



## Initiating open access licensing in the *New Zealand Journal of Ecology* to further promote ecological science and better align copyright with the intent of Te Tiriti o Waitangi

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Published online: 6 December 2022

Copyright is a form of intellectual property right for published works that seeks to protect the creator's and provider's rights to be able to (1) reuse their work themselves, and (2) to decide how their work is reused by others (Copyright Licensing New Zealand 2022). Therefore, scientific journals use copyright to protect the interests of the journal and the authors. The *New Zealand Journal of Ecology* currently requires authors to transfer copyright of their papers to the New Zealand Ecological Society. The copyright licence (New Zealand Ecological Society 2022) states that:

“Copyright in this material is owned by the New Zealand Ecological Society Inc (NZES). The material with an original publication date greater than three years old may be reproduced free of charge in any format or media without requiring specific permission. This is subject to the material being reproduced accurately and in a non-derogatory manner or in a misleading context. Where the material is published or issued to others as part of a business venture and/or has an original publication date not greater than three years old permission to use it must be sought from the NZES. This material is supplied on an “as is” basis, without warranty of any kind, and the New Zealand Ecological Society Inc (NZES) will not accept liability for any direct, indirect, special or consequential damages, losses or expenses howsoever arising and relating to the use, or lack of use, of the data and/or information in it. Any loss or damage incurred through the use of the copy of the data and/or information shall be the responsibility of the user. The NZES makes no express or implied warranties as to the accuracy or completeness of the data/information resource or its suitability for any purpose.”

This requirement of copyright transfer from author to publisher is an artefact of the pre-digital era of scientific publishing where printing and distributing of hard copy scientific journals was beyond the abilities of an individual author. However, copyright transfer is no longer necessary given the advent of the internet and development of open access licences that can increase the immediate use of published research while also protecting authors within a strong legal framework (Tennant et al. 2019). While the *New Zealand Journal of Ecology* is currently freely available to read, the current copyright transfer requirement means that the journal is not open access, as its contents are not licensed in a way that allows immediate and open reuse. This is an important

distinction, though potentially confusing as the definition of open access has shifted over time from free to read to free to read and reuse (Gulley 2013). The emphasis on reuse is why open access is now encouraged via top-down processes such as the New Zealand Government Open Access and Licensing (NZGOAL) framework, which aims to foster a culture of sharing of government material for reuse by others (New Zealand Government 2014). Indeed, the New Zealand Ecological Society's stated objectives are to: (1) promote the study of ecology and the application of ecological knowledge in all its aspects, (2) publish the *New Zealand Journal of Ecology*, and (3) foster collaboration and communication amongst ecologists (New Zealand Ecological Society 2016). Open access licensing will enable scientists, mana whenua, educators, journalists, and the general public to be able to more easily use the knowledge generated within the journal. Therefore, open access would better support those New Zealand Ecological Society objectives around communication and application of ecological knowledge. There is also evidence that open access papers receive more citations (McKiernan et al. 2016), so a move to open access could also benefit the journal's citation rates. It is also important to recognise that the *New Zealand Journal of Ecology* needs to remain a competitive option in relation to other journals. Moving to an open access licensing model helps to meet that need for those authors for whom open access is important, as read and publish agreements currently allow New Zealand researchers at universities and Crown Research Institutes to publish open access within many other ecology journals at no direct cost to themselves (Council of Australian University Librarians 2022). Given these considerations, the New Zealand Ecological Society Council agreed at their July 2022 council meeting to move to an open access licencing model. This decision has since been reinforced by recent changes in government policy that will require the adoption of open access publishing (Ministry of Business, Innovation & Employment 2022).

A change in licensing provides an opportunity to consider how the *New Zealand Journal of Ecology* gives effect to Te Tiriti o Waitangi to encourage participation by Māori. Of relevance to discussions of copyright licensing is Waitangi Tribunal Claim 262 (Wai 262), that seeks to restore “te tino rangatiratanga o te Iwi Māori in respect of indigenous flora and fauna me ō rātau taonga katoa (and all their treasures) including but not limited

to mātauranga, whakairo, wāhi tapu, biodiversity, genetics, Māori symbols and designs and their use and development and associated indigenous cultural and customary heritage rights in relation to such taonga” (Te Puni Kōkiri 2022). The tribunal report, Ko Aotearoa Tēnei, in its consideration of the Wai 262 claim identifies some key points that are relevant here: (1) article two of Te Tiriti o Waitangi recognises Māori authority and control over taonga via tino rangatiratanga, (2) there is no doubt that mātauranga is taonga, and therefore (3) kaitiaki of mātauranga should retain the authority and control over the sharing of that knowledge (Waitangi Tribunal 2011). Recognising that any knowledge about or from Māori language, culture, resources, or environments is in essence Māori data means that the *New Zealand Journal of Ecology* should consider using well developed indigenous data sovereignty frameworks when publishing mātauranga. For example, Te Mana Raraunga (2018) identify that the principles of rangatiratanga, whakapapa, whanaungatanga, kotahitanga, manaakitanga, and kaitiakitanga should be applied so that Māori can exercise their rights and interests over their mātauranga. If we view the authors, or a third party such as the appropriate iwi, hapū, whānau, kaitiaki authority, or individual(s) as holding the copyright of the mātauranga being published, then on this basis it becomes evident that the *New Zealand Journal of Ecology* has not been meeting its Te Tiriti o Waitangi obligations. The journal’s licence currently requires transfer of copyright from authors to the society upon which the society then controls how the work is shared and reused for three years, after which there are essentially no controls on how the work is shared and reused for non-commercial activities. Our response on behalf of the New Zealand Ecological Society is that the *New Zealand Journal of Ecology* adopts a copyright licensing model that allows authors together with the relevant knowledge holders to make their own choices about copyright of mātauranga and be able to either retain it themselves, or recognise the copyright belongs to an Indigenous community, or as has been done elsewhere both of these options together (Lyver & Łutsël K’ē Dene First Nation 2005).

