

Sharing knowledge in ecosystem restoration: generating a unique partnership between Australia and Brazil.

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Partnerships help us to achieve what we cannot do on our own. The ongoing process of developing a partnership, by sharing knowledge in ecosystem restoration, between Brazilian and Australian practitioners has not only broadened the horizons of the participants, but will hopefully allow others to benefit from their experiences.

Brazil and Australia, the two largest countries of the southern hemisphere were once connected, as part of Gondwana, and indeed the arrival of marsupials in Australia has been suggested is due to that link.

Both have repositories of extraordinary biodiversity, and the vast areas of relatively unpopulated land at the heart of both countries is matched by a concentration of population mainly on the eastern coastal fringes. There, the pressures on coastal ecosystems have been unrelenting.

In Brazil the majority of the Atlantic Rainforest has been cleared, while Australia has also lost the majority of its pre 1788 forest. Ongoing deforestation in both countries is a major challenge. Both countries have symbolic, inland federal capitals, Brasilia and Canberra, where this challenge needs to be responded to politically.

There is also a parallel pattern of European colonisation and subsequent demise of indigenous cultures, followed by multi-cultural migration.

In Brazil this has been a 500 year process compared to 200 in Australia, with devastating environmental consequences. In both cases these impacts are unsustainable and the need for ecosystem restoration is urgent. While Brazil was a link on the long sea journey from Europe to Australia, geographic and cultural isolation have limited closer ties between Brazil and Australia until recently.

The convergence of interest between Australians wishing to visit Brazil and Brazilians working in Australia was the basis in 2000-2001 for a series of meetings to plan the first ecological restoration seminar in Florianopolis in 2002. The involvement of Nadia Pietramale and Marinez Scherer was crucial because of their networks in Brazil, and fundamental to its success.

On that occasion, volunteers, bush regenerators and members of the local community from Australia and Brazil participated in the first seminar, also held on the island of Santa Catarina located in the southern region of Brazil.

The seminar provided a focal point to meet and engage professionally with local practitioners. While all participants were self funded, logistic support was provided by numerous organisations Jurere Beach Village provided a venue and corporate sponsors provided simultaneous translation services. Letters of support from groups such as the Australian Association of Bush Regenerators (AABR), the Brazilian Consulate, the Landscape Explorers Society and the Brazilian Community Council of Australia (BraCCA), linked the project with those organisations and provided feedback to members. Over 20 Australians participated in the presentations.

This workshop generated a unique collaboration between Australian and Brazilian organizations and professionals, who contributed with knowledge and enthusiasm on a voluntary basis. The Australian professionals were mostly from the bush regeneration industry, TAFE lecturers (bush regeneration course) and council staff. The Brazilians were university lecturers (Federal University of Santa Catarina and University of Vale do Itajaí), staff from municipal, state and federal environmental agencies, non-government organizations, undergraduate students, technical consultants in ecosystem restoration and employees from private companies. Over 70 people attended the event.

The workshop was organized by Willoughby Council, the Australian Association of Bush Regenerators, Landscape Explorer Society, Ambiental Ratoles Institute, Florianópolis Environmental Agency (FLORAM), Centre for Marine Studies (NEMAR) from the Federal University of Santa Catarina and individuals. The event

had practical support from Gosford City Council, FLORAM, Habitasul and Ambiens, an environmental consulting firm.

During the first 3 days of the workshop there were audio visual presentations. The fourth and the last day were field trip days and on the fifth day smaller working groups discussed future actions.

A paper early on the first day by Dr Eduardo Sierra (NEMAR) provided an overview of the Florianópolis environment, fauna and flora. This was followed by oral presentations on relevant themes such as tropical forest reforestation; tiers of local government managing environmental issues; volunteers in the “care” movement; invasive plants in Brazil and practical experience in Bush Regeneration.

On the second day Dr Ademir Reis from the University of Santa Catarina opened the session giving a talk on Brazilian restoration experiences. Then followed talks covering issues such as environmental law in Brazil and Australia and coastal management processes. Dr Marcus Polette explained how the Brazilian coastal management program works in Santa Catarina State - the achievements, weaknesses and future research. Alfred Bernhard from Willoughby Council addressed key issues in catchment management showing practical actions that can be undertaken to prevent water pollution in a catchment area.

The third day of presentations was opened by Rowan Hayes who spoke on the History and Development of Environmental Education in TAFE; the Bushland Regeneration Syllabus, and resultant enhancement of ecological awareness in local communities. Other important issues discussed during this day were environmental psychology and education, public perception, native nurseries and co-management. Iara Vasco, from the Brazilian Environmental Agency (IBAMA), presented the Amigos de Carijós experience, the work of an NGO created to manage a mangrove conservation unit and demonstrated a successful example of co-management between local community and government.

The field trips visited sand dunes restoration projects and three different parks: State Forest Park of Rio Vermelho, Municipal Park of Córrego Grande and the State Park Serra do Tabuleiro.

On the fifth day, working groups addressed the following issues: (i) weed control and bush regeneration techniques; (ii) international interchange and volunteer work; and (iii) conservation unit management. At the closing session those working groups presented their findings, which included the current understanding of the three above mentioned issues and how to improve their standard of practice in the future.

There were many shared lessons, with participants recognizing similar issues, problems and frustrations associated with environmental management in both countries. The Australians discovered that in spite of a perhaps stronger framework of environmental legislation in Brazil, it was often bypassed.

