New Phytologist

***New Phytologist* Supporting Information**

Article title: A dated phylogeny shows Plio-Pleistocene climates spurred evolution of anti-browsing defences in the New Zealand flora
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The following Supporting Information is available for this article:

Dataset S1 Set of baits used for the enrichment of the library for chloroplast DNA (see separate file).

Dataset S2 Alignment of our 215 sequences in PHYLIP format for reconstructing an undated phylogeny with RAxML (see separate file).

Dataset S3 Partitioning of the PHYLIP alignment (see separate file).

Dataset S4 treePL configuration file used to date the RAxML-generated trees (see separate file).

Dataset S5 XML file used for the BEAST2 analysis (see separate file).

Dataset S6 Geneious file containing the Rubiaceae sequences, which could not be deposited on GenBank (see separate file).

Figure S1 Dated phylogeny of our 215 species, built with treePL from RAxML-generated trees (in three figures: bootstrap support; 95% confidence intervals on node ages; mean node ages).

Figure S2 Dated phylogeny of our 215 species, built with BEAST2 (in three figures: posterior probabilities; 95% highest posterior densities on node ages; mean node ages).

Methods S1 Calibration strategy we designed for our phylogeny.

Table S1 DNA sequence information for the 215 species used for the phylogenetic analyses.

A list of the references cited in Method S1 and Table S1 is provided at the end of this document.

Fig. S1a Dated phylogeny of our 215 species, built with treePL from RAxML-generated trees. Names of families, orders and selected higher taxonomic ranks are indicated at the crown node of said ranks. Bootstrap support values are shown on this figure, separately from 95% confidence interval on node ages (Fig. S1b) and mean node ages (Fig. S1c), to not overload a single figure with too much information. Green dots indicate calibrations, the letter referring to the corresponding letter in Supporting Information Method S1. Blue dots indicate nodes that we conservatively chose as the earliest divergence between divaricate and non-divaricate species or clades for each genus with divaricate representatives (cf. Table 1 in the article).

Fig. S1b Dated phylogeny of our 215 species, built with treePL from RAxML-generated trees. Names of families, orders and selected higher taxonomic ranks are indicated at the crown node of said rank. 95% confidence interval on node ages are shown on this figure, separately from bootstrap support values (Fig. S1a) and mean node ages (Fig. S1c), to not overload a single figure with too much information. 95% confidence intervals on ages are removed within the genera *Coprosma* (excluding *C. moorei*), *Olearia*, *Pittosporum* and *Sophora* due to the overall poor support of teir nodes (cf. Fig. S1a). Green dots indicate calibrations, the letter referring to the corresponding letter in Supporting Information Method S1. Blue dots indicate nodes that we conservatively choose as the earliest divergence between divaricate and non-divaricate species or clades for each genus with divaricate representatives (cf. Table 1 in the article).

Fig. S1c Dated phylogeny of our 215 species, built with treePL from RAxML-generated trees. Names of families, orders and selected higher taxonomic ranks are indicated at the crown node of said ranks. Mean node ages are shown on this figure, separately from bootstrap support values (Fig. S1a) and 95% confidence interval on mean node ages (Fig. S1b), to not overload a single figure with too much information. Mean node ages are removed within the genera *Coprosma* (excluding *C. moorei*), *Olearia*, *Pittosporum* and *Sophora* due to the overall poor support of teir nodes (cf. Fig. S1a). Green dots indicate calibrations, the letter referring to the corresponding letter in Supporting Information Method S1. Blue dots indicate nodes that we conservatively chose as the earliest divergence between divaricate and non-divaricate species or clades for each genus with divaricate representatives (cf. Table 1 in the article).

Fig. S2a Dated phylogeny of our 215 species, built with BEAST2. Names of families, orders and selected higher taxonomic ranks are indicated at the crown node of said ranks. Posterior probability values are shown on this figure, separately from 95% highest posterior densities on node ages (Fig. S2b) and mean node ages (Fig. S2c), to not overload a single figure with too much information. Green dots indicate calibrations, the letter referring to the corresponding letter in Supporting Information Method S1. Blue dots indicate nodes that we conservatively chose as the earliest divergence between divaricate and non-divaricate species or clades for each genus with divaricate representatives (cf. Table 1 in the article).

Fig. S2b Dated phylogeny of our 215 species, built with BEAST2. Names of families, orders and selected higher taxonomic ranks are indicated at the crown node of said ranks. 95% highest posterior densities on node ages are shown on this figure, separately from posterior probability values (Fig. S2a) and mean node ages (Fig. S2c), to not overload a single figure with too much information. 95% highest posterior densities on ages are removed within the genera *Coprosma* (excluding *C. moorei*), *Olearia*, *Pittosporum* and *Sophora* due to the overall poor support of their nodes (Fig. S2a). Green dots indicate calibrations, the letter referring to the corresponding letter in Supporting Information Method S1. Blue dots indicate nodes that we conservatively chose as the earliest divergence between divaricate and non-divaricate species or clades for each genus with divaricate representatives (cf. Table 1 in the article).

