

Downstream – The River Murray in South Australia.



Teachers' Kit: Primary School



Notes for teachers

Studying the history of yesteryear, we as educators are challenged by the balance of historical fact and ever-changing social norms and values.

The website *Downstream: the River Murray in South Australia* focuses on the River Murray in South Australia, celebrating its history, places and people, issues and events, and recognising the challenges to its survival and efforts made to meet those challenges.

The following SACSA Society and Environment Insites Topics from the early years and primary years bands are covered:

Special places; community history; aspects of environment; Aboriginal Dreaming; land, people and spiritual connection; human impact on environment; ecosystems and habitats; biodiversity and invasive species; and catchment care.

Learning activities for Primary Students

Aboriginal Australians and the River

Aboriginal Australians have lived in the Murray-Darling river system for many thousands of years, and Europeans for less than 200. They lived in harmony with the land and the river's cycles of flood and drought. The river provided them with fish and crustaceans, and other foods; the river red gums provided the bark for

their canoes and for shelter. They built elaborate fish traps and made nets for catching fish and birds. The Aboriginal Dreaming stories tell of the creation of the river and its creatures.

The creation story told by the Ngarrindjeri people of the lower Murray and Murray mouth, describes how when Ngurunderi saw Ponde, the giant Murray cod, he jumped up and grabbed his spear but Ponde headed downstream. Ponde was so big and fast that when he swam, he carved a little River Murray into a large waterway with high cliffs and sweeping bends. A chase ensued creating a waterway all the way down to Lake Alexandrina. Ngurunderi's brother-in-law also joined the chase and cut Ponde into little pieces and threw them into the water to create the different fish of Lake Alexandrina: silver bream, callop, mullet, mulloway and others. The Aboriginal people along the river and lakes did not of course call it the Murray or Lake Alexandrina. Can you discover some of the names they used for these places? (See Aboriginal life along the Murray.)

- Read some Dreaming stories from the Ngarrindjeri people. Ask at your school library or your local public library. Share the stories with the rest of your class.
- Ian Abdulla has written and illustrated children's books looking at life on the River Murray:

As I grew older: the life and times of a Nunga growing up along the River Murray. Norwood, S. Aust.: Omnibus Books, 1993

Tucker. Norwood, S. Aust: Omnibus Books, 1994

Discuss why the River Murray is so important to the present day Ngarrindjeri people.

Explorers and Exploration

Classroom discussion

What is an explorer?

- Do you know any explorers?
- Are there places in your local community that your class could go exploring? — a reserve, park, wetlands or beach.
- If you were to plan an excursion or go on a camp, what would be on your list of things to take?

European discovery of the River Murray

The explorer Captain Charles Sturt navigated the rivers Murrumbidgee and Murray all the way downstream to the sea. On 14 January he entered a new river from the Murrumbidgee which he called the 'Murray' after Sir George Murray, Secretary of State for the Colonies. On 23 January 1830, he passed the junction of another river which he correctly deduced to be the Darling, and which he had discovered on his expedition of 1828. Sturt reached the sea on 12 February 1830.

- Using the *Australian Encyclopaedia* in your school or public library, write a brief biography of Captain Charles Sturt.
- What risks might have been faced by early explorers of the River Murray?

Some of the other explorers of the River Murray included Hamilton Hume and William Hovell, Collet Barker, and George Gawler.

Alternatively, you can find more information on *Downstream: the River Murray in South Australia* about these explorers in the section on European Discovery.

The River as a Highway

Documenting your exploration

The early exploration of the River Murray was recorded on river charts and maps.

River Charts

The captains of the paddle-steamers on the Murray-Darling river system used maps that were hand-drawn and reflected the ever changing nature of the rivers with their sandbanks, snags and billabongs.

In 1858, the upper reaches of the river system were partly surveyed and a map produced at the scale of four inches to the mile, but in the main, the captains preferred to use their own. The South Australian government placed a snagging steamer on the river to clear it of the worst of the snags, but one vessel could not be expected to cope with the entire length of the river. Like icebergs, the bulk of snags was underwater, and would always be a source of danger.

The steamer captains' answer was to prepare long cloth scrolls with charts that detailed the river — mileages, dangerous snags, sandbanks, stations, woodpiles, wool sheds, billabongs and more. These could be unwound as the riverboats passed by.

