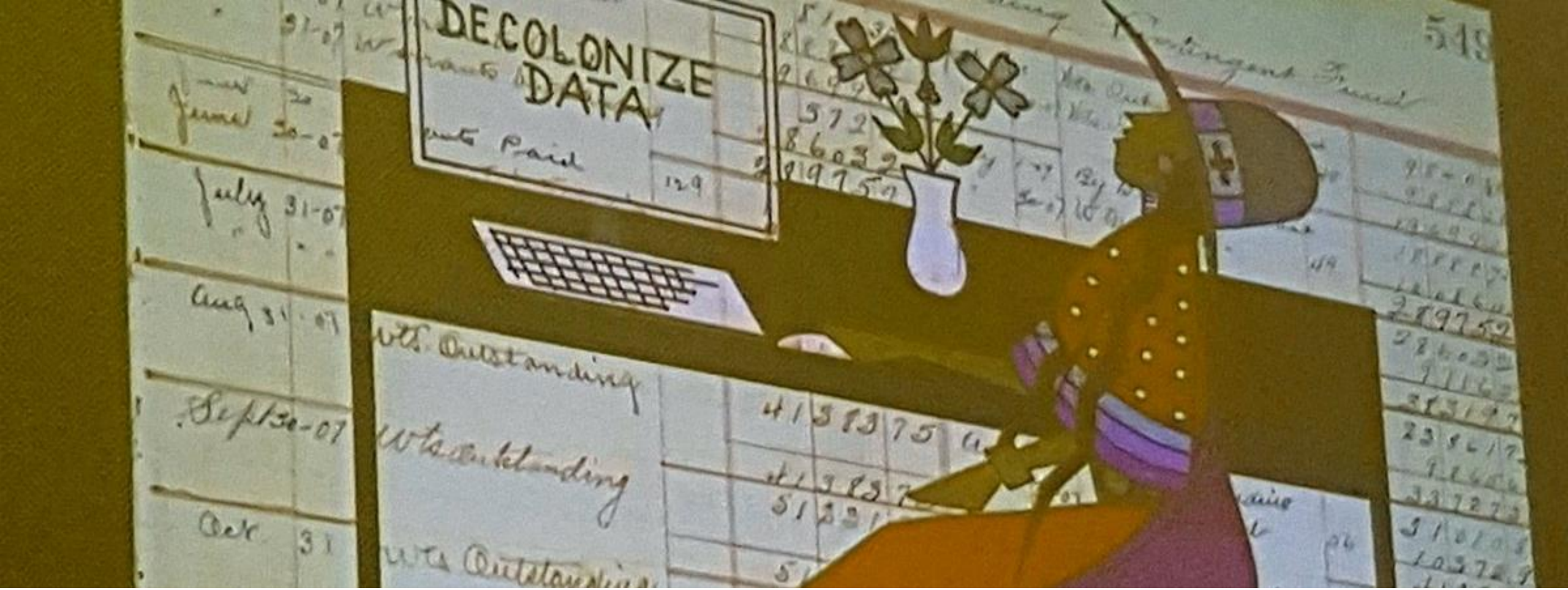


APPLYING THE CARE PRINCIPLES TO ECOLOGY AND BIODIVERSITY RESEARCH

Associate Professor Maui Hudson

15 November 2023

Te Kotahi Research Institute
THE UNIVERSITY OF WAIKATO

ENRICH

Collaboratory for Indigenous Data Governance
Research, Policy, and Practice for Indigenous Data Sovereignty

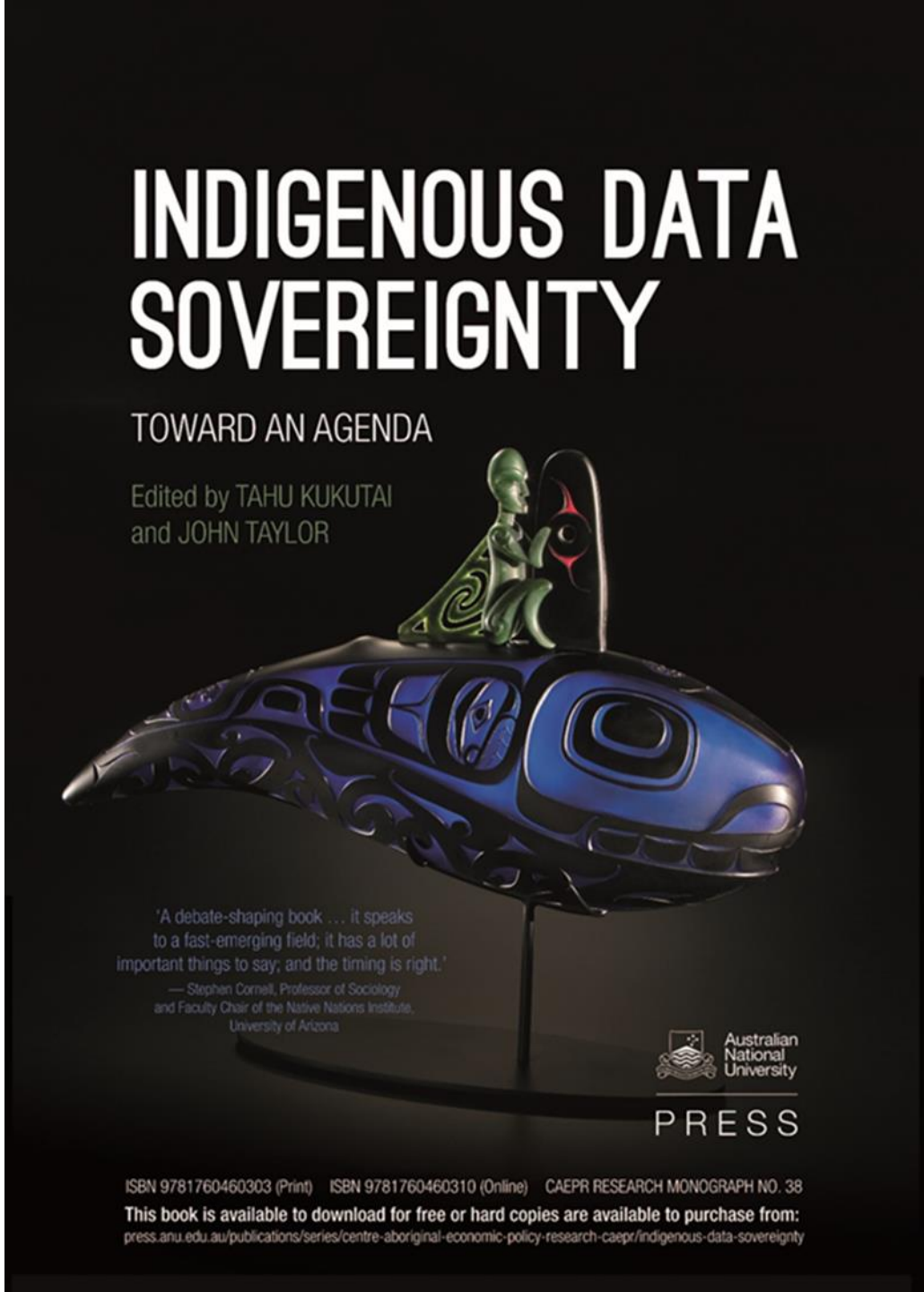
DOI: 10.5281/zenodo.10137727

INDIGENOUS DATA SOVEREIGNTY

Indigenous Data Sovereignty is a discourse about rights and interests

- Indigenous / Treaty rights
- Cultural Intellectual Property rights
- Indigenous research ethics, data ethics

1. **Data for Governance:** Gaining access to use data to transform the lives of our people.
2. **Governance of Data:** Managing access to data to ensure use is relevant and responsive.



WHAT ARE **INDIGENOUS DATA?**

Data, information and knowledge, in any format, that impacts Indigenous Peoples, nations, and communities at the collective and individual levels:

Informed by British Columbia First Nations Data Governance Institute - BCFNDGI.COM

USINDIGENOUSDATA.ORG | @USIDSN

THE UNIVERSITY OF ARIZONA NATIVE NATIONS INSTITUTE
Founded by the Udall Foundation & the University of Arizona
Strengthening Indigenous Governance

Promoting Indigenous Control of Indigenous Data

GIDA
Global Indigenous Data Alliance

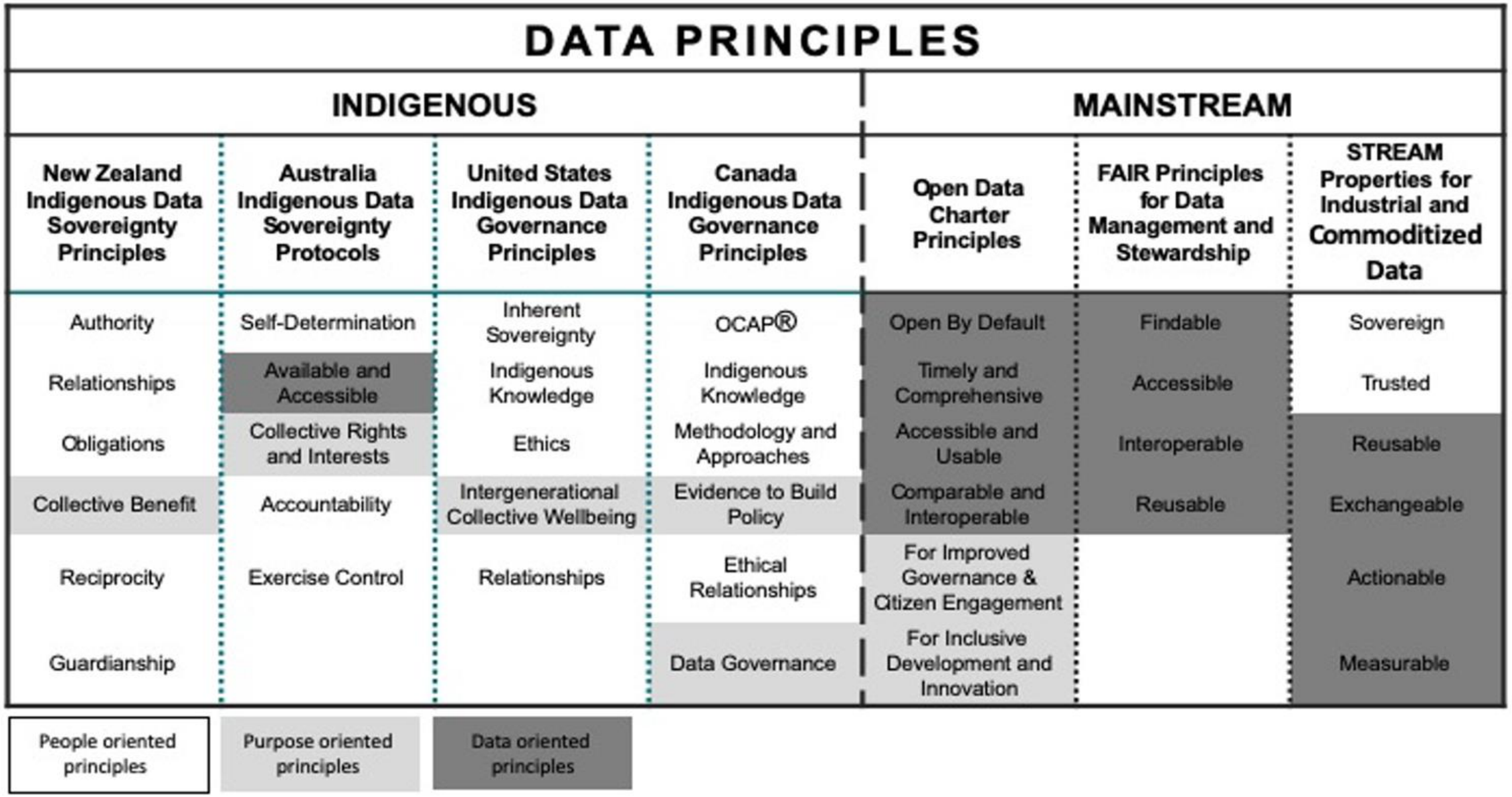
- An International Network
- Advancing Indigenous Data Sovereignty and Governance
- Asserting Indigenous Peoples rights and interests in data
- Advocating for data for the self-determined wellbeing of Indigenous Peoples
- Reinforcing the rights to engage in decision-making in accordance with Indigenous values and collective interests

FNIGC | CGIPN
First Nations Information Governance Centre
Le Centre de gouvernance de l'information des Premières Nations

Maiam nayri Wingara

TE MANA RARAUNGA
Māori Data Sovereignty Network

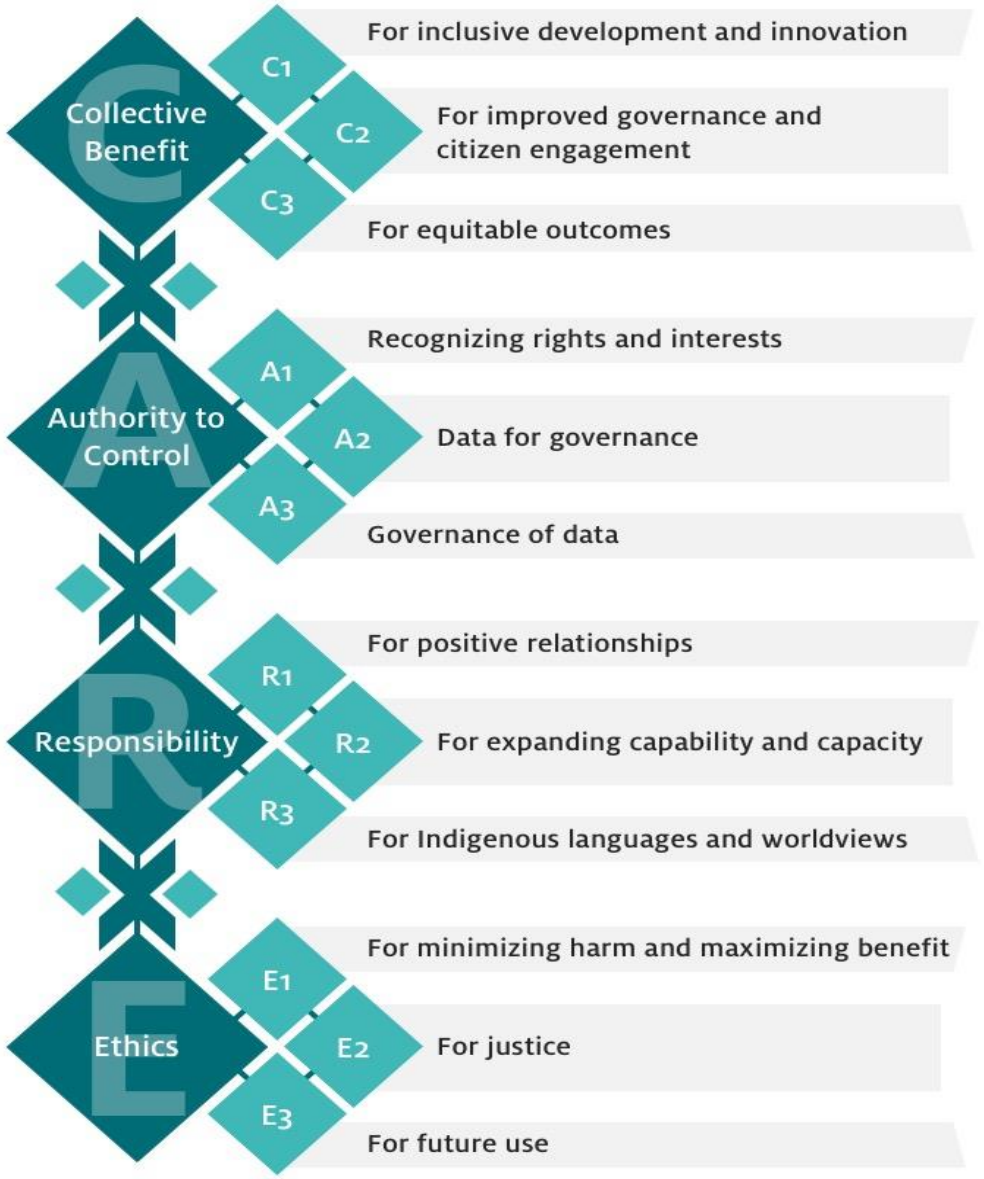
USIDSN



Carroll, S.R., Garba, I., Figueroa-Rodriguez, O.L., Holbrook, J., Lovett, R., Materrechera, S., Parsons, M., Raseroka, K., Rodriguez-Lonebear, D., Rowe, R., Sara, R., Walker, J.D., Anderson, J., Hudson, M. 2020a. The CARE Principles for Indigenous Data Governance. Data Science Journal. 19 (43): 1-12.

