

# THE NATIONAL FORESTRY HERBARIUM ONLINE DATABASE: UPDATED AND WITH NEW FUNCTIONALITIES

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National Forestry Herbarium, Rotorua, New Zealand

The National Forestry Herbarium has migrated its collections data to a new database developed by the University of Oxford in collaboration with other major institutions such as the Royal Botanical Gardens Kew, England, Naturalis in the Netherlands and an international advisory group, of which I am a member. The software known as the Botanical Research and Herbarium Management Software (BRAHMS) has a wide range of functionality to address most of the common requirements for botanical inventory,

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**National Forestry Herbarium**  
Rotorua, New Zealand

Home Search Stats

**National Forestry Herbarium**

The National Forestry Herbarium (NZFRI) specialises in cultivated tree species associated with forestry and amenity planting, and includes extensive collections of eucalyptus and pine species. It also contains a wide range of New Zealand native and naturalised plants, and is the regional herbarium for the Bay of Plenty and central North Island of New Zealand.

**Scope of the collection**

Founded in 1945, the collection focus has been on plants significant to plantation and indigenous forests in New Zealand. The herbarium is increasing its specimens of woody trees and shrubs in New Zealand as part of its emphasis to support the Biosecurity High Risk Site Assessments.

Eucalypts and conifers together comprise approximately 23% of the collection. Of the 3,200 conifer specimens ca. 30% are pines. There is a good coverage of cultivated species of eucalypts, with almost 2800 specimens, representing ca. 360 species. Other plantation tree species are well represented and there are specimens of forest trees from Australia, Fiji, Samoa, Vanuatu and Mexico.

There is a small collection of plant specimens from a "buried forest" site at Pureora, central North Island, where the plants were preserved in a wetland from the time of the Taupo eruption of ca. AD 130.

**No. of specimens, per major plant group, housed in the herbarium\***

Plant Group	Number of Specimens	Percentage
Dicotyledons	17783	64%
Monocotyledons	3715	13%
Gymnosperms	3289	12%
Pteridophytes	2212	8%
Bryophytes	601	2%
Lichens & Algae	216	1%

\*As at 30-07-2013

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The National Forestry Herbarium website and online database was published by Matt H. Buys on 30 April 2014.

Figure 1. The new online home page of the National Forestry Herbarium

research and curatorial needs. Included amongst the numerous modules is one for publishing webpages and the collections database online. The new online web presence for the herbarium is now housed at [nzfri.scionresearch.com](http://nzfri.scionresearch.com) (Figure 1). The online version of the database can also be accessed from here. A growing set of identification keys, collection wish lists for the Bay of Plenty and information relating to staff and services are provided as well.

The collections can be searched by one of three main ways. You can:

1. enter species, collector or major geographic area details by hand;
2. define an area on a map;
3. browse and select taxa (Figure 2), collectors or geographic regions of interest.

