Coast and marine

Loan library resources:
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1. Educator resources

**Adventures by the Sea** (ring-bound card set)
2018, NaturePlay SA

“This guide has been developed by Nature Play SA in collaboration with a range of experts and South Australian families. It aims to provide families of any skill level with inspiration, knowledge and ideas to explore and discover new things along the coastline. *Adventures by the Sea* has something for all ages and is packed full of activity ideas, beautiful photographs, fun facts and over 200 watercolour illustrations. We hope the guide ignites the curiosity, imagination and adventurous spirit of both children and adults alike.”

**Estuarine Monitoring** (technical manual)
2006, Australian Government

This module provides guidance and technical support to the Waterwatch community monitoring network engaged in estuarine monitoring. It includes background on estuaries; methodologies, recording sheets and background information for observations and events, physical and chemical parameters, vegetation and habitat and animal life; and a bibliography and references. It forms part of the Waterwatch Australia National Technical Manual.

**A.B.Sea: a cross-curricular coastal and marine studies planning guide level 1-5 (prep-Year 8)** (book)
2001, Gould League of Victoria

“This book aims to increase knowledge, understanding and appreciation of the values of marine and coastal ecosystems. It aims to stimulate a social sense of responsibility and generate positive action towards conservation of marine environments...It is designed as a practical guide to assist in planning and implementing coastal and marine studies into your school curriculum. It brings together a selection of teaching ideas that may be adopted, used selectively or adapted to suit individual needs, when writing your own programs or units of work.”
Community Estuarine Monitoring Manual (technical manual)
2007, Environment Protection Authority

“The monitoring framework presents a range of activities that community groups may wish to explore. The activities are designed with the goals of helping the community understand their estuary and providing simple yet reliable data about the condition of the estuary. The activities are broken into core and extension activities...Core activities should result in a good level of understanding of estuarine processes while yielding reliable data on common estuarine parameters... The extension activities should provide a deeper understanding of estuarine processes and yield a wider range of information about the functioning of the specific estuary being studied.”

Rusty Loses His Loop Kit (kit)
2006, River Murray Urban Users
Early Years +

This well written and beautifully illustrated story book introduces students to Rusty the Red Neched Stint who returns to the Coorong each year to find the situation is getting worse. Too much water is being taken out of the River Murray! The story book raises issues under the themes; water conservation, ecosystems, habitat and natural resources, which teachers can explore with their students through the accompanying unit of work. Kit includes 15 copies of the book and a copy of the Teacher’s Resource.

One in a Thousand: the Miraculous Life of the Sea Turtle (kit)
2006, Hatchling Productions and Bellidi Consultancy
Primary Years

This resource has some great short film stories that teachers will find useful for raising student awareness about the plight of our threatened sea turtles. The main story (35 minutes) is about a teenager named Sam who finds a stranded turtle on a beach. Her decision to rescue the turtle leads her on a voyage of discovery about the miraculous life of these graceful sea creatures. Other useful topics covered on the DVD are the classification and biology of sea turtles.

The accompanying education kit has some useful worksheets on sea turtle classification. However, teachers may find many of the remaining worksheets limiting as they are not structured to encourage higher order thinking. Worksheets include find-a-words, colour-ins, paint and craft activities, fill in the gaps and word definition activities.

Adelaide Dolphin Sanctuary Education Resource (kit)
2005, Department for Environment and Heritage

This resource has been designed to provide a framework of discovery with questions, information, activities and environmental actions people can take part in to protect the urban Bottlenose Dolphins and their habitat. A4 spiral bound book and A5 booklet.
Our Valuable Estuaries: Teaching Resources for Primary Schools  
(CD ROM)  
2005, Ocean Watch Australia  
Primary Years  

Based on the former NSW Year 3/4 curriculum this CD - ROM will still prove useful to SA teachers. Students are guided across an animated catchment scene by Nirimba the pelican, who provides commentary on a range of land uses and their impacts on Estuaries. A unit of work containing 6 lesson plans is provided to help students understand the importance of estuaries and the threats that estuaries face. The unit follows an action-based approach which concludes in students determining strategies to improve the health of their local estuary. Photos of different land uses, and blackline masters of colouring and puzzle sheets are also included.

