

# Pinning NZ's Biosecurity on.... Tales from our national significant Collections and Databases

Ilse Breitwieser and Aaron Wilton



**LANDCARE RESEARCH**  
MANAAKI WHENUA

What do you need to know about  
an organism?



# Examples of what you need to know about an organism....

- What is this organism?
- What is it called?  
What has it been called?
- What is it related to?
- How do we recognise it?
- Is it a threat?  
Or a threatened species?
- Where did it come from?  
When did it arrive,  
and where might it spread?
- What are its biological properties?
- What is the Māori traditional knowledge?
- What's its biostatus?



*Chrysanthemoides monilifera* (L.) Norl.

# Landcare Research - key custodian of NZ's NSDCs

- Landcare Research is custodian of 7 of NZ's 25 NSDCs
- Our NSDCs provide authoritative information on NZ's:
  - BIOLOGY: plants, fungi, bacteria, insects, ethnobiology, vegetation
  - SOILS & LANDFORMS
- Underpin critical decisions on NZ's biosecurity & conservation management





# NZ a global 'biodiversity hotspot'

Landcare Research's 5 biological NSDCs include NZ's most species-rich terrestrial groups:

- ~10,000 species of **flora**  
(incl. 2,500 freshwater algae; 2,000 lichens; 600 liverworts; 550 mosses; 2,500 native higher plant species, 80% endemic to NZ; 2,500 naturalised; excl. 25,000 plus cultivated)
- ~30,000 native land-based **invertebrates** (20,000 named)
- ~24,000 native **fungi** (7,500 named)



# Allan Herbarium (CHR)

- 630,000 specimens; 250,00 databased
- Algae, mosses, liverworts, lichens and vascular plants
- Purpose – record NZ flora
  - Document morphological variation and geographic distribution
  - Voucher scientific research
  - Important for the study of DNA, palynology, ultrastructure etc.
  - Provide record of NZ's cultural and natural history
- Management and curation of collection and databases are inseparable from systematic research



# National New Zealand Flax Collection

- Curation and development of collection of over 160 named traditional weaving cultivars of harakeke
- Includes other harakeke of cultural and historical significance
- Provides documented resource for both weavers and researchers





# New Zealand Arthropod Collection (NZAC)

- Over 6 000 000 arthropod specimens (about 1 million pinned)
- Purpose – record NZ invertebrate fauna
  - Document morphological variation and geographic distribution, e.g., *Fauna N.Z.*
  - Voucher scientific research, such as biological control introductions
  - Provide record of NZ's cultural and natural history
- Management and curation of collection and databases are inseparable from systematic research



# New Zealand Fungal & Plant Disease Collection (PDD)

- 100,000 fungal specimens
- Purpose – provide authenticated material and information on the fungi of NZ and South Pacific
  - Holdings document host relationships, morphological variation, and geographic distribution
  - Vouchers substantiate plant disease records on which biosecurity decisions are based
  - Specimen data, names, synonymy, images, descriptions, literature, etc available on-line
  - Source of DNA for identification, material for ultrastructure, etc
  - Material dates from 1850, providing historical context to NZ's biodiversity and biosecurity
- Primary resource for fungal biosystematics, plant pathology, conservation, and biosecurity



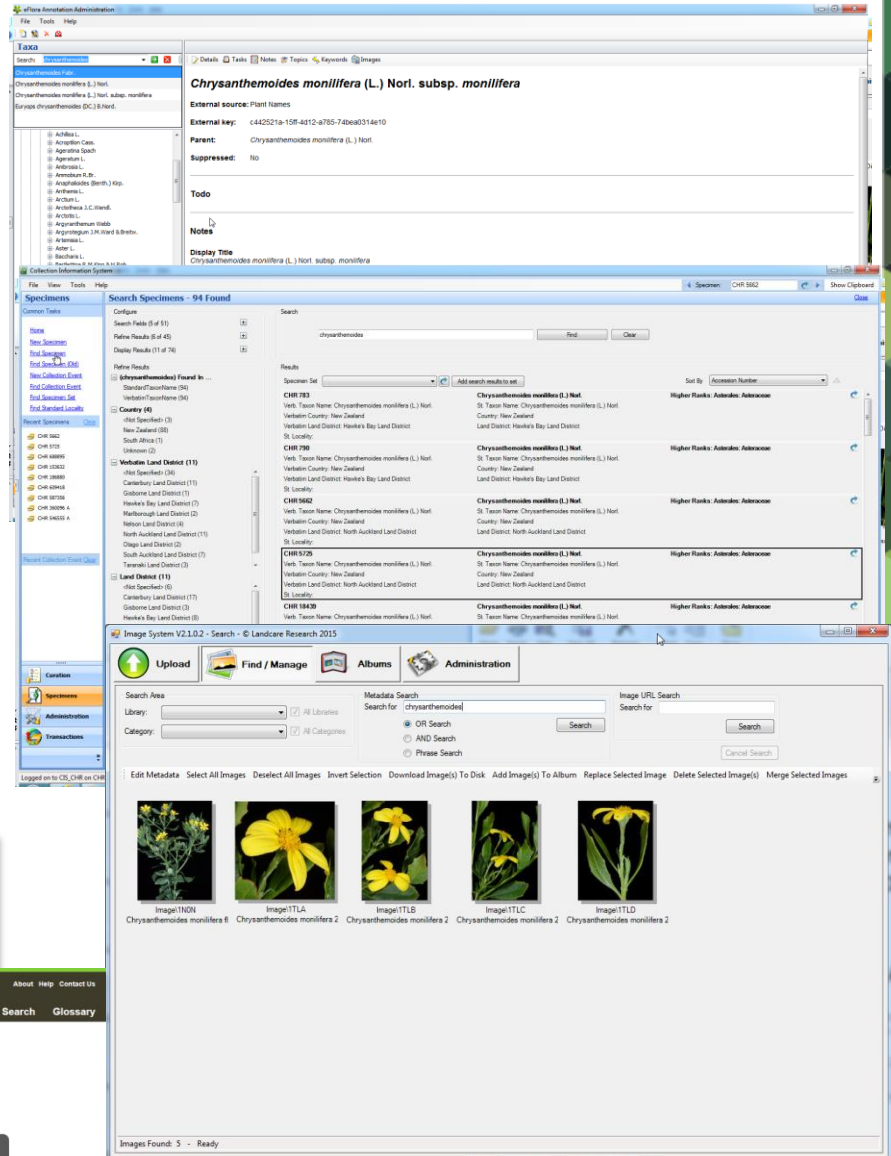
# International Collection of Microorganisms from Plants (ICMP)

- 20,000 cultures
  - 50:50 Fungi : Bacteria, since 1952
  - Broad taxonomic diversity
  - Plant pathogens, 'mushrooms', beneficials e.g. rhizobia
  - Many cultures found only in NZ
  - Stored permanently in liquid N<sub>2</sub>
- Database
  - Taxonomy, history, strain properties, all online



# Databases & Information Systems

- Names and Taxonomy
- Specimens
- Images
- Biota





# Systematists...





# Characterising NZ's Land Biota: Research

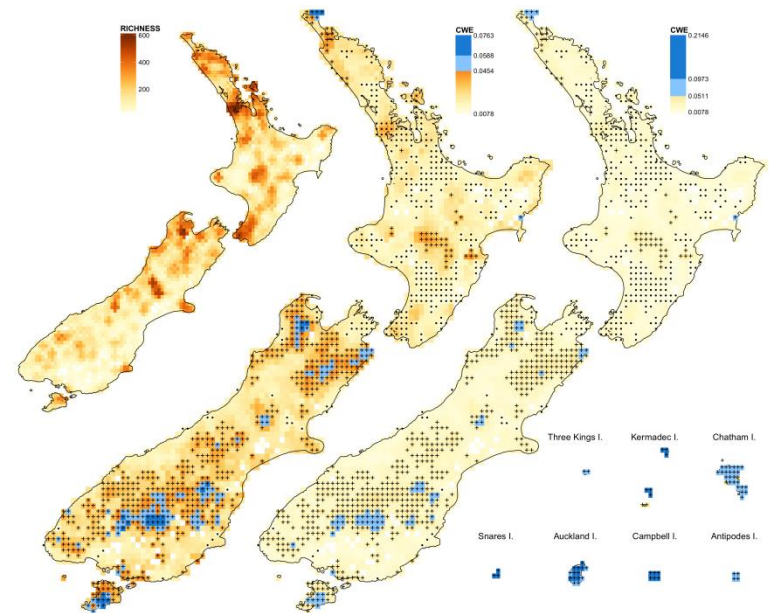
Native and naturalised terrestrial biota:

- discovery of organisms
- determination of authoritative names
- descriptions
- distributions
- ecological links
- understanding of origins, relationships, genetic diversity and biology of our biota

# Informatics Research Using Collections

- Herbarium specimens with georeferences used for analyses of biodiversity
- Phylogeny of all NZ plant genera provided genetic data
- “hotspots” of species, generic and genetic endemism identified
- Priority areas for DOC, QEII, RC, NGO’s conservation & management

## *Biodiverse analyses of endemism*



# Systematic research

New Zealand Journal of Botany, 2015  
Vol. 53, No. 1, 60–73, <http://dx.doi.org/10.1080/0028825X.2014.1001410>



## RESEARCH ARTICLE

### Characterisation of SSR markers for New Zealand *Craspedia* and their application in Kahurangi National Park

I Breitwieser, K.A Ford and R.D. Smissen\*

Allan Herbarium, Landcare Research, Lincoln, New Zealand

(Received 23 July 2014; accepted 16 December 2014)

Twelve polymorphic simple sequence repeat markers were developed from transcribed sequences generated by RNA-seq. These were then used to assess relationships among selected putative species of *Craspedia* in Kahurangi National Park, New Zealand, including three putative species in sympatry at Mt Arthur; plants from two putative species from the nearby Mt Mytton; and plants from the Marino Mountains, where at least four putative species have been listed. We confirmed that two of the putative species present on Mt Arthur are also present on Mt Mytton, but identified another *Craspedia* there that was previously not recognised as being distinct. At the Marino Mountains the situation appears more complex. One putative species there is clearly distinct from all other plants sampled. However, the remainder of the Marino Mountains plants could not be assigned to genetic groups consistent with the putative species, nor could we clearly relate them to the putative species from Mt Arthur or Mt Mytton.

