Australian Government
Commonwealth Environmental Water Holder

FLOW Monitoring Evaluation Research

We acknowledge the First Nations peoples as the Traditional Owners and Custodians of the lands, waterways and skies of the Murray-Darling Basin. We respect their continuing connection to culture and Country, and we thank them for their knowledge and science and the values reflected in these data.

Flow-MER Fish Age

Dataset name	Flow-MER Fish Age 2014-2023
Dataset citation	CEWH (2023) Fish Age. Flow-MER Program. Commonwealth Environmental Water Holder, Australian Government Department of Climate Change, Energy, the Environment and Water. Sourced from https://data.gov.au/data/dataset/flow-mer-fish-age on [date-sourced].
Description	Age of individual fish collected as part of the Commonwealth Environmental Water Holder (CEWH) Flow-MER program in the Murray-Darling Basin. Abundance and diversity of riverine fish populations are monitored annually at fixed sites within six Selected Areas using a standardised sampling regime involving boat or backpack electrofishing and fine mesh fyke nets (referred to as Category 1 sampling). These methods target large-bodied and small-bodied fish species respectively. A sample of measured individuals (length and weight) were collected for otolith sectioning and age determination to construct age vs length and weight relationships. The CEWH's Flow-MER program examines the contribution of Commonwealth environmental water to the environmental objectives of the Basin Plan 2012 (Basin Plan) and is assisting the CEWH to demonstrate environmental outcomes and adaptively manage the water holdings. Monitoring and evaluation is focused in seven Selected Areas: the Junction of the Warrego and Darling rivers, Gwydir river system, Lachlan river system, Murrumbidgee river system, Edward/Kolety-Wakool river system, Goulburn River and Lower Murray River. This Flow-MER data set includes and extends the long-term data collected at the same sites during the Long Term Intervention Monitoring (LTIM) project (2014-2019).
Currency	**Date from:** 1/7/2014
	Date to: 30/6/2023
Spatial domain	**Jurisdiction/Location:** Murray-Darling Basin
	Geographic extent: -24.586 138.568 152.489 -37.682
	Coordinate system: GDA1994, EPSG 4283
Dataset status	**Progress:** Ongoing
	Maintenance and update frequency: Annually within the life of the Flow-MER project

Attributes	Attribute Name	Description	Data Type
	Program	The name of the Flow-MER Selected Area in which the data were collected	text
	samplePoint	Name of the sampling site along a river within which the samples are located	text
	Description	Optional description of the SamplePoint	text
	Latitude	Decimal degrees	number
	Longitude	Decimal degrees	number
	sampleDate	Unique date-time stamp that is used to identify each data record.	dateTime
	evaluationCode	E1 = data collection by category 1 or 2 standard method AND processed as required for Basin evaluation.	category

		E2 = data collection by category 1 or 2 standard method AND processed for using non-standard method for selected area evaluation E3 = data collection and processing using selected area specific methods (category 3)	
	sampleType	Sampling equipment used	category
	sampleNumber	Number that identifies the net, trap or electrofishing unit within the sample point. NA if the fish was obtained from other sources or sample unknown	number
	individualID	A unique code to identify the otolith for the individual fish for which measurements are recorded.	text
	speciesName	Latin name for species of fish	text
	totalLength	Total length (in mm)	number
	forkLength	Fork length (in mm)	number
	weight	Mass (in grams)	number
	ageAdult	Age determined by examination of otolith (years)	integer
	ageLarvae	Age determined by examination of otolith (days)	integer
	comment	Optional comment to aid interpretation of each data record for the sampleDate time stamp.	text

Data quality	**Lineage:** Exported from the MDMS 19/12/2023
	Positional accuracy: Locations accurate to 4 decimals but actual monitoring data collected at these locations can be up to 1km from the nominated point
	Attribute accuracy: Direct export from the MDMS without further processing
	Logical consistency: Sample point names are unique within the program
	Completeness: Complete export from the MDMS
Access and License	**Published Data Landing Page:** https://data.gov.au/data/dataset/6630e764-1060-4fa2-a02f-5f265d31b201
	Distribution format: CSV tabular data
	Access constraints: Creative Commons license CC BY-SA 4.0 Attribution-ShareAlike 4.0 International). https://creativecommons.org/licenses/by-sa/4.0/ Attribution — You must give appropriate credit, provide a link to the license, and indicate if changes were made. You may do so in any reasonable manner, but not in any way that suggests the licensor endorses you or your use. ShareAlike — If you remix, transform, or build upon the material, you must distribute your contributions under the same license as the original. redistribute the material in any medium or format must give appropriate credit, provide a link to the license, and indicate if changes were made. You may do so in any reasonable manner, but not in any way that suggests the licensor endorses you or your use.
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Contributors	Flow-MER project – all Selected Area teams
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Custodian	Commonwealth Environmental Water Holder (CEWH), Department of Climate Change, Energy, the Environment and Water
Contact	Commonwealth Environmental Water Holder (CEWH) cewomonitoring@dcceew.gov.au

Maintainer	Flow-MER Basin scale project Shane Brooks (Flow-MER data manager) https://brooks.eco/contact
Metadata information	**Metadata date:** 4/10/2024