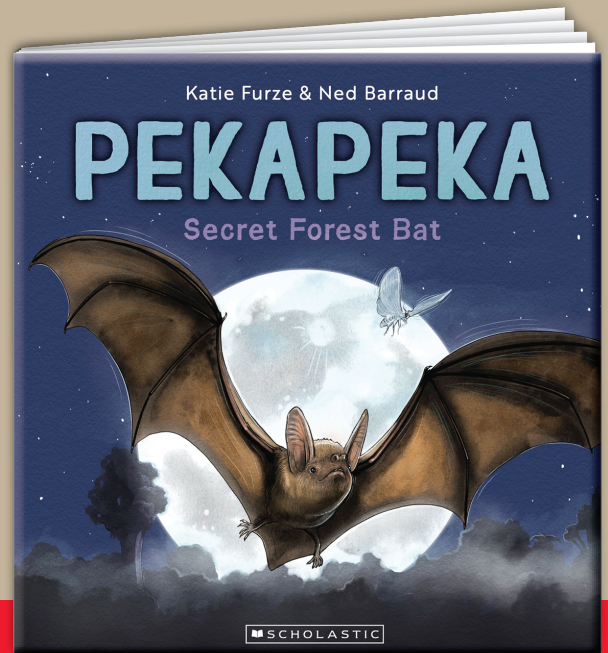


Pekapeka, Secret Forest Bat

By Katie Furze

Illustrated by Ned Barraud



• Reading • Writing • Science • Social Studies • Art

Synopsis

Deep in an ancient New Zealand forest, inside a hollow tree, sleeps a tiny pekapeka. As darkness falls, she joins hundreds of bats zipping and zooming into the night to hunt for insects, nectar and fruit. But danger lurks in the shadows, from hungry ruru to prowling rats and stoats. Pekapeka must use her sharp senses, clever echolocation and nimble wings to survive. Adapted over millions of years, New Zealand's short-tailed bats are unique, spending much of their time foraging on the forest floor. As dawn breaks, Pekapeka returns to her roost, where she now feeds her newborn pup, and the cycle of life continues.

The back matter includes background information about New Zealand's only native land mammal, the bat, with fascinating facts about short-tailed pekapeka, and details about conservation efforts to protect these endangered animals.

About the Author

Katie Furze writes children's fiction and non-fiction, including picture books, short stories, articles, plays, readers and novels. You can read her work in the New Zealand School Journal, or The School Magazine in Australia. Katie has also written stories in anthologies and readers and plays for educational publishers. *Tuatara, A Living Treasure* was her first non-fiction picture book with Scholastic, followed by *Ruru, Night Hunter*. Katie has a master's degree in creative writing and is fascinated by science and nature. When she's not reading or writing, she enjoys the outdoors, tramping, yoga, travelling and scuba diving. She lives in Auckland with her family.

About the Illustrator

Ned Barraud studied art in Otago and illustration at Victoria University and has since authored and illustrated a number of children's books including the highly successful 'Explore and Discover' series about different ecosystems in New Zealand, and seven other books on his own, including 2018's acclaimed book on insects *New Zealand's Backyard Beasts*. Always fascinated by the form and beauty of the animal kingdom, Ned loves to help introduce children to the natural world around them and encourages them to explore it. This is his third collaboration with Katie Furze, following on from *Tuatara* and *Ruru*. Ned lives in Nelson with his wife and children.

Writing and Illustration Style

Pekapeka, Secret Forest Bat is a 32-page non-fiction picture book for the 3–7 age group. It's a companion title to *Ruru, Night Hunter* and *Tuatara, A Living Treasure* and celebrates the only native land mammal in Aotearoa New Zealand. Katie Furze writes with admiration and respect for the small but mighty pekapeka, a short-tailed bat. Pekapeka, the female bat in the book, takes centre stage in the drama that unfolds as she descends into the velvety darkness to search for food while trying to evade the jaws and claws of many night-time predators. The main text is written in the third person present tense. Throughout the book, there are informative non-fiction captions in coloured panels placed at the top or bottom of some of the pages. They relate to the topics covered in the main narrative. In the back matter, Katie also provides some background and cultural information, as well as additional facts, about these bats of Aotearoa.

Ned Barraud's rich, atmospheric illustrations are created with ink pen drawings and digital colouring. They capture beautifully the essence of the ancient native forest at night and the secretive, hidden world of pekapeka. The book's main text is set in Brother 1816 Printed, with the dramatic parts of the story being set in a larger font size. Ned's passion for wildlife and the great outdoors is obvious in his well-researched and detailed work. His aim is to promote nature with his illustrations and have them inspire young readers to get out there, observe the natural world and spark their interest in Aotearoa's native animals.

