Title	River Red Gum Ecological Thinning
Alternative title(s)	RRG Ecological Thinning Trial

Abstract

The ecological thinning trial aims to learn about the effectiveness of ecological thinning for addressing a range of conservation concerns associated with widespread high stem density stands and canopy dieback in *Eucalyptus camaldulensis* (river red gum) forests.

Conservation concerns tend to be highest in forest stands that are experiencing strong competition for water and other resources. This is because competition impacts plant occurrence, growth and health, with negative consequences for fauna habitat. Competition increases with increasing tree density and is greatest in high density stands with lower water availability. Ecological thinning aims to reduce competition by reducing the density of some small trees while retaining and enhancing biodiversity and habitat features.

The trial was conducted in the Millewa precinct of Murray Valley National Park in New South Wales. Prior to implementation, potential impacts to threatened entities were evaluated in a Public Environment Report and assessed under the Commonwealth Environmental Protection and Biodiversity Conservation Act 1995. The experimental design and monitoring plan for the trial was also approved by an independent scientific advisory committee.

There were a total of 22 study sites in the trial, located in a range of pre-thinning tree densities and spread between two levels of water availability (Site Quality). Within each study site, there were three 9 ha plots which were allocated to one of three ecological thinning treatments: control (no action), moderate thinning and heavy thinning. Thinning removed some trees <40 cm diameter at breast height. The intensity of thinning is best described by the proportion of trees that were removed, rather than the three thinning treatment categories.

Thinning was implemented between April 2016 and August 2017 and a range of ecological indicators were monitored before and after thinning. Baseline pre-thinning data was collected in the 2015-16 survey year and annual post-thinning monitoring was undertaken for five years, from the 2017-18 survey year until the 2021-22 survey year. Monitoring data was collected at a spatial and temporal scale appropriate to each ecological indicator.

Further details are provided within the datasets for each type of ecological indicator surveyed:

- River Red Gum Tree Size and Growth Data
- River Red Gum Tree Recruitment Data
- River Red Gum Tree Canopy Cover and Health Data
- River Red Gum Floristic Composition and Structure Data
- River Red Gum Fauna Data
- River Red Gum Litter and Woody Debris Data
- River Red Gum Fuel Hazard Data

Further information about the study design, data collection methods, and findings of the ecological thinning trial can be found within the documents below.

Resource locator

Data Quality Statement	Name: Data Quality Statement Protocol: WWW:DOWNLOAD-1.0-http--download Description: Data quality statement for River Red Gum Ecological Thinning. Function: download
RRG Ecological Thinning Publications List	Name: RRG Ecological Thinning Publications List Protocol: WWW:DOWNLOAD-1.0-http--download

Description:

List of publications from the River Red Gum Ecological Thinning Trial as of February 2025.

Function: download

2022 Monitoring Report

Name: 2022 Monitoring Report

Protocol: WWW:DOWNLOAD-1.0-http--download

Description:

PDF of the River Red Gum Ecological Thinning Trial Monitoring report (2022).

Data for this monitoring report is based on the 2021 survey year (Monitoring dates: October 2021 - February 2022).

Function: download

2021 Monitoring Report

Name: 2021 Monitoring Report

Protocol: WWW:DOWNLOAD-1.0-http--download

Description:

PDF of the River Red Gum Ecological Thinning Trial Monitoring report (2021).

Data for this monitoring report is based on the 2020 survey year (Monitoring dates: October 2020 - February 2021).

Function: download

2020 Monitoring Report

Name: 2020 Monitoring Report

Protocol: WWW:DOWNLOAD-1.0-http--download

Description:

PDF of the River Red Gum Ecological Thinning Trial Monitoring report (2020).

Data for this monitoring report is based on the 2019 survey year (Monitoring dates: October 2019 - February 2020).

Function: download

2019 Monitoring Report

Name: 2019 Monitoring Report

Protocol: WWW:DOWNLOAD-1.0-http--download

Description:

PDF of the River Red Gum Ecological Thinning Trial Monitoring report (2019).

Data for this monitoring report is based on the 2018 survey year (Monitoring dates: October 2018 - February 2019).

Function: download

2018 Monitoring Report

Name: 2018 Monitoring Report

Protocol: WWW:DOWNLOAD-1.0-http--download

Description:

PDF of the River Red Gum Ecological Thinning Trial Monitoring report (2018).

Data for this monitoring report is based on the 2017 survey year (Monitoring dates: October 2017 - February 2018).

Function: download

2017 Pre Ecological Thinning Monitoring Report

Name: 2017 Pre Ecological Thinning Monitoring Report

Protocol: WWW:DOWNLOAD-1.0-http--download

Description:

PDF of the River Red Gum Pre Ecological Thinning Monitoring Report (2017).

Data for this monitoring report is based on the 2015 survey year (Monitoring dates: October 2015 - February 2016).

	Function: download
Public Environment Report	Name: Public Environment Report Protocol: WWW:DOWNLOAD-1.0-http--download Description: PDF of the Public Environment Report: Ecological Thinning Trial in New South Wales River Red Gum Forests. Published in 2014 and revised in 2015. Function: download
Public Environment Report Appendix 1.	Name: Public Environment Report Appendix 1. Protocol: WWW:DOWNLOAD-1.0-http--download Description: PDF of Appendix 1. from the Public Environment Report: Ecological Thinning Trial in New South Wales River Red Gum Forests. Appendix contains the experimental design and monitoring plan. Function: download

Unique resource identifier

Code	211e8eaa-bb00-49d9-aa16-6b82fd8bff94

Presentation form	Table digital
Edition	Original
Dataset language	English

Metadata standard

Name	ISO 19115
Edition	2016
Dataset URI	https://datasets.seed.nsw.gov.au/dataset/211e8eaa-bb00-49d9-aa16-6b82fd8bff94
Purpose	Decision support
Status	On going
Spatial representation type	None

Spatial reference system

Code identifying the spatial reference system	4283

Additional information source	**Data Accuracy** Missing data are coded as NA. Raw data assets are provided. In the reports, data transformations may have been applied, and are indicated where relevant.

Topic category

Keyword set

keyword value	FAUNA FLORA ECOLOGY
Originating controlled vocabulary	
Title	ANZLIC Search Words
Reference date	2008-05-16

Geographic location

West bounding longitude	144.736633
East bounding longitude	145.516663
North bounding latitude	-36.13122
South bounding latitude	-35.597019
NSW Place Name	Millewa Precinct of Murray Valley National Park

Vertical extent information

Minimum value	-100
Maximum value	2228
Coordinate reference system	
Authority code	urn:ogc:def:cs:EPSG::
Code identifying the coordinate reference system	5711

Temporal extent

Begin position	2015-01-01
End position	N/A

Dataset reference date

Resource maintenance

Maintenance and update frequency	Unknown
Contact info	
Contact position	Data Broker
Organisation name	NSW Department of Climate Change, Energy, the Environment and Water
Telephone number	131555
Email address	data.broker@environment.nsw.gov.au
Web address	https://www.nsw.gov.au/departments-and-agencies/dcceew
Responsible party role	pointOfContact

Limitations on public access

Responsible party

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Metadata date

2025-02-17T03:42:20.249815

Metadata language