

## **Qld Coastal Conference 2011**

### **Abstract Theme: The Next Wave**

☐ *Intergenerational transfer of Knowledge – Traditional and contemporary*

*Community representatives that are directly involved in this field eg; volunteer organisations*

#### **Title:**

### **LEARNIng LOCAL: Embedding local coastal Natural Resource Management in a National Schools Curriculum**

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#### **INTRODUCTION**

Edition 3 of Noosa's Native Plants has just been published. All 3 editions have been the original work, including all photographs, of Noosa Integrated Catchment Association (NICA) volunteer, Stephanie Haslam.

Noosa's Native Plants origins commenced in 2002 as a project to fulfill a Noosa Catchment Management Strategy requirement of raising awareness about Noosa's local native plants and the importance of understanding the local natural environment and sense of place.

Now we have been asking the question:

Why has there not been a reference book like this in schools generations ago?

#### **BACKGROUND**

I found an entry in Captain Arthur Phillip's Journal that may go some way to explain the answer:

*'There are few things more pleasing than the contemplation of order and useful arrangement, arising gradually out of tumult and confusion; and perhaps this satisfaction cannot anywhere be more fully enjoyed than where a settlement of a civilized people is fixing itself on a newly discovered or savage coast.'*

Australia has a lot of coast. The 'civilised people' have been fixing themselves upon it for sometime now, still 'opening up' the remnants of 'tumult and confusion'.

NICA and Cooloola Coastcare Association Inc (CCAI) have been working diligently for over 10 years in their respective communities of Noosa on the Sunshine Coast to Rainbow Beach and Tin Can Bay on the Cooloola Coast, to raise awareness about South East Qld coastal native plants, now commonly referred to as 'wallum'.

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Wallum is a description of plant assemblages of the sandy coast from Northern NSW to Bundaberg in the Burnett-Mary River catchment. Dr Arthur Harold referred to Wallum as the “vegetation of the coastal lowlands” and included broader vegetation types other than just the wet and dry heathland used by some. He included coastal eucalypt and rainforest, paperbark woodland, montane and seacoast communities.<sup>1</sup>(Harold 1994).

When native plants are removed from the landscape for whatever reason, there is a proportional loss of identity and sense of place. It is the native plants of coastal SE Qld that hold the key to soils, geology, aquifers and the climate history of a particular place. When the canvas is wiped clean for the landholder to paint (plant) anything, we ‘become’ something else, losing local connection to the reality of place or ‘country’.

Although this maybe justified as an individual right and freedom on private land, on a larger landscape scale, the removal and displacement of local native plants impacts on a collective sense of place, identity and connection to nature, and above all, impedes progress towards a ‘sustainable future’.

For far too long, it has been coastal developers, coastal councilors, road engineers and grounds facilities managers of public properties, including school grounds staff (to name a few) who decide on the landscaping of public places and/or publicly visible places, thus in turn, informing the next generation’s sense of place.

Let me for a moment draw your attention to the often-used palm tree image as a logo. Close your eyes and visualise...the palm.

What do you see? Slightly bendy pole-like trunk with four fronds at the top, perhaps 3 circles representing coconuts? And what else? Sunny, cloudless blue sky, crystal clear blue green water, golden sand, rainbow? All that colour!!

What we have just seen is the global visual language for utopia. Of course we all want live in utopia, buy real estate in utopia and tourist operators need to sell utopia to their southern visitors, and we all eventually die and hope to end up in utopia- (but that might take too long)- so why wouldn’t you landscape the coast with palm trees?

Did anyone from SE Qld happen to visualise *Livistonia australis* (Cabbage Tree Palm) or *Pandanus tectorius* (Screw Pine)?

*Archontophoenix cunninghamiana* (Piccabeen or Bangalow Palm) may have been visualised if you didn’t go for the slightly bendy trunk but the tall upright variety!