Shared Learning and Discussion Points

Read the story aloud and have students read alongside you or follow along as you read. Questions help guide the students and promote more in-depth discussions. Prior to reading, ask the students questions that encourage them to draw on their own personal experiences with pekapeka and New Zealand's native ancient forests. As the students read, ask open-ended questions to help them make predictions, form opinions, check for comprehension, find connections, build confidence and develop good communication skills.

ASK YOUR STUDENTS:

Look at the front cover and read the blurb on the back cover.

- What do you think the book will be about?
- What do you think the word 'Pekapeka' means?
- Is it night-time or daytime? How do you know?
- If the moon wasn't there, how else could you tell that it's night-time?
- Have you seen a bat before? Where did you see it?
- Why do you think the author uses the word 'Secret'?
- What dangers do you think Pekapeka might face?
- Why is Pekapeka rustling through the fallen leaves and twigs?
- What is a mammal? What special features do mammals share?

COMPREHENSION:

- Why would a large tree be hollow? (p.2)
- Why would Pekapeka be upside down? (p.2)
- What does the word 'nocturnal' mean? Do you know any other animals that are awake and hunt during the night? (p.2)
- Why do you think bats sleep in large groups? (p.3)
- What animal might belong to the prying eyes? Why would some animals look for bats? (p.3)
- Do you know of any other animals that snuggle together in large groups to sleep or to keep warm? (p.3)
- What does the author mean when she says 'When velvety dark descends'? How else could you describe darkness or night-time? (p.4)
- What is a colony? What other names can you think of for groups of animals, such as a pride of lions? (p.4)
- Why do these bats groom? Have you seen other animals do this? (p.4)
- The author writes 'ZIP, ZAP, ZOOM!' on page 5 to describe how the pekapeka colony fly through the air. This is known as alliteration, which is when two or more words start with the same letter sound and are used for effect. What other alliterative words could the author use to describe the flying motion? (p.5)
- What is a predator? What kind of food do predators eat? (p.5)
- What would happen if Pekapeka didn't leave the hollow? (p.6)



- Onomatopoeia is a word that sounds like what it describes. The words 'plick' is an example of onomatopoeia. It's the sounds that Pekapeka makes as she flies. Why does she make these sounds? (p.7)
- If the chirping sounds are too high-pitched for humans to hear, how would you track a bat? (p.7)
- Why is it dangerous for Pekapeka to be on the forest floor? (p.8)
- What is unusual about Pekapeka and her way of life? (p.8)
- What body parts help Pekapeka search among the fallen leaves and twigs? (p.9)
- What is a snout? (p.9)
- The saying 'blind as a bat' is a mistaken belief. How do you think this saying came about? (p.9)
- Look at the illustrations on pages 10 and 11. What animals can you see that Pekapeka finds? (pp.10–11)
- Have you seen a wētā in real life? If so, what was it like? Do you find these insects scary? Why or why not? (p.11)
- The author uses adjectives to describe the grub (juicy) and the wētā (crunchy). An adjective is a word that describes a noun (such as *grub* and *wētā*) or a pronoun (such as *I*, *you*, *he*, *she*, *it*, *we*, *they*). What adjectives would you use to describe a grub and a wētā? (p.11)
- If a scent drifts through the air, what does this suggest about the strength of the smell? (p.12)
- What do you think Pekapeka's favourite treat is? A clue is that it's sweet and musky. Do you think it'll be an animal or a plant? (pp.12–13)
- What is nectar? What other animals do you know that also lick nectar? (p.14)
- What is *Dactylanthus taylorii*? Why has the author put these words in parentheses? (p.15)
- If the wood rose is entirely dependent on pekapeka, what would happen if the bats died out or moved to an area that didn't have that plant? (p.15)
- What is pollination? If you don't know, how could you find out? (p.15)
- What do you think is coming? Should Pekapeka be worried? (p.15)
- What is the word 'CRACK' an example of? What other onomatopoeic words could describe this sound? (p.15)
- Why do rats prey on pekapeka? Where do they both live? (p.16)
- Who do you think introduced rats, stoats, possums and cats to New Zealand? What can we do to reduce deaths of pekapeka by these introduced animals? (p.16)
- What does the word 'unfurls' mean? What do you think Pekapeka will do next? (p.17)
- What helps Pekapeka cling to the tree trunk? (p.18)
- Why do some plants need their pollen spread around? What other animals help spread pollen? (p.19)
- Have you heard a ruru call in the bush or a forest? What does it sound like? Did the ruru have more than one call? (p.20)
- What time of day is dawn? (p.22)
- On page 23, where do you think Pekapeka is heading? (p.23)
- Who is Pekapeka warning about the stoat? (p.24)
- Have you seen a stoat in real life? If yes, what was it like? Do you think bat predators have a right to kill animals such as bats? (p.24)
- Why do pekapeka go into a deep sleep in the winter? What other animals go into a deep sleep or hibernation? (p.25)
- What is the wooden box under the bat's roosting tree? Why is putting a trap under that tree a good idea? (p.25)
- Why is the bat colony safe? Why does the author say that the colony is safe 'for now'? (p.26)
- What happens if predator control isn't carried out? (p.26)
- Why do some pekapeka come and go from the communal roost throughout the night? (p.27)
- What do you notice about the body text on page 28? Why do you think the author uses the same text that she had on page 2? (p.28)
- Did you realise that Pekapeka was a mother bat or was it a surprise? Explain your answer. (p.29)
- Why do you think short-tailed bats need to eat so much each night? (p.31)
- Why is it important for scientists to work together with iwi, the Department of Conservation and local councils? (p.31)
- What can you do to help pekapeka live safely in their ancient forest homes?



