

eColenso

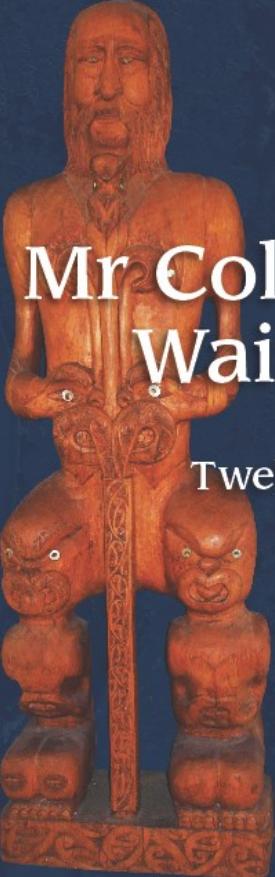
Volume 9 number 2 February 2018

Contents

- 2 *Mr. Colenso's Wairarapa*
- 3 Clem Earp: Colenso's Whangārei: central city area
- 8 Correction
Colenso's Māori artifacts in the British Museum
- 13 Colenso's tuatara
- 20 Conference: Colenso 3 in Napier 2019

eColenso is the free email publication of the Colenso Society,
32 Hawkestone St, Thorndon, Wellington 6011:
please forward it to interested others.
Contributions should be emailed to the editor,
Ian St George, istge@yahoo.co.nz.

Past issues are at
www.colensostudy.id.au/Newsletter%20Masthead.htm.



Mr Colenso's Wairarapa

Twelve Journeys:
1843–1852

Ian St George

***Mr Colenso's Wairarapa* launches on 1 February**

This important new Colenso book will be launched at the National Library, Wellington, on 1 February.

As the first missionary in Hawke's Bay, 1843–1852, Colenso's "parish" extended west to Taupo and south to include the Wairarapa-Bush and this book records, from his own journals, his journeys on foot through the region. It records the tensions created by the collision of two very different moralities. It also records a gradual change from the enthusiasm and idealism of the young preacher with his paternalistic naiveté about his Maori parishioners, towards a much more adult understanding from the sadder but wiser man he became.

Author Ian St George is a naturalist, amateur historian and medical doctor. He is also editor of the *New Zealand Native Orchid Journal* and of *eColenso*, the newsletter of the Colenso Society, and has made an intensive study of William Colenso, the extraordinary nineteenth century genius whom the orthodox establishment of his time misunderstood and misrepresented.

Mr Colenso's Wairarapa: Twelve Journeys: 1843–1852
is published by Fraser Books for the Wairarapa Archive.
\$65.00 from the Colenso Society or selected
bookshops.



Colenso's Whangārei: central city area

By Clem Earp

Colenso made a number of visits to localities now within the present-day city of Whangārei, the first apparently being in December 1839 by sea, aboard the *Black Joke* in the company of James Busby.

In Colenso's day—1839 to 1842 in this district—few people knew the name Whangārei as applying to a settlement or village. It was used for the general area, or the harbour, or even as a Māori name for Bream Bay. Where the urban area of Whangārei is now was mainly scrub and fern, with scattered Māori pā and kāinga, and increasingly, even over those few years, Pākehā farms. From the river, mangroves with tidal creeks extended back over the flats as far as the present corner of Cameron and James Streets.¹

The present study concerns names close to the centre of the present-day city of Whangārei. Other localities further out, such as Maunu, Ōtaika and Waiiti, will be examined in a future article.

Pīhoi

At first, Colenso based himself at a pā called Pīhoi.² The following description, written by Robert Mair, who arrived in about 1842, fairly well locates it:

a Maori pa where the Presbyterian church stands: it was not a fighting pa, as the stakes were tea-tree (manuka) not more than four inches in circumference.³

The measurement equates to a diameter of less than 3.25 cm.

The church referred to is at the corner of Bank Street and Hunt Street, on the fringe of the CBD. This is an elevated position overlooking the landing place for boats coming up the river.

On 30 September 1841, Colenso tried to visit Pīhoi, but found it “deserted by the Natives, they having foolishly sold the ground on which it stands to a white man living in the neighbourhood, by which their large Chapel is also left”. The new owners turned out to be the family of Gilbert Mair, father of Robert. Hunt Street is named after a subsequent owner, who created the first subdivision for commercial users in 1860 on “the west side [of Bank Street] … the same site where, 20 years before, the Maori village of Pihoi had stood”.⁴

Ratu

From Pīhoi, Colenso often went to another kāinga called Ratu, “about $\frac{1}{2}$ a mile [800 m] distant”. According to Pickmere, in 1852 James Burnett purchased a block of 200 acres which he named Ratu “after the Maori village that had been there some years before … Today it comprises much of the light industrial and commercial area of the city (south of Walton St. to the Western hills)⁵”.

