



## Toby Pearce

**School:**

Sunshine Coast Grammar School

**Industry Placement:**

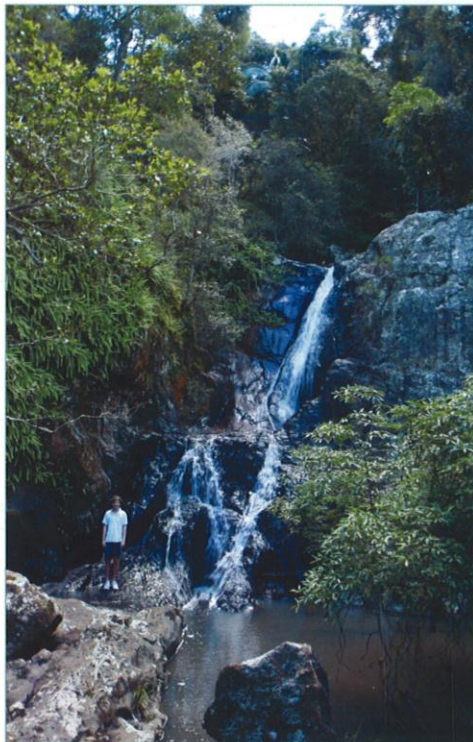
Lake Baroon Catchment Care Group



### The Industry Placement Camp

The University of the Sunshine Coast's 2011 PICSE camp was both highly enjoyable and informative. Through the different industries we visited as a group I was able to both learn about the science industry in Queensland and get to know new people. These experiences widen my knowledge of both the different areas of science in Queensland and the numerous careers in these areas.

The first visit made, I believe was one of the best out of the whole camp. The Parmalat tour was both delicious and repulsive. This was due to mid-way through being presented with chocolate milk, or so we thought. One of the milks was both the colour of chocolate milk and the taste but the other was the colour of chocolate milk but the taste of strawberry. The result of this mix of information gathered by the senses resulted in the strawberry flavour tasting disgusting. This was a valuable part of the tour because it showed how the scientists at Parmalat have to conduct many different tests on the milk to determine if it is safe to consume. The tour also gave insight into what it would be like working in a laboratory and the jobs available both at Parmalat and in the food science industry.



The visit to USC with Dr Rob Lamont was a highlight of the camp. We were given a lecture about genetics and plant science followed by a hands on demonstration of PCR. The PCR we performed was on oyster DNA and through the PCR we were able to create a larger sample of a piece of DNA.

This larger sample could then be used to trace the maternal lineage of the oyster, although we did not perform this. This area of science interested me greatly and I would be particularly partial to looking at further study in this area.

On the tour of the Maroochydore Research Station (DEEDI) I found the area of tissue culture quite interesting. On the tour we visited a building where hundreds of tissue cultures are grown each year. When we visited they were currently propagating bananas. I found the vulnerabilities and strengths of plants grown this way to be very interesting and was disappointed we could not spend more time there.

The surfing activity was fantastic and I believe helped us to grow closer as a group. It was a perfect day for it which made getting out on the water and poorly attempting to surf some of the most fun I have had in a while.



# STUDENT REPORTS



## My Industry Placement with Lake Baroon Catchment Care Group

I spent the week with Mark Amos at Lake Baroon Catchment Care's office which is situated between Maleny and Lake Baroon. The main part of Mr Amos's work that I was exposed to was reporting on current projects to revegetate different areas around the catchment. Mr Amos is in charge of contacting the farms and convincing them to let him onto their land where he organises to have plants placed around water flow areas and restoring areas of dirt. The goal of this work is to both lower the sediment that flows into Lake Baroon and to use other areas working as filters to catch matter that could be harmful to the lake. While I was on my industry placement with Mr Amos I helped by both taking photos of these areas and then placing these photos into a report. The report consisted of photos that had been taken from the same place every 3 months since that project had started. This was the same for each site we visited and across the week we visited about 6 sites. It was an enjoyable week on the whole and I feel I learnt a great deal from Mr Amos.

## How My Placement has Influenced Me

The PICSE program covered a variety of different areas of science. I was already highly interested in plant science but the program allowed me to greatly expand that interest. Through parts of the program such as Dr Rob Lamont's DNA and plant DNA workshop I developed an interest in plant DNA as well as DNA in animals. My interest in animals which was relatively low before the program definitely was raised to a point where I was interested to learn more about turtles at the visit to UnderWater World.

My placement gave me an opportunity to see the practical applications of my knowledge of plants and also reasons why it would be beneficial to learn more about them. My placement

also showed me the importance of good communication. Mr Amos had to be certain the farmers understood his plans for the catchment and that he understood the farmers need to make a profit from the land. Mr Amos explained to me that when the project plans are not clearly communicated to the farmers then when Mr Amos's work is complete (5 years after commencement) the area that has been restored can quickly turn back to its original state due to lack of care from the farmer. Overall, the PICSE program expanded my prior interests in science and also gave me an insight into valid career options.

## Thanks

I am very grateful for being given the opportunity to complete the PICSE program. I would like to thank Sue Lanham, Marina Fitzpatrick and Kristin Mulligan for their wonderful efforts both throughout the camp and organising the whole program. Thanks also to Alise and Jesse for keeping us in line during the camp. I much appreciated the time donated by all the speakers that talked throughout the camp and I would like to thank both the Department of Education, Employment and Workplace Relations for funding the program and for giving these opportunities to all students around Australia. I am very grateful to PICSE and the University of the Sunshine Coast – Faculty of Science, Health, Education and Engineering for making the whole experience possible and for showing different forms of science to me in new and interesting ways. In conclusion I would like to thank Mark Amos for hosting my industry placement and widening my knowledge of Lake Baroon Catchment Care and the science that surrounds it.