Indigenous Frameworks

CARE Principles for Indigenous Data Governance



Carroll, SC, Garba, I, Figueroa-Rodríguez, OL, Holbrook, J, Lovett, R, Materechera, S, Parsons, M, Raseroka, K, Rodriguez-Lonebear, D, Rowe, R, Sara, R, Walker, JD, Anderson, J and Hudson, M. 2020. The CARE Principles for Indigenous Data Governance. Data Science Journal, 19: 43, pp. 1–12. DOI: https://doi.org/10.5334/dsj-2020-043

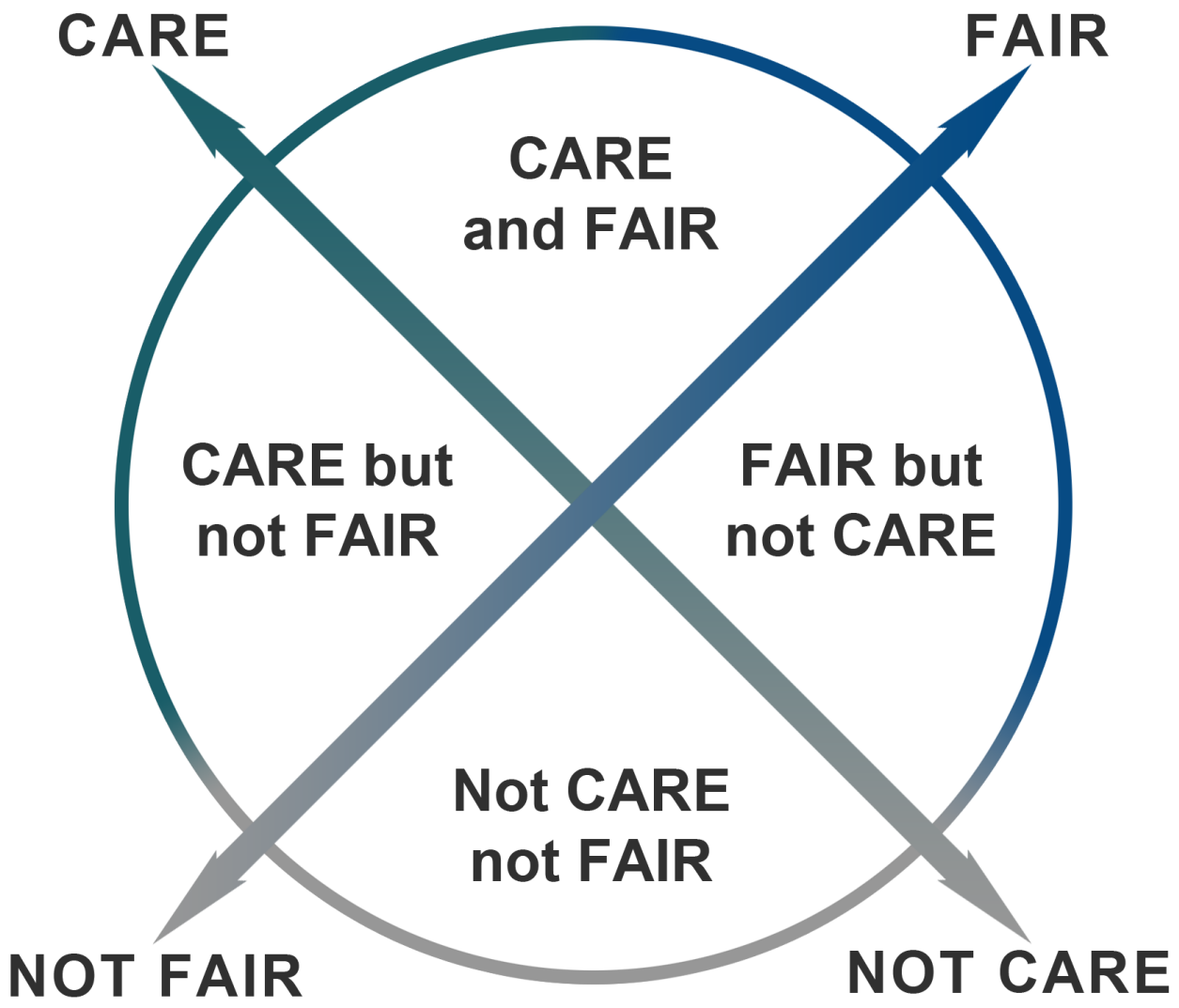
Các nguyên tắc CARE đối với quản trị dữ liệu bản địa

- English
- Spanish
- German
- Māori
- Vietnamese
- Khymer

Research Data Alliance International Indigenous Data Sovereignty Interest Group. (September 2019). “CARE Principles for Indigenous Data Governance.” The Global Indigenous Data Alliance. GIDA-global.org


Be
FAIR
Findable
Accessible
Interoperable
Reusable
and
CARE
Collective Benefit
Authority to Control
Responsibility
Ethics

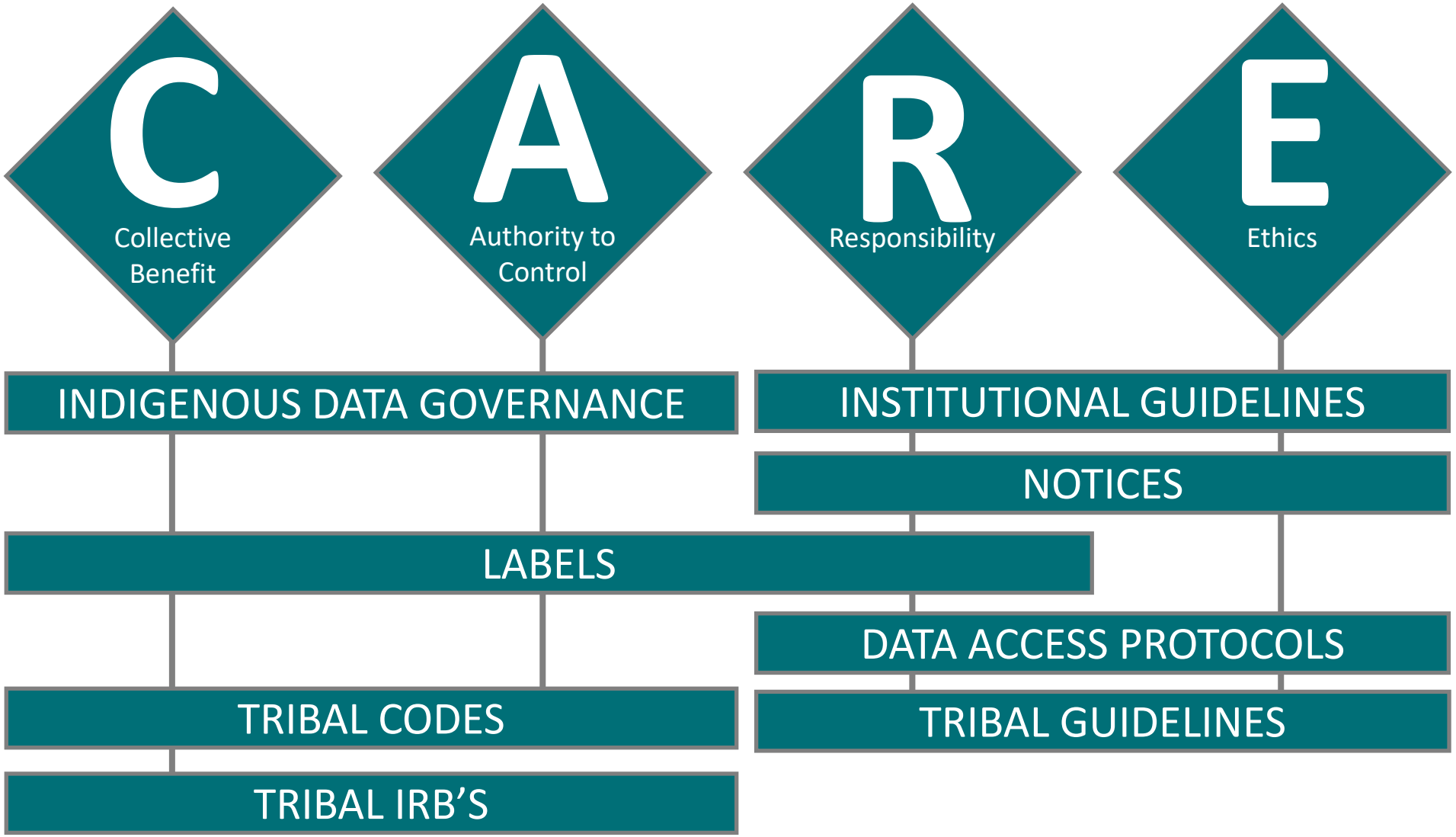
1. CARE and FAIR are independent & interdependent variables



2. CARE applies across a broader spectrum of activities

Practice ‘CARE’ in data collection	Engage ‘CARE’ in data stewardship	Implement ‘CARE’ in data community	Use ‘FAIR’ with ‘CARE’ in data applications
Define cultural metadata Record provenance in metadata	Use appropriate governance models Make data ‘FAIR’	Indigenous ethics inform access Use tools for transparency, integrity and provenance	Fairness, Accountability, Transparency Assess equity

3. Mechanisms can address multiple principles



In the Absence of FAIR & CARE: Data & information infrastructure challenges in an era of Open Data, Big Data, Open Science

Every Indigenous community has enormous collections of tangible and intangible cultural material, knowledge, and data, held in archives, museums, libraries, repositories, and other online databases.

Significant information about these collections, including individual and community names and proper provenance information, is missing.

Indigenous peoples and communities are largely not the legal rights holders.

Issues of responsibility & ownership, as well as the incomplete and significant mistakes in the metadata, continue into the digital lives of this material.

There are more researchers working and collecting data and samples from Indigenous communities than ever before.

RECENT PUBLICATIONS - CARE

SCIENCE AS CULTURE
https://doi.org/10.1080/09505431.2023.2214155

Routledge
Taylor & Francis Group

How data governance principles influence participation in biodiversity science

Beckett Sterner [a] and Steve Elliott[b]

[a]School of Life Sciences, Arizona State University, Tempe, AZ, USA; [b]Center for Gender Equity in Science and Technology, Arizona State University, Tempe, AZ, USA

ABSTRACT

Biodiversity science is in a pivotal period when diverse groups of actors – including researchers, businesses, national governments, and Indigenous Peoples – are negotiating wide-ranging norms for governing and managing biodiversity data in digital repositories. The management of these repositories, often called biodiversity data portals, can serve either to redress or to perpetuate the colonial history of biodiversity science and current inequities. Both researchers and Indigenous Peoples are implementing new strategies to influence whom biodiversity data portals recognise as salient participants in data management and use. Two notable efforts are the FAIR (Findable, Accessible, Interoperable, Reusable) and CARE (Collective benefit, Authority, Responsibility, Ethics) Data Principles. Actors use these principles to influence the governance of biodiversity data portals. 'Fit-for-use' data is a social status provided by groups of actors who approve whether the data meets specific purposes. Advocates for the FAIR and CARE Principles use them in a similar way to institutionalise the authority of different groups of actors. However, the FAIR Principles prioritise the ability of machine agents to understand the meanings of data, while the CARE Principles prioritise Indigenous Peoples and their data sovereignty. Together, FAIR and CARE illustrate a broader emerging strategy for institutionalising international norms for digital repositories about who they should recognise as having a formal role in determinations of the fitness-for-use of data.

ARTICLE HISTORY
Received 14 April 2023
Accepted 11 May 2023

KEYWORDS
FAIR Principles; CARE Principles; Indigenous data; data sovereignty; citizen science; knowledge infrastructure

https://doi.org/10.1038/s41559-023-02161-2

Applying the 'CARE Principles for Indigenous Data Governance' to ecology and biodiversity research

Lydia Jennings, Talia Anderson, Andrew Martinez, Rogena Sterling, Dominique David Chavez, Ibrahim Garba, Maui Hudson, Nanibaa' A. Garrison & Stephanie Russo Carroll

Indigenous Peoples are increasingly being sought out for research partnerships that incorporate Indigenous Knowledges into ecology research. In such research partnerships, it is essential that Indigenous data are cared for ethically and responsibly. Here we outline how the 'CARE Principles for Indigenous Data Governance' can sow community ethics into disciplines that are inundated with extractive helicopter research practices, and we provide standardized practices for evolving data and research landscapes.

Since time immemorial and across intergenerational time scales, Indigenous Peoples have been land stewards. Today, Indigenous Peoples govern about 40% of the most biodiverse terrestrial lands globally[1]. Indigenous rights and title to land – paired with place-based knowledges – make Indigenous governance critical to the stewardship of global biodiversity and ecosystem services[2].

Indigenous Peoples have tracked climate change, changes in species composition and ecosystems for millennia, and are increasingly being sought out for research partnerships that incorporate Indigenous Knowledges (such as Traditional Ecological Knowledge, Traditional Knowledges and Indigenous Ecological Knowledges)[3]. However, settler colonial research and data collection methods often extract, distort and apply Indigenous Knowledges inappropriately, without meaningful recognition of Indigenous rights and responsibilities in relation to Indigenous data[4]. This can result in poor-quality data, restricted access to data and the inability to make evidence-supported decisions.

This Comment advocates for applying Indigenous stewardship methods over traditional and contemporary knowledges. The concepts described in this Comment inform practitioners of ecological disciplines about the data rights of Indigenous Peoples in digital environments. These recommendations support inherent sovereignty and reaffirm the United Nations Declaration on the Rights of Indigenous Peoples[5].

Increase in demand for Indigenous Knowledges

Although engagement with data from Indigenous Knowledges has increased, most scientific training neglects the data rights, data relationships and ethics protocols that Indigenous communities have regarding their knowledge systems. Researchers will benefit from recognizing that Indigenous Data Sovereignty can be exercised only by Indigenous Peoples as rights holders through the retention and control of their data[6]. Indigenous Data Sovereignty expands Indigenous jurisdiction to non-geographically bound relational contexts, including digital environments. Indigenous Data Sovereignty can be implemented through Indigenous Data Governance, which harnesses the values, applications, traditions and roles that communities have for the care and use of their knowledges[6]. Here we offer guidance for researchers, academic institutions, industry and data repositories on how Indigenous Data Sovereignty can be supported by embedding Indigenous Data Governance into mainstream data infrastructures, policies and practices within the fields of biodiversity and ecology.

Concerns in the era of open science. With increasing calls for open science, the FAIR (findable, accessible, interoperable and reusable) Principles aim to increase data usability and accessibility[7]. Applications of FAIR Principles have the potential to neglect the rights of Indigenous Peoples and their protocols for cultural, spiritual and ecological information[8]. Extractive data collection methods[9] and open data practices[10] can create tensions regarding sensitive Indigenous Knowledges[11].

Legal rights to reproduce or publish information raise questions about who the principal stewards and beneficiaries of Indigenous Knowledges are within databases, especially as large regional and global datasets merge multiple data sources – often losing the local intentionality of the data[10]. As Indigenous Peoples continually seek methods to protect and control their knowledges (including data that are stewarded by nontribal entities such as governments, nonprofit organizations, universities and researchers), the question emerges of how scientists can embed the rights, interests, expectations and responsibilities of Indigenous Peoples into the creation of information infrastructures to enhance Indigenous governance of Indigenous data.

CARE principles

To address open science concerns and limited opportunities for Indigenous control, scholars developed the 'CARE [collective benefit, authority to control, responsibility and ethics] Principles for Indigenous Data Governance'[7]. The CARE principles (Fig. 1) guide data actors to include Indigenous Peoples in data governance to increase their access to, use of and benefit from data[10].

