

# Teachers' Notes

## My Little World

Written by Julia Cooke

Illustrated by Marjorie Crosby-Fairall

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### OMNIBUS BOOKS

Category	Picture Book
Title	My Little World
Author/	Julia Cooke
Illustrator	Marjorie Crosby-Fairall
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## About the Story

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*By demonstrating how important a child's unique perspective of the world can be, this book introduces children to nature and developing interests in plants, fungi and animals. It encourages children to look for and then carefully observe interesting things they find in nature without the need to touch them or pick them up. Many animals, plants and fungi that are quite small come in lots of amazing colours, shapes, patterns and have interesting behaviours; they are wonderful to see! You don't need to go very far to find little worlds that will delight children and adults alike.*

This book is based on a story from the author's childhood. Julia says, 'My mum is a keen bird-watcher, but when I was little I had lots of trouble seeing birds because they were fast and far away. I also found binoculars really hard to use! But then my sister and I started looking at things at our eye-level, which brought them much closer, and we discovered our own little world. Mum and Dad were very surprised when we showed them all the things we found. Mum still says today (25 years later!) that she is so glad we were around, otherwise she would have missed so much!' Many children will relate to the first page in *My Little World* about not being able to see the same things as grownups. This is an empowering story for children – it's about finding things by themselves when looking from a different perspective.

## About the Author

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Julia Cooke was born in 1981 in South Australia. With a biologist father and a mother also interested in nature, it is no surprise therefore, that Julia became a plant ecologist. Julia completed an Arts/Science degree at ANU, Canberra and did her Honours project in weed ecology with fieldwork in the beautiful Flinders Ranges in South Australia. Julia lives in Sydney with her partner who is also an ecologist. Julia is completing her PhD on the functions of plant silicon. She rides an electric bicycle and loves searching for native orchids. Julia wrote the first draft of *My Little World* at high-school. It's her first book, and she's very excited about that.

## About the Illustrator

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When Marjorie Crosby-Fairall was a little girl, she was very happy to escape to the library as often as possible. There she spent equal hours devouring the text of story books and minutely examining the illustrations. She was very young when she decided she wanted to be an illustrator like her then favourite illustrator C.W. Anderson (what little girl doesn't love horse drawings?). Encouraged by her creative family, she gained a Bachelor of Fine Arts in Illustration from Northern Illinois University. Following her move to Australia, she worked in many areas of illustration, including story book illustration. Her book *Killer Plants* won the Children's Book Council of Australia's Eve Pownall Award for Information Books. Marjorie loves to experiment with new techniques for her illustrations, but always seems to return to her beloved and well-used colour pencils.

## About the Illustrations

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Marjorie Crosby-Fairall used pencil and gouache paint to create these beautiful illustrations. This is a very unusual book in that the main character is not seen, except in the vignettes at the beginning and end of the book. Instead, Marjorie's illustrations show the perspective of the main character so readers really feel like they are part of the story. She has made each page feel quite different to depict different micro-environments. Julia and Marjorie put a lot of effort into making these illustrations biologically accurate. Julia contacted other scientists for their help and advice and Marjorie used many references and paid close attention to minute detail to make her illustrations of the species realistic. The illustrations are not just pictures of species, but they show behaviours and interactions between species too. All of the animals, plants and fungi featured could be found on Black Mountain in Canberra and the story is set in October, a spring month when many plants are flowering.

## Study Notes for Teachers

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1. ***My Little World* is ideal for introducing the natural world and learning to appreciate and examine it. Here are some topics for discussion and/or study after the story has been read to the class.**