teacher toolkit

 SCHOLASTIC

Activities

ACTIVITY 1: PEKAPEKA MAP

The subtitle for the book reads 'Secret Forest Bat'. Imagine that pekapeka are so secretive that you can't locate where they live. Pretend that you're the head ranger of the ancient forest and that you have to draw a location map for the other rangers to show them where the pekapeka live. On the map, draw the natural physical features of the bats' habitat, such as the forest area, lakes, rivers, hills and mountains. Be sure to show on the map the large tree in which the bats roost. Create a key for the map. A key explains the different symbols and what they stand for that are found on a map, such as roads, dirt roads, bridges and railway lines. Ensure you use colours that are associated with different map features, such as blue for water, green for forests and hills, grey for mountains, white for sparse land, yellow for sandy beaches and black for roads. Give your map a title, such as *The Secret Location of Pekapeka*. Work in pairs and share your map with the rest of the class.

ACTIVITY 2: BAT WATCHING

Around the world, many children and adults belong to bat conservation clubs, which teach their members about the research and conservation efforts of bats in their area, country or around the world. Sometimes the clubs ask their members to set predator traps, plant native trees or monitor bat activity. Design an invitation to the members of the Pekapeka Conservation Club. Invite them to go bat detecting in some bush or a forest area nearby. Remember, the information to feature on an invitation might include: the date, the time, the address or meeting point, what to bring, such as boots, warm clothing, a raincoat and a torch. You could say that there are limited spaces, so you need to hurry up and book now. You could give a brief summary about what the members will do, such as: *Come along, sit quietly and watch out for pekapeka as they emerge from their roosting site. We will provide bat detectors for everyone free of charge.* Display your invitations in the classroom.

ACTIVITY 3: A PEKAPEKA DIET SHEET

Pekapeka eat a range of foods. Short-tailed bats are omnivores, which means they eat both animal and plant matter. Design an infographic diet sheet to show what these small bats eat. An infographic is a visual representation of data and information. At a glance, a person can look at an infographic poster and learn about a topic, without getting bogged down with loads of details. Add a title to your infographic poster, such as *Pekapeka Diets*. You could then divide your poster into two parts: *Animals* and *Plants*. Draw each food source under the correct part of the poster and add labels underneath the pictures. For example, wood rose would go in the Plant part. Use the book to help you draw and list all the food sources the author mentions in the book.

ACTIVITY 4: SHHH, BATS ARE SLEEPING

In the winter, pekapeka may be in a deep sleep called 'torpor'. It's best not to disturb them at all. People mightn't realise there are roosting bats in the bush or forest, so you could design a sign to warn them. Create a 'Do Not Disturb' sign that could be hung on or near their roosting tree. You could draw a bat sleeping upside down with its wings wrapped around itself and have the words 'Shhh, Please Do Not Disturb' on the sign, or it could read, 'Shhh, Bats Are Sleeping'. Display your finished signs in the classroom.

ACTIVITY 5: UPSIDE-DOWN BAT

Short-tailed pekapeka have wings that can fold away under side-flaps of skin. They use the elbow part of the wings as front legs to walk along the ground. Bats sleep upside down and often wrap their long wings around themselves. Make a paper bat with long wings. Colour it black on both sides of the paper, then glue or tape the bat upside down and hanging from a Popsicle stick, a wooden chopstick or a dead twig or branch that has already fallen to the ground. Wrap the wings around the bat as if it's roosting or leave the wings wide open as if it's about to launch off and fly. Display your finished hanging bats on a classroom wall.

ACTIVITY 6: LISTEN UP

Bats have good eyesight, but they find it harder to locate prey, such as moths and mosquitoes, with their eyes at night because it's dark. Instead, they use echolocation to help them. With a friend, play an echolocation game. Put a blindfold on the person who is going to pretend to be the bat. The other person will pretend to be a mosquito. To start the game, the 'bat' claps once. Then the 'mosquito' claps once. The bat walks towards the sound that the 'mosquito' makes. Keep repeating this, clapping faster as you get closer to the prey. The aim is for the 'bat' to catch the 'mosquito'. Swap roles (and the blindfold) and then play the game again.

Written by Janine Scott

