Exploring the potential for Indigenous-driven tropical ethnobotany

Report of the tropical Indigenous ethnobotany centre workshop on the cultural use of plants. Cairns, Australia, November 19th 2010

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1 The spelling Ngadjon has been adopted in this report but please note some Traditional Owners from this group use the spelling Ngadjan
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The following authors have contributed to the development of this report. Their names also appear below the heading of each section they have individually authored in the report.

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Executive summary
Peta Standley and Rosemary Hill

Indigenous knowledge is recognised globally for its potential value in contemporary biodiversity conservation management and research. In tropical Australia, Indigenous peoples’ strong and diverse presence on country presents an important opportunity to support Indigenous knowledge and management systems. This report summarises the outcomes of a workshop held for Traditional Owners to consider whether a tropical Indigenous ethnobotany centre would be a good way of supporting Indigenous knowledge about the cultural use of plants.

The workshop was initiated by Mr Gerry Turpin, an Indigenous man and Mbabaram Traditional Owner who works as an ethnobotanist with the Australian Tropical Herbarium, a joint venture between James Cook University, CSIRO and the Queensland Department of Environment and Resource Management. Gerry saw potential mutual benefits to Traditional Owners and research organisations from the establishment of an ethnobotany centre. Gerry convened a co-ordinating team, with representatives from hosting organisations, to arrange a workshop for Traditional Owners who had expressed interest or were engaged in ethno-botanical projects on their country. The workshop was made possible by financial and in-kind support from the Australian Tropical Herbarium, the Queensland Herbarium (BRI), the Marine and Tropical Science Research Facility, CSIRO’s Building Resilient Australian Biodiversity Assets Theme, James Cook University’s Cairns Institute, and the Tropical Landscapes Joint Venture. The workshop included a number of presentations from Traditional Owners and others with background and expertise relevant to ethnobotany. The primary purpose of the workshop was to facilitate Traditional Owners to put forward their views about the concept of an ethnobotany centre. The workshop also resulted in the sharing of information and building of relationships and networks between Traditional Owners, scientists and other participants.

The workshop identified that establishment of an ethnobotany “centre” could be a valuable means of supporting Traditional Owners in the conservation, management and communication of their ethnobotanical knowledge. However, Traditional Owner participants emphasised that the “centre” of ethnobotany lies in Indigenous-driven partnerships, rather than the science organisations. Traditional Owners suggested a network structure as the best model for the centre, and also suggested the use of an Aboriginal word as a name to capture this concept. Workshop participants identified Indigenous-driven ethnobotany partnerships as a good means to enable Indigenous communities across the tropical north to access resources, knowledge and skills in contemporary botanical practices. These partnerships could also act as a conduit to train scientific and other organisations in Indigenous cultural protocols and practices specific to each Traditional Owner group. In order to provide these benefits, Traditional Owners at the workshop identified that the ethnobotanical centre should be:

1. Indigenous-driven and based on respect for Indigenous knowledge, law and culture.

2 “Indigenous” is a generic term whereas Traditional Owner is used to refer to Indigenous people in northern Australia with traditional connections to specific tracts of country.
2. Based on Indigenous governance and protocols.
4. Linked to sustainable economic development, education and training.
5. Started by pilot partnership projects initiated by Traditional Owners.
6. Supported by an effective communication strategy.

At the conclusion of the workshop, participants expressed a genuine interest in being pro-active and taking responsibility for the on-going development of an Indigenous-driven ethnobotany partnership model. An Indigenous Working Group, comprising Indigenous people with interest, knowledge and skills in ethnobotany, was formed to progress an Indigenous-driven ethnobotany centre in partnership with ATH, CSIRO Ecosystem Sciences, and the James Cook University’s Cairns Institute.

The purpose of this report is to:
1. Assist Traditional Owners and others who attended the workshop in informing their communities about the Indigenous-driven ethnobotany centre idea; and
2. Provide a resource for development of proposals to gain wider institutional support and long-term commitment for development and establishment of an Indigenous-driven ethnobotany centre.

There is currently no ethnobotany centre in Australia dedicated to Indigenous Australian knowledge of plants. By applying an Indigenous-driven methodology the centre could potentially demonstrate best-practice models and stimulate culturally appropriate partnerships for knowledge generation and sharing nationally and internationally. The concept of developing a tropical ethnobotany centre through partnerships with Traditional Owners is supported by the Australian Tropical Herbarium, James Cook University, Queensland Department of Environment and Resource Management, CSIRO and the Tropical Landscape Joint Venture.
Summary of workshop discussions
Peta Standley, Rosemary Hill and workshop participants

The tropical Indigenous ethnobotany centre partnership workshop with thirty five participants was held in Cairns on the 19th of November 2010 (Appendix A lists attendees). The workshop supported twenty-three Traditional Owners from across the Wet Tropics and parts of Cape York to come together. Twelve other participants with an interest in ethnobotany from geographic locations across the Wet Tropics, South East Queensland, Northern Territory and the Australian Capital Territory attended. The workshop started with a number of invited speaker presentations, and included the presentation of a draft vision and model for a proposed ethnobotany centre. This model was reviewed and revised in small group discussions, which also focused on the key features that would make an ethnobotany centre successful (Appendices B and C include the workshop agenda and discussion notes). Consensus agreement was reached in a concluding plenary session on how to progress the development of an Indigenous-driven ethnobotany centre. Informed consent of participants was obtained to use images, quotes and other information for development of a report of the workshop. The workshop discussions identified that the proposed ethnobotany centre should be:

1. Indigenous-driven and based on respect for Indigenous knowledge, law and culture.
2. Based on Indigenous governance and protocols.
4. Linked to sustainable economic development, education and training.
5. Started by pilot partnership projects initiated by Traditional Owners.
6. Supported by an effective communication strategy.