**Key words:** Asternaceae; Compositae; *Craspedia*; Gnaphalaceae; Marino Mountains; microsatellites; Mt Arthur; Mt Mytton; New Zealand flora; SSR

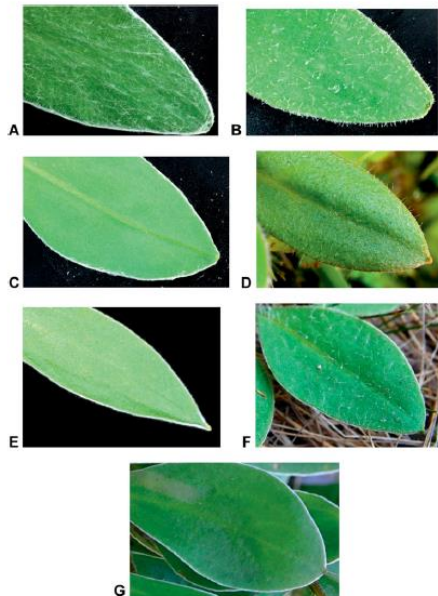
## Introduction

The species of *Craspedia* G. Forst. tribe Gnaphalaceae, subtribe Angianthinae, are sparsely distributed members of many plant families in Australia and New Zealand. Like other members of the subtribe Angianthinae they are distinguished by an unusual double composite inflorescence. *Craspedia* is the only genus of the Australian Angianthinae that occurs in New Zealand. Its New Zealand species comprise a monophyletic group (Ford et al. 2007) of phylogenies from chloroplast and nuclear DNA sequences. Ford et al. (2007) suggested that New Zealand species are derived from an Australian radiation of *Craspedia*, and that sequence divergence among species of *Craspedia* in New Zealand reported by Ford et al. (2007) suggest they radiated recently.

\*Corresponding author. Email: smissen@landcare.co.nz  
The order of authorship for this paper is alphabetical.

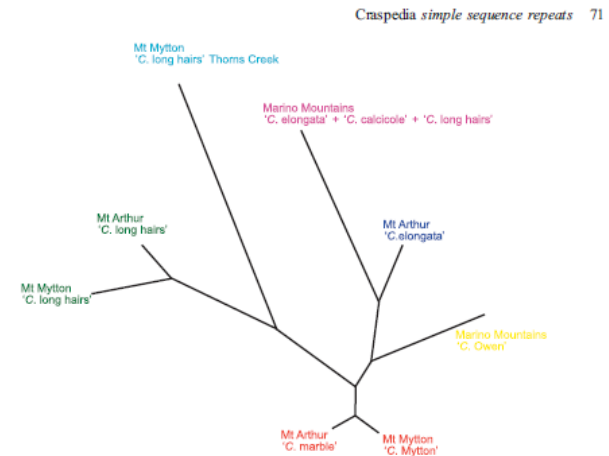
© 2015 The Royal Society of New Zealand

*Craspedia* simple sequence repeats 63



**Figure 1** Leaves of seven forms of *Craspedia*. A, '*C. elongata*'; B, '*C. long hairs*' (Mt Arthur); C, '*C. marble*'; D, '*C. long hairs*' (Thoms Creek); E, '*C. calicole*'; F, '*C. Owen*'; G, '*C. Mytton*'.

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**Figure 4** Neighbour-joining tree for population genetic distances based on 12 SSR markers among populations of *Craspedia* sampled in this study. Colours of labels match those used in Fig. 3.



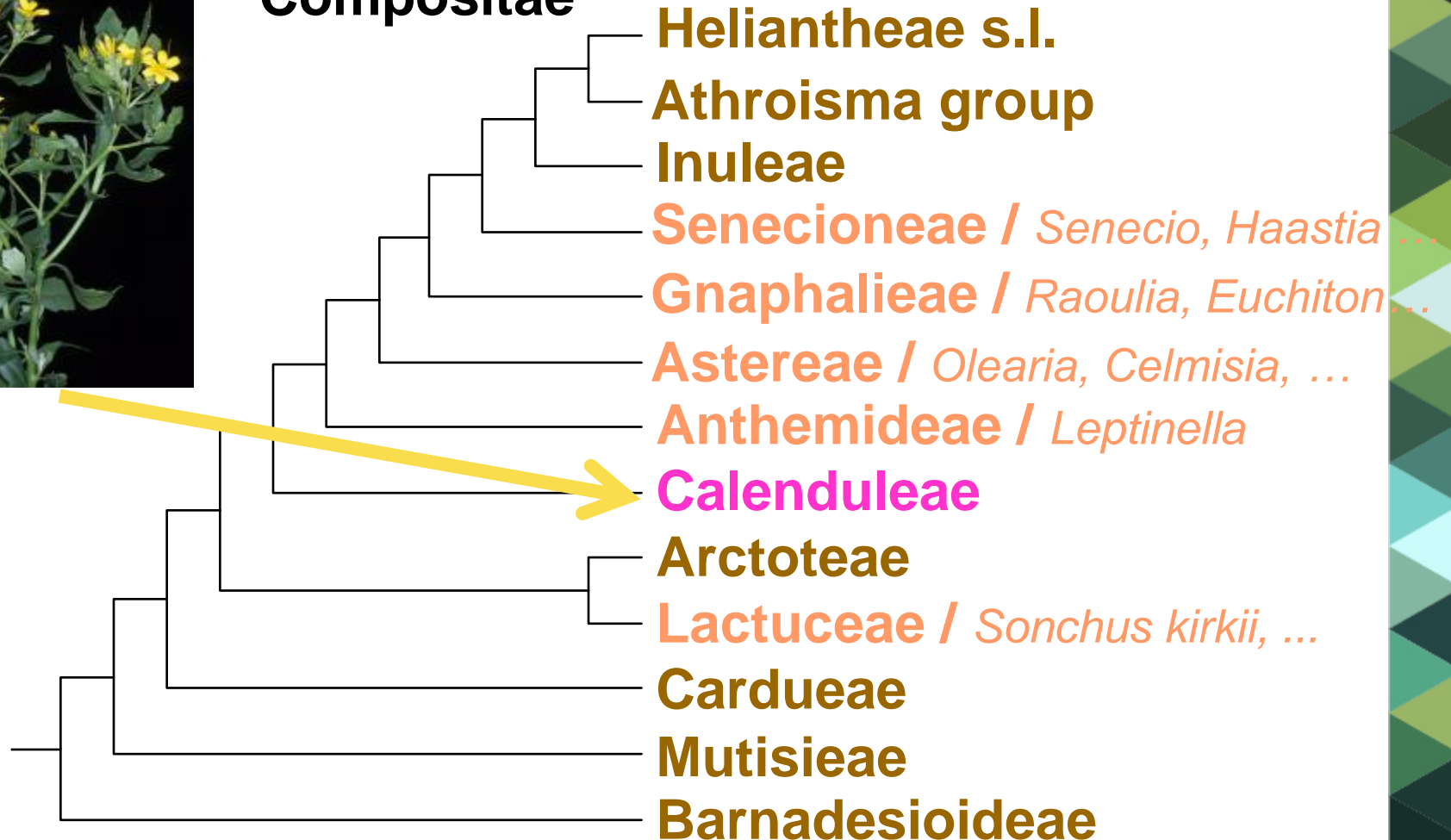
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# Relationships



## Compositae





ISSUE 73 / AUGUST 2015



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# Weed Biocontrol

WHAT'S NEW?

## Spring Activities

Most biocontrol agents become active during spring, making it a busy time of year to check release sites and move agents around.

### Boneseed leafroller (*Tortrix* s.l. sp. "*chrysanthemoides*")

- Check release sites for feeding shelters made by caterpillars webbing together leaves at the tips of stems. Also look for "windows" in the leaves and sprinkles of black frass. Small caterpillars are olive green in colour and become darker, with two parallel rows of white spots as they mature.
- Caterpillars can be harvested if you find them in good

Lantana

Green t

- Chec  
warm  
thistle  
6–7.5

**PLANTS**

Key to flowering plant genera

Weeds Key

- Species list
- Images
- Acknowledgements
- Links
- Weeds on Naturewatch NZ
- Help with Lucid

Coprosma key

Cotoneaster key

Grass key

Native orchid key

Native plants of schools & marae

Styx Mill biodiversity guide

Weedy daisy key

Lucid help

Plant identification services

**KEY POINTS**

- Nomenclature used in the weeds key follows the most currently accepted names and taxonomic treatments
- Contains more than 9000 images
- Different stages of maturity and close-up photography is included

**RELATED CONTENT**

Home » Resources » Identification » Plants » Weeds Key



## KEY TO THE WEED SPECIES OF NEW ZEALAND



A key for the identification of weeds in New Zealand.