- **Talk about animals.** Invertebrates (animals without backbones) are animals too! Most people think of mammals, marsupials, reptiles and birds when they think of animals, but insects, snails, spiders and scorpions are animals as well. Ask students to count how many animals are on each double page (they could also count the different types of plants and fungi). This time could be used to search for the species listed in the back of the book that are not named on the pages.
- **Make a nature diary.** Ask students to hunt for little animals including traces of animals (eg feathers or shells), plants and fungi in the schoolyard and draw what they find. There is no need to catch or touch things, but quick sketches are useful as what they find may not sit still for long! Encourage children to describe what they see, including behaviour, colours and numbers of body parts. It is not necessary to know what something is called to find out many things about it. A nature diary can be continued over a few days or a whole term. A cover and example page are supplied as an appendix.
- **Draw a lifecycle.** Use the images on the page about the stick-looper larvae to make a lifecycle, with arrows from each stage forming a circle. The eggs, larva, pupa and moth are shown. The eggs hatch into larvae/caterpillars, which then grow, shedding their skin a number of times until they pupate into pupae/chrysalises and eventually the adult moths emerge and adult females lay eggs starting the cycle again. Talk about adults and juveniles (young) and different stages of development. Ask students to try to work out if each animal pictured in the book is an adult or a juvenile.
- **Introduce plant cycles.** Plants also grow and change. Seeds germinate, grow into plants, flower and set seed. It may be hard to find all stages of this cycle in the playground, but you can often find smaller parts of the cycle. For example, look for new young leaves (which can be very pretty colours), mature leaves and dead leaves or look for flower buds, open flowers, dead flowers and then fruits and seeds. Students can stick them on paper in the right order and label each stage.
- **Explore times of the year.** This book is set in spring, in October, when many plants are flowering. Many plants flower only for a month or two, and many insects have short life spans (eg your playground may be inundated with Christmas beetles in December but they are not seen at any other time of year). List which plants are flowering in the school grounds and which are not flowering. Over several months

students could note when different plants first start flowering and when they set seed. The study of timing (in both plant and animal development) is called *phenology* and this is an important field of study, particularly now. Climate change may change the times of the year when plants flower, insect eggs hatch etc. Scientists can monitor the effects of climate change by studying this.

- **Remembering.** Can the children remember all the animals mentioned in the story? Make a list on the board. Don't worry if you can't remember their exact names; a descriptive term is great (eg butterfly with eye-spots, looping caterpillar).
- **Introduce scientific names.** All plants and animals that have been identified and described by a scientist have a unique scientific name with two parts, eg *Eucalyptus rossii* (the inland scribbly gum featured in the book). The genus name comes first and is like a surname. The species name comes second and is like a person's first name. Two species with the same genus name are closely related. For example *Eucalyptus rossii* is related to *Eucalyptus polyanthemos* (red box), *Eucalyptus rubida* (candle barked gum) and *Eucalyptus macrorhyncha* (red stringy bark). Many names come from Latin or Greek words, but some species have been named after people. The name *Eucalyptus* comes from old Greek words *eu* and *calyptos* which mean 'well' and 'covered', describing the cap on the flower bud that protects developing flowers. The species name *rossii* is named after William John Clunies Ross, a man who helped collect early specimens of this species. There is more information about the origin of names, including *Eucalyptus rossii* and *Ogmograptis* here: <http://www.friendsanbg.org.au/bernardpapers.pdf>). Each species also fits into a higher classification system, for example *Eucalyptus rossii* is grouped with many other species with similar flowers in the family Myrtaceae and with all other flowering plants in the Angiosperm group. Explain about naming species to your students. You could write up some of the scientific names from the back of the book on the board and ask the student to try pronouncing them – it's not easy! We have a scientific name too. Humans are called *Homo sapiens*. See also related activity below.

Many species also have a common name, such as Inland Scribbly Gum. These are the names provided in the book. It can be confusing, as a species may have many common or nicknames, or many species can share the same one (eg there are lots of species called scribbly gums).

- **Observing behaviour.** Ants are great to watch, as they have many interesting behaviours and can be fairly easy to find. Being careful not to touch or disturb them in any way, just watch what they are doing. Are they hunting for food alone (solitary ants) or in a long line (social ants)? Are they carrying food that is part of a plant (herbivorous ants), dead animals (carnivorous ants) or both (omnivorous ants)? Can you see any ants touching each other with their antennae? They could be exchanging messages. Some children can be allergic to ant bites, and so this activity may not be suitable for all classes.
- **Discuss animal signs.** Often you can tell that there are animals around even if you can't see them. Have a look through the book or outside for signs of animals. These could include herbivore damage (chewed leaves), tracks, discarded skin, nests, webs, chrysalises, egg casings and poo. Can you guess what caused the signs and how? Have a look at the Web2Spider resource on the Australian Museum website ([http://australianmuseum.net.au/Uploads/Documents/15675/web2spider\\_guide.pdf](http://australianmuseum.net.au/Uploads/Documents/15675/web2spider_guide.pdf)). It provides a key for monitoring spider diversity based on the types of webs observed rather than the spiders themselves. Survey the webs in the school grounds. There is a similar guide for herbivore damage: (<http://australianmuseum.net.au/Uploads/Documents/9358/Herbivore2damage.pdf>).
- **Introduce camouflage and colour.** Why are some animals greens and browns while others are bright reds and yellows? Camouflage allows animals to hide and protects them from predators. Or it helps animals to be good predators and get close to their prey undetected. Which animals in the book are well camouflaged? Are they predators or prey? Bright colours can be a warning signal to a predator that an animal is poisonous or dangerous or can scare or distract the predator. Which animals in the book are brightly coloured? The Meadow Argus butterfly has wing spots to scare predators by making it look bigger than it is.
- **Valuing invertebrates and plants.** They might be spineless, but invertebrates are very important and we would be lost without them. Many plants are pollinated by insects – if it wasn't for these pollinators we wouldn't have lots of the fruits and vegetables that we like to eat. Invertebrates spread seeds too. Most of the things we eat are made of plants – you could talk about all the things in lunch boxes that come from plants. Very importantly, plants convert carbon dioxide into oxygen (through photosynthesis), which we need to breathe. Lots of fungi and invertebrates are very important recyclers too: they break down and decompose waste products.