Fig. S2c Dated phylogeny of our 215 species, built with BEAST2. Names of families, orders and selected higher taxonomic ranks are indicated at the crown node of said ranks. Mean node ages are shown on this figure, separately from posterior probability values (Fig. S2a) and 95% highest posterior densities on node ages (Fig. S2b), to not overload a single figure with too much information. Mean node ages are removed within the genera *Coprosma* (excluding *C. moorei*), *Olearia*, *Pittosporum* and *Sophora* due to the overall poor support of their nodes (Fig. S2a). Green dots indicate calibrations, the letter referring to the corresponding letter in Supporting Information Method S1. Blue dots indicate nodes that we conservatively chose as the earliest divergence between divaricate and non-divaricate species or clades for each genus with divaricate representatives (cf. Table 1 in the article).

Methods S1 Calibration strategy we designed for our phylogeny.

When chosen calibration ages correspond to boundaries of geological stages, the values were taken from Cohen *et al.* (2013, v. 2020/01). Our choice of fossils and their placement is inspired by Beaulieu *et al.* (2015), Magallón *et al.* (2015), Li *et al.* (2019), Janssens *et al.* (2020), Ramírez-Barahona *et al.* (2020), with adjustments made to better suit our dataset. CG = crown group.

In treePL, all node ages chosen as minimum ages (i.e. all nodes but A) were implemented without defining maximum node ages. The age of the root of the tree (node A) was implemented as a maximum age without a defining a minimum node age.

In BEAST2, all node ages priors were implemented as exponential distributions. Node ages chosen as minimum ages were set as the Offset values of the distributions, and the Mean values were chosen so that the 97.5% quantile of the distributions were about 20% of the minimum age. The age of the root (node A) was implemented with an Offset value of 125 Ma (corresponding to the boundary between the Barremian and the Aptian, see below) and a Mean value chosen so that the 97.5% quantile of the distribution was 150 Ma (see below).

A. Node: root of the tree (CG Eudicotyledons).

Secondary calibration.
Reference: Stevens (2017)
Calibration: Even though the earliest fossils attributed to the Eudicotyledons date from the Barremian–Aptian (see Magallón *et al.* (2015) and references therein), we decided to use a secondary calibration for this node. We chose this approach because our tests of treePL suggested that the root of the tree should be calibrated with its oldest sensible age: 150 Ma is the common oldest boundary of age estimates of the crown of Eudicots (Stevens, 2017), so we chose this date as the maximum age for this node.

B. Node: CG Pentapetalae.

Fossil: Unnamed pentamerous flower
Stratigraphy and locality: Rose Creek locality of the Dakota Formation, Nebraska, USA.
Reference: Basinger & Dilcher (1984)
Calibration: The age of the Rose Creek locality is estimated to be Late Albian–Early Cenomanian (Doyle & Endress, 2010; Friis *et al.*, 2011). We therefore chose the upper boundary of the Albian, 100.5 Ma, as a minimum age for this node.

C. Node: CG Ericales.

Fossil: (1) *Paleoenkianthus sayrevillensis* Nixon & Crepet, (2) *Pentapetalum trifasciculandricus* Martínez-Millán, Crepet & Nixon
Stratigraphy and locality: Old Crossman Clay Pit locality of the Raritan Formation, New Jersey, USA.
Reference: (1) Nixon & Crepet (1993), (2) Martínez-Millán *et al.* (2009)
Calibration: The Raritan formation is estimated to be of Turonian age (Nixon & Crepet, 1993; Martínez-Millán *et al.*, 2009). We therefore chose the upper boundary of the Turonian, 89.8 Ma, as a minimum age for this node.

D. Node: CG Myrtales.

Fossil: *Esgueiria futabensis* Takahashi, Crane & Ando
Stratigraphy and locality: Kamikitaba assemblage, Asamigawa Member of the Ashizawa Formation, Fukushima Prefecture, Japan.
Reference: Takahashi *et al.* (1999)
Calibration: The Asamigawa Member is estimated to be from the Lower Coniacian (Takahashi *et al.*, 1999). We therefore chose the lower boundary of the Coniacian, 89.8 Ma, as a minimum age for this node.

E. Node: CG Myrtaceae.

Fossil: *Paleomyrtinaea* Pigg, Stockey & Maxwell
Stratigraphy and locality: Princeton Chert, British Columbia, Canada and Sentinel Butte Formation of the Fort Union Group, Almont, North Dakota, USA.
Reference: Crane *et al.* (1990), Pigg *et al.* (1993)
Calibration: The Princeton Chert and the Sentinel Butte Formation are estimated to be of Middle Eocene and Mid/Upper Paleocene age (Crane *et al.*, 1990; Pigg *et al.*, 1993), respectively. We therefore chose the upper boundary of the Paleocene, 56 Ma, as a minimum age for this node.