Murray Dawson, Sheldon Navie, Trevor James, Peter Heenan, Paul Champion & others

This Lucid 3 key is for the identification of more than 660 taxa (species, subspecies, varieties, hybrids and cultivars) including weeds. The Department of Conservation consolidated list of environmental weeds in New Zealand (Newell 2000) the

Key Features Entities View

Features Available: 43

- Plant Family
  - Acanthaceae
  - Amaranthaceae
  - Apiaceae
  - Arecaceae
  - Asteraceae (Compositae)**
  - Bignoniaceae
  - Boraginaceae
  - Brassicaceae
  - Cactaceae
  - Caesalpiniaceae
  - Caryophyllaceae
  - Chenopodiaceae
  - Convolvulaceae
  - Cyperaceae
  - Euphorbiaceae
  - Fabaceae
  - Indaceae
  - Lamiaceae (Labiatae)
  - Malvaceae
  - Mimosaceae

Features Chosen: 7

- Plant Characters
  - Plant Form
    - shrub
  - Plant Family
    - Asteraceae (Compositae)**
  - Flower Characters
  - Flower Type
  - Flower-head (capitulum)
  - Flower Structure
  - Flower Colour
  - Other Information (not for identification)
  - Distribution Characters
  - Habitat
  - grasslands

Entities Remaining: 1

- Chrysanthemoides monilifera subsp. monilifera (boneseed) EW, NPPA, RPMS**

Chrysanthemoides monilifera (boneseed) - Lucid3

large infestation in flower  
© Chris Winks

velvet leaf)

EW, RPMS  
MS

chwood) EW

y acacia) EW, RPMS

RPMS

ss flower) EW

# Services

## Lucid interactive

## Identification keys





## NOCTUIDAE



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## LARGER MOTHS OF NEW ZEALAND

### Introduction

### Image gallery

All large moths

Erebidae

Geometridae

Hepialidae

Noctuidae

Nolidae

Pyrallid Moths

Pyralloidea: Introduction

Crambidae: Crambinae

Crambidae: Scopariinae

Crambidae: smaller subfamilies

Pyrallidae

NZAC type specimens

Notes on Scopariinae

Threatened species factsheets

Saturniidae

Sesiidae

Sphingidae

Zygaenidae

Uncertain

### How to Use this Guide

Notes on families and subfamilies

Bibliography



## PYRALIDAE

Photographer: Birgit E. Rhode (or BER) unless otherwise specified in the body of the image.



*Achroia grisella*  
(female)

Add to compare



*Achroia grisella*  
(female)

Add to compare



*Aglossa caprealis*  
(male)

Add to compare



*Aglossa caprealis*  
(male)

Add to compare



*Aglossa pinguinalis*  
(female)

Add to compare

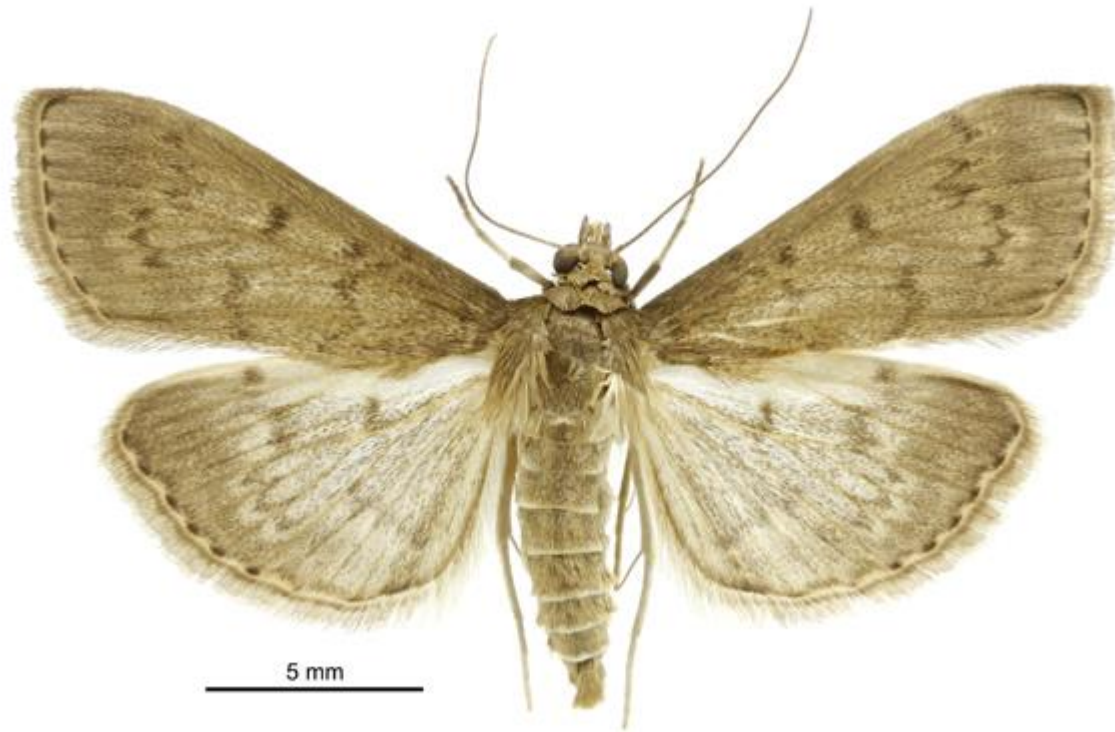


*Arcola malloi*  
(female)

Add to compare




# Services



*Herpetogramma licarsisalis* (female). Crambidae: Spilomelinae. Immigrant / adventive.



# Services



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**Manaaki Whenua**

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HOMEABOUT USOUR SCIENCEPUBLICATIONSRESOURCES

DataCollectionsIdentificationLaboratories & diagnosticsBusiness solutionsMaps & satellitesPest managementTeachingTools

**ALLAN HERBARIUM (CHR)**

HistoryServicesAllan Herbarium loan servicesPlant Identification and InformationPresence and DistributionNomenclature CheckBotanical surveysPlant identification workshopsSystematics collections dataNgā Tipu o Aotearoa - New Zealand PlantsPhylogeny of New Zealand PlantsNew Zealand BotanistsLinks to other herbaria




**KEY CONTACT**



**Ines Schoenberger**  
Manager Allan Herbarium/Capability Ldr  
Location: Lincoln  
Tel: +64 3 321 9797  
Contact Ines

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## PLANT IDENTIFICATION AND INFORMATION

The Plant Identification and Information Service is available to members of the public, commercial organisations, and government organisations. This service is provided by the systematists and utilises a range of resources including the Allan Herbarium and international literature. If you wish to submit material for identification, please read the guidelines provided on how to collect and send plants for identification.



Image - P Heenan

### Guidelines: Collecting Plants for Identification

#### Selecting specimens to send

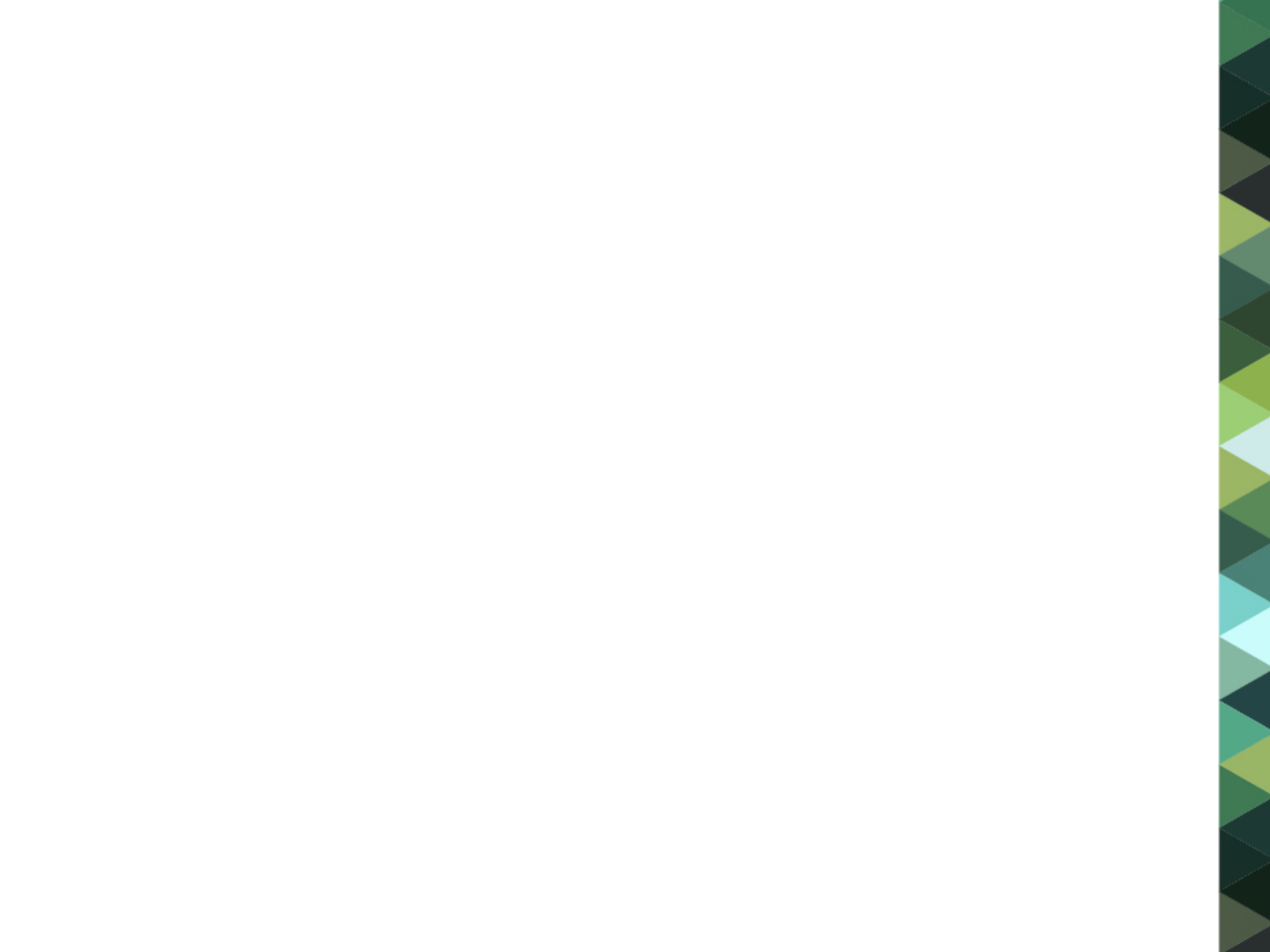
The specimens should represent as many features of the plants as possible including flowering and/or fruiting parts; these are very important to the identification process. For small herbaceous species, send the whole plant. However, for larger bulky herbaceous plants, select material from the flowers, stems, leaves and, if possible, roots. For woody plants, please include basal shoot with juvenile leaves, sucker shoots, bark where applicable, and material of any other special feature present, e.g. spines or prickles. Plus, of course, flowering and fruiting shoots.

