

The Parapara Detectives

by Fiona Terry

School Journal
Level 3, October 2013
Year 5



Overview

Two friends are puzzled when they find dead and injured fantails in a local reserve. The article follows their detective work as they try to find out what is causing the deaths of the small birds. Using information from a plant expert, the Internet, and the SPCA's bird rescue centre, they learn how the parapara tree uses sticky glue to spread its seeds – and kill birds.

The article highlights an interesting dilemma: should a threatened tree species be removed, or is the loss of a few birds acceptable? At the end of the article, two (fictional) newsletters state opposing views. One argues for the removal of parapara trees to save the

birds. The other argues for saving the trees because “Mother Nature knows best.”

The text provides opportunities for rich classroom discussion: students need to use critical thinking as they explore a problem and its possible causes and solutions. This involves understanding how decisions are made and how people's views differ.

Sometimes there is no simple answer to a conservation problem!

Texts related by theme “To Spray or Not to Spray?” SJ 4.3.05 | “The Emperor of Peka Peka Beach” SJ L4 Oct 2012 |

“The Wild Deer Debate” SJSL 2011

Text characteristics from the year 5 reading standard

sentences that vary in length and structure (for example, sentences that begin in different ways and different kinds of complex sentences with a number of subordinate clauses)

illustrations, photographs, text boxes, diagrams, maps, charts, and graphs that clarify or extend the text and may require some interpretation

Unbelievably, there were more. The following day, Rebecca and her brother James found two more fantails in a sticky state. Their friend Grace Cumming came past. She helped Rebecca carry the birds home while James ran ahead to warn their dad.

One bird died shortly after; the second, later that evening. “The birds would have had no chance if you’d left them in the reserve,” Rebecca’s father reassured them.

That night, Rebecca thought about the dead birds. She thought about the goo, which was so sticky it was difficult to remove even with soap. She also thought about how there were no feathers on the ground near the birds. For the first time, Rebecca wasn’t so sure a cat had been involved. The next morning, she went back to the reserve to investigate. It was then that she noticed the tree with the sticky seedpods.

Rebecca’s parents had a friend named Euan, who knew a lot about plants. Rebecca told him about the suspicious tree. “It’s covered in these things that look like little brown cucumbers,” Rebecca explained. “Could they be the problem?”

Euan decided to go to the reserve, where he found three more birds. He said that the culprit was indeed the tree – *pisonia brunoniiana*, better known as the parapara tree. The children were horrified to discover that its nickname is the bird-catcher tree. They were also fascinated by the idea of a tree that kills birds and decided to do some research.

The kids read a couple of theories on the Internet about New Zealand’s coastal parapara tree. One is that the tree relies on catching birds in its sticky sap. The birds then die, providing compost that allows new seeds to grow. Another theory is that the tree uses its sap to help spread its seeds. The sticky seedpods attach themselves to seabirds, eventually falling off as the birds fly. Because seabirds are usually large, they aren’t bothered by the sticky sap. They also burrow in sand, which helps to remove the goo. However, it’s a different story for small birds – as the friends learnt.

abstract ideas, in greater numbers than in texts at earlier levels, accompanied by concrete examples in the text that help support the students’ understanding

Reading standard: by the end of year 5

Possible curriculum contexts

SCIENCE (Living World)

Level 3 – Ecology: Explain how living things are suited to their particular habitat and how they respond to environmental changes, both natural and human-induced.

ENGLISH (Reading)

Level 3 – Structure: Show a developing understanding of text structures.

ENGLISH (Writing)

Level 3 – Structure: Organise texts, using a range of appropriate structures.

Possible reading purposes

- To follow two “detectives” as they find out why fantails are dying
- To find out how and why the parapara tree harms birds
- To explore a problem and the arguments for and against different solutions.

See Instructional focus – Reading for illustrations of some of these reading purposes.

Possible writing purposes

- To describe or explain how another mystery in nature was solved
- To plan a debate about whether or not parapara trees should be removed
- To invent and describe a solution that will save the birds without destroying the trees
- To describe how people made a decision about a similar problem.

