

# Teaching Entomology Through Children's Stories

Lindsey Kemp  
Salem State University, Entomology  
Sponsored by Lynn Fletcher

## Abstract

There are very few children's books that teach them about insects. This project was designed to help children learn and understand entomology through stories. The requirements of this project was to research about an insect order and a few different families. When collecting information, primary and secondary sources were used, and a bibliography was developed to help keep a record of the sources. Information about an insect's life history, behaviors, and morphological adaptations were researched for creating this story. The result of this project can be seen in the images below.

A children's book about the insect order Phasmatodea, also known as stick insects or leaf insects. Phasmids are known to mimic sticks and leaves, and in some species, mimicry extends to the eggs.

This project was made using a PowerPoint Zine template to create a flip book and Adobe Photoshop to edit images.



### Part 1: The Egg

Somewhere in Australia, a shiny brown seed was taken underground by an ant.

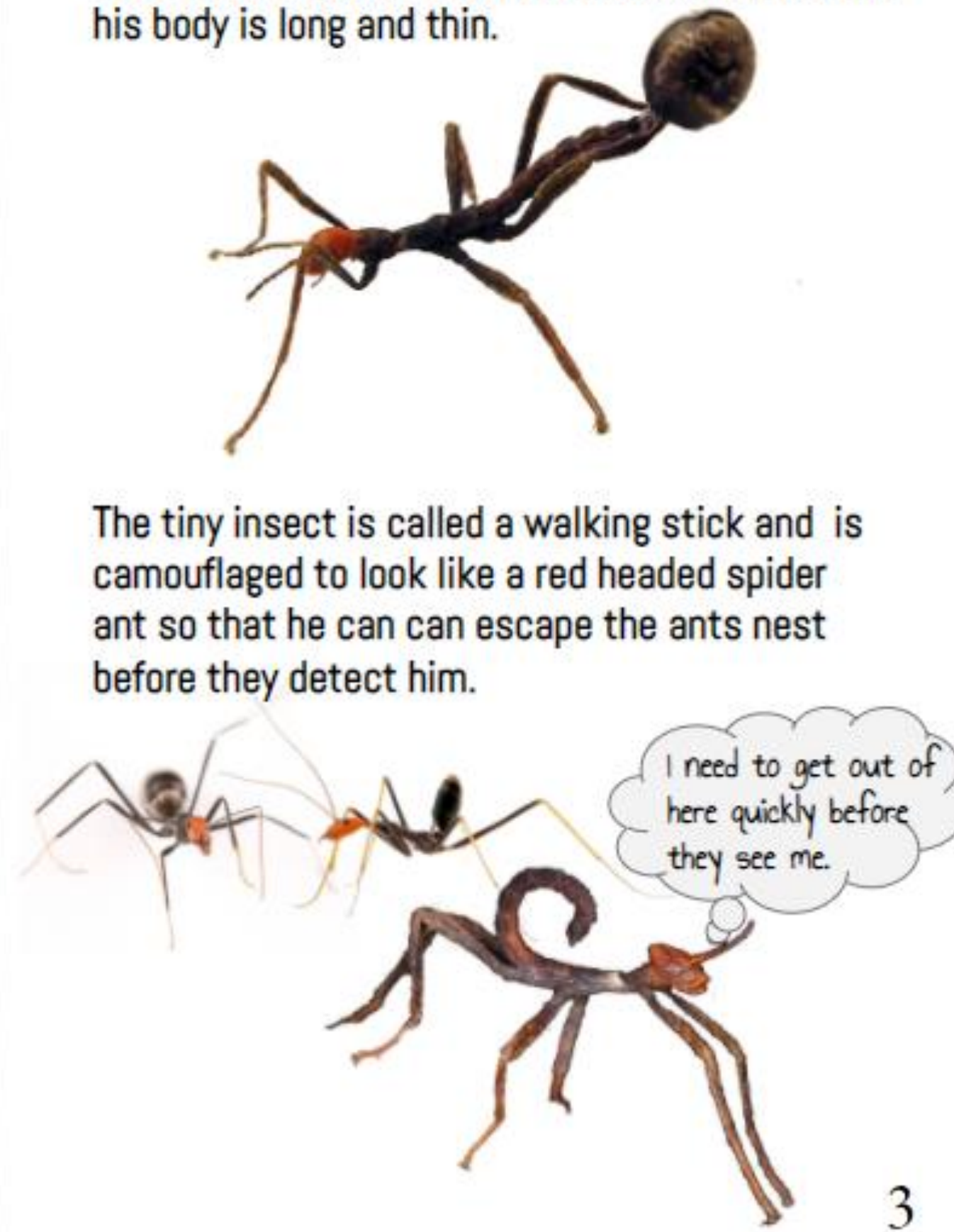


The ant carries the strange looking seed to a pile of food so that it can be eaten later.



2

One night, the strange seed starts to wiggle, and a little head emerges. Its a baby insect! It was not a seed but an egg. He crawls out of the seed shaped egg quietly. He looks like an ant but his body is long and thin.



3

