



## ASTA Science Awareness Raising Project

### VICTORIA CASE STUDY:

#### Wangaratta Common Native Grassland Reserve

The purpose of the Victorian case study is to illustrate the adaptations made by the Wangaratta community to the ASTA Science Awareness Raising Model.

The case study has been prepared from information collated from the project proposal, mid-project report, teleconferences, final project report and STA Coordinator feedback.

#### Background

The Wangaratta Native Reserve contains a large remnant of northern plains eastern (wet) grassland. This vegetation is not conserved elsewhere. It contains a rich diversity of grasses and over one hundred other native species which produce a spectacular display of wildflowers in spring.

This area is being isolated by urbanisation. It is presently used as a 'Common' by the Wangaratta residents for recreational activities such as walking, riding bikes and building cubby huts, without their awareness of its environmental significance.

The 'Common' provides a drainage system for the storm-water flowing from the surrounding streets. A local industry backing onto the 'Common' has demonstrated they have the well-being of the 'Common' as a priority. They developed a wetlands filter at the rear of their large shed to support fish and other wetland animals, and as part of recent construction processes on the edge of the 'Common', the company used scientific information to ensure the development would not adversely affect the environment.

The idea of the project evolved through two identified needs in the local community. Firstly the ecology, biology and outdoor education students at

Ovens College needed a 'real life' project to apply their scientific studies and secondly the Wangaratta community misused and under-utilised the 'Common' and were not aware of the environmental significance of this area.

Parks Victoria is eager to protect viable representative samples of the state's native environment. Ovens College students were in a position to collect scientific data to form the basis for a protection program to maintain the grassland bio-diversity. Plans for new recreational facilities in this area are awaiting the collection of this baseline scientific data before work can begin.

#### Aim of the project

The project was planned with long term and short term goals.

The short term goals were to:

- increase community awareness about the environmental significance and biodiversity of the 'Common' and the science involved in the protection of these grasslands
- involve science students in ecological aspects of the grasslands protection.

## Student Activities

Areas of study	Activities	Subject/Year level
Flora	Identification	Ecology 9/10
	Diversity	Ecology 9/10
	Weed eradication	Primary school
	Introduced species	Environmental group
Fauna	Identification	Ecology 9/10
	Diversity	Ecology 9/10
	Introduced species	Environmental group
Seasons	Variations in diversity in flora	Biology VCE
	Variations in diversity in fauna – particularly birds	Primary school
Burning	Differences between burnt sections and unburnt sections	Outdoor and Environmental Studies Yr 12
		Biology VCE
Hydrology	Wetland behind Merriwa – suitability for stocking fish. Suitable types of native fish.	Agriculture and Horticulture Yr 12

The long term goal is to:

- incorporate this project into the science curriculum at Ovens College. Students will use the Parks Victoria Management Plan for the Wangaratta Nature Reserve (the 'Common') as a model for sustainable conservation. Each year students from Year 9/10 Ecology at Ovens College will collect the data that will assist in the maintenance of the genetic diversity of the Reserve.

Through this project:

- a local ecological model would be developed for Ovens College and Yarrunga Primary School students to access
- students would be involved in collecting scientific data and using that information to make decisions
- a diverse group of community people would work in partnership
- the biodiversity of the Wangaratta Grassland would be protected

- community awareness of the significance of the area would be increased.

## Project Involvement

The key project participants were students from Ovens College. These students were from Year 9/10 Ecology, Year 11 Biology, Year 12 Outdoor and Environmental Education and E-Care Environmental group. Students in Technology (constructing information stations) and Visual Communications (design of Information Board) assisted with community awareness strategies.

Students from Yarrunga Primary School were also involved in this project. However no details of their role or activities undertaken in the project have been provided. Both schools are located in the vicinity of the 'Common'.

In addition to the science teachers and students from the primary school and College, a number of community groups helped with project planning, science data collection and awareness raising activities:

Resource Personnel – Parks Victoria

Local interest groups – Australian Plant Society, Urban Landcare, Society for Growing Native Plants

Local Government – Rural City of Wangaratta, Country Fire Authority

Business – Merriwa Industries (no details about their role have been provided)

Media/publicity – Ovens College Publicity Team, local newspaper 'The Chronicle', College newsletter, local radio station.

## Doing the project

No Community Reference Committee (CRC) was set up for the ASTA Science Awareness Raising Project. The Local Leader tapped into an established committee, the Wangaratta Common Advisory Committee.

The school had previously established links with the community. The two schools had worked together on displays for the Wangaratta Jazz Festival and a fundraising stall.

*While the community links were already established before the commencement of the project, the timeline was too short to allocate and plan the community activities, considering the time restraints on all people concerned.* Local Leader

The base planning of the project was undertaken by the Local Leader in the College with Parks Victoria and other project participants, Australian Plant Society, Urban Landcare, Society for Growing Native Plants, Rural City of Wangaratta, and Country Fire Authority.