See Instructional focus – Writing for illustrations of some of these writing purposes.

Text and language challenges

VOCABULARY:

- Possible unfamiliar words or phrases, including “mauled”, “leaf litter”, “feebly”, “suspicious”, “culprit”, “nickname”, “fascinated”, “theories”, “theory”, “eventually”, “burrow”, “talcum powder”, “preen”, “threatened plant list”, “fatal cocoon”, “community”, “neighbours”, “outcry”
- Colloquial expressions: “in a bad way”, “chances were slim”, “it’s a different story”, “every trick in the book”, “Mother Nature knows best”
- The Latin name of the tree, “Pisonia brunoniana”, and its common (te reo Māori) name “parapara”, which means “bird catcher”
- The acronym: “SPCA” (Society for the Prevention of Cruelty to Animals).

Possible supporting strategies

Identify the vocabulary your students will need support with. Use strategies to preview key vocabulary, such as having the students brainstorm words they associate with “detectives”. Support students to make connections with other contexts for some of the words, for example, “suspicious”, “culprit”, and “investigate”.

Brainstorm the topic of forest birds and begin a word map about birds. (See ESOL Online at <http://esolonline.tki.org.nz/ESOL-Online/Teacher-needs/Pedagogy/ESOL-teaching-strategies/Vocabulary/Word-clusters-Maps-and-mind-mapping>)

You could use the headings “behaviour”, “characteristics/features”, “habitats”, and “threats”. The students can add to the word map as they read. For students who need support with the key vocabulary, ensure you feed in and explore this vocabulary during the discussions. If necessary, discuss the literal and figurative meanings of expressions such as “chances were slim” and “every trick in the book”.

SPECIFIC KNOWLEDGE REQUIRED:

- Familiarity with carrying out an investigation to solve a mystery
- Knowledge of the ways living things are suited to their environments, and responsive to changes
- An understanding of some of the reasons why an environment may change
- Knowledge of New Zealand birds and forests
- Experience of a debate or problem in which two sides have competing claims.

Possible supporting strategies

Ask students to share any experiences (actual or from reading) of solving a mystery. What do detectives do? How do they solve a mystery?

Review knowledge the students may have about threats to the survival of plants or animals. This can include examples where the needs and habitat of one species has threatened another, such as possums or deer in native forests. See texts related by theme from other Journal articles.

Discuss the conflicts that may arise when people have different opinions about a conservation issue.

TEXT FEATURES AND STRUCTURE:

- Framed as a mystery with detectives, clues, and a culprit
- The use of language (emotive, personification) to imply that trees consciously trap and kill birds
- Two “newsletters” that express opposing views
- Language that signals consequence (“they knew its chances were slim if they left it”, “The birds would have had no chance if you’d left them in the reserve”) and cause-and-effect relationships (“Because seabirds are usually large, they aren’t bothered by the sticky sap.”)
- Several decisions, with explanations of how each decision is made
- The compound sentence in which the object of both clauses is expressed in two ways (“the fantail” and “the unhappy bundle”)
- Passive constructions: “The decision was made to have the two trees removed.”

Possible supporting strategies

Review similar (third person, past tense) examples of recounts and support the students to identify features such as the third-person voice, past-tense verbs, and sequence of events as they read.

With the students, you could record the events on a whiteboard as a “crime scene” as shown on popular TV programmes: post images, words, dates, and times on the board, then add arrows to show linkages. Alternatively, use a timeline or a three-column chart to record what happens, when it happens, and who was involved.

Encourage the students to identify each decision in the article, evaluating the process used to reach each decision.

If necessary, support the students to distinguish between facts and opinions in the two newsletters, checking for evidence in the article or from other sources.

Ask the students questions to help them identify the condition and consequence and cause-and-effect relationships and the language that can signal these relationships. You could develop charts of this language, adding examples from your reading and providing opportunities to explore how the examples are constructed.

Instructional focus – Reading

Science (Living World, level 3 – Ecology: Explain how living things are suited to their particular habitat and how they respond to environmental changes, both natural and human-induced.)