There are 350 pages x 2 species per page in Noosa’s Native Plants<sup>2</sup> (Haslam 2011) and over 500 pages x 4-5 species per page in Mangroves to Mountains<sup>3</sup> (Leiper et al 2008). Of all the native plant species of SE Qld, only 3 are palms, and you can disregard the pandanus- the name Screw pine is derived from the spiral arrangement of its leaves and the pineapple-looking fruit.

## **SO WHY SUCH A COLLECTIVE BLINDNESS?**

I will hazard a guess that the entry in Phillip's Journal has not been challenged too often in the history curriculum; that school curriculums and their attendant philosophies and content are derived from the inherited British system, and that this knowledge has been transferred from generation to generation of the so-called 'first settlers'.

Whitehouse has quoted an example from an indigenous academic colleague, George Skeene:

*When Skeene attended school he found the settlement history of his family was actively ignored (or actively eradicated) from Australian history classes. The lies that were told of Aboriginal people seem to be endless. We are the most studied people on the planet, and yet very little is known about us. My schoolteacher in the history classes said the first lies I heard (that Australia was first "settled" in 1788). I still don't know why lying is an accepted part of Australian life.<sup>4</sup> (Whitehouse 2010).*

And just as we collectively ignored Indigenous cultural history and art in the schoolbooks, we continue to visually ignore the true content of our coastal landscapes. During the mid 90's, a developer of a seaside package of land at Poona in the Great Sandy Strait had every species of plant cleared and burned except for the livistonias- hail the beloved palm! Meanwhile, at a brand new state school some kilometres to the south, a forward thinking architect in 1998, preserved a buffer of wallum woodland between the main road and the school, 'for privacy, visual amenity and future educational purposes' (WBM 1997). The grounds man, however, did not see the visual amenity in the mix of lopsided scribbly gums, geebung, wattle and myriad of heath species, and decided to 'line the pathways' through the wallum with rows of Alexander palms- standing tall and straight as Captain Arthur Phillips' sentries! God knows what he was protecting those kiddies from, because despite efforts by 'environmentally aware' parents, the wallum contained safely within the school grounds is still not utilised for educational purposes today.

### **Change on the Horizon**

Two associations actively contributing to an evolution of change across Queensland are the successful Reef Guardians and Queensland Environmentally Sustainable School Initiative (QESSI) programs. The success of programs delivered through these associations depend greatly on time allocated to a well prepared and inspired coordinator within the school to administer the program, time allocated to a trained group of teachers to link the content across the curriculum (plan), a willing grounds person- especially if planting and composting are involved, and continuity and assessment by all of the above to 'embed' the program within the school. When these foundational factors are in place, along with consistently improving grounds biodiversity, sustainability actions and knowledge can become "normalised" to be an integral part of the school's identity. Congratulations to all committed Reef Guardian and QESSI schools!

But even having achieved all this, a less enlightened New Principal is still capable of turning back the clock by demanding a different image. And there seem to be no guidelines from Education Queensland to prevent them doing just this.

Many Natural Resource Management (NRM) groups have also identified a need to promote their expertise widely and develop partnerships with schools in the support of building staff and educators knowledge and skills in local biodiversity. If there is ever to be a change in the way we manage our coastal landscapes, we need to be mindful that it is the students of our education systems who become our coastal developers, coastal councilors, road and stormwater engineers, teachers and school grounds staff.

NICA's Stephanie Haslam is one such dedicated NRM educator. Not only has she authored one of the books of SE Qld native plants, but has worked tirelessly with NICA to have it

linked to a website of the same name including a continually updated 'Flowering Now' slide show on the home page<sup>6</sup>(Haslam 2011) for anyone who cares to take a look, anytime of the year. Wait! And there's more: Stephanie has developed a 'What Local Native Plant is That?'<sup>7</sup>(Haslam 2011) educational program for any Noosa and Great Sandy Biosphere School to identify their own native plants and develop a library resource that can be built upon forever into the future with the accumulation of local knowledge in natural history. At age 70, the latest contribution is a free publication "Gardening in Noosa Biosphere" where appropriate local native plants are suggested so gardeners can create 'green corridors' between areas of protected bushland. As equally vocal as the Society for Growing Australian Plants (SGAP)'s Diana Snape<sup>8</sup>(Snape 1993), Stephanie believes that awareness about the native vegetation that is unique to a place, needs to be raised throughout the community: in school grounds, council parks and gardens, private gardens and developments.

