

Rewarewa population genomics

Date added: 24 March 2024

Last modified: 24 March 2024

Project type: Publication

Project visibility: Public

Local Contexts Project ID: aa3a6689-e382-48a1-82b4-d48e344ef521

Project page URL: <https://localcontextshub.org/projects/aa3a6689-e382-48a1-82b4-d48e344ef521>

Added by: David Chagné | Plant & Food Research | Institution

Project Contact: David Chagne | David.Chagne@plantandfood.co.nz

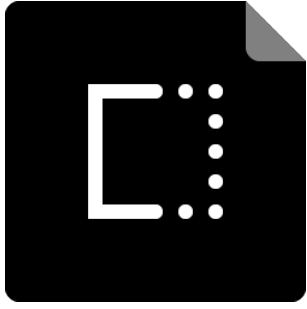
Contributors:

- Manaaki Whenua – Landcare Research | Institution
- Plant & Food Research | Institution
- Ann Mc Cartney | Role: Additional Contact
- Gary Houliston | Role: Additional Contact

Project Description:

Rewarewa (*Knightsia excelsa*, Proteaceae) is a tree species endemic to Aotearoa New Zealand, with a natural distribution spanning Te Ika-a-Māui (North Island) and the top of Te Waipounamu (South Island). We used the pseudo-chromosome genome assembly of rewarewa as a reference and whole genome pooled sequencing from 35 populations sampled across Aotearoa New Zealand, including trees growing on Māori-owned land, to identify 1,443,255 single nucleotide polymorphisms (SNPs). Four genetic clusters located in the northern North Island (NNI), eastern North Island (NIE), western and southern North Island (NIWS), and the South Island (SI) were identified. This new understanding of the genetic variation present in rewarewa and insights into the genetic control of adaptive traits will inform efforts to incorporate the species in restoration plantings and for marketing rewarewa honey based on provenance.

Project Notices



Attribution Incomplete Notice

Collections and items in our institution have incomplete, inaccurate, and/or missing attribution. We are using this notice to clearly identify this material so that it can be updated, or corrected by communities of origin. Our institution is committed to collaboration and partnerships to address this problem of incorrect or missing attribution.

Tutukinga Kore (Māori)

Tērā ngā kohinga me ngā taonga o tō mātou wānanga, kāore anō i tutuki, kua hē nei, kua ngaro nei rānei/hoki. Ko te tikanga o tēnei Pānui, he whakamōhio atu, me whakahou, me whakatika rānei tēnei taonga e ngā hapori, nāna tonu aua taonga. E ū ana tō mātou wānanga ki tēnei āhuetanga e rongoā ai ngā take nei nā.



Biocultural Notice

The BC (Biocultural) Notice is a visible notification that there are accompanying cultural rights and responsibilities that need further attention for any future sharing and use of this material or data. The BC Notice recognizes the rights of Indigenous Peoples to permission the use of information, collections, data and digital sequence information (DSI) generated from the biodiversity or genetic resources associated with traditional lands, waters, and territories. The BC Notice may indicate that BC Labels are in development and their implementation is being negotiated.

Pānui Whakamārama BC (Māori)

Ko tā te Pānui Whakamārama BC, he āta whakaatu, tērā ētahi tikanga ā-iwi me ōna haepapa ki runga i te whakamahinga, i te horapatanga hoki o tēnei taonga me ōna raraunga rānei. Whakamanahia ai ki tēnei Pānui Whakamārama BC, ko te mana tuku iho o ngā iwi taketake ki roto i ngā kohinga mātauranga pūtaiao, me ngā raraunga hangarau mō runga i ngā hapori, ngā tāngata, me te rerenga rauropi e noho pū ana i ngā whenua, i ngā wai me ngā rohe o ngā iwi taketake. Kei roto hoki pea i tēnei Pānui BC, ko te kōrero e mea ana, tērā ngā Tohu BC (Rerenga rauropi) e waihangatia ana, ā, kei te whiriwhirihia tonutia tōna whakatinanatanga. Mō ētahi atu kōrero mō ngā Pānui Whakamārama BC, pāwhiritia i konei.