The CARE principles shift the focus of data governance from consultative to values-based relationships and have enriched the discussion of collective rights that Indigenous Peoples assert in data[12].

nature ecology & evolution

RECENT PUBLICATIONS - CARE

Applying the 'CARE Principles for Indigenous Data Governance' to ecology and biodiversity research

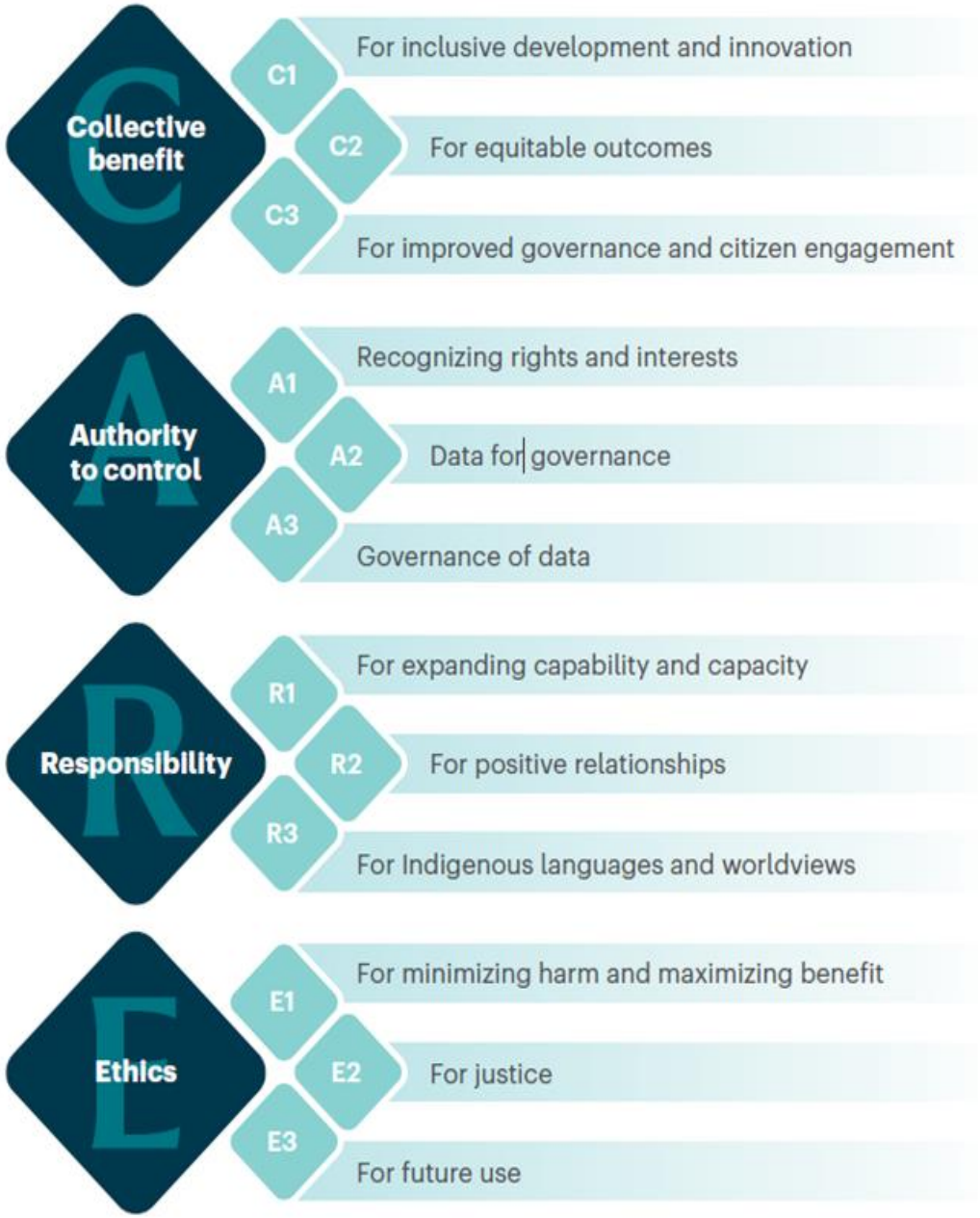


Table 1 | How institutions and researchers can apply the CARE Principles

CARE Principles	Issues raised by communities	Actions for institutions and researchers
Collective benefit	Research that benefits communities	Prior to research, explain and demonstrate how your research and potential results are relevant and are of value to the interests of the community and individual members; research should support community-led initiatives and secure funding for long-term investments in community.
	Data grounded in community values, aspirations and well-being	Develop and/or use Indigenous data classification and analysis frameworks that reflect community values, needs and aspirations; include and value local community experts in the research team.
	Data for self-determined development	Collect and code using categories that identify Indigenous communities and individuals in ways that they define; disaggregate data, especially in global or large geospatial datasets, to increase relevance for Indigenous communities.
	Compensate local experts	Compensate community experts throughout the research process, including research proposal development, data collection, manuscript writing and community review of prepublication manuscripts.
Authority to control	Recognize Indigenous Peoples' rights to and interests in their knowledges and data	Establish institutional principles or protocols for research development, data management and publication (for example, scholarly works, presentations and datasets) that support Indigenous Data Sovereignty; include metadata fields available for disclosure of Indigenous rights and interests.
	Recognize the rights of Indigenous People to free, prior and informed consent	Ensure data use is consistent with individual and community consent provisions; ensure ongoing consent processes, including the ability to refuse, withdraw and reconsent.
	Data available for Indigenous governance	Ensure Indigenous communities have access to data, metadata about their people, communities and non-human relations in a usable format; return all outputs to the appropriate tribal authorities.
	Develop and enact Indigenous Data Governance protocols	Ensure community control and ownership of data and data protocols; use Indigenous frameworks and principles to inform data management protocols and processes; Indigenous community control of how, what, who and where research is conducted, and stewardship of data; publication standards require documentation of community support, participation and approval for publishing data and authorship.
Responsibility	Enable capability and capacity sharing for research design and digital infrastructure	Create and expand opportunities for community capacity through (1) participatory methodologies including planning and design, knowledge management and data workforce capacity building, and (2) initiatives to enable the design, collection, management, storage, security, governance, collective privacy and application of data.
	Respect reciprocity, trust and mutual understanding with those to whom data relate	Record the Traditional Knowledge and biocultural labels of the Local Contexts Hub in metadata; ensure review of draft publications before dissemination; identify and address sensitive data, including privacy issues for individuals and communities.
	Data-generating resources for languages, worldviews and lived experiences	Use the languages of Indigenous Peoples; affirm community worldviews; upload data with appropriate metadata labels (that is, Traditional Knowledge and biocultural labels, and provenance) in culturally accessible formats (digital storytelling, seasonal calendars, visual art forms and so on).
	Community-defined benefit sharing	Conduct research that is of mutual benefit, consent driven, inclusive and relevant to the needs of Indigenous communities and individuals.
Ethics	Align with Indigenous ethical frameworks	Assess research using Indigenous ethical frameworks; community-defined review processes and appropriate reviewers (for example, community advisory boards) for activities delineated in data management plans.
	Maximize benefits from the perspectives of Indigenous Peoples	Researchers explain benefits to Indigenous communities; identify and contribute to community-defined benefits; disclose potential financial gain and share benefits with communities from research outputs and/or economic value of data.
	Minimize harms from the perspectives of Indigenous Peoples	Use Indigenous ethical frameworks; community-defined code of conduct is accessible; data-access protocols consider the potential for community harm and remedied through sharing data; ensure ongoing consent.
	Data governance accounts for potential future use	Apply community protocols for infrastructure, metadata and secondary use; include Traditional Knowledge and biocultural labels and metadata fields for community and/or tribal affiliation; use community guidelines for the use and reuse of data; allow data removal and/or disposal requests from aggregated datasets; record and recognize provenance.

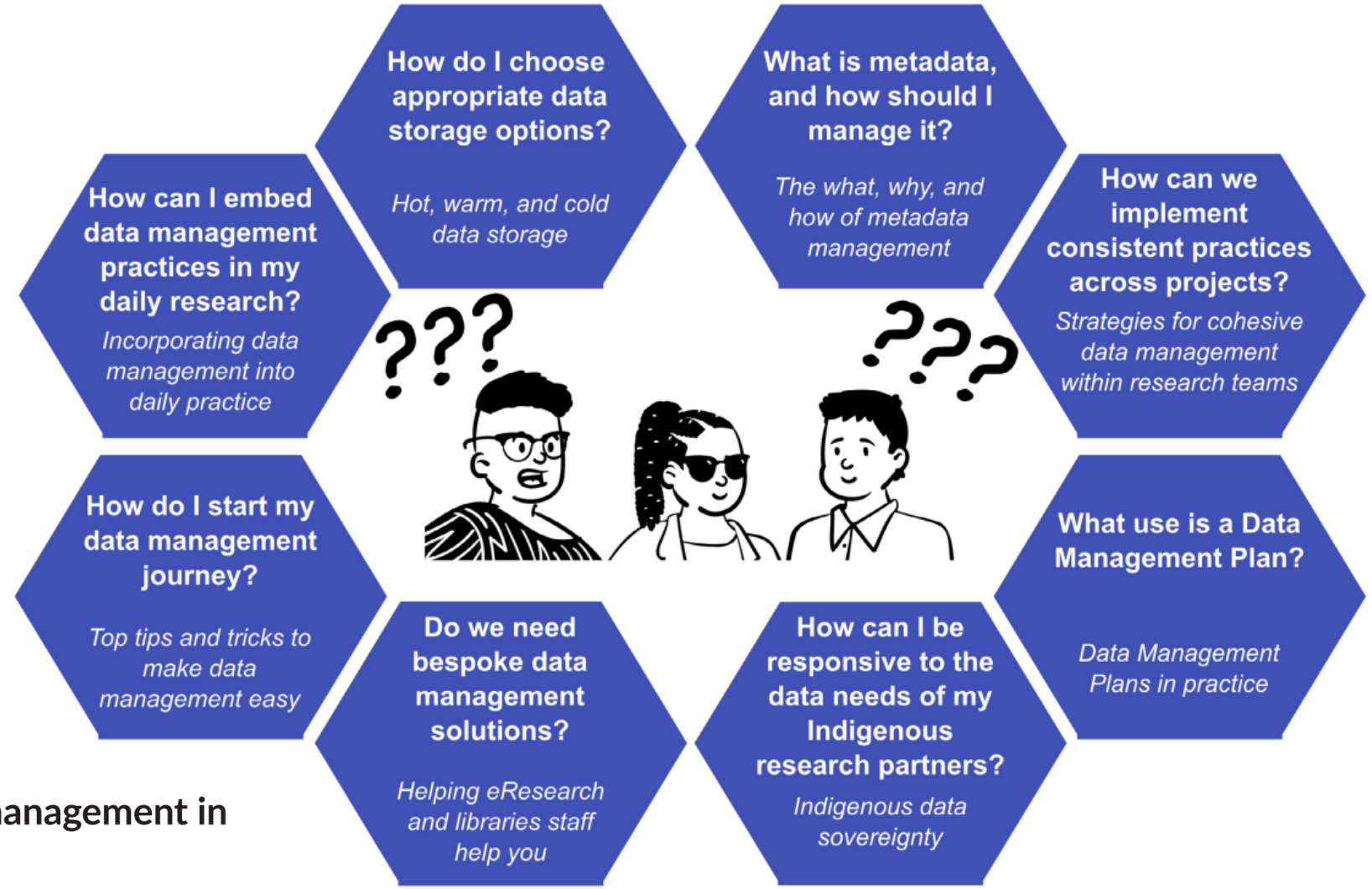


FIGURE 5 Common data management questions that biodiversity genomic researchers and teams may have, similar to those posed by the personas in the Biodiversity Genomics Data Management Hub, with the relevant module titles containing information and resources in italics.

Journeying towards best practice data management in biodiversity genomics

Natalie J. Forsdick[1,2] | Jana Wold[2,3] | Anton Angelo[4] | François Bissey[5] | Jamie Hart[5] | Mitchell Head[6,7,8] | Libby Liggins[2,9] | Dinindu Senanayake[10] | Tammy E. Steeves[2,3]

RECENT PUBLICATIONS – WORKING WITH INDIGENOUS COMMUNITIES

nature microbiology

Perspective

https://doi.org/10.1038/s41564-023-01470-3

Microbiome ownership for Indigenous peoples

Received: 18 November 2022

Accepted: 11 August 2023

Published online: 28 September 2023

Check for updates

Matilda Handsley-Davis[1,2], Matthew Z. Anderson[3,4,5,11], Alyssa C. Bader[6], Hanarela Ehau-Taumaunu[7], Keolu Fox[8], Emma Kowal[2,9] & Laura S. Weyrich[1,2,10]

Several studies have reported increased microbial diversity, or distinct microbial community compositions, in the microbiomes of Indigenous peoples around the world. However, there is a widespread failure to include Indigenous cultures and perspectives in microbiome research programmes, and ethical issues pertaining to microbiome research involving Indigenous participants have not received enough attention. We discuss the benefits and risks arising from microbiome research involving Indigenous peoples and analyse microbiome ownership as an ethical concept in this context. We argue that microbiome ownership represents an opportunity for Indigenous peoples to steward and protect their resident microbial communities at every stage of research.

The human microbiome is defined as a community of microorganisms (microbiota) residing in or on the human body, together with their genetic material and environment[1]. Human microbiomes contribute to physiological functions, such as food digestion and vitamin synthesis, and affect human health through protection against infectious agents, immune system training and immunomodulation[2–6]. Many studies have identified links between human gut microbial communities and diverse health conditions, including inflammatory bowel diseases, diabetes, allergies and mental health conditions[7–12]. Oral and skin microbial communities have been linked to periodontal disease, dental caries, eczema and psoriasis[13–16]. Therefore, understanding the microbiome and its interactions with human health is an exciting avenue for research and for the development of microbiome-based therapies, such as pre- and probiotics, microbiota transplant or therapeutic microbiota modulation[17]. This potential is reflected in a high level of research and commercial investment in the microbiome: as of 2019, more than US$1.7 billion had been spent on human microbiome research and more than US$3 billion invested in gut-microbiome-related biotechnology ventures[18,19].

A key step towards translational microbiota research is understanding the complex factors that shape human microbial communities. Current evidence indicates that some gut microbial taxa have speciated alongside humans and other primate hosts, suggesting that these host and microbial species have evolved along intertwined and mutually beneficial trajectories centred on host physiology and niche ecology[20–22]. At the scale of an individual human lifetime, acquisition of microbial communities begins at birth[23] and is shaped by a variety of influences, including diet, medication, other lifestyle and environmental factors, and possibly host genetics[24–36]. Awareness of these multiple inputs operating on the microbiome has prompted research on human microbiota variation across different lifestyles, ancestries and environments, with the aim of better understanding the factors shaping the microbiome in health and disease and their underlying mechanistic relationships.

