

Dugong Magic



Deborah Kelly
Illustrated by Lisa Stewart

TEACHERS RESOURCES

Dugong Magic

by Deborah Kelly, illustrated by Lisa Stewart

Teachers Resources by Robyn Sheahan-Bright

Introduction	3
Themes and Curriculum Topics	4
Study of History, Society and Environment	
English Language & Literacy	
Visual Literacy	
Creative Arts	
Learning Technologies	
Mathematics	
Further Topics for Discussion and Research	8
Conclusion	8
About the Author	8
About the Illustrator	8
Worksheets	9
Bibliography	13
About the Author of the Notes	16

INTRODUCTION

'Far away, humans are building their homes. Their rubbish runs into the sea, making the water cloudy. Without sunlight, seagrass cannot grow. The calf grows hungry.'

Dugong Magic is a beautifully illustrated, lyrical and informative story about dugongs, one of our most unique endangered animals. It is an ideal book for anyone with an interest in marine life and the environment, and an excellent teaching resource.

There are not many dugongs left in the world now. But the situation might be reversed if human beings freed the sea from nets. Or if they cleared the seabeds of rubbish so that seagrass could flourish again and dugongs could graze. Or if boat owners took extra care in order to avoid disturbing these gentle creatures.

This is a thought-provoking picture book about dugongs – the mysterious creatures who were once mistaken for mermaids. Deborah Kelly's lyrical text brings these animals to life, and highlights the dangers they face, inspiring young readers to care for and protect our natural world. Lisa Stewart's gorgeous watercolour and collage illustrations capture the fragile beauty of these endangered animals.

As the cover suggests, this book is 'A lyrical call to action with an environmental message.' It should provoke discussion and debate and convince students to study the impact of human intervention on this creature and on many other sea creatures.

THEMES

Several themes are covered in this book which might be related to the Australian Curriculum, including:

STUDY OF HISTORY, SOCIETY AND ENVIRONMENT

DUGONGS (SCIENTIFIC NAME: DUGONG DUGON)

DISCUSSION POINT: Research dugongs and their lifecycles. Discuss with students the unique features of these creatures.

ACTIVITY: Read the 'Dugong Facts' page at the back of this book. Based on your research, try to write a list of another five 'facts' about dugongs.

DISCUSSION POINT: Read in this book of the various dangers dugongs face. Research the impact human beings are having on dugongs, their habitat and the seagrass they eat. Visit websites such as: Dugong & Seagrass Conservation Project <<https://www.dugongconservation.org/>>. Discover statistics about their population in certain areas. Write a brief summary of their situation as a result of human intervention.

DISCUSSION POINT: Dugongs have been said to have been confused with mermaids. Why would this have been the case? Research mermaids and dugongs in mythical literature.

ACTIVITY: See also Sami Bayly's book on *The Illustrated Encyclopedia of Ugly Animals* (Hachette, 2019). Dugongs aren't included in this book, but might well have been. Read about other such unusual looking and fascinatingly unique creatures.

ACTIVITY: Research the significance of the dugong in Aboriginal and Torres Strait Islander culture. Read traditional stories about the dugong.

ACTIVITY: Dugongs are a member of the group of mammals identified as Sirenians 'The **Sirenia**, commonly referred to as **sea-cows** or **sirenians**, are an order of fully aquatic, herbivorous mammals that inhabit swamps, rivers, estuaries, marine wetlands, and coastal marine waters.' (Wikipedia) Research the difference between dugongs, manatees and other sirenians.



ENVIRONMENTAL PROTECTION

ACTIVITY: Dugongs aren't the only marine animals threatened by human interventions. Research the other animals impacted by human actions.

DISCUSSION POINT: What protections are being put in place to ensure that endangered animals are less threatened?

DISCUSSION POINT: Create a poster advertising the message of environmental protection. [See also **Creative Arts** below.]

