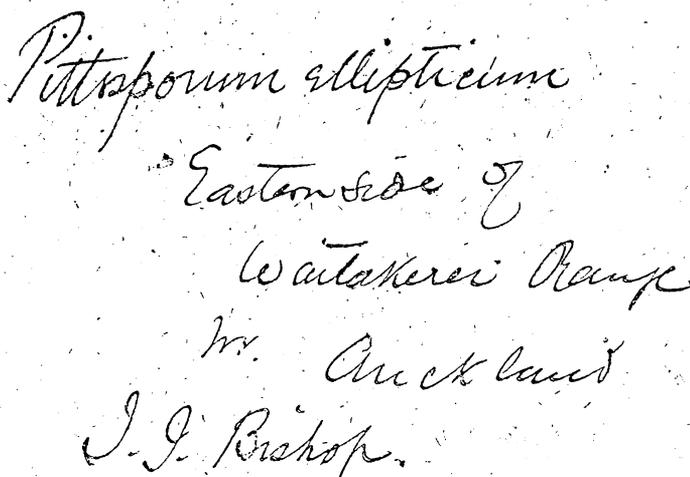


Petrie, D. 1926: Descriptions of new native plants. *Transactions of the New Zealand Institute* 56: 6-16.

Figure 1. A possible example of J. J. Bishop's handwriting. Handwriting specimen taken from a Waitakere collection of *Pittosporum ellipticum* (AK 4640). The label is written in blue ink on the back of an old envelope.



Pittosporum ellipticum
Eastern side of
Waitakere Range
N. Auckland
J. J. Bishop

John MacGillivray and William Milne, Plant Collectors in New Zealand, 1854

Rhys Gardner

HMS "Herald", under command of Captain Henry Mangles Denham, a naval hydrographer of considerable experience, was sent to the South-west Pacific Ocean in 1852 for general surveying work around Australia, New Caledonia, Fiji, and Tonga. The "Herald" returned to England in 1861 after an absence of just over nine years, perhaps the longest surveying voyage on record.

In 1862 a memoir of the voyage was published by order of the Council of the Royal Geographical Society, including a list of its scientific accomplishments. However, no detailed journals were ever published, and it is only very recently that a full history of the voyage has been made available (David 1994). The following material is taken more or less verbatim from that book.

Following consultation with Sir William Hooker at Kew, the Admiralty appointed John MacGillivray as the "Herald" naturalist. Particularly interested in birds, he had already made two voyages to the Pacific. William Milne, a gardener from the Royal Botanical Gardens, Edinburgh, was appointed botanical collector. The third 'scientist', James Glen Wilson, was principally the official artist. He was responsible for some photographic equipment, and the "Herald" may have been the first ship in the Pacific to carry cameras, though this seems to have been an unsuccessful venture.

MacGillivray promised Sir William Hooker that he would send him his collection of plants, but hoped to make a duplicate set for the British Museum to be presented to them after he had written up the results of the voyage. He was especially looking forward to collecting in Fiji, and also in New Caledonia, where the only previous work had been by the Forsters and Labillardiere. His detailed journal is now deposited at the Public Record Office, Kew.

Milne was instructed to make collections of natural history, especially plants; all specimens would be government property. He was also to keep a journal, and to pay special attention to the vegetation of the places visited. Milne's attention was also drawn to the article on botany in "A Manual of Scientific Enquiry", written by Joseph Hooker. This manual was standard issue to ships of the Royal Navy.

In addition to these three men both Frederick Rayner, Surgeon on the "Herald", and John Macdonald, Assistant Surgeon on the "Torch", the tender vessel to accompany the "Herald", were also instructed in natural history.

On the journey out MacGillivray and Milne botanised at Madeira, Cape Verde Islands, Tristan da Cunha, Cape Town, and St Paul Island in the South Indian Ocean. After a short time in Sydney the ship then went to Lord Howe Island, the Isle of Pines, and Aneityum, returning to Sydney, where Milne wrote to Hooker giving details of plants he was forwarding to him. After a longish stay in Sydney, on May 27 1854 they set sail again bound for Fiji via New Zealand. On June 7 the Hauraki Gulf was entered and later that day they anchored off the south side of the Whangaparaoa Harbour.

This was as close as Milne got to the New Zealand mainland; he was suffering from "scurvy of the face" and had to remain on board. The next day the "Herald" anchored in Auckland Harbour. Her arrival does not appear to have created much interest here; the newspapers merely recording (wrongly) her arrival and departure dates.