A growing number of studies have specifically set out to analyse the microbiomes of Indigenous peoples around the world. Indigeneity is a complex concept that encompasses diverse peoples, and the right

[1]School of Biological Sciences, University of Adelaide, Adelaide, South Australia, Australia. [2]ARC Centre of Excellence for Australian Biodiversity and Heritage, University of Wollongong, Wollongong, New South Wales, Australia. [3]Department of Microbiology, The Ohio State University, Columbus, OH, USA. [4]Department of Microbial Infection and Immunity, The Ohio State University, Columbus, OH, USA. [5]Center for Genomic Science Innovation, University of Wisconsin-Madison, Madison, WI, USA. [6]Department of Anthropology, McGill University, Montreal, Quebec, Canada. [7]Department of Plant Pathology and Environmental Microbiology, The Pennsylvania State University, State College, PA, USA. [8]Department of Anthropology, Global Health Program, and Indigenous Futures Institute, University of California, San Diego, CA, USA. [9]Alfred Deakin Institute for Citizenship and Globalisation, Deakin University, Melbourne, Victoria, Australia. [10]Department of Anthropology and Huck Institutes of Life Sciences, The Pennsylvania State University, State College, PA, USA. [11]Present address: Laboratory of Genetics, University of Wisconsin-Madison, Madison, WI, USA. e-mail: lsw132@psu.edu

nature microbiology

Perspective

https://doi.org/10.1038/s41564-023-01471-2

A relational framework for microbiome research with Indigenous communities

Received: 18 November 2022

Accepted: 26 July 2023

Published online: 28 September 2023

Alyssa C. Bader[1], Essie M. Van Zuylen[2,3], Matilda Handsley-Davis[4,5], Rosanna A. Alegado[6], Amber Benezra[7], Rebecca M. Pollet[8], Hanareia Ehau-Taumaunu[9], Laura S. Weyrich[4,5,10] & Matthew Z. Anderson[11,12,13,14]

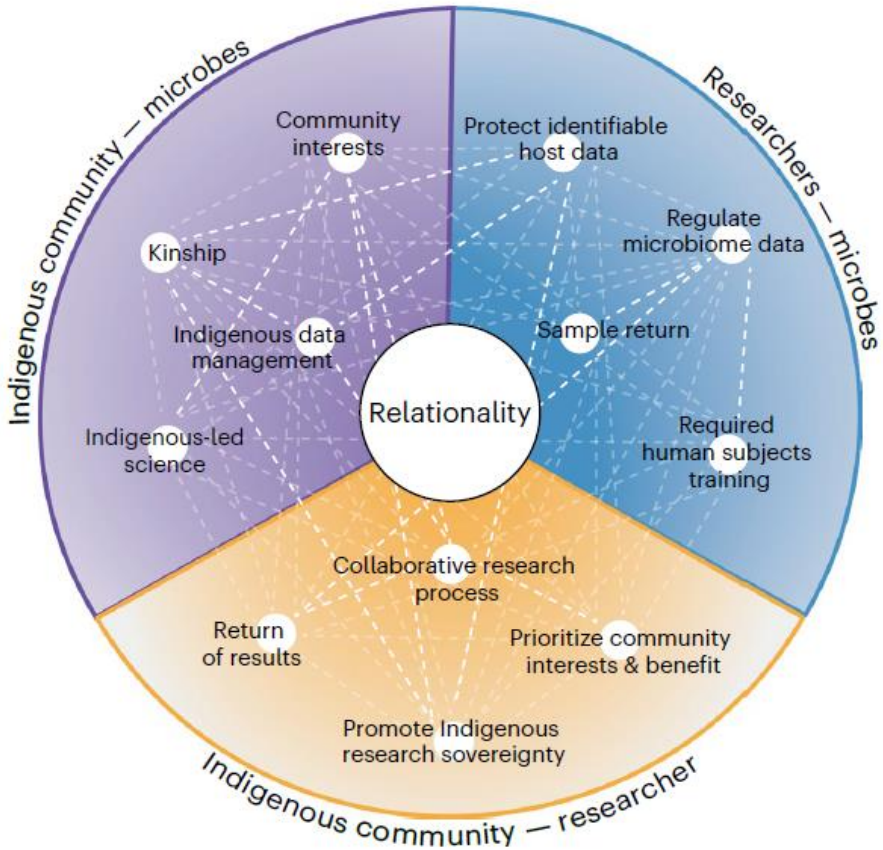


Fig. 1 | Map of relationality concepts in the context of microbiome research with Indigenous peoples. Labels around the exterior of the circle indicate the key relationships between entities embedded in human microbiome research. Within the circle, obligations that guide research ethics are featured for each relational pairing.

GIDA
Global Indigenous
Data Alliance

GIDA
Global Indigenous
Data Alliance

CARE Data Maturity Model

Riley Taitingfong, Maui Hudson, Stephanie Carroll, Andrew Martinez

Salzburg: International Data Week 2023

Approach | Engagement and Design

Who: a multi-tier, international network of collaborators; process adapted from FAIR Data Maturity Model (RDA)

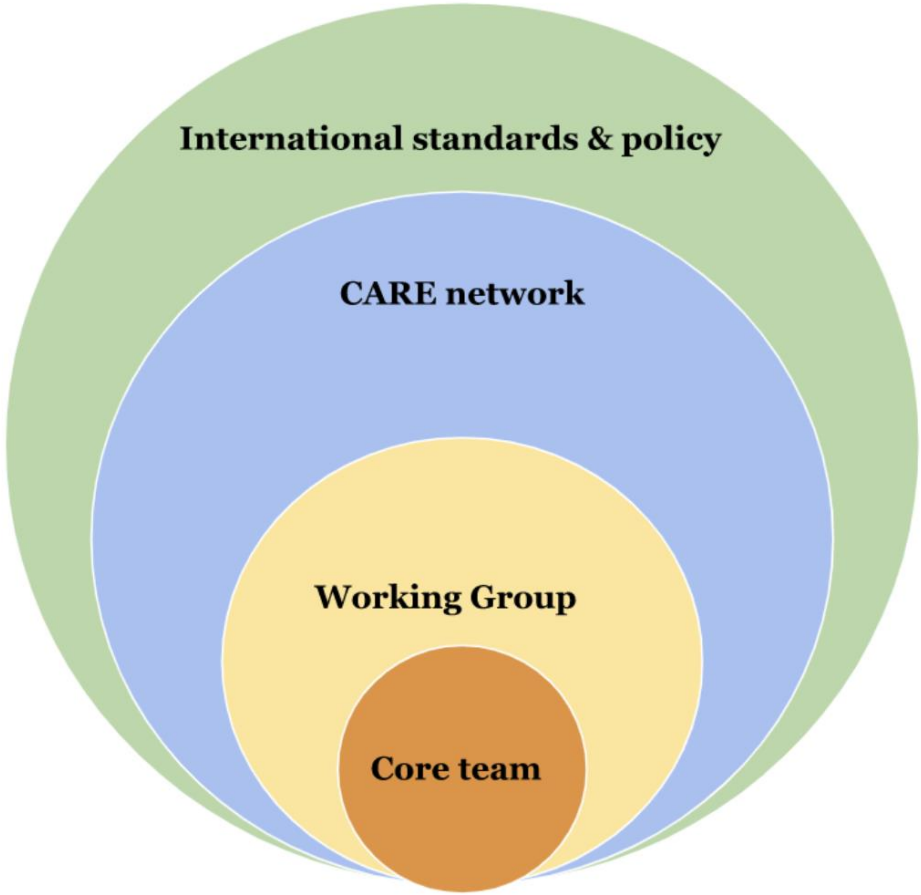
December 2022: Formation of core team and working group

Winter 2022 – Spring 2023: Working group meetings, collating best options from spreadsheet tracking examples of CARE implementation across entities; drafting of 30+ indicators across C/A/R/E

Summer 2023: Core team complete first draft of indicators; initial testing phase of draft indicators

Fall 2023: Testing second draft of indicators

Collaboration Workflow



Overview of Draft CARE Indicators (in development)

COLLECTIVE BENEFIT	AUTHORITY TO CONTROL	RESPONSIBILITY	ETHICS
Conduct data needs assessment	Recognition of Indigenous data sovereignty	Build relationships with Indigenous Peoples	Support use of Indigenous ethical frameworks
Utilise Indigenous identifiers	Recognition of Indigenous Peoples' rights to FPIC	Support community capacity-building	Promote Indigenous interpretation and presentation of findings
Supporting Indigenous use	Transparent ethics approval processes	Promote equitable attribution including acknowledgment and authorship	Share data of interest with Indigenous organizations
Alignment of permissions for data access and re/use to Indigenous frameworks	Transparent community permissions processes	Collect data relevant to Indigenous languages and worldviews	Reflect Indigenous knowledge systems in agreements
Indigenous approval of outputs from research projects	Enable audit of Indigenous data	Ensure data of interest are findable by communities	Compensate research participation
Ensure Indigenous Peoples determine benefits	Make disclosures to Indigenous communities about Indigenous data	Enable Indigenous metadata fields	Share copyright
Develop benefit sharing plans			Agreements reflect Indigenous methods for dispute resolution
Fund training and education			Administrative mechanisms for rights violations in research

First round of feedback

Key takeaways:

- Instilling strong language w/respect to Indigenous rights and authority
- Improve concreteness of language
- Target specific sites of intervention, authority

Second iteration:

→ Articulating activities by type of data actor:
Individuals, Institutions, Repositories, Funders

GIDA
Global Indigenous Data Alliance

Collaboratory for Indigenous Data Governance
Research, Policy, and Practice for Indigenous Data Sovereignty

C3.2: Value created equitably shared with relevant Indigenous peoples

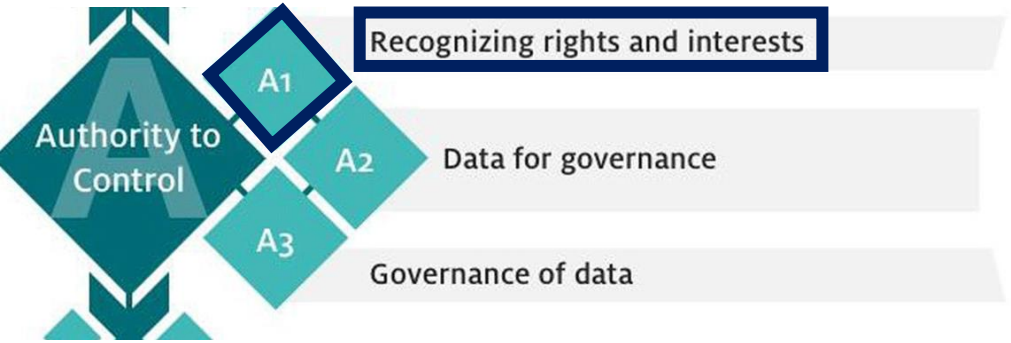
For Individuals	For Institutions	For Funders	For Repositories
Disclose benefit sharing and capacity-building plans	Mandate benefit sharing plans for research involving Indigenous data	Mandate benefit sharing plans for projects involving Indigenous data	Promote benefit-sharing and capacity building with groups that access Indigenous data

Variant Bio

Benefit-Sharing Pledge

Variant Bio is committed to sharing tangible benefits with research partners, both in the short and long term. For details, refer to our formal Benefit-Sharing Pledge, or this pledge summary ↗.

- In the short term, benefits can include support for local healthcare, environment, education, and culture.
- In the long term, Variant Bio will share 4% of revenue plus 4% of our equity value with partner communities that have shared their DNA and health information with us.



A1.1: Recognises Indigenous people's rights and interests to their knowledge and data

For Individuals	For Institutions	For Funders	For Repositories
Explicit recognition of Indigenous data sovereignty in process tools and documents, such as data management plans or contracts	Institution explicitly recognizes Indigenous data sovereignty in public-facing statements on institutional website(s)	Funder explicitly recognizes Indigenous data sovereignty in public-facing statements such as CFPs	Repository explicitly recognizes Indigenous data sovereignty in public-facing statements, such as websites or other public profiles

Indicators in development

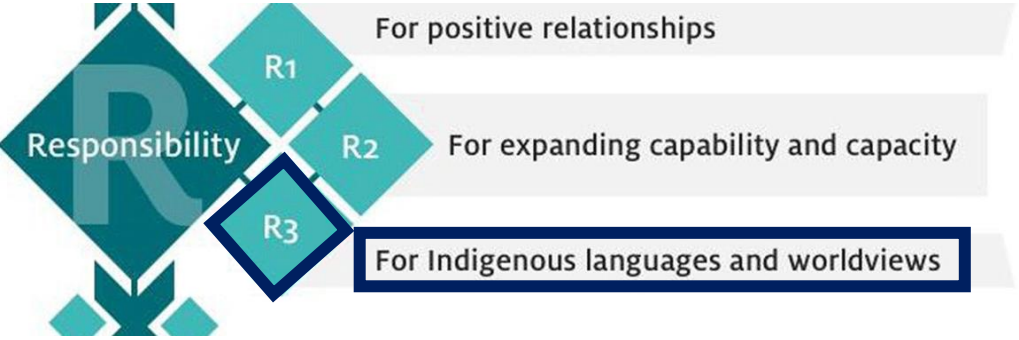
Examples in practice: IDSov statements

Local Indicators of Climate Change Impacts Observation Network

LICCION colleagues Anna Schlingmann and Adrien Tofighi-Niaki present at the Facilitative Working Group of the UNFCCC's LCIPP on **"Ensuring Indigenous Perspectives in Education and Curriculum."** **Read more.**

The **Feedback Session Forms** are part of a series of sessions that were held with project partners to provide feedback on the development and design of extension of Oblo as an extension of the OpenTEK platform. Topics discussed include access and tech literacy, data collection methods, Indigenous data sovereignty, design features and policy relevance. **Download this document.**

The **Data Sovereignty Statement** places LICCION in the context of the Indigenous data sovereignty (IDS) field to present a set of principles and steps which we have committed to. This includes conducting regular internal CARE assessments which we share with leading IDS organisation such as GIDA. **Download this document.**



R3.1: Resources must be provided to generate data grounded in the languages, worldviews, and lived experiences (including values and principles) of Indigenous Peoples.

For Individuals	For Institutions	For Funders	For Repositories
Collects information relevant to indigenous languages and worldviews	Databases enable use of Indigenous language(s) and fields relevant to Indigenous worldviews	Funding available to support use of Indigenous languages, Traditional Knowledge, and Indigenous worldviews	Repository enables use of Indigenous language(s) and fields relevant to Indigenous worldviews (e.g., metadata format handles multiple languages)

Indicators in development

unesco

World Atlas of Languages

VIEW *UNESCO WAL - LIST SEARCH API - LANGUAGES*, DISPLAY *LIST*: LANGUAGE SITUATION- LANGUAGE FACET

- Endangered/unsafe (2698)
- Definitely endangered (2362)
- Potentially vulnerable (1163)
- Severely endangered (463)
- Critically endangered (383)
- Safe (65)

VIEW *UNESCO WAL - LIST SEARCH API - LANGUAGES*, DISPLAY *LIST*: LOCATION/NATIVITY - LANGUAGE FACET

- America South (5)
- Australia and New Zealand (3)
- Northern Europe (3)
- Southern Asia (3)
- Western Africa (2)
- Western Europe (2)
- America Central (1)
- America North (1)
- Carribean (1)
- Eastern Asia (1)
- Northern Africa (1)
- South-east Asia (1)
- Western Asia (1)

8325 languages found

'Are'are

Endangered/unsafe
Spoken language
Add to comparison list

!Gã!ne

Not in use
Spoken language
Add to comparison list

Aari

Potentially vulnerable
Spoken language
Add to comparison list

Aasax

Not in use
Spoken language
Add to comparison list

Abadi

Endangered/unsafe
Spoken language
Add to comparison list

Abaga

Critically endangered
Spoken language
Add to comparison list

Abai Sungai

Definitely endangered
Spoken language
Add to comparison list

Abai Tubu-Abai Sembuak

Endangered/unsafe
Spoken language
Add to comparison list

Abanyom

Endangered/unsafe
Spoken language
Add to comparison list

E1.1: Aligns with Indigenous ethical frameworks

For Individuals	For Institutions	For Funders	For Repositories
Center Indigenous Peoples' knowledge systems and ethics in research relationships, including design, data collection, storage, and outputs	Require that all MOUs / MOAs / agreements / contracts ensure ethical assessment and decision-making is consistent with Indigenous Peoples' ethics	Require that all MOUs / MOAs / agreements / contracts include ethical assessment and decision-making in a manner consistent with Indigenous Peoples' ethics	Utilise Indigenous concepts in ethical assessments and decision-making

Examples in practice: Indigenous ethical frameworks

Mā ngā tikanga e arahina - *Be guided by good principles*

https://data.govt.nz/toolkit/data-ethics/nga-tikanga-paihere/

Saina ma'åse! Thank you!

GIDA

RDA

CARE Criteria Working Group

Collaboratory for IDGov

Udall Center & Native Nations Institute

Henry Luce Foundation

Professor Stephanie Carroll

Maui Hudson

Andrew Martinez

Professor Jane Anderson

Local Contexts

Maine eDNA

International Data Week
A FESTIVAL OF DATA

THE UNIVERSITY OF ARIZONA
NATIVE NATIONS INSTITUTE
Founded by the Udall Foundation & the University of Arizona

Strengthening Indigenous Governance

GIDA
Global Indigenous Data Alliance

Collaboratory for Indigenous Data Governance
Research, Policy, and Practice for Indigenous Data Sovereignty

Local Contexts

Contact rtaitingfong@arizona.edu

https://indigenousdatalab.org/3006-2/

INDIGENOUS METADATA BUNDLE

Te Kotahi Research Institute
THE UNIVERSITY OF WAIKATO

ENRICH

Collaboratory for Indigenous Data Governance
Research, Policy, and Practice for Indigenous Data Sovereignty

INDIGENOUS METADATA

GOVERNANCE

Governance includes a range of Indigenous community-determined actions that inform how data are permissioned (including access rights, use rights and editing rights) and defined, and once created how those data are governed.

