Title	Fish Community Baseline Monitoring in the Gingham Watercourse, Lower Gwydir River and Lower Mehi River 2024
Abstract	Changes in land use practices and water resource development have resulted in a reduction in volume, frequency and duration of flows reaching watercourses and wetlands in the western sections of the Gwydir catchment. This has resulted in a decline in the abundance and distribution of native freshwater fish across the entire valley. The Department of Primary Industries and Regional Development (Fisheries) was engaged by the NSW Department of Climate Change, Energy, the Environment and Water (DCCEEW), Biodiversity, Conservation and Science (BCS) Group to conduct baseline fish community sampling in the Lower Gwydir catchment, as part of the Gwydir Reconnecting Watercourse Country Program (Gwydir RWC Program). The main objective of the project was to collect baseline data on fish communities in the three RWC Program areas to provide information on the current state of the fish community and to assist in evaluating the effectiveness of the Gwydir RWC Program intervention measures in the future, which are proposed to include improving environmental water delivery through designated flow corridors and the removal or modification of physical constraints to improve flows to wetlands. Nineteen sites were sampled (or visited) between May and October 2024, within three areas across the lower Gwydir Valley; Lower Gwydir River (n = 5), Lower Mehi River (n = 6) and Gingham Watercourse (n = 8). In total 297 fish were caught (n = 295) or observed (n = 2) which included six native and three exotic species. The exotic species common carp (Cyprinius carpio) had the highest abundance, and the highest overall biomass of the fish sampled. Of the thirteen native species “expected” to occur, eight were not captured but, six of these are considered “rare” or “occasional” and as such there was only a low expectancy of them being caught. However, several more “common” species were also not sampled or were in extremely low numbers including Murray cod, freshwater catfish, carp gudgeon and Murray-Darling rainbowfish. Restoring the fish communities across the lower Gwydir and its associated tributaries will be a long journey requiring willingness and participation across all levels of government and society alike. Returning consistent water to the wetlands in the Gwydir and Gingham systems for longer periods and reconnecting the Gwydir system to the wider Barwon-Darling via regular whole of system connectivity along the entire lower Mehi will have both immediate and long-term benefits for fish.

Resource locator

Data Quality Statement	Name: Data Quality Statement Protocol: WWW:DOWNLOAD-1.0-http--download Description: Data quality statement for Fish Community Baseline Monitoring in the Gingham Watercourse, Lower Gwydir and lower Mehi River 2024 Function: download
Gwydir Fish Baseline Monitoring Report 2024	Name: Gwydir Fish Baseline Monitoring Report 2024 Protocol: WWW:DOWNLOAD-1.0-http--download Description: Final report of the 2024 Gwydir Fish Baseline Monitoring in the Gingham Watercourse, Lower Gwydir River and Lower Mehi River Function: download

Unique resource identifier

Code	7520b9b9-c8c4-4a48-8793-32968994eec2
Presentation form	Document digital
Edition	1
Dataset language	English

Metadata standard	
Name	ISO 19115
Edition	2016
Dataset URI	https://datasets.seed.nsw.gov.au/dataset/7520b9b9-c8c4-4a48-8793-32968994eec2
Purpose	Baseline monitoring
Status	Completed
Spatial representation type	None
Spatial reference system	
Code identifying the spatial reference system	4283
Topic category	

Keyword set

keyword value	FISHERIES-Freshwater ECOLOGY-Community WATER-Wetlands
Originating controlled vocabulary	
Title	ANZLIC Search Words
Reference date	2008-05-16

Geographic location

West bounding longitude	148.767242
East bounding longitude	149.761505
North bounding latitude	-29.606223
South bounding latitude	-29.209039
NSW Place Name	Gwydir wetlands

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	2024-05-26
End position	N/A

Dataset reference date

Resource maintenance

Maintenance and update frequency	Not planned
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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Responsible party role	pointOfContact

Metadata date

2025-03-31T09:55:03.366508

Metadata language