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 Waterbird Breeding Subsample

Dataset name	Flow-MER Waterbird Breeding Subsample 2014-2022
Dataset citation	CEWH Flow-MER (2023) Waterbird Breeding Subsample. 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-waterbird-breeding-subsample on [date-sourced].
Description	Waterbird breeding nest surveys conducted in two Selected Areas of the CEWH's Flow-MER program (the Murrumbidgee river system and Lachlan river system). Nest, egg and chick counts are made in a representative part of the wetland to characterise the colony and to estimate colony breeding success. 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: 30/6/2022
Spatial domain	**Jurisdiction/Location:** Murray-Darling Basin, Lachlan and Murrumbidgee valleys
	Geographic extent: -34.5 143.7 144.9 -33.8
	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 or in a wetland 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. 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)	category
	speciesCode	Australian Fauna Directory (AFD) identifier code	text
	speciesName	Matching bird species name for the AFD code.	text
	vegCommunity	Dominant vegetation community in which the specified species in the colony was observed.	category

	adultCountTotal	Number of adults of specified species in this colony	number
	nestCountTotal	Estimate total number of nests of this species in this colony.	number
	nestsLignum	Number of nests of this species in lignum	number
	eggCount	Number of nests with eggs	number
	chickCount	Number of nests with early stage nestlings (< two weeks old)	number
	squirterCount	Number of nests with mid stage "squirter" nestling	number
	runnerCount	Number of nests with late stage nestlings running around	number
	flapperCount	Number of nests with late stage flappers	number
	flyerCount	Number of nests with flying nestlings	number
	fledgeCount	Number of nests successfully fledged since last survey	number
	breedingSuccessRateStage	mean percent of young successfully fledged for colonial nesting species since last survey	number
	meanWaterTemp	Degrees Celsius	number
	meanpH		number
	meanSalinity		number
	meanTurbidity		number
	meanTDS		number
	meanWaterDepths	average depth in cm	number
	minWaterDepth	minimum depth in cm	number
	maxWaterDepth	maximum depth in cm	number
	comment	Optional comment to aid interpretation of each data record for the sampleDate time stamp.	text

Data quality	**Lineage:** Exported from the MDMS 27/01/2023
	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/37050c37-6603-4bc7-bc97-4bb19411307b
	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 Selected Areas: Lachlan river system (University of Canberra, NSW DPI), Murrumbidgee river system (Charles Sturt University, NSW DPI)
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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:** 8/11/2023