The following material synthesises the views of the Traditional Owners at the workshop about why these features are required for effective development of an ethnobotany centre.

**Indigenous-driven: respect for Indigenous knowledge, law and culture**

Contemporary Indigenous knowledge on the use of plants is holistic, connected to knowledge of the surrounding environment and ongoing responsibility to care for country. Knowledge is passed on according to customary lore that places cultural restrictions on who has rights for this knowledge and its use. Traditional Owners at the workshop emphasised that Indigenous knowledge systems place importance on spiritual and ecological connection between plants, their environment, animals and humans:

> intrigued with this little insect and for Bama we should know the significance that this is a medicine. If that green ant is on country, with its story… if it is shared with our children, becomes a medicine for them as well…to know the trees, to know the plants, that is important but the significance of their being is part of our being as well. So I’m yeah just got to say it’s awesome to know that we can sit down as women and see what this might mean to us⁴. Marceil Lawrence, Western Yalanji Traditional Owner.

⁴ Direct quotations from workshop participants are italicised and indented throughout.
Cultural knowledge and use of plants is part of cultural identity for Indigenous people, and linked to knowledge of language and country. Indigenous participants expressed concern about the combined impacts of loss of language, the loss of access to country, loss of plants and lack of respect for and protection of their knowledge in contemporary management. Ethnobotany is centrally placed in Indigenous peoples’ “business” of maintaining their cultural identity, inherent rights, law, and knowledge and management systems.

Indigenous people need to be running the ethnobotany initiative to ensure it has fidelity with these Indigenous systems of managing and passing on knowledge in accordance with cultural practices. Indigenous participants suggested that developing ethnobotany initially as a network of Indigenous-driven ethnobotany projects would provide a good basis for ongoing development. The name of the centre needs to reflect this network concept, perhaps through use of an Aboriginal word. Having the right level of Traditional Owner involvement and engagement from the start is critical.

Indigenous participants also emphasised that development of an Indigenous ethnobotany partnership needs to be done with sensitivity, respect and recognition of links with Indigenous culture and spirituality. The development of pilot projects to build relationships and demonstrate reciprocity in the partnership model is the best way to start Indigenous ethnobotany.

The differences between western and traditional knowledge systems need to be acknowledged. Differences in ontology and epistemology exist. Different ways of understanding, being in, describing and validating knowledge must be recognised to develop effective partnership models. Sharon Brady pictured right, explains:

*Building relationships, trust, is very paramount because plants and animals they are special, they are people. Like, for instance, Flame Tree is a big story. Flame Tree could mean anything to a botanist but Flame Tree to me is storyline. How would I tell my people that this mob from here (ATH) are to collect it, and then we’ve got to store it, like I trust this mob, their mob will put trust in me. For that story there’s a deep meaning, and nobody can fathom that. It’s not just collating, it’s not just distributing, it’s something that is so big. How can you define knowledge when knowledge is powerful to us. It’s not knowledge, it’s wisdom. That’s what I get - for me, I get wary of this, very wary. Sharon Brady, Western Yalanji Traditional Owner.*

Plate 1. Western Yalanji Traditional Owner Sharon Brady highlights an Indigenous perspective of knowledge and wisdom.
**Indigenous governance and protocols: roles and responsibilities**

Traditional Owner participants identified that a strong governance model that supports Indigenous law and culture is a key requirement for establishment of an Indigenous-driven ethnobotany centre. Ethnobotany partnerships require culturally appropriate and community specific protocols that respect Indigenous culture and knowledge. The governance model also needs to provide linkages to economic development and sustainability for the long-term (see further discussion below). The planning, development and operational stages needed to be resourced. Adequate human and financial resources are required to enable consultation and engagement of Traditional Owners in the development of an appropriate governance model. The workshop highlighted the importance of getting sufficient resources to ensure culturally appropriate development of Indigenous-driven ethnobotany partnerships.

**Intellectual property: recognition of Indigenous knowledge-holders**

The workshop participants and presentations highlighted that ethnobotany requires legal frameworks that protect Indigenous intellectual property. The Australian legal system provides poor levels of protection for Indigenous Intellectual Property (see Locke, p.42 this report). The requirement for intellectual property arrangements to recognise and recompense the holders of Indigenous knowledge at a level commensurate with their expertise was a strong theme throughout the workshop. Sensitivity about, and protection for, intellectual property and its links to culture need to be included in the vision for the centre. The formation of a centre could assist in developing legal agreements on protocols, knowledge management and communication that recognise and protect Indigenous intellectual property. The workshop identified that the centre should aim to be a leader in the protection of intellectual property and the recognition of Indigenous knowledge-holders.

**Sustainable economic development, education and training**

In order to be successful, Indigenous ethnobotany partnerships need to be part of current activities of Indigenous people, including economic activities. Traditional Owners at the workshop explained how ethnobotany relates to everyday things that people enjoy doing, like bush tucker gardens and getting out on country with Elders teaching their kids. People have a keen interest in many aspects of ethnobotany: the medicinal value of plants; having the opportunity to develop sustainable economic development based on their knowledge; showcasing their existing materials through diverse communication media; and doing research while fixing up country. Participants proposed fee-for-service and sharing of benefits derived from Indigenous
knowledge of plants as good ways to make links with economic development. A strong long-term economic commitment is required to make sure such an ethnobotany initiative sustainable.

The workshop identified that a strong partnership in relation to employment, training and education between host organisations and Traditional Owners would be needed to build effective capacity. Participants identified diverse methods for building capacity. Some suggested that training in western science, traditional knowledge and cultural awareness should be compulsory for all participants in ethnobotany projects. Other participants suggested GIS mapping needs to be included for all aspects associated with cultural knowledge of plants (springs, waterfalls, rock art sites, etc). Others recommended education projects should focus on schools to pass knowledge onto younger generations and be useful for land and sea management. Participants suggested an effective Indigenous-driven ethnobotany network or centre would assist Indigenous people with other issues including business development, health, education and employment.