ENGLISH LANGUAGE AND LITERACY

The text of this book might be studied in relation to the following aspects:

ACTIVITY: This is a lyrical text, for example: 'She follows her mother through underwater meadows, learning how to pull up seagrass and shake it clean, leaving blooms of *glittering* sand and *shimmering* pathways in her wake.' Discuss the literary devices employed in this line and in other parts of this text.

ACTIVITY: Write a sequel to this text in which the calf grows up and has further adventures.

ACTIVITY: Test your students' **comprehension** by asking them questions about the written and visual text. [See also **Worksheet 2.** below.]

ACTIVITY: Create some poetry in response to this text. [See **Worksheet 3.** below.]

VISUAL LITERACY

The visual text of a book combines with the written text to tell the story using the various parts of the book's design and illustrations, as explored below:

ACTIVITY: The **cover** of a book is an important part of its message. What message does this one convey?

DISCUSSION POINT: The title page is a playful image of mother and baby dugong swimming around the title lettering. What feelings does it convey to the reader?

DISCUSSION POINT: The **format** of the book is portrait. The temptation might have been to use a landscape format. Why do you think the designer chosen portrait instead?

DISCUSSION POINT: How does the **layout of the storyboard** and the **format and design** of the book influence your reading of it?

ACTIVITY: Creating characters entails studying **facial expressions and 'body language'**. Study how the artist creates a character for both mother and baby in the way she crafts each drawing.

ACTIVITY: The **medium or style** employed is pencil first, then watercolour and then layered collage over the top. Invite students to experiment using such techniques. [See **Worksheet 1** below.]

DISCUSSION POINT: The **colours** used in this book are pastel colours. How does this colour palette influence the emotions you feel in reading this text?

ACTIVITY: Prediction is an important part of picture book reading. The reader's perspective in observing strong left to right movement across a double page spread is also important in a picture book, encouraging the reader to follow the action sequentially in a filmic way. Read each page and invite students to predict what might happen in each subsequent frame before turning the page.

DISCUSSION POINT: In the final double page spread the images depicted in the starry sky may also be a reference to Aboriginal dot painting and to the importance of the dugong in Aboriginal and Torres Strait Islander culture. Discuss with your students.

ACTIVITY: Invite students to draw, paint, or collage a scene to accompany the story they each wrote above. Create a classroom mural using all the images. [See also **Worksheet 1** below.]

DISCUSSION POINT: The text layout is playful with words flowing across the pages like waves. Use your text in this way when designing the story image above.

ACTIVITY: Create a graphic novel/comic version of a scene in this book. [See **Bibliography.**] [See also **Worksheet 4** below.]

CREATIVE ARTS

There are many creative activities suggested by this text:

- 1. Create a dugong mobile.** Photocopy the image on **Worksheet 1** several times, and then glue each image to craft paper and cut it out. Colour each image in slightly different shades of colour, and decorate in any way you choose to. Then thread fishing line through the images and hang them from a wire clothes hanger, ensuring that each is a different length to give variety to the end result. Your mobile will be a reminder of the graceful movement of the dugong through the oceans.
- 2. Teach students how to draw a dugong.** Use simple programs such as: 'How to Draw a Dugong' *Drawing Tutorials* <<https://www.drawingtutorials101.com/how-to-draw-a-dugong>>.
- 3. Create a papier mâché model of a dugong.**
- 4. Create a poster** to advertise this book.
- 5. Create a book trailer** to promote this book. [See **Bibliography.**]

LEARNING TECHNOLOGIES

ACTIVITY: Research the topics above online.

ACTIVITY: Research the author and illustrator online. [See **Bibliography.**]

MATHEMATICS

ACTIVITY: Have fun counting things in this text. For example you could count the number of dugongs or fish in each frame.

FURTHER TOPICS FOR DISCUSSION AND RESEARCH

- Research the work of Deborah Kelly.
- Research the work of Lisa Stewart. Compare this to her other books.
- Students might research this book in comparison to reading other picture books such as those listed in the **Bibliography**.
- Investigate any other topic not covered in these notes which you consider is suggested by this text.

