



Teacher Resource

Bogong Moth Tracker

Focus Questions

Discuss the BTN story as a class and record the main points of the discussion. Students will then respond to the following:

1. What is the best time of the day to see Bogong moths?
2. Bogong moths are native to Australia. True or false?
3. Describe the migration journey of Bogong moths.
4. What animal eats Bogong moths?
5. What is the purpose of the Moth Tracker app?

Activity: Class Discussion

Before Watching

Before watching the BTN Bogong Moth Tracker story ask students to discuss the following, in pairs or small groups:

- Have you ever encountered a Bogong moth? Explain more about your experience.
- Did you know that Bogong moths migrate? Explain what you know.
- Can you think of any other animals that migrate? Make a list.
- Have you ever noticed animals on their migration journey? Explain what you saw.
- What are some reasons that animals migrate?
- What do you think this BTN story will be about?

After Watching

Once your students have made their predictions, watch the BTN Bogong Moth Tracker story, and then students will respond to the following:

- What did you learn watching the BTN story?
- What did you find surprising?
- What questions do you have about this story?



EPISODE 31

5th November 2024

KEY LEARNING

Students will investigate the migration of the Bogong moth. Students will learn about the significance of the Bogong moth to Aboriginal people.

CURRICULUM

Science – Year 4

Living things depend on each other and the environment to survive.

Living things have life cycles.

Science – Year 5

Living things have structural features and adaptations that help them to survive in their environment.

Scientific knowledge is used to solve problems and inform personal and community decisions.

Science – Year 6

The growth and survival of living things are affected by physical conditions of their environment.

Scientific understandings, discoveries and inventions are used to solve problems that directly affect peoples' lives.

Science – Year 7

Classification helps organise the diverse group of organisms

Interactions between organisms, including the effects of human activities can be represented by food chains and food webs.

HASS – Year 4

The diversity of First Nations Australians, their social organisation and their continuous connection to Country/Place.

Activity: Vocabulary

Students will brainstorm a list of key words that relate to the BTN Bogong Moth Tracker story. Here are some words to get them started.

Migration	Species	Citizen Science	Life Cycle
Mass migration	Habitat	Population	Conservation

Ask students to write what they think is the meaning of each word (including unfamiliar words). They will swap definitions with a partner and ask them to add to or change the definition. Check these against the dictionary definition. Students will add to their glossary by downloading the transcript for the BTN Bogong Moth Tracker story and highlight all the words that relate to the topic.

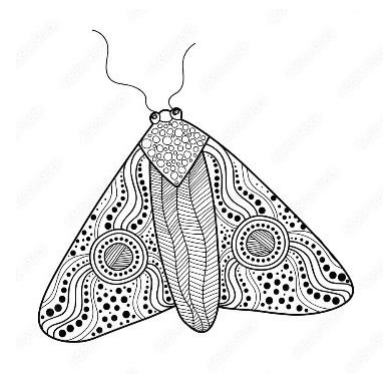
Activity: KWLH Organiser

Discuss the information raised in the BTN Bogong Moth Tracker story. What questions were raised in the discussion and what are the gaps in students' knowledge? The following KWLH organiser provides students with a framework to explore their knowledge on this topic.

What do I <u>k</u> now?	What do I <u>w</u> ant to know?	What have I <u>l</u> earnt?	<u>H</u> ow will I find out?

Students will develop their own question/s to research or choose one or more of the questions below. Encourage students to collect and record information from a wide variety of sources and present the information they find in an interesting way.

- What is the migration journey of a Bogong moth? Highlight on a map. Calculate the distance.
- When do Bogong moths migrate?
- Why is it called the Bogong moth? What Aboriginal language does its name come from and what does it mean?
- Why does the Bogong moth migrate? For example, find food, reproduce, escape harsh weather conditions and/or avoid predators.
- Why are Bogong moths important in Aboriginal culture?
- What can you do if you find a Bogong moth? Explore how you can be citizen scientists to help protect Bogong moth populations. Share what you've learnt with your classmates.
- Create a species profile on the Bogong moth. Include its name (common and scientific name), classification (class, family, genus), description, habitat, diet and threats.



- What has caused the Bogong moth population to decline? Use a cause-and-effect fishbone diagram to present your findings.
- What are some of the advantages and disadvantages of animals migrating in large groups?
- How can people help reduce migration hazards for Bogong moths?

Activity: Aboriginal Histories

Learn about the history behind Mungabareena and the Bogong trail with your students. Watch this [video](#) to hear Wiradjuri woman Leonie McIntosh tell the story behind this special place and help us understand Aboriginal and Torres Strait Islander histories and cultures.

Students will watch the [Journey of the Bogong Moths](#) video together as a class. Have a class discussion to find out what your students learnt. Students will write down three things they would like to learn more about after watching the video.



This Place: The Journey of the Bogong Moths
(Source: [ABC Education](#))

After watching the video, students will research one of the questions they wrote or find answers to one or more of the following inquiry questions.