- **Making links.** Relate the animal signs and behaviours discussed earlier to the functions that these animals perform which will link many activities above together. For example: Can you identify the type of spider from the web? *Use the Web2spider guide.* What function does the web have? *The spider builds it to catch insects for it to eat.* How could it benefit us? *A few spider webs in your garden can reduce the numbers of flies and mosquitoes.* **NOTE:** Insects are more abundant and plant growth higher in warmer weather, and can be limited in cold weather or in droughts. Some of these activities may be easier or more successful at certain times of the year depending on where your school is located.

**2. *My Little World* can inspire creative artworks, writing and play. Here are some ideas:**

- **Make your own scribbly gum.** Cut a gum tree trunk from a large piece of grey paper and add eucalyptus-shaped leaves. Ask the children to scribble words or their names in their worst handwriting on the bark! Can the others read it? Read about scribbly gums in the back of the book. May Gibbs used scribbly gum writing to interesting effect in her illustrations: see *The Adventures of Snugglepoot and Cuddlepie.*
- **Writing in verse.** *My Little World* is written in verse. As a class, look at the structure of the poems on each page and work out how many lines are on each page, how many beats per line and which lines rhyme. Then ask the children to make up their own poem to match this structure. The nature diaries can be used as inspiration.
- **Natural history illustrations.** Ask the children to draw an illustration for their verse. Encourage them to hide lots of little animals, plants and fungi in the picture and write a name for each animal next to it like in the illustrations. Again, their nature diary can provide inspiration, but they could also use reference books too (see Further Reading).
- **Introduce micro-habitats.** A habitat is a place where animals and plants live. We are familiar with jungles, deserts, lakes and forests. A micro-habitat is a smaller piece of a habitat that has its own micro-climate and structural characteristics. Common micro-habitats for insects, plants and fungi are under rocks, on bark, on the bank of a creek etc. Collect twigs, leaves, dirt and other natural objects from the playground for each child to stick on paper to make a micro habitat. They can use paint/pencils too. The children can describe their micro habitat – is it cool, damp and sheltered or hot, dry and exposed? You could use this as an opportunity to talk about opposites.

- **Using music to create atmosphere.** Watch an episode, or selected segments, of David Attenborough's *Life in Undergrowth* (see Further Reading). Ask the children to pay special attention to the music that is played in different scenes. Pause the DVD after some segments and talk about the type of music and sounds used – you could watch the same segment with the sound muted. How would they describe the music? Dramatic, joyful, slimy, running? Does it help create atmosphere? Afterwards, encourage the children to make up some music to match a page from *My Little World* or any of their own creations from the three previous activities. Alternatively ask the children to imagine that the sounds animals make when they move are amplified. How would an ant sound? Or a slug? Or a millipede?
- **Dressing up and acting like an animal.** Ask the children to dress up and to move around like one of the animals in the book. What do they need to look like the animal? Extra legs, antennae or a shell? Does the animal jump, loop, crawl, fly or climb? This activity could also be linked to the previous one.
- **More about scientific names.** When a new species is discovered it is given a scientific name (genus and species) and described in detail (see information above about scientific names). Ask the children to describe one of the species in the book, including the size, colour and behaviour (if it's an animal). They could draw a make-believe plant, animal or fungus and make up their own name and description. Encourage children to use lots of adjectives to describe the species and include numbers (ie six brown, hairy legs with claws on the end). You could also encourage them to use measurements (ie the caterpillar was 3 cm long and 0.5 cm wide).