CONCLUSION

Dugongs are fascinating animals which have been celebrated in the myths and stories of many cultures. Scientists also celebrate these creatures and are calling for action in order to prevent the loss of many more of these rare and endangered animals.

ABOUT THE AUTHOR

Originally from New Zealand, **Deborah Kelly** now lives in Australia. She has a degree in marine biology, but has worked in all sorts of jobs. She has written several picture books and a junior fiction series.

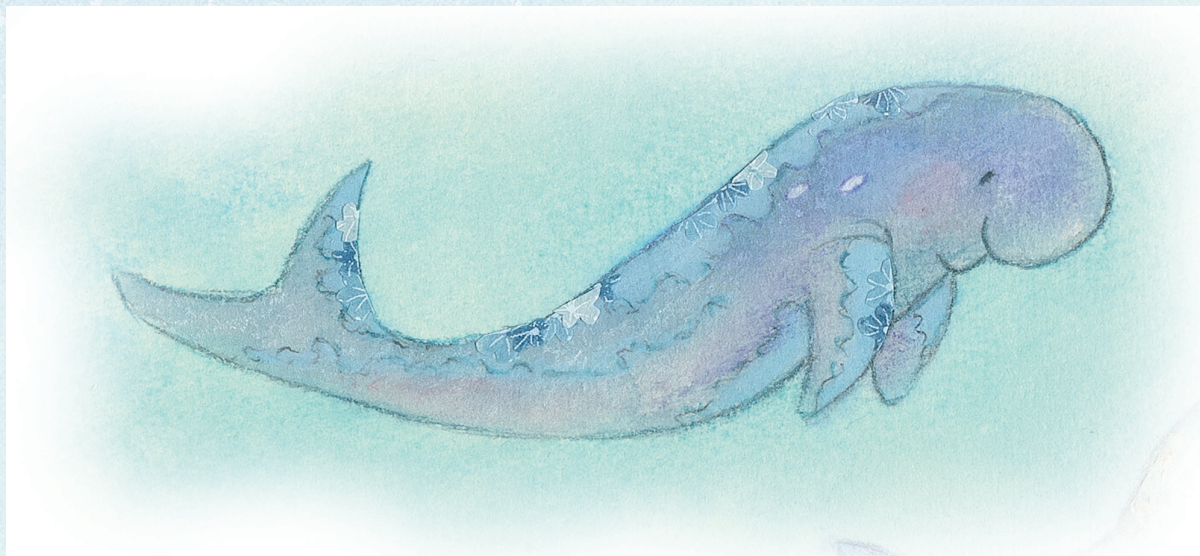
ABOUT THE ILLUSTRATOR

Lisa Stewart was shortlisted for the Crichton Award for New Illustrators for her first book, *Can I Cuddle The Moon?* (written by Kerry Brown). It has since been published in Taiwan and Korea, and illustrations from the book were used by Sydney Opera House in their highly popular ‘‘Babies Proms’ series. She has illustrated several more picture books since then, and also tours the world as a professional violinist, playing with the Acacia Quartet. She lives in Orange, New South Wales.

WORKSHEETS

WORKSHEET 1: DRAW AND COLLAGE THIS IMAGE

Draw an ocean scene behind this image of a dugong and then collage it using materials such as those which are used in this book, or other materials such as grass, mesh, glitter, foil, coloured or patterned papers.



WORKSHEET 2: DUGONG QUIZ

1. What is the origin of the name 'Dugong'.
2. What other name are dugongs known by?
3. What animal are dugongs most closely related to?
4. How long can dugongs live for?
5. What do dugongs mainly eat?
6. What level of danger are they classified by, according to the IUCN?
7. How do dugongs communicate?
8. What environmental threats to their survival do dugongs confront?
9. What percentage of the world's population of dugongs live in Australian waters?
10. What is the flattened fluked tail of a dugong similar to?