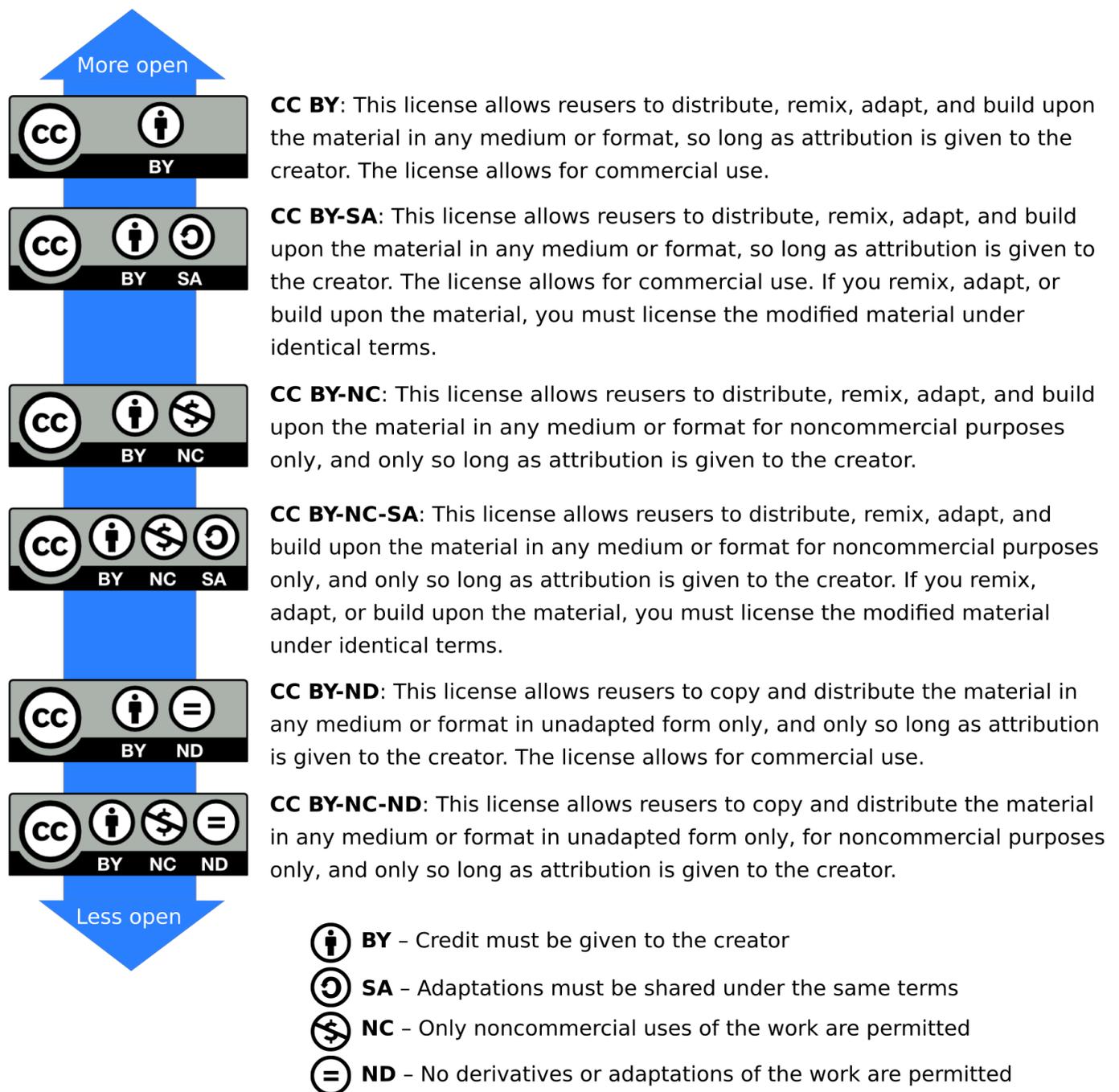
As well as allowing a flexibility in copyright ownership, there is also clearly a need to use a “situated openness” (Albornoz et al. 2019) that empowers authors to choose the degree of openness in how their work should be shared and reused. This is consistent with the approach taken when developing data and code requirements for the *New Zealand Journal of Ecology* (Etherington et al. 2022). The Creative Commons licensing framework (Creative Commons 2022) is a flexible open licensing system that is commonly used in scientific publishing (Gulley 2013) and can increase the immediate use of published research while also protecting authors within a strong legal framework (Tennant et al. 2019) and is advocated by the New Zealand government (New Zealand Government 2014; Ministry of Business, Innovation & Employment 2022). The importance of situated openness extends beyond considerations of mātauranga as surveys by scientific publishers have shown a variety of Creative Commons licensing preferences amongst authors (Gulley 2013). Therefore, rather than try to choose a single Creative Commons licence to apply to all content within the journal, as some open access journals do, we have decided that authors should be free to choose between the six different Creative Commons licences (Fig. 1) to decide themselves what degree of openness and reuse is most appropriate. Allowing an appropriate individual or group, not necessarily the author(s), to retain copyright means that if there are any questions

