Supplementary Material

Appendix S1. R packages used in the analyses.

Library	Version	Citation
General wrangling		
tidyverse	2.0.0	Wickham H, Averick M, Bryan J, Chang W, McGowan LD, François R, Grolemund G, Hayes A, Henry L, Hester J, Kuhn M, Pedersen TL, Miller E, Bache SM, Müller K, Ooms J, Robinson D, Seidel DP, Spinu V, Takahashi K, Vaughan D, Wilke C, Woo K, Yutani H (2019). Welcome to the tidyverse. Journal of Open Source Software, 4, 1686. <https://doi.org/10.21105/joss.01686>.
widyr	0.1.5	Robinson D, Silge J (2022). widyr: Widen, Process, then Re-Tidy Data. R package version 0.1.5, <https://CRAN.R-project.org/package=widyr>.
Scopus API		
rscopus	0.7.1	Muschelli J (2023). rscopus: Scopus Database 'API' Interface. https://dev.elsevier.com/sc_apis.html, https://github.com/muschellij2/rscopus.
Networks		
circlize	0.4.15	Gu Z, Gu L, Eils R, Schlesner M, Brors B (2014). circlize Implements and enhances circular visualization in R. Bioinformatics 30(19): 2811–2812.
igraph	1.5.1	Csardi, G., & Nepusz, T. (2006). The igraph software package for complex network research. InterJournal, Complex Systems, 1695.
network	1.18.1	Butts C (2008). network: a package for managing relational data in R. Journal of Statistical Software, 24(2). <https://doi.org/10.18637/jss.v024.i02>.
RCy3	2.20.2	Gustavsen, J. A., Pai, S., Isserlin, R., Demchak, B., & Pico, A. R. (2019). RCy3: Network biology using Cytoscape from within R. F1000Research, 8, 1774. https://doi.org/10.12688/f1000research.20887.3

ggraph	2.1.0	Pedersen T (2022). _ggraph: An Implementation of Grammar of Graphics for Graphs and Networks_. R package version 2.1.0, <https://CRAN.R-project.org/package=ggraph>.
tnet	3.0.16	Opsahl, T., 2009. Structure and evolution of weighted networks. University of London (Queen Mary College), London, UK, pp. 104-122. Available at http://toreopsahl.com/publications/thesis/; http://toreopsahl.com/tnet/
Text handling & modelling		
tidytext	0.4.1	Silge, J., & Robinson, D. (2016). Tidytext: Text mining and analysis using tidy data principles in R. The Journal of Open Source Software, 1(3), 37. <https://doi.org/10/gfwcjt>
stm	1.3.6.1	Roberts, M. E., Stewart, B. M., & Tingley, D. (2019). stm: An R package for structural topic models. Journal of Statistical Software, 91(2). <https://doi.org/10.18637/jss.v091.i02>
SnowballC	0.7.1	Bouchet-Valat M (2023). SnowballC: Snowball Stemmers Based on the C 'libstemmer' UTF-8 Library. R package version 0.7.1, <https://CRAN.R-project.org/package=SnowballC>.
tm	0.7.11	Feinerer I, Hornik K, Meyer D (2008). Text mining infrastructure in R. Journal of Statistical Software 25 (5), 1-54. <https://doi.org/10.18637/jss.v025.i05>.
franc	1.14	Csardi G, Wormer T, Ceglowski M, Rideout JR, Johnson AKS (2021). franc: Detect the Language of Text. R package version 1.1.4, <https://CRAN.R-project.org/package=franc>.
word2vec	0.3.4	Wijffels J (2021). _word2vec: Distributed Representations of Words. R package version 0.3.4, <https://CRAN.R-project.org/package=word2vec>.

textstem	0.1.4	Rinker, T. W. (2018). textstem: Tools for stemming and lemmatizing text version 0.1.4. Buffalo, New York. http://github.com/trinker/textstem
wordcloud		Fellows I (2018). _wordcloud: word clouds_. R package version 2.6, <https://CRAN.R-project.org/package=wordcloud>.
textclean	0.9.3	Rinker, T. W. (2018). textclean: Text Cleaning Tools version 0.9.3. Buffalo, New York. https://github.com/trinker/textclean
Other		
densityClust	0.3.2	Pedersen T, Hughes S, Qiu X (2022). densityClust: clustering by fast search and find of density peaks. R package version 0.3.2, <https://CRAN.R-project.org/package=densityClust>.