1. Mair, MS.

2. Some early sources give the name as Pihoihoi.

3. Keene (1966), p. 13. Mair, MS.

4. Pickmere (1986), p. 87.

5. Pickmere (1986), p. 61. Map referred to is on p. 14.

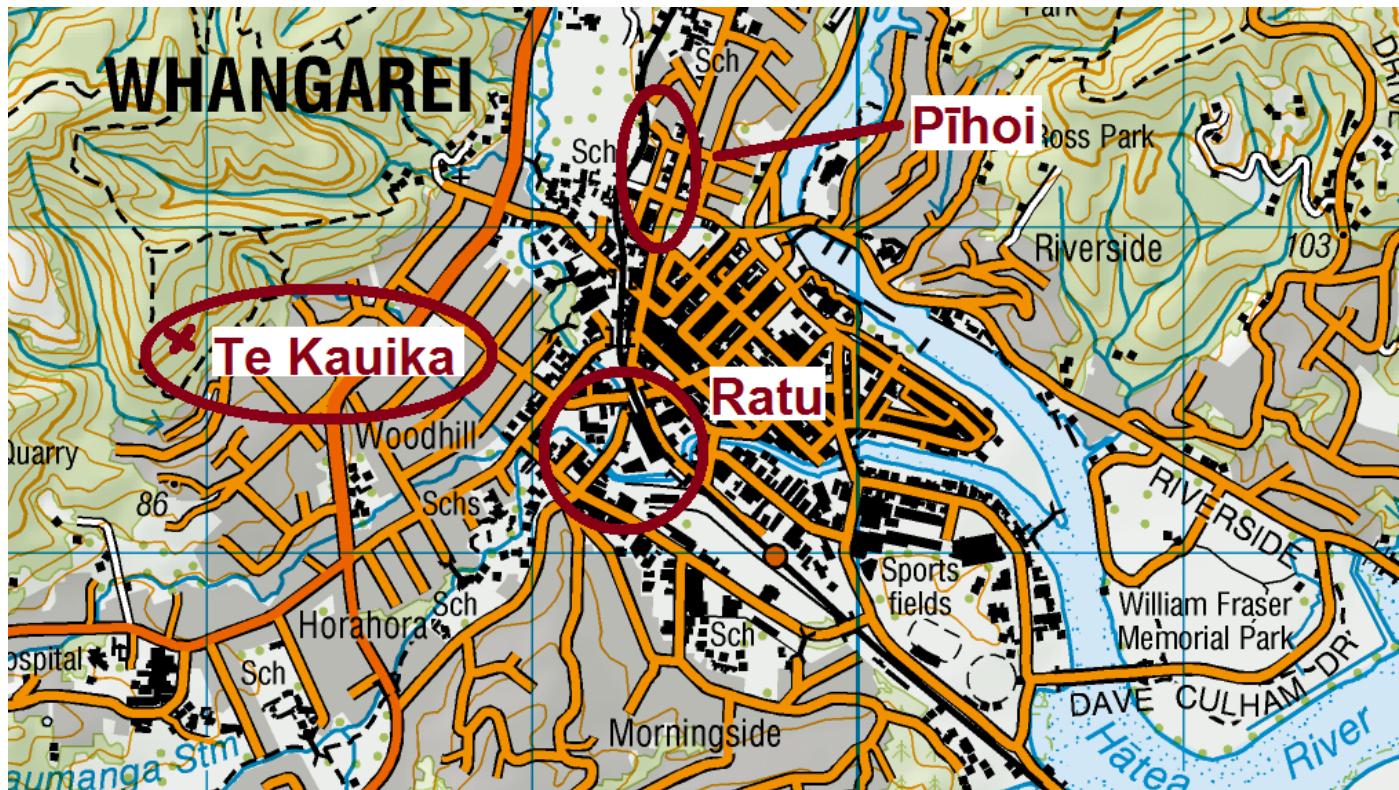


Figure 1. Modern topographic map of central Whangarei. Location of Pīhoi is known with certainty, of Te Kauika more or less (archaeology shows there were a number of pā and kāinga of various ages close together in this area), and of Ratu is known only vaguely.

Te Kauika shows the location of the early nineteenth-century village in Fig. 2, which may or may not be the one where Colenso stayed.

Map grid is 1 km.

Regrettably, Pickmere's map purporting to show the villages known to Colenso (accompanied by a photo of the gentleman) shows Ratu nearly 4 km from Pīhoi and way south of the present commercial area.⁶ A hand-drawn map among the manuscripts held by Whangārei Library, with no author (but possibly it was Pickmere), appears to be the basis for that published map.⁷ This manuscript map is very rough and distorted and it requires quite some guesswork to match it to topography. However, it does contain an additional column "Location" not included on the published map, and this states that Ratu was "near Morningside". A distance of 800 m south from Pīhoi would certainly be consistent with some elevated ground (the Ōkara hills) along Morningside Road.⁸ This land was claimed by local hapū in 1867 and known as the Hihīaua Block (the present-day usage of that name includes a great deal of reclaimed land to the east).⁹

Slightly better is a different map, apparently drawn from old survey records as it gives a better idea of the shoreline at that period.¹⁰

Further information on the whereabouts of Ratu includes that the (now abandoned) railway station was on Burnett's block.¹¹ The property was later sold to a Dr. Perston, who lived near the western end of Walton St., and had a cricket pitch where Clyde St. now is.¹²

This, then, is the sum total of information on the location of Ratu, which must remain relatively elusive within a certain circumscribed area. The name continued to be used at least until the early 1860s.¹³

Te Kauika

After deserting Pīhoi, the local Māori moved to Te Kauika, according to Colenso. It is likely that had always been one of their main settlements. The present-day Kauika Road comes to a dead end at the bush-clad hills on the north side of the city. According to some, the kāinga was near this top end, on the eastern side of the road.¹⁴ But an archaeological survey of this area showed numerous fortifications

along the ridgeline of the hill to the north, and below this was a "more recent village below [the] pa site ... This village is thought to be relatively modern, probably occupied between 1820–1860 though no record survives".¹⁵

This village is therefore of an era when Colenso was visiting. It is not possible to say for sure whether his Te Kauika was this village on the hill, or one further down (only about 70 m elevation separates the ridgeline from the present road). Regardless, the reconstruction shown here probably gives an idea of what he found when he arrived.

Colenso stated: 'Breakfast over, visited the woods immediately behind, and procured fine specimens of my new Beech'. This was probably what is now known as *Fuscospora truncata* (Colenso) Heenan & Smissen, which is the only species of southern beech known to occur in the area.¹⁶ Joseph Hooker published an image of one of Colenso's specimens, which at the time he included in *Fagus fusca*,¹⁷ explicitly naming Whangārei as one of the localities. Colenso's specific name dates only from 1898,¹⁸ and it was not accepted by other Botanists until 1926.¹⁹

6. Pickmere (1986), p.14.

7. Anon. MS. Page titled: The chiefs and their villages as Known by Colenso.

8. Keene (1966), p. 55 notes that the block extended to 'the foot of the Morningside Hill'.

9. He waiaita, a song for the sacred mountains and tribes of Whangārei. Whangarei District Council. <http://www.wdc.govt.nz/FacilitiesandRecreation/Town-Basin/Documents/Heritage-trail-signs-maori-panels.pdf>. This mentions villages on the block, but not Ratu.