Community Estuarine Monitoring Manual  
(technical manual)  
2003, Waterwatch Queensland  

“This manual has been developed to provide community groups in Queensland with simple and efficient methods for monitoring the health of estuarine and coastal habitats, and to standardise the methods being used. The consistent use of proven standardised methods will result in the collection of better quality data, enabling spatial and temporal data to be compared.”

Leafy Seadragon Education Kit: Primary Schools  
(book)  
2001, Marine Discovery Centre/NPWSA/Coast Protection Board  

Activities and resources for R-Yr2, Yr3-5 and Yr 6-7 with the following objectives: to learn about the leafy seadragon and its habitat, to learn about how special the southern temperate area is, to understand what is found at the beach and where it comes from, to empower students and community members to use better environmental practices, to understand the difference between stormwater and sewage and to understand more about catchments, estuaries, marine, coastal and conservation issues.

Exploring the Oceans  
(book)  
1998, Gould League and VAEE  
Middle Years  

An activity-based curriculum guide for SOSE Yr 7-10. The topics and activities in this book have been designed to grab and maintain student interest. Topics include Exploration, The Deep Sea, Tides, Climate (including El Nino), The Sea as a Natural System, Whales, The Law of the Sea.

Port River Marine Watch  
(book)  
Coastcare/The City of Port Adelaide/Enfield  
Primary Years+  

“A holistic environmental monitoring project for the Port River and environs, targeting schools within the Le Fevre Peninsula.” Includes background information, activities and photographs.
Caring for the Coast: Coastal Activities for Primary Schools (folder)
City of Henley Beach and Grange
Middle Years+

“The kit contains a teachers guide with student activity sheets and background information. Focuses on how to protect coastal environments. Habitats are most coasts, with a focus on temperate zones of South Australia. Features black and white activity sheets and teacher background information on coastal wildlife and plants. Glossary. Marine Education and aspects of Science and Society and the Environment in upper primary classes. An excellent resource which encourages students to take actions to protect their coast. Written by educators to cover the gap in appropriate material on S.A.”

2. Student resources

Seadragons and their friends: a guide to Syngnathidae fishes in South Australia (book)
2014, Conservation Council SA
Primary Years +

This guide describes 30 syngnathid species - weedy and leafy seadragons, pipehorses and pipefish - their appearance, distribution, habitat, reproduction and vulnerability. Includes colour photographs and a glossary of terms.

Marine Discovery Centre Storybooks (A5)
Marine Discovery Centre
Early Years - Primary Years +

This set contains six books:
- Port Jackson shark - PJ99
- Beach Walk
- Marine Discoveries
- Rockpool Adventures
- Seahorse Story
- Sea Snails and friends

Beach Walk and Sea Snail and friends are also available as big books in a set of 2

Surf Rider Joe (book)
2011, Snorkelworks Kids
Primary Years +

“Dive into an ocean adventure with Surf Rider Joe and his friends as they solve the mystery of a creepy, stinky, slimy, sludge oozing into Sea Turtle Bay. The local turtles are sick, fish are gasping, squid are choking and shellfish are closing their shells. This underwater neighbourhood needs help fast!”
Oil Spill (book)
1994, HarperCollins
Early Years +

“Did you know that an oil spill occurs somewhere in the world almost every day of the year? Oil spills can have many different causes, but the result is the same. Oil harms plants and wildlife that make the oceans and coastlines their home. Scientists are learning the best ways to combat oil spills. Learn how you can help, too!”

Rusty Loses His Loop Kit (kit)
2006, River Murray Urban Users
Early Years +

This well written and beautifully illustrated story book introduces students to Rusty the Red Necked Stint who returns to the Coorong each year to find the situation is getting worse. Too much water is being taken out of the River Murray! The story book raises issues under the themes; water conservation, ecosystems, habitat and natural resources, which teachers can explore with their students through the accompanying unit of work. Kit includes 15 copies of the book and a copy of the Teacher’s Resource.