PROVENANCE

Provenance information provides the key connection to data origins and defines the relationships that continue to be important to the future use of data. Following the IEEE Recommended Practice on the Provenance of Indigenous Peoples' Data, provenance allows the possibility of future relationships, partnerships and benefit sharing. These relationships underscore the responsibility that Indigenous Peoples have to their data.

LANDS AND WATERS

Lands and waters refers to physical lands and waters including longitude and latitude data, microbial data as well as the Indigenous concept of all the environmental, ethical, and spiritual relationships encompassed therein. Temporal considerations in relation to place, especially Indigenous conceptualizations of time alongside dates of data collection are important components of this category.

PROTOCOLS

Existing Indigenous laws, expectations, and preferences for the care, management, and/or stewardship, for data, including current and future responsibilities. As formal protocols, agreements and permits are implemented, dates that these were entered into, and the relevant parties that are signatories, should be included.

LOCAL CONTEXTS NOTICES AND LABELS

Local Contexts Notices and Labels do two things. The Notices allow for institutions and researchers to disclose the persistence of Indigenous rights and interests in data. The Labels allow for distinct Indigenous authority and rights to be included as critical metadata.

Additional Categories for an Indigenous Metadata Bundle

Other recommendations for metadata categories that support the recognition and inclusion of Indigenous Peoples' data arose. These additional categories enable pathways to deepen context and connection to the data for Indigenous Peoples' supporting the final two tenants of CARE - Responsibility and Ethics. These categories include: Language; Persistent Identifiers, Classification Systems, Indigenous Names and Taxonomies; Data Quality; and relationships to FAIR[3] and TRUST[4].

Citation

Riley Taitingfong, Andrew Martinez, Stepanie Russo Carroll, Maui Hudson, and Jane Anderson (2023). "'Indigenous Metadata Bundle Communiqué." Collaboratory for Indigenous Data Governance, ENRICH: Equity for Indigenous Research and Innovation Coordinating Hub, and Tikanga in Technology. ADD DOI

1 | Indigenous Peoples Rights in Data. See: Hudson et al. 2023.

2 | The CARE Principles for Indigenous Data Governance (Collective Benefit, Authority to Control, Responsibility, and Ethics). See: Carroll et al. 2020.

3 | FAIR Guiding Principles for scientific data management and stewardship (Findability, Accessibility, Interoperability, and Reusability). See: Wilkinson et al. 2016.

4 | See the TRUST Principles for digital repositories: Lin et al (2020).

Topic	Primary field for metadata bundle
Enables Indigenous Governance	Governance
Database Infrastructure	Governance
Governance group (who runs it)	Governance
Data accessibility	Governance
Promotes consultation with Indigenous people	Governance
Indigenous provenance	Provenance
Geographic provenance	Provenance/Lands
Information of sample/species retained	Provenance/Lands
Promotes FAIR	Protocols
Promotes CARE	Protocols
Metadata standards	Protocols
Indigenous metadata	Protocols/Lands
Linked to other databases	Protocols
Data sharing & Management best practices	Protocols
Intellectual property	Protocols
Recognises Nagoya Protocol	Protocols
Digital Rights Management (CC licence/Public domain)	Protocols
Utilises Local Contexts	Local Contexts

INDIGENOUS NEEDS for INCLUSIVITY in OPEN SCIENCE

RESPECT
RECOGNITION
RECIPROCITY

Appropriate Actions

Hudson M, Carroll SR, Anderson J, et al. (2023) Indigenous Peoples' Rights in Data: a contribution toward Indigenous Research Sovereignty. Front. Res. Metr. Anal. 8:1173805. doi: 10.3389/frma.2023.1173805

ACKNOWLEDGEMENT

THE UNIVERSITY OF NEWCASTLE AUSTRALIA **LIVING HISTORIES**

The University Lib

HOME
BROWSE ALL
SEARCH
MY HISTORY
LOGIN
MORE

The University of Newcastle acknowledges the traditional custodians of the lands within our footprint areas: Awabakal, Darkinjung, Biripai, Worimi, Wonnarua, and Eora Nations. We also pay respect to the wisdom of our Elders past and present.

Cultural Sensitivity Warning: This site includes images, audio/visual recordings and names of deceased people that may cause sadness or distress to Aboriginal and Torres Strait Islander peoples.

Offensive Content Warning: This site includes items and language that represent historical perspectives that may be considered offensive and biased.

Close

Crafted: Books of the Arts and C

Search our collections

WASHINGTON STATE UNIVERSITY GIVE APPLY

Manuscripts, Archives & Special Collections

Libraries Home | MASC Home | About MASC | Manuscripts | University Archives | Photographs | Rare Books | Digital Collections

Acknowledgment of Bias and Harmful Content

Manuscripts, Archives, and Special Collections (MASC) at Washington State University Libraries recognizes there are materials in our collections that may be offensive or harmful, containing racist, sexist, Eurocentric, ableist or homophobic language or depictions. We retain such materials unaltered in order to document history and preserve context. MASC staff is making efforts to update our finding aids (collection descriptions) to acknowledge offensive content.

In addition, we recognize that there may be language in our collection descriptions written by staff that is outdated, problematic, and/or inaccurate. We are making efforts to identify such language and update terminology to be more respectful, accurate, and inclusive. Finding aids with problematic language will be retained for transparency purposes and will be available upon request. We also make a note of these changes in the "Processing Information" section of the finding aid or on the digital collection's home page. Going forward, we seek to use inclusive, accurate, and respectful language in describing newly acquired and newly processed collections.

This is an ongoing process, and we welcome feedback from MASC users. If you encounter harmful or offensive content or language in our collection descriptions, or have questions about our process, please email us at mascref@wsu.edu. Staff will review suggestions and may make changes in accordance with institutional policy.

Land Acknowledgement

The University of Maine recognizes that it is located on Marsh Island in the hon
water and territorial rights, and encroachment upon sacred sites, are ongoing.
Wabanaki Tribal Nations — the Passamaquoddy, Maliseet, and Micmac — throu
also recognizes that the Penobscot Nation and the other Wabanaki Tribal Natio
with their own powers of self-governance and self-determination.

In this course we will engage with the social context of ecological and evolution
racism. The University of Maine, to backup its acknowledgement of occupation
Understanding with the Penobscot Nation. This MoU will hopefully soon includ
Indigenous data modeled after efforts by Maine-eDNA.

The EcoEvoMatics Lab at the University of M
of collaboration, engagement, and partnersh
stewardship of past and future heritage colle

The University of Maine recognizes that it is located on Marsh Island in the homeland of the Penobscot Nation, and the University of Maine at Machias is situated in the homeland of the Passamaquoddy Tribe. Both of our universities recognize that in these homelands, issues of water and territorial rights, and encroachment upon sacred sites, are ongoing. Penobscot and Passamaquoddy homelands are connected to the other Wabanaki Tribal Nations — the Maliseet and Mi'kmaq — through kinship, alliances and diplomacy. UMaine and its regional campus also recognizes that the Wabanaki Tribal Nations are distinct, sovereign, legal and political entities with their own powers of self-governance and self-determination.

Open to Collaborate

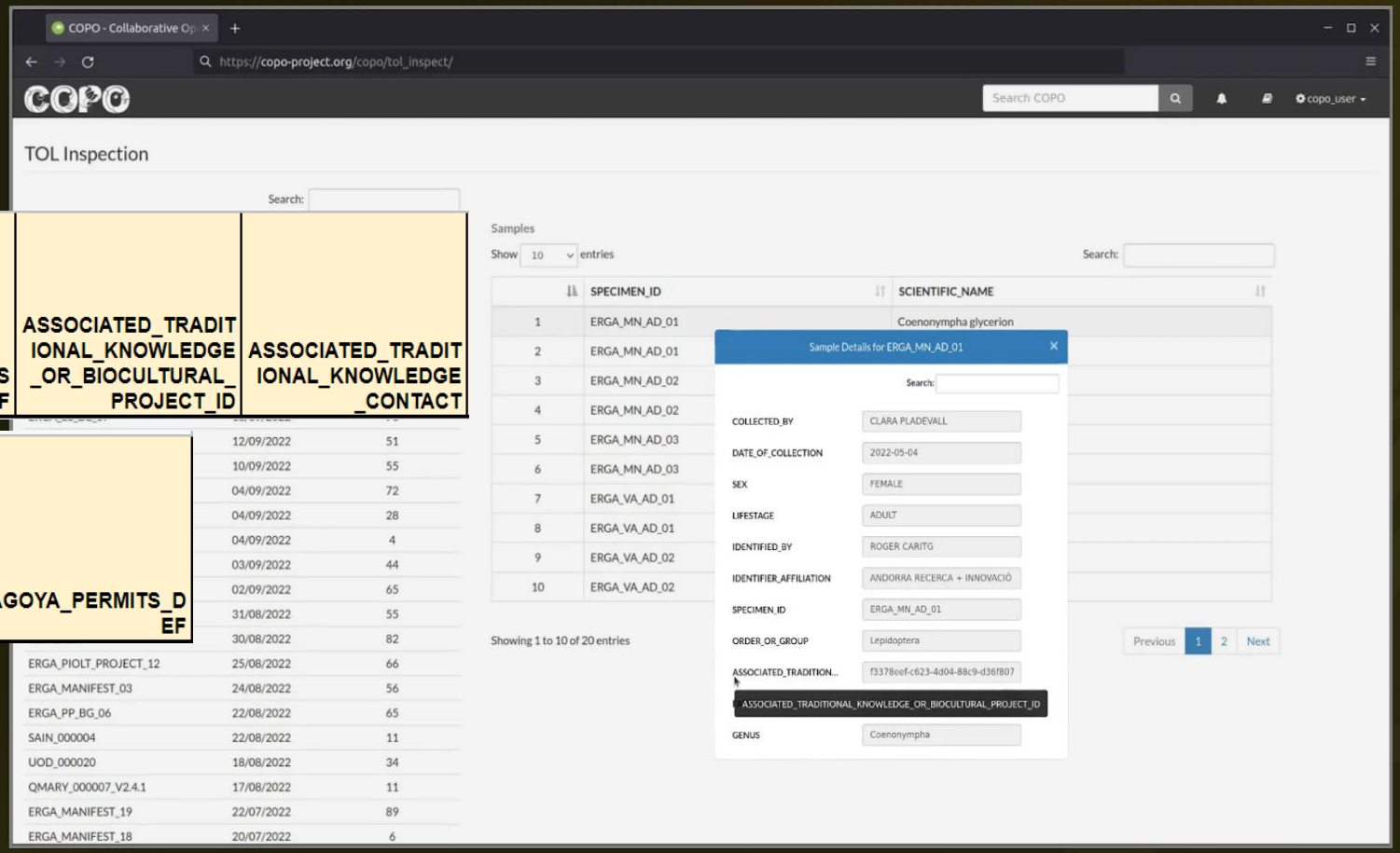
The Hudson Museum is committed to the development of new modes of collaboration, engagement, and partnership for the care and stewardship of past and future heritage collections.

ACKNOWLEDGEMENT

- FIELDS TO IDENTIFY INDIGENOUS PROVENANCE / INTERESTS
- European Reference Genome Atlas

ASSOCIATED_TRADITIONAL_KNOWLEDGE_OR_BIOCULTURAL_RIGHTS_APPLICABLE	INDIGENOUS_RIGHTS_DEF	ASSOCIATED_TRADITIONAL_KNOWLEDGE_OR_BIOCULTURAL_PROJECT_ID	ASSOCIATED_TRADITIONAL_KNOWLEDGE_CONTACT

NAGOYA_PERMITS_REQUIRED	NAGOYA_PERMITS_DEF



Credit to Ann McCartney, ERGA Consortium & Local Contexts

ATTRIBUTION

SQ'ÉWLETS | A STÓ:LŌ-COAST SALISH COMMUNITY IN THE FRASER RIVER VALLEY

virtualmuseum.ca

STÁMÉS SX̱WŌX̱WIYÁM SQWÉLQWEL

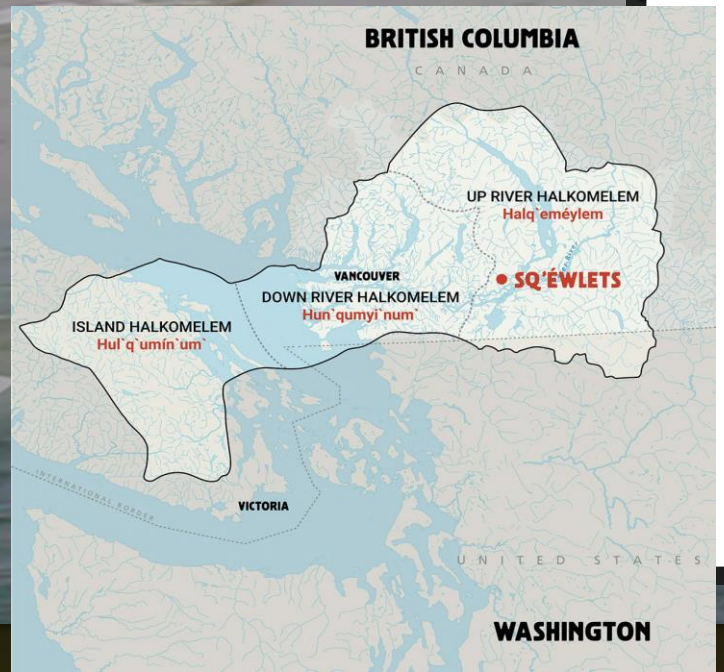
FRANÇAIS

Traditional Knowledge Label: Attribution

SKWIX QAS TE TÉMÉXW (literally name and place)

This website represents the true knowledge and history of Sq'éwlets people. The attribution label literally means 'name' and 'place' in our language, skwix qas te Téméxw. We ask everyone that visits this website to attribute our knowledge and histories to us, the Sq'éwlets people, a tribe of Stó:lō. Our history has not always been respected or told correctly. Here we tell our own story in our own words. We are both holders and caretakers of our own lands, resources, and histories. It is the responsibility of our families and communities as Stó:lō people to take care of these things in a respectful way. Please feel free to contact us with further questions about attribution.

More about Traditional Knowledge labels



ATTRIBUTION

scd.landcareresearch.co.nz/Specimen/CHR%20365035

Manaaki Whenua Landcare Research

Systematics Collections Data

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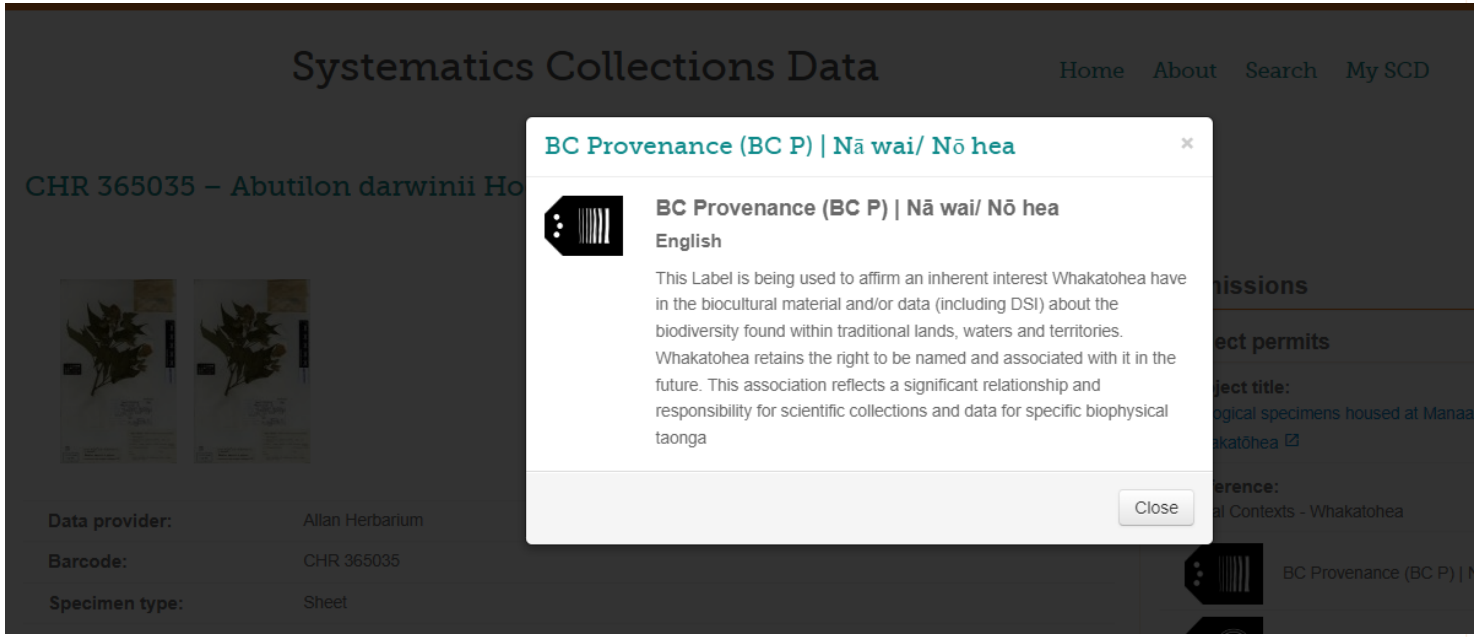
CHR 365035 – Abutilon darwinii Hook.f.