### Part 2: The Nymph

The little stick insect leaves the nest very quickly before the ants discover the intruder. He scampers out to the nearest tree and climbs to a safe place.



The newly hatched nymph, which is a name for a young insect, clings to the tree branches and stays there until he grows into an adult.



4

He stays camouflaged to look like a stick or a leaf to protect himself from other animals. Prickly stick insects are herbivores and eat the leaves from eucalyptus trees to molt and grow. Molting is when a young insect sheds their skin to grow into an adult. They are active at night and will eat many leaves.



After a week, the little stick insect sheds his skin for the first time. He looks completely different. He is bigger and his skin is brown with some spikes on his head.



5

### Part 3: The Adult

He sheds his skin seven more times. Each time he gets bigger and changes shape. He is now an adult male *Extatosoma tiaratum*, also known as, the prickly stick insect. He has wings and a thin long body. The males look different than the females. Females are bigger with spikes and no wings.



*Extatosoma tiaratum* male

He has wings so that he can find female prickly stick insects. He finds them by sensing their pheromones which are a chemical signal released from the body to attract mates.

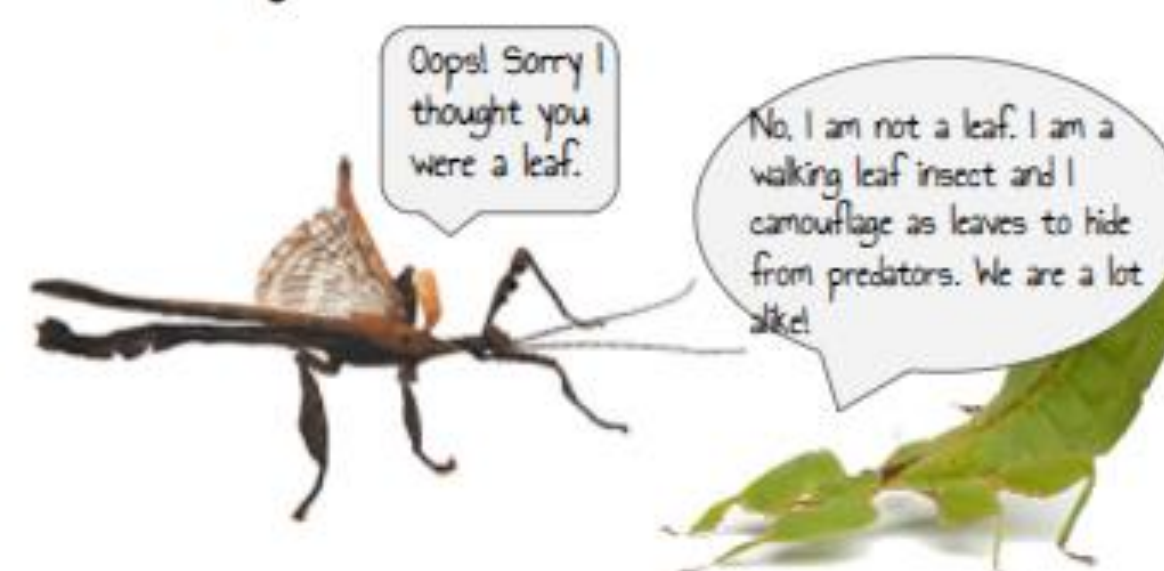


6

One night, he decides to fly away from his tree to explore the forest so that he can find other stick insects just like him. It starts to rain so he lands on the nearest leaf in front of him.