**Pilot partnership projects: demonstrating reciprocity**

Traditional Owners at the workshop identified pilot projects between Indigenous peoples and host partner organisations as an appropriate way to further develop relationships and explore the type of outcomes that an Indigenous-driven ethnobotany centre might produce.

Traditional Owner participants at the workshop demonstrated cultural protocols and commitment through sharing some of their current projects. Jenny Creek presented the Community Plant Knowledge Project and highlighted the services that the ATH could provide to the community. Other participants discussed their projects and potential pilots in areas such as:

- Revegetation;
- Restoration;
- Bush medicine;
- Traditional knowledge recording;
- Cultural heritage mapping; and
- Demonstrating traditional knowledge of fire management.

Traditional Owner participants highlighted their responsibility to ensure that traditional uses of plants, including for food and medicine, are maintained and regenerated in the landscape.

Participants felt that it was important to demonstrate respect, recognition and reciprocity for existing traditional knowledge projects they have been working on. Elements of these projects that are specific to Indigenous ethnobotany are potentially good pilots around which to develop partnerships, for example:

- Cultural heritage mapping and site recording;
- Land and sea management;
- Language;
- Knowledge recording projects;
- Exploring bush medicines and tucker businesses—ice creams, jams, etc;
- Establishment of bush tucker nurseries and gardens—at school, at home, for business;
- Book/pamphlet template development;
- Pilot publications;
- Collecting existing information and compiling to go back to Traditional Owners; and
- Developing a web site for general information.

Participants suggested a Traditional Knowledge Revival Pathways (TKRP) Kuku Thaypan Fire Management Research Project (KTFMRP) ethnobotany flip book as a good pilot project. Senior Elder Dr Tommy George supported such a project to communicate his extensive ethnobotanical knowledge. A flip book from the TKRP KTFMRP would also provide a means of recognising this Indigenous-led model for research that Dr. Tommy George developed with his late brother and other partners. There are other potential pilot projects ready to go. Participants suggested that a show and tell meeting be organised with Indigenous communities so that they can showcase their existing projects and determine appropriate pilots.

**An effective communication strategy**

All workshop participants recognised that getting the communication messages right is critical so that people understand what is required to develop effective partnerships. Regular and diverse communication methods including new media tools were discussed throughout the workshop. Regular communication and on-going dialogue are essential to the success of the proposal. Participants suggested that a web site be created to update people on where things are at in developing the Indigenous-driven ethnobotany centre model. Different communication methods would be required for Traditional Owners and for potential investors and partners. Marilyn Wallace explains an Indigenous protocol for continued engagement in developing a partnership model:

> we've got to have feedback to come back to this next meeting or workshop and say, well this is what our mob think, so we are like messengers, you know. We are the messengers, go back and deliver the message. Marilyn Wallace, Kuku Nyungkal Traditional Owner.

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Revised draft vision and model

The workshop considered a draft vision and model put together by the coordinating committee (p. 72). This revised version reflects the discussions and changes made at the workshop.

Proposed vision
A Tropical Indigenous ethnobotany partnership network owned and controlled by Indigenous people to preserve and keep cultural knowledge and use of plants alive.

Proposed model
Model developed by women’s group two. Highlights integrated nature of cultural knowledge and use of plants with other Indigenous business.
Workshop structure

Workshop participants were provided with a kit that included an agenda for the day, and a briefing paper, which included the draft vision and model (Appendix D). The kit also listed the focus and discussion questions for the small group work and an informed consent form, a notebook and pen. Participants were asked to complete an attendance register and give personal introductions about themselves and where they are from at the beginning of the workshop.

The method for workshop delivery included:
- Invited speaker presentations
- Time for large and small group discussion
- Review of a draft model and vision for the ethnobotany centre
- Presentation of smaller group work to the whole group
- Consensus agreement as a large group on how to move forward with progressing the development of an Indigenous-driven ethnobotany centre
- Informed consent to use images, quotes and other information for development of a report of the workshop.

Invited participants were able to hear presentations from speakers with knowledge and expertise relevant to ethnobotany and cultural use of plants. Workshop participants were able to experience a tour of the Australian Tropical Herbarium at the Australian Tropical Forestry and Research Institute that stimulated much discussion. The tour provided a tactile action-learning environment where people began to share contemporary scientific and Indigenous knowledge of plant management.
Plenary sessions

In the plenary sessions the workshop members gathered together to give feedback on their small group discussions about the draft vision and model. Each group presented their thoughts and responses as indicated in Appendix B. It was generally felt that the concept of an Indigenous-driven ethnobotany partnership network was a good one. However it was reiterated in the plenary session that it was necessary to proceed in the right direction by addressing each of the issues identified by participants as outlined in the Summary of Workshop Discussions section in this report (p. 10).

During the final plenary session, Peter and Marilyn Wallace, Kuku Nyungkal and Eastern Yalanji Traditional Owners presented to the ATH a copy of *Yalanji-Warranga Kaban: Yalanji people of the rainforest fire management book*[^6]. The presentation was a demonstration of appropriate cultural protocols of recognition, roles, respect, reciprocity, responsibility and talking the right way.