The primary and College school staff participated in shared planning for student scientific activities.

Initial project activities included:

- the collection of scientific data by Biology students from tree hollows
- presentation of scientific background to Ovens College Publicity team and local press

- a meeting between science teachers at Ovens College and a Parks Victoria Ranger to discuss management issues and scientific scope of the project.
- plant rescue from industrial site – Australian Plant Society volunteers (removal) Ovens College students (re-establishment)
- information evening utilising expert personnel.

At the conclusion of the ASTA Science Awareness Raising Project the Local Leader took family leave from the school. No other staff member from the College was appointed to provide continuity or information on this project. This has meant clarification and/or further details about the project have not been forthcoming.

## **Science experiences for students from executing the project**

Specific information and data collected by students from the grasslands included:

- survey of the use of red gum hollows by native animals
- survey of the frog population
- mapping native weed species, including aquatic
- mapping native plant species
- comparison of burnt-off sections versus no burn-off
- measurement of the water quality in the wetlands filter set up by Merriwa Industries
- survey of seasonal differences in species diversity.

## **School and broader community awareness raising strategies**

- Publicity about the 'adoption' of the 'Common' by Ovens College students included an in-depth interview with a local journalist and follow up articles in 'The Chronicle' (Friday 26 July 2002, Friday 2 August 2002)

- Articles in both school newsletters
- Advertisement about the community information session *Catch up with your 'Common' – Wasteland or Wonderland?* in *'The Chronicle'* Friday 2 August 2002
- A letter drop for *Catch up with your 'Common' – Wasteland or Wonderland?* focusing on houses around the 'Common' by Parks Victoria
- Interview on regional ABC of the Local Leader and Parks Victoria ranger to promote *Catch up with your 'Common' – Wasteland or Wonderland?*
- *Catch up with your 'Common' – Wasteland or Wonderland?* A community information session on the 'Common' Sunday August 4, from 12 – 2pm hosted by Ovens College and Parks Victoria – a walk through the 'Common' to discover fauna and flora, activities by students to protect the wild life and plant life, discussion of future plans for bike trails and board walks, and free barbeque
- Construction of an information board at the entrance of the Grasslands Reserve which will include current scientific data collected by each school
- Construction of information posts around the reserve with information about particular flora species.

The original project submission included a plan for a street survey and community display. The survey was to determine what people knew about the 'Common', how they would use the 'Common' and how they would contribute to its development. No details have been provided about this survey or reference made to any data gathered from the survey.

### Project outcomes

A 'Friends of the Common' group has been established in direct response to the community

information and BBQ afternoon. This is significant as the Parks Victoria Management Committee had been wanting to establish such a group for two years.

Both Yarrunga Primary School and Ovens College will have a permanent display on the community information board at the Nature Reserve about the current scientific data that each school is gathering.

Yarrunga Primary School organised science activities at the 'Common'.

Ovens College is a permanent member of the Wangaratta Common Advisory Committee.

Community interest in the 'Common' has been increased which provides Parks Victoria with the momentum and validation needed to develop plans for the 'Common'.

A spring tour of the 'Common' has been organised to coincide with the wildflower display.

### **Project continuation beyond the trial**

This project will be incorporated into the science curriculum at Ovens College. Students will use the *Management Plan for the Wangaratta Grassland Reserve ('Common')*, written by Parks Victoria, as a model for sustainable conservation.

Students from both schools will continue to collect data from the reserve and post it regularly on the information board at the entrance of the reserve. This activity is part of the ongoing monitoring of the effect of recreational and industrial use of the reserve.

### **Project Costs**

The project budget for the Wangaratta Grasslands project was only partially expended due to delays in applying for the grant instalments. Communication difficulties and confusion about the funding process outlined in the Package meant the project operated on small amounts of money from different sources.

Of the funds expended the major item was \$1500,

a contribution to the cost of the information board located at the entrance to the grasslands. Parks Victoria (\$2500) and the Australian Plant Society (\$1500) also contributed to the total cost.

### Was the project successful?

*I believe the project was a success. It took a long time to feel we were getting somewhere, but the public information BBQ was a very positive experience for all involved. It provided a platform for community organisations to begin other community groups and activities. It promoted such comments as 'I didn't know all this was here', 'Can we do this again when the wildflowers are out'....* Local Leader

The project has attracted interest, support and invitations from other organisations. For example Ovens College was selected to be the Australian representative in the international *Biodiversity Challenge* game, involving six other schools from around the world.

The Australian Plant Society received a grant of \$1500 to help construct the information board on the reserve.

The student's work at the reserve has increased the College's profile in local environmental science initiatives. Ovens College has been included in other plant rehabilitation activities with the Australian Plant Society, Landcare and the local TAFE college. An ongoing partnership between the College and Parks Victoria will continue. Further science activities with Yarrunga Primary School have been organised.

### What was learnt?

- Changing individual and community perceptions about science is a very long process.