The leaf starts to move and up close he sees that it is another insect like him that can camouflage as a leaf. She curls her body forward in defense to the creature that just landed on her, and moves her body slowly swaying back and forth. She acts like a leaf blowing in the wind.



7

### Part 5: The predator

The walking leaf starts to move up the tree to find better protection from predators. A predator is an animal that eats another animal. the prickly stick follows her to make sure his new friend is safe.

All of a sudden a bird catches their movements and swoops down to see if it can get a closer look. The prickly stick starts to camouflage with a branch and sways back and forth like his walking leaf friend. The bird sees the two camouflaged insects and moves in closer. The stick insect quickly brings his body forward like a scorpion and acts big and tough with his spiny body but the bird is not intimidated.

Then he flashes his wings as a warning to the bird if he gets any closer. The bird is not backing off so the prickly stick makes clicking sounds and sprays the bird with a peanut butter smelling odor. The bird does not like this and instantly flies away.



8

The walking leaf is very relieved that they scared away the bird. She thanks her new friend the prickly stick for saving them and says goodbye. She is leaving to a new place so that a male walking leaf can fly to her and start a family.



The prickly stick says farewell and flies away to look for a female prickly stick so that he can start a family too.



9

### Part 6: New life

He lands on a tree and notices a beautiful large prickly stick insect. She is round bodied and has spines all over her face and legs. Her legs are large and prickly that look like little leaves.



