

Turtle Summer

A Journal for my Daughter



*NY Times Bestselling Author
Mary Alice Monroe
Barbara J. Bergwerf*



Turtle Summer

Every year thousands of volunteers protect endangered sea turtle nests. While the numbers are actually not known, it is estimated that the survival of sea turtles from hatchlings to adulthood could be as few as 1 out of 1,000 or even fewer. Turtle team members do all they can to increase the odds of survival for the eggs laid on “their” beach. They spend their summers watching and caretaking the nests. This photographic journal shares the joys and memories of a turtle team mother and her daughter’s Turtle Summer.

It’s so much more than a picture book . . . this book is specifically designed to be both a fun-to-read story and a launch pad for discussions and learning. Whether read at home or in a classroom, we encourage adults to do the activities with the young children in their lives. Free online resources and support at www.ArbordalePublishing.com include:

- For Creative Minds as seen in the book (in English & Spanish):
 - Loggerhead Nesting Fun Facts
 - Items needed by Turtle Teams
 - Shell identification
 - Make Your Own Nature Scrapbook
- Teaching Activities:
 - Reading Questions
 - Mathematics
 - Language Arts
 - Geography
 - Science
 - Coloring Pages
- Interactive Quizzes: Reading Comprehension, For Creative Minds, and Math Word Problems
- English and Spanish Audiobooks
- Related Websites
- Aligned to State Standards (searchable database)
- Accelerated Reader and Reading Counts! Quizzes
- Lexile and Fountas & Pinnell Reading Levels

eBooks with Auto-Flip, Auto-Read, and selectable English and Spanish text and audio available for purchase online.

Thanks to Barbara Schroeder of NOAA’s National Marine Fisheries Service - Office of Protected Resources for verifying the accuracy of the information in this book. And thanks to the educators and husbandry staff at the South Carolina Aquarium for identifying all the shells, birds, and plants found throughout this book.

Mary Alice Monroe is the NY Times best-selling author of ten adult novels, including: *The Beach House*, *Sweetgrass*, and *Skyward*. The sequel to *The Beach House*, *Swimming Lessons*, was released by MIRA Books in April 2007. Mary Alice’s first children’s book, *Turtle Summer: A Journal for my Daughter* is a companion book to that adult novel. Monroe draws themes for her books from nature and its parallels with human nature, and she is actively involved with several environmental groups. She is on the board of the South Carolina Aquarium (home of the SC Sea Turtle Hospital). Her experiences with wildlife provide the inspiration for her novels and children’s book. Her books are sold worldwide.

Nature photographer Barbara J. Bergwerf has done it again. Barbara has collaborated with NY Times best-selling novelist Mary Alice Monroe on *Turtle Summer: A Journal for my Daughter* which joins her other photographic book about loggerhead sea turtles, *Carolina’s Story: Sea Turtles Get Sick Too!* Both books stem from Barbara’s volunteer involvement at the South Carolina Aquarium’s Sea Turtle Hospital, the Island Turtle Team on Isle of Palms and Sullivan’s Island, and the South Carolina Center for Birds of Prey. Barbara thought that she was retiring when she and her husband left the Chicago area and moved to the South Carolina Lowcountry. Somehow “retirement” doesn’t seem to be in her vocabulary!



Mary Alice Monroe



Barbara J. Bergwerf

Turtle Summer

A Journal for my Daughter



Mary Alice Monroe
Barbara J. Bergwerf



Thanks to:
 Barbara Schroeder of NOAA's
 National Marine Fisheries Service-
 Office of Protected Resources
 for verifying the accuracy
 of the information in this book
 Educators and husbandry staff at the
 South Carolina Aquarium
 for identifying shells, birds, and plants
 Nicholas Johannes for his "day nester" photos
 Kelly Thorvalson, and
 Susan and Lauren Geddings for their help modeling

Publisher's Cataloging-In-Publication Data
 Monroe, Mary Alice.
 Turtle summer : a journal for my daughter / Mary Alice Monroe ;
 [photographs by] Barbara J. Bergwerf ; sketches, illustrations,
 and layout design by Lisa Downey.
 [32] p. : col. ill. ; cm.
 ISBN: 978-0-97774-2356 (hardcover)
 ISBN: 978-1-60718-5833 (pbk.)
 1. Loggerhead turtle--Atlantic Coast (U.S.)--Juvenile literature. 2. Sea turtles--Atlantic
 Coast (U.S.)--Juvenile literature. 3. Loggerhead turtle.
 4. Sea turtles. I. Bergwerf, Barbara J. II. Downey, Lisa. III. Title.
 QL666.C536 M66 2007
 597.92/80975 2006938664