F. Node: CG Asteraceae.

Fossil: *Tubulifloridites lilliei* (Couper) Farabee & Canright
Stratigraphy and locality: Snow Hill Island Formation and López de Bertodano Formation, James Ross Island and Vega, Antarctica.
Reference: Barreda *et al.* (2015)
Calibration: The age of the López de Bertodano Formation and the Snow Hill Island Formation cover, respectively, the Maastrichtian and the Late Campanian (Olivero, 2012). We therefore chose the upper boundary of the Campanian, 72.1 Ma, as a minimum age for this node.

G. Node: CG Rhamnaceae.

Fossil: *Paliurus* sp.
Stratigraphy and locality: Wind River Formation, Wyoming, USA.
Reference: Manchester (1999)
Calibration: This fossil was dated at the Early Eocene within the Wind River Formation (Manchester, 1999). We therefore chose the upper boundary of the earliest stage of the Eocene (the Ypresian), 47.8 Ma, as a minimum age for this node.

H. Node: CG Elaeocarpaceae.

Fossil: *Sloanea ungeri* (Heer) Manchester & Kvaček
Stratigraphy and locality: Great Plains regions, North America
Reference: Manchester & Kvaček (2009)
Calibration: The fossils of *Sloanea ungeri* range from Puercan to Early Eocene (Manchester & Kvaček, 2009), so we chose the upper boundary of the Puercan, 63.3 Ma (Fossilworks, n. d.), as a minimum age for this node.

I. Node: CG Fabaceae.

Fossil: diverse Fabaceae
Stratigraphy and locality: various localities
Reference: Herendeen *et al.* (1992)
Calibration: Herendeen *et al.* (1992) report that the earliest occurrences of reliable fossils of different Fabaceae subfamilies were found in the Upper Paleocene. We therefore chose the upper boundary of the Paleocene, 56 Ma, as a minimum age for this node.

J. Node: CG Torricelliaceae.

Fossil: *Torricellia bonesii* (Manch.) Manch.
Stratigraphy and locality: Messel maar lake, Darmstadt, Germany.
Reference: Collinson (1988), Collinson *et al.* (2012) (cited in Manchester *et al.* (2017))
Calibration: Upon re-examining fossils of *Torricellia*—the only fossil *Torricelliaceae* genus until the fossil published by Manchester *et al.* (2020, Plunkett *et al.*, 2018)—Manchester *et al.* (2017) concluded that the oldest confirmed fossil of Torricelliaceae is from the Messel maar lake; we therefore assigned this fossil to the crown node of the family. The age of the Messel maar lake is considered to be ca. 48 Ma old (Lenz *et al.*, 2015), so we chose this value as a minimum age for this node. We disregarded a recently published Torricelliaceae fossil species from the Maastrichtian because it was tentatively considered a “potential member” of the family whose occurrence “would be” the earliest known fossil of the family (Manchester *et al.*, 2020).

K. Node: CG Araliaceae.

Fossil: *Paleopanax oregonensis* Manchester
Stratigraphy and locality: Nut Beds locality of the Clarno Formation, Oregon, USA.
Reference: Manchester (1994)
Calibration: The Nut Beds is estimated to be no younger than 43.8 Ma old (Dillhoff *et al.*, 2009) and references therein); we therefore chose this value as a minimum age for this node.

Table S1 Sampling plan for this study. GenBank numbers are provided when available, with the reference to the study where they were first published. If no GenBank number is available, the herbarium accession number is provided instead — some samples are still awaiting accession. Species highlighted in blue are divaricates. Rubiaceae sequences are provided in a Geneious file (see Data Availability statement) because they could not be deposited in GenBank.

Herbarium codes:

AK = Auckland War Memorial Museum, Auckland, New Zealand

CHR = Allan Herbarium, Lincoln, New Zealand

PAP = Herbier de la Polynésie française, Tahiti, French Polynesia

PERTH = Western Australian Herbarium, Perth, Australia

PTBG = National Tropical Botanical Garden, Hawaii, USA

SFSU = San Francisco State University, San Francisco, USA

WU = Universität Wien, Vienna, Austria

Order	**Family**	**Taxon**	**Source**
Apiales	Araliaceae	*Cephalaralia cephalobotrys* (F.Muell.) Harms	MW183403 (this study)
Apiales	Araliaceae	*Cheirodendron bastardianum* (Decne.) Frodin	MT385071 (Maurin, 2020)
Apiales	Araliaceae	*Cheirodendron trigynum* (Gaudich.) A.Heller	MW183404 (this study)
Apiales	Araliaceae	*Hydrocotyle verticillata* Thunb.	HM596070 (Downie & Jansen, 2015)
Apiales	Araliaceae	*Raukaua anomalus* (Hook.) A.D.Mitch., Frodin & Heads	MT385080 (Maurin, 2020)
Apiales	Araliaceae	*Raukaua edgerleyi* (Hook.f.) Seem.	MT385081 (Maurin, 2020)
Apiales	Araliaceae	*Raukaua gunnii* (Hook.f.) Frodin	MW183405 (this study)
Apiales	Araliaceae	*Raukaua simplex* (G.Forst.) A.D.Mitch., Frodin & Heads	MT385082 (Maurin, 2020)
Apiales	Araliaceae	*Schefflera actinophylla* (Endl.) Harms	MT385083 (Maurin, 2020)
Apiales	Araliaceae	*Schefflera digitata* J.R.Forst. & G.Forst.	MT385084 (Maurin, 2020)
Apiales	Pennantiaceae	*Pennantia baylisiana* (Oliv.) G.T.S.Baylis	MT385075 (Maurin, 2020)
Apiales	Pennantiaceae	*Pennantia corymbosa* J.R.Forst. & G.Forst.	MT385076 (Maurin, 2020)
Apiales	Pennantiaceae	*Pennantia cunninghamii* Miers	MT385077 (Maurin, 2020)
Apiales	Pennantiaceae	*Pennantia endlicheri* Reissek	MT385078 (Maurin, 2020)
Apiales	Pittosporaceae	*Pittosporum anomalum* Laing & Gourlay	MW191866 (this study)
Apiales	Pittosporaceae	*Pittosporum bracteolatum* Endl.	MW191867 (this study)
Apiales	Pittosporaceae	*Pittosporum colensoi* Hook. f.	MW191868 (this study)
Apiales	Pittosporaceae	*Pittosporum crassicaule* Cockayne ex Laing & Gourlay	MW191869 (this study)
Apiales	Pittosporaceae	*Pittosporum crassifolium* Banks & Sol. ex A.Cunn.	MW191870 (this study)
Apiales	Pittosporaceae	*Pittosporum divaricatum* Cockayne	MW191871 (this study)
Apiales	Pittosporaceae	*Pittosporum eugenioides* A. Cunn.	MT385079 (Maurin, 2020)
Apiales	Pittosporaceae	*Pittosporum lineare* Laing & Gourlay	MW191872 (this study)
Apiales	Pittosporaceae	*Pittosporum obcordatum* Raoul	MW191873 (this study)
Apiales	Pittosporaceae	*Pittosporum patulum* Hook. f.	MW191874 (this study)
Apiales	Pittosporaceae	*Pittosporum ralphii* Kirk	MW191875 (this study)
Apiales	Pittosporaceae	*Pittosporum rigidum* Hook. f.	MW191876 (this study)
Apiales	Pittosporaceae	*Pittosporum tenuifolium* Banks & Sol. ex Gaertn.	MW191877 (this study)
Apiales	Pittosporaceae	*Pittosporum turneri* Petrie	MW191878 (this study)
Apiales	Pittosporaceae	*Pittosporum umbellatum* Banks & Sol. ex Gaertn.	MW191879 (this study)
Apiales	Pittosporaceae	*Pittosporum virgatum* Kirk	MW191880 (this study)
Apiales	Torricelliaceae	*Melanophylla alnifolia* Baker	MT385073 (Maurin, 2020)
Apiales	Torricelliaceae	*Melanophylla modestei* G.E.Schatz & al.	MT385074 (Maurin, 2020)
Apiales	Torricelliaceae	*Torricellia tiliifolia* DC.	NC040944 (Yao *et al.*, 2019)
Asterales	Argophyllaceae	*Corokia buddleioides* A.Cunn.	MW194049 (this study)
Asterales	Argophyllaceae	*Corokia carpodetoides* (F.Muell.) L.S.Sm.	MW194050 (this study)
Asterales	Argophyllaceae	*Corokia collenettei* L.Riley	MW194051 (this study)
Asterales	Argophyllaceae	*Corokia cotoneaster* Raoul	MT385072 (Maurin, 2020)
Asterales	Argophyllaceae	*Corokia macrocarpa* Kirk	MW194052 (this study)
Asterales	Argophyllaceae	*Corokia whiteana* L.S.Sm.	MW194053 (this study)
Asterales	Asteraceae	*Dasyphyllum excelsum* (D.Don) Cabrera	MH899017 (Gruenstaeudl & Jenke, 2020)
Asterales	Asteraceae	*Olearia alpicola* (F.Muell.) F.Muell. ex Benth.	MW229247 (this study)
Asterales	Asteraceae	*Olearia arborescens* (G.Forst.) Cockayne & Laing	MW229248 (this study)
Asterales	Asteraceae	*Olearia bullata* H.D.Wilson & Garn.-Jones	MW229249 (this study)
Asterales	Asteraceae	*Olearia cheesemanii* Cockayne & Allan	MW229250 (this study)
Asterales	Asteraceae	*Olearia fragrantissima* Petrie	MW229251 (this study)
Asterales	Asteraceae	*Olearia hectorii* Hook.f.	MW229252 (this study)
Asterales	Asteraceae	*Olearia ilicifolia* Hook.f.	MW229253 (this study)
Asterales	Asteraceae	*Olearia laxiflora* Kirk	MW229254 (this study)
Asterales	Asteraceae	*Olearia lineata* (Kirk) Cockayne	MW229255 (this study)