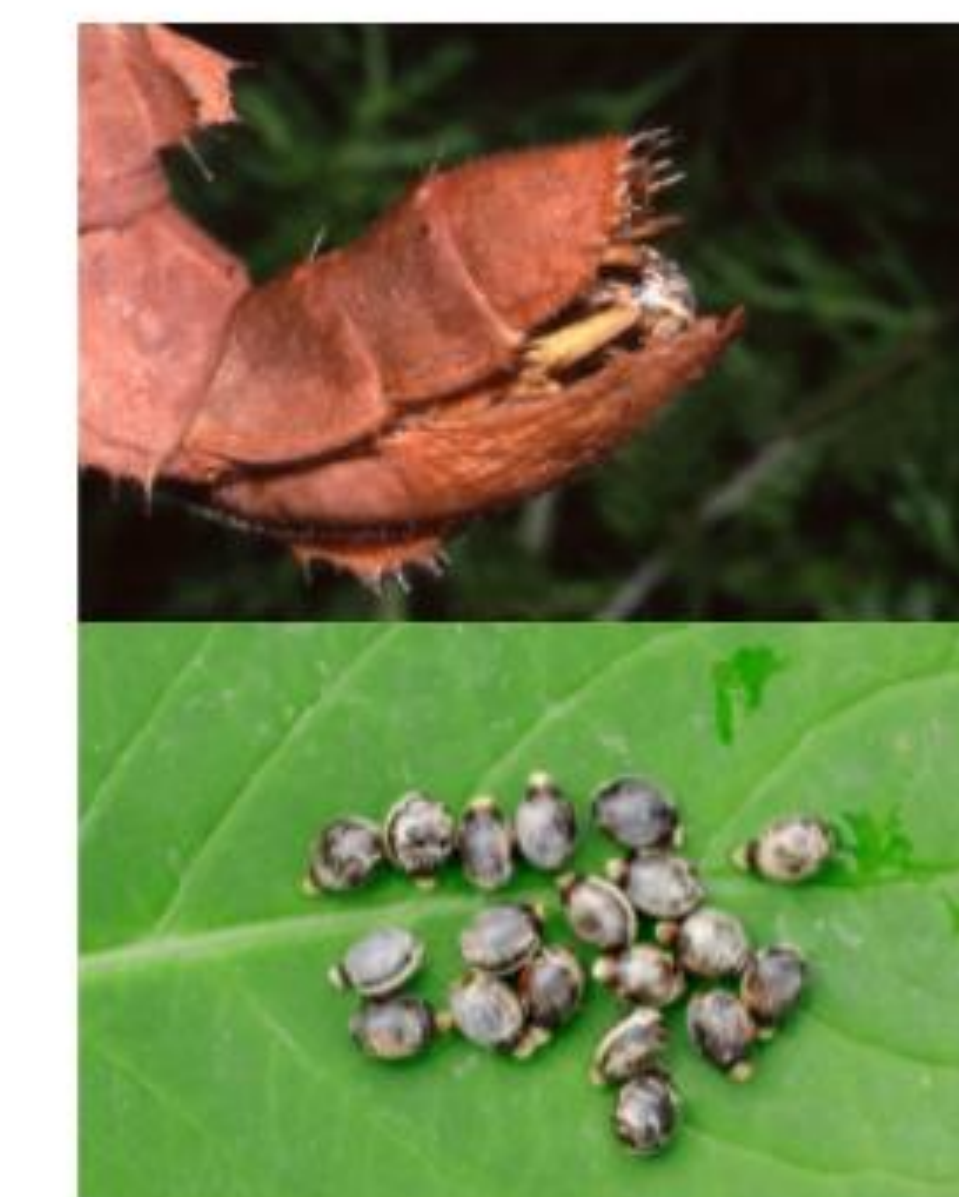
*Extatosoma tiaratum* female

Her chemical signals attract him to her and they decide to start a family. The female prickly stick gets pregnant and needs to find a place to lay her eggs.



10

Ms. prickly stick leaves to lay her eggs during the night when it is a safe from predators. She finds a place close to the ground and starts laying her eggs by flicking them with her body. The eggs fall to the ground camouflaged as seeds and in hopes that one day an ant will pick it up as food and bring it underground to hatch.



The prickly stick insects lives end after breeding but a new generation of little stick insects emerge and start their new life.

11



## Works Cited

- Brook, P. D. (1998). Studies on the Stick-Insect Genus *Curycnema* Audinet-Serville (Phasmatodea: Phasmatidae) with Particular Reference to Australian Species. *Journal of Orthoptera Research*, 7, 61-70.
- Coffin, B. O. (1912). XXXV. - On *Diaphanosoma femorata* (Walking Stick insect). *Annals and Magazine of Natural History*, XXXV(Series 8), 350-352.
- Gunning, G. E. (1987). Behavioral Observations of the Walking Stick *Anisomorpha buprestoides* (Phasmatodea: Phasmatidae). *Florida Entomologist*, 88(1), 406-407.
- Kaplan, S. (2016). These bugs' babies get eaten by birds but it might be for their own good. *The Washington Post*.
- Keeping insects. (2020). Retrieved from Giant Prickly Stick Insect: <https://www.keepinginsects.com/stick-insects/species/giant-prickly-stick-insect/>
- Markie, S. (2008). *Stick Insects: Master of Defense*. Minneapolis: Lerner.
- Phasmatodea. (n.d.). Retrieved from Wikipedia.org: <https://en.wikipedia.org/wiki/Phasmatodea>
- Phasmatids: An Introduction to Stick and Leaf Insects. (n.d.). Retrieved from Phasmatid study group: <http://phasmatidstudygroup.org/index.php/phasmatids>
- Phyllidae. (n.d.). Retrieved from Wikipedia: <https://en.wikipedia.org/wiki/Phyllidae>
- Triplehorn, C. A., & Johnson, N. F. (2005). Order Phasmatodea. In *Borror and DeLong's Introduction to the Study of Insects* (pp. 227-229). Belmont: Brooks/Cole.
- Whitfield, J. a. (2013). *Day and Croyen's Introduction to Insect Biology and Diversity* (3rd ed.). Oxford University Press.