10. Pickmere (1986), p. 60.

11. E. Arcus (1975), p. 15.

12. Pickmere (1986), p. 91.

13. E.g. a fire at Dr. Perston's farm, Daily Southern Cross 10 June 1862, p. 3.

14. Anon. MS.: 'near Central Ave'.

15. Nevin (1990), p. 5.

16. Manning (2001), p. 26.

17. JD Hooker (1844), *Icones Plantarum* vol. 7 tab. 631. For locality, see under tab. 630.

18. Colenso (1899), p. 280. The type cited by Colenso was not from Whangarei—it seems he did not even remember that—but from the Ruahines, collected by H.H. Hill.

19. Cockayne (1926), p. 21, was the first to insist on the correct name.

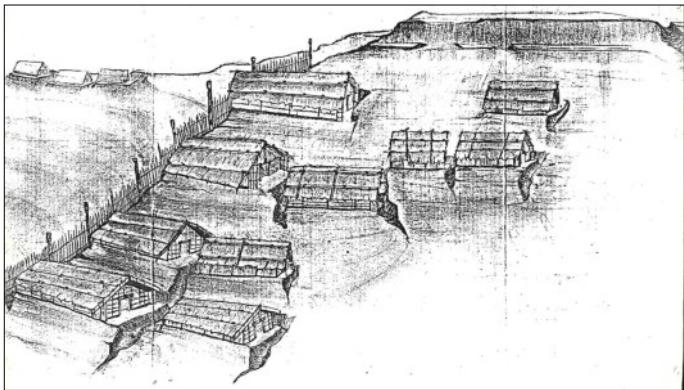


Figure 2. Reconstruction of a kāinga at Te Kauika of the period when Colenso visited (Nevin, 1990). Note the large channels in front of each whare, to drain off rainwater.

Robert Mair remembers

Robert Mair (1830–1920), whose reminiscences, written down in the early twentieth century, give the only available detailed correspondence between the topography of Colenso's time and that of modern Whangārei streets, remembered Colenso and many others of that era.²⁰

In May 1841, Lady Jane Franklin was wheeled into the Rev. Richard Taylor's schoolhouse at Waimate in a wheelchair to be introduced. She had been at Hokianga, and when returning, "mounting her horse ... was thrown and hurt her ankle".²¹ But this injury did not stop her travels. "Determined to see all she could of the colony, Lady Franklin made several difficult journeys through the bush with [Governor] Hobson, sometimes being carried for miles on a litter, beside which

her unfortunate companion Miss Williamson trudged weary alone".²² "The maories made a (kauhoa) litter of two long poles about 16 or 18 feet long tapered at each end, with a car woven with kareao (supple jack) in which she could either recline or sit up."²³

Lady Franklin was much interested in the chubby little boy William Hobson then only 10 years of age. By a strange coincidence it was he who later found the relics in King Williams Island which definitely established the fate of her distinguished husband in the frozen north.²⁴

Robert also remembered the day, later that year, when members of the Ross circum-Antarctic Expedition came to Waimate. In the morning, Joseph Hooker helped the boys construct a Guy Fawkes. In the afternoon, the Rev. Richard Taylor, knowing Robert's interest in science, excused him from school, along with older boys, to go hunting "land shell and plant" specimens in the bush with Captain James Ross and Joseph Hooker.²⁵

Of Colenso he wrote:

He came to Whangarei and stayed at our house. He got some small plants at the Rau[illegible]w[?]a and left them in my care. They were young plants of the Beech which sent on to him.²⁶

20. Robert's sister, Laura Jackson (1935, pp. 45–46), later claimed he had served as a guide to Lady Franklin as she was carried about in her litter, and that he had corresponded with Joseph Hooker, but such events are not mentioned by Robert in the numerous references to these people in his reminiscences.

21. Mair, Reminiscences, vol. 2 p. 132.

22. Mair, Reminiscences, vol. 1 pp. 198–199.

23. Mair, Reminiscences, vol. 1 p. 99.

24. Mair, Reminiscences, vol. 1 pp. 198–199.

25. Mair, Reminiscences, vol. 1 p. 89. Also in: *Otago Witness*, 26 August 1908 p. 31; Andersen & Petersen (1956), p. 31–32.

26. Mair, Reminiscences, vol. 2 p. 63.

Robert also claimed that, some years later, he was able to supply leaves and fruit of the puka (*Meryta sinclairii*)—which Colenso had been unable to obtain—to Andrew Sinclair, who sent them on to Joseph Hooker, and was most put out when the species was then named after Sinclair.²⁷

Colenso seems to have left little other impression on the Pākehā settlers at Whangārei. He mentions holding a service at the home of William Carruth, but Carruth's surviving notes on early Whangārei do not mention Colenso. Carruth's neighbours, the Runcimans, allegedly told a visiting Catholic priest, Fr Antoine Garin, “You come to see us ... Mr Colenso never comes. You even say ‘How are you?’ He passes nearby but without coming to see us”.²⁸

Te Iwitahi

Most of Colenso's time was spent with the Māori inhabitants, his main contact here being Te Iwitahi, the local chief of Te Parawhau hapū. This person certainly did make a great impression on the Pākehā settlers:

He was very much respected but still had his peculiarities, one of which was an intense aversion to the word “kahore” (no) being used in conversation with him. A short time before I had the pleasure of making his acquaintance, one of his wives, preparing dinner, was putting potatoes in the pot with their jackets on, when Iwitahi told her to pare them. The foolish woman said “kahore” ... the old man ran and fetched his tupera (double-barrelled gun) and shot her there and then.²⁹

Colenso gave the name of Te Iwitahi's kāinga variously as Pakaraka or Parakaraka, and said it was 4 miles (almost 6.5 km) “further inland” from Pihoi. These are fairly common placenames, present both in the Bay of Islands and in the wider Whangārei district, but no other

contemporary sources mention any place of similar name that close to Whangārei city. Fr Garin mentions Te Iwitahi as being chief at Otaika, and states he lived at Te Kauika.