Asterales	Asteraceae	*Olearia obcordata* (Hook.f.) Benth.	MW229256 (this study)
Asterales	Asteraceae	*Olearia odorata* Petrie	MW229257 (this study)
Asterales	Asteraceae	*Olearia pachyphylla* Cheeseman	MW229258 (this study)
Asterales	Asteraceae	*Olearia polita* H.D.Wilson & Garn.-Jones	MW229259 (this study)
Asterales	Asteraceae	*Olearia quinquevulnera* Heenan	MW229260 (this study)
Asterales	Asteraceae	*Olearia solandri* (Hook.f.) Hook.f.	MW229261 (this study)
Asterales	Asteraceae	*Olearia traversiorum* (F.Muell.) Hook.f.	MW229262 (this study)
Asterales	Asteraceae	*Olearia virgata* (Hook.f.) Hook.f.	MW229263 (this study)
Asterales	Rousseaceae	*Abrophyllum ornans* (F.Muell.) Hook.f.	MW246782 (this study)
Asterales	Rousseaceae	*Carpodetus arboreus* (Lauterb. & K.Schum.) Schltr.	MW246783 (this study)
Asterales	Rousseaceae	*Carpodetus archboldianus* Reeder	MW246784 (this study)
Asterales	Rousseaceae	*Carpodetus montanus* (Ridl.) Reeder	MW246785 (this study)
Asterales	Rousseaceae	*Carpodetus serratus* J.R.Forst. & G.Forst.	MW246786 (this study)
Asterales	Rousseaceae	*Cuttsia viburnea* F.Muell.	MW246787 (this study)
Caryophyllales	Polygonaceae	*Muehlenbeckia adpressa* Meisn.	MW148933 (this study)
Caryophyllales	Polygonaceae	*Muehlenbeckia astonii* Petrie	MW148934 (this study)
Caryophyllales	Polygonaceae	*Muehlenbeckia australis* (G. Forst.) Meisn.	MW148935 (this study)
Caryophyllales	Polygonaceae	*Muehlenbeckia axillaris* (Hook.f.) Endl.	MW148936 (this study)
Caryophyllales	Polygonaceae	*Muehlenbeckia complexa* (A.Cunn.) Meisn.	MW148937 (this study)
Caryophyllales	Polygonaceae	*Muehlenbeckia gracillima* Meisn.	MW148938 (this study)
Caryophyllales	Polygonaceae	*Muehlenbeckia gunnii* Walp.	MW148939 (this study)
Caryophyllales	Polygonaceae	*Muehlenbeckia rhyticarya* F.Muell. ex Benth.	MW148940 (this study)
Ericales	Balsaminaceae	*Impatiens pritzelii* Hook. f.	MN418389 (Wang *et al.*, 2019)
Ericales	Primulaceae	*Myrsine aquilonia* de Lange & Heenan	MW246776 (this study)
Ericales	Primulaceae	*Myrsine australis* (A.Rich.) Allan	MW246777 (this study)
Ericales	Primulaceae	*Myrsine divaricata* A. Cunn.	MW246778 (this study)
Ericales	Primulaceae	*Myrsine nummularia* (Hook. f.) Hook. f.	MW246779 (this study)
Ericales	Primulaceae	*Myrsine salicina* Heward ex Hook.f.	MW246780 (this study)
Ericales	Primulaceae	*Myrsine umbellata* Mart.	MW246781 (this study)
Fabales	Fabaceae	*Cercis glabra* Pamp.	KY806281 (Wang *et al.*, 2017)