Answer: **1.** It is said to be a Malay word meaning 'Lady of the Sea.' **2.** Sea Cows. **3.** Elephants. **4.** Up to 70 years. **5.** Sea grass. **6.** Vulnerable to extinction. **7.** They have excellent hearing and communicate via barks, chirps, squeaks, trills and other sounds that can travel through water. **8.** Pollution, boat strikes and becoming tangled in fishing nets. **9.** More than half of the world's dugongs live in Australian waters. **10.** The tail of a whale.

WORKSHEET 3: DUGONG POETRY

A. ACROSTIC POEM

D	
U	
G	
O	
N	
G	

B. CALLIGRAM OR SHAPE POEM

Write a poem in the shape of a dugong:

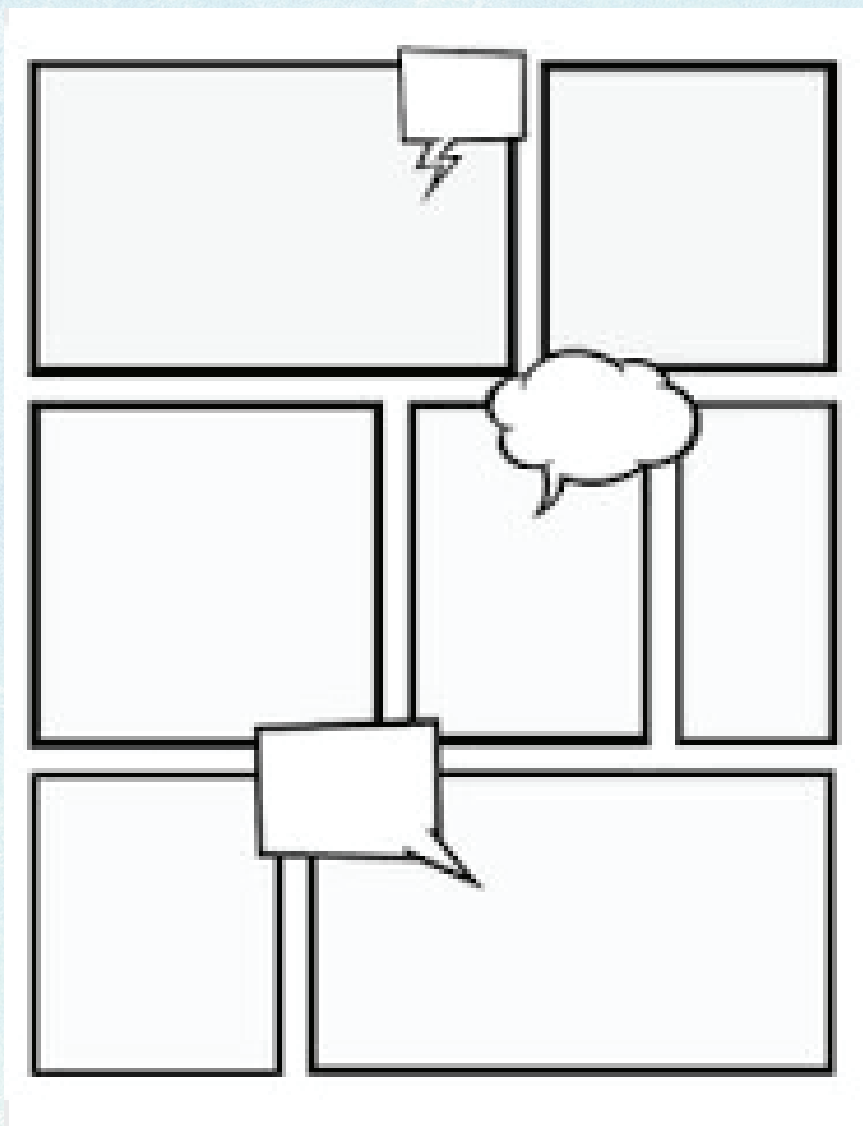
C. HAIKU POEM

5 syllables:	
7 syllables:	
5 syllables:	

[See: '7 Poetry Forms Every Teacher Should Be Teaching and Why'
Literacy Ideas for teachers and Students
<<https://www.literacyideas.com/latest/2018/3/1/7-poetry-forms-every-teacher-should-be-teaching-and-why-they-should-be-teaching-them>>

WORKSHEET 4: GRAPHIC STORYTELLING

Create a graphic novel/comic interpretation of one of the scenes in this book. Use the layout below as the storyboard for your comic. Enlarge on a photocopier to give you more space.