**The more complete the specimens are, the easier and more accurate the identification is likely to be. It may not be possible to identify non-flowering or non-fruiting plants with certainty.**

#### Information we need with the specimens

1. The locality and habitat should be described as accurately as possible. New Zealand Map grid references are especially useful.
2. Name of the collector and date of collection.
3. Remarks: it is important to give any details of the plant that may not be obvious at the receiving end: e.g. size and shape (particularly of trees) is often diagnostic. Flowers and fruit often deteriorate quickly, sometimes changing colour, so mention colour and any fragrance. If, for some reason, the specimen sent is known to be atypical, this should be noted (typical material should also be sent for comparison). Notes about frost-hardiness and time of flowering may be useful.

If the specimen represents a very rare species, or is a new record for the area from which it is sent, detailed information is







Dan Ruhl, USDA



Dan Ruhl, USDA



Anthracnose on maple leaf.



>unknown

AGGGATCATTACTGAGTTTACGCTCTACAACCCTTTGTGAACATACCTATAACT  
GTTGCTTCGGCGGGCA  
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CGTAAAACCCCCAATTCT  
CCAAAGGTTGACCTCGGATCAGGTAGGAATACCCGCTGAACTTAA



## Standard Nucleotide BLAST

[blastn](#) [blastp](#) [blastx](#) [tblastn](#) [tblastx](#)BLASTN programs search nucleotide databases using a nucleotide query. [more...](#)[Reset page](#) [Bookmark](#)

## Enter Query Sequence

Enter accession number(s), gi(s), or FASTA sequence(s) [?](#)[Clear](#)Query subrange [?](#)

```
>unknown
AGGGATCATTACTGAGTTTACGCTCTACACCCCTTTGTGAACATACCTATAACTGTTGCTTC
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CAAACTCT
GATTTAACGACGTTTCTTCTGAGTGGTACAAGCAATAATCAAACTTTTAACAACGGATCT
GGGCGGCA
```

From To 

Or, upload file

[Browse...](#)No file selected. [?](#)

Job Title

unknown

Enter a descriptive title for your BLAST search [?](#)☐ Align two or more sequences [?](#)

## Choose Search Set

Database

☐ Human genomic + transcript ☐ Mouse genomic + transcript ☒ Others (nr etc.):Nucleotide collection (nr/nt) [?](#)

Organism

Optional

☐ Exclude [+](#)Enter organism common name, binomial, or tax id. Only 20 top taxa will be shown [?](#)

Exclude

Optional

☐ Models (XM/XP) ☐ Uncultured/environmental sample sequences

Limit to

Optional

☒ Sequences from type material

Entrez Query

Optional

[YouTube](#) [Create custom database](#)Enter an Entrez query to limit search [?](#)

## Program Selection

Optimize for

☒ Highly similar sequences (megablast)☐ More dissimilar sequences (discontiguous megablast)☐ Somewhat similar sequences (blastn)Choose a BLAST algorithm [?](#)**BLAST**

Search database Nucleotide collection (nr/nt) using Megablast (Optimize for highly similar sequences)

☐ Show results in a new window[+ Algorithm parameters](#)



NCBI/BLAST/blastn suite/ Formatting Results - YF8GCS4G015

Your search is limited to records matching entrez query: sequence\_from\_type[filter].

Edit and Resubmit Save Search Strategies Formatting options Download

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unknown

RID YF8GCS4G015 (Expires on 09-04 09:27 am)

Query ID Id|Query\_107451

Description unknown

Molecule type nucleic acid

Query Length 535

Database Name nr

Description Nucleotide collection (nt)

Program BLASTN 2.2.32+ Citation

Other reports: Search Summary Taxonomy reports Distance tree of results

- + Graphic Summary

- Descriptions

Sequences producing significant alignments:

Select: All None Selected:0

Alignments Download GenBank Graphics Distance tree of results

	Description	Max score	Total score	Query cover	E value	Ident	Accession
<input type="checkbox"/>	<a>Colletotrichum horii ITS region; from TYPE material</a>	989	989	100%	0.0	100%	<a>NR_119754.1</a>
<input type="checkbox"/>	<a>Colletotrichum horii strain ICMP10492 internal transcribed spacer 1, partial sequence; 5.8S ribosomal RNA gene and internal transcribed sp</a>	977	977	98%	0.0	100%	<a>KC790929.1</a>
<input type="checkbox"/>	<a>Colletotrichum aotearoa ICMP 18537 ITS region; from TYPE material</a>	977	977	100%	0.0	99%	<a>NR_120136.1</a>
<input type="checkbox"/>	<a>Colletotrichum ti ICMP 4832 ITS region; from TYPE material</a>	972	972	100%	0.0	99%	<a>NR_120143.1</a>
<input type="checkbox"/>	<a>Colletotrichum tropicale ITS region; from TYPE material</a>	970	970	99%	0.0	99%	<a>NR_119815.1</a>
<input type="checkbox"/>	<a>Colletotrichum aenigma ICMP 18608 ITS region; from TYPE material</a>	966	966	100%	0.0	99%	<a>NR_120140.1</a>
<input type="checkbox"/>	<a>Colletotrichum kahawae subsp. ciqqaro ICMP 18539 ITS region; from TYPE material</a>	966	966	100%	0.0	99%	<a>NR_120138.1</a>
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<input type="checkbox"/>	<a>Colletotrichum queenslandicum strain ICMP 1778 small subunit ribosomal RNA gene, partial sequence; internal transcribed spacer 1, 5.8S r</a>	963	963	100%	0.0	99%	<a>JX010276.1</a>
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Nucleotide

Nucleotide

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**Colletotrichum horii ITS region; from TYPE material**

NCBI Reference Sequence: NR\_119754.1

[FASTA](#) [Graphics](#)

Go to:

LOCUS NR\_119754 593 bp DNA linear PLN 30-APR-2014

DEFINITION Colletotrichum horii ITS region; from TYPE material.

ACCESSION NR\_119754

VERSION NR\_119754.1 GI:626487639

DBLINK BioProject: [PRJNA177353](#)

KEYWORDS RefSeq.

SOURCE Colletotrichum horii

ORGANISM [Colletotrichum horii](#)  
Eukaryota; Fungi; Dikarya; Ascomycota; Pezizomycotina;  
Sordariomycetes; Hypocreomycetidae; Glomerellales; Glomerellaceae;  
Colletotrichum.

REFERENCE 1 (bases 1 to 593)

AUTHORS Weir,B.S. and Johnston,P.R.

TITLE Characterisation and neotypification of Gloeosporium kaki Hori as  
Colletotrichum horii nom. nov.

JOURNAL Mycotaxon 111, 209-219 (2010)

REFERENCE 2 (bases 1 to 593)

CONSTRM NCBI RefSeq Targeted Loci Project

TITLE Direct Submission

JOURNAL Submitted (29-APR-2014) National Center for Biotechnology  
Information, NIH, Bethesda, MD 20894, USA

REFERENCE 3 (bases 1 to 593)

AUTHORS Weir,B.S. and Johnston,P.R.

TITLE Direct Submission

JOURNAL Submitted (23-JUN-2009) Landcare Research, Private Bag 92170,  
Auckland Mail Centre, Auckland 1142, New Zealand

COMMENT REVIEWED [REFSEQ](#): This record has been curated by NCBI staff. The  
reference sequence is identical to [GQ329690](#).

FEATURES

source

1..593

/organism="Colletotrichum horii"

/mol\_type="genomic DNA"

/isolate="C1180.1"

/isolation\_source="fruit"

/host="Diospyros kaki (persimmon)"

/specimen\_voucher="PDD:98210"

/specimen\_voucher="INS:F-26102"

/collection="ICMP:10492"

/accession="NR\_119754.1"

**Analyze this sequence**

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BioProject

Taxonomy

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material Nucleotide

C.\_horii BLAST

Nucleotide Sequence (737 letters) BLAST

Colletotrichum horii culture-collection  
ICMP:10492 calmodulin (CAL) gene Nucleotide

Weir ICMP 10492 (51) Nucleotide

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weir colletotrichum

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### Mycotaxon: Volume 111 Article Abstract

Weir, Bevan S. & Peter R. Johnston. Characterisation and neotypification of *Gloeosporium kaki* Hori as *Colletotrichum horii* nom. nov. *Mycotaxon* 111: 200-210. [www.mycotaxon.com/vol/abstracts/111/1](http://www.mycotaxon.com/vol/abstracts/111/1)

### Nomenclatural novelties proposed in M

File Format: PDF/Adobe Acrobat

*Colletotrichum horii* B. Weir & P.R. Johnston. p. 187. *Crucellisporium umtamvunae* Marin. [www.mycotaxon.com/vol/nomnov111.pdf](http://www.mycotaxon.com/vol/nomnov111.pdf)

### Mycotaxon: Volume 111 Table of Contents

Characterisation and neotypification of *Gloeosporium kaki* Hori as *Colletotrichum horii* nom. nov. Bevan S. Weir & Peter R. Johnston. [www.mycotaxon.com/vol/111.html](http://www.mycotaxon.com/vol/111.html)

### Mycotaxon: Cumulative Author Index

A new species of *Colletotrichum* from *Coreopsis* causing anthracnose disease. .... Weir, Bevan S. [www.mycotaxon.com/indices/cumautho](http://www.mycotaxon.com/indices/cumautho)

File Edit View History Bookmarks Tools Help  
Bevan Weir - Staff details | ... x Unravelling Colletotrichum... x Problem loading page x +  
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**PERSOONIA** **Unravelling Colletotrichum species associated with Camellia: employing ApMat and GS loci to resolve species in the C. gloeosporioides complex**

**Authors:** F. Liu; B.S. Weir; U. Damm; P.W. Crous; Y. Wang; B. Liu; M. Wang; M. Zhang; L. Cai  
**Source:** Persoonia - Molecular Phylogeny and Evolution of Fungi  
**Publisher:** Nationaal Herbarium Nederland

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T Free trial content

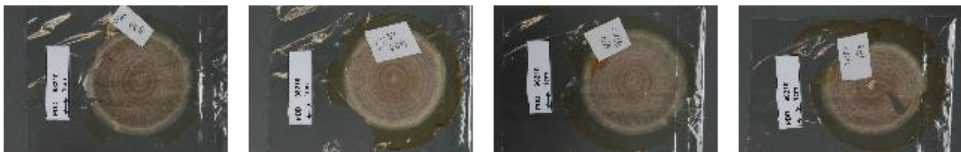


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## PDD 98210 – Colletotrichum horii B.S. Weir & P.R. Johnst.



