert Langley Holmes to Julius Haast between 1864-65 and 1868-70](#) by Rowan Burns & Simon Nathan. *Geoscience Society of New Zealand miscellaneous publication 133C*, 53 pages.

[The correspondence of Julius Haast and James Hector, 1862-1887](#) by Sascha Nolden, Rowan Burns & Simon Nathan. *Geoscience Society of New Zealand miscellaneous publication 133D*, 315 pages.

["A Quick Run Home": Correspondence while James Hector was overseas in 1875-1876](#) by Rowan Burns & Simon Nathan. *Geoscience Society of New Zealand miscellaneous publication 133E*, 144 pages.

[Transcriptions of selected letters from Frederick Wollaston Hutton to James Hector and Julius Haast](#) by Esme Mildenhall, Rowan Burns & Simon Nathan. *Geoscience Society of New Zealand miscellaneous publication 133F* (2nd edition), 175 pages.

[James Hector in Northland, 1865-66](#) by Rowan Burns & Simon Nathan. *Geoscience Society of New Zealand miscellaneous publication 133G*, 57 pages.

[Letters from James Farmer to James Hector, 1876-1891](#) by Esme Mildenhall & Simon Nathan. *Geoscience Society of New Zealand miscellaneous publication 133-I*, 133 pages.

Selected documents about the career of James Hector (1834-1907) by Simon Nathan. *Geoscience Society of New Zealand miscellaneous publication 133-L*, 52 pages.

¹² Click on Publications tab (near top of page), then click on Misc. Pub Series

¹³ Click on Publications tab (near top of page), then click on Misc. Pub Series

Although letters from James Hector are held in many archives, most of the unpublished Hector material not included in the collections of letters listed above is held in four main collections:

Hocken Collection, University of Otago

James Hector's personal papers, held at his home, were collected together about 1930 by his second son, Charles Monro Hector who planned to write a biography of his father. Unfortunately Charles Hector died soon afterwards, and his widow presented the papers to the Hocken Library in Dunedin where they form collection ARC-008. This collection includes notebooks, correspondence, reports and photographs, including material covering the Palliser expedition to western Canada.

Te Papa archives, Wellington

When Hector arrived in Dunedin in 1862, the first appointment he made was his clerk, Richard Gore, who worked for him for 40 years, both at the Otago Geological Survey and at the Colonial Museum. Gore systematically filed all official letters and papers for the organisations that Hector controlled, and these are now preserved in the Te Papa archives. This archive contains material about the Otago Geological Survey as well as day-to-day correspondence at the Colonial Museum and details of papers submitted to the *Transactions of the New Zealand Institute*. Te Papa archives also holds most of Hector's medals and other honours, presented by the family in the 1930s.

Archives New Zealand, Wellington

Geological maps prepared by the Geological Survey while Hector was in charge are held at Archives New Zealand. They are included in a comprehensive list of archival and manuscript maps prepared by Claren Kidd¹⁴.

Alexander Turnbull Library, Wellington

A variety of letters and documents from Hector are held in different collections, including the Haast family papers and the Mantell family papers. There are also photographs of James Hector and his family in the photographic collections (although not all the photographs of him listed in the catalogue are correctly identified).

¹⁴ Kidd, Claren M. 1996: Union list of archival, manuscript, and theses geological maps of New Zealand. *Geological Society of New Zealand miscellaneous publication 93*, 415 pages.

Part 11. Publications about James Hector

The following list includes all the major publications about James Hector, or those that mention some of his achievements. It is presented in chronological order. A few obituaries were published immediately after his death, but relatively little was written until 1965, the centenary of his appointment as the first government-employed scientist and founder of many of New Zealand's scientific organisations.

Schäffer, M. T. S. (1904). Sir James Hector. *Rod and Gun in Canada* (January), 416-418.

Anon (1907). Obituary. *New Zealand Mines Record* 11, 186.

J.W.G.[regory]. (1907). The geological work of Sir James Hector. *Nature* 77, 37-38.

Anon (1908). Obituary. *Quarterly Journal of the Geological Society, London* 64, lxi-lxii.

Anon (1908). Obituary. *Geographical Journal* 31, 111-13.

Kirk, H. B. (1923). Obituary : James Hector, 1834-1907. *Transactions and Proceedings of the Royal Society of New Zealand*, 54, ix-xii.

Ewing, J.L. 1929: The work in Otago of Sir James Hector, Provincial Geologist 1862-1865. MA thesis, University of Otago.

Burnett, R. I. M. (1936). *The life and work of Sir James Hector : with special reference to the Hector Collection*, MA thesis, University of Otago, Dunedin.

Park, J. (1937). Centenary of Sir James Hector; pen-portrait of a notable pioneer. *New Zealand Journal of Science and Technology* 18, 779-80.

von Haast, H. F. (1948). *The Life and Times of Sir Julius von Haast*. Wellington: The Author.

Evans, W.P. 1949: Scraps from the Society's earlier days. *New Zealand Science Review* 7 (11-12): 202-07.

Mitchell, R. (1952). Sir James Hector. *Canadian Medical Association Journal*, 66(May), 497-499.

Pascoe, J. (1959). *Great Days in New Zealand Exploration : The Bush and the Rain*. Wellington: A H & A W Reed.

Ballon, H. C. (1962). Sir James Hector, M.D., 1834-1907. *Journal of the Canadian Medical Association* 87 (July 14), 66-74.

Burton, P. (1965). *The New Zealand Geological Survey, 1865-1965*. Wellington: Department of Scientific and Industrial Research.