The late Nancy Pickmere placed him initially at a kāinga called Paritai before moving to Pihoi.³⁰ An anonymous source³¹ gives the name of Te Iwitahi's kāinga as Parakai. There is currently a Paratai Crescent in Whangārei, near Te Kauika, but this would be only 1 km from Pihoi. None of these names are known as toponyms in any nineteenth century sources.

It is possible that some kind of copying error, somewhere along the way, has deformed the name, and the identity is now lost, perhaps irretrievably.

References

- Anon., n.d. *Pa sites & sites of battles in Whangarei & environs*. Manuscript, Whangārei Library.
- J.C. Andersen & G.C. Petersen, 1956. *The Mair family*. AH & AW Reed, Wellington.
- E. Arcus, 1975. The Burnetts at Whangarei. Northland Founders Papers no. 2, New Zealand Founders Society. Typescript, Whangārei Library.
- L. Cockayne, 1926. Monograph on the New Zealand beech forests. Part 1. Ecology of the forests and taxonomy of the beeches. *NZ State Forest Service Bulletin no. 4*. Govt. Printer, Wellington.
- W. Colenso, 1899. Phænogams: A Description of a few more Newly Discovered Indigenous Plants; being a Further Contribution towards the making

27.Andersen & Petersen (1956), p. 35.

28.Translation by Fordyce (2009), p. 233. Original French by Garin: ‘Vous venez nous voir, vous, mais Mr Colenso [sic], ne vient jamais nous dire même comment vous portez-vous ? il passe près de nous sans nous venir voir’ (Serabian 2005, p. 544).

29.William Carruth Papers, typescript in Whangarei Library, this portion printed in Rust (2005), p. 6.

30.Pickmere (1986), pp. 14, 17.

31.Anon. (n.d.)

- known the Botany of New Zealand. *Transactions of the New Zealand Institute* 31: 266–281.
- S. Fordyce, 2009. *Tangiteroria, crucible of the Kaipara, 1836–54: Missionary impulse and impact*. Charford Press, Rua wai.
- L.L. Jackson, 1935. *Annals of a New Zealand family. The household of Gilbert Mair, early pioneer*. AH & AW Reed, Wellington.
- F. Keene, 1966. *Between two mountains. A history of Whangarei*. Whitcombe & Tombs, Auckland.
- R. Mair, *Reminiscences*. Handwritten manuscript, Whangārei Library.
- D. Manning, 2001. *Natural areas of Whangarei Ecological District. Reconnaissance survey report for the Protected Natural Areas Programme*. DOC, Whangārei.
- G. Nevin, 1990. *Contour survey of six archaeological sites in Whangarei City*. Whangārei District Council.
- N.P. Pickmere, 1986. *Whangarei: the founding years*. Published by the author, Whangārei.
- A.M. Rust, 2005. *Whangarei and Districts' Early Reminiscences*. [original 1935–36, 2005 version edited by E.M. Wakefield, dande1st.com].
- H. Serabian, 2005. Le journal du Père Antoine Garin, 1844–1846. Une édition critique présentée avec commentaire, transcription et annotations. Ph.D. thesis, University of Canterbury, accessed 30 December 2017 at https://ir.canterbury.ac.nz/bitstream/handle/10092/882/thesis_fulltext.pdf.

Correction

Simon Nathan writes, “On p15 (of the January *eColenso*) there is a topic box about the settlement of the south Pacific and New Zealand which cites a date of about 800AD for first arrivals in New Zealand. I’m afraid that this is a bit out of date – the generally accepted date is about 1250AD, later than estimated by earlier scholars (but consistent with most Maori traditions). When I worked for Te Ara, we included an article about the first arrivals and settlement of New Zealand: <https://teara.govt.nz/en/when-was-new-zealand-first-settled>. “Although there has been more research done over the last decade, I don’t think that it has changed the conclusions of the article.”

Colenso’s Māori artifacts in the British Museum

In May 2010 we carried a note on Colenso’s *kete* and in October 2013 one on Colenso’s calabash in the British Museum collections. There are other artifacts there too, collected by Colenso, some sent to JD Hooker at Kew with 1619 plant and other specimens in June 1850 and later transferred to the BM, others at different times.

The BM website has illustrations of some of the artifacts. Not pictured are

Oc1960,11.12 “Man’s belt, tatua, plaited from pingao leaves.... 6 1894. Specially woven belt made from *Desmoschoenus spiralis* Hook.f. The long, orange coloured leaves of this spreading seaside plant afforded a good material for the Maoris for weaving strong and useful belts (see Trans. N.Z. Inst. Vol. XXIV 1891 p.451) W. Colenso, Napier, New Zealand”. This was sent to order on **24 November 1893**, “A newly woven belt of *Demoschœnus spiralis*, manufactured purposely”.

Oc1960,11.11 “Mat made of leaves (kie kie).... Original Kew Gardens label, printed torn : ..f the LEAVES of [K]IE KIE," nksii A. Cunn. [NEW ZEA]land. [R]ev. W. Colenso.” It is Colenso’s specimen No. 3934 sent in **June 1850**, “A Mat made of the leaves of the Kie-kie (Freycineta Banksii)”.

Those that are illustrated follow...

Mat

Oc1960.11.9

Original Kew Gardens label:

DOORMAT MADE
OF NEW ZEA-
LAND "HEMP" or
"FLAX", Phormium
tenax L. f. Used by
Maori women for
the floors of chiefs'
houses and for chap-
els : some of these
mats are over 80'
long and 40' wide.

NEW ZEALAND.
2-1847.
Rev. W. COLEN-
SO.