Tidal Pools (book)
1999, MacMillan Education Australia
Early Years

Animals that live in rock pools. 16 pages.

Australian Guide to Seashores (books)
Early Years - Primary Years

Set of 10 copies. “An invaluable guide for junior seashore explorers, this book helps to identify and learn about many beachwashed objects and rockpool creatures. Loads of interesting facts are presented in a clear, colourful and highly accessible way, sure to enrich any seashore experience. The Australian Guide to Seashores was the winner of the 1999 Wilderness Society Environment Awards for Children’s Literature.”

Coastal Wildlife
1983, Gould League Victoria
Middle Years+

“An interactive book which informs the reader of the make up and dynamics of a range of marine ecosystems around the coasts of Australia. Excellent diagrams and colour plates of plants and animals; concise and informative information. Though written for junior science, this is frequently used by secondary science classes because of it’s simple explanations and graphics. Excellent and easy to understand resource for teachers and students. Effective illustrations and tables.”
3. DVDs and CDROMs

The amazing adventures of Gavin, the Leafy Seadragon DVD or DVD+Educator’s Resource
2006, SA Film Corporation, Coast Protection Board, DEH, Marine Discovery Centre and Waterline Productions, 16mins
Early - Primary Years

“From white pointers to nudibranchs, cuttlefish to sea lions, Gavin, a leafy seadragon, rubs fins and swaps yarns along South Australia's magnificent coastline as his adolescent journey of self discovery leads him home.” Animation.

Beyond the Coast: Preserving Southern Australian Reefs (DVD set)
2006, SARDI/Flinders University
Primary Years+

Part of the Beyond the Coast DVD set. Three short films by Masters students in Natural History Film Making ranging from a mockumentary about the secret life of divers, to the journey of a discarded drink bottle as it makes its way to the sea.

Beyond the Coast: Exploring Southern Australian Reefs (DVD set)
2005, SARDI/Flinders University
Primary Years+

Part of the Beyond the Coast DVD set. Four short documentaries by Masters students in Natural History Film Making covering topics from an insight into the unique species and systems that make up southern Australian waters to the role of macroalgae in energy cycles of the marine environment.

4. Posters and identification charts

Marine Food Chains (poster set)
Marine Parks SA
Early Years+

These two posters (eight copies of each) show five links in the marine food chain for each of the following South Australian marine habitats: sandy beach, rocky shore, sandflats and mudflats, mangroves, estuaries, seagrass bed, rocky reef, open sea, kelp bed and sea floor.
Climate Change and the Reef (poster set)
2009, Great Barrier Reef Marine Park Authority
Middle Years

This set of eight A3 posters explores the connections between the health of the Reef and Climate Change. Issues covered include coral bleaching, ocean acidification, fish populations, sea turtles, see birds and what you can do. Animations that complement these posters can be downloaded from this web site:
http://www.reefed.edu.au/home/reefbeat/climate_change_and_our_great_barrier_reef

Plants of Greater Adelaide Estuaries (chart)
2005, Delta Environmental Consulting/Waterwatch

Set of 15 copies. Laminated colour A3 charts with drawings of common plants found from sub-tidal to above high marsh areas of estuaries. Includes information on the back about these groups of plants.

Terrestrial Macroinvertebrates of Greater Adelaide Estuaries (chart)
2005, Delta Environmental Consulting/Waterwatch

Set of 15 copies. Laminated colour A3 charts with drawings of common species found in our estuaries such as flies, moths, bettles and ants. Greater detail about Adelaide’s native butterfly populations is found on the back of the poster.

Birds of Greater Adelaide Estuaries (chart)
2005, Delta Environmental Consulting/Waterwatch

Set of 15 copies. Laminated colour A3 charts with silhouettes of 30 birds commonly found in and around Adelaide’s estuaries and coastal wetlands. Grouped by behaviours e.g. waders, diving fishers and aerial hunters. Includes information about threats to estuarine birds and identifying aerial hunters in flight.