- Dell, R. K. (1965). *Dominion Museum, 1865-1965*. Wellington: Dominion Museum.
- Fleming, C. A. (1966). Hector, Sir James (1834-1907) : Geologist, explorer, scientific administrator. In A. H. McLintock (Ed.), *Encyclopaedia of New Zealand*. Wellington: Government Printer.
- Spry, I. M. (1968). *The Papers of the Palliser Expedition, 1857-1860*. Toronto: Champlain Society.
- Fraser, E. (1969). *The Canadian Rockies : Early Travels and Explorations*. Edmonton: M G Hurtig.
- Kupsch, W. O. (1971). Hector's geological explorations of the Canadian west. *Geological Association of Canada Proceedings*, 23, 31-41.
- Hoare, M. E. (1977). *Reform in New Zealand Science, 1880-1926* (Vol. 3). Melbourne: Hawthorne Press.
- Haig, B. (1983). *James Hector, Explorer*. Calgary: Detselig Enterprises.
- Darragh, T. A. (1987). Charles Sturtevant Wood, Analyst, his Work and his Correspondence with James Hector. *Historical Records of Australian Science*, 7(3), 231-271.
- Fleming, C. A. (1987). *Science, Settlers and Scholars : The Centennial History of the Royal Society of New Zealand..* Wellington: Royal Society of New Zealand.
- Keam, R. F. (1988). *Tarawera ; The Volcanic Eruption of 10 June 1886..* Auckland: R F Keam.
- Shepherd, W., & Cook, W. (1988). *The Botanic Garden Wellington : A New Zealand History, 1840 - 1987..* Wellington: Millwood Press.
- Spry, I. M. (1995). *The Palliser Expedition : The Dramatic Story of Western Canadian Exploration, 1857-1860* (2nd ed.). Calgary: Fifth House.
- Yaldwyn, J. & Hobbs, J. (eds.) (1998). *My Dear Hector : Letters from Joseph Dalton Hooker to James Hector, 1862 - 1893, Edited by John Yaldwyn and Juliet Hobbs.* Wellington: Museum of New Zealand Te Papa Tongarewa.
- Erasmus, P. (1999). *Buffalo Days and Nights*. Calgary: Fifth House.
- Dell, R. K. (2002). Hector, James, 1834-1907: Geologist, explorer, administrator. In *Dictionary of New Zealand Biography..* Wellington: Ministry for Culture and Heritage.
- Lampard, R. (2002). The Hector memorials of 1906: Tributes to Sir James Hector and Douglas Hector. *Alberta History*, 50(4), 2-11.
- Nicholson, H. H. (2003). *The New Zealand Greywackes : A Study of Changing Geological Concepts to 1985*. University of Auckland, Auckland.

McCarthy, C. (2004). *From Curio to Taonga : a Genealogy of Display at New Zealand's National Museum, 1865 - 2001*. PhD Thesis, Victoria University of Wellington, Wellington.

Reid, F. L. (2005). 'The democratic politician does not trouble himself with science': class and professionalisation in the New Zealand Institute, 1867-1903. *Tuhinga: The journal of scholarship and matauranga of the Museum of New Zealand Te Papa Tongarewa*, 16, 21-31.

Lakusta, E. (2006). *The Intrepid Explorer : James Hector's Explorations in the Canadian Rockies*. Calgary: Fifth House.

Fitzgerald, M., & Ross, K. (2007). Sir James Hector, 1834-1907. from <http://collections.tepapa.govt.nz/exhibitions/JamesHector/default.aspx>

McCarthy, C. (2007). *Exhibiting Maori : A History of Colonial Cultures of Display*. Oxford: Berg.

Reid, F. L. (2007). *Science, Controversy and the State : James Hector and the New Zealand Institute, 1867-1903*. PhD thesis, University of Cambridge, England.

Hocken, A. G. (2008). *The Early Life of James Hector, 1834 to 1865*. PhD Thesis, University of Otago, Dunedin.

Nathan, S., & Varnham, M. (2008). *The Amazing World of James Hector* Wellington: Awa Science. *This volume includes the following articles:*

Introduction by Hamish Campbell (p. 1-8)

Surveying Canada: the Palliser Expedition by Peter Hector (p. 9-26)

Exploring the South: Otago Provincial government by Tony Hocken (p. 27-36)

Mapping the Country: New Zealand Geological Survey by Ian Speden (p. 37-48)

Displaying Natural History: Colonial Museum by Conal McCarthy (p. 49-62)

Promoting Science: New Zealand Institute by Francis Lucian Reid (p. 63-72)

Colonial Botanic Garden by Winsome Shepherd & Walter Cook (p. 73-82)

Meteorological Department & Colonial Observatory by Jock Phillips (p. 83-94)

University of New Zealand by Tim Beaglehole (p. 95-104)

Running the Show: Scientific Empire by Simon Nathan (p. 105-112)

Studying Plants and Animals by George Gibbs (p. 113-126)

Unveiling the past: vertebrate fossils by Ewan Fordyce (p.127-138)

Settling Down: Husband and Father by Chris Hector (p. 139-148)

Living at Ratanui by John Adam & Louise Beaumont (p. 149-156)

Being Honoured by Simon Nathan (p. 157-163)

Plant & Animal Names that Commemorate James Hector (p. 168-174)

Rice, R. (2013). Creating culture in a colonial context: fine art at the 1865 New Zealand Exhibition. *Anti-po-des Design Journal* 2: 11-23.

Nathan, S. (2014). James Hector and the first geological maps of New Zealand. *Journal of the Royal Society of New Zealand* 44(2&3): 88-100.

Nathan, S., Nathan, J. & Burns, R. (2014). Domestic expenditure of the Hector family in the early 1870s. *Tuhinga* 25: 1-15.