In the experience of many participants from both countries environmental controls were watered down when political pressure was applied to facilitate development.

The important role of volunteers in conjunction with local government in Australia was contrasted with the need for financial incentives to achieve involvement in revegetation projects in Brazil, some achieving spectacular results.

Originally, 90% of Santa Catarina Island was vegetated, mostly by Atlantic rainforest. A large proportion of the original forest has been destroyed, with fragments remaining in the most isolated parts of the island. Furthermore the potential impact of exotic plants such as Pinus sp., Eucalyptus sp., Casuarina sp. and Acacia sp. is likely to be high.

The Australian concern with noxious weeds was much greater than that of the Brazilians who were more likely to see them as a resource to be optimized.

Creek restoration, stormwater management and Gross Pollutant Traps, were largely unknown in Brazil, perhaps because the need for sewage treatment was a far more urgent problem.

The visitors were impressed by the clever reuse of plastic bottles polluting mangrove areas, as pots to propagate seedlings when the tops were cut off and of the close links between social programs and environmental education. It was noted that the production of interpretive material and other education

initiatives were growing rapidly. The strong involvement from NGOs often fulfilled what is the role of local government in Australia in engaging the community in environmental projects. It was noted that funding problems were universal but perhaps government funding was more likely to be taken for granted in Australia.

The process of discussion, debate, presentations and site visits over a period of a week provided participants with opportunities to adapt ideas to their own situations. For example, the group witnessed the power of performance art when watching a memorable theatrical event in a forest park. This reinforced the decision to use street theatre performers as part of the “Streets to Creeks” stormwater education project in Sailors Bay, Willoughby. That event proved to be very popular with the community and conveyed environmental messages focusing on catchment awareness.

The seminar in Florianopolis in 2002 formed the basis for developing a mutually beneficial partnership with enormous potential. While the project was initiated by individuals, the concept of forming an organization to facilitate an ongoing exchange of information was supported by participants and an environmental foundation FABA – Fundacao Ambiental Brasil Australia- was initiated.

The website www.cleanwater.net.au was established to present the background and proceedings of the seminar as well as to provide links to other sites. The site will be updated to include more recent information such as the latest seminar in 2004.

The invitation to present the concept of the exchange project to the Darwin International Landcare Conference in 2003 provided some of the group who had been in Brazil an opportunity to meet again and to contribute to the International Landcare working group.

Significant interest in the Landcare concept came from southern and eastern Africa, the Philippines, the Pacific and the new nation of East Timor.

Facing particularly difficult environmental problems, the delegates from East Timor were interested in the Brazil-Australia exchange and subsequently requested information such as the turtle protection project (Projeto Tamar) from Brazil and Willoughby Council’s environment levy projects.

The second seminar in Florianopolis was scheduled in 2004, titled “Sustainable Coastal Cities” .

In October 2004 representatives from The Instituto Ambiental Ratoes, -a Brazilian NGO active in environmental projects- and members of Willoughby City Council’s Bushland Management Team signed a Co-operative Agreement in order to establish an ongoing exchange of ideas, information and expertise, focussing on environmental management. This was the culmination of several years of growing teamwork and friendships between the participants.

The venue was the Sustainable Coastal Cities Seminar, held in Florianopolis, Santa Catarina, Brazil in October 2004, It was attended by and was attended by over 150 delegates and 50 speakers including representatives from Willoughby Council and expanded on the issues presented at the inaugural exchange seminar held in April 2002.

Key issues they presented were an overview of the Urban Bushland Plan of Management and its achievements and the process of recruiting, training and supervising BushCare volunteers. Other topics included environmental law, coastal management policy, dune restoration, environmental education, with site visits to complement the talks.

Seminar sponsors included Caixa Economica Federal, Eletrosul, Badesc, Brasilinvest, ABRAMPA, BRDE, supported by Willoughby City Council, Fundação Pedro Jorge de Melo e Silva, Santa Catarina Government, FLORAM, and Jurerê Beach Village. Organisers were Escola Superior do Ministério Público da União (ESMPU), Procuradoria da República no Estado de Santa Catarina and Ambiental Ratoes Institute (IAR)

Representatives from IAR and Willoughby signed a Co-operative Agreement to continue to work together for the mutual benefit of both groups, more specifically it aims to establish a technical and scientific co-operation program and the joint organisation of events and other projects.

While the initial role of FABA was to document the seminars, the website could be expanded considerably to provide related environmental material in both English and Portuguese. It could be a link for NGO's in both countries and FABA could also provide support for work experience exchanges and with government or corporate support assist with travel expenses and foster practical support for strategic projects.

Currently a bush regenerator from Willoughby is planning to spend time as a volunteer with Instituto Ambiental Ratonas in Florianopolis and an NGO worker from Brazil will help Council's environmental education team.

Protecting, preserving and interpreting natural areas and restoring degraded sites increasingly can benefit from a global approach. This project has shown how worthwhile working and learning together at a grass roots level can be.

A network of individuals and organisations can better promote ecologically sustainable use of natural resources. More specifically it can help implement the practical outcomes necessary to achieve that.

This partnership between Brazilians and Australians will evolve in response to the needs of the participants and may provide solutions to our shared environmental problems. To date it has certainly broadened the horizons of all those involved.