Fabales	Fabaceae	*Duparquetia orchidacea* Baill.	MN709829 (Zhang *et al.*, 2020)
Fabales	Fabaceae	*Guibourtia leonensis* J.Leonard	MG564755 (Tosso *et al.*, 2018)
Fabales	Fabaceae	*Sophora chathamica* Cockayne	MW191851 (this study)
Fabales	Fabaceae	*Sophora fulvida* (Allan) Heenan & de Lange	MW191852 (this study)
Fabales	Fabaceae	*Sophora godleyi* Heenan & de Lange	MW191853 (this study)
Fabales	Fabaceae	*Sophora microphylla* Aiton	MW191854 (this study)
Fabales	Fabaceae	*Sophora molloyi* Heenan & de Lange	MW191855 (this study)
Fabales	Fabaceae	*Sophora prostrata* Buchanan	MW191856 (this study)
Fabales	Fabaceae	*Sophora tetraptera* J.F.Mill.	MW191857 (this study)
Gentianales	Rubiaceae	*Coprosma* "decipiens"	AK 236876
Gentianales	Rubiaceae	*Coprosma acerosa* A.Cunn.	PTBG
Gentianales	Rubiaceae	*Coprosma acutifolia* Hook. f.	AK 305635
Gentianales	Rubiaceae	*Coprosma arborea* Kirk	AK 304876
Gentianales	Rubiaceae	*Coprosma areolata* Cheeseman	PTBG
Gentianales	Rubiaceae	*Coprosma autumnalis* Colenso	PTBG
Gentianales	Rubiaceae	*Coprosma brunnea* (Kirk) Cockayne ex Cheeseman	PTBG
Gentianales	Rubiaceae	*Coprosma cheesemanii* W.R.B.Oliv.	PTBG
Gentianales	Rubiaceae	*Coprosma ciliata* Hook.f.	PTBG
Gentianales	Rubiaceae	*Coprosma cordicarpa* J. Cantley, Sporck-Koehler & Chau	PTBG
Gentianales	Rubiaceae	*Coprosma crassifolia* Colenso	PTBG
Gentianales	Rubiaceae	*Coprosma crenulata* W.R.B.Oliv.	PTBG
Gentianales	Rubiaceae	*Coprosma cuneata* Hook.f.	PERTH
Gentianales	Rubiaceae	*Coprosma distantia* (de Lange & R.O.Gardner) de Lange	AK 322617
Gentianales	Rubiaceae	*Coprosma dodonaeifolia* W.R.B.Oliv.	CHR 606211
Gentianales	Rubiaceae	*Coprosma dumosa* (Cheeseman) G.T.Jane	PTBG
Gentianales	Rubiaceae	*Coprosma elatirioides* de Lange & A.S.Markey	PTBG
Gentianales	Rubiaceae	*Coprosma ernodeoides* A.Gray	SFSU
Gentianales	Rubiaceae	*Coprosma foetidissima* J.R.Forst. & G.Forst.	PTBG
Gentianales	Rubiaceae	*Coprosma foliosa* A.Gray	PTBG
Gentianales	Rubiaceae	*Coprosma fowerakeri* D.A.Norton & de Lange	PTBG
Gentianales	Rubiaceae	*Coprosma intertexta* G.Simpson	PTBG
Gentianales	Rubiaceae	*Coprosma linariifolia* Hook.f.	CHR 639402
Gentianales	Rubiaceae	*Coprosma lucida* J.R.Forst. & G.Forst.	CHR 639372
Gentianales	Rubiaceae	*Coprosma meyeri* W.L.Wagner & Lorence	PTBG
Gentianales	Rubiaceae	*Coprosma moorei* F.Muell. ex Rodway	PERTH
Gentianales	Rubiaceae	*Coprosma obconica* Kirk	PTBG