> Peter and I would like to say it has been a pleasure to work with Gerry and Warren and this mob from here. We’d like to present this book so it’s at home here as well. It’s a Yalanji book that has some information in it, but like we said networking, not everything is written in here there is only a few of this (knowledge) been put into this book.... wisdom and understanding, you got to

go back to the land up there and if you want to know more you got to come up and get involved engaged and work with us. This would be acknowledgement for Yalanji people and also Aunty Ro (Hill) has worked closely with us. Our acknowledgement today – this book should be put in a place like this but like we said its owned by Yalanji and the things we exchanged with knowledge … the teaching comes from you got to go back to country and learn and everyone has different techniques like sister Jennifer has show us. Our project this year was funded by Working on Country (Natural Heritage Trust) … we have four ranger groups, us, two lots at Coen and Archer point just north of us. We now look after the country and we would like to set up businesses like tourism and educate others about how we manage our land so we are all designing a management plan and visitor plan and show we look after the land, how we monitor our plants and animals, our rivers our cultural heritage sites … information that goes in our own data … we need to add the scientific names its education and awareness and this is what we believe, that today makes it strong (culture) … our young people are now more into technology, information technology … then our old people say you have to learn once, you must look and learn … Marilyn Wallace, Kuku Nyungkal Traditional Owner.

Kuku Nyungkal Traditional Owner Marilyn Wallace also enforced the importance of establishing partnerships that provide opportunities for the development of relationships over the long term. It is important that partner agencies recognise that staff working with communities need to make adequate time in their work-plans dedicated to repeat visits to country. This type of partnership is essential to demonstrate commitment to Indigenous conservation and land management priorities, cultural protocols and respectful research practice.

Plate 9. Kuku Nyungkal Traditional Owner Marilyn Wallace presents the Yalanji fire book to the Australian Tropical Herbarium staff, ethnobotanist and Mbabaram Traditional Owner Gerry Turpin and ATH Director Darren Crayn
**Future action**

The establishment of an Indigenous-driven ethnobotany centre has significant potential to support Traditional Owners in maintaining and strengthening their cultural knowledge of plants. An Indigenous Working Group was nominated to take the report from this workshop and determine a pathway forward for dealing effectively with the many challenges identified. The coordinating committee agreed to finalise the report and work on a process to support the Working Group. The workshop requested that the report provide a useful tool for participants to communicate with their people about the concept of an ethnobotany partnership, as well as being suitable to assist host partners to gain necessary financial and human support to proceed. Further support is required in order to enable resources for the establishment of an Indigenous-driven ethnobotany Working Group. Support for the meeting of the Indigenous Working Group will enable:

- An ongoing discussion about how to strengthen Indigenous-driven ethnobotany through enhancing networks (as outlined in the report);
- Raised awareness of traditional knowledge and its contribution to humanity and Earth;
- Increased understanding of biocultural diversity; and
- Identification of required policy and mechanisms to implement Indigenous-driven ethnobotany.

**Indigenous working group**

The following people nominated to be members of an Indigenous Working Group to progress an Indigenous-driven ethnobotany centre in partnership with ATH, CSIRO Ecosystem Sciences and James Cook University’s Cairns Institute:

Warren Canendo
Marilyn Wallace
Jenny Creek
John Locke
Marita Budden
Desmond Rumble
Allison Halliday
Peter Wallace
Tommy George Senior
Indigenous participants’ statements

We’re not (usually) getting a good, fair deal. People have been making decisions for us. But today we want to turn it around and empower our mob to make that decision, and strong we stand united, you know. The network comes from us, we have our own meeting and, you know, funding is always a problem to us but that thing that keeps us united is we’re standing together here. Marilyn Wallace, Kuku Nyungkal Traditional Owner.

Good to see Uni going down this path as we have put a lot of work into this over the many years particularly with the cultural mapping side of things whereby we can get access … in order for Traditional Owners to build upon their knowledge. Also in relation to the intellectual property we are three quarters of the way there and I see that in the room we have two members who were a part of that intellectual property sub-committee and we might be able to get some more information but its three quarters of the way there so that’s very good. Thankyou very much. Allison Halliday, Mullumburra Yidinji Traditional Owner.

I think that’s where I was actually trying to get to the point in that I am not talking about Indigenous consultant in the white fella world I am talking about Indigenous consultants in the Murri world. Marita Budden, Jirrabal and Ngadjon Traditional Owner.

Closing comments

Ngadjon Traditional Owner and workshop co-facilitator Warren Canendo concluded by thanking participants and by acknowledging Elders present. Warren thanked the coordinating committee for supporting Traditional Owners to have their voice heard in botany and ethnobotany, and emphasised the importance of this to culture:

I would like to thank Uncle Tommy George for coming all that way, for his nomination to the working group as an advisory role—fantastic to have a man of his calibre and knowledge involved.

We know that plants and animals … land and sea, air and everything that means we can’t separate one. As Traditional Owners everything is all interwoven with one. Its finding ways we can work together and make it better for us … keep everything alive for our future generations so we don’t lose our culture … it is starting to become a rare and threatened thing by losing our culture … younger people here today appreciate our old people for coming in today and for sharing … I think that if we have a lot of younger people and our
older people that our culture is in good hands. Warren Canendo, Ngadjon Traditional Owner

Stuart Jordan from the Department of Sustainability, Environment, Water, Population and Communities SEWPAC reflected on the need for governments to recognise Indigenous-driven frameworks.

I just want to thank you all for having us up on your lands, we’re trying to develop a project very similar to this and it’s people like you that are going to make it successful… I work for government, there are a lot of people down there with the same sort of ideas but it’s got to be from you lot to drive it and ensure that it is going in the right direction.” Stu Jordon SEWPAC

Prior to close of the meeting Kaantju Traditional Owner Jenny Creek, who is a cultural heritage officer with the Kalan rangers, addressed the group firstly giving acknowledgment to the Traditional Owners of the areas:

Thinking about myself now I am a Kaantju pama. Kaantju Uutaalganu dad’s side,
Ayapathu Lama Lama mothers side. I identify myself as a Kaantju pi’anhu.

