



## Why have so few Māori or Moriori names been used in taxonomic description?

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**Abstract:** The listing by Veale et al. (2019) of taxonomic epithets based on te reo Māori and ta re Moriori show that there were very few until well into the 20th century and their approximate total to date of 1288 represents only about 4% of New Zealand species names. The bias against the use of indigenous names can be traced to the preference of eighteenth-century European scientists, and Linnaeus in particular, for their own scholarly languages, Latin and Greek, and their rejection of other languages as “barbarous.” As codes of zoological and botanical nomenclature were developed the European preference for Latin names in taxonomy became formalised and the use of indigenous names was discouraged. The dominance of Latin has only slowly been loosened. The term “barbarous” for names not from Latin or Greek remained in the *International Code of Botanical Nomenclature* until 1956 and the *International Code of Zoological Nomenclature* until 1961. Since then there have been no restrictions or recommendations in either code on the source or language of new species names, although they are still required to be in Latin form. Taxonomists are thus free to use te reo Māori, ta re Moriori or any language when naming species and in recent years more have been doing so, although the old European preference for imposing Latin names still persists.

**Keywords:** barbarous languages, *International Code of Botanical Nomenclature*, *International Code of Zoological Nomenclature*, linguistic imperialism, Linnean taxonomy, taxonomic nomenclature, use of Latin in nomenclature

### Short note

The paper by Veale et al. (2019) in the Mātauranga Māori issue of the Journal makes some important points concerning present practice in “Using te reo Māori and ta re Moriori in taxonomy”, but its review of the long history of such use overlooks the most obvious question: why have there been so few?

Veale et al. (2019)’s list of taxonomic epithets based on te reo or ta re is not comprehensive: it omits some Māori or Moriori epithets now regarded as synonyms and no longer in use, and others from groups which have evidently been overlooked (Hirudinae for instance). On the other hand it includes quite a number of epithets that might appear to be Māori but are actually Latin (*aranaea*, *maura*, *taenia*), or based on non-Māori personal names (*kikkawai*, *kuroharai*, *mairi*) or non-Māori place names (*kai*, *mariae*, *taronga*). Nevertheless, taking Veale et al. (2019)’s tally of 1288 as a reasonable estimate of the number of Māori or Moriori names used in taxonomic description it represents only 4% of the perhaps 30 000 named New Zealand species (Taylor & Smith 1997). In earlier years, as their list and figures graphically indicate, the proportion was even lower. Up to 1905 about 9000 species of animals, flowering plants and ferns had been named from New Zealand (Hutton 1904, Cheeseman 1906) but only 65, or 0.7%, with Māori or Moriori epithets.

The very limited use of indigenous names and the dominant use of Latin in taxonomic description reflects the preferences

of the European scientists who first developed the Linnean system of biological nomenclature in the 18th century, and the predominantly European scientists who have used and adapted that system since then. After Linnaeus developed his system of biological nomenclature based on his preferred scholarly language, Latin, European scientists, beginning with Linnaeus’ own students, his “disciples”, spread around the world finding species unknown to science—but known and named by the local people—and, with few exceptions, renaming them in Linnean Latin form.

Historians of science have variously categorised this process as “Europocentrism” (Needham 1986), “linguistic imperialism” (Schiebinger 2007), or, when seen in a wider context, as “a process of intellectual appropriation parallel to the annexation of colonial territories” (Ritvo 1990).

How this process has played out and how it has affected the naming of New Zealand species can be briefly summarised. When Linnaeus developed the binomial system of nomenclature that is still used for naming genera and species, he concentrated on the names used by scientists, expressed in the classical languages of scholarship, Latin and Greek, as distinguished from the names used by the common people, expressed in their local vernacular languages. There was, and still is, a strong convention or unwritten rule that European common or vernacular names are not used in scientific nomenclature. When Linnaeus developed his system of nomenclature he drew up a set of aphorisms or rules on the way that names

for genera and species should be formed. He ruled firstly that they must be derived from Latin or Greek. He also ruled that “barbarous” or “primitive” names should not be used: “No sane person introduces primitive generic names. All barbarous names are regarded by us as primitive, since they are from languages not understood by the learned”, i.e. by the learned scientists of Europe (Linnaeus 1721, as translated by Freer 2003). The adjective “barbarous” (*barbarus* in Latin) as used here has many layers of meaning. In general it meant “foreign” or “uncivilised.” In relation to languages it ostensibly meant non-classical, i.e. languages other than the classics, Latin and Greek. But as Linnaeus’ use of it here and in the examples he gave makes clear, he was not thinking of European languages as “barbarous”, but generally reserved that term for languages not understood by Europeans. The non-classical European common names were “vernacular” or “vulgar”, but non-European names were “barbarous”.