Stephanie was invited to present a paper in July this year prior to the opening of the The Maroochy Arts and Ecology Centre at the Maroochy Bushland Botanic Gardens on the Sunshine Coast.

*The Maroochy Arts and Ecology Centre is adaptable to various uses. The design encourages involvement, investigations and creative inquiry to improve environmental education and attitudes. The centre will generate its own solar power to significantly reduce employing the grid. Rainwater harvesting will supply water to the building and the materials used are sustainable*<sup>9</sup>.(Sunshine Coast Council 2011)

Stephanie titled her presentation '7 Years'.

7 years of voluntary effort and enthusiasm and passion to challenge 'the system'.

Stephanie makes the most salient point to our modern Australian sustainability educators:

*Knowing about place and local resources was foremost in the education of aboriginal children because it was vital for their survival. Today we might call this a blueprint for sustainable living.*

*In many schools, students are taught about native plants at arm's length.*

*They are bussed to a National Park – often well out of their own area and usually bearing no relation to the ecosystems produced by their school's own environmental factors.*

*They may have learned about National Parks and had an outing, but may have missed the point about plants that grow naturally in or near their school. Every school is different, located in unique environmental conditions, and it is this difference that provides information that can and should be linked to curriculum requirements.*

*And our (NICA's) programme is there for teachers who need local botanical guidance. It has been introduced to 20 schools on the Sunshine Coast and this has been hard work involving endless personal contacts. The programme is currently concentrating on the 20 schools within and near the Noosa Biosphere – the old Noosa Shire council boundary.*

*Unless this programme can be firmly embedded into the curriculum, we will have to do it all over again next year, establishing new contacts with new teachers.*

*Overloaded teachers, sometimes with little local knowledge, will continue to reach for the easiest "one size fits all" option, sending bus-loads of children to another place to learn about plants (and ecosystems), so the boxes can be ticked. And the school loses the opportunity to collect data (and accumulative knowledge) about its own place.*<sup>10</sup>(pers. com. Haslam 2011).

Moreover, I will add to this 'and another generation doesn't really learn about country'.  
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The term 'country' is not nationalistic in any sense, and the connotations of the English language are perhaps a clumsy but effective definition as just meaning 'where I am standing now'. As Whitehouse states, the use of the term 'country'

*in Australian education and resource management practices, is an act of stepping out of the legacies of colonisation. The greater education enterprise can be explained as "a nation-wide focus on the importance of Aboriginal and Torres Strait Islander peoples and their cultures" (GBRMPA, 2010). I see country as representative of a kind of extra territoriality and the use of the term in contemporary environmental practice (this includes education) brings us to spaces where the contingent and relational nature of knowledge(s) become more apparent. There are means for thinking and acting outside the hobbling histories of binary thinking. In doing so, some possibility for reconciling the differing ontologies of understanding this country emerge (Whitehouse 2011).*

Education Qld set up 10 QESSI Hubs in 2004-5 increasing to 21 in 2010. 19 of the Hubs are Education Qld Outdoor and Environment Learning Centres with 2 Hubs being Natural Resource Management Organisations.

