### ARTICLE FOURTEEN

# BLUE BANDED BEES CREATE A BUZZ IN SCHOOL

by Dr Anne Dollin Australian Native Bee Research Centre March 2010



T 12 noon on 6th June 2009, 24,000 school students were glued to their computers, ready to submit their solutions in an environmental game. The Vardys Road Public School 'Warriors' team took just 14 seconds to become the 'EcoSleuths of 2009' by being the fastest team with the correct answer: the 'Eco-Mystery Victim' was the Blue Banded Bee!

## Murder Under the Microscope

Murder Under the Microscope is a popular online game run in schools each year for students in Years 5 to 10. In 2009, school students were asked to solve a fictitious eco-crime called 'Crisis on the Coast'. Over 1,300 teams of students around the world signed up to compete!

Teachers and students were given daily clues through online video reports from the Team, including 'Crime Site Investigator, Danno Bookham' and 'Forensic Scientist, Dr Adjete Ehaka'. The students had to deduce where the crime happened (the crime site), what plant or animal was affected (the victim) and what environmental factor caused the disaster (the villain).

#### The Clues

In early May 2009, students were told that a town had entered a Tidy Town Competition and that residents had enthusiastically cleared the bush, laid turf and mulched gardens. Then local gardeners began noticing changes in the quality of their tomato crops and the Spectacular Native Seed Company was having trouble raising *Solanum* seeds.

The students were told that one of the possible victims of this 'eco-crime' was the blue banded bee. Never before had so many questions been asked about an Australian native bee at the same time!

For five weeks all sorts of questions about blue banded bees (*Amegilla*) buzzed around classrooms across the world. Could these bees be affected

by acid sulphate soils, or GM crops, or pesticides, or varroa mites? What parts of Australia do they live in? How many species of blue banded bees are there? What is buzz pollination? What effect would the loss of these bees have on plants in a town? Anne Dollin of *Aussie Bee* was recruited to help the team of scientists who answered the students' flood of scientific questions. It was a very busy month indeed for *Aussie Bee*!

Almost 500 school teams finally hit on the correct solution:

'Crime Site': Caboolture, Qld; 'Villain': habitat clearing; and 'Victim': the blue banded bee.

### **Team Presentations**

In the second phase of the competition, the school teams were invited to submit detailed written plans about how such an environmental problem could be avoided in the future:

-- The '6H Superstars' team of Neutral Bay Public School won first place in the Judges' Choice category for their plan. They proposed setting up a public education program, a native plant sanctuary and artificial nest sites for the bees. They further suggested that Caboolture could be advertised as the 'Home of the Blue Banded Bee', perhaps with the construction of a giant blue banded bee as a tourist attraction!

A beautiful photograph of a blue banded bee by Erica Siegel of Queensland



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-- The 'Bombo' team of Saints Paul and Peter Catholic Primary School won first place in the People's Choice category for their plan. They proposed planting native trees, running breeding trials for the bees and restricting house building to protect native vegetation. They also suggested that mud brick houses and sculptures could be built to attract the blue banded bees.

The school teams were also invited to submit creative pieces and videos that expressed issues raised by the game:

- -- Class 4/5B of Parramatta East Public School won first place in the Creative Piece category. They created a wonderful 'Blue Banded Bee Rap' video featuring children dressed as blue banded bees, dancing out the story in poetic form.
- -- The 'Citizens of Gleitzland' team from Hoxton Park Public School won the Video category with their polished presentation showing how they researched their answers and displayed their findings.

All of the winning plans and videos can be seen by clicking on the links on this page on the Murder Under the Microscope website:

http://www.microscope.edu.au/2009/ NonFlash/Plan.aspx The Murder Under the Microscope classroom game helped raise awareness of Australian native bees far and wide as the students and their teachers and families eagerly studied the habits of the blue banded bee in order to solve the mystery. We hope that this game has helped a whole generation of Australian children to better understand their environment and our precious native bees.

Murder Under the Microscope is run each year by the Centre for Learning Innovation and the NSW Department of Education and Training.

Visit this page on the Murder Under the Microscope website and click on the button at the bottom of the page to see the official solution to the 2009 Eco-Mystery:

http://www.microscope.edu.au/2009/ NonFlash/AccusationWinner.aspx

Below: The possible 'victims' in the 2009 Murder Under the Microscope game are compared on a classroom display board at Hawkesbury Independent School, NSW. The 'Hawks' team from this school won fourth place in the 'EcoSleuths of 2009' competition. Right: a well researched analysis of the blue banded bee by Thomas.







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