



## ASTA Science Awareness Raising Project

### SOUTH AUSTRALIAN CASE STUDY:

#### Biodiversity of Anstey Hill

The purpose of the South Australian case study is to illustrate the adaptations made by the Valley View Secondary School and Ardtornish Primary School communities 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

Anstey Hill Recreation Park is located north east of Adelaide approximately 18 kilometers from the city centre. In 1983 the Park was ravaged by the Ash Wednesday fires, remnants of this destruction are still visible. The Park covers an area of 383 hectares and conserves nearly 300 species of native plants, over 100 species of birds and a wide variety of animals and reptiles. The park is named after George Anstey, a notable local landowner in the early days of settlement in the area.

A colour brochure was identified as being the primary medium for highlighting features of Anstey Hill and informing and involving the community in the biodiversity issues in the local area.

#### Aim of the project

The aim of the project as put forward in the project proposal was to:

- identify major changes happening to the flora and fauna of Anstey Hill
- raise school and community awareness about the impact these changes have on the local environment,
- ways to manage change so it is of benefit to the ecosystem.

#### Project involvement

This project was initiated by teachers at Valley View Secondary School with involvement from teachers, students and parents of Valley View Secondary School and Ardtornish Primary School. The local environmental group, The Friends of Anstey Hill (FOAH), was the key coordinating body. The government department National Parks and Wildlife Service South Australia was included in early project consultations.

Resources were provided by the South Australian Science Teachers Association (SASTA) through information and workshops for students and the community. Business people were contacted for their print media services.

## Doing the project

The project's Community Reference Committee (CRC) was set up as a sub-committee of the FOAH organisation. The decision was made to use the existing committee infrastructure of FOAH so as not to have to spend time establishing a project administration base. Therefore FOAH took on this project along with its many others. This group had knowledge of the issues around Anstey Hill which was utilised for the Awareness project.

The Local Leader was assisted by another teacher from Valley View Secondary School. This person, being the President of FOAH, was also a member of the CRC and had significant input into the project.

The Local Leader coordinated contacts between the FOAH and Ardtornish Primary School and kept in regular communication with the STA Coordinator. Two half-day face-to-face meetings were held with the Local Leader, FOAH President and STA Coordinator at the initial and final stage of the project.

Because this was one of many FOAH projects, it was recognised by the Local Leader that extra effort was needed to ensure this project maintained a profile and momentum within FOAH.

As the project progressed, other possibilities were realised. This posed management issues such as maintaining focus on the primary objective and including, where appropriate, ideas that were retrospective.

### Student activities

The final report did not provide specific details of the activities students were involved in. From the information provided these general points were ascertained:

Students:

- explored geological and botanical phenomena from the site of Anstey Hill
- gathered data from the site
- from Ardtornish Primary School and Valley

View Secondary School developed trails at Anstey Hill

- undertook research with local experts, and from websites and journals.

### ***The science experience for students from executing the project:***

- interpretation and application of information about the structure and function of living systems and their relationship to the survival of the ecosystem
- exploration of how living things have changed over time and the value of species diversity and the ethics of human intervention.

Student skills included collecting, analysing and organising information, communicating ideas, problem solving and working in teams.

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

Information about the project was disseminated through FOAH, Valley View Secondary School and Ardtornish Primary School newsletters.

SASTA workshops were held to promote the project, highlight the science behind the Anstey Hill work, demonstrate ways students could be involved, and the potential for science excursions to Anstey Hill. The transferability of the project to other schools was presented as an idea for National Science Week 2002.

Other strategies included:

- discussion groups on specific aspects of biodiversity and conservation
- parents working with students on site
- a brochure titled *Anstey Hill Walking Trails* was developed, launched and distributed in the community
- a website devoted to the trails was developed <http://members.ozemail.com.au/~davelane> and [www.valleyview.sa.edu.au/Ahwalks.htm](http://www.valleyview.sa.edu.au/Ahwalks.htm) (not found)

## Project outcomes

- the *Anstey Hills Walking Trails* brochure was designed, published and distributed
- an existing website was further developed to incorporate information on the trails <http://members.ozemail.com.au/~davelane>
- the across school campus conservation focus broadened the range of learning experiences, opinions and opportunities for students.