**3. *My Little World* can be used to demonstrate different perspectives and the benefits and problems that can arise from seeing things differently from others. Here are some ideas for discussion:**

- **Relating to the story.** Ask the children if they can relate to the story and have trouble seeing some of the things their parents/grown-ups point out.
- **Recognising unique contributions.** Discuss what unique things the children contribute to their family, something that they were the first to do, or only they can do. Perhaps they were the only person who spotted something the family was looking for, or the only one with a small enough hand to reach something.

- **Understanding and imagining.** Ask the children who could be telling the story? How old do you think they are? Can you tell which country it is and if it could be in a different country?
  - **Considering different perspectives.** Encourage the children to see things from different perspectives. What can they see (or notice most) around the classroom when they lie on the floor? What about when sitting and standing? And when they stand on drama blocks? Relate these heights to being younger or older. Then try standing in each corner of the schoolyard and talking about which parts of the school you can see. Relate this to approaching the same problem or concept from different perspectives.
- 4. Set in Canberra, Australia's capital, *My Little World* can be used to introduce the history of that city.**
- **Introduce the bush capital.** Canberra is a small city with many protected natural areas. Discuss the history of Canberra with your students. Talk about why we have a bush capital rather than a big city. Talk about the history of Canberra and the winning design that Walter Burley Griffin developed to both preserve and make use of the natural areas around Canberra. The National Capital Website (<http://education.nationalcapital.gov.au/>) is a useful source of activities.
  - **Listening and learning.** A set of 4 CDs produced by the ABC has 59 snippets of 2–5 minutes about the natural history of Canberra, each focusing on a different plant or animal. The class could listen to one each day to stimulate interest and increase their natural history vocabulary. See **Audio and visual references** below.

## Further Reading

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Author's website: <https://sites.google.com/site/cookejulia/>

### References for younger readers

- Brunet, B. 2000, *Spider watch: a guide to Australian spiders*, New Holland (Australia), Sydney.
- Clyne, D. 2010, *All about ants*, New Holland (Australia), Sydney.
- Clyne, D. 2009, *The secret life of caterpillars*, New Holland (Australia), Sydney.

- Coupar, P. & Coupar, M. 1992, *Flying colours: common caterpillars, butterflies, and moths of south-eastern Australia*, University of New South Wales Press, Sydney.
- Lindsey, T. 1998, *Green guide: spiders of Australia*. New Holland (Australia), Sydney.
- Zborowski, P. 2010, *Can you find me? Nature's hidden creatures*, New Holland (Australia), Sydney.
- Zborowski, P. 2007 *Spiders, snails & other minibeasts of Australia*, New Holland (Australia), Sydney.
- Zborowski, P 2002, *Green guide: insects of Australia*. New Holland (Australia), Sydney.

#### **References for older readers/general public:**

- Braby, M. F. 2000, *Butterflies of Australia: their identification, biology and distribution*, Volume One, CSIRO Publishing, Collingwood, Vic.
- Braby, M.F. 2004, *The complete field guide to butterflies of Australia*, CSIRO Publishing.
- Clyne, D. 1981, *A guide to Australian spiders*, Thomas Nelson, Sydney.
- Hangay, G. & German, P. 2000, *Insects of Australia, a field guide*, Reed New Holland, Frenchs Forest, NSW.
- Hangay, G. & Zborowski, P 2010, *A guide to the beetles of Australia*, CSIRO Pub.
- Rentz, D. C. 1996, *Grasshopper country: the abundant orthopteroid insects of Australia*, University of New South Wales Press, Sydney.
- Rentz, D. 2010 *A guide to the katydids of Australia*, CSIRO Publishing.
- Theischinger, G & Hawking, J 2008, *The complete field guide to dragonflies of Australia*, CSIRO Publishing.
- Zborowski, P & Storey, R. 2010, *A field guide to insects in Australia*, CSIRO Publishing.
- Zborowski, P & Edwards, T 2007, *A guide to Australian moths*, CSIRO Publishing.

#### **Canberra-specific references**

- Fraser, I & McJannett, M. 1993, *Wildflowers of the bush capital: a field guide to Canberra Nature Park*, Vertego Press, Canberra.

