

Annual Waterways Report

Emu Catchment

Water Assessment Branch

2009

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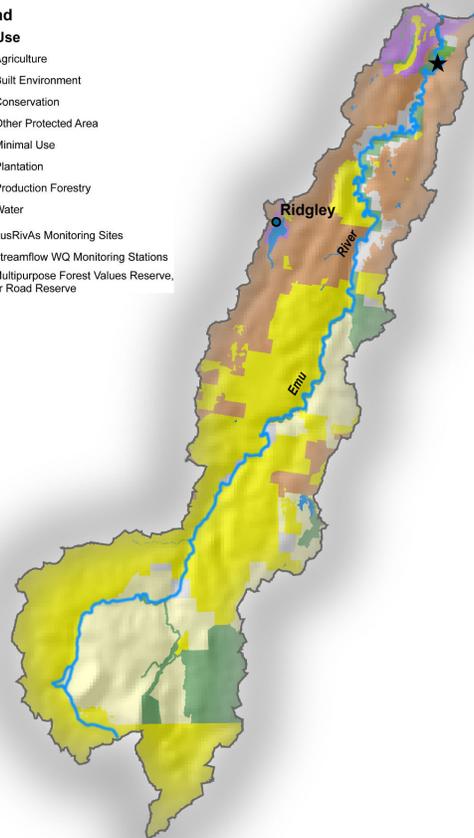
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Emu Catchment

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1. About the catchment

The Emu River catchment is a comparatively small (254 km²), narrow catchment located on the north coast of Tasmania. The Emu River (length 58 km) is the only major river in the catchment and it flows from south to north, discharging into Bass Strait at Burnie. Because of its narrow geometry, the majority of active land use is restricted to the hill tops on the east and west sides of the catchment, where intensive cropping, grazing and forestry are the main activities. Because of the steep terrain that confines the river and makes access to water from the river difficult, the majority of water used for agriculture is held in farm dams that harvest water from small feeder streams well above the main river. In addition, there are 2 larger storages in the catchment, Lake Kara in the headwaters of the catchment, and the Pet Reservoir at Ridgley in the middle of the catchment, that supply water to Burnie.

Annual rainfall across the catchment varies between 900-1500 mm.

2. Streamflow & Water Allocation

Streamflow

There are no streamflow monitoring stations maintained in the Emu River catchment as part of the DPIW state-wide monitoring network.

Water Allocation

The Emu River catchment had a total of 71,065 ML in licensed allocations for 2008. The following table shows the breakdown of the allocations.

	Total Allocation (ML)
Irrigation	1,105
Stock & Domestic	120
Water supply	12,070
Industrial	57,717
Other	53

Of the total licensed water allocation within the catchment, 16,385 ML is held within constructed storages and 54,680 ML is taken directly from rivers and streams.

Water Use Restrictions

There are no water restriction triggers in existence for the Emu River catchment.

3. River Health

The Australian River Assessment System (AUSRIVAS) is a standardised national system for assessment of river condition that uses benthic macroinvertebrates.

The AUSRIVAS models predict the aquatic macroinvertebrate fauna that would be expected to occur at a site in the absence of environmental stress such as pollution, habitat degradation or flow regulation. A comparison of the macroinvertebrates expected to occur at the test site with those actually collected (O/E ratio) provides a site specific measure of the biological impairment of the test site. Further details about AUSRIVAS can be found at:

www.ausrivas.canberra.edu.au/ausrivas



Fig: Emu River at Fern Glade Reserve.

Emu River at Fern Glade Reserve

This site, located in the lower reaches of the Emu River is within Fern Glade Reserve near the city of Burnie. The surrounding land is covered in native forest, however riparian vegetation on the right bank (looking downstream) has been partly cleared for a recreation/ picnic area which has led to minor intrusion by exotic species such as willow, blackberries and gorse. The river is 22-25 metres wide and consists of a fast run over predominantly pebble/ cobble substrate.

Combined season AUSRIVAS assessments for the riffle habitat have classified this site as equivalent to reference (Band A) on all sampling occasions to date. Combined season AUSRIVAS assessments for the edgewater habitat have classified this site as equivalent to reference (Band A) condition or above (Band X). The threatened giant freshwater lobster *Astacopsis gouldii* has also been recorded at this site on a number of occasions.

Name	Season	O/E Taxa	Band	O/E Taxa	Band
		Riffle		Edgewater	
Emu River at Fern Glade Reserve	Spr94/ Au95	1.09	A	0.95	A
	Spr95/ Au96	1.06	A	1.16	X
	Spr03/ Au04	1.03	A	1.11	A
	Spr04/ Au05	1	A	0.92	A
	Spr05/ Au06	1.06	A	1.04	A
	Spr06/ Au07	1.01	A	1.09	A
	Spr07/ Au08	0.96	A		NS
	Au08/ Spr08	0.9	A		

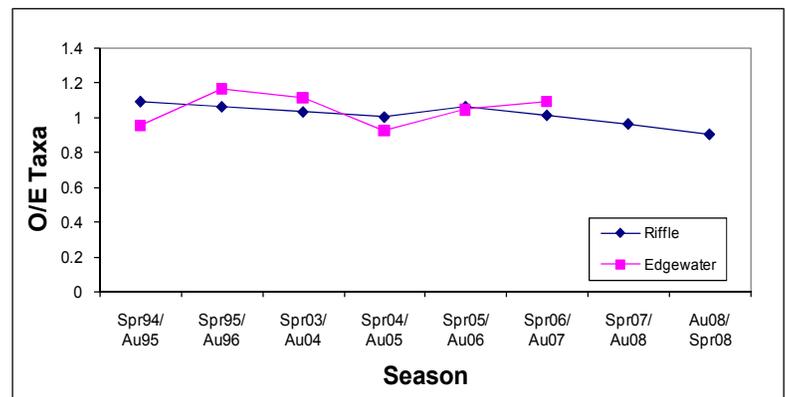


Fig: Combined season AUSRIVAS O/E Taxa scores for the Emu River at Fern Glade Reserve.