### Project continuation beyond the trial

Plans for the continuation of the project include:

- production of a detailed classroom resource pack on each of the five trails to be distributed through SASTA and the local community
- continued development of ideas for trails proposed by Ardtornish Primary School
- further community events at Anstey Hill
- expanding the web site and link web pages to other sites
- running workshops at 2003 SASTA conference
- publishing the project findings in the SASTA journals.

## Project costs

The major expenditure for the SA trial of the ASTA Science Awareness Project was for the production and printing of the brochure *Anstey Hill Walking Trails*.

Costed in-kind support for the project comprised a variety of sources related to the map production and trail development to the value of \$2000.

## Was the project successful?

*There were a lot of distractions along the way. It proved difficult to stay focused and keep the task manageable because the nature of the project generated lots of possibilities. Keeping all stakeholders appropriately involved and within the timeframe was sometimes an issue.* Local Leader

SASTA had intended to make a big media event of this project during National Science Week, however a significant community promotion opportunity was missed when *printing hold ups and the need to re-navigate and measure the National Parks and Wildlife maps of the area caused the launch to be held after National Science Week.* STA Coordinator

*School communities were very aware of the project as they undertook excursions to the 'walks'. The FOAH also have a wide interest group in the local community.* Local Leader

## What was learnt?

The Local Leader's reflection on the project identified the following points as important features of any project and would include these actions in future projects.

- conduct a pilot investigation to determine the feasibility of the intended project
- define and target the intended audience
- develop a project strategic plan that clearly articulates the project outcomes, strategies, and timelines
- include communication events at appropriate milestones in the project timeline
- design a system to monitor the validity of information evolving from the project investigations and its appropriate application
- research and understand the issues behind preparing publications
- communicate, promote and regularly refer to the strategic plan

- develop a marketing plan that gives public relations a high profile and keeps the project a priority
- value the diversity of input and accommodate people's needs and priorities
- have a good understanding of communication and participation processes
- clarify the communication, decision making protocols and level of authority members of the CRC bring to the project from government departments
- confirm all decisions, agreements and authorisations in writing.

The ASTA Project Management Team recognises many of the resources designed to support project management issues identified above were available to the CRC in the Draft Package. It is noted with disappointment these resources were not transferred into practice during the implementation of the project.

Any project involves people's time. This needs to be factored into the cost of the project either in cash or in-kind.

*The three teachers primarily involved in the project gave up much of their 'free' time, and worked on weekends and holidays. As a result little TRT (teacher relief time) money was taken from the project. STA Coordinator*

The project budget included an allocation for teacher relief time in recognition of the value put on the time needed to undertake community projects and the additional demands on teacher's time. Had this allocation been used it may have enabled some of the challenges of the project to be worked through leading to a more successful outcome.

### **Community feedback for the SA case study**

The Biodiversity of Anstey Hill project in South Australia aimed to identify changes in flora and fauna and to raise school and community

awareness about the impact of the changes on the local environment and ways to manage the change so that it benefits the ecosystem. Students from Valley View Secondary School and Ardtornish School joined the already active FOAH group. The community feedback on the project is fully described in Chapter 8, based on the pre-project and post-project interviews and the 11 letter survey responses, all from the primary school (unfortunately those returned from the secondary school were not usable).