Jenny has been working in this field with Elders and children for almost twenty years with the six different clan groups around Coen. Jenny presented a traditional knowledge recording project that the rangers have been working on. She presented a number of plants and their cultural use and highlighted the need to have support to identify these using western science methods as well as language names. The community has a strong commitment to recording their cultural knowledge for use in education, health, research, art, sustainable business enterprises and natural cultural and natural resource management programs. Jenny’s presentation inspired workshop participants with a sense of exciting and mutually beneficial partnerships in the future.
## Invited presentations

<table>
<thead>
<tr>
<th>Presenter</th>
<th>Title</th>
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<tbody>
<tr>
<td>Darren Crayn</td>
<td>Director Australian Tropical Herbarium ATH, Australian Tropical Forest Institute ATFI, Cairns. <em>Introduction to the Australian Tropical Herbarium and the potential to support ethnobotany</em></td>
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<tr>
<td>Gerry Turpin</td>
<td>Ethnobotanist ATH and BRI. <em>Ethnobotany projects and the potential contribution of a centre</em></td>
</tr>
<tr>
<td>Warren Canendo</td>
<td>Cultural Advisor. CSIRO. Ngadjon Traditional Owner. <em>Traditional Owners’ presentation of plant projects</em></td>
</tr>
<tr>
<td>John Locke</td>
<td>Manager. Indigenous Engagement Unit, Aboriginal &amp; Torres Strait Island Land Services, Land &amp; Indigenous Services Division, Department of Environment &amp; Resource Management. <em>Protecting and supporting Indigenous Intellectual Property and innovations</em></td>
</tr>
<tr>
<td>Glen Wightman</td>
<td>Biodiversity Conservation, Department of Natural Resources, Environment and the Arts and Sport (NRETAS), Northern Territory. <em>Global ethnobotany developments</em></td>
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Introduction to the Australian Tropical Herbarium and the potential to support ethnobotany

Darren Crayn: Director, Australian Tropical Herbarium (ATH)

Darren Crayn is the current Director of the Australian Tropical Herbarium (ATH) situated in the Sir Robert Norman Building at James Cook University, Cairns. His presentation focused on introducing participants to the function of the Australian Tropical Herbarium, its current activities with regards to ethnobotany and the potential role it could play in supporting an Indigenous led ethnobotany centre.

Darren recognised the efforts of his colleague Indigenous ethnobotanist Gerry Turpin in bringing interested Indigenous organisations, cultural groups and people together to explore the concept of an ethnobotany centre and was excited at the potential partnerships and projects that could develop as a result. His presentation focused on:

- The function of the Australian Tropical Herbarium
- The research themes it engages in
- How it can support Indigenous led or Indigenous driven ethnobotany.

His presentation highlighted the potential role that the ATH can play to support Indigenous ethnobotany. The ATH can do this by assisting communities in the compilation of traditional knowledge, demonstrating the value of traditional knowledge in contemporary management via the development of pilot projects such as publications and on-line media that can contribute to “keeping the knowledge alive from a botanical perspective.”

The mission of the Australian Tropical Herbarium is to be a leader in tropical plant biodiversity research. It aims to achieve this by conducting diverse, relevant and innovative research that is useful and to convert that research into useful products. It also offers training, inspiration and engagement with the community. The ATH recognises the value of collaborating with others to work towards the greater goal of achieving a greater understanding of sustainable tropical systems.

The ATH is an unincorporated joint venture partnership between CSIRO, James Cook University and the Queensland Government represented through the Departments of Environment and Resource Management (DERM) and Employment, Economic Development and Industry (DEEDI). These Government organisations and institutions commit both funding and staff. The ATH is governed by a Board comprising two representatives from each of the partners with an independent Chair. The Director of the ATH is responsible for overseeing ATH operations and reports to the Board.
Staff of the ATH undertake a range of activities on tropical Australian plants. These activities can be divided into five major themes:

<table>
<thead>
<tr>
<th>Theme</th>
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<tr>
<td><strong>Biodiversity, taxonomy, evolution</strong></td>
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<tr>
<td>Research under this theme is finding out what plant species occur in Northern Australia (particularly north Queensland), where they occur, how they are related and how they have evolved. The research is discovering species that are new to science, giving them formal scientific names, and classifying them.</td>
</tr>
<tr>
<td><strong>Threats and impacts</strong></td>
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<tr>
<td>This theme includes research into the impacts of major threats to tropical vegetation such as climate change, and weeds.</td>
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<tr>
<td><strong>Human uses of flora</strong></td>
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<tr>
<td>This theme area is perhaps the most relevant to the current audience as it includes ethnobotany. Other potential activities under this theme include developing commercial crops from native plants.</td>
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<tr>
<td><strong>Planning and management</strong></td>
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<tr>
<td>Through this theme the ATH may have a role in recovery planning for threatened species.</td>
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<tr>
<td><strong>Unlocking our knowledge</strong></td>
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<tr>
<td>This theme focuses on delivery of knowledge gained through ATH activities back to the communities and other stakeholders in ways that are useful to them, such as online resources. A key resource is the Public Reference Collection. This is a set of specimens and identification resources that is open to the public. Users can come in and browse the collections and facilities, identify plants they have collected and talk directly to botanists about plants.</td>
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Among the research undertaken at the ATH there are three major programmes of particular relevance to the audience:

1. **Interactive key to tropical rainforest plants research**  
   Staff and collaborators have developed a computer-based identification system for Australia’s tropical plants. The latest version will be soon available online free of charge, unlike previous CD Rom versions. At the time of the workshop the web portal through which the Key will be delivered was in a beta test phase and was due for launch on the 9th of December 2010. The Key will be updated regularly to stay current with new discoveries.