Data Provider:	New Zealand Fungal and Plant Disease Collection
Barcode:	PDD 98210
Type Status:	Isoneotype
Specimen Type:	Packet
Database Record Added:	05 August 2009
Database Record Updated:	29 October 2012

### Components

#### Primary Component

Active Identification	
Determined Name:	Colletotrichum horii B. Weir & P.R. Johnst.
Determiner:	B. Weir
Determination Date:	
Preferred Name:	Colletotrichum horii B.S. Weir & P.R. Johnst.
Identification Type:	Determination

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ICMP 10492 – *Colletotrichum horii* B.S. Weir & P.R. Johnst.



Data Provider:	International Collection Of Micro-organisms
Barcode:	ICMP 10492
Type Status:	ex Neotype specimen
Culture Type:	Fungal Culture
Database Record Added:	25 January 2002
Database Record Updated:	31 July 2015

## Components

### Primary Component

Active Identification	
Determined Name:	<i>Colletotrichum horii</i> B.S. Weir & P.R. Johnst.
Determiner:	B.S. Weir
Determination Date:	2010-00-00 (Verbatim: 2010)
Preferred Name:	<i>Colletotrichum horii</i> B.S. Weir & P.R. Johnst.
Identification Type:	Determination

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## Facets

### Preferred Name

- Colletotrichum horii B.S. Weir & P.R. Johnst. (11)
- Diospyros kaki L.f. (11)
- Colletotrichum gloeosporioides (Penz.) Penz. & Sacc. (3)

### Taxonomic Name

- Colletotrichum horii B.S. Weir & P.R. Johnst. (11)
- Diospyros kaki L.f. (11)
- Colletotrichum "gloeosporioides Group D" P.R. Johnst. (2)
- Glomerella cingulata (Stoneman) Spauld. & H. Schrenk (2)
- Colletotrichum gloeosporioides (Penz.) Penz. & Sacc. (1)

More...

### Determiner

- Weir, BS (7)
- Johnston, PR (2)
- Weir, B. (1)

## Results



11 records

Sort by Most relevant

List View Grid View

Select all

- ☐ ICMP 12942 : Colletotrichum horii B.S. Weir & P.R. Johnst.  
Data provider: ICMP Collection: Culture collection Type of record: Fungal Culture Country: New Zealand Locality: Matamata  
NZ area code: Bay of Plenty
- ☐ ICMP 10492 : Colletotrichum horii B.S. Weir & P.R. Johnst.  
Data provider: ICMP Collection: Culture collection Type of record: Fungal Culture Country: Japan
- ☐ ICMP 12951 : Colletotrichum horii B.S. Weir & P.R. Johnst.  
Data provider: ICMP Collection: Culture collection Type of record: Fungal Culture Country: New Zealand Locality: Ohaewai  
NZ area code: Bay of Plenty
- ☐ PDD 98210 : Colletotrichum horii B.S. Weir & P.R. Johnst.  
Data provider: PDD Collection: Herbarium Type of record: Packet Country: Japan
- ☐ ICMP 17968 : Colletotrichum horii B.S. Weir & P.R. Johnst.  
Data provider: ICMP Collection: Culture collection Type of record: Fungal Culture Country: China

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- New Zealand Fungi

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SEARCH***Colletotrichum horii* B.S. Weir & P.R. Johnst. (2010) (stat. anam.)**kingdom: *Fungi* phylum: *Ascomycota* subphylum: *Pezizomycotina* class: *Sordariomycetes* subclass: *Hypocreomycetidae* order: *Glomerellales*  
family: *Glomerellaceae* genus: *Colletotrichum*

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## DETAILS

Name Status: Preferred Name

Place of Publication: Weir, B.S.; Johnston, P.R. 2010: Characterisation and neotypification of *Gloeosporium kaki* Hori as *Colletotrichum horii* nom. nov.. *Mycotaxon* 111: 209

Publication Page: 211

Rank: species

Biostatus: New Zealand (Political Region): Present, Exotic

Nomenclatural Status: This is a replacement name for *Gloeosporium kaki* Hori (1910)

This name is applied to an anamorphic state

Non *Colletotrichum kaki* Maffei (1921)

This name is governed by the ICBN.

Synch to Tree &gt;&gt;

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## *Colletotrichum horii* B.S. Weir & P.R. Johnst. (2010) (stat. anam.)

kingdom: [Fungi](#) phylum: [Ascomycota](#) subphylum: [Pezizomycotina](#) class: [Sordariomycetes](#) subclass: [Hypocreomycetidae](#) order: [Glomerellales](#)  
family: [Glomerellaceae](#) genus: [Colletotrichum](#)



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## SYNONYMY

Rank: species

Names: [Colletotrichum "gloeosporioides Group D" P.R. Johnst. \(1997\) \(nom. inv., stat. anam.\)](#)

- [Colletotrichum horii](#) B.S. Weir & P.R. Johnst. (2010) (stat. anam.) (preferred)

[Gloeosporium kaki](#) Hori (1910) (stat. anam.)

[Gloeosporium kaki](#) S. Ito (1911) (nom. illegit., stat. anam.)

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## *Colletotrichum horii* B.S. Weir & P.R. Johnst. (2010) (stat. anam.)

kingdom: [Fungi](#) phylum: [Ascomycota](#) subphylum: [Pezizomycotina](#) class: [Sordariomycetes](#) subclass: [Hypocreomycetidae](#) order: [Glomerellales](#)  
family: [Glomerellaceae](#) genus: [Colletotrichum](#)



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## SYNONYMY

Rank: species

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Names: [Colletotrichum "gloeosporioides Group D" P.R. Johnst. \(1997\) \(nom. inv., stat. anam.\)](#)

• [Colletotrichum horii](#) B.S. Weir & P.R. Johnst. (2010) (stat. anam.) (preferred)

[Gloeosporium kaki](#) Hori (1910) (stat. anam.)

[Gloeosporium kaki](#) S. Ito (1911) (nom. illegit., stat. anam.)

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


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- COLLECTION SEARCH
- DESCRIPTION SEARCH
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- LITERATURE SEARCH


Colletotrichum horii B.S. Weir & P.R. Johnst. (2010) (stat. anam.)


kingdom: *Fungi* phylum: *Ascomycota* subphylum: *Pezizomycotina* class: *Sordariomycetes* subclass: *Hypocreomycetidae* order: *Glomerellales* family: *Glomerellaceae* genus: *Colletotrichum*


 Details


 Synonyms


 Subordinate taxa


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
 Distribution


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ASSOCIATIONS

	Current Name	Cited Name	Association Type	Associated Name (current)	Associated Name (as cited)	Country	Source	Record
Terms of Use  Copyright © 2002-2015 Landcare Research  Version: 3.0.0	<a href="#">Colletotrichum horii</a>	<a href="#">Colletotrichum "gloeosporioides Group D"</a>	has host	<a href="#">Diospyros kaki</a>	<a href="#">Diospyros kaki</a> (as <i>Diospyros khaki</i> )		Literature	<a href="#">Johnston, P.R. and Jones, D. 1997: Relationships among Colletotrichum Isolates from Fruit-Rot...</a>
	<a href="#">Colletotrichum horii</a>	<a href="#">Colletotrichum horii</a>	has host	<a href="#">Diospyros kaki</a>	<a href="#">Diospyros kaki</a>		Literature	<a href="#">Weir, B.S.; Johnston, P.R. 2010: Characterisation and neotypification of Gloeosporium kaki Ho...</a>
	<a href="#">Colletotrichum horii</a>	<a href="#">Colletotrichum horii</a>	has host	<a href="#">Diospyros kaki</a>	<a href="#">Diospyros kaki</a>		Literature	<a href="#">Anonymous 2010: Pest watch: 24 June 2010 - 25 August 2010. Biosecurity 100: 31....</a>
	<a href="#">Colletotrichum horii</a>	<a href="#">Colletotrichum horii</a>	has host	<a href="#">Diospyros kaki</a>	<a href="#">Diospyros kaki</a>		Literature	<a href="#">Weir, B.S.; Johnston P.R.; Damm, U. 2012: The Colletotrichum gloeosporioides species complex....</a>
	<a href="#">Colletotrichum horii</a>	<a href="#">Colletotrichum horii</a>	has host	<a href="#">Diospyros kaki</a>	<a href="#">Diospyros kaki</a>	China	ICMP Culture	<a href="#">ICMP 17968</a>
	<a href="#">Colletotrichum horii</a>	<a href="#">Colletotrichum horii</a>	has host	<a href="#">Diospyros kaki</a>	<a href="#">Diospyros kaki</a>	China	ICMP Culture	<a href="#">ICMP 17969</a>
	<a href="#">Colletotrichum horii</a>	<a href="#">Colletotrichum horii</a>	has host	<a href="#">Diospyros kaki</a>	<a href="#">Diospyros kaki</a>	China	ICMP Culture	<a href="#">ICMP 17995</a>
	<a href="#">Colletotrichum horii</a>	<a href="#">Colletotrichum horii</a>	has host	<a href="#">Diospyros kaki</a>	<a href="#">Diospyros kaki</a>	Japan	ICMP Culture	<a href="#">ICMP 17970</a>
	<a href="#">Colletotrichum horii</a>	<a href="#">Colletotrichum horii</a>	has host	<a href="#">Diospyros kaki</a>	<a href="#">Diospyros kaki</a>	Japan	ICMP Culture	<a href="#">ICMP 10492</a>
	<a href="#">Colletotrichum horii</a>	<a href="#">Colletotrichum horii</a>	has host	<a href="#">Diospyros kaki</a>	<a href="#">Diospyros kaki</a>	Japan	PDD Specimen	<a href="#">PDD 98209</a>
	<a href="#">Colletotrichum horii</a>	<a href="#">Colletotrichum horii</a>	has host	<a href="#">Diospyros kaki</a>	<a href="#">Diospyros kaki</a>	Japan	PDD Specimen	<a href="#">PDD 98210</a>
	<a href="#">Colletotrichum horii</a>	<a href="#">Colletotrichum horii</a>	has host	<a href="#">Diospyros kaki</a>	<a href="#">Diospyros kaki</a>	New Zealand	ICMP Culture	<a href="#">ICMP 12942</a>
	<a href="#">Colletotrichum horii</a>	<a href="#">Colletotrichum horii</a>	has host	<a href="#">Diospyros kaki</a>	<a href="#">Diospyros kaki</a>	New Zealand	ICMP Culture	<a href="#">ICMP 12951</a>
	<a href="#">Colletotrichum horii</a>	<a href="#">Colletotrichum horii</a>	has host	<a href="#">Diospyros kaki</a>	<a href="#">Diospyros kaki</a>	New Zealand	ICMP Culture	<a href="#">ICMP 18126</a>
	<a href="#">Colletotrichum horii</a>	<a href="#">Colletotrichum horii</a>	has host	<a href="#">Diospyros kaki</a>	<a href="#">Diospyros kaki</a>	New Zealand	ICMP Culture	<a href="#">ICMP 14918</a>