MacGillivray went ashore several times, the first time accompanied by Glen Wilson, whose only surviving drawing from New Zealand is a plan of a Maori canoe, based on those he saw in Mechanic's Bay. MacGillivray noted the hawthorn and gorse fences, and on a walk to Mount Eden paid special attention to the NZ flax. A few days later he walked to Manukau Harbour. He also walked to Hobson's Bay "to examine the mud flats there". On the way he was surprised to see how few plants were in flower in addition to those he had already seen, noting only "a small yellow oxalis" and "two lobelias, one with a white flower and the other with a blue one". At the head of the bay, where a stream entered, there were some stunted mangroves.

MacGillivray paid a second visit to Hobson's Bay just before the ship sailed but as everyone had to be on board by 1 pm he was only able to spend a short time there. He therefore concentrated on collecting mosses and lichens in a wood where they grew abundantly on the trunks and branches of trees, but there was not a great variety of species. The great number of birds (tui and fantails) surprised him.

On June 18 "Herald" weighed anchor and proceeded to an anchorage in Man O' War Bay on the south-eastern side of Waiheke Island. A few Maori huts could be seen ashore but otherwise "the island appeared to be completely afforested". Next morning MacGillivray, Milne and Rayner set off to explore Pakatoa Island, called Rabbit Island by Milne on account of the rabbits that Stokes had landed there from the "Acheron" in January 1848. MacGillivray went after birds and rabbits, while Milne collected plants. He soon found a specimen of flax but the weather turned nasty and rain and hail fell, and after gathering some tree ferns and mosses had to turn back. Next day Milne went ashore early at Man O' War Bay, where he met a Mr Campbell, who accompanied him into the forest then being logged for its kauri. He found some "interesting lichens and ferns".

On June 22 "Herald" got under way and after rounding the north-eastern end of Waiheke Island, stood down Hauraki Gulf bound for Fiji and the prospect of warmer weather. Subsequently they called in at Raoul Island, spent almost three months in Fiji, then headed west for the Solomons, calling in at Tanna on the way; on 30 January 1855 they dropped anchor once again at Farm Cove, Sydney.

On 25 April in Sydney a court of enquiry was convened on board the "Herald", to investigate the conduct of John MacGillivray. The next day MacGillivray was dismissed from his post and from the ship. The court records have not been located, but it seems from other correspondence that the main charge against him was that of making an intemperate publication in a Sydney newspaper about Denham's captaincy, in spite of his having given a written undertaking that his writings were to be at Denham's disposal. Also, it seems that MacGillivray was in financial difficulties, and had altered the

name on a pay bill of his, from that of one of his creditors back to himself, leaving Denham legally and morally liable to the tune of several hundred pounds.

The president of the court, Captain Fremantle, senior naval officer in the colony (and a new friend of Denham's) denounced MacGillivray in perfervid fashion, stating that he was:

"base minded, deceitful and a self seeking intruder ... in his general habits, there is no redeeming point, he is a determined drunkard, and mixes only in the lowest society."

Fremantle also charged him with selling part of his natural history collection for his own gain. Subsequently Milne made a similar accusation, in a letter to Hooker. Milne's letter was prompted by a reproachful one from Hooker, who pointed out that MacGillivray's botanical collection was more extensive than Milne's. Milne replied (not exactly to the point) that MacGillivray had been in the habit of asking him for duplicates to send to his brother, who was supposed to be writing a book on botany. Milne added (again not to the point) that MacGillivray seldom left the ship before 9 am or 10 am, returning in the afternoon for dinner, and seldom went more than 2 miles from the ship, whereas he himself was often away in the mountains, sleeping in the open air. In addition, he said that MacGillivray was never in a fit state, being continually drunk, and that he had advised Milne to send a collection to London for private sale, which the latter assured Hooker he had not done.

MacGillivray clearly saw his position on board the "Herald" differently from Denham, as can be seen in a letter he wrote to Dr John Edward Gray, Keeper of the Department of Zoology in the British Museum, shortly before the inquiry convened. He had sent a case of natural history specimens direct to Gray, and forwarded a bill of lading with his letter, stating that each specimen had been individually labelled. He said that Gray could:

"either enter the specimens sent as being presented by me or not as you please - at any rate Captain Denham has nothing to do with them - I am not tied down by my employers (the Ls Cs of the Admiralty) in any way and am fully entitled to act according to my own judgement in distributing the Govt Collection."

It is also clear that MacGillivray did sell part of the collection he made to the British Museum, since their accession list records that 795 plants from islands in the South Atlantic and Pacific Oceans were purchased from MacGillivray in the years 1855-6. The list also records that the Admiralty presented to the Museum in 1856 218 plants from Brazil and the Atlantic Islands from the "Herald" voyage.