However, Linnaeus was rather equivocal about the use of “barbarous” non-European names. While rejecting them in one of his aphorisms as quoted above, in a footnote to another aphorism he allowed that “barbarous” names could sometimes be used for genera or species, if they were put into Latin or Greek form—as he did himself with names such as those for the coffee plant *Coffea arabica*, or the tobacco plant *Nicotiana tabacum*. However, many of his early followers (the entomologist Fabricius for example) were more purist about using classical Latin or Greek names and rejected “barbarous” names altogether (Fabricius 1778). Thus, while the European scientists who came to New Zealand on the early exploring expeditions often recorded the names that Māori used for local species, when those species were named in Linnaean form their Māori names were replaced with Latin. There were just a few exceptions. A French scientist (the French were less attached to Latin) did use one of the Māori names recorded by George Forster on Cook’s second voyage, and even used it directly, without Latinising it. The name *Ardea matook* Vieillot 1817 for the then-common New Zealand reef heron is based on Forster’s clipped phonetic rendering of the Māori name later put in print as *matuku*.

The written form of Māori that became adopted in the 1820s meant that Māori words with their terminal vowels could pass as being in Latin form with little or no modification, but still few European scientists used them in taxonomic descriptions. There were two notable early exceptions. The zoologist René Lesson, who visited New Zealand on Duperrey’s expedition in 1824, used the Māori names for three birds and two fish (and named a flax snail after the local Māori leader Hongi Hika); and the botanist Alan Cunningham, who spent several months living with Māori in the Bay of Islands in 1826–27, used their names for 12 plants. But Lesson and Cunningham were unorthodox among European scientists of the time and the Māori names they used were rejected with scorn at “the impropriety of adopting native names for scientific purposes” (Hooker 1853) or condemned as “barbarous” (Finsch 1873; Buller 1888).

In the colonial period European settler scientists in New Zealand continued the process. When they began to name new species themselves rather than deferring to the authorities back in London or Paris, they almost all followed the purist classical approach, or what the botanist Thomas Cheeseman (1907) called “the well-known law that botanical names should not be taken from barbarous tongues.”

During this period the practices of Linnean nomenclature were beginning to be formalized in codes that all taxonomists

were expected to follow. In these, zoologists were a little more relaxed than botanists about the use of “barbarous” names. The first attempt at a code of zoological nomenclature, by British scientists in 1842, suggested that the “occasional and judicious use” of what it called “barbarous” or “exotic” (i.e. non-European) names was acceptable, “if such words have a Latin termination given to them” (Strickland 1842). This approach was carried into the first international code, the *Règles internationales de la Nomenclature Zoologique* (1905), which recommended that “The best specific name is a Latin adjective ... Latinized Greek words or barbarous words may, however, be used.”

Botanists were more reluctant to use “barbarous” names. Their first draft code urged them “Not to draw names from barbarous tongues, unless those names be frequently quoted in books of travel, and have an agreeable form that adapts itself readily to the Latin tongue, and to the tongues of civilized countries” (de Candolle 1867, 1868). This blithely Eurocentric recommendation was included in the first *Règles Internationales de la Nomenclature Botanique* (1906) and remained in force, unchanged, in subsequent botanical codes for the next century.

In New Zealand in the early to mid-twentieth century, local taxonomists (now mainly native-born European New Zealanders) generally still used Latin names. A few of the zoologists, notably Baden Powell (from 1927) and Ray Forster (from 1948), exercised the freedom permitted by their *Règles* and used Māori words, with or without Latin terminations. Botanists were under the heavier discouragement in their *Règles* against “barbarous” names but the mycologists Gordon Cunningham (from 1923) and Joan Dingley (from 1951) stood out by using Māori names, usually without Latinising them.

The term “barbarous” was eventually removed from the *International Code of Botanical Nomenclature* in 1956 and the *International Code of Zoological Nomenclature* in 1961. The replacement wording in the new zoological code of that year (ICZN 1961 Appendix D. Part VI, no. 39) made clear which names had earlier been rejected or discouraged under that pejorative term: names “taken from languages neither classical nor modern Indo-European”.

From that time there have been no restrictions or recommendations in either code on the source or language of new species names, although they must still be in Latin form (written in Latin characters, preferably with a Latin termination and meeting Latin gender requirements). The unwritten rule against using European common names remains, but taxonomists are now free to use *te reo* Māori, *ta re* Mōri or any other language in new species names, with only a residual nod to Latin form. In recent years more New Zealand taxonomists have been doing so, as Veale et al. (2019)’s review shows, although the old European preference for imposing Latin names still persists.

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