Macroinvertebrates of Greater Adelaide Estuaries (chart)
2005, Delta Environmental Consulting/Waterwatch

Set of 15 copies. Laminated colour A3 charts with common species of snails, crustaceans, seastars, bristle worms, anemones, and moss animals. Information about energy cycles, taxonomy and references are provided on the back.
Adelaide’s Living Beaches: Coastal Management Poster Pack (poster)
DEH
Early Years+

Set of 5 laminated A3 posters and A5 fact sheets depicting coastal processes and issues along Adelaide’s metropolitan coast line. The living coast, beach values, coastal management, sand management to date and human impacts on the coast.

Plants of the Onkaparinga sand dunes/Plants of the Onkaparinga Estuary (chart)
Waterwatch Adelaide - Catchment Connections Resource
Primary Years+

Set of 15 copies. Laminated colour A3 charts featuring photographs of 21 common sand dune plants (native and invasive weeds) and 15 photographs of common estuary plants, grouped by riparian and wetlands, mudflats and seagrass.

Birds of the Onkaparinga Estuary/
Macroinvertebrates of the Onkaparinga Estuary (chart)
Waterwatch Adelaide - Catchment Connections Resource
Primary Years+

Set of 15 copies. Laminated colour A3 charts featuring drawings of 21 common birds of the Onkaparinga Estuary, grouped by shallow water, deep water, wetlands and migratory. Backed by photographs and black line drawings of 12 common estuarine macro-invertebrates grouped by gastropods, bivalves and crustaceans.

Seagrasses of South Australia (chart)
Coastal Protection Board
Primary Years+

Set of 15 laminated A3 charts with a key of common seagrass species of SA, plus information about seagrass plants, their values as habitat and for coastal stability, as well as threats to their survival.
5. Books

**Reef Fishes of Conservation Concern in South Australia**
2011, Janine Baker and the AMLR NRMB

“The coastal waters of South Australia (SA) are home to dozens of different reef fish species. This booklet provides information about 23 of those species, plus one multi-species group of related fishes, but excludes reef fishes known mainly from deeper continental shelf and slope waters, such as Knifejaw *Opelognathus woodwardi* and the potentially threatened Ocean Leatherjacket *Nelusetta ayraudi*.”

**Mangroves to Mallee: the complete guide to the vegetation of temperate South Australia**
2009, Greening Australia

“Mangroves to Mallee is a comprehensive field guide to the vegetation of South Australia’s southern agricultural districts. With over 1,000 full colour images, it features 56 vegetation communities, 386 native plant species and 112 weed species. The format has been specifically designed for those with an interest in protecting and restoring native plant communities, and it aims to assist students, land managers, field officers, community groups and volunteers to improve their understanding of local bushland areas.”

**Gulf St Vincent: a precious asset**
2009, Friends of Parks Inc/Friends of Gulf St Vincent

“This document describes the Gulf as it was when Colonel Light selected a site for Adelaide, what it is like now, and what it could be in the future. It is intended to be both informative and thought provoking, increasing the awareness of the South Australian community and its government agencies of the need to protect this very precious resource.”

**Coastal Marine Ecology of Temperate Australia**
1995, UNSW Press

“Twenty-four contributors from around Australia have developed this important, new and up-to-date text, introducing marine ecology to undergraduate students in biology, zoology, ecology, environmental science, natural resources management, marine science and fisheries programs. It will also be invaluable to people already working in those fields and anyone with an interest in our rich and diverse coasts.”

**A Field Guide to Crustaceans of Australian Waters**
2002, Western Australian Museum

This book “is a complete summary of Australia’s known crustaceans. It is the only book of its kind...This second edition incorporates up-to-date information, checked by world experts, and even features the recently discovered subterranean crustaceans, some of which have never - literally - seen the light of day.”
Where river meets sea
2004, CRC for Coastal Zone, Estuary and Waterway Management

“Decisions about the use and management of our estuaries are made everyday at a local level. This handbook aims to enhance estuary literacy among Australians, building our knowledge and interest in championing the cause of estuary protection and management. Importantly, this book hopes to dispel the myth of the ‘away’ place. What runs off our catchments, flows through our rivers and is flushed down drains from our everyday activities ends up in our estuaries. The challenge is to do whatever we can in our everyday activities to protect the health of the estuaries where we live, work and play.”