Determination date:	1980-08-04 (Verbatim: 4 August 1980)
Preferred name:	Abutilon darwinii Hook.f.
Division:	Spermatophyta

Permissions

Project permits

Project title:
Biological specimens housed at Manaaki Whenua: Te rohe o Whakatōhea

Reference:
Local Contexts - Whakatohea

- BC Provenance (BC P) | Nā wai/ Nō hea
- BC Research Use (BC R) | Rangahau
- BC Open to Collaboration (BC CB) | Kotahitanga
- BC Open to Commercialization (BC OC) | Umanga

Project title:
Local Contexts - Allan Herbarium (CHR)

Reference:
CHR Collection - Local Contexts

- Biocultural (BC) Notice

ATTRIBUTION

IEEE SA
STANDARDS ASSOCIATION

Consultation with Indigenous Peoples on the IEEE P2890 Recommended Practice for the Provenance of Indigenous Peoples' Data

Webinar #1 25 April 2023 5pm UTC

Stephanie Carroll
Jane Anderson
Camille Callison
Maui Hudson

IEEE

AUTHORSHIP

GDV Crop Data Search Tools General VacCAP Help

Vaccinium myrtillus isolate NK2018 v1.0 genome sequence

- Genome Overview
- Properties
- Downloads
- JBrowse
- BLAST
- PathwayCyc
- Synteny Viewer

Genome Overview

Analysis Name	Vaccinium myrtillus isolate NK2018 v1.0 genome
Method	
Source	
Date performed	

BC

NCBI Assembly Ac

NCBI Bioproject Ac

Citation: Wu,C., De
Allan,A., Espley,R. a
anthocyanin compos

The assembly and a

Genome Assembly

Total size	
Number of scaffold	
Scaffold N50	
BUSCO score (ass	
BUSCO score (annotation)	95.1%

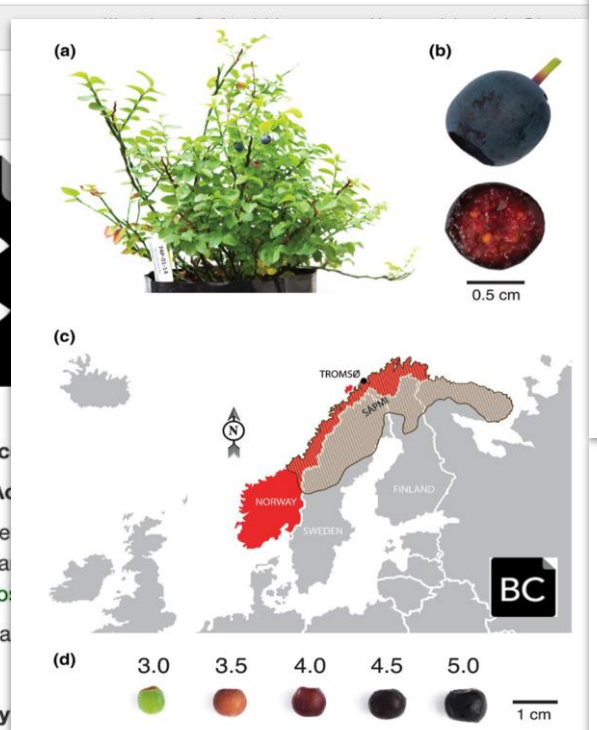


FIGURE 1 Bilberry (*Vaccinium myrtillus*) used for genome sequencing. (a) Potted bilberry plant and (b) individual bilberry fruit (scale bar represents 0.5 cm). (c) Map of the Nordic countries with the Sápmi region overlaid in cross-hatching, showing the location of the samples used for genome sequencing, Tromsø in northern Norway. (d) Bilberry fruit developmental stages from stages 3.0 to 5.0 (scale bar in cm). These samples and derived data have a Biocultural (BC) Notice attached (see Data Availability Statement)

Received: 31 March 2021 | Revised: 22 June 2021 | Accepted: 5 July 2021
DOI: 10.1111/1755-0998.13467

MOLECULAR ECOLOGY RESOURCES WILEY

RESOURCE ARTICLE

A chromosome-scale assembly of the bilberry genome identifies a complex locus controlling berry anthocyanin composition

Chen Wu[1,2] | Cecilia Deng[1,2] | Elena Hilario[1,2] | Nick W. Albert[3] | Declan Lafferty[3,4] | Ella R. P. Grierson[3] | Blue J. Plunkett[1] | Caitlin Elborough[1] | Ali Saei[5] | Catrin S. Günther[1] | Hilary Ireland[1] | Alan Yocca[6,7] | Patrick P. Edger[6] | Laura Jaakola[8,9] | Katja Karppinen[8] | Adrian Grande[3] | Ritva Kylli[10] | Veli-Pekka Lehtola[11] | Andrew C. Allan[1,4] | Richard V. Espley[1] | David Chagné[2,3]

[1]The New Zealand Institute for Plant and Food Research Limited (PFR), Auckland, New Zealand
[2]Genomics Aotearoa, Dunedin, New Zealand
[3]PFR, Palmerston North, New Zealand
[4]School of Biological Sciences, University of Auckland, Auckland, New Zealand
[5]BioLumic Limited, Palmerston North, New Zealand
[6]Department of Plant Biology, Michigan State University, East Lansing, Michigan, USA
[7]Department of Horticultural Science, Michigan State University, East Lansing, Michigan, USA
[8]Department of Arctic and Marine Biology, UiT the Arctic University of Norway, Tromsø, Norway
[9]NIBIO, Norwegian Institute of Bioeconomy Research, Ås, Norway
[10]History, Culture and Communication studies, University of Oulu, Oulu, Finland
[11]Giellagas Institute, University of Oulu, Oulu, Finland

DATA AVAILABILITY STATEMENT

The genome assembly has been submitted to NCBI under BioProject PRJNA672146, BioSample SAMN16560029. The RNASeq data has been submitted to NCBI with accession number PRJNA739815. The genome, gene and protein sequences in fasta format, gene structure and TE annotations in gff format, gene functional annotations in text format were further deposited to the Genome Database For Vaccinium (GDV). These samples and derived data have a Biocultural (BC) Notice attached. The BC 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 generated from the biodiversity or genetic resources associated with traditional lands, waters, and territories. The BC Notice may indicate that BC (Biocultural) Labels are in development and their implementation is being negotiated. For more information about the BC Notices visit https://localcontexts.org/notice/bc-notice/ and https://onlinelibrary.wiley.com/doi/pdf/10.1111/mec.15918

Project: Develop Publishing Guidelines for Indigenous Data Sovereignty and CARE Principles

AUTHORSHIP

Canadian Journal of Public Health (2020) 111:826–830
https://doi.org/10.17269/s41997-020-00450-y

INVITED COMMENTARY/COMMENTAIRE INVITÉ

Requirement for Meaningful Engagement of First Nations, Inuit, Métis, and Indigenous Peoples in Publications About Them

Exigence de participation concrète des Premières nations, des Inuits, des Métis et des peuples autochtones aux publications à leur sujet

Janet Smylie[1,2,3] · Namaste Marsden[4,5] · Leona Star[6] · Jacqueline Gahagan[7] · Christina Zarowsky[8,9,10] · Eric Mykhalovskiy[11,12] · Jeff Masuda[13,14] · Louise Potvin[15,16]

Published online: 7 December 2020

There is wide recognition that First Nations, Inuit, Métis (FNIM) and Indigenous Peoples face historic and ongoing injustices, including the exclusion, marginalization, and/or misrepresentation of their voices and perspectives in academic publications about them. In Indigenous health and public health scholarship, a persistent deficit-based focus on risk, disease, and social problems presents a missed opportunity to learn from and advance the diversity of strength-based FNIM and Indigenous health and well-being models and practices. The inherent rights of Indigenous Peoples to self-determine their economic, social, cultural and knowledge development are recognized in domestic and international law and ethics. This includes the right to be meaningfully engaged in scholarship concerning them, which is often relied upon as evidence for decision-making. In an effort to enhance the social value and utility of our publication, and improve alignment with domestic and international law and ethics—the Tri-Council Policy Statement on Ethical Conduct for Research Involving Humans (TCPS; Government of Canada 2018), the Calls to Action of the Truth and Reconciliation Commission (TRC) of Canada (Government of Canada 2015), and the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP 2007)—the *Canadian Journal of Public Health* (CJPH) requires that all

Archives & Manuscripts

ARTICLE

Green Ribbon and Blue Ribbon Stories: Applying a Bidjara Way of Knowing to Understanding Records

Leann Wilson[1] and Rose Barrowcliffe[2]*

[1]Regional Economic Solutions, Brisbane, Australia; [2]Department of Indigenous Studies Macquarie University, Sydney, Australia

Abstract

Archival turn scholars have argued that to understand a record one needs to consider its broader provenance. Theoretical and conceptual frameworks such as the record continuum model, parallel provenance and societal provenance have aided in debunking the myth of linear, objective and neutral records. While these theories and concepts support the inclusion of Indigenous worldviews in recordkeeping praxis, Indigenous worldviews have been noticeably absent in the formulation of these and other archival theorisations. This article introduces the green ribbon and blue ribbon stories, an Indigenous, specifically Bidjara, conceptual framework for appraising and interpreting archival records. This conceptual framework has been derived from Bidjara ways of being and knowing. This article consists of three parts: the first introduces the conceptual framework and explains its background. The second discusses the intellectual and cultural authority of the framework and protocols for its use, and the final part of the article demonstrates how the green ribbon and blue ribbon stories' conceptual framework applies to archives.

Keywords: *Bidjara; Green ribbon and blue ribbon stories; Provenance; Traditional Knowledge attribution;*

TK The TK (Traditional Knowledge) 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. The TK Notice may indicate that TK Labels are in development and their implementation is being negotiated.

Local Contexts Project ID: bd9cd164-c282-4c36-96a2-1f485d67a25b

ACCESS

Protocol Labels


TK Verified
(TK V)


TK Non-Verified
(TK NV)


TK Seasonal
(TK S)


TK Women General
(TK WG)


TK Men General
(TK MG)


TK Men Restricted
(TK MR)


TK Women
Restricted
(TK WR)


TK Culturally
Sensitive
(TK CS)


TK Secret /
Sacred
(TK SS)

Permission Labels

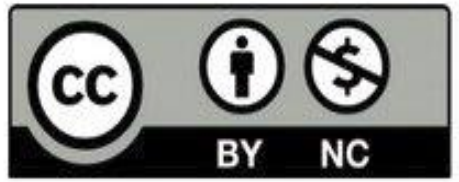

BC Research Use
(BC R)

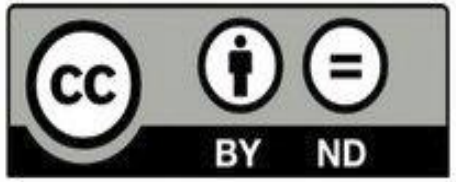

BC Open to
Collaboration
(BC CB)


BC Open to
Commercialization
(BC OC)


BC Outreach
(BC O)


BC Non-
Commercial
(BC NC)





ATTRIBUTION

OTHERS CAN COPY, DISTRIBUTE, DISPLAY, PERFORM AND REMIX THE WORK IF THEY CREDIT THE CREATOR'S NAME AS REQUESTED BY THE CREATOR.

NO DERIVATIVE WORKS

OTHERS CAN ONLY COPY, DISTRIBUTE, DISPLAY, OR PERFORM VERBATIM COPIES OF THE CREATOR'S WORK.

SHARE ALIKE

OTHERS CAN DISTRIBUTE THE CREATOR'S WORK ONLY UNDER A LICENSE IDENTICAL TO THE ONE THE CREATOR HAS CHOSEN FOR THEIR WORK.

NON COMMERCIAL

OTHERS CAN COPY, DISTRIBUTE, DISPLAY, PERFORM AND REMIX THE CREATOR'S WORK BUT FOR NON-COMMERICAL PURPOSES ONLY.

AUTHORITY

Future Acquisition Agreement for Collections and/or Data between Penobscot Nation and [institution name]

PURPOSE

Historically, cultural institutions like museums, archives, libraries and u
any obligation or responsibility to notify Native American Tribes, Native
or Native Alaskan community organizations about the location of
materials. In 1990, the *Native American Graves Protection and Re*
mandated that *all* institutions receiving federal funds notify federally

AGREEMENT

1. [Institution] will notify Penobscot Nation Tribal Historic Preservation Officer when [institution] is approached at an early stage by an individual, family, estate or other formal or informal institution or agency, about donating a collection of materials and/or data that relate directly to or include items directly related to the Penobscot Nation.

2. [institution] will inform and encourage the deposit or transfer of collection and/or data, *in the first instance*, to the Penobscot Nation.

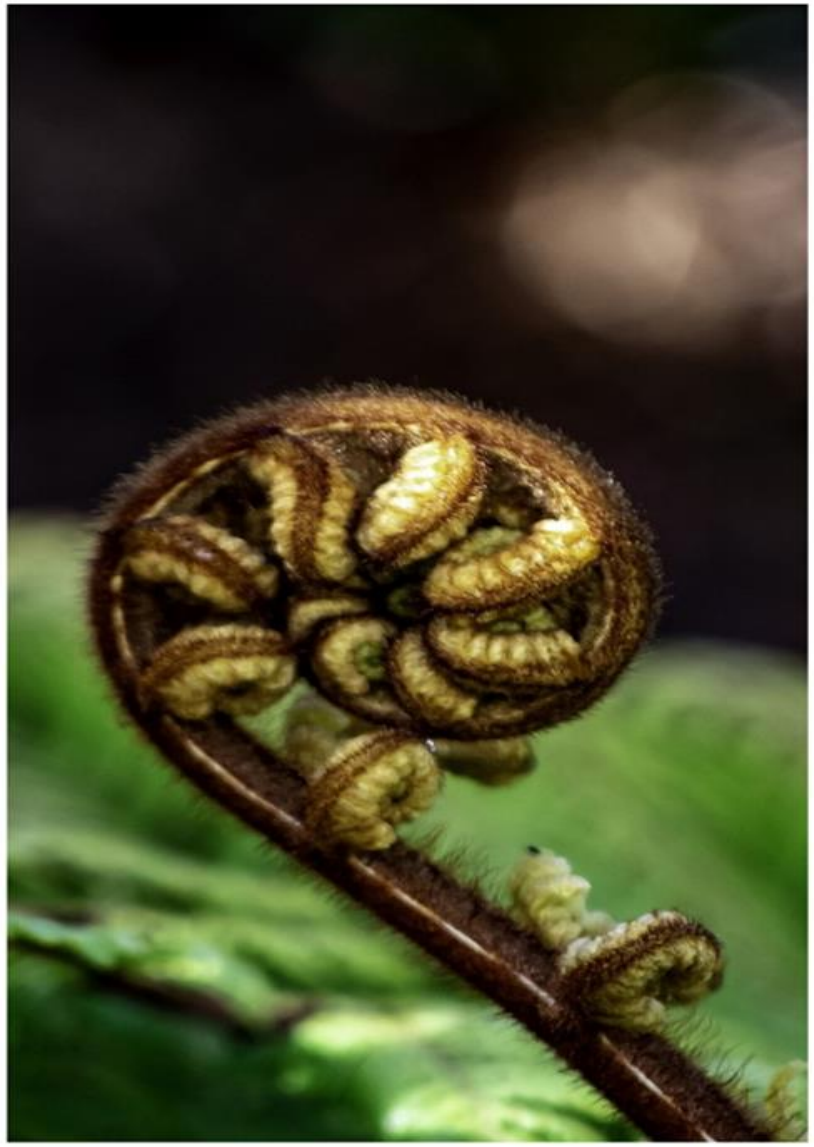
3. Under circumstances where this approach is not accepted by the party making the donation, the [institution] will notify the Penobscot Nation about the immanent transfer of the collection and/or data, and provide the Penobscot Nation with the first available opportunity to assess the collection, and add the Penobscot Nation TK Labels to the collection.