There was an increase from 57% to 73% in the proportion of the interviewees who had heard about the project (see Table 8.8). Although there was an increase in understanding what the project was about – an increase from 5.5% to 33% of interviewees had a good or comprehensive understanding of this (see Table 8.9), and 77% of interviewees increased their understanding (see Table 8.10) – there was no change in their understanding of the science behind the project, nor their confidence in being able to find out more about the issue if they wished to do so (see Table 8.11). There was also no change in interviewees' beliefs about the importance of science to the ordinary person (see Table 8.6). These results suggest that the project was not very successful in changing the community's understanding about science, although it did increase awareness about the project.

The interviewees rated the importance of the community knowing something about the topic of the project at 4.33 on a 5-point scale (see Table 8.11), and the main reason given was the importance of conservation (see Table 8.12). There were substantial changes in why interviewees thought science was taught in schools. The proportion of interviewees giving rather vague responses only fell from 29% to 0%, and those who gave comprehensive responses increased from 66% to 100% (see Table 8.5).

Of the 11 respondents to the letter survey, 10 had heard of the project, but only 2 of them had a good understanding of what it was about (see Table

8.14). There were 9 letter survey respondents who gave their view of the purpose of the project, and most of them thought it was to raise community awareness or to link science with the real world (see Table 8.15). Six of those respondents thought it had achieved that purpose (see Table 8.16).

Despite the positive effect of the interviewees' ideas about why science was taught in schools, the project was considered to have had a small impact on the community overall (see Table 8.19). This judgement is based on the lack of change in understanding about science in the community. While the students in the two schools may have done very worth-while, science-based activities associated with Anstey Hill, the science aspects do not appear to have been communicated to the members of the community who were nominated for interviews. The information obtained from the project, and the brochure in particular, which was the main tangible outcome of the project, do not say much about the science of Anstey Hill. This seems to be reflected in the lack of impact on the community's understanding about science.

## Summary Points

The SA ASTA Science Awareness Raising Project was undertaken by FOAH with assistance from students, teachers and parents at Valley View Secondary School and Ardtornish Primary School. While the original project proposal included agreement by National Parks and Wildlife South Australia to their involvement in the project, both groups commented on the unsatisfactory nature of the working relationship. In particular the communication, consultation and cooperation processes.

It is likely that the dual role of one member of the CRC as both FOAH President and Valley View Secondary School teacher, limited the value of the CRC as a representative body of the local community. Consequently without a broad and influential membership of the CRC, the level of community involvement in the project was small.

This may be one factor that impacted on the community feedback about the project, which suggested the project was not very successful in changing the community's understanding about science.

From the information provided by the Local Leader it has not been possible to identify specifically which students were involved and what role they had in the project, and hence the educational value of the project to their learning.

The final project report identified a number of project management aspects that could have been undertaken in a more effective way (refer to the section **What was learnt?** in this case study). The ASTA Project Management Team noted that the information and resources provided to assist the CRC address many of these issues, were contained in the Package. For example *Informing the Community about the Project, Choosing the Format of Your Communication, Developing a Strategic Plan, Reality Check, and Reminder to Communicate*.

The project model and budget provided scope for the nomination or employment of a Communications Officer. If this option had been taken up, the marketing and public relations aspects of this project may have been strengthened.

The main tangible outcome of the project was the *Anstey Hill Walking Trails* brochure. The brochure states it has *been produced as a science awareness raising project...* however, there is very little scientific information included. From the original project proposal and rationale behind the ASTA Science Awareness Raising project, it would be expected the brochure would include information about the fauna, flora and biodiversity issues in the Anstey Hill area. Instead the brochure provides general information about geographical and historical features and numerous unlabelled photos.

The brochure would have been more relevant to this project if the lists and photos of the flora and fauna found in the park, as found on the website

<http://members.ozemail.com.au/~davelane> had been included.

#### **Appendix 7.4**

1. *Anstey Hill Walking Trails* brochure
2. Friends of Anstey Hill Newsletter, June 2002
3. *Leader Messenger* photo of the President of FOAH, Wednesday 25 September 2002.
4. Valley View Secondary Update, Wednesday 28 August 2002