Many captains mounted their charts in a special box in the wheelhouse and turned the chart on rollers. Additions could easily be made to these charts. Not many of the charts survive today, but those that do are a testament to the nature of the major Australian river system, and the hazardous 'highway' of the past.

An example of a river chart is on display in the State Library's Treasures Wall. ***Chart of the Murray River between Funnel Bend and Echuca***, c.1880. This particular chart was recorded in ink on calico.

<http://www.slsa.sa.gov.au/exhibitions/riverroll.htm>

There is also a river chart on display in the Mortlock Wing's shipping exhibition.

Class activity

Make your own river chart or roll map out of fabric (e.g. calico) or paper

- Make a roll map of your local area. (The school environs and surrounds or your journey to school).
- Make a river chart of a river, creek or wetland near to your school.
- Identify the main points of interest (bends, bridges, trees and animals) of the area on your map.

Look at the different types of transportation

- Aboriginal Australians traditionally made bark canoes to use for fishing and trading.
- European settlers established trade routes using paddle- steamers, barges and ferries.
- Present day recreational transportation – powerboats, houseboats, canoes/kayaks, yachts, jetskis.

Computer activity

Search the State Library's photographic collection through the South Australiana database under "collection of pictorial material" and type "Godson".

This collection of photographs shows the different types of transport that are or were used on the River Murray.

You can find more information about different types of transportation on *Downstream: the River Murray in South Australia* under the 'River as a highway'.

Did You Know?

Bushrangers

Transport of people and goods between the colonies followed the course of the River. Overland Corner was a junction for the coach road, and local tradition claims that bushrangers roamed the area.

Find out more about bushrangers; think of some you already know.

European settlement

Take a trip along the Murray
Computer activities

- Select some places along the River Murray.
- Then search the State Library's photographic collection for your chosen place(s) on the South Australiana database under "*collection of pictorial material*".
- Individuals or groups could research a town or settlement along the River. Find out more about the place, people and events that have shaped it. The research could be supplemented with photographs from the South Australiana database.
- Alternatively, view the slide show on *Downstream: the River Murray in South Australia*, and select a town of interest.

Irrigation and exploitation

"Desert wild to fruitful plains"

In 1887, the Chaffey Brothers established the first irrigation settlement in Australia at Renmark.

Canadian George Chaffey was an irrigation expert who had experience in the United States turning desert areas into productive farms. This expertise was in demand and both South Australia and Victoria were keen to work with the brothers to establish irrigation settlements in their colonies. South Australia successfully secured their services by offering 100,000 hectares of land at Renmark, followed by Victoria with 100,000 hectares at Mildura.

The Mallee country was soon transformed with land clearing, excavation channels and pumping stations, and blocks were planted with seedlings which would establish grape and citrus growing industries.

In the early 1900s, dried fruits industries were developed at Renmark and Mildura, and the South Australian Government began to establish irrigated fruit blocks in the Riverland at Kingston, Waikerie, Moorook, and Ramco.

What new crops could be grown along the river, with the aid of irrigation?

Choose a feature crop to undertake research and find out more about crop cultivation and production:

- Grapes, sultanas, raisins
- Citrus – oranges, lemons, mandarins, tangelos, grapefruit etc.

Look at the sorts of things you could put in your lunch box from produce grown in the Riverland.

The problems with irrigation

Trees which are deep rooted were cleared to make way for shallow rooted plants like grapes and vegetables, over time this causes the water table to rise bringing up salt.

Salination - pouring extra water onto the ground also raises the underground water level. Salt which rises kills most plants. Salination is one of the major environmental problems that Australia faces.

Interfering with the River's natural cycle affects the regeneration of fish, birds and native plants because water quality is affected.

Alternatively, find out more about the Chaffey brothers and the types of crops grown in the vineyards and orchards on *Downstream: the River Murray in South Australia* under the section Irrigation and exploitation.

The dwindling river

Look at the photograph below.

- What stories are being told? - dead porpoise found at Taillem Bend.
- How did the porpoise or dolphin get to Taillem Bend?
- Where is the dolphin's natural habitat?
- What reasons may have lead to its death?