Gentianales	Rubiaceae	*Coprosma ochracea* W.R.B.Oliv.	PTBG
Gentianales	Rubiaceae	*Coprosma oliveri* Fosberg	WU
Gentianales	Rubiaceae	*Coprosma parviflora* Hook.f.	PTBG
Gentianales	Rubiaceae	*Coprosma pedicellata* Molloy, de Lange & B.D.Clarkson	AK 316376
Gentianales	Rubiaceae	*Coprosma perpusilla* Colenso	PTBG
Gentianales	Rubiaceae	*Coprosma petriei* Cheeseman	PTBG
Gentianales	Rubiaceae	*Coprosma pilosa* Endl.	AK 297246
Gentianales	Rubiaceae	*Coprosma propinqua* A.Cunn.	CHR 639412
Gentianales	Rubiaceae	*Coprosma pseudociliata* G.T.Jane	AK 229039
Gentianales	Rubiaceae	*Coprosma pseudocuneata* W.R.B.Oliv. ex Garn.-Jones & Elder	PTBG
Gentianales	Rubiaceae	*Coprosma repens* "Poor Knights form"	PTBG
Gentianales	Rubiaceae	*Coprosma repens* A.Rich.	CHR 595644
Gentianales	Rubiaceae	*Coprosma rhamnoides* A.Cunn.	PTBG
Gentianales	Rubiaceae	*Coprosma rigida* Cheeseman	CHR 639416
Gentianales	Rubiaceae	*Coprosma robusta* Raoul	PTBG
Gentianales	Rubiaceae	*Coprosma rotundifolia* A.Cunn.	CHR 639409
Gentianales	Rubiaceae	*Coprosma rubra* Petrie	PTBG
Gentianales	Rubiaceae	*Coprosma rugosa* Cheeseman	PTBG
Gentianales	Rubiaceae	*Coprosma serrulata* Hook.f. ex Buchanan	PTBG
Gentianales	Rubiaceae	*Coprosma spathulata* A.Cunn.	CHR 649665
Gentianales	Rubiaceae	*Coprosma tahitensis* A.Gray	PAP
Gentianales	Rubiaceae	*Coprosma talbrockiei* L.B.Moore & R.Mason	CHR 476107
Gentianales	Rubiaceae	*Coprosma tenuifolia* Cheeseman	PTBG
Gentianales	Rubiaceae	*Coprosma ternata* W.R.B.Oliv.	SFSU
Gentianales	Rubiaceae	*Coprosma virescens* Petrie	PTBG
Gentianales	Rubiaceae	*Coprosma waima* A.P.Druce	PTBG
Gentianales	Rubiaceae	*Coprosma wallii* Petrie	PTBG
Gentianales	Rubiaceae	*Nertera ciliata* Kirk	PERTH
Gentianales	Rubiaceae	*Nertera depressa* Banks & Sol. ex Gaertn.	PTBG
Gunnerales	Gunneraceae	*Gunnera dentata* Kirk	MW218452 (this study)
Gunnerales	Gunneraceae	*Gunnera monoica* Raoul	MW218453 (this study)
Gunnerales	Gunneraceae	*Gunnera prorepens* Hook.f.	MW218454 (this study)
Lamiales	Gesneriaceae	*Coronanthera pulchra* C.B.Clarke	MW242810 (this study)
Lamiales	Gesneriaceae	*Rhabdothamnus solandri* A.Cunn.	MW242811 (this study)
Lamiales	Lamiaceae	*Oncinocalyx betchei* F.Muell.	MW238399 (this study)
Lamiales	Lamiaceae	*Spartothamnella juncea* (A.Cunn. ex Walp.) Briq.	MW238400 (this study)
Lamiales	Lamiaceae	*Teucrium parvifolium* (Hook.f.) Kattari & Salmaki	MW238401 (this study)
Lamiales	Lamiaceae	*Teucrium racemosum* R.Br.	MW238402 (this study)
Malpighiales	Violaceae	*Melicytus alpinus* (Kirk) Garn.-Jones	MW238803 (this study)
Malpighiales	Violaceae	*Melicytus chathamicus* (F. Muell.) Garn.-Jones	MW238804 (this study)
Malpighiales	Violaceae	*Melicytus crassifolius* (Hook.f.) Garn.-Jones	MW238805 (this study)
Malpighiales	Violaceae	*Melicytus dentatus* (R.Br. ex DC.) Molloy & Mabb.	MW238806 (this study)
Malpighiales	Violaceae	*Melicytus drucei* Molloy & B.D.Clarkson	MW238807 (this study)
Malpighiales	Violaceae	*Melicytus flexuosus* Molloy & A.P.Druce	MW238808 (this study)
Malpighiales	Violaceae	*Melicytus lanceolatus* Hook.f.	MW238809 (this study)
Malpighiales	Violaceae	*Melicytus micranthus* Hook.f.	MW238810 (this study)
Malpighiales	Violaceae	*Melicytus novae-zelandiae* (A.Cunn.) P.S.Green	MW238811 (this study)
Malpighiales	Violaceae	*Melicytus obovatus* (Kirk) Garn.-Jones	MW238812 (this study)
Malpighiales	Violaceae	*Melicytus ramiflorus* J.R.Forst. & G.Forst.	MW238813 (this study)
Malvales	Malvaceae	*Gynatrix pulchella* (Willd.) Alef.	MW194054 (this study)
Malvales	Malvaceae	*Hoheria angustifolia* Raoul	MW194055 (this study)
Malvales	Malvaceae	*Hoheria glabrata* Sprague & Summerh.	MW194056 (this study)
Malvales	Malvaceae	*Hoheria lyallii* Hook. f.	MW194057 (this study)
Malvales	Malvaceae	*Hoheria ovata* Simpson & J.S.Thomson	MW194058 (this study)
Malvales	Malvaceae	*Hoheria populnea* A.Cunn.	MW194059 (this study)
Malvales	Malvaceae	*Hoheria sexstylosa* Colenso	MW194060 (this study)
Malvales	Malvaceae	*Lawrencia glomerata* Hook.	MW194061 (this study)
Malvales	Malvaceae	*Lawrencia spicata* Hook.	MW194062 (this study)
Malvales	Malvaceae	*Plagianthus divaricatus* J.R.Forst. & G.Forst.	MW194063 (this study)
Malvales	Malvaceae	*Plagianthus regius* (Poit.) Hochr. subsp. *regius*	MW194064 (this study)
Malvales	Malvaceae	*Plagianthus squamatus* (Nees) Benth.	MW194065 (this study)
Myrtales	Combretaceae	*Terminalia guyanensis* Eichler	MK726027 (Gonçalves *et al.*, 2019)
Myrtales	Myrtaceae	*Heteropyxis natalensis* Harv.	MK726014 (Gonçalves *et al.*, 2019)
Myrtales	Myrtaceae	*Lenwebbia lasioclada* (F.Muell.) N.Snow & Guymer	MW214667 (this study)
Myrtales	Myrtaceae	*Lenwebbia prominens* N.Snow & Guymer	MW214668 (this study)
Myrtales	Myrtaceae	*Lophomyrtus bullata* Burret	MW214669 (this study)