English (Level 3 – Structure: Show a developing understanding of text structures.)

Text excerpts from “The Parapara Detectives”

Students (what they might do)

Teacher (possible deliberate acts of teaching)

The two girls needed to make a decision. They didn't want to upset the bird further, but they also knew its chances were slim if they left it, especially with cats around. ... “We couldn't just leave it there.” So Bo gently wrapped the fantail in her jacket, and they carried the unhappy bundle back to Rebecca's house.

The students locate, integrate, and evaluate information from the text and photos, and from their prior knowledge of cats, to infer that the girls hope to save the bird by taking it home. They make connections with their own experiences of making decisions to understand that this decision is based on emotion, as well as facts.

ASK QUESTIONS to support the students to make connections with the text.

- What knowledge of your own can you draw on to understand what could happen to the bird?
- What does “its chances were slim” mean? When have you heard this expression in a different context?

PROMPT the students to interrogate the decision-making process.

- Why did they “need” to make a decision?
- What facts did they consider?
- Was this the best decision? Why do you think that?

The kids read a couple of theories on the Internet about New Zealand's parapara tree. ... The sticky seedpods attach themselves to seabirds, eventually falling off as the birds fly. ... However, it's a different story for small birds – as the friends learnt.

The students use vocabulary knowledge and the context to infer that “goo” is an informal term for “sap”. They locate and integrate information from the text and their own knowledge to evaluate each theory. They ask questions and search for answers to understand why there may be more than one explanation.

DIRECT the students to work in two teams. One team evaluates the compost theory, the other team evaluates the seedpod theory.

- What facts support the theory? What questions do you have about the theory?
- Is the theory plausible (could it be true)? Why or why not?
- Explain your theory to the other group. Which is more likely to be true? Why?
- Why might there be more than one explanation? Can you think of other explanations?
- Why do you think experts haven't come up with a definite answer?

The children's detective work started a discussion between the Nelson City Council and the Department of Conservation. ... Whatever the case, the trees were there. They are also native to New Zealand – and on the threatened plant list. So what was more important: the birds or the trees?

The students locate, integrate, and evaluate information to infer that the spread of the trees is another mystery and understand why a decision is difficult. They form their own opinions about relative importance, using information in the text and from their prior knowledge to support their opinions. The students ask questions about a decision and read on to search for the answers.

ASK QUESTIONS to clarify the students' understanding.

- Why are these two organisations involved? What are their roles and responsibilities?
- What new information have you learned about the parapara trees?
- How does being a threatened tree complicate things?
- How do you think the trees might have got to the reserve?

PROMPT the students to recall any similar examples.

- I read about the Wellington City Council removing fully-grown pine trees so that native rata could be planted on the hills. Some people were not happy about that.
- Tell us about any similar examples in our area. Why would councils do this?
- Does it matter whether trees in reserves are native? Why do you think that?
- In this article, the death of the birds makes the situation more urgent. What do you think might happen next?

GIVE FEEDBACK

- You listed the facts for and against removing the trees. This helped you understand how difficult it can be to make a decision.
- The comparisons you made between this problem and that of possums helped you reach interesting conclusions.
- Integrating information from different parts of the text gave you a better understanding of the facts and the way the mystery came about.

... as soon as a bird touches the tree's seedpods, it's trapped!
... It's an amazing example of Mother Nature's clever thinking – evolve a plant ... seeds and give it a special smell that attracts insects. ... Eventually they die – and the tree gets some compost.

The students compare the language used in both newsletters to infer the motivations of the writers. They compare the information with the facts in the article, integrating and evaluating it as they form their own opinions. The students make connections between the text and their experiences of arguing for something to infer that both writers are passionate about their cause.

METACOGNITION

- Tell me more about how you compared this problem with the problem of another species you've read about. How did this help you understand the text?
- How do you think the structure of this article and the way it presents a problem will help your writing?

Reading standard: by the end of year 5

The Literacy Learning Progressions

Assessment Resource Banks

Instructional focus – Writing

Science (Living World, level 3 – Ecology: Explain how living things are suited to their particular habitat and how they respond to environmental changes, both natural and human-induced.)

