

# OVERVIEW

## Year 7: Ecosystem Exploration - Aquatic

**Ecosystem Exploration - Aquatic** is a whole day program in which students take on the role of an Environmental Officer to analyse how biotic and abiotic factors can influence the biodiversity of a local aquatic ecosystem.

Within Toohey Forest, significant threats to the aquatic ecosystem are invasive species, such as cane toads and / or mosquito fish, and changes in abiotic factors, brought on by weather events. Both threats have the potential to influence the biodiversity of the local area.

While investigating these interactions, students will use nets to collect aquatic macro-invertebrates and small vertebrates from Mimosa Creek. At the centre, students will apply their knowledge of classification to assemble a dichotomous key before using a key and microscopes to identify the creatures they have caught.

Once familiar with the local ecology, students will construct and interpret a food web for Toohey Forest to enhance their understanding of feeding relationships and how they are impacted by invasive species.

The program concludes with students justifying their final environmental assessment score for Toohey Forest pond which has been based upon the biotic and abiotic data collected throughout the day.

**Ecosystem Exploration - Aquatic** has been assessed as medium risk. A Curriculum Activity Risk Assessment is available on request. A student field booklet will be provided upon confirmation of your booking.



### Curriculum Intent - Biological Sciences

#### Science Understanding

- Investigate the role of classification in ordering and organizing the diversity of the life on Earth, use and develop classification tools including dichotomous keys (AC9S7U01)
- Use models, including food webs, to represent matter and energy flow in ecosystems and predict the impact of changing abiotic and biotic factors on populations (AC9S7U02)

#### Science Inquiry Skills

- Select and construct appropriate representations, including tables, graphs, models and mathematical relationships, to organize and process data and information (AC9S7I04)
- Analyse data and information to describe patterns, trends and relationships and identify anomalies (AC9S7I05)

#### Science as a Human Endeavour

- Explain how new evidence or different perspectives can lead to changes in scientific knowledge (AC9S7H01)
- Investigate how cultural perspectives and world views influence the development of scientific knowledge (AC9S7H02)