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## Colletotrichum horii B.S. Weir & P.R. Johnst. (2010) (stat. anam.)

kingdom: *Fungi* phylum: *Ascomycota* subphylum: *Pezizomycotina* class: *Sordariomycetes* subclass: *Hypocreomycetidae* order: *Glomerellales* family: *Glomerellaceae*



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## LITERATURE

### Colletotrichum "gloeosporioides Group D" P.R. Johnst.

Weir, B.S.; Johnston, P.R. 2010: Characterisation and neotypification of *Gloeosporium kaki* Hori as *Colletotrichum horii* nom. nov. *Mycotaxon* 111: 209-219.

Johnston, P.R. and Jones, D. 1997: Relationships among *Colletotrichum* Isolates from Fruit-Rots Assessed Using rDNA Sequences. *Mycologia* 89(3): 420-430.

### Colletotrichum horii B.S. Weir & P.R. Johnst.

Peng, L.; Sun, T.; Yang, Y.; Cai, L.; Hyde, K.D.; Bahkali, A.H.; Liu, Z. 2013: Colletotrichum species on grape in Guizhou and Yunnan provinces, China. *Mycoscience* 54: 29-41.

Liu, F.; Damm, U.; Cai, L.; Crous, P.W. 2013: Species of the *Colletotrichum gloeosporioides* complex associated with anthracnose diseases of Proteaceae. *Fungal Diversity* 61: 89-105.

Weir, B.S.; Johnston, P.R. 2010: Characterisation and neotypification of *Gloeosporium kaki* Hori as *Colletotrichum horii* nom. nov. *Mycotaxon* 111: 209-219.

Anonymous 2010: Pest watch: 24 June 2010 - 25 August 2010. *Biosecurity* 100: 31.

Weir, B.S.; Johnston, P.R.; Damm, U. 2012: The *Colletotrichum gloeosporioides* species complex. *Studies in Mycology* 73: 115-180.

### Gloeosporium kaki Hori 1910

Hori, S. 1910: [continuation from: *Engei no Tomo* 6(1): 58-61. 1910.]. *Engei no Tomo* 6(2): 21-24.

Weir, B.S.; Johnston, P.R. 2010: Characterisation and neotypification of *Gloeosporium kaki* Hori as *Colletotrichum horii* nom. nov. *Mycotaxon* 111: 209-219.

### Gloeosporium kaki S. Ito 1911

Anon Unwanted Organisms Register. <http://www.biosecurity.govt.nz/pests/registers/uor>

Ito, S. 1911: Gloeosporiose of the Japanese persimmon. *Botanical Magazine, Tokyo* 25: 197-201.

Weir, B.S.; Johnston, P.R. 2010: Characterisation and neotypification of *Gloeosporium kaki* Hori as *Colletotrichum horii* nom. nov. *Mycotaxon* 111: 209-219.

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## Unwanted Organisms - Search

Organism Name: Gloeosporium kaki	Type: Fungus
Classification:	Government Dept: --- Any ---
	CTO Responsibility: --- Any ---
	Category: --- Any ---
Sort By: 1. Scientific Name	Asc
2.	Asc
Search Now	<input type="checkbox"/> Make Spreadsheet Data

Narrow your selection as much as possible. Some search criteria such as CTO Responsibility = Plant biosecurity return large amounts of data which can cause the system to timeout.

## Organism Details

Scientific Name: Gloeosporium kaki

Class: mitosporic fungi (Coelomycetes)

Common Name: anthracnose

Order: unknown Coelomycetes

Organism Type: Fungus

Family: unknown Coelomycetes

Department: MPI

CTO: Richard Ives

Synonyms:

Category:

Regulated Pest

Date Determined:

2001-08-13

Status:

Unwanted



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## *Diospyros kaki* Thunb. (1780)

kingdom: *Plantae* phylum: *Spermatophyta* class: *Magnoliopsida* order: *Ericales* family: *Ebenaceae* genus: *Diospyros*



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## DETAILS

**Name Status:** Preferred Name

**Rank:** species

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**Biostatus:** New Zealand (Political Region): Present in captivity/cultivation/culture, Exotic ([Allan HerbariumHerbarium specimens and associated data at the Allan...](#))  
CHR 134987

**Vernacular:** Chinese persimmon (English)  
date plum (English)  
Japanese persimmon (English)  
Kaki (English)  
Key fig (English)  
Persimmon (English)

This name is governed by the ICBN.

**LSID:** URN:LSID:landcareresearch.co.nz:Names:4570C50F-D7DD-46BF-B229-7C2FA561354F

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***Chrysanthemoides monilifera* (L.) Norl. (1943)**kingdom: [Plantae](#) phylum: [Spermatophyta](#) class: [Magnoliopsida](#) order: [Asterales](#) family: [Compositae](#) genus: [Chrysanthemoides](#)

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## DETAILS

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<b>Name Status:</b>	Preferred Name
<b>Place of Publication:</b>	Norlindh, T. 1943: <i>Studies in the Calenduleae</i> . I. Monograph of the genera <i>Dimorphotheca</i> , <i>Castalis</i> , <i>Osteospermum</i> , <i>Gibbaria</i> and <i>Chrysanthemoides</i> ed. Lund, Gleerup.
<b>Publication Page:</b>	347
<b>Rank:</b>	species
<b>Biostatus:</b>	New Zealand (Political Region): Wild, Exotic (Fully naturalised) ( <a href="#">Webb, C.J.; Sykes, W.R.; Garnock-Jones, P.J. 1988: Flora of New Zea...</a> ) <i>N.Z. plants are referable to subsp. monilifera.</i>
<b>Treatment Article:</b>	Webb, C.J.; Sykes, W.R.; Garnock-Jones, P.J. 1988: Flora of New Zealand. Vol. IV. Naturalised Pteridophytes, Gymnosperms, Dicotyledons. Christchurch, Botany Division DSIR.
<b>Vernacular:</b>	Bitou bush (English) Boneseed (English) Higgin's curse (English) Jungle flower (English) Salt bush (English)
<b>Nomenclatural Status:</b>	The basionym of this name is <a href="#">Osteospermum moniliferum L. (1753)</a> This name is governed by the ICBN.
<b>LSID:</b>	URN:LSID:landcareresearch.co.nz:Names:E4504B0C-C4E6-482B-BAB9-3B408FEE4E4A



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## *Chrysanthemoides monilifera* (L.) Norl. (1943)

kingdom: [Plantae](#) phylum: [Spermatophyta](#) class: [Magnoliopsida](#) order: [Asterales](#) family: [Compositae](#) genus: [Chrysanthemoides](#)

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## SYNONYMY

Rank: species

Names: 

- *Chrysanthemoides monilifera* (L.) Norl. (1943) (preferred)
- Osteospermum moniliferum* L. (1753)

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## *Chrysanthemoides monilifera* (L.) Norl. (1943)

kingdom: [Plantae](#) phylum: [Spermatophyta](#) class: [Magnoliopsida](#) order: [Asterales](#) family: [Compositae](#) genus: [Chrysanthemoides](#)



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## LITERATURE

### *Chrysanthemoides monilifera* (L.) Norl.

[Allan Herbarium 2007: New Zealand Plant Names Database Concepts - Asterales.](#)

[Howell, C. 2008: Consolidated list of environmental weeds in New Zealand. \*DOC Research & Development Series\* 292: 42.](#)

[Norlindh, T. 1943: \*Studies in the Calenduleae\*. Vol. I. Monograph of the genera \*Dimorphotheca\*, \*Castalis\*, \*Osteospermum\*, \*Gibbaria\* and \*Chrysanthemoides\*. Gleerup, Lund.](#)

[Biosecurity New Zealand 2012: Regional Pest Management Strategies Database. <http://www.biosecurityperformance.maf.govt.nz/>](#)

[Webb, C.J.; Sykes, W.R.; Garnock-Jones, P.J. 1988: \*Flora of New Zealand\*. Vol. IV. \*Naturalised Pteridophytes, Gymnosperms, Dicotyledons\*. Botany Division DSIR, Christchurch.](#)

[Biosecurity New Zealand 4 Aug 2011: Unwanted Organisms Register. <http://www.biosecurity.govt.nz/pests/registers/uor>](#)

[Biosecurity New Zealand 2008: \*National Plant Pest Accord\*. MAF Biosecurity New Zealand, Wellington.](#)

### *Osteospermum moniliferum* L.

[Allan Herbarium 2007: New Zealand Plant Names Database Concepts - Asterales.](#)

[Norlindh, T. 1943: \*Studies in the Calenduleae\*. Vol. I. Monograph of the genera \*Dimorphotheca\*, \*Castalis\*, \*Osteospermum\*, \*Gibbaria\* and \*Chrysanthemoides\*. Gleerup, Lund.](#)

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***Chrysanthemoides monilifera* (L.) Norl. (1943)**

kingdom: *Plantae* phylum: *Spermatophyta* class: *Magnoliopsida* order: *Asterales* family: *Compositae* genus: *Chrysanthemoides*



## Associations

## COLLECTIONS

[illegible]

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Bevan Weir - Staff details | ... x New Zealand Flora x Specimen Details x +

nzflora.landcareresearch.co.nz/default.aspx?from=details&SpecimenID=68543047

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NAME SEARCH  
COLLECTION SEARCH  
DESCRIPTION SEARCH  
IMAGE SEARCH  
LITERATURE SEARCH

### COLLECTION DETAILS

Past Searches...