Also, ATH staff run public workshops on identifying plants using this on-line tool. In 2010, seven workshops were run with different groups across the wet tropics. The program will continue in 2011.

2. Discovering and documenting Australia’s tropical plant and fungal species
   This research focuses on finding out what plants and fungi occur in Australia’s tropics, and where they are found. Researchers conduct their studies in the field and in the herbarium and laboratory. Often, we discover new species not by walking around in the bush, but by looking more closely at the specimens we already have in our collection. We also try to understand the relationships of Australia’s plants, and also their evolutionary history – or, how long they have been here in Australia, where they have come from, and how they have evolved.

3. Regional ecosystem mapping
   This is a Queensland Government programme which aims to map all of the Regional Ecosystems throughout the State. Regional Ecosystems are vegetation types that are associated with particular soils. Staff based at the ATH are responsible for mapping the Cape York, Einasleigh and Gulf Plains Bioregions in north Queensland. The Regional Ecosystem maps form the legislative basis for conservation planning at all levels of government in Queensland.

Additional activities
   The ATH holds an extremely valuable scientific research collection containing over 150,000 dried, pressed specimens, more than 16,000 spirit-preserved specimens (which preserves the shape and anatomy of soft parts), DNA and woodblocks kept in stable archival conditions to prevent deterioration. The DNA held by the ATH is not held for bioprospecting studies, but rather for working out plant species relationships. The ATH also has an active collecting program that continues to add to the collection.
The ATH research library contains over 800 titles including books relevant to Northern Australia, NQ, NT, New Guinea and the Pacific Islands, identification guides, journals, a digital database of the collection and photo library of specimen vouchers in the herbarium collection. There are also living collections at the ATH. All of these resources are useful for researching identification, taxonomy and ecology of plants.

Support to Indigenous ethnobotany

The ATH currently offer a range of services that can support Indigenous people undertaking ethnobotany projects. The ATH has a Public reference collection that contains a library of relevant plant books, specimens of plants, mounted on backing sheets and placed in folders in alphabetical order. Any member of the public is welcome to come in and use resources in the public reference collection. You can bring along your own specimens for cross-referencing and identify plant species you have. The public reference collection holds over 2,000 species native to North Queensland. There are over 4,000 species known to occur so it is not a comprehensive list but is a compilation of a lot of the plants that community are likely to come across in the field. This collection is freely available for public use and botanists are on-hand and happy to help with identification of plants and accessing scientific information on plants. There are also identification tools available for use such as, a computer with an interactive ID key and access to the internet and web based resources for learning about plants and a microscope for looking at plants close up. As part of this theme the ATH run plant identification workshops and if there is sufficient interest this program could be expanded in 2011 to include greater delivery to Indigenous groups.

Through its existing Indigenous ethnobotanist the ATH can assist with the knowledge gathering and recording process and help communities to access western scientific information on plants. The ATH may also be able to support Indigenous ethnobotany projects by assisting with publishing information that communities are happy to make

Plate 16. Example of a voucher herbarium specimen and attached information label which shows details of the collection (place, collector, date, habitat information). Cultural information is not typically recorded with specimens. © 2011 James Cook University, the State of Queensland, and CSIRO taken by Darren Crayn
public (e.g., books, journal articles and brochures) but can also assist to develop materials that are specific to community use. The ATH can help individuals with a specific interest in botany to access further education and training through its relationship with the university.

The ATH can also help with preserving plant materials gathered through ethnobotanical research, such as specimens. It is important to note that currently cultural information is NOT recorded at the ATH, not on the specimen labels nor in the databases. We envision that communities undertaking partnership projects with the ATH would maintain control and custodianship over cultural use information. Working together these approaches to knowledge management can continue to build on knowledge traditions for generations to come.
Tropical Indigenous ethnobotany centre partnership: ethnobotany projects and the potential contribution of a centre

Gerry Turpin, Mbabaram Traditional Owner
Ethnobotanist Queensland Herbarium/Australian Tropical Herbarium, Cairns

Gerry Turpin is an Indigenous Ethnobotanist based at the Australian Tropical Herbarium (ATH). He has been working with Department of Environment and Resource Management at Queensland Herbarium (BRI), Toowong, for about 20 years and transferred to the ATH for the last three years. He has familial relationships in North Queensland, as a descendant of the Mbabaram and Kuku Thaypan clans. Gerry acknowledges the time commitment from his country men and women in taking time out to attend the workshop from the commitments of their own organisations and employed work. Gerry also recognised his botanist colleagues in the region who have been or are currently undertaking projects with Indigenous communities in the region.

As an Indigenous ethnobotanist
Gerry has a strong cultural commitment to facilitating effective partnerships that support Indigenous communities to protect, manage and maintain their cultural knowledge on the use of plants. As an experienced researcher in his field Gerry had explored programs that existed internationally, nationally and regionally with regards to ethnobotany. He had facilitated Indigenous ethnobotany projects with communities in the North Queensland region and became familiar with fellow ethnobotanists like Nick Smith, Glenn Wightman and Fanie Venter who were working individually with various groups. Ethnobotanical research in North Queensland is currently undertaken across several organisations in a largely uncoordinated way. In contrast to overseas, there is no ethnobotany unit or department dedicated to cultural plant use. Recognising the amount of work being undertaken independently across the region and within communities it became apparent that an Indigenous driven ethnobotany Centre with relevant Government and Institutional partnerships could deliver mutual benefits towards supporting communities, organisations and individuals with an interest in the cultural use of plants.