Extract of letter from W. Colenso to Thiselton-Dyer, dated Napier, N. Zealand 19 August 1896: “A plain door mat now more than 45 years old.... The larger strong plain floor mat, is a sample of what the Maori women used to make for the floor of their Chief's houses – and for my own dwelling-house, and particularly for their Chapels after they had received Xy. In some of my larger Chapels these mats were more than 80 feet long, by (say) 30-40 feet wide; the Congregation sitting on the floor without raised seats. Every Monday morning the big mats were rolled carefully up; underneath them were strawed Bulrush leaves (*Typha*).”

Cloak

Oc1960,11.70

“Label attached explains that the Fagus [beech tree] is used to make the black dye.”

It is Colenso's specimen 3933 sent in **June 1850**, “A fine (& to them), valuable garment, made of the fibres of the leaves of my fine Cordyline (No. 1508). – *C. utilis*. These are only made by the Mountain Tribes; are everlasting, greatly prized, & realize a high price. It is called a Toï [To-ee, prncl.] It may do for your Museum? The black dye is from the bark of the large-leaved Fagus; probably, *T. robusta*, (2478), or *T. fusca*.



—by “Mountain Tribes” he was referring to those of the Inland Patea villages.

Baskets

Oc.1928

These kete wha-kairo are labelled, "A Frail or Basket made of split leaves of New Zealand Flax, Phormium tenax, Forst. Used by the natives for carrying their books in to Church and school, the women their sewing etc. New Zealand. Rev. W. Colenso".

On 19 August 1896 Colenso wrote to Thiselton-Dyer, sending "several ornamented baskets, various patterns, (Maori name, Kētē)" and re-

marking, "For Lady Hooker: a parcel, containing a Chief's first-class dress mat, a small box, containing a pair of turned wooden vases Dacrydium cyparissinum, and her Ladyship is to select two of the baskets". He added, "Some of the baskets, or kits, were rolled up, &c, &c, by me, in packing, but being very soft & elastic they will recover their shape, &c., on being slightly damped and spread out."





Bowl Oc1977,08.5

This is attributed to Colenso but is not mentioned in any of his surviving letters. It was purchased by the Museum from the James Hooper collection sold at Christie's sale of 21 June 1977, lot 115. Hooper acquired the vessel from the Penzance Natural History and Antiquarian Society in 1947. It probably *was* collected by William Colenso and donated to the Society.

Colenso's tuatara

27 November 1885, Colenso to James Hector,¹

Napier, November 27th., 1885.

Dear Sir

I very much wish to borrow from the Colonial Museum & Library two things:—

1. One of the skeletons of *Sphenodon punctatum*, (mentioned by Dr. Newman in his paper on this Lizard, *Trans. N.Z. Inst.*, vol.X, p.226):—

2 Günther's scientific description of the same, in "Phil. Trans.", 1867, pp. 595–629, and plates 26–28," (referred to, as above, by Dr. Günther, at p.9, of "Zoology of Erebus and Terror Expedition").

I much fear you may not be able to lend me the skeleton, still I venture to hope you may: I would take every care of it & be fully answerable for it (as to value) if lost: at all events I hope you can lend me the book:—& will return it in a few days.

Some bones of a lizard (?) about size of *Sphenodon punctatum*, have been this week found here, in the quarry below:—though only a few, they are in excellent preservation: I wish to have a description ready for our next meeting: an early reply will oblige.

Yours very truly

Wm. Colenso.

1 December 1885, Colenso to David Balfour,²

NAPIER DEC 1/85

.... Another new find (causing labour) was the bones of an animal in the quarry below, 45 feet, or so, under surface, and in excellent preservation. Unfortunately from their being very small (I could put all I have in a wine glass) they were not soon discerned, & so 4/5ths or so are missing. These will cause another short paper for our next meeting.

I wrote on Sat to Dr Hector, to borrow a work from the library—which I require; will he lend it?

14 December 1885, Colenso at the Hawke's Bay Philosophical Society meeting,

Notes on the Bones of a Species of *Sphenodon*, (*S. diversum*,³ Col., apparently distinct from the Species already known. *Transactions of the New Zealand Institute* 18: 118-123.

[Read before the Hawke's Bay Philosophical Institute, 14th December, 1885.]

TOWARDS the end of November, 1885, I received a small parcel of little bones from Mr. Mills, of the wood and coal dépôt in this town. It was brought to me by one of his workmen, who said, "they were that morning found in the quarry, while digging, at about forty-five feet below the surface." I was not very well at the time, but on looking at them, I soon saw they had belonged to some small reptile. They were in most excellent preservation, even to their minutest parts and finest processes, and were not fossilized; but, most unfortunately, they were very few of the whole skeleton. On making further inquiry during the afternoon, I found that "the quarry" (which I had supposed to be distant, on the west side of Scinde Island and near the harbour, where the larger quarries are,) was very near me, in Town Section No. 101, and opened on to Tennyson-street South. On hearing this, I called my man, (whom I could trust on such an errand,) and, showing



Napier Town Section 101: the quarry below Colenso's land where the extinct tuatara skeleton was found 45 feet below the surface—perhaps near today's 15 Craven Terrace

him the little lot of bones, sent him to the quarry to see if he could find any more. On his return, he brought me three additional bones, two of them being the pelvis bones of the skeleton.

In more closely examining them on the following day, I was pretty sure they were bones of a small lizard, and probably a species of *Sphenodon*, but whether of the more common species, *S. punctatum*, or of some other species, I could not determine.

I had Dr. Newman's interesting account of his anatomy of a species of *Sphenodon*, (*S. guntheri*, Buller,) but that treated chiefly on its muscles; and I had no works describing clearly the osteology of the *Sphenodon*, neither were there any in the library of the Hawke's Bay

Philosophical Institute, save a partial drawing of its entire skull, in a plate in the "Zoology of the *Erebus and Terror Voyage*," but without letterpress or description.