4. Whenever possible, [institution] will transfer copyright over the collection to the Penobscot Nation.

5. In instances where copyright transfer cannot be made, the Penobscot Nation shall be named as the primary cultural authority over this collection and data in perpetuity.

TRADITIONAL KNOWLEDGE (TK) AND BIOCULTURAL (BC) NOTICES & LABELS

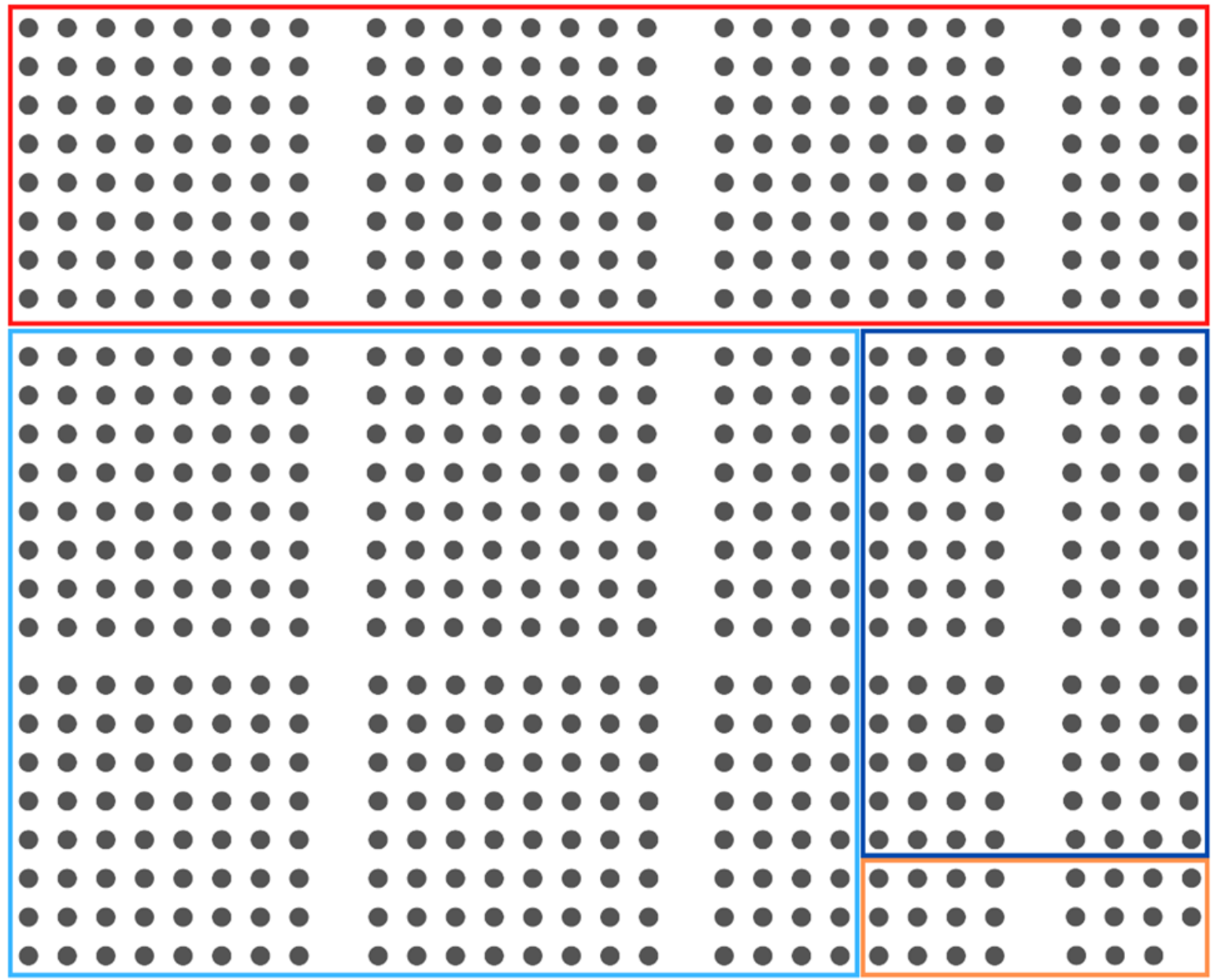
Local Contexts



Manaaki Whenua
Landcare Research

MANAAKI WHENUA

Aaron Wilton, Holden Hohaia



221,000 records
New Zealand Arthropod Collection -
Ko te Aitanga Pepeke o Aotearoa

BC

324,000 records
Allan Herbarium

BC

109,000 records
New Zealand Fungarium -
Te Kohinga Hekaheka o Aotearoa

BC

<100 records
National New Zealand
Flax Collection

BC

BC

23,000 records
International Collection
of Microorganisms

Systematics Collections Data

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Local Contexts

LOCAL CONTEXTS REGISTRY MY PROFILE SIGN OUT

New Zealand Arthropod Collection (NZAC) - Ko te Aitanga Pepeke o Aotearoa

Discoverable Project

Local Contexts Unique Project ID
3428e926-12bb-490f-b565-79c98312458c

Providers ID
a513f674-6ded-4c32-90d4-897773238cf6

Project Notice

BC

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.

Permissions

Project permits

Project title:

Local Contexts - New Zealand Arthropod Collection (NZAC) - Ko te Aitanga Pepeke o Aotearoa

Reference:
NZAC Collection - Local Contexts

BC Biocultural (BC) Notice

Active identification

Determined name:	Lapita rembai Bickel
Determiner:	
Determination date:	
Preferred name:	Lapita rembai Bickel, 2002
Phylum:	Arthropoda
Class:	Insecta
Order:	Diptera

NZAC02015737 – Lapita rembai Bick

Data provider:	New Zealand Arthropod Colle
Barcode:	NZAC02015737
Type status:	Paratype
Specimen type:	Slide
Database record added:	23 April 2014
Database record updated:	23 April 2014

Components

Primary component

Active identification

Determined name:	Lapita rembai Bickel
Determiner:	
Determination date:	
Preferred name:	Lapita rembai Bickel, 2002
Phylum:	Arthropoda
Class:	Insecta
Order:	Diptera

Biocultural (BC) Notice

×

BC

Biocultural (BC) Notice

English

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.

Close

missions

ect permits

ject title:

al Contexts - New Zealand Arthropod Collection (NZAC) - Ko te nga Pepeke o Aotearoa

erence:

AC Collection - Local Contexts

BC Biocultural (BC) Notice


Territories
Languages
Treaties
Search your address, or toggle switches above to add shapes. Click around! Think critically about this map.
Search
Territories
Languages
Treaties
Contact local nations to verify:
Whakatōhea
Ngāi Te Rangi
Tapuika
Ngāti Rangiteaorere
Waitaha
Ngāti Rangitihi
Ngāti Pikiao
Ngāti Mākino
Ngāti Awa
Ngāti Rangitihi
Ngāti Awa
Ngāti Rangiteaorere
Ngāti Rangiwewehi
Ngāti Tarāwhai
Ngāti Rongomai
Ngāti Kea / Ngāti Tuarā
Tūhourangi
Tūhoe
Ngāti Kea / Ngāti Tuarā
Tūhourangi
Tūhoe
Ngāti Awa
Tūhoe
Tūhoe
Whakatōhea
Whakatōhea
Whakatōhea
Te Whānau a Apanui
Te Whānau a Apanui
Te Whānau a Apanui
Te Whānau a Apanui
Ngāti Porou
Ngāti Porou
Ngāitai (Bay Of Plenty)
Te Aitanga ā Māhaki
mapbox
Colors
Settler Labels

Native lands: Whakatōhea

Facets

Main taxon

Bembidion (Zecillenus) albescens (Bates) (15)

Miridae (14)

Elytrigia pycnantha (Godr.) Á.Löve (13)

Cyathea cunninghamii Hook.f. (10)

Myosotis pottsiana (L.B.Moore) Meudt, Prebble, R.J.Stanley & Thorsen (10)

More...

Preferred name

Lophozonia menziesii (Hook.f.) Heenan & Smissen (27)

Nothofagus (19)

Bembidion (Zecillenus) albescens (Bates) (15)

Miridae (14)

Elytrigia pycnantha (Godr.) Á.Löve (13)

More...

Taxonomic name

Nothofagus menziesii (Hook.f.) Oerst. (27)

Nothofagus (19)

Bembidion (Zecillenus) albescens (Bates) (15)

Miridae (14)

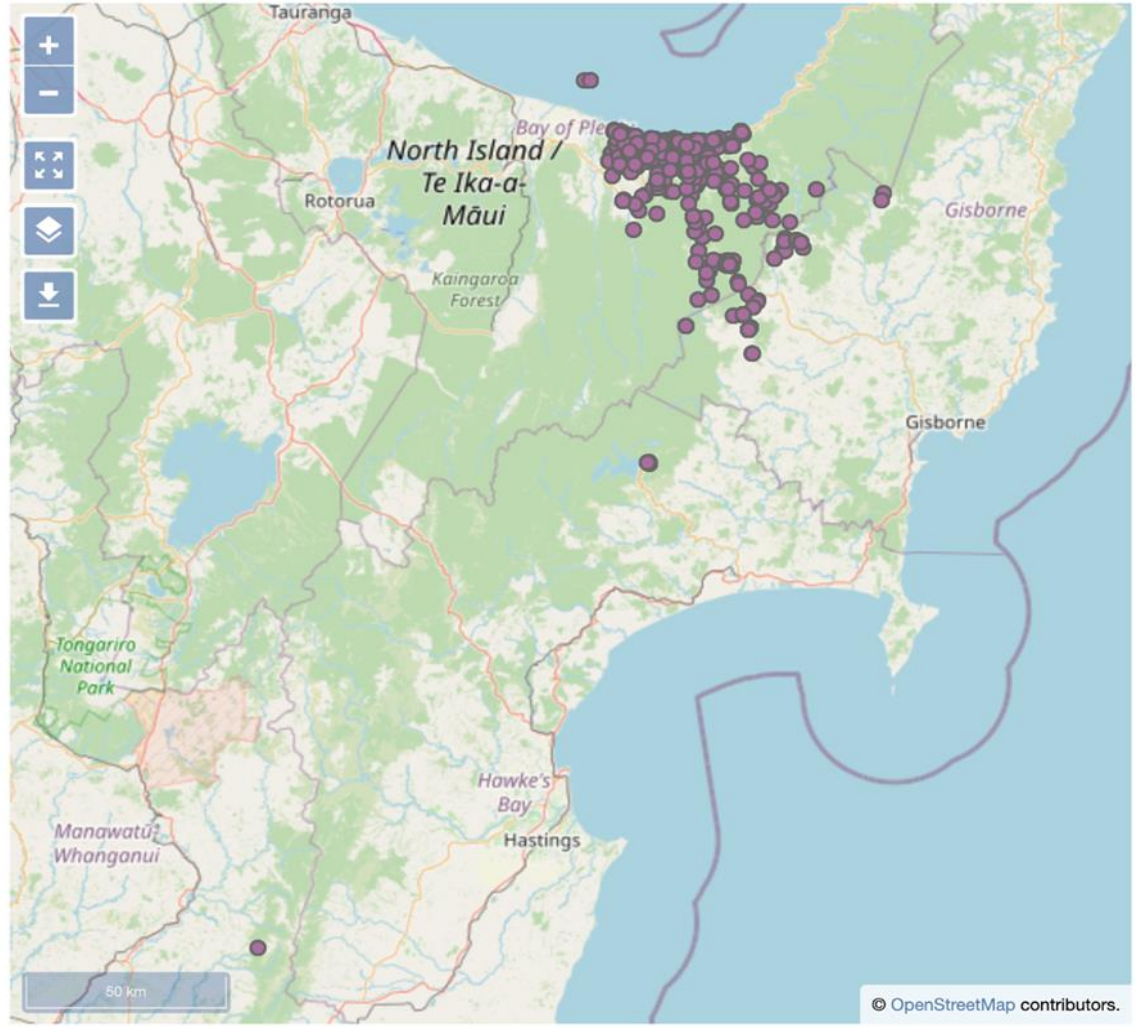
Elytrigia pycnantha (Godr.) Á.Löve (13)

More...

Results

Total results: 1206 | Mappable results: 940 | Currently visible: 940

List view | Grid view | Map view



Classify records by:

- None
- Collection
- NZ origin: main taxon
- Main taxon (Available when ≤10)
- Collection month
- Collection year
- Collection decade