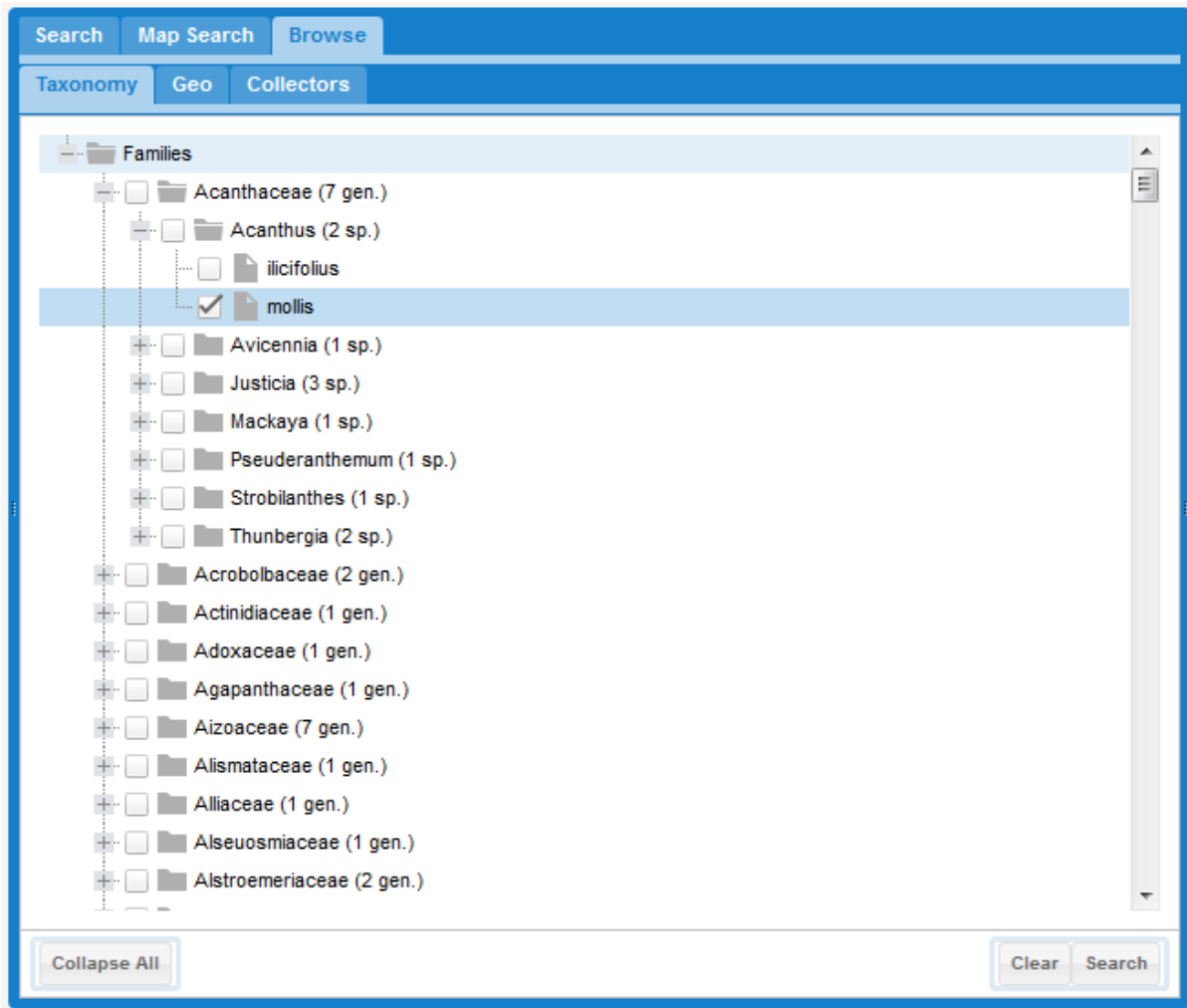


Figure 2. Browsing database records by taxa.

Results can be presented in various ways, the most commonly used being a table where the user can select to see a wide variety of fields, including images, when available. These images can be enlarged using state of the art Zoomify© technologies. Fields can be sorted, filtered and summarised. Furthermore, there are context sensitive weblinks to The International Plant Name Index (IPNI) and The Plant List, amongst others. Data can be exported and saved as an Excel file for offline use (Figure 3). In addition, simple reports for either species or collections can be generated online. And, to top it all, collections can be mapped to either Google Earth or Google Maps (Figure 4) with full record details accompanying each point on the map.

The screenshot shows the SCION National Forestry Herbarium website interface. At the top, there is a navigation bar with 'Home', 'Search', and 'Stats'. Below this is a summary bar with buttons for 'Summary', 'Families 1', 'Genera 1', 'Species 18', 'Collections 101', 'Specimens 105', 'Plots 1', and 'Images 95'. A search bar and buttons for 'Table', 'Reports', 'Map', and 'Earth' are also present.