English (Level 3 – Structure: Organise texts, using a range of appropriate structures.)

Text excerpts from “The Parapara Detectives”

When Rebecca Fleet and her friend Bo Dillon were at their local reserve one day, they found a dead piwakawaka under some trees. Rebecca, who loves birds, was upset because it looked as if the fantail had been attacked. “There were twigs and leaves caught in the bird’s feathers,” she remembers. “We guessed it had been mauled by a cat.” The girls covered the bird in leaf litter. Before they left, Rebecca picked some flowers to put on top of the tiny grave.

That night, Rebecca thought about the dead birds. She thought about the goo, which was so sticky it was difficult to remove even with soap. She also thought about how there were no feathers on the ground near the birds. For the first time, Rebecca wasn’t so sure a cat had been involved. The next morning, she went back to the reserve to investigate. It was then that she noticed the tree with the sticky seedpods.

Please search for photos of this tree on the Internet so you know what to look for – and keep an eye out. If you see a parapara in your community, ask for it to be cut down. Talk to your neighbours. And please ask your local garden centre to stop selling these killer trees.

Nature ... ruthless methods. But I also ... Mother Nature knows best. Who are we to argue with her?

Examples of text characteristics

SETTING THE SCENE

The opening of a mystery (true or fictional) often tells “who”, “what”, and “when” and gives readers the expectation that the “why” and “how” will be discovered as the mystery is revealed.

DIALOGUE

Using the words of the people involved lends authenticity to an article and allows the writer to give readers important details.

SHOWING THOUGHTS (SHOW, DON'T TELL)

By showing a person’s thoughts, writers can guide readers to a deeper understanding of a problem. It’s also a good way of showing why and how a person can change their opinion. The reader is more engaged than if the writer simply told them what happened.

REPETITION

Repeating a word or phrase can make the reader slow down and read more carefully. Repetition emphasises an important idea or process.

BIAS

Writers show bias if they present one side of an argument but not the other or when they choose only the facts that support their opinion.

PERSUASIVE WRITING

In making a case for a particular course of action, writers may use language features to “speak” directly to reader. They may urge readers into action or use emotive language to persuade readers to agree with them.

Teacher (possible deliberate acts of teaching)

PROMPT the students to consider how they will structure their writing.

- How much information do you want to give in the opening paragraph?
- Will you tell your readers exactly what will happen, or will you give some details to engage their interest?
- Remember to ensure that your structure will help achieve your purpose and will be right for your audience.

ASK QUESTIONS

- Are you planning to use dialogue or direct quotes?
- How can dialogue or direct quotes help convey your message?

MODEL the way the author guides the reader.

- In this extract, the writer shows Rebecca’s sequence of thoughts. Each thought is like a step in a process. We know from the start that she thought the birds had been mauled by a cat.
- Now, by going carefully over the evidence, she is changing her mind. This reminds me of what I’ve read in mystery novels or seen on detective shows: the detective always thinks over the evidence to check their first impressions, then they go and investigate some more.
- What will she do next?
- Review your writing carefully. Are there any places where you can show a person’s thoughts instead of simply telling the readers what happened?

EXPLAIN the concept of bias.

- Bias is the presentation of facts to support one opinion and hide or distort other opinions.
- Writers can show bias by giving only the facts they agree with. One way to avoid this is to show two or more sets of facts.
- Think about the ways you present facts and opinions in your writing.

ASK QUESTIONS

- Do you want to persuade your readers or just inform them with the facts?
- Have you presented different sides?
- When could it be helpful for an informational article to do both?
- Review the way you have used facts and opinions in your writing, asking a writing buddy to check for bias.

GIVE FEEDBACK

- Replacing your explanation with a few words from the witness was a good decision: her words tell what happened in a very powerful way.

METACOGNITION

- How did you select the structure that would best suit your purpose?
- What other articles have you read that have a similar structure? What did you learn from them that helped make your writing more engaging?

 Writing standard: by the end of year 5

 The Literacy Learning Progressions