*In 2010, Education Qld launched the Earth Smart Science Program providing 3 year funding and directing QESSI Hubs across Qld to support sustainable school development for state primary schools through the mechanism of School Environmental Management Plans (SEMPs).<sup>11</sup> (Education Qld 2010)*

A recent meeting between Sunshine Coast QESSI hub staff and 2 Natural Resource Managers, including myself on 26<sup>th</sup> August 2011 resulted in the following shared knowledge and experience with NRM education in schools:

- We recognise the local natural environment on school grounds as significantly important. We want to discuss, promote and contribute to solutions for statewide biodiversity improvements in school grounds.
- We recognise the diversity of current constraints and challenges of the Education system. The state aims to have all Qld Primary Schools engaged in developing a School Environmental Management Plan (SEMP) by the end of 2012- so what happens if they don't? And what happens after 2012 when the program winds up?
- Some challenges to embedding grounds biodiversity improvements include day-to-day embedded school procedure and a diversity of agenda competing for minimal timeslots, level of interest, training, knowledge and skill of the current cohort of educators, schools staff including grounds maintenance staff, in local native species and biodiversity – knowledge of place is not yet a mandatory training requirement for school staff. Universities are generalist, at best, in these specialities. This is a gap that is not seen as a priority or even relevant in some university degrees in education.
- In terms of understanding 'place' or 'country', we often deal with a curriculum that takes kids out of their own setting to another environment to learn about ecosystems
- Introducing new thinking and new ideas involves effort, commitment, connection, and trust in establishing a local networking relationship with the school principal, grounds and other staff, local indigenous people. We should not forget that many grounds staff and others think they are doing the right thing by protecting children from "the vermin" that live in the bushes.
- Other challenges include working with highly mobile transitory staff, principals, grounds staff and other key staff lacking training in the local ecology / native species / biodiversity of their school landscape with little or no knowledge of the local experts available to provide support.
- Last but not least, this extreme lack of on-ground knowledge of sustainability and coastal management for growing populations in a changing climate is deeply embedded in our broader population; schools being a reflection of this deficit.

- The need has never been greater for a commitment to increase 'knowledge of place' for everyone and especially the educators of our future population.

### **Chaos Theory should guide a new aesthetic?**

It is *my* contention that it is time that the Queensland Education System, deeply rooted in its Age of Enlightenment philosophy and Industrial Era based production model stepped... no, pole vaulted, into the 21<sup>st</sup> century.

We need to recognise that all schools have a mix of 'local' and immigrant population. The locals may only have 50-100 years of history of that place if not indigenous, while the immigrants can come from anywhere in Australia or throughout the world. With such a mix, the expression of 'belonging' or 'home' in a landscape context can be conflicting. Of course, in this very transient society, learning about where you are is an ongoing study, and I appreciate the difficulties inherent in demanding that teachers know (at least more than the local children) about every bit of country in which they teach, but we do at least need to recognise and respect 'country'.

With a new Australian National Curriculum on the horizon, the opportunity exists to finally put these conflicts to bed by presenting Australian schools, our public places of learning, as a united acknowledgment of country for a sustainable future through its physical landscaping; and providing resources within each school to embed that landscape knowledge- knowledge of country- in the new curriculum. That knowledge would be gathered, researched and built upon across generations.

The old Classical landscaping ideals derived from the Golden Mean such as order, straight lines, neatness and tidiness, sweeping lawns and Landscape Views, ought give way to Chaos Theory more befitting of the true Australian Landscape and our modern era:

*'Nature is highly complex, and the only prediction you can make is that she is unpredictable. The amazing unpredictability of nature is what Chaos Theory looks at. Why? Because instead of being boring and translucent, nature is marvelous and mysterious. And Chaos Theory has managed to somewhat capture the beauty of the unpredictable and display it in the most awesome patterns. Nature, when looked upon with the right kind of eyes, presents herself as one of the most fabulous works of art ever wrought.*

*Chaos Theory is a mathematical sub-discipline that studies complex systems. Examples of these complex systems that Chaos Theory helped fathom are earth's weather system, the behavior of water boiling on a stove, migratory patterns of birds, or the spread of vegetation across a continent. Chaos is everywhere, from nature's most intimate considerations to art of any kind.'*<sup>12</sup>

We all need to appreciate country, its soil, its slight dips and curves, the hydrology, its trees, shrubs, grasses, fungi and associated birds- resident and visiting- its fauna, all of it, small, large and nocturnal; its weather patterns, tides and become familiar with it; and then become a part of the chaos cycle; part of that country, pleased with the tumult and confusion.