The main content area displays a table with the following columns: Tag, Collector, Number, Family, Species, Country, Major, Minor, Locality, Locnotes, Habitat, Plant Desc., and Images. The table contains 20 rows of data, each representing a collection record. The data is as follows:

Tag	Collector	Number	Family	Species	Country	Major	Minor	Locality	Locnotes	Habitat	Plant Desc.	Images
	Wilcox, M.D.	MW725	Myrtaceae	Corymbia abergiana	Australia	Queen...			between Athe...	Dry eu...		1
	Rogan, B.J.	s.n.	Myrtaceae	Corymbia calophylla	New Z...	North I...	North ...		Auckland Airp...	Cultivat...	Glands...	9
	Kitchingman, ...	s.n.	Myrtaceae	Corymbia calophylla	New Z...	North I...	Taranaki		New Plymouth...	Cultivat...	Kitchin...	0
	Kitchingman, ...	s.n.	Myrtaceae	Corymbia calophylla	New Z...	North I...	Taranaki		New Plymouth...	Cultivat...	Kitchin...	0
	Ogle, C.C.	s.n.	Myrtaceae	Corymbia calophylla	New Z...	North I...	Welling...		Wanganui, 74 ...	Cultivat...	Growi...	1
	Ogle, C.C.	13	Myrtaceae	Corymbia calophylla	New Z...	North I...	Welling...		Wanganui, St ...	Cultivat...	Street ...	4
	Ecroyd, C.E.	s.n.	Myrtaceae	Corymbia calophylla	New Z...	South I...	Canter...		Lyttleton, Cha...	Cultivat...	Overh...	0
	Wilcox, M.D.	s.n.	Myrtaceae	Corymbia calophylla	New Z...	North I...	Hawke...		Hawkes Bay, ...	Cultivat...	Group ...	0
	Sykes, W.R.	504/72	Myrtaceae	Corymbia calophylla	New Z...	North I...	Hawke...		Hastings	Cultivat...	Cultivat...	1
	Ecroyd, C.E.	s.n.	Myrtaceae	Corymbia calophylla	New Z...	North I...	South ...		C Lethbridges...	Cultivat...	Tree c...	0
	Inglis, C.S.	s.n.	Myrtaceae	Corymbia calophylla	New Z...	North I...	North ...		Auckland, Birk...	Cultivat...	Leave...	2
	Knowles, F.B.	s.n.	Myrtaceae	Corymbia calophylla	New Z...	North I...	South ...	BOP	Tauranga Dom...	Cultivat...	Cult. Tr...	0
	Wills, S.G.	s.n.	Myrtaceae	Corymbia calophylla	New Z...	North I...	Gisborne		Ngatapa, East...	Cultivat...	sloping...	2
	Ogle, C.C.	135	Myrtaceae	Corymbia calophylla	New Z...	North I...	Welling...		Wanganui, Vir...	Cultivat...	E. ficif...	6
	Buyts, M.H.; Mil...	M13/097	Myrtaceae	Corymbia calophylla	New Z...	North I...	Welling...		Wanganui, St ...	Cultivat...	One of...	4
	Bunn, E.H.	s.n.	Myrtaceae	Corymbia citriodora	New Z...	North I...	Gisborne		Hawkes Bay, ...	Cultivat...		0
	Williams, T.	s.n.	Myrtaceae	Corymbia citriodora	New Z...	North I...	Gisborne		Muriwai	Cultivat...	Duplica...	0
	Wilcox, M.D.	s.n.	Myrtaceae	Corymbia citriodora	New Z...	North I...	Gisborne		Gisborne, Pak...	Cultivat...	Small tr...	0
	Ecroyd, C.E.	s.n.	Myrtaceae	Corymbia citriodora	New Z...	North I...	Gisborne		Poverty Bay, ...	Cultivat...	Shelter...	3
	Wilcox, M.D.	MW292	Myrtaceae	Corymbia citriodora	Australia	Queen...			Yeppoon near...	Dry scl...		2

At the bottom of the table, there is a pagination bar showing 'Page 1 of 8' and 'Displaying 1 - 20 of 101' records. A 'Display' dropdown menu is set to '20 records per page'.

Figure 3. Table view of extracted data from the online database.

New Zealand has a number of collection descriptors unique to it, e.g. ecological districts. These and whether plants specimens were collected from cultivated plants have been,

for the time being, incorporated in the plant habitat field. Collections from the Bay of Plenty have been marked as “BOP” in the locality field.