*The community has a very ingrained perception of what science is and what scientists do. ... They do not link it to their everyday experiences, and their school experiences, no matter how long ago*

*this may be, determines their view now. They see science as a difficult subject to be involved in.*

Local Leader

For example, following an in-depth interview about the project with a local journalist, the photos requested for publication with the article were required to feature science equipment and scientists in white coats.

This perception was also evident when members of the community were approached to participate in the project survey. Many did not want to participate when they heard it was about science. Their responses included 'I don't know anything about science', and 'I was no good at science at school'.

*Working with the community and measuring responses is very difficult. Too much time and money can be spent not gathering a true reflection of perceptions.* Local Leader

- Meeting the requirements of projects takes time and involves coordinating a diverse group of people and their time.

*Timelines and deadlines have been very difficult for all concerned to stick to.* Local Leader

*The organisation and motivation of projects such as this relies heavily on volunteers.* Local Leader

*The more people/organisations involved, the more time is needed to organise.* Local Leader

The Local Leader felt very pressured by the ASTA project. It took quite a while to get the primary school on board with the project and internal College circumstances such as staff movements and absences also added to the demands.

*This project would not have been successful without the support of the 'Science in Schools' project (a Victorian Government funding initiative) which enabled the Local Leader to dedicate time to complete such a project without sacrificing a lot of unpaid time.* Local Leader

The ASTA Science Awareness Raising Project budget included allocation for teacher release time of which only half a day was expended.

## Community feedback for the Victorian case study

The Wangaratta Common Native Grassland Reserve project in Victoria aimed to increase community awareness about the science and environmental significance of the Common and to involve students in a range of activities relating to grassland protection. Feedback from the community based on the pre-project and post-project interviews (reported fully in Chapter 8) and letter surveys indicate that the project was modestly successful in raising community awareness about the project itself. The percentage of interviewees who had heard about the project increased from 33% to 81% (see Table 8.8) by the post-project interview, however, only 22% (see Table 8.13) of the 23 letter respondents (all associated with Ovens College) had heard of the project. While 58% of the interviewees increased their knowledge about the project (see Table 8.10), it was generally at a low level, with only 44% having at least some understanding of what the project was about (see Table 8.9).

There was a small positive effect of the project in terms of interviewees increasing their understanding of the science behind the project (see Table 8.11), but no change in the reasons they thought science was taught at school (see Table 8.5). There was an increase in the interviewees' belief that it was important for the ordinary person to know about science (see Table 8.6), and interviewees commonly responded that science was more important than the average person thought. Interestingly, the results suggest that interviewees actually decreased their confidence in being able to find out more about the science behind the issue if they wanted to (see Table 8.11). Perhaps this suggests that, although people became more aware of the issue, they also became aware that it had many facets. When asked how important it was that people knew something about the issue the project addressed, the average rating given by

interviewees was 4.27 on a 5-point scale, this was low compared to most other projects (see Table 8.11). The most commonly given reason (57%, see Table 8.12) related to the importance of conservation.

Overall, the project was considered to have had a small to medium effect on the community (see Table 8.19). Although the description of what happened in the project suggests a high level of involvement of the students at Ovens College, it seems that the difficulties experienced in making firm community links have limited the impact of the project on the community. An important outcome of the project, however, is the establishment of a "Friends of the Common" group, which, if the project is to continue (with annual data collection by students as planned), would facilitate greater community awareness in the future.

## Summary points

The overall responsibility for managing the Wangaratta Grassland Reserve project was taken on by the College science coordinator (Local Leader). It was not considered possible to establish a CRC in the given project timeline. Without the strong links to the community through a CRC, opportunities for involving the wider community in the project were missed.

There was very little two-way communication between the Local Leader and Science Teachers Association Coordinator. This meant all aspects of project management - planning, community liaison, communication, coordination, administration, finance and reporting were the responsibility of one person, the Local Leader.

To meet the demands of any project requires people. A team willing to work on the project, a detailed project plan that clearly outlines what the project will look like, and effective

structures for two-way communication are critical to effective project management. These elements need to be factored into initial project negotiations and costed into the project, as presented in the *Science Awareness Raising Package for Participants in the Trial Project*.

Confusion about the project funding distribution and administration process experienced by the Local Leader meant the Victorian ASTA Science Awareness Raising Project operated on minimal funds. This hindered the full realisation of the project's potential. The ASTA Science Awareness Raising Project included an allocation for teacher release time, which was not fully expended.

The community feedback indicates the Wangaratta Common Native Grassland Reserve project had a small to medium effect on the community. The long term goal of the project to incorporate the collection of biodiversity data into the Owen's College curriculum and the formation of the Friends of the Common group will contribute to ongoing science awareness raising in the Wangaratta community.

## Appendix 7.6

1. Public notice about the 'Common' information session
2. *The Chronicle* article Friday 26 July 2002
3. Classified advertisement *The Chronicle* Friday 2 August 2002
4. *The Chronicle* article Friday 2 August 2002