Myrtales	Myrtaceae	*Lophomyrtus obcordata* (Raoul) Burret	MW214670 (this study)
Myrtales	Myrtaceae	*Neomyrtus pedunculata* (Hook.f.) Allan	MW214671 (this study)
Oxalidales	Elaeocarpaceae	*Aristotelia australasica* F.Muell.	MW218455 (this study)
Oxalidales	Elaeocarpaceae	*Aristotelia chilensis* (Molina) Stuntz	MW218456 (this study)
Oxalidales	Elaeocarpaceae	*Aristotelia fruticosa* Hook.f.	MW218457 (this study)
Oxalidales	Elaeocarpaceae	*Aristotelia peduncularis* (Labill.) Hook.f.	MW218458 (this study)
Oxalidales	Elaeocarpaceae	*Aristotelia serrata* (J.R.Forst. & G.Forst.) Oliv.	MW218459 (this study)
Oxalidales	Elaeocarpaceae	*Elaeocarpus alaternoides* Brongn. & Gris	MW218460 (this study)
Oxalidales	Elaeocarpaceae	*Elaeocarpus arnhemicus* F.Muell.	MW218461 (this study)
Oxalidales	Elaeocarpaceae	*Elaeocarpus dentatus* (J.R.Forst. & G.Forst.) Vahl	MW218462 (this study)
Oxalidales	Elaeocarpaceae	*Elaeocarpus holopetalus* F.Muell.	MW218463 (this study)
Oxalidales	Elaeocarpaceae	*Elaeocarpus hookerianus* Raoul	MW218464 (this study)
Oxalidales	Elaeocarpaceae	*Elaeocarpus reticulatus* Sm.	MW218465 (this study)
Oxalidales	Elaeocarpaceae	*Elaeocarpus rotundifolius* Brongn. & Gris	MW218466 (this study)
Oxalidales	Elaeocarpaceae	*Elaeocarpus sedentarius* Maynard & Crayn	MW218467 (this study)
Oxalidales	Elaeocarpaceae	*Vallea stipularis* L.f.	MW218468 (this study)
Ranunculales	Ranunculaceae	*Ranunculus sceleratus* L.	MK253452 (He *et al.*, 2019)
Rosales	Moraceae	*Pseudomorus brunoniana* (Endl.) Bureau	MW238797 (this study)
Rosales	Moraceae	*Streblus banksii* (Cheeseman) C.J.Webb	MW238798 (this study)
Rosales	Moraceae	*Streblus glaber* (Merr.) Corner	MW238799 (this study)
Rosales	Moraceae	*Streblus heterophyllus* (Blume) Corner	MW238800 (this study)
Rosales	Moraceae	*Streblus pendulinus* (Endl.) F.Muell.	MW238801 (this study)
Rosales	Moraceae	*Streblus smithii* (Cheeseman) Corner	MW238802 (this study)
Rosales	Rhamnaceae	*Discaria chacaye* (G.Don) Tortosa	MW148941 (this study)
Rosales	Rhamnaceae	*Discaria nitida* Tortosa	MW148942 (this study)
Rosales	Rhamnaceae	*Discaria toumatou* Raoul	MW148943 (this study)
Rosales	Rhamnaceae	*Rhamnus taquetii* (H.L,v.) H.L,v.	MN901522 (Jin *et al.*, 2020)
Sapindales	Rutaceae	*Melicope elleryana* (F. Muell.) T.G. Hartley	MW221968 (this study)
Sapindales	Rutaceae	*Melicope lucida* (A. Gray) A.C. Sm.	MW221969 (this study)
Sapindales	Rutaceae	*Melicope micrococca* (F. Muell.) T.G. Hartley	MW221970 (this study)
Sapindales	Rutaceae	*Melicope simplex* A.Cunn.	MW221971 (this study)
Sapindales	Rutaceae	*Melicope tahitensis* Nadeaud	MW221972 (this study)
Sapindales	Rutaceae	*Melicope ternata* J.R.Forst. & G.Forst.	MW221973 (this study)
Sapindales	Rutaceae	*Melicope vitiflora* (F.Muell.) T.G.Hartley	MW221974 (this study)

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