Discussing these issues with supervisors and colleagues Darren Crayn (ATH), Eda Addicott (BRI/DERM based at ATH) and Rosemary Hill (CSIRO) the possibility of an ethnobotany centre or hub was explored. The idea to host a workshop to explore the development of an Indigenous driven ethnobotanical centre was initiated through the convening of an organising committee. Soon after Warren Canendo (Ngadjon Traditional Owner, CSIRO Cultural Broker), and staff from the Cairns Institute
(Katrina Keith and Sarah Warne) came on board to assist in planning for workshop delivery. The organising committee discussed that the centre should be about helping to empower Indigenous people to keep their culture alive, and in some cases, help to rekindle and re-invigorate knowledge back into their communities, particularly cultural use of plants. The organising committee developed the following draft vision and model to aid discussion at the workshop. The draft vision focuses on the partnership being driven by Indigenous people. Indigenous communities are familiar with agencies, organisations and institutions coming to them and asking if they would like to be involved in their projects. The workshop is all about bringing the concept of an Ethnobotany centre or partnership model to the Indigenous community and getting feedback on it.

**Draft vision**
A tropical Indigenous ethnobotany centre partnership to empower Indigenous people, country and cultural use of plants.

**Draft model**

![Diagram](image_url)

**Ethnobotany**
Ethnobotany is a *white fella* term, simply put it is Ethno (people) and botany (plants), it is about Indigenous knowledge or cultural use of plants. The concept of an Indigenous driven ethnobotany model is that it is a partnership in research, training and education, IP protocols & agreements, and existing data and collections.

**Partnerships**
The development of effective partnerships is the most important step, the act of making partnerships creates opportunities for trust and relationships to develop. A strong partnership model that supports ethnobotany in the region includes Traditional
Currently through the ethnobotanist position at the Australian Tropical Herbarium engagement with communities is a two way process. It’s about educating internally within the organisation about culturally appropriate frameworks and ways of operating and being able to spend the right amount of time with communities to build relationships and trust.

**Research**

Research projects currently being undertaken with Indigenous communities through the ATH and CSIRO combine both traditional knowledge and western scientific knowledge with the aim to promote and carry out culturally appropriate and respectful research. Currently projects exist such as the Mbabaram Bush Tucker and Medicinal Plants project with Traditional Owners. Research practice involves a two-way exchange of skills and knowledge between scientist and Traditional Owners working together. The project being conducted with the Mullumburra Yidinji Elders is a good example of two-way research practice. Current contemporary management for control of *Tilapia sp.* a declared noxious fish includes the use of poison that kills non-target species. Mullumburra Elders are working with a JCU post-graduate researcher on the possibility of utilising traditional plant knowledge and practice of how to stun fish as a viable alternative to poison.

**Medicinal use of plants**

The Centre for Phytochemistry and Pharmacology (CPP), Lismore Campus of Southern Cross University, New South Wales undertakes fundamental and applied research to produce value added products based on bioactive natural extracts. The Centre specialises in the chemical analysis and pharmacological testing of plants and plant extracts. They have expressed interest in working with the Indigenous communities in NQ. A partnership model could be the link. They are already working with Indigenous people in NSW with appropriate IP agreements and protocols. Gerry undertook a small research project at UQ on a plant traditionally used as medicine and tucker. When analysed the nut had the same nutritional value as other table nuts such as peanuts and almonds but had less fat content.

The leaves were traditionally boiled in water and used for a rash or skin disease or they mix it with animal fat and use it as an emollient. The bark was squeezed and the extract was dropped straight into the eye for eye problems. The plant extracts were also tested for their antifungal and antibacterial activities against *Candida albicans* (fungi) and *Escherichia coli* (bacteria) with an almost 100% success rate. These studies find out what Indigenous people already know but if you are looking at things like natural medicine you need scientific proof to back it up.

There are a number of other organisations that are working towards partnerships with Traditional Owners to build skills in seed collection and regeneration for sustainable business enterprises such as the Greening Australia, Flora Bank (seed collecting) Program that delivers training in native seed collection and supply for indigenous communities along with a mentorship program. Communities can access support for the development of a community-led sustainable business enterprise to meet a local
Training and education
Ethnobotany projects can support sharing culture within Indigenous communities and help get information that exists in contemporary literature back into the community. With the right cultural protocols they can support management tools, communication products and training programs that can be used:
  o In schools to help educate young Indigenous people.
  o To assist in cultural awareness raising for the general public
  o In tours
  o To develop websites, books/brochures
  o To support population of ethnobotanical and traditional knowledge databases such as Miromaa.

Ethnobotanical projects take time; they need to be resourced to support Traditional Owners to collate and communicate plant knowledge in a way that is culturally, environmentally and economically sustainable for Indigenous people. Researchers need to consider this when working with Indigenous people. They need to include in their funding applications, resources to employ Indigenous people as research assistants and to enable access to training in things like multi-media, plant collection and identification and horticulture, or other relevant training.

Intellectual Property, Protocols and Agreements
An ethnobotany partnership model can revitalise and support work for completion and broader distribution of the intellectual property kit (developed by the Cultural Heritage mapping project in partnership with the then existing Aboriginal Rainforest Council). This draft kit is currently being used by communities in the Wet Tropics to support them in ensuring protection of their intellectual property rights.

With regards to protocols each community is different and these need to be developed with each community specifically. A respectful partnership model will contain different levels of protocols and agreements. The Mitchell River Traditional Custodian Advisory Group (MRTCAG) that Mbabaram, Western Yalanji, Wokomin and Kuku Djungun mobs are a part of welcome researchers but they must undertake cultural awareness workshop before they come on country. MRTCAG has held workshops for 18 researchers and three Tropical Research and Community Knowledge general staff. This assists people to understand that there are levels of understanding and respect. Universities hold cultural awareness workshops but these are general and they need to understand that each community is different and they need to speak directly with the Traditional Owners.