- Jones, D. 2008, *Field guide to orchids of the Australian Capital Territory*, National Parks Association of the ACT, Canberra.
- National Parks Association of the ACT Inc. 2007, *Field guide to the native trees of the ACT*, Canberra.

### Websites

- **Bugwise** (<http://australianmuseum.net.au/Bugwise/>): a website about invertebrates, with identification and monitoring tools including a key to identifying different types of spiders based on their webs! Australian Museum
- **Backyard Biodiversity** (<http://www.csiro.au/csiro/channel/pchek.html>): a CSIRO page dedicated to exploring the plants and animals in your own backyard including endangered and invasive species. Lots of activities to try!
- **Bugs!** (<http://museumvictoria.com.au/bugs/aboutbugs/index.aspx>): a fun page about invertebrates from the Museum of Victoria with lots of interactive activities.
- **Fungi DownUnder** (<http://www.rbg.vic.gov.au/fungimap/home>): a great page full of facts about finding and figuring out fungi!

### Other picture books

- Aston, Dianna & Long, Sylvia 2007, *A seed is sleepy*, Chronicle Books.
- Aston, Dianna & Long, Sylvia 2006, *An egg is quiet*, Chronicle Books.
- Tonkin, Rachel 2006, *Leaf litter*, Angus & Robertson.

### Audio and visual references

- BBC Worldwide 2006, *Life in the undergrowth*, presented by David Attenborough.
- Fraser, Ian 2007, *Four seasons of the bush capital*, ABC Audio.

### Appendix

- Attached is a cover and template page that can be printed out (or just used as a guide) to make nature diaries for students.



## My Nature Diary

Name: \_\_\_\_\_

Class: \_\_\_\_\_

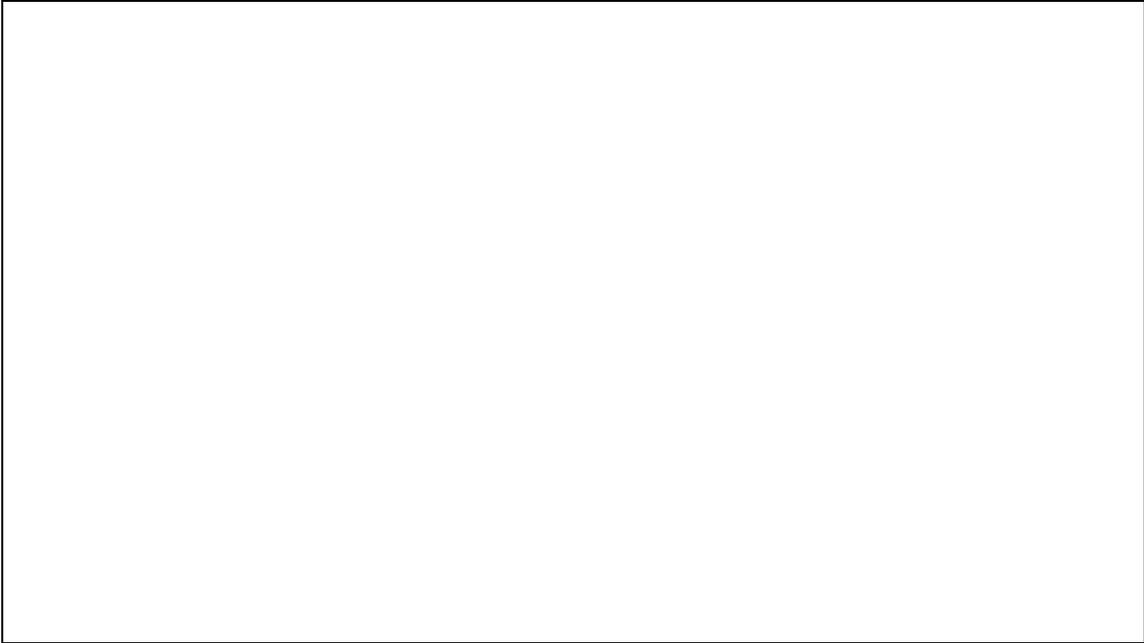


Images © Julia Cooke

Date: \_\_\_\_\_ Time: \_\_\_\_\_

Location: \_\_\_\_\_

Drawing of plant, animal or fungus:



Identification (if known):

\_\_\_\_\_

Notes (appearance, habitat, behaviour): \_\_\_\_\_

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