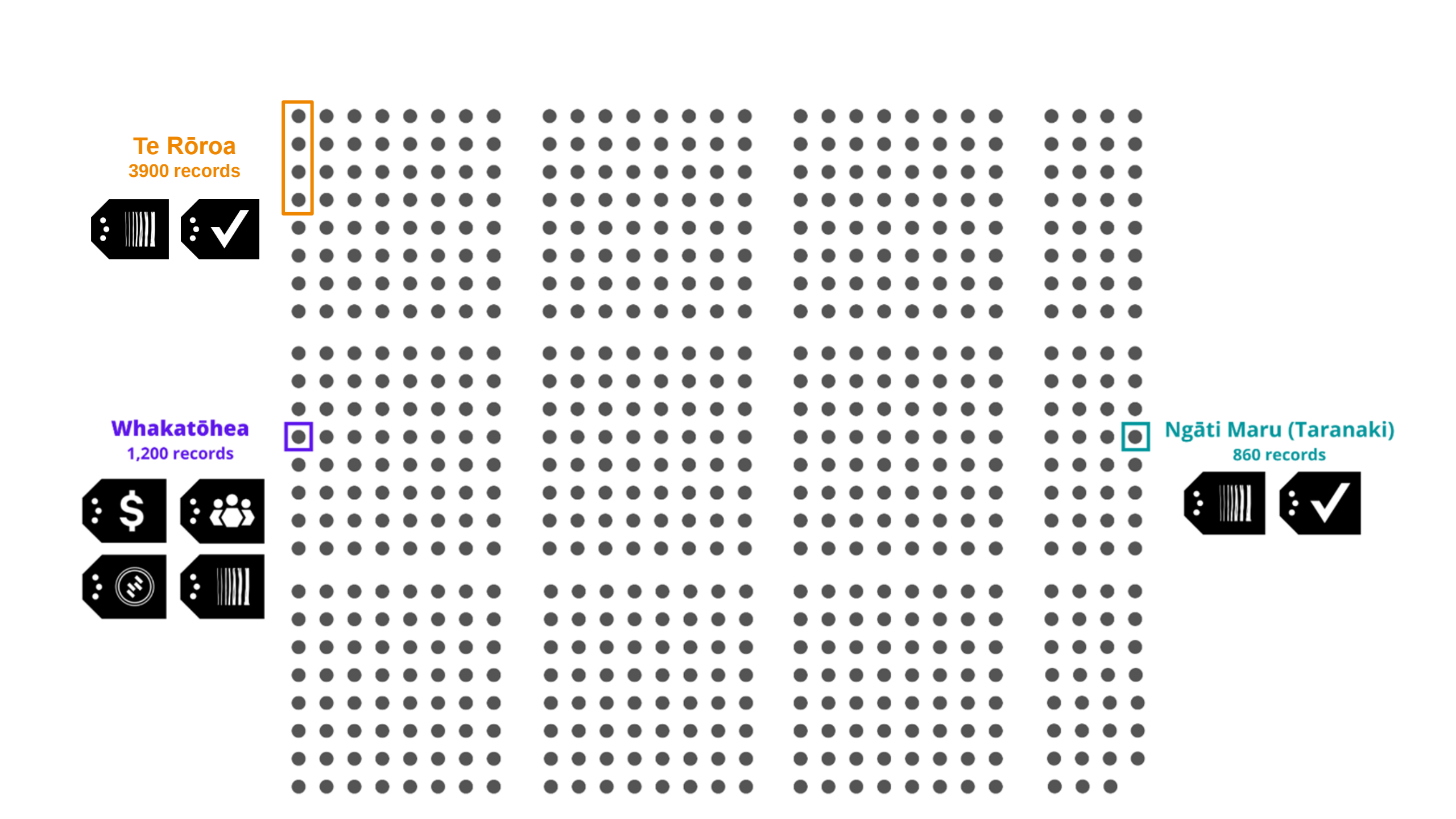
Map legend

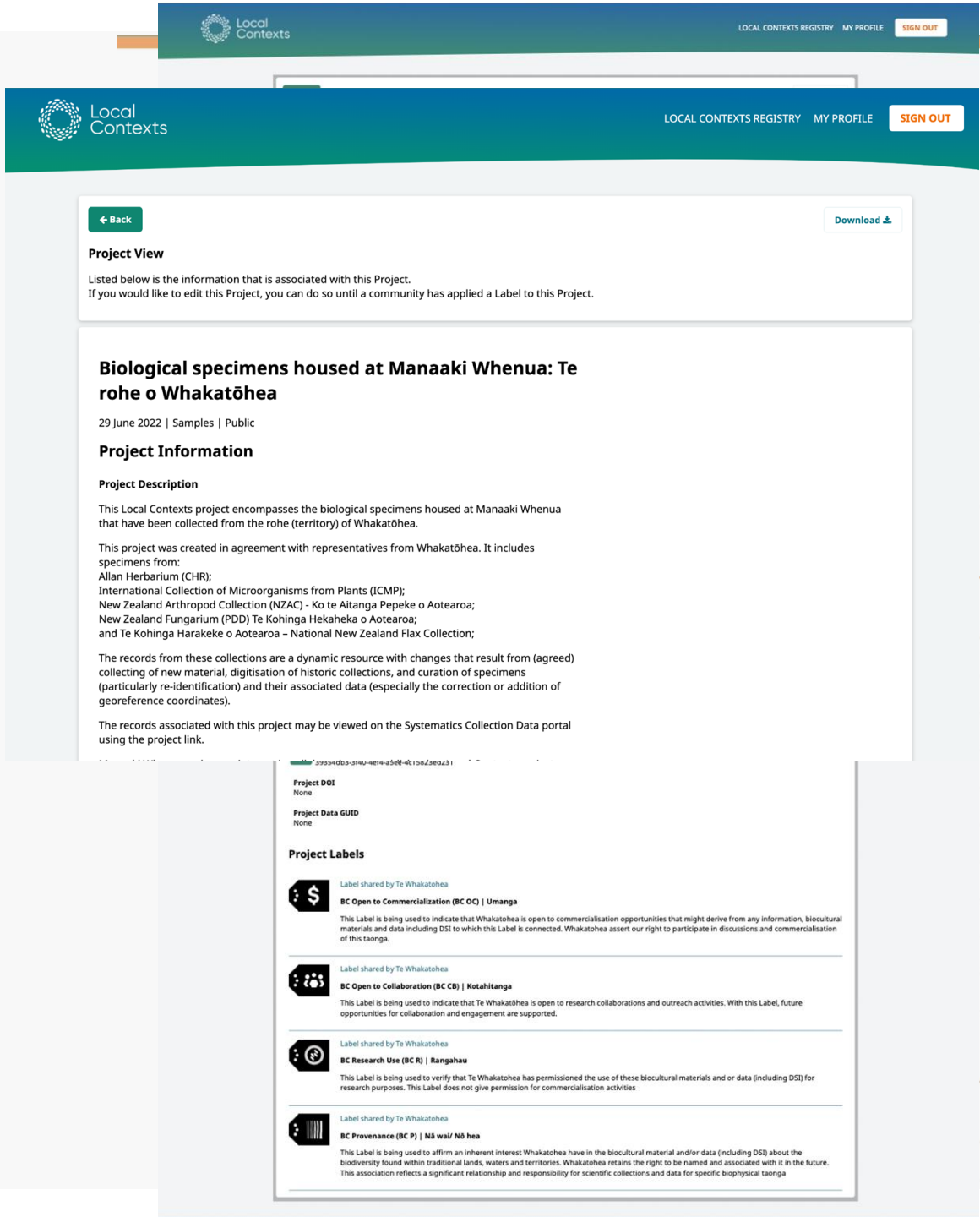
All records

Colour options

Fill colour:

Outline: Grey White


Te Rōroa
3900 records
Whakatōhea
1,200 records
Ngāti Maru (Taranaki)
860 records


Local Contexts
LOCAL CONTEXTS REGISTRY
MY PROFILE
SIGN OUT
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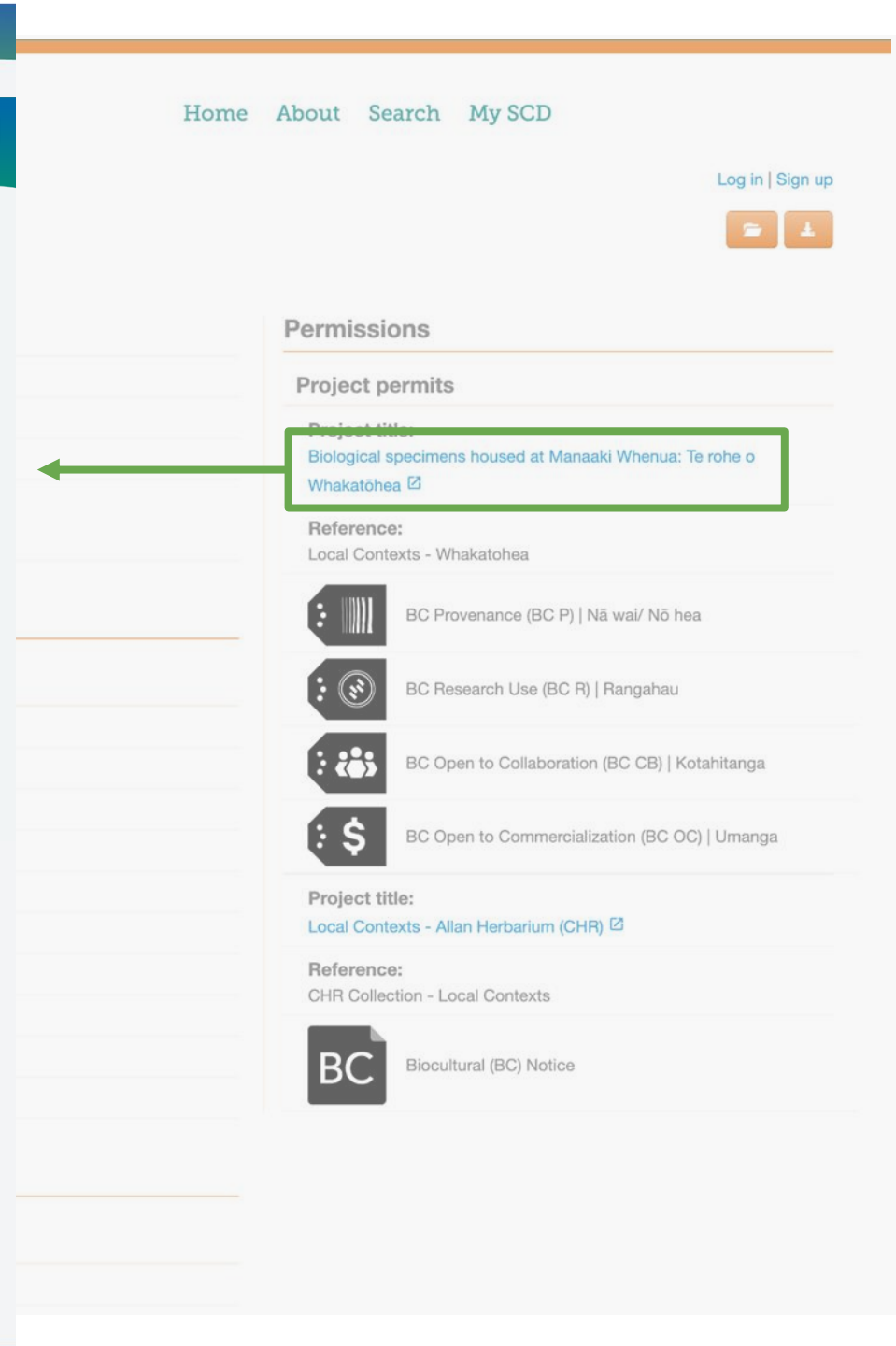
Project View
Listed below is the information that is associated with this Project.
If you would like to edit this Project, you can do so until a community has applied a Label to this Project.
Biological specimens housed at Manaaki Whenua: Te rohe o Whakatōhea
29 June 2022 | Samples | Public
Project Information
Project Description
This Local Contexts project encompasses the biological specimens housed at Manaaki Whenua that have been collected from the rohe (territory) of Whakatōhea.
This project was created in agreement with representatives from Whakatōhea. It includes specimens from:
Allan Herbarium (CHR);
International Collection of Microorganisms from Plants (ICMP);
New Zealand Arthropod Collection (NZAC) - Ko te Aitanga Pepeke o Aotearoa;
New Zealand Fungarium (PDD) Te Kohinga Hekaheka o Aotearoa;
and Te Kohinga Harakeke o Aotearoa – National New Zealand Flax Collection;
The records from these collections are a dynamic resource with changes that result from (agreed) collecting of new material, digitisation of historic collections, and curation of specimens (particularly re-identification) and their associated data (especially the correction or addition of georeference coordinates).
The records associated with this project may be viewed on the Systematics Collection Data portal using the project link.
Project DOI
None
Project Data GUID
None
Project Labels
Label shared by Te Whakatohea
BC Open to Commercialization (BC OC) | Umanga
This Label is being used to indicate that Whakatohea is open to commercialisation opportunities that might derive from any information, biocultural materials and data including DSI to which this Label is connected. Whakatohea assert our right to participate in discussions and commercialisation of this taonga.
Label shared by Te Whakatohea
BC Open to Collaboration (BC CB) | Kotahitanga
This Label is being used to indicate that Te Whakatōhea is open to research collaborations and outreach activities. With this Label, future opportunities for collaboration and engagement are supported.
Label shared by Te Whakatohea
BC Research Use (BC R) | Rangahau
This Label is being used to verify that Te Whakatohea has permissioned the use of these biocultural materials and or data (including DSI) for research purposes. This Label does not give permission for commercialisation activities
Label shared by Te Whakatohea
BC Provenance (BC P) | Nā wai/ Nō hea
This Label is being used to affirm an inherent interest Whakatohea have in the biocultural material and/or data (including DSI) about the biodiversity found within traditional lands, waters and territories. Whakatohea retains the right to be named and associated with it in the future. This association reflects a significant relationship and responsibility for scientific collections and data for specific biophysical taonga


Home
About
Search
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Log in | Sign up
Permissions
Project permits
Project title:
Biological specimens housed at Manaaki Whenua: Te rohe o Whakatōhea
Reference:
Local Contexts - Whakatohea
BC Provenance (BC P) | Nā wai/ Nō hea
BC Research Use (BC R) | Rangahau
BC Open to Collaboration (BC CB) | Kotahitanga
BC Open to Commercialization (BC OC) | Umanga
Project title:
Local Contexts - Allan Herbarium (CHR)
Reference:
CHR Collection - Local Contexts
BC
Biocultural (BC) Notice

CHR 365035 – Abutilon darwinii Hook.f.

Permissions

Project permits

Project title:
Biological specimens housed at Manaaki Whenua: Te rohe o Whakatōhea

Reference:
Local Contexts - Whakatohea

BC Provenance (BC P) | Nā wai/ Nō hea

BC Research Use (BC R) | Rangahau

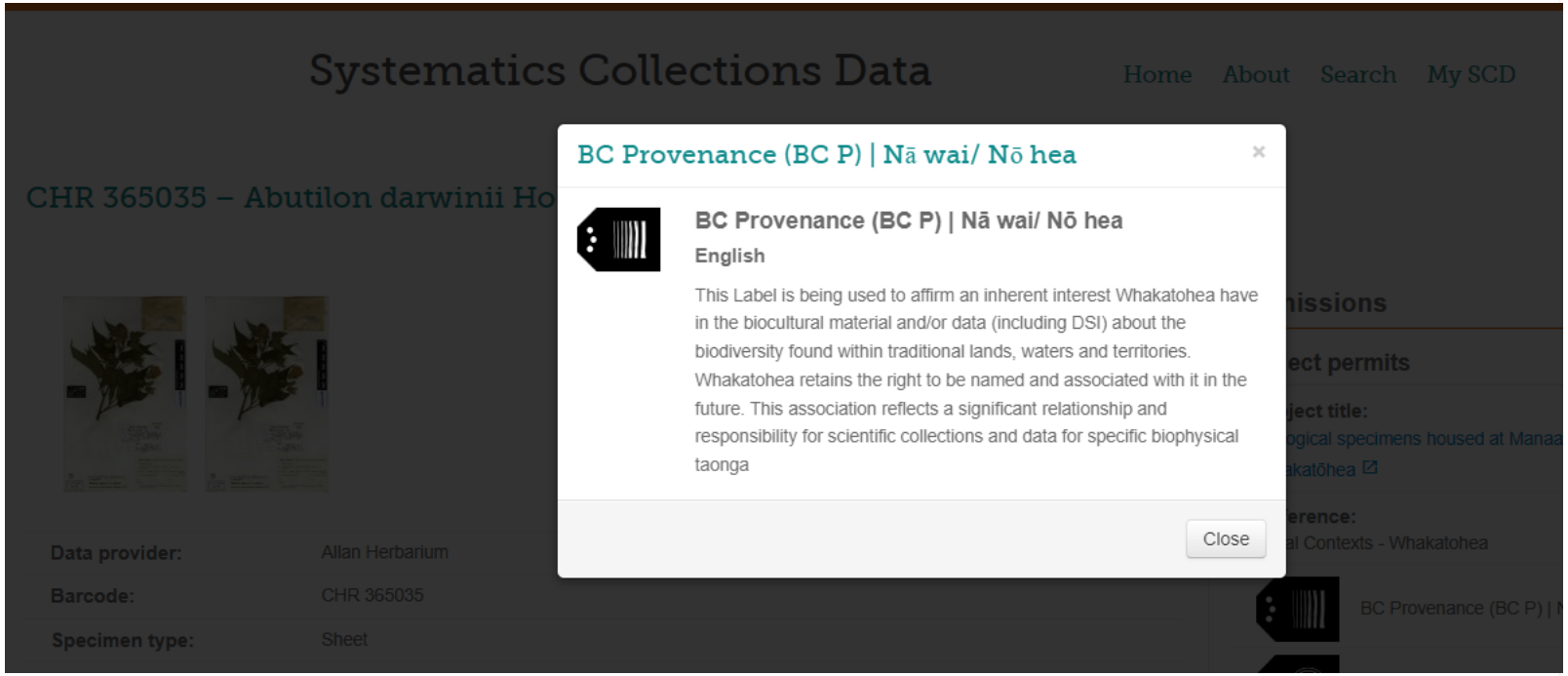
BC Open to Collaboration (BC CB) | Kotahitanga

BC Open to Commercialization (BC OC) | Umanga

Project title:
Local Contexts - Allan Herbarium (CHR)

Reference:
CHR Collection - Local Contexts

BC Biocultural (BC) Notice



Division: Spermatophyta


“One of the most powerful things we’ve experienced as a community is gifts coming back from our ancestors”
Donald Soctomah, Passamaquoddy
10:28
https://localcontexts.org/

WORLD DATA SYSTEMS SURVEY – OPEN NOW

In alignment with our dedication to the WDS community, we have collaborated with Local Contexts to create a survey aimed at examining trends, opportunities, and areas for improvement within the Biodiversity datasphere.

Our objective is to precisely identify the interests and needs of the community. If participation and enthusiasm are strong, we will be able to organize a series of workshops on sustainable and ethical data cultivation.

tiny.utk.edu/WDS_LocalContexts

Art by: James Eric Francis Sr. (Penobscot)

Local Contexts

www.LocalContexts.org

Support@LocalContexts.org

@LocalContexts

Join our working groups for:
Indigenous Communities
Cultural Institutions
Technical Implementation