Text Copyright © 2007 by Mary Alice Monroe
 Photograph Copyright © 2007 by Barbara J. Bergwerf
 Sketches, illustrations, and layout design by Lisa Downey
 The "For Creative Minds" educational section may be copied by
 the owner for personal use or by educators using copies in classroom settings.
 Arbordale Publishing
 formerly Sylvan Dell Publishing
 Mt. Pleasant, SC 29464
 www.ArbordalePublishing.com



Mussel Shell



Ark Shells



Morning Glory



Cosmos Blossom

Lovie,
 As you collected seashells
 along the shore for me, I've
 gathered these photographs
 and memories for you.
 Like the seashells in your
 hands, each photo in this
 book is a treasure to explore.
 Each picture has its own
 special story.
 Bring the memory close to
 your heart—and listen!
 Mama





Primroses

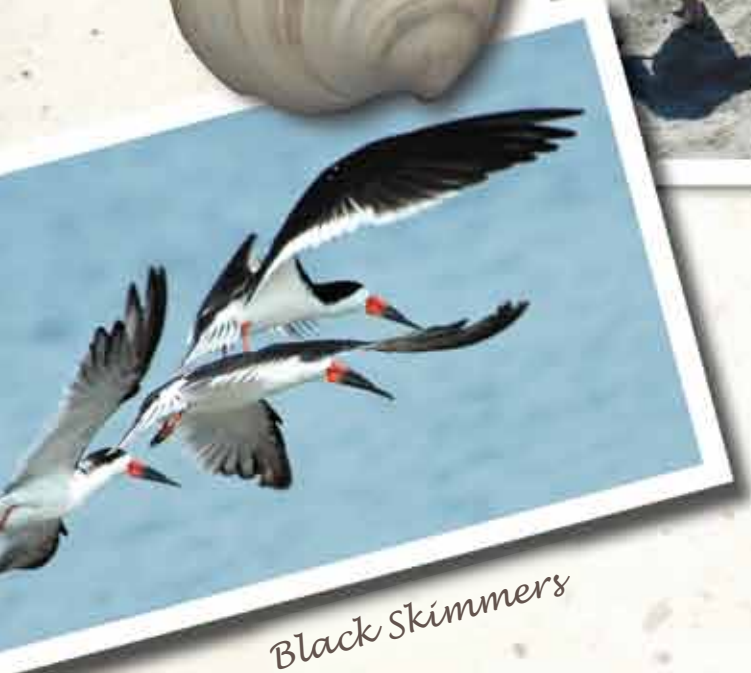
Clam Shell



Path to the beach



Firewheel or Indian Blanket



Black Skimmers



It is May and the loggerhead sea turtles are returning to our island to lay their eggs. Every day we walk together from the beach house to sit on our favorite dune. We watch, and wait, and wonder . . .

*Are the turtles out there in the rolling swells?
When will they come ashore?*

You are my helper on the Island Turtle Team. You are eager to learn about the sea turtles, the flowers, the shells, the birds, and all things great and small. I hope that I can teach you— as a dear lady once taught me— to not merely know nature but also to feel nature.



Primrose Cottage



Lettered Olive Shell



Tulip Shell



Beach Evening Primrose

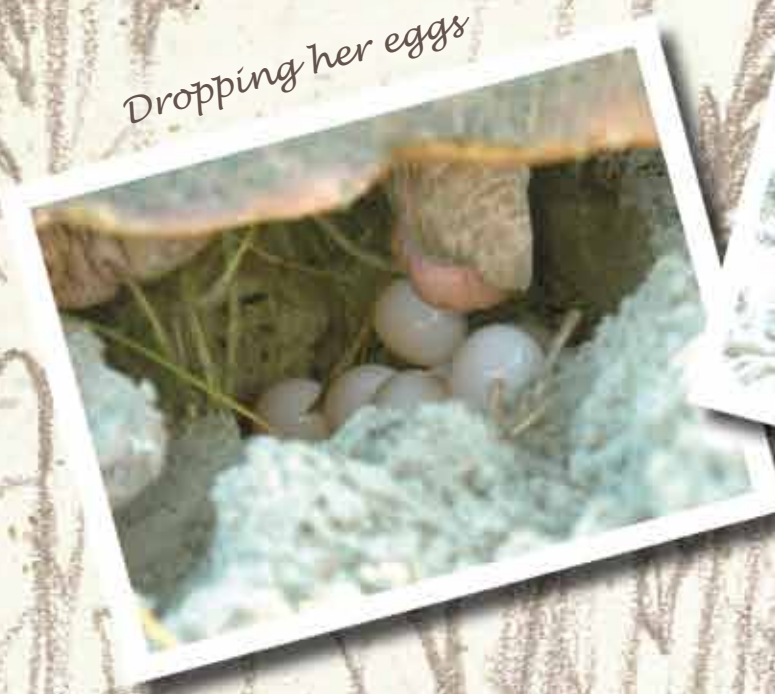
May						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28

Only the female turtles leave their home, the great sea, to lay their eggs on the beach of their birth.