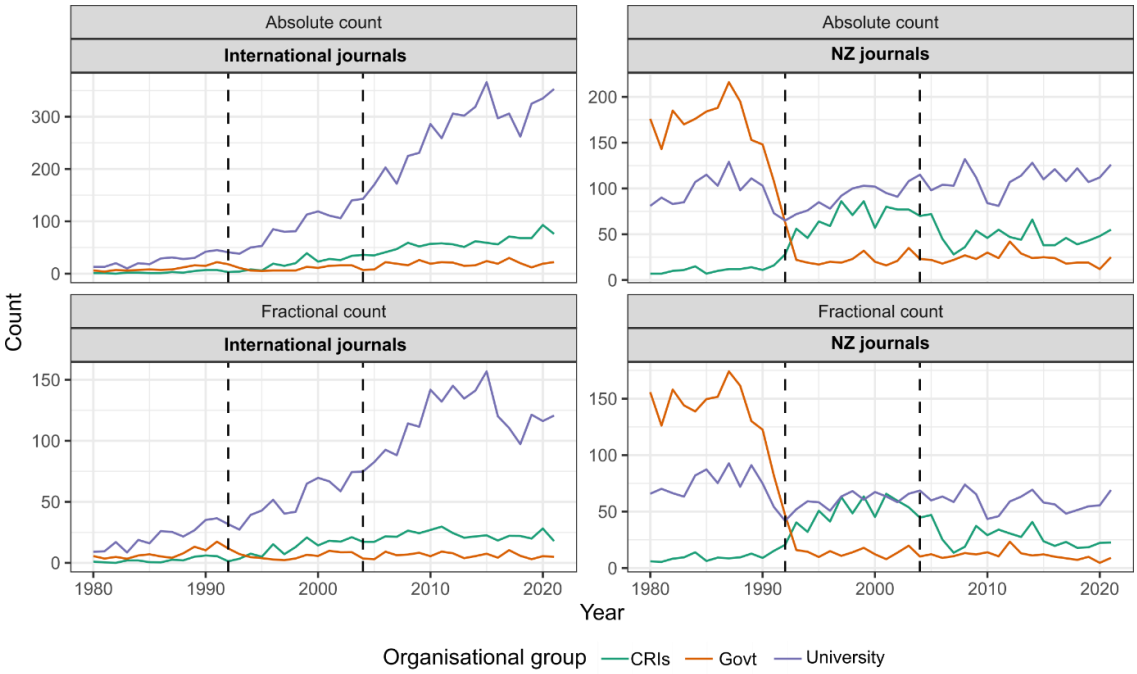
Appendix S2. Custom stopwords

For the STMs we used the Snowball stopwords: "new", "zealand", "zealand's", "south", "north", "australia", "australian", "copyright", "sp", "sp.", "nov.", "found", "increase", "suggest", "low", "ii", "iii", "iv", "NA", "time", "female", "male", "study", "studied", "studies", "result", "size", "species", "rate", "difference", "effect", "effects", "differences", "females", "males", "significant", "significantly", "results", "test", "increase", "sample", "tests", "tested", "samples", "sampled", "increases", "increased", "similar", "occur", "site", "suggest", "include"