Determined Name	Chrysanthemoides monilifera (L.) Norl.
Accession Number	<a href="#">CHR 418643 B</a>
Taxonomic Name	Chrysanthemoides monilifera (L.) Norl. (1943)
Country	New Zealand
Habitat	Naturalised on dry hillsides, locally abundant.
Verbatim Collection Date	1985/05/16/

[Back to Details Page >>](#)

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https://scd.landcareresearch.co.nz/specimen/CHR\_418643\_B

## Systematics Collections Data

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### CHR 418643 B – Chrysanthemoides monilifera (L.) Norl.

[Print](#) [Download](#)

Data Provider:	Allan Herbarium
Barcode:	CHR 418643 B
Specimen Type:	Sheet
Database Record Added:	15 November 2006
Database Record Updated:	15 November 2006

### Components

#### Primary Component

Active Identification	
Determined Name:	Chrysanthemoides monilifera
Determiner:	C.J. Webb
Determination Date:	1985-05-17 (Verbatim: 17 May 1985)
Preferred Name:	Chrysanthemoides monilifera (L.) Norl.
Division:	Magnoliophyta
Class:	Magnoliopsida
Order:	Asterales
Family:	Asteraceae
Identification Type:	Determination

### Collection Events



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nzflora.info/search.html?q=chrysanthemoides



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Genus (1)

Subspecies (1)

Botanical Group

Flowering Plants (4)

Vascular Plants (4)

Management Status

Environmental Weed (1)

Regional Pest (1)

Origin

Exotic (4)

Occurrence

Fully Naturalised (3)

Casual (1)

Author

Flora Committee (4)

chrysanthemoides


Search

Found 4 result(s)

*Chrysanthemoides* Fabr.

Shrubs or small trees, armed or not. Lvs alternate, simple, entire or toothed. Capitula in terminal corymbs. Involucral bracts in 2–3 rows, with membranous margins. Receptacle slightly convex; scales 0. Outer florets ♀, ligulate; ligules yellow. Inner florets tubular, functionally ♂. Fr. a drupe, with a hard, smooth, globose stone and a thin fleshy covering; pappus 0. [From: Webb et al. (1988) Flora of New Zealand. Volume 4.]


Magnoliopsida > Asterales > Compositae




*Chrysanthemoides monilifera* (L.) Norl.

Bushy, much-branched shrub or small tree, up to c. 2–(3) m tall, not armed. Stems ribbed, lanate when young but soon almost glabrous. Lvs lanate when young, soon glabrous, coriaceous, obovate to elliptic, acute or obtuse, mucronate, irregularly serrate with (1)–3–9 teeth on each side, 35–70–(90) × 10–35 mm; lvs subtending infl. smaller, narrower and with fewer teeth. Capitula (15)–25–30–(35) mm diam., in loose bracteate corymbs. Involucral bracts in 3 rows, sparsely hairy and glandular; outer bracts linear-lanceolate to narrow-triangular, 2–3 mm long; inner bracts ovate to ovate-triangular, 4–6 mm long, with more conspicuous membranous margins. Ray florets (3)–5–6–(7); ligules bright yellow, 8–13–(15) mm long; disc florets numerous, yellow. Drupes subglobose, black when ripe, 6–9 mm diam., very hard with a thin fleshy covering. [From: Webb et al. (1988) Flora of New Zealand. Volume 4.]


Magnoliopsida > Asterales > Compositae > Chrysanthemoides






*Chrysanthemoides monilifera* (L.) Norl. subsp. *monilifera*


Magnoliopsida > Asterales > Compositae > Chrysanthemoides



*Euryops chrysanthemoides* (DC.) B.Nord.

Magnoliopsida > Asterales > Compositae > Euryops





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Flora of New Zealand > Magnoliopsida > Asterales > Compositae > Chrysanthemoides > monilifera

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Taxon

## *Chrysanthemoides monilifera* (L.) Norl.



Image: P.B. Heenan © Landcare Research 2014



Image: P.B. Heenan © Landcare Research 2015



Image: P.B. Heenan © Landcare Research 2015



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Flora of New Zealand > Magnoliopsida > Asterales > Compositae > Chrysanthemoides > monilifera

Based on: Flora Committee



Taxon Profile

Classification

Subordinate Taxa

Description

Biostatus

Phenology

Bibliography

## *Chrysanthemoides monilifera* (L.) Norl.

### Classification

Class *Magnoliopsida* Brongn.  
Order *Asterales* Link  
Family *Compositae*  
Genus *Chrysanthemoides* Fabr.

### Subordinate Taxa

*Chrysanthemoides monilifera* subsp. *monilifera*

### Nomenclature

**Scientific Name:** *Chrysanthemoides monilifera* (L.) Norl., *Stud. Calenduleae* 1, 347 (1943)

**Synonymy:** *Osteospermum moniliferum* L. (1753)

**Vernacular Name(s):** Bitou bush; Boneseed; Higgin's curse; Jungle flower; Salt bush



Image: P.B. Heenan © Landcare Research  
2014

### Description

Bushy, much-branched shrub or small tree, up to c. 2–(3) m tall, not armed. Stems ribbed, lanate when young but soon almost glabrous. Lvs lanate when young, soon glabrous, coriaceous, obovate to elliptic, acute or obtuse, mucronate, irregularly serrate with (1)–3–9 teeth on each side, 35–70–(90) × 10–35 mm; lvs subtending infl. smaller, narrower and with fewer teeth. Capitula (15)–25–30–(35) mm diam., in loose bracteate corymbs. Involucral bracts in 3 rows, sparsely hairy and glandular; outer bracts linear-lanceolate to narrow-triangular, 2–3 mm long; inner bracts ovate to ovate-triangular, 4–6 mm long, with more conspicuous membranous margins. Ray florets (3)–5–6–(7); ligules bright yellow, 8–13–(15) mm long; disc florets numerous, yellow. Drupes subglobose, black when ripe, 6–9 mm diam., very hard with a thin fleshy covering. [From: Webb *et al.* (1988) *Flora of New Zealand*. Volume 4.]

### Biostatus

Exotic

Number of subspecific taxa in New Zealand within  
*Chrysanthemoides monilifera* (L.) Norl.

Category	Number
Exotic: Fully Naturalised	1
Total	1



Flora of New Zealand > Magnoliopsida > Asterales > Compositae > Chrysanthemoides > monilifera > subsp. monilifera

Based on: Flora Committee



Taxon Profile

Classification

Biostatus

Bibliography

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Weed

## *Chrysanthemoides monilifera* (L.) Norl. subsp. *monilifera*

### Classification

Class *Magnoliopsida* Brongn.  
Order *Asterales* Link  
Family *Compositae*  
Genus *Chrysanthemoides* Fabr.

### Nomenclature

Scientific Name: *Chrysanthemoides monilifera* (L.) Norl., *Stud. Calenduleae* 1, 347 (1943) subsp. *monilifera*

### Biostatus

Exotic

### Bibliography

Biosecurity New Zealand 2008: *National Plant Pest Accord*. MAF Biosecurity New Zealand, Wellington.

Biosecurity New Zealand 2012: Regional Pest Management Strategies Database. <http://www.biosecurityperformance.maf.govt.nz/>

Biosecurity New Zealand 4 Aug 2011: Unwanted Organisms Register. <http://www.biosecurity.govt.nz/pests/registers/uor>

Howell, C. 2008: Consolidated list of environmental weeds in New Zealand. *DOC Research & Development Series* 292: 42.

Norlindh, T. 1943: *Studies in the Calenduleae*. Vol. I. Monograph of the genera *Dimorphotheca*, *Castalis*, *Osteospermum*, *Gibbaria* and *Chrysanthemoides*. Gleerup, Lund.

Webb, C.J.; Sykes, W.R.; Garnock-Jones, P.J. 1988: *Flora of New Zealand*. Vol. IV. *Naturalised Pteridophytes, Gymnosperms, Dicotyledons*. Botany Division DSIR, Christchurch.

### Links

Weeds Key – interactive key to the weed species of New Zealand





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Flora of New Zealand > Magnoliopsida > Asterales > Compositae > Chrysanthemoides > monilifera > subsp. monilifera

Weed Profile

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Taxon

## *Chrysanthemoides monilifera* (L.) Norl. subsp. *monilifera*

**Habitat:** bank, clay, cliff, coast, dry, forest, gravel, hill, lava, lowland, margin, open, pasture, ridge, roadside, rock outcrop, sand, scrubland, shrubland, silt, slope, stone, terrace, wasteland

**Dispersal:** Seed

### Recognition

- an upright and slightly fleshy shrub, often found growing in coastal areas.
- it has white woolly young growth and coarsely toothed leaves.
- its yellow 'daisy-like' flower-heads usually have only five to eight 'petals'.
- its fleshy fruit (6-9 mm across) turn blackish in colour as they mature and contain a single seed.
- these seeds are bone-coloured or light brown (6-8 mm in size) and have a smooth surface texture.