With a tank-like crawl, the turtle drags herself to a site high on the beach.

One night we watched a loggerhead come ashore. We hunkered low and kept our distance so not to disturb her. If startled by humans, other animals, or lights, the loggerhead won't lay her eggs.

The mother turtle spends hours digging deep into the sand then laying her eggs. When finished, she leaves for the sea, never to return to her nest.



Dropping her eggs





Knobbed Whelk



Oyster Shell



Pennywort

Each morning, when the sun is still pink on the horizon, volunteers walk the beach on the lookout for turtle tracks!

You said the turtle tracks look like tire tracks!



Jack Knife Clam



Slipper Shell

The turtle team studies the field signs and finds the eggs.

If the nest is in a safe place, we mark it with an orange sign saying that the nest is protected by federal law.

For Creative Minds

Loggerhead Nesting Fun Facts:

Field signs of a nest:

- ingoing and outgoing tracks
- body pit
- thrown sand
- broken vegetation
- a departing scarp in sand where she turned

On average, the loggerhead lays four nests a summer about two weeks apart.

She lays between 80 and 150 eggs in each nest. *If she lays 100 eggs in each nest and lays four nests in the summer, how many eggs will she lay?*

The sea turtle lays so many eggs to make sure that some of the hatchlings will survive.

The eggs look like ping-pong balls! They are leathery so they won't break when they are laid in the nest.

She doesn't lay eggs every year. She lays nests every two or three years.

After laying all of her eggs, she returns to the sea and will never see or know the hatchlings.

Female sea turtles return to the same area where they hatched to lay their eggs.

Scientists don't know how the turtles find their way "home" to lay their eggs but think that the hatchlings "imprint" the area when they walk from the nest to the ocean. For that reason, it is important to let the hatchlings walk across the beach and not carry them.



If people make loud noises, shine flashlights on the beach, or try to get close to and touch the sea turtle as she comes ashore, she may turn around and leave without nesting. If you are lucky enough to see a sea turtle coming out of the ocean, be quiet and stay at a distance. Don't turn on your flashlight! Let your eyes adapt to the night light.

Sometimes ghost crabs or ants will harm the eggs in the nest.

The mother turtle or the hatchlings might have a difficult time going around sand castles or big holes dug in the sand. If you play in the sand at the beach, smooth it all out before you leave. *Remember; only leave your footprints on the beach!*

Sea turtles find their way to the ocean by moving toward the brightest, most open horizon, which under natural conditions is toward the ocean. Bright lights may cause the turtles to crawl the wrong way to certain death. If you are at the beach, turn off the outside lights and pull curtains down at night to keep the beach dark.

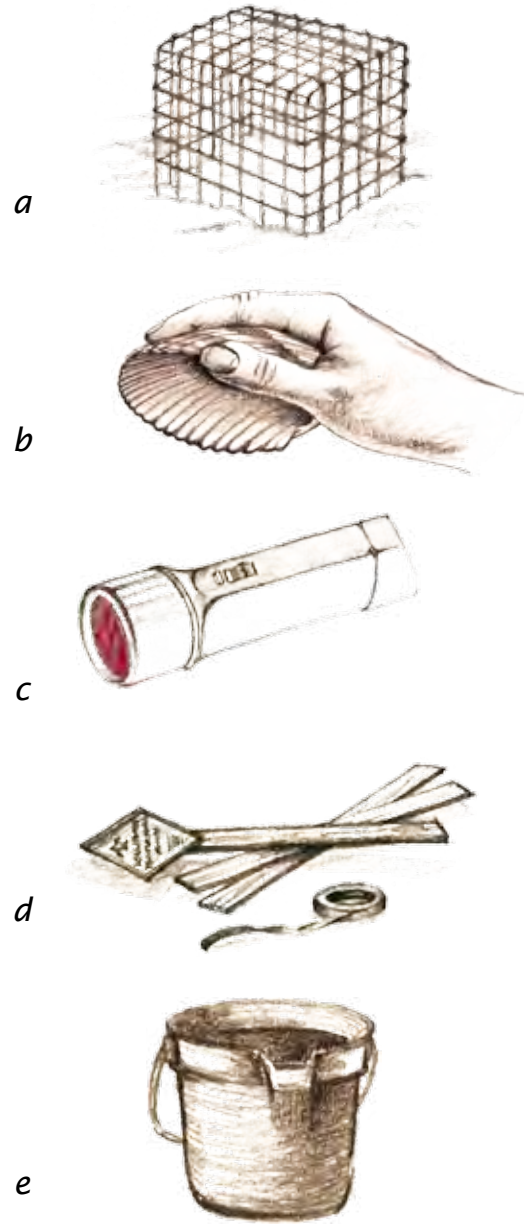
Sea turtles like to eat jellyfish and sometimes mistake floating plastic for a jellyfish. Would you get sick if you ate a plastic bag or a deflated balloon? Pick up all plastic and trash - even if you are not close to the ocean.