Finding, however, that Dr. Günther's full and able description of the anatomy of *Sphenodon punctatum* was in the library of the Colonial Museum, where also was a preserved skeleton of the animal (mentioned by Dr. Newman in his paper referred to), I wrote to the Director of the Colonial Museum, Dr. Hector, for the loan of both skeleton and book, and very recently I have received both, for which kindness I wish to thank him.

Being thus aided for my task, I was enabled to go to work, and to examine and study the few bones I had obtained; and in this short paper I give you the result.

As I said at the beginning, the bones, unfortunately, were few. The total number of whole bones and pieces was but forty-three, several being small chippy portions of the skull that had separated at their sutures; fortunately the jaws with their teeth were among them, and nearly entire. Then, as regards their bulk, a wine-glass would have contained them all. Their complete list, as far as I have been able to make them out (through shortness of time), will run as follow:—

1. *Of the Head:* 6 bones, containing the teeth, viz.:—2 *maxillary*, 2 *mandibles*, and 2 *maxillary-palatal*; also 1 *splenial*, and 1 *articular* (belonging to one of the mandibles), 1 *os quadratum*, and 1, the basal portion of the skull, with *exoccipital* and other bones attached; with a few small, thin, chip-like bones and fragments.
2. *Of the Fore-limb:* 1 *humerus*, 1 *ulna* (whole), and 1 *radius* (part only).
3. *Of the Vertebræ:* 9 joints.
4. *Of the Body:* 8 ribs (some broken), and the pair of *pelvis* bones.

There was also among them what appears to be the tarsus of some small bird, but broken.

I will now give a more particular description of those bones, showing where I have observed them to differ from those of *S. punctatum*, as given by Dr. Günther.

Before, however, that I describe its teeth, I should observe that this animal, like *S. punctatum* and a few others, is a true *Acrodont*; that is, it has no proper teeth set into proper (alveolar) sockets like those of other animals; but its teeth are composed of little bony points, arising from the bone of the jaw itself,⁴ and are of various shapes and sizes, so that it is difficult sometimes to decide whether a tooth or a projection should be considered as one or as three, from the number of its sharp, tooth-like points.⁵ The teeth are mostly broadly conical, especially the maxillary, with their tips truncated or flattened, as if worn; and all with an apparent longitudinal flaw, or crack, extending down the centre of the tooth. At the same time, it seems to me that the structure of the substance of the teeth, from their semi-pellucid appearance, is different from that of the common bone of the jaws.

I. Of the Teeth:—

1. The *maxillary*, or upper jaws: One contains 16, and one 17 teeth, of which the central ones are the largest; in this respect differing largely from *Sphenodon punctatum* (Günther's).
2. The *mandible*, *dentary*, or lower jaws: One contains 16 teeth, and a canine one at the anterior end of the jaw, with no space between them; and one contains 13 teeth with the canine one, and a space between them. These dentary teeth are alternately large and small.
3. The *palatine* teeth also vary in number. In the one, there are 8, and in the other 10, teeth, the anterior tooth being the largest. This one agrees with *S. punctatum* (Günther's).
4. The *intermaxillary* teeth (if there ever were any) are missing.

Here, I may observe, that Dr. Günther says of the teeth of *Sphenodon punctatum*:—"There are originally about 18 in each maxillary, and 11 in each palatine. However, those of the anterior half of the maxillary appear to be soon ground down to the alveolar edge. The first palatine tooth is much stronger than, and separated by a short interspace from, the succeeding. The alveolar edge of the mandible is polished, bearing about 16 teeth as long as the number is complete; but (as in the maxillary) the teeth are gradually lost from the front backwards." Dr. Günther has also given several drawings of the teeth and jaws of *Sphenodon punctatum*, of both old and young specimens, but none of them agree with these of this specimen.

II. Of the Dental Bones:—

1. The upper jaw contains 10 *foramina maxima superiore*: of these, Dr. Günther merely says that "they are present as in other lizards."
2. The lower jaw contains 6 to 7 *foramina mentalia*: in *S. punctatum* these latter "vary in number from 2 to 4, and are small." The additional large *foramen* between the dentary and articular bones, mentioned by Dr. Günther as being large in *Sphenodon punctatum*, is also found here in this specimen, and is very large. This lower jaw has lost its *coronoid*, which separated at the suture; the very small and splintery *splenial*, and *articular*, were also separated at their sutures, but these two were with the bones.
3. The *palatine*, with its additional row of bony teeth, is a highly curious bone; when this is fixed in its natural situation in the roof of the mouth, forming an extra line of teeth parallel with those of the upper jaw, the teeth of the lower jaw are so situated as to fall in, or close up, between those two lines.

III. Of the Remaining Bones of the Skull:—

1. The inner basal portion, with the *exoccipital* bones, is complete; these are, however, much smaller than those of *Sphenodon puncta-*

tum, yet the occipital hole (*foramen magnum*) is considerably larger. There is a most peculiar isolated internal bone, arising centrally from above the anterior *hypapophysis* of *basi-sphenoid*, and also the *pterygoid*; it is not thicker than a bristle, and about 4 lines long; it is semi-cylindrical, and curved upwards, and wonderfully preserved! There is no such a bone shown in Dr. Günther's careful and able dissections of the skull of *Sphenodon punctatum*,⁶ but it exists, though smaller and stouter and scarcely seen, in the Wellington specimen (which is badly preserved).

2. The *os quadratum* (1 only) is much broader at the end than that of *Sphenodon punctatum*, as shown in Dr. Günther's plate; besides, the suture joining it to the *pterygoid* is of a different shape; it is also different from that of the Wellington specimen.
3. There are also a few other very small, thin bones, mere chips, separated at their sutures, and not yet ascertained.

IV. *Of the Fore-limb:*—

Of this, there are 1 *humerus*, 1 *ulna*, and 1 *radius*; the two former are whole, the latter broken. The *humerus* is very stout, and is a beautiful piece of mechanism. Dr. Günther gives no drawing of these bones (though he does of the adjoining *scapula* and *coracoid*), and says very little about them, save that "they are similar in form to those of other known genera of this family." These three bones resemble those of the Wellington skeleton as far as those can be seen.