[From: Environmental Weeds of Australia]

### Links

[Weeds Key](#) – interactive key to the weed species of New Zealand

### References

Biosecurity New Zealand 2008: National Plant Pest Accord. MAF Biosecurity New Zealand, Wellington.  
Biosecurity New Zealand 2012: Regional Pest Management Strategies Database.  
<http://www.biosecurityperformance.maf.govt.nz/>  
Biosecurity New Zealand 4 Aug 2011: Unwanted Organisms Register. <http://www.biosecurity.govt.nz/pests>



Distribution from the  
NZ Virtual Herbarium.  
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Research 2012





## Links

## Credits





## HTML

- monilifera

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100 km
100 mi

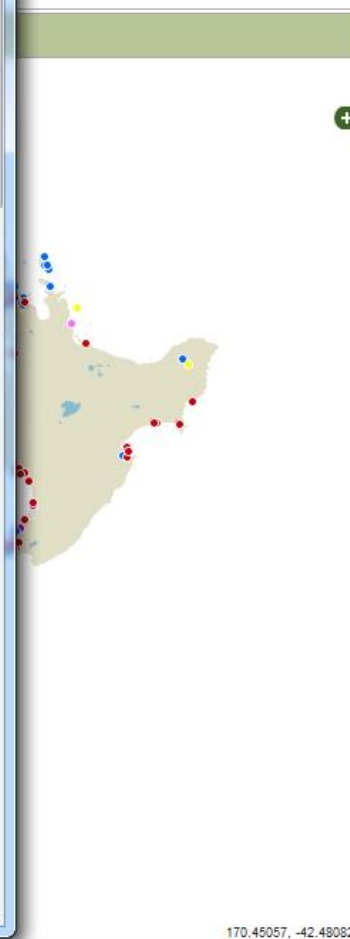
New Zealand Virtual Herbarium - Point Query Results - Mozilla Firefox

www.virtualherbarium.org.nz/point\_query?jsessionid=1604CEA9DABC9E1F451D13C64CB13333?long=174.99685788713&lat=-39.95

### Number of Point Query Results: 4

Id:	1060558
Genus:	Chrysanthemoides
Species:	monilifera
Infraspecific Rank:	
Infraspecific Name:	
Identifiable Qualifier:	
Scientific Name:	Chrysanthemoides monilifera
Herbarium:	CHR
Record Suffix:	CHR 570502
Latitude:	-39.95
Longitude:	174.99
Nearest Named Place:	
State:	Wellington Land District
Country:	New Zealand
Collection Date:	
Collector:	C. C. Ogle 4515; J. Campbell
Additional Collectors:	C. C. Ogle 4515; J. Campbell
Geocode Precision:	
Coordinate Error Method:	
Last Edited:	01/12/2004

Id:	1522669
Genus:	Chrysanthemoides
Species:	monilifera







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Environmental Impact  
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# Search occurrences

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7,465  
Occurrences

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7,465 results

Configure Add a filter

SCIENTIFIC NAME

Chrysanthemoides monilifera (L.) Norlindh

	LOCATION	BASIS OF RECORD	DATE
1084268409 · Cat. OPP560057-38 <b>Chrysanthemoides monilifera subsp. monil...</b> Published in SA Flora (BDBSA)	Australia -34.97/138.69	Human Observation	1 / 2015
1084268251 · Cat. OPP560056-56 <b>Chrysanthemoides monilifera subsp. monil...</b> Published in SA Flora (BDBSA)	Australia -34.89/138.73	Human Observation	1 / 2015
1065591010 · Cat. 1179601 <b>Chrysanthemoides monilifera (L.) Norlind...</b> Published in iNaturalist research-grade observations	New Zealand -41.30/174.83	Human Observation	1 / 2015
1084271558 · Cat. OPP561218-40			

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146

Occurrences

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146 results

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COUNTRY New Zealand ✕

SCIENTIFIC NAME Chrysanthemoides monilifera (L.) Norlindh ✕

	LOCATION	BASIS OF RECORD	DATE
1065591010 · Cat. 1179601 <b>Chrysanthemoides monilifera (L.) Norlindh...</b> Published in iNaturalist research-grade observations	New Zealand -41.30/174.83	Human Observation	1 / 2015
1088933152 · Cat. 1351400 <b>Chrysanthemoides monilifera (L.) Norlindh...</b> Published in iNaturalist research-grade observations	New Zealand -43.56/172.73	Human Observation	3 / 2015
1088941224 · Cat. 1376246 <b>Chrysanthemoides monilifera (L.) Norlindh...</b>	New Zealand -42.05/172.00	Human Observation	4 / 2015



## New Zealand Organisms Register

NZOR is an actively maintained compilation of all organism names relevant to New Zealand: indigenous, endemic or exotic species or species not present in New Zealand but of national interest. NZOR is digitally and automatically assembled on a regular basis from a number of taxonomic data providers. It provides a consensus opinion on the preferred name for an organism, any alternative scientific names (synonyms), common and Māori names, relevant literature, and the data provider's view on the documented presence/absence in New Zealand.

The NZOR information infrastructure is currently hosted by [Landcare Research](#).

The development of the NZOR infrastructure was supported by the [Terrestrial and Freshwater Biodiversity Information Systems Programme \(TFBIS\)](#).

### Taxon Names in NZOR

130,602



### Accepted Names in NZOR

95,340



### Taxa Present in New Zealand

69,018



## Background

All biodiversity information systems use the names of organisms as a fundamental identifier. Names provide the essential vocabulary by which we discover, index, manage, and share information relating to biodiversity. Access to an authoritative list of names and their relationships to species (taxa) is key to supporting information management and sharing across the conservation, biosecurity, and biotechnology sectors.

Until NZOR there was no currently no single, definitive, and maintained compilation of the over 100,000 organism names relevant to New Zealand. Because of this many agencies currently each maintain their own lists of taxonomic names in isolation from each other, in different formats, and at different levels of depth and quality. The absence of a definitive source of taxonomic names means that resources are wasted through duplication of effort; there is increased expense to end users in having to access multiple sources, and increased risk of confused decision making.





## Search NZOR

boneseed



Search

☐ Use Fuzzy Matching

The search returned 2 results (page 1 of 1)

## Refine Results

Taxon Rank

[none \(1\)](#)  
[species \(1\)](#)

Governing Code

[iczn \(1\)](#)

Name Status

[current \(1\)](#)  
[unknown \(1\)](#)

Class

[scientific \(1\)](#)  
[vernacular \(1\)](#)

Provider

&lt; Prev

Next &gt;

Full Name

20

Name

Rank

Code

Score

[Boneseed](#)

none

1.0

[Tortrix sp. Boneseed leafroller](#)

species

ICZN

1.0

# Chrysanthemoides monilifera (L.) Norl., 1943

NZOR Identifier: 0b76546c-b6a7-4669-9a01-57bfe24797f0

- Summary
- Nomenclature
- Taxon Concepts
- Subordinates
- Vernacular Applications
- Feedback

## Status

Preferred Name (NZOR Concept Id 546fa30d-f692-405a-838e-0c5b0e3ad25b)

## Classification

- kingdom [Plantae](#)
- phylum [Spermatophyta](#)
- class [Magnoliopsida](#)
- order [Asterales](#)
- family [Compositae](#)
- genus [Chrysanthemoides](#)

species Chrysanthemoides monilifera (L.) Norl., 1943

## Synonyms

[Osteospermum moniliferum L., 1753](#)

## Providers

- [NZFLORA](#)
- [Provider Contribution Summary](#)

## Biostatus

- Geo Schema Political Region
- Geo Region New Zealand
- Origin Exotic
- Occurrence Present
- Environmental Context Wild

# Tortrix sp. Boneseed leafroller

NZOR Identifier: 6553b4d8-64fc-44f3-88c2-848d8f6083d7

## Summary

## Nomenclature

## Taxon Concepts

## Subordinates

## Vernacular Applications

## Feedback

### Status

Preferred Name (NZOR Concept Id 8e664c32-061e-435b-8e4d-be5f5bdaa5ca)

### Classification

kingdom	<a href="#">Animalia</a>
phylum	<a href="#">Arthropoda</a>
subphylum	<a href="#">Hexapoda</a>
class	<a href="#">Insecta</a>
subclass	<a href="#">Dicondylia</a>
infraclass	<a href="#">Pterygota</a>
superorder	<a href="#">Neoptera</a>
order	<a href="#">Lepidoptera</a>
family	<a href="#">Tortricidae</a>
subfamily	<a href="#">Tortricinae</a>
genus	<a href="#">Tortrix</a>
species	Tortrix sp. Boneseed leafroller

### Providers

[NZAC](#)

[Provider Contribution Summary](#)

### Biostatus

Geo Schema	Political Region
Geo Region	New Zealand
Origin	Exotic
Occurrence	Present
Environmental Context	Wild

- Collection Data: <http://scd.landcareresearch.co.nz>
- NZFungi: <http://nzfungi2.landcareresearch.co.nz>
- NZFlora: <http://nzflora.landcareresearch.co.nz>
- NZInverts: <http://nzinverts.landcareresearch.co.nz>
- eFlora: [www.nzflora.info](http://www.nzflora.info)
  
- NZOR: [www.nzor.org.nz](http://www.nzor.org.nz)
- NZVH: <http://www.virtualherbarium.org.nz>
- GBIF: [www.gbif.org](http://www.gbif.org)





# Research Context of Charcterising Land Biota portfolio

- **Greater value**
- **Greater revenue**
- **Greater impact**

Initiatives



Increasing  
access, reach  
and use

Building  
relevance &  
impact

Growing the  
revenue base

Future-proofing  
the NSCDs

Shift of an additional 10% into biosecurity project

# Agreed user priorities of Characterising Land Biota portfolio

- Collections
- Capability
- eBiota
- Information delivery
- Demonstrate value and contribution of systematics to ecosystem services and biosecurity
- International context
- Maori engagement and participation
- Establish a collaborative schedule with some of the end-users (at that stage with DOC only)