Support for Fremantle's remarks about MacGillivray came from Thomas Huxley, who had little good to say about the latter, having been on board the previous "Rattlesnake" voyage with him. It is sad to reflect that for all his faults (whatever they actually might have been) MacGillivray was a gifted naturalist, with a flair for languages and ethnology. He also kept an excellent journal and with his departure went the likely author for a contemporary account of the voyage. His journal and papers were retained on board the "Herald" and his natural history department was turned over to Rayner and Macdonald.

Milne meanwhile was preparing his dried plants for Kew. He also told Hooker of MacGillivray's dismissal, adding, strangely, that he regretted this, as MacGillivray "had always been a good, kind and obliging friend" and on leaving the "Herald" had turned over to him all his botanical paper. Milne told Hooker that he should expect MacGillivray home soon, though by which ship he did not know, adding that he had told Milne that he would call at Kew soon after he arrived in London.

MacGillivray, however, never returned to England. Between 1858 and 1860 he was engaged with others in a number of trading and collecting expeditions to New Caledonia, Aneityum, Tanna and Erromango. In 1860 he unsuccessfully applied for the position of curator at the Australian Museum in Sydney. He went to Melbourne in 1863, and the next year settled in Grafton (Australia), an area noted for the richness of its fauna, where for a time he ran a business collecting natural history specimens with J. F. Wilcox, who had served with him on the "Rattlesnake". He returned to Sydney in 1866 to work for the conchologist Dr J. C. Cox, thus laying the foundation of the study of land shells

of Australia. On 6 June 1867 MacGillivray suffered a heart attack from which he died, though an asthmatic condition probably contributed to his fatal seizure.

Following MacGillivray's dismissal the "Herald" made three more years of surveying, taking in Norfolk Island, Fiji again, and Western Australia, and returning to Sydney in the second half of 1858. There Denham found a letter from Hooker, instructing him to dismiss Milne, the culmination of growing disquiet of Milne's output as a botanical collector.

The facts were set out in a memorandum to Hooker from his assistant Smith, who wrote that in the five and a half years that Milne had been in the "Herald" only six consignments of plants had been received at Kew. There seems little doubt from Milne's journal and the references to him in Denham's letters that Milne was extremely enthusiastic, but he apparently neglected the more routine tasks, so that a great deal of what he did gather was wasted.

Whatever Milne's faults may have been, Denham seems to have had sufficient regard for him to treat him as generously as possible. He persuaded Milne to write a face-saving letter of resignation, and a passage back to England was arranged. Milne took with him six cases of plants (three of them living material, and one case containing odds and ends of natural history for Mrs Denham). Earlier Denham had told Hooker that he was sending to the Admiralty a collection of natural history items he had mostly collected himself, but which included some of Milne's duplicates, which had been made into a book.

Milne reported to Hooker at Kew but what transpired is not known. He was re-employed by the Edinburgh Royal Botanical Garden and in 1863 was sent to the west coast of Africa as a plant collector. He still felt resentment over his dismissal, writing in a letter to James McNab, Edinburgh's Head Gardener:

"the Hookers accuse me of Drunkenness I deny the charge I never was in the habit of taking spirits when on the field of duty. Like the rest of my shipmates I used spirits freely to[o] freely in harbour, but never at sea."

Like so many Europeans before him on this coast Milne's constitution broke down and he died at Old Calabar on 3 May 1866.

Where, then, are the plant specimens obtained in the Hauraki Gulf? Hooker's "Handbook of the New Zealand Flora" cites only collections from the Kermadec Islands, so unless they are still in storage at the British Museum it has to be supposed that somehow they have been lost.

Reference

David, A. 1994. *The Voyage of HMS "Herald" to Australia and the South-west Pacific 1852-1861 under the command of Captain Henry Mangles Denham*. The Miegunyah Press, Melbourne. 521 pp.

Note added in proof

For a fuller account of the life of John MacGillivray see Ralph (*Archo Nat. Hist.* 20:185-195; 1993).

Information on the *Ileostylus* Intersection

Maureen Young

For two generations motorists driving past the Mahurangi West turnoff, 3 km north of Puhoi, may have puzzled over the pronunciation of the Bohemian name SCHEDEWY (Shed-away) written boldly on the sides of trucks at the depot opposite the intersection. In the 1950s Frank Hudson was told by H. R. (Ross) McKenzie, ornithologist and competent botanist, that mistletoe grew on totara "up the