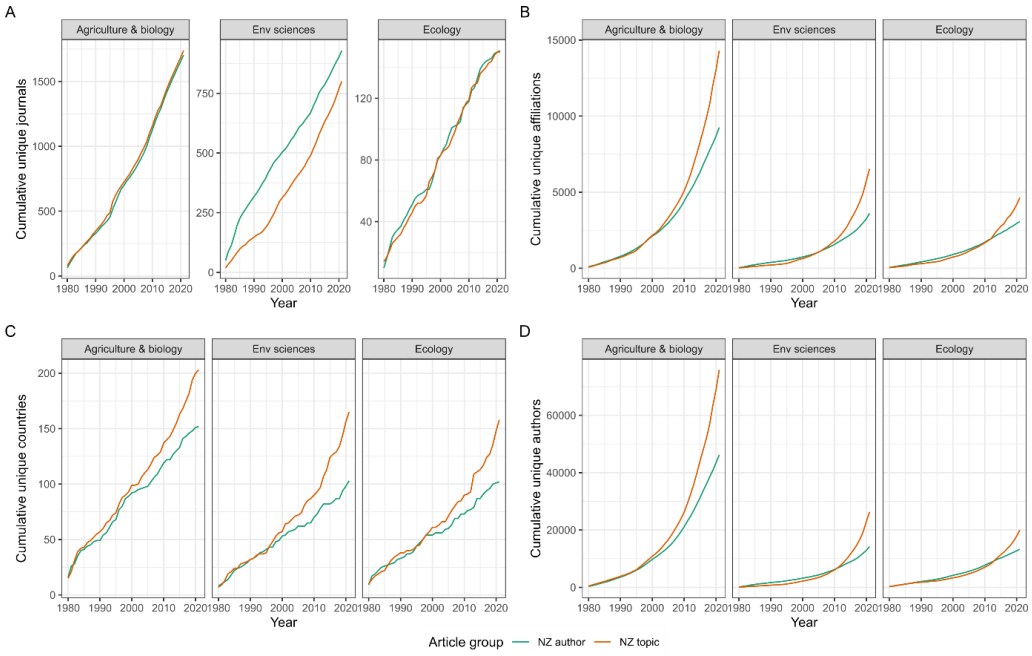
Appendix 3. Interactive network figures

Interactive versions of some of the network figures (Figs. 4,5, and 7) are available as follows. Note that these interactive versions include more information than those in the printed version although the underlying data are the same; in other words, they are not intended to be exact replicas. The interactive versions were made using Cytoscape and the rcytoscape packages (Shannon et al. 2003).

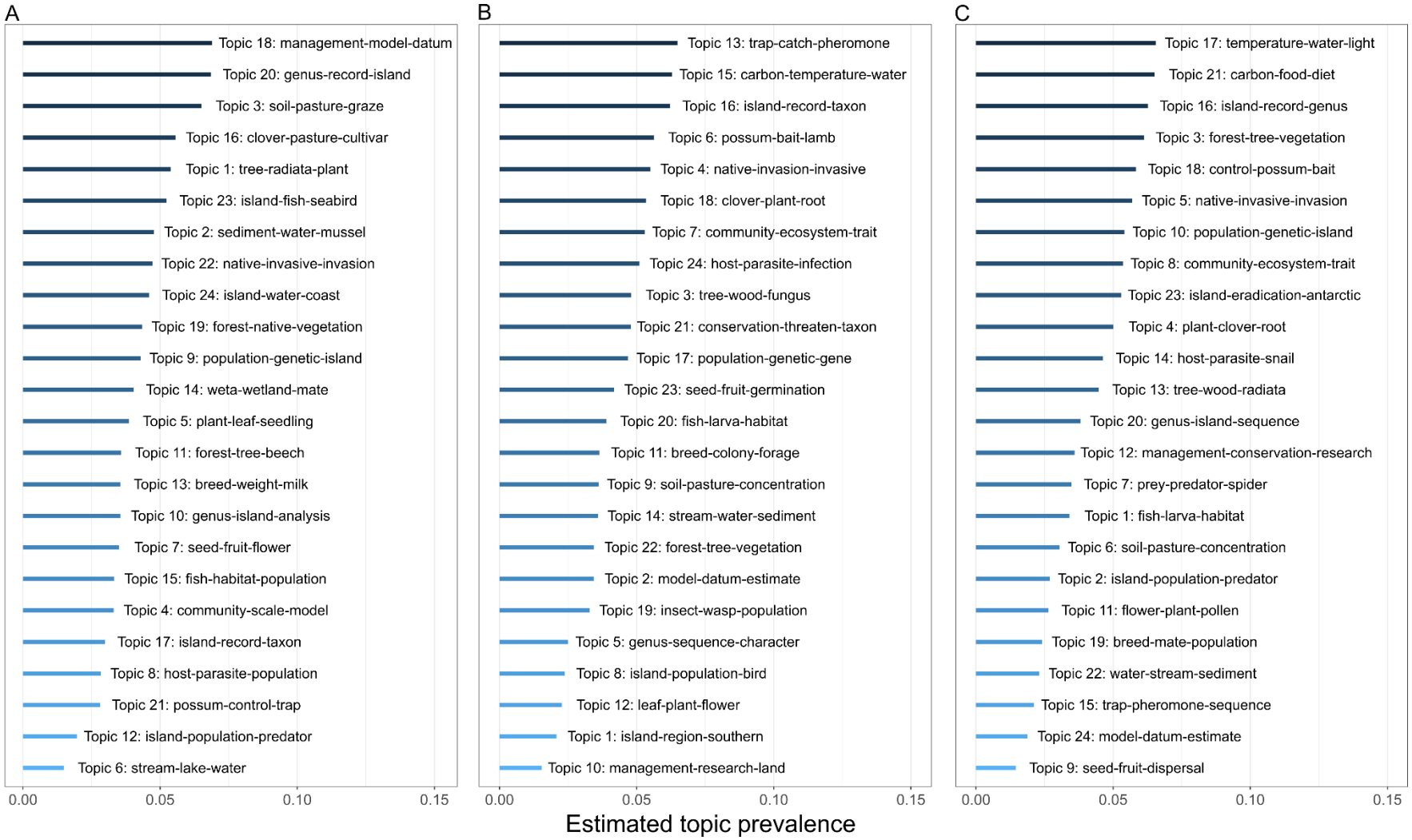
- Figure 4 – affiliations networks are available at <https://spatialecol.com/presentations/cyto/affiliations/web_session/index.html#/>, set the visual style on the tab to **AffiliationsCirc**
- Figure 5 – co-author networks are available at <https://spatialecol.com/presentations/cyto/coauthors/web_session/index.html#/>, set the visual style on the tab to **Coauthors**
- Figure 7 – keyword co-occurrence networks are available at <https://spatialecol.com/presentations/cyto/keywords/web_session/index.html#/>, set the visual style on the tab to **Keywords**