Protected Marine Species Identification Guide
2004, Oceanwatch

Colour photographs of protected marine species with scientific names, distribution and status, including species of turtles, sharks, cetaceans, seahorses and seabirds. “All the species shown in this booklet are protected under the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act).”

The Port River
2001, City of Port Adelaide Enfield

“The stories that are told here are personal and authoritative. They capture the heart of Port Adelaide, but they are not simply romantic reminiscences of days gone by. In great detail they explain the love so many people have for this place, why it inspires such deep feelings in those who continue to live and enjoy their lives here.”

The Fish Habitat Handbook - How to Reduce the Impacts of Land-Based Development on South Australia’s Fish Habitats
2001, PIRSA

“To keep fish habitats healthy, coastal managers, councils and communities need to be aware of how land-based activities can threaten aquatic life. The Fish Habitat Handbook identifies the activities that can cause adverse effects, and explains why these threats occur. The Handbook contains a series of checklists for councillors to refer to during the evaluation of development proposals.”

Sea creatures and sea shores: an underwater guide to the Gulfs of South Australia
Peter R Day Resource Strategies

“There is a wonderful underwater world to be discovered at Adelaide’s doorstep. This book will help people understand the creatures they see underwater and on the seashore - and their intriguing relationships with each other and their environment. Developed by local divers for local divers, snorkellers and beachcombers, Sea Creatures and Sea Shores describes and illustrates the creatures most commonly seen underwater; presents information on the biology and ecology of different species (how they function and interact); provides advice on where to go for good diving and snorkelling experiences.”
Australian Marine Habitats in Temperate Waters
2001, Reed New Holland

This book “features the 10 major habitats found around the world’s cooler coasts. In an easily understood way it summarises the most up-to-date knowledge of the ecological processes at work there. Inanimate forces that mould the living inhabitants of temperate seas are described and interactions between organisms examined. The effects of human interference that disrupt and threaten these natural systems are emphasised in a clear and readable manner.”

A photographic guide to seashore life of Australia
1998, New Holland

“Compact, easy-to-use format; the ideal pocket-size travelling companion. Authoritative text describing key identification features. Full-colour photographs illustrating a total of 232 species or groups. Thumbanil outlines of each major group enabling quick identification.”

Beach Plants of South Eastern Australia
1991, Sainty and Associates

“Beaches - sun, sand and surf - a luxury often taken for granted. But like all good things they need to be defended, and the defense of our beaches is fought for us by the plants that grow there. This is a book about those plants. So next time you go down to the beach look around at the front line troops. This book will help you know them better. Well illustrated, it was prepared by botanist Roger Carolin, longtime Associate Professor at Sydney University, and plant ecologist, Peter Clarke.”

Under southern seas: the ecology of Australia’s rocky reefs
1999, UNSW Press

In this book “leading marine biologists look at our current understanding of the ecology of subtidal reefs and their fisheries. Accessible yet authoritative, this comprehensive volume includes chapters on sharks, rock lobsters, abalone and fishes, as well as many of the less familiar inhabitants of rocky reefs. More than 200 outstanding colour photographs and illustrations accompany the text.”

6. Reports

Adelaide and Mount Lofty Ranges Natural Resources Management Region: Estuaries Information Package
2007, Department for Environment and Heritage SA

This report highlights features of the estuaries of the AMLR region, including estuary type, management responsibilities, habitats, bird and fish species, assets and threats and several case studies. Also available online.
Metropolitan Adelaide and Northern Coastal Action Plan 2009, Volume 1 and Volume 2
2009, AMLR NRMB/DEH

The goal of this study is to understand and facilitate the conservation, protection and maintenance of the Adelaide and Mount Lofty Ranges NRM (AMLR NRM) natural coastal resources from Sellicks Beach to the Port Wakefield Proof Range, and to establish conservation priorities for places and areas within the region. In addition, the report outlines suggested actions to address threatening processes at specific locations within the region. The report has been divided into two volumes.