Items Needed During Turtle Nesting Matching Activity

Match the items needed during turtle nesting season. Answers are upside down on the bottom of the page.

1. These mark the nest to let people know not to disturb it or walk on it.
2. If we have to move the nest to a better spot, we use this to hold the eggs as we move them.
3. This protects the nest from raccoons or other animals that might try to dig up the eggs. The holes are big enough for the hatchlings to get out but not for the other animals to get in.
4. If we have to move a nest, we use this to help us dig a new nest, just like the female loggerhead.
5. The red lens helps us to use this at night without bothering the sea turtles.



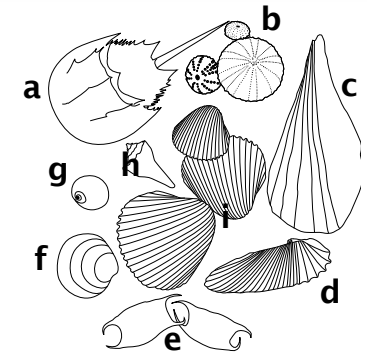
1-d, 2-e, 3-a, 4-b, 5-c

Shell Identification

Can you identify the shells? Answers are upside down, below.



- 1 Pen Shell
- 2 Urchins
- 3 Cockle Shells
- 4 Clam Shell
- 5 Angel Wing Shell
- 6 Whelk Shell
- 7 Skate's Egg Purses
- 8 Molted Horseshoe Crab Shell
- 9 Moon Snail



1-c, 2-b, 3-1, 4-f 5-d, 6-h, 7-e, 8-a, 9-g



Make Your Own Nature Scrapbook

Find a spot outdoors to sit and observe nature; a park, the beach, a lake, the woods – it can even be your own backyard.

Look around. Write down the words that describe what you see.

What type of day is it?

Is it windy, sunny, or cloudy? Has it just rained or snowed? Is it hot or cold?

What time of day is it? Is it early morning, noon, late afternoon or evening?

Do you know the name of that plant or bird or flower? If you don't, be careful when you describe or draw it. You can look up the name when you get home.

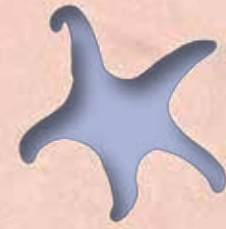
- What color is it?
- What size is it?
- What shapes (circles, triangles, rectangles) are there in the bird beaks, feathers, leaves, shells, rocks, or sticks, etc.?
- Is it smooth, rough, hard, soft, slimy, or scaly?
- Now close your eyes and let your other senses take over.
- What do you hear?
- What do you smell?
- What do you feel?

Now open your eyes and write everything down.

Your observation is done! Now you are ready to go back home and gather your thoughts into sentences and write or draw in your nature notebook.

If you want, add clippings, pressed flowers, leaves, etc. Photographs are fun, too!

Food for thought: Would your observations change at different times of the day or if the weather was different? If you can, try to observe the same thing at different times of the day or at the same time over several different days. Are your observations the same or different? Why or why not?



Dear Reader,

In my adult novel, "Swimming Lessons," the mother assembles a journal of photographs and sketches for her young daughter depicting the summer they spent together tending turtles during the loggerhead nesting season.

"Turtle Summer: A Journal for my Daughter" IS the journal in the novel.

This journal is dedicated to all grandmothers, mothers and daughters. Join us in our world as Turtle Ladies and share the beauty and magic of a turtle summer.

Mary Alice Monroe

Includes 4 pages of
learning activities
Look for more free activities
online at
www.ArbordalePublishing.com