Comic Book Template viewed at: <http://www.pinterest.com/pin/365706432212821426/>

BIBLIOGRAPHY

PICTURE BOOKS

Gelam: the Man from Moa: a Legend of the People of the Torres Strait Islands by Anne Abednego Gela, Magabala Books, 1993.

Our Island by the children of Gununa with Alison Lester and Elizabeth Honey,

Penguin Group (Australia), 2014.

Dabu Grows Up: the tale of a Dugong by Seleena Solomon and Dennis Nona (ill), Magabala Books, 2003, 1992.

One Less Fish by Kim Michelle Toft and Alan Sheather, Silkim Books, UQP, 1997.

Wandihnu and the Dugong by Elizabeth Wymarra, Wandihnu and Benjamin Hodges (ill), Magabala Books, 2007.

JUNIOR NON-FICTION

The Illustrated Encyclopedia of Ugly Animals by Sami Bayly, Hachette, 2019.

Dugongs by Greg Pyers, Echidna Books, 2008.

Dugongs by Sue Rayner and Rod Lewis (ill), Oxford University Press, 1987.

WEBSITES - TEACHING RESOURCES

'A re-telling of stories and songs from "Myths and Legends of the Torres Strait"', *State Library of Queensland*, <<https://www.slq.qld.gov.au/discover/aboriginal-and-torres-strait-islander-cultures-and-stories/contemporary-stories/retold>>

'Boat strike impact on turtle and dugong in Moreton Bay', *Queensland Government Parks and Forests*, <<https://parks.des.qld.gov.au/parks/moreton-bay/boat-strikes/>>

Datiles, Marianne 'Myths in the Museum: the Dugong and the Mermaid' *University College London (UCL)* 21 July 2018

<<https://blogs.ucl.ac.uk/researchers-in-museums/2018/07/21/myths-in-the-museum-the-dugong-and-the-mermaid/>>

'Dugong', *Australian Museum*, <<https://australianmuseum.net.au/learn/animals/mammals/dugong/>>

'Dugong', *Australian Government Great Barrier Reef Marine Authority*, <<http://www.gbrmpa.gov.au/the-reef/animals/dugong>>

'Dugong', *Kidcyber*, <<https://www.kidcyber.com.au/dugong>>

Dugong and Marine Turtle: Teaching Resource and Information Package, written and compiled by the Torres Strait Regional Authority's Land and Sea Management Unit, published by the North Australian Indigenous Land and Sea Management Alliance (NAISMA), 2009, <http://www.seagrasswatch.org/Info_centre/education/pdf/Dugong-and-Marine-Turtle-Teaching-Resource-and-Information-Package.pdf>

Dugong & Seagrass Conservation Project, <<https://www.dugongconservation.org/>>

'Dugong dugon', *ScienceDirect*, <<https://www.sciencedirect.com/topics/agricultural-and-biological-sciences/dugong-dugon>>

'Dugongs', *Australian Government Department of the Environment and Energy*, <<https://www.environment.gov.au/marine/marine-species/dugongs>>

'Dugongs', *Enchanted Learning*, <<https://www.enchantedlearning.com/paint/subjects/mammals/manatee/Dugongprintout.shtml>>

'Dugongs, unlikely sirens of the sea', *Sydney Morning Herald*, April 3, 2009, <<https://www.smh.com.au/environment/dugongs-unlikely-sirens-of-the-sea-20090403-gdtgh4.html>>