Volume 1 of this report includes the rationale for the study, the data on which it is based (in appended spreadsheets), the methodology of valuing the data and placing it on digital maps; together with regional overviews of conservation values and threats.

Volume 2 presents the results of the GIS study for the region Chapter 7: GIS results for each coastal sub-region, or 'cell', the results of field and desk based investigation, as well as consultation with key players. Actions to reduce threats are proposed, and prioritised from the conservation and threat analyses. Thus description, conservation values, threats and actions are brought together at the local level, but within a regional context. It is hoped this will assist individuals, groups and organisations working on sustainable management of coastal areas at the local scale. Chapter 8 builds on the assembled local conclusions and actions to propose regional actions.”

The Adelaide Coastal Waters Study: Final Report, Volume 1, Summary of Study Findings, November 2007
2007, CSIRO

Adelaide Coastal Waters Study sought to “develop the understanding needed to redress the issues of seagrass loss, seafloor instability and poor water quality along Adelaide’s metropolitan coast.... The Final Report integrates a large amount of knowledge derived through the Study, most of it delivered through local areas of expertise - original work that discovered important relationships between Adelaide’s coastal ecosystem and its range of inputs.” Also available online.

Notes

Please refer to our equipment list for monitoring equipment for water quality and microplastics. There are also identification charts available for common estuarine birds, plants and macro-invertebrates on this page http://www.naturalresources.sa.gov.au/adelaidemtloftyranges/education/for-educators/plants-and-animals/coastal-marine-environments

This file was last updated July 2020.
7. Educator’s resource reviews

**One in a Thousand; the Miraculous Life of the Sea Turtle**  
(DVD and education kit)  
Fisheries Research and Development Corporation  
Primary

This resource has some great short film stories that teachers will find useful for raising student awareness about the plight of our threatened sea turtles. The main story (35 minutes) is about a teenager named Sam who finds a stranded turtle on a beach. Her decision to rescue the turtle leads her on a voyage of discovery about the miraculous life of these graceful sea creatures. Other useful topics covered on the DVD are the classification and biology of sea turtles. The accompanying education kit has some useful worksheets on sea turtle classification. However, teachers may find many of the remaining worksheets limiting as they are not structured to encourage higher order thinking. Worksheets include find-a-words, colour-ins, paint and craft activities, fill in the gaps and word definition activities.  
*Matt Cattanach, NRM Education, 2006*

**Our Valuable Estuaries, Teaching Resources for Primary Schools** (CD ROM)  
Ocean Watch Australia (2005)  
Primary

Although based on NSW Year 3/4 curriculum this CD - Rom will prove useful to SA teachers. Students are guided across an animated catchment scene by Nirimba the pelican, who provides commentary on a range of land uses and their impacts on Estuaries. A unit of work containing 6 lesson plans is provided to help students understand the importance of estuaries and the threats that estuaries face. The unit follows an action based approach which concludes in students determining strategies to improve the health of their local estuary. Teachers will need to make slight modification to the lesson plans to make them relevant to South Australia. Photos of different land uses, and blackline masters of colouring and puzzle sheets are also included.  
*Matt Cattanach, NRM Education, 2006*

**Rusty Loses his Loop**  
River Murray Urban Users (2006)  
Kindergarten and Lower Primary

This well written and beautifully illustrated story book introduces students to Rusty the Red Necked Stint who returns to the Coorong each year to find the situation is getting worse. Too much water is being taken out of the River Murray! The story book raises issues under the themes; water conservation, ecosystems, habitat and natural resources, which students can explore through the accompanying unit of work provided in the Education Booklet. Designed to fit in with the Society and Environment Learning area the unit also provides activities across the Arts, Design, Language, Health, Mathematics and Science learning areas. The suggested activities are easy to follow, hands on and are specifically designed for the Reception - Year 2 and Age 3 - Age 5 bands. The Education Booklet is available online, free of charge, at [http://www.murrayusers.sa.gov.au/rusty](http://www.murrayusers.sa.gov.au/rusty)  
*Matt Cattanach, NRM Education, 2006*