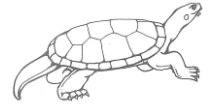


Unique Adaptations to a Unique Environment: Mary River Turtle and its Environs

LESSON SIX: **People, Discovery, Research and Land carers**



PHASE	LEARNING SEQUENCE	ACTIVITY	RESOURCES
Engage	Who are the important people in the History of the Mary River Turtle?	Introduce and discuss Lesson Goals (Focus Questions) View DVD segment where John Cann speaks.	Resource #1 ASOT goal setting Resource #2: Sharing Mary DVD Lesson 6
Explore	Historical timeline: Important people and events in the history of the Mary River Turtle	Use the timeline to find when selected events took place.	Resource #3 Timeline of people & events (copy per student) Optional resources: www.maryriverturtle.com links & blogs Book: <i>Mary River Turtle Yesterday Today Tomorrow</i> (order via website)
Explain	Find out the strange story behind the identification of the elusive Mary River Turtle	Read in groups or individually the story of John Cann's search. Answer the questions.	Resource #4 25 year search for the Mary River Turtle (copy for each student)
Elaborate	What is being done and by whom?	Can we answer the focus question: What is the role of Key People who have helped the Mary River Turtle? Match the person and the achievement	Resource #5 People and actions Resource #6 Match person to action (Resource #3 may help with answers)
Evaluate	Do we now understand the role of selected people in the survival of the Mary River Turtle from Kabi Kabi custodianship till the present?	List three things you could do in your home or school to help the Mary River Turtle in your area	Resource #7 ASOT goal review Science journals

ASOT Goal Setting

Today's Lesson poses the question:

Who are the important people in the history of the Mary River Turtle?



People, discovery, research and
land carers

A Timeline of People and Events associated with the Mary River Turtle

1962- 1974 Turtle eggs harvested from the wild, hatched and sold as 'penny turtles' in pet shops.

1962 The Mary River Turtle (then known as the 'pet shop turtle') was recognised as a unique and a new species by turtle enthusiasts.

1970s Turtle enthusiast John Cann starts his search of river systems throughout Australia and Papua New Guinea to find the native habitat of this 'pet shop turtle'.

1974 Reptiles received protection through the Queensland Government's introduction of the Fauna Conservation Act - commercial egg harvesting becomes illegal.

1990 John Cann collects the first Mary River Turtle for scientific identification on 16 October.

1994 The species is scientifically described as *Elusor macrurus*, the Mary River turtle.

1997 Nesting and reproductive patterns of the Mary River turtle are studied by Masters student, Samantha Flakus at University of Queensland

1998 University of Canberra researchers discovered that temperature of eggs in the nest did not affect sex of hatchlings.

2001 to present Tiaro & District Landcare Group started observing nesting banks and protecting wild nests each year.

2005 University of Queensland PhD researcher, Natalie Mathie, investigates the diving behaviour of the Mary River Turtle, the impact of oxygen levels and its responses to predators

2007 University of Queensland PhD researcher, Mariana Campbell, found that temperatures of nesting banks can affect size and performance of the hatchlings. Those that are incubated at warmer temperatures are less strong and do not dive as deeply.

2010 University of Queensland PhD researcher, Mariana Campbell found that Mary River turtle hatchlings prefer to live just above and below riffle zones in the river.

2012 University of Queensland researchers start tagging turtles to discover how far they move in the river.

TIMELINE Questions/Activities

Option 1: Individual/Whole class activity

Use your timeline to answer these questions.

1. In what year did the Mary River Turtle receive its scientific name, *Elusor macrurus*?

2. Who spent many years, beginning in the 1970's, searching for the Mary River turtle? _____
3. What caused the loss of many thousands of Mary River Turtle eggs from their native habitat?

4. In what year did it become illegal to harvest turtle eggs and sell them?

5. Which group has been protecting turtle nests since 2001?

6. What did researcher Natalie Mathie discover in 2005 about the Mary River Turtle hatchlings?

7. Mention an important discovery made in 2007 about the temperature of nesting banks:

8. In what year did researchers begin tagging turtles to discover how they move in the river? _____

Option 2: Small group activity

Prepare laminated cards with the words Who, When, Where, What, How and Why. Give one card to each student and ask him or her to compose a question for the others, eg Who started his research for the home of the pet shop turtle in the 1970's?

25 year search for the Mary River Turtle

Student Name: _____

Some people like birds or dogs, but John Cann loves turtles and snakes. His interest in turtles has led him on some amazing adventures throughout Australia. John had seen little turtles for sale in pet shops and later on he saw a larger turtle that he didn't recognize, living in a lake in Sydney. It had been dumped there by people who did not want it as a pet anymore.

John was given many false leads as he searched many rivers in Australia and Papua New Guinea. For 25 years, John searched, trying to find out where this turtle belonged. Finally he met the fishermen who showed him where they used to collect turtle eggs. John was very excited when, looking through his binoculars; he saw his first wild Mary River Turtle. The mystery had been solved! In 1994, the turtle was given the scientific name, *Elusor macrurus*. *Elusor* means it was elusive (able to avoid being found) and *macrurus* means long tail. So, its scientific name refers to the turtle being elusive and having a long tail.

Questions:

1. Who is the reptile enthusiast named in the story?

2. For how long did John Cann search for this turtle? _____

3. What important event happened in 1994?

4. What is the meaning of the scientific name of the Mary River Turtle?

People and actions



Tiaro Landcare members helping others fence turtle nesting bank



Tiaro Landcare members raising funds for turtle research and conservation



Field research: Monitoring nests and counting eggs



Field research:

Diving in the river to survey the turtle population



Laboratory research:

Weighing and measuring live turtle hatchlings to learn about their growth and behaviour

?

What could my role be in helping the Mary River turtle?

Match people with actions

John Cann	Give up free time on the weekend to erect fences to protect nesting banks
Tiario Landcare members	Discovered that turtles hatched at higher temperatures were weaker
Natalie Mathie	Spent 25 years searching for the Mary River Turtle in the wild
Mariana Campbell	Gets up early in the morning to protect nests from predators
Tiario Landcare members	Researched how and when the turtles nested
Samantha Flakus	Researcher who found that Mary River Turtle hatchlings can stay underwater for more than two days without coming up for air

ASOT goal review

Today's Lesson answers the questions

What was the role of:

- John Cann
- Tiaro Landcare members
- University of Queensland researchers



What could your role be?