'From Manatees to Mermaids: the Myth and the Reality' by Caty Fairclough, *Smithsonian*, March 2014, <<https://ocean.si.edu/ocean-life/marine-mammals/mermaids-manatees-myth-and-reality>>

'Great Barrier Reef Coloring Pages', *COLORING.WS*, <<https://www.coloring.ws/great-barrier-reef.htm>>

International Union for the Conservation of Nature (IUCN), <<https://www.iucn.org/>>

'Dugongs and Mermaids, Selkies and Seals' by Allan Asbjørn Jøn, *Australian Folklore: A Yearly Journal of Folklore Studies* January 1998, 13: 94–98, <<https://blogs.ucl.ac.uk/researchers-in-museums/2018/07/21/myths-in-the-museum-the-dugong-and-the-mermaid/>>

'Language, Totems and Stories', *Australian Government Great Barrier Reef Marine Authority*, <<http://www.gbrmpa.gov.au/our-partners/traditional-owners/traditional-owners-of-the-great-barrier-reef/language-totems-and-stories>>

'National Dugong and Turtle Protection Plan 2014–2017' *Australian Government Department of the Environment and Energy*, <<https://www.environment.gov.au/resource/national-dugong-and-turtle-protection-plan-2014-2017>>

'Picture This: The story of Gelam the creator of dugong', *YouTube*, September 6, 2011, <<https://www.youtube.com/watch?v=I0oBFtIDwTs>>

'Sirenians' *Wikipedia*, <<https://en.wikipedia.org/wiki/Sirenia>>

'Teacher background information Year 5 Science Content Description, Science as a Human Endeavour investigating how Aboriginal and Torres Strait Islander Peoples' traditional ecological and zoological knowledge informs sustainable harvesting practices of certain species, such as dugongs and turtles (Ol.2, Ol.6)' *Australian Curriculum*, <<https://www.australiancurriculum.edu.au/TeacherBackgroundInfo?id=56655>>

'Threatened Species', *Australian Marine Conservation Society*, <<https://www.marineconservation.org.au/threatened-species/>>

'Threats and Challenges; Dugong', *InforMEA United National Information Portal on Multilateral Environmental Agreements*, <<https://www.cms.int/dugong/en/node/4251>>

'Yun-Gun (Dugong): as told by Aunty Margaret', *Australian Museum*, <<https://www.qm.qld.gov.au/Events+and+Exhibitions/Exhibitions/2015/01/Dandiiri+Maiwar/Audio+trails/Yungun+Dugong#.XijsZqV7nPQ>>

OTHER TEACHING RESOURCES

'Intro: How to make a book trailer' by Michelle Harclerode, <<https://www.youtube.com/watch?v=C9dbvDdh3OA>>

'Book Trailers – Resources: Ipswich District Teacher Librarian Network', <<http://idtl.net.au/book-trailers.php>>

Writing and Illustrating the Graphic Novel: everything you need to know to Create Great Graphic Works by Mike Chinn, London, New Burlington Books, 2004, 2006.

'How to Draw a Dugong' *Drawing Tutorials*, <<https://www.drawingtutorials101.com/how-to-draw-a-dugong>>

'7 Poetry Forms Every Teacher Should Be Teaching and Why', *Literacy Ideas for Teachers and Students*, <<https://www.literacyideas.com/latest/2018/3/1/7-poetry-forms-every-teacher-should-be-teaching-and-why-they-should-be-teaching-them>>

ABOUT THE AUTHOR OF THE NOTES

Dr Robyn Sheahan-Bright operates justified text writing and publishing consultancy services, and is widely published on children's literature, publishing history and Australian fiction. In 2011 she was the recipient of the CBCA (Qld Branch) Dame Annabelle Rankin Award for Distinguished Services to Children's Literature in Queensland, in 2012 the CBCA Nan Chauncy Award for Distinguished Services to Children's Literature in Australia, and in 2014, the QWC's Johnno Award.