The online database is not error-free and represents a work in progress. Readers are encouraged to bring any errors or discrepancies to our attention.

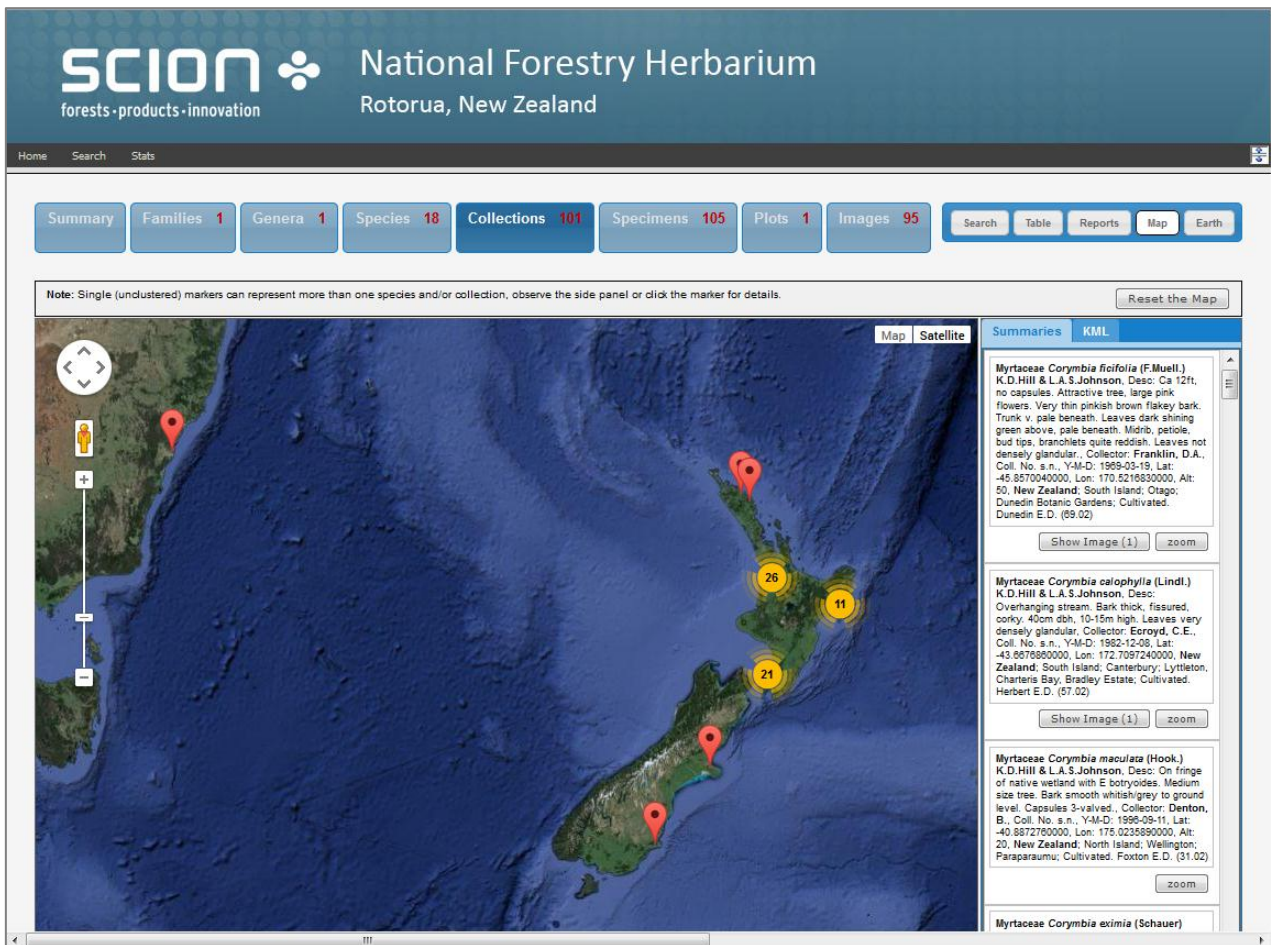


Figure 4. Google Map of selected species from the online database.