around the appropriateness of reuse, these queries can be made directly to the relevant parties to better ensure appropriate reuse. Copyright retention also empowers the copyright holder with moral rights that allow the copyright holder to object to derogatory or disrespectful treatment of their published work (Intellectual Property Office of New Zealand 2016).

Many publishers now allow authors to retain copyright via Creative Commons licensing but require an article publishing charge (APC) to be paid. For example, the *New Zealand Journal of Botany* and the *New Zealand Journal of Zoology*, published by the Royal Society Te Apārangi, levy APCs of around \$5700 (based on US\$3085 plus goods and services tax) per research paper (Taylor & Francis 2022). However, open access publishing does not necessarily need to be this expensive (Tennant et al. 2019), and expensive APCs are problematic as they create an additional barrier to publication for authors who value their copyright. Therefore, by not charging more for open access publishing and by allowing authors to choose any of the Creative Commons licences the *New Zealand Journal of Ecology* is creating a novel copyright licensing system that we feel is moving towards becoming more responsive to the tenet of Wai 262, as it relates to knowledge.

It is important to recognise that Creative Commons licensing is not a replacement for copyright, but rather works within the existing copyright system (Gulley 2013). Therefore, as Creative Commons licensing is of te ao Pākehā it will likely be an imperfect solution to respecting and protecting mātauranga. For example, it is important to understand that copyright does not apply to the ideas or knowledge within the paper, simply the written expression of those ideas or knowledge (Gulley 2013). This is an important distinction as the Wai 262 claimants sought an ability to protect the use of mātauranga in perpetuity, but this is not something that the current copyright system can provide (Waitangi Tribunal 2011) as most copyright protection lasts for the life of the creator plus 50 years (Intellectual Property Office of New Zealand 2016). Therefore, the choice of copyright licence with the *New Zealand Journal of Ecology* should be regularly reviewed to take advantage of copyright developments. Furthermore, in collaboration with wider society, it will be critical to consider not only how such policy speaks to the principles of Te Tiriti o Waitangi but also how the decision-making apparatus might give life to these same principles (Came et al. 2020). However, in the absence of an obvious or clear solution, we envisage that this move to open access with flexible copyright holder options will better meet the New Zealand Ecological Society’s objectives and will create a more respectful space for mātauranga to be published. Hopefully this will help to remove barriers to a more diverse authorship within the journal as while the number of papers published in the *New Zealand Journal of Ecology* has increased steadily over time (Perry & McGlone 2021), with the exception of a recent Mātauranga Māori special issue (McAllister et al. 2019), there have historically been very few papers of relevance to Māori and Mātauranga Māori (Wehi et al. 2019a; Wehi et al. 2019b). Ultimately all authors need to decide what content is appropriate to publish and given the purpose of the *New Zealand Journal of Ecology* is to promote communication of ecological knowledge this journal may not be an appropriate venue to publish particularly sensitive knowledge.

We recognise copyright is only one aspect of the Wai 262 claim that is relevant to the *New Zealand Journal of Ecology* given the journal regularly publishes articles that connect to the wider spectrum of Aotearoa New Zealand’s biological



**Figure 1.** The Creative Commons licences that use a modular copyright licence framework to create six licences, which form a gradient of openness of reuse (adapted from Creative Commons 2022).

diversity which is also highly relevant under Wai 262. Therefore, the *New Zealand Journal of Ecology* is also currently considering how to encourage future authors submitting work for publication within the journal to better meet their broader Te Tiriti o Waitangi obligations. We envisage that key aspects that require better documentation will include engagement with relevant mana whenua to ensure that science and mātauranga data has been collected with appropriate permissions, and that there is an established agreement on what can be shared via a publication and how and by whom that sharing should be done.

### Author contributions

All authors contributed to conceptualisation, writing, reviewing and editing.

### Data and code availability

There is no data or code associated with this work.

## Acknowledgements

This research was funded by internal investment by Manaaki Whenua — Landcare Research. We thank the New Zealand Ecological Society Council for their support of this initiative and their helpful discussions on the topic.

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Received: 14 November 2022; accepted: 21 November 2022  
Editorial board member: Priscilla Wehi