- Where is Mungabareena? Find on a map of Australia. Then find on a [map of Indigenous Australia](#). Find some photos showing the Mungabareena area.
- What does the name Mungabareena mean in the Wiradjuri language?
- In traditional times what activities did Aboriginal people do in Mungabareena? What activities did the women do and what activities did the men do?
- Where is Mount Bogong? Find on a map. Find some photos showing the Mt Bogong area.
- What location were the moths gathered and what location were the moths eaten by the Wiradjuri people?
- What are some of the animals that live together in the Mungabareena area? Find and learn the Wiradjuri words for some of the animals.



Wiradjuri Country (Source: [Map of Indigenous Australia](#))

Wiradjuri language
Buugang (Bogong moth)
Wugan (crow)
Garru (magpie)
Dyirridyirri (willie wagtail)

Activity: Postcard Writing

Students will imagine they are an animal embarking on its migration journey. Students will choose one animal that interests them the most and conduct research into its migration journey. Students will then design and create a postcard which summarises the animal's journey of migration.

Class Discussion

Begin this activity with a class discussion about what migration is and why animals migrate. Use the following questions to guide your class discussion.

- Find a definition for migration (in relation to animal migration)
- Why do animals migrate? Think of some reasons.

Migratory Animals

Provide a list of migratory animals that students can choose from. Students will choose an animal they are most interested in and focus on that animal throughout this activity.

- Bogong moth
- Humpback whale
- Christmas Island red crab
- Bats
- Arctic tern
- Monarch butterfly
- Elephant
- Great white shark
- Swift parrot
- Wildebeest

Research

Students will research their chosen animal with a specific focus on its migration journey. Students will use the following as a guide during their research.

- Where does the animal's migration journey begin?
- What is the animal's migration destination?
- How far does the animal travel during migration? Calculate the distance.
- When does it migrate? Is it seasonal?
- What are some of the reasons this animal migrates? Make a list.
- What survival skills does the animal need to make the journey? Use illustrations to help explain.
- What are some of the obstacles or challenges that the animal may come across during their journey?
- What can humans do to help these challenges?



Create a Postcard

Students will design a postcard that represents their animal's migration journey. Students will include the following

- Imagine you are the animal on its migration journey, and you are writing a postcard to a friend, sharing your experiences from your journey.
- Write about the animal's journey including the start and destination, key stopover sites and interesting facts about the journey. You may want to write about any adventures, challenges, and exciting discoveries on your journey!
- Include the Aboriginal place names on your postcard. Include the traditional place names, for example, "Wiradjuri Country", in your writing and also in the mailing address section of the postcard.
- On the front of your postcard include an image or illustration of the animal or include a map which shows its migration journey.

Activity: Who am I?

Students will play the Who Am I? game to learn more about animals that migrate. See worksheet at the end of this activity. Students will...

- Match the 4 animals to the clues about their migration journey. Students may need to do some research to help them complete this activity.
- Draw a line to match up their journey.
- Choose one of the migratory animals and then conduct their own scientific research.


Answers to the *Who Am I?* game

Clues: 1. Bogong moth, 2. Humpback whale, 3. Arctic tern, 4. Christmas Island red crab.

Who am I?


Your task is to match the 4 animals to the clues about their migration journey! Draw a line to match up their journey and then complete your own scientific research.

I shelter in alpine caves over summer.
I have a wingspan up to 5 cm.
I'm an important food source for many alpine animals.
I fly up to 1000 km during my annual migration.




humpback whale
(Megaptera novaeangliae)

I travel north from Antarctica to warmer waters to give birth.
On my return journey you will often see me closer to shore, frolicking and taking my time with my babies.




Christmas Island red crab
(Gecarcoidea natalis)

I have the longest migration of any animal, traveling 72,000 kilometres each year from pole to pole.
I spend most of the year on the move.
I migrate to follow the summer sun.



bogong moth
(Agrotis infusa)

At the start of the wet season, I migrate from the forest to the ocean to breed.
The timing and speed of my journey is determined by the phase of the moon.
To protect us, some sections of roads close during peak migration time.



Arctic tern
(Sterna paradisaea)

Choose one of the above animals and learn more about their migration journey! Conduct your own scientific research and complete the following sentence starters.

I migrate because...
In order to find my way, I...
When I was migrating, I... which was very challenging.

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Useful Websites

- [Bogong Moth](#) – Australian Museum
- [Mysteries of the Bogong Moth](#) – Museums Vitoria (YouTube)
- [Moth Tracker](#) – Zoos Victoria
- [Migration](#) – National Geographic
- [What is migration and why do some animals migrate?](#) – BBC Bitesize
- [Christmas Island Crabs](#) – BTN
- [This Place: The Journey of the Bogong Moths](#) – ABC Education
- [Moth Tracker App](#) – Zoos Victoria and Swiftt

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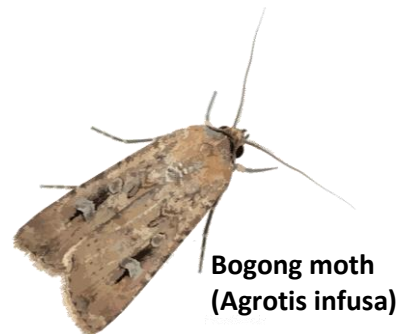
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