Australian Government
Commonwealth Environmental Water Office

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 Colonies

Dataset name	Flow-MER Waterbird Breeding Colonies 2014-2022
Dataset citation	CEWH Flow-MER (2023) Waterbird Breeding Colonies. 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-colonies on [date-sourced].
Description	Colonial waterbird breeding colonies monitored in two Selected Areas of the CEWH's Flow-MER program (the Murrumbidgee river system and Lachlan river system). These are overall statistics of the colony size (nests/individuals) and start and end dates with estimated breeding success for colonies where detailed nest observations are conducted. 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
	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 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
	colonyStartDate	Start date (inclusive) that the colony formed	dateTime
	colonyEndDate	End date (exclusive) that the colony disbanded	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	category

		E3 = data collection and processing using selected area specific methods (category 3)	
	speciesCode	Australian Faunal Directory (AFD) identifier code for the species	integer
	speciesName	Latin bird species name matching the AFD code	text
	areaColony	Area of the colony in hectares	number
	adultCountColonyTotal	Number of adults of specified species in this colony	integer
	nestCountColonyTotal	Estimate total number of nests of this species in this colony	integer
	breedingSuccessRateColony	Percentage of nests breeding successfully	integer
	disturbance	Document obvious colony level disturbance/predation to this species	text
	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/a928fb71-7128-4852-bb05-75a69c1efe21
	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.
	Copyright: ©2023 Commonwealth of Australia, Flow-MER program
Contributors	Flow-MER project Selected Areas: Gwydir river system (University of New England), Lachlan river system (University of Canberra), Murrumbidgee river system (Charles Sturt University)
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Custodian	Commonwealth Environmental Water Holder (CEWH), Department of Climate Change, Energy, the Environment and Water
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Maintainer	Flow-MER Basin scale project Shane Brooks (Flow-MER data manager) https://brooks.eco/contact
Metadata information	**Metadata date:** 8/11/2023