*'I will cross the continent from one end to the other. I have every intention to know it with my heart'*<sup>13</sup> said Voss in Patrick White's novel.

### **CONCLUSION**

*The Australian Curriculum has been written to equip young Australians with the skills, knowledge and understanding that will enable them to engage effectively with and prosper in a globalised world. Students will gain personal and social benefits, be better equipped to make sense of the world in which they live and make an important contribution to building the social, intellectual and creative capital of our nation.*



*Accordingly, the Australian Curriculum must be both relevant to the lives of students and address the contemporary issues they face. With these considerations and the Melbourne Declaration on Educational Goals for Young Australians in mind, the curriculum gives special attention to these three priorities:*

*Aboriginal and Torres Strait Islander histories and cultures*

*Asia and Australia's engagement with Asia*

*Sustainability.*

*Cross-curriculum priorities are embedded in all learning areas.<sup>1</sup>*

Embedding number one and number three priority areas across the Australian Curriculum is a leap forward to engaging students in understanding country, because for the first time, Australian Indigenous histories and Sustainability perspectives are 'built in'. This initiative is to be widely celebrated.

One of our greatest challenges will be how that shift will be enacted; how to effectively provide teachers and school staff with the resources and opportunities to become active educators in this new "place of knowing" of understanding concepts of 'country', sustainability and natural resource management goals, and /or knowledge of traditional owners.

The Sunshine Coast QESSI hub and NICA propose the following:

- QESSI and NICA agree that all schools require the time, commitment and skilled personnel to develop a SEMP, one that includes long term planning for biodiversity improvement on school grounds.
- We support embedded curriculum content for individual schools linked with ongoing development of biodiversity improvements in school grounds. This can include both natural and landscaped areas.
- We support the professional development of school grounds staff in learning about local native species and the foundational role they play in protecting and restoring biodiversity along with professional development of school managers and teaching staff in local biodiversity
- We support the opportunity and incentive for grounds staff to gain qualifications in Conservation and Land Management.
- We support the development of networks and partnerships with like-minded agencies such as DERM, Biosecurity Qld, Qld Museum, Local Governments, community nurseries & environment groups and programs eg Green Lane Diaries; Federal Department of Sustainability, Environment, Water, Population and Communities (DSEWPC), Dept of Climate Change & Energy Efficiency (DCCEE), Dept of Education, Employment & Workplace Relations (DEEWR) and supportive sustainable business and industries, to name a few, that are motivated by the vision to educate today's students for a sustainable future.

The goal of embedding with integrity these 2 of the 3 cross-curriculum priorities could very likely take another generation while we wait for the next round of young teachers to graduate.

In the meantime, our shared vision could be achieved by the Education Department, DERM, Biosecurity Qld, and federal departments working across education and the environment, to actively and financially supporting Indigenous Traditional Owners, Natural Resource & Cultural Heritage Managers and Catchment groups throughout Queensland to work alongside teachers and ground staff to implement knowledge of country.

The model has worked well with many Regional Councils and their local communities through Caring for our Country Community Action Grants program, now it's time to go full circle and implement projects in schools, filling the gap in professional development, while we wait for that next generation of teacher graduates.

**Footnote:** Any members of organisations mentioned in this paper who are supportive of Sunshine Coast QESSI / NICA and Cooloola Coastcare proposals please contact Maree Prior at [admin@noosariver.com.au](mailto:admin@noosariver.com.au) or [mareeprior@gmail.com](mailto:mareeprior@gmail.com)  
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