South Australiana database PRG 1258/2/201

Schoolboys standing around a large dead porpoise caught at Taillem Bend,
27 August 1927.

Look at the photograph below of fishermen holding a Murray cod.

When Europeans discovered the Murray River it was abundant with fish species including redfin, yellow perch, Murray cod, catfish and Murray crays. But within a few decades fish species began to dwindle.

Discuss some of the reasons – overfishing, degradation of habitats, salinity?



South Australian database PRG 1258/2/2508

Two fishermen holding a large cod caught on the lower River Murray c. 1925

Fauna

Find out more about some of the fauna of River Murray:

Birds
Pelicans
Magpies
Cockatoos
Emus

Mammals
Kangaroos
Wallabies
Possums

Reptiles
Snakes
Lizards
Goannas

Fish and crustaceans
Murray cod
European carp
Redfin
Catfish
Yellow perch
Mulloway
Silver Bream
Callop
Mullet
Murray cray

When the European settlers arrived, they introduced new species of animals, birds and fish into the Murray's ecosystem.

- Which animals and fish have been introduced by Europeans?
- What problems does their introduction create?
- Why do you think they were introduced?

Who 'owns' the Murray?

Who 'owns' the River Murray has been an ongoing debate from early colonial times, continuing into the 21st century.



This cartoon depicts George Reid, the Premier of New South Wales, bathing in the middle of the River Murray and stating 'There is only room for one Colony in this stream'. South Australian delegates to the Federal Conventions—Charles Cameron Kingston, Josiah Symon and John Downer—look on longingly.

Look how South Australia is depicted in the cartoon to the left. 'More riparian rights,' *Critic* 5 February 1898. Is it still the same for today as it was then?

What are the issues or topics that come out of the cartoons? Compare and contrast them from the past to the present.

River Murray Focus

The Bunyip

Bunyips: real or imaginary?

There are many mythical creatures from around the world: the Loch Ness Monster in Scotland, dragons in China, yetis in Tibet.

The River Murray has the Bunyip.

What do you think a Bunyip looks like?

Descriptions of the Bunyip vary. It has been described as being covered in shiny black hair, has fierce eyes, groans and bellows at night and eats people.

Some believe that Bunyips may have been one of the Megafauna from Ancient Australia which Aboriginal people may have seen.

Bunyip stories may have been told to stop children from swimming in dangerous parts of the river.

Some recent picture books written about Bunyips include:

Hurst, Elise. *A dream of bunyips dancing*. Port Melbourne: Lothian, 2002

Scott, Mavis. *The bunyip in the billycan*/ illustrated by Pat Freestone. Nundah, Qld.: Jam Roll Press, 1991

Wignell, Edel. *The midnight monster*/ illustrated by Rory Stapleton. Flinders Park, S. Aust.: Era Publications, 1998

Some suggested reading

Abdulla, Ian. *As I grew older: the life and times of a Nunga growing up along the River Murray*. Norwood, S. Aust.: Omnibus Books, 1993

Abdulla, Ian. *Tucker*. Norwood, S. Aust.: Omnibus Books, 1994

Fatchen, Max. *The river kings* / illustrated by Clyde Pearson. London: Methuen Childrens Books, 1980

Hurst, Elise. *A dream of bunyips dancing*. Port Melbourne: Lothian, 2002

Nicholson, John. *The mighty Murray* / written and illustrated by John Nicholson. Crows Nest, NSW: Allen & Unwin, 2002

Scott, Mavis. *The bunyip in the billycan* / illustrated by Pat Freestone. Nundah, Qld.: Jam Roll Press, 1991

Thiele, Colin. *River Murray Mary*. South Melbourne, Vic.: Lothian Books, 2002

Thiele, Colin. *Storm-boy* / drawings by Robert Ingpen. Adelaide: Rigby, [1974]

Wignell, Edel. *The midnight monster* / illustrated by Rory Stapleton. Flinders Park, S. Aust.: Era Publications, 1998

Contacts

For further information about these topics and others, please check our catalogues by visiting the State Library homepage: www.slsa.sa.gov.au or contact (08) 82077250 or SA country callers (Freecall) 1800 182 013.

For school tours, please contact our Education Liaison Officers on:

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Or visit the [Services for Teachers](#) section on the State Library's homepage.