Appendix S4. Number of records associated with universities, CRIs, and central government in NZ. Upper columns show the absolute count (each author on a paper gets a score of 1) while the lower show the fractional count (each author on a paper gets a score of 1/*n*, where *n* is the number of co-authors). Vertical lines are the formation of CRIs in 1992 and the start of the PBRF in 2004



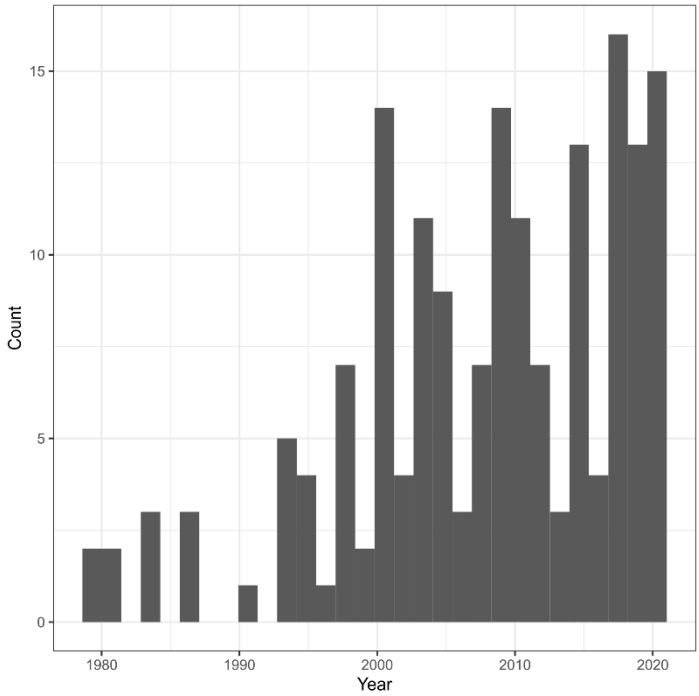
Appendix S5. Cumulative plots of (A) number of unique journals published in over time, (B) number of unique author affiliations, (C) number of unique countries, and (D) number of unique authors.



Appendix S6. Summary of the topics from the *k* = 24 structural topic models with year, NZ journal, and their covariates for (A) publications with NZ-affiliated authors (B) publications on a NZ topic, and (C) all publications (A and B combined). Colours denote topic prevalence across the period 1980–2020, labels are the top ranked terms based on probability (b) for each topic.

Appendix S7. Labels for 1–12 of the 24 topics identified by the STM. The purple boxes show the terms with the highest probability in the identification of the topics (b). The other metrics are FREX (terms that are frequent and exclusive), the term-lift metric (Taddy 2012), and the score metric (Chang 2015).

Appendix S8. Labels for 13–24 of the 24 topics identified by the STM. The purple boxes show the probability weight used to identify the topics (b). The other metrics are FREX (terms that are frequent and exclusive), the term-lift metric (Taddy 2012), and the score metric (Chang 2015).



Appendix S9. Number of abstracts with either of the terms Māori or mātauranga appearing in them over time.