
Growing and learning – the vital role of horticulture trainees at Gold Coast Regional Botanic Gardens

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Abstract

Gold Coast Regional Botanic Gardens has developed significantly through the contributions of community volunteers and students. In recent years the Gardens have functioned as an outdoor classroom for a wide range of student groups, from schools, technical and further education institutions and government funded schemes such as Skilling Queenslanders for Work. Providing site-based, horticulture training has benefited the Gardens by providing improved capacity for growth and benefitted students by providing a broad diversity of horticultural and landscaping experiences and practical, on-the-job learning. Gold Coast Regional Botanic Gardens is now investigating alternative ways of incorporating vocational training into gardens operations.

Key words

Botanic Garden; Education; Gold Coast Regional Botanic Gardens; Horticulture; on-the-job training; Outdoor classroom; Skilling Queenslanders for Work

Introduction

Australia's Gold Coast is best known for its theme parks, surf beaches and nightlife. But beyond the towering city skyline is a green hinterland, boasting some of the most biodiverse ecosystems in Australia.

Parts of the Gold Coast hinterland are protected in the Gondwana Rainforests of Australia World Heritage Area – home of relict ecosystems where many plants and animals remain relatively unchanged from their ancestors in the fossil record. The World Heritage Area includes the most extensive areas of subtropical rainforest in the world; nearly all of the world's Antarctic beech cool temperate rainforest (NSW Government Environment and Heritage, 2013). The Gold Coast city and its hinterland are also host to a rich diversity of other ecosystems, including wet and dry sclerophyll forest, littoral rainforest, fresh and saltwater wetlands and coastal heath (Gold Coast City Council, 2009).

With this vast amount of biodiversity on show, the Gold Coast needed a botanic garden! Development of Gold Coast Regional Botanic Gardens began around ten years ago, initiated by a community passionate about the region's local plants and horticulture. The Gardens sit on a 31-hectare site, in a meander of the Nerang River.

At the start of development, much of the Gardens was a blank canvas. Development has been guided by a master plan, which identified the Gardens as '*the interface between the science of botany and the community*' (Landplan Landscape Architects, 2002). The role of the community has been critical to development of the Gardens, from the formation of the Friends of Gold Coast Regional Botanic Gardens, who give their time to the Gardens 365 days a year, to the hundreds of Gold Coasters who have joined in community planting days. Over the last ten years, five hectares of new gardens have been planted at the site by volunteers and students, growing the Gardens and injecting community spirit and vitality into the Gold Coast community.

An outdoor classroom

Over the last ten years, the Gardens have been used as an outdoor classroom for a number of horticultural and conservation training programmes. Student groups from nearby training colleges regularly visit the Gardens, using the site to gain practical experience in plant identification, weed management, pruning and plant nutrition. The Gardens provide a greater diversity of training landscapes than students would be able to experience at their local college campus.

Council traineeships have enabled one or two students to be based at the Gardens full time for one year, working alongside the Gardens maintenance team. Being embedded within the maintenance team allows students to be integrated into the working life of the Gardens and to understand operations across the year and the seasons. From a staffing perspective, Council gains members of staff who understand how the Gardens work and rapidly become a very productive part of our workforce.

Skilling Queenslanders for Work

The Skilling Queenslanders for Work (SQW) programme was a Queensland Government Initiative, providing on-the-job training to assist people trying to enter, or re-enter the workforce. At the Gardens, this programme had similar advantages to the aforementioned council traineeships, in that groups of up to 12 students were permanently based at the gardens for five months. Similarly, this gave students the timeframe to gain a very comprehensive understanding of Gardens operations. Many hands make light work and, with good supervision, these large student groups were able to progress development of the Gardens far more than City of Gold Coast alone would otherwise have had the resources to do.

Each group of students focussed on two or three major landscaping and planting projects, with a whole of project approach that enabled students to experience the project from site preparation and installation to follow up maintenance. Projects such as constructing and planting a native rockery gave students skills in selection and growing native, drought tolerant, edible and wildlife attracting plants, as well as experience in soil preparation, rock placement, planting, fertilising and maintenance of new garden beds.

The diversity of garden types and learning opportunities was critical to the success of these projects at Gold Coast Regional Botanic Gardens (Figure 1). As well as working in native gardens, the students were able to work in the extensive display gardens, which showcase subtropical species from around the world. Students also had the opportunity to work in the heritage garden, which is part of the original site homestead, and a rare example of turn-of-the-century gardens in this part of south east Queensland (Heffernan, 2011). The heritage garden contains many old plant varieties rarely found in contemporary gardens, and gave students the opportunity to get hands-on experience of these, as well as experience in heritage garden restoration, remedial pruning and working at a sensitive site.

A key focus of the SQW programme was on providing students with industry-relevant skills (Figure 2). As well as horticultural skills, Gold Coast Regional Botanic Gardens provided opportunities for students to learn other landscaping tasks, including footpath construction, formwork and concreting, building retaining walls and installing irrigation systems. Students were able to use a large range of the machinery, tools and equipment they were likely to have to use in future jobs, including chainsaws, ride-on mowers, brush cutters and rotary hoes. Students' involvement in preparation and assistance at community planting days also gave them experience of working with volunteer groups and school children – essential skills for staff in botanic gardens that are working to raise their profile in the local community.

Consequently, graduates from Gold Coast Regional Botanic Gardens training courses have a very good reputation, with at least 80% of graduates now employed in the horticulture industry. Many of them have been employed by the City of Gold Coast, which highlights the benefit of quality in-house training in providing the host organisation with a skilled labour force.

Conclusions

Across Queensland, the SQW programme was generally limited to one, five-month project per site. Gold Coast Regional Botanic Gardens was able to host four trainee projects in succession, because the botanic garden setting offered such good training outcomes for students.

Our experience is that a regional botanic garden makes a perfect setting for quality horticultural training. Botanic gardens contain a unique diversity of horticultural landscapes, experience of which puts students in an excellent position when entering the workforce. The community benefits from the integration of unemployed people into the workforce, and the improved employment potential of its residents. The botanic garden benefits from a significantly increased and energised workforce – facilitating development, improving maintenance standards and up-skilling and improving the morale of permanent staff.

As government cuts impact on tertiary education and employment schemes, the challenge now is to seek alternative ways of incorporating vocational training into Australian regional botanic gardens. At Gold Coast Regional Botanic Gardens we are currently working successfully with Job Seekers Australia to provide work experience placements for long term unemployed, and are also involved in the student industrial placement programme with one of the local universities. We are now looking for ways to incorporate formal on-site horticultural training into Botanic Gardens' operations.

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Figure 1 Students working in a variety of different garden settings



Figure 2: Learning industry relevant skills, including path construction, concrete formwork, working with community volunteers and operating machinery.