V. *Of the Vertebrae:*—

1. There are only 9 joints; 4 *cervical*, of which one joint is the 2nd cervical; 3 *dorsal*; and 2 *caudal*, upper anterior. These are all much smaller, etc., than those (few) shown by Dr. Günther, especially the 2nd cervical.

VI. *Of the Remaining Bones of the Body:*—

1. There are 8 of the smaller ribs and portions of ribs, none being quite perfect. These are very much smaller than those shown of *Sphenodon punctatum*.
2. The pair complete of *pelvis* bones, which differ considerably from those of *Sphenodon punctatum* (as represented in the drawing), in wanting the "remarkably developed uncinate process of *os pubis*, in the middle of their anterior margin, and the still more prominent *tuberositas ischii*" of the posterior angle. Those processes, however, exist in this pair of pelvis bones, but they are smaller, and of a different shape; while those same bones in the Wellington specimen are very much larger and stouter every way.

I regret not having had more of the bones of this little animal, especially those of the upper and fore parts of the head, with the intermaxillary teeth; more of the fore-limb, also those of the hind-limb, and more joints of the vertebral column. Of these latter alone—which joints in *Sphenodon punctatum* amount to 63, all varying exceedingly with their position in the skeleton—there are in this small lot only nine joints, or one-seventh of the complete number!

The whole of the bones of this newly-found specimen are remarkably thin, almost papery (except those three of the fore-limb), and yet generally perfect, and not worn down by friction or wasting. Their thinness, combined with the more sound and larger teeth, serve to show that this animal must have been young, or, at all events, not a very old one; and yet the teeth are very far from approaching to those of a young one, as shown by Dr. Günther. Again, there is no comparison as to general appearance between these bones and those of the Wellington specimen, which are both larger and stouter, and apparently of a different substance. These bones must have belonged to a much smaller animal than either *Sphenodon punctatum* of Dr. Günther, or that of the Wellington skeleton. At the same time, it must not

be overlooked that the *dentary* bone (or lower jaw) of this specimen is quite as large as that of *Sphenodon punctatum* of Dr. Günther, and a little longer than that of the Wellington one.

These bones are not fossilized, neither are they rotten, although so very thin. The old Maoris always said that the tuatara (*Sphenodon* sps.) formerly inhabited the headlands of the New Zealand coast (as well as the islets lying off it), which the finding of this specimen proves. The place where it was found is on the east side of the outer hill forming Scinde Island (Napier), which originally formed a steep slope to the raised beach below. The remains were discovered at a depth of about 45 feet from the surface of the slope, and about 40 feet in from the base, in apparently undisturbed sandy loam. My own opinion is—from having, thirty to forty years ago, seen remarkably large and deep new rents and fissures in the sloping sides of our Hawke's Bay hills, caused by earthquakes, many of them afterwards closing up,—that anciently this little animal, at some such a season, fell into one of those deep rents, and so perished.

In conclusion, I may observe that Dr. Newman also says:—“Three species of *Sphenodon*, unlike in form and colour, have been discovered: 1. *Sphenodon punctatum*, black and spotted; 2. *S.* (unnamed), green and yellow; 3. *S. guntheri*, lighter. The dark form is found in the North, the intermediate at East Cape Islet, and the lighter form in the South. *S. punctatum* was the form so elaborately described by Dr. Günther. The other species have not been anatomically examined.”⁷

Dr. Günther also mentions the possibility of there being two species, although, from the smallness of the material before him at that time (1867,) he does not support it.

Such, however, being the case, and these (few) bones not wholly agreeing with those of *Sphenodon punctatum*, I have named this species *Sphenodon diversum*, but only provisionally, as on further examination of both this and of better specimens, and a closer comparison

of them with the bones of those two other specimens mentioned by Dr. Newman, may yet show that these belong to one of those two species.

P.S.—The ordinary meeting of the Hawke's Bay Philosophical Institute, to be held this evening, being the last for this season and year, I have been very desirous of bringing this paper before you, and have only been able to finish it this day.

18 December 1885, Colenso to Hector,

Napier, Decr. 18th, 1885.

Dear Sir

I have to thank you for your kind loan of Book & spn. (*Sphenodon*) from Col. Museum—to hand last week: I now return them to you by steamer leaving here tomorrow.

Through your kindness I was enabled closely to examine and compare the few bones I had acquired of a small *Sphenodon*: my paper on them was read here on Monday last, & perhaps you may receive it by this mail.

I received the little case safely (though no note came with it), and hope it may reach you all right. The skeleton was partially disjointed in its case: I trust it was so when packed up.—

I am, Dear Sir,

Yours truly

W. Colenso.

Twenty-one days from receiving the specimen to submitting a formal description is very efficient science. Colenso's species stands.

See <https://en.wiki2.org/wiki/Tuatara> for more on the Tuatara. (It is wrongly stated there that Colenso “was sent an incomplete sub-fossil specimen from a local coal mine”: it was the quarry below his house).

Lizard in kauri gum

Later in 1889 Colenso heard about another specimen that aroused his interest; he wrote to Cheeseman (26 June 1889),⁸

Mr. Cheeseman,
Auckland.

Dear Sir

Last year ('88) while sojourning in the Bush, I made the acquaintance of a Mr. McKay (formerly of Whangarei), who was also Boarding at the same hotel. He knew pretty much of Maori objects, &c., &c. and, among other things, told me of a “very curious Lizard” (?) he had found encased in a big lump of Kauri resin: that he had sent it to the Auckland Museum for your inspection, & that you had written to him favorably concerning it.—

Moreover, he had often sought to get it returned, &c., &c.—and, finally, he said,—in his going N., in 1889, he would see you & get it.—

Mr. McKay is still here: and I find, he did not go N.—but he has written an outline for me of the finding of the reptile, &c.—and I have thought of dropping you a line about it.—

Could you write me something satisfactory respecting it? or, better, perhaps, could you kindly lend it to me? I would return it quickly and pay all expenses of transit hither and back.

I may mention that Sir J. Hector formerly lent me their spn. of Sphenodon from the Col. Museum.

Hoping you are quite well, and with kind regards,

I am, Dear Sir,

Yours faithfully,

W. Colenso.

There is no reply from Cheeseman, but there is a lizard in kauri gum in the Mangawhai Museum.⁹ Many faked animal inclusions in kauri gum have been produced and natural inclusions are very rare.

Notes

1. Museum of New Zealand—Te Papa Tongarewa MU000094/003/0027
2. ATL 88-103-1/07. Original at MTG HB 67861.
3. WC: “Transactions N.Z. Inst.” vol. x., p. 222.
4. WC: To this, I may be permitted to add in a note, that I was the first to point out this curious novelty; and this I did first to Dr. Dieffenbach (in 1841), from my living specimen, which I had and kept alive for several months. Dr. Dieffenbach then resided at Paihia, Bay of Islands, very near me, and visited me frequently; Dr. Dieffenbach, also, having at that time received from me the very specimen which Dr. Günther has stated in his admirable Memoir as being the first one taken to England, and deposited by Dr. Dieffenbach in the British Museum. (This is extracted by Dr. Günther from Dr. Dieffenbach’s early work on New Zealand, vol. ii., p. 205, in which work, however, my quondam friend omitted to mention how and when he received it, as well as several other similar matters relating to specimens of New Zealand natural history, the Maori language, customs, etc., etc. Dr. Dieffenbach never visited the East Coast of the North Island.)
5. WC: As an apt illustration of this, I may here quote what Dr. Newman incidentally mentions in his paper above referred to:—“Drs. Günther and Knox disagree in the number of teeth assigned to each maxilla and palate, but this arises from the fact that Dr. Knox considers several of them complex teeth, while Dr. Günther counts each cone as a distinct tooth. Günther says there are about eighteen teeth in each maxilla, which Knox counts as six. I counted sixteen in mine, and thirteen on each palate.”—(l.c. p. 232.)
6. WC: This bone, however, may have been referred to by Dr. Günther, in writing on the palate and its muscles, where he casually mentions “the long styliform process of the pterygoid and ectopterygoid.” (l.c. p. 600.)
7. WC: l.c., pp. 222, 223.
8. Auckland Museum MA 9S/38/2.
9. <http://www.nzmuseums.co.nz/account/3023/object/434391/>

Colenso was right. His “quondam friend” Dieffenbach failed to mention, when he donated the specimen to the British Museum, that he had obtained his tuatara from Colenso and that it was Colenso who “had it alive and kept for some time in captivity” (see paragraph 2 of the first page of Albert Günther’s 1867 paper at right ►), let alone that it was Colenso who first observed the creature’s primitive dentition.

Günther’s “landmark paper on tuatara anatomy was the first to establish that the tuatara reptile was not a lizard and in fact the only living member of an entirely new group of reptiles which he named *Rhynchocephalia*.¹”



Tuatara eating weta (<http://www.nhc.net.nz>)

XIX. *Contribution to the Anatomy of Hatteria (Rhynchocephalus, OWEN).*

By ALBERT GÜNTHER, M.A., Ph.D., M.D. Communicated by Professor OWEN, F.R.S.

Received April 4,—Read May 2, 1867.

THE remarkable Saurian which forms the subject of this memoir, appears to have been first mentioned in a diary by Mr. ANDERSON, the companion of Captain Cook, to whom “a monstrous animal of the lizard kind” was described by the two New Zealand boys who joined the expedition whilst staying in Queen Charlotte’s Sound (Cook’s Third Voyage, 2d edit., 1785, vol. i. p. 153). POLACK (New Zealand, 1838, vol. i. p. 317) speaks of it as a creature well known to the settlers. “The gigantic lizard or guana exists principally in the island of Victoria. Some are found in the isles of the Bay of Plenty. The natives relate ogre-killing stories of this reptile, but doubtless it is harmless.”

Dr. DIEFFENBACH has the merit of having first made us acquainted with it. In his ‘Travels in New Zealand,’ vol. ii. (1843) p. 205, he has the following notes:—“I had been apprized of the existence of a large lizard, which the natives called Tuatera, or Narara, with a general name, and of which they were much afraid. But although looking for it at the places where it was said to be found, and offering great rewards for a specimen, it was only a few days before my departure from New Zealand that I obtained one, which had been caught at a small rocky islet called Karewa, which is about two miles from the coast, in the Bay of Plenty. From all that I could gather about this Tuatera, it appears that it was formerly common in the islands; lived in holes, often in sand-hills near the sea-shore; and the natives killed it for food. Owing to this latter cause, and no doubt also to the introduction of pigs, it is now very scarce; and many even of the older residents of the islands have never seen it. The specimen from which the description is taken I had alive, and kept for some time in captivity; it was extremely sluggish, and could be handled without any attempt at resistance or biting.”

This specimen was presented by DIEFFENBACH to the British Museum, where it still is—in the most perfect state of preservation. Dr. GRAY recognized it at once as the type of a distinct genus, which he characterized in the ‘Zoological Miscellany,’ March 1842, p. 72, referring it to the family of *Agamidae*, and naming it *Hatteria punctata*. The same diagnosis is republished in the ‘Catalogue of Lizards,’ 1845, p. 249; and an excellent figure of the entire animal was given in the ‘Zoology of the Erebus and Terror,’ together with a drawing of the skull* exhibiting its general configuration. Unfortunately no letterpress accompanies this figure.

* This skull is still in the British Museum. Mr. Ford has introduced into this drawing an erect process of the lower jaw, just below the tympanic condyle; this, however, is merely the remainder of a dried ligament.

COLENSO 3: FEBRUARY 22^A AND 23²⁰₁₉

NAPIER

MTG HAWKE'S BAY