Existing data and collections
There exists a lot of “hidden” or inaccessible information on the cultural use of plants in Australian historical written record. There is significant research effort in just finding out what's been happening on country over time, searching:
  o Historical and library information

Plate 18. Sample of record from Royal Society of Queensland 1907 “Botany of Irvinebank” by botanist Frank Bennett
previous and current scientific research and surveys
- Archaeological site records.

If this type of information can be provided back to community then when they are approached regarding research projects they know what has already been done and they can identify gaps and priorities for research.

A research student (University of Queensland) came to work with the Queensland Herbarium in Brisbane to undertake work examining historic North Queensland literature such as explorers’, early science and Aboriginal Protectors’ journals and diaries held in DERM, university and state libraries. We are able to provide this information to the relevant communities. These types of partnerships enable access to research students that can focus on research projects that are relevant to the needs of community.

 Undertaking research on historical records can provide a lot of information back to community. A record from the Royal Society of Queensland 1907 “Botany of Irvinebank” by botanist Frank Bennett[7], see Plate 18 was confirmed by linguist Bob Dixon as containing Mbabaram language. Currently there exists only 500 known words in the Mbabaram language so the extra five words found in these records helps to re-build knowledge. George Davis a Mullumburra Yidinji man worked with Tony Irvine and Jeanette Covacevich to record cultural plant knowledge. Their reference[8], see Plate 19 contains information on Yidinji, Ngadjon-jii and Jiddabul plants. This information can be gathered in partnership with the ATH and be repatriated back into community and re-invigorated on country.

Ethnobotanical databases

Miromaa is the database that is currently being used on pilot partnership projects between Indigenous communities and the ATH see plate 20. An Indigenous man from NSW developed the Miromaa database specifically for bush tucker records. Improvements have been made to the system to accommodate whole languages (see plates 21 and 25). It can be used with a program called Lexique.


Pro to develop communication products that can support community enterprises. The software developers rely on funding so the program cost about $500 for government departments or agencies, if intended for commercial use or for anyone that can afford it. For Indigenous communities it is free. It can be applied for online. Communities can upload pictures, video and audio files along with language.

Plate 21. Sample plant record
Mbabaram Miromaa database

Plate 22. Sample language record
Mbabaram Miromaa database
Plate 23. Example of Mbabaram ethnobotany project database record of Aunty Jean Mbabaram Traditional Owner

Plate 24. Mbabaram Bush Tucker and Medicinal Plants records
**Traditional Owners’ presentation of plant projects**
Warren Canendo Ngadjon Traditional Owner.
Cultural Advisor. CSIRO

Warren Canendo is a Ngadjon Traditional Owner who has worked for many years in the wet tropics undertaking cultural and natural resource management projects, in both Government and Indigenous organisations. He is currently delivering Conservation and Land Management (CALM) Certificate 2 and 3 at TAFE working with Indigenous communities. The last 3 years he has undertaken cultural advisory services to CSIRO Cairns, as well as working on Indigenous research projects with other stake holders.

**Traditional Owner perspectives**
Warren’s presentation focused on the need to continue to educate the non-Indigenous community on the right way to conduct business with Indigenous people. From a Traditional Owner point of view there has historically been little opportunity to educate non-Traditional Owners about Indigenous peoples understanding and knowledge systems. Warren’s presentation advocated that it was necessary for Traditional Owners to be pro-active in promoting the right way to engage with Indigenous knowledge.

*Traditional Owners need to educate the Government to tell them about the right methods and protocols about doing things. If they don’t understand then they are not going to work out better ways of doing business.* Warren Canendo, Ngadjon Traditional Owner.

Non-Indigenous research tells Indigenous Australians that they have been here for 50,000 years. Indigenous people know that volumes of traditional ecological knowledge has been collected in those years and passed down for future generations. This inherited knowledge, including men’s and women’s business, is held sacred to Indigenous people. However, it is important to note; that the knowledge has a voice in the way things happen with regard to engaging with Traditional Owners; and that the knowledge guide codes of behaviour in ways to do business, to foster the sharing in respect of cultural protocols. The workshop that Warren facilitated provides opportune ways to help define how this should happen.

As a Traditional Owner within the Wet Tropics area, Warren explained that there are 18 tribal groups, 50+ clan groups, and over 100+ family groups that represent the cultural diversity of the Wet Tropics region, an area spread over 900,000 square hectares that require management. This means there are many people, some with
different ways of doing business. As there is much work to be done, it is essential that cultural protocols be explained and followed:

_The onus comes back on us as to how we want to do things, how we work with Government to make better pathways for future generations._

Workshops such as this are a step in the right direction for Indigenous people; they can help to create more effective partnerships with government agencies. Indigenous tribal groups throughout the Wet Tropics are at different levels of understanding and articulation with regards to native title, as well as the establishment of organisations and governance. If Indigenous communities can work together then “united we stand divided we fall.” The Indigenous-driven ethnobotany partnership network initiative has the support of the government partners that have helped host this workshop. These government agencies are willing to support Indigenous-driven engagement and the establishment of effective governance structures for greater Indigenous involvement and responsibility in ownership in ethnobotany. However, for this to occur effectively, Indigenous people need to give them the right information.

Through this initiative Indigenous people can develop training and education programs for the non-Indigenous community to help them to better understand exactly what is required when engaging with Traditional Owners. It could also provide diversified opportunities for Indigenous people in cultural and natural resource management, botany, tourism and administration.

_There are opportunities here to grab a hold of and I think we really need to drum that into our younger generation to keep our culture alive, to keep it strong._

Methodologies for knowledge management, such as the _Miromaa_ system, (see Gerry Turpin’s presentation in this report), can now support the community to collect their own information, holds that information and manages how that information is shared. Issues such as Indigenous Cultural and Intellectual Property, benefit sharing and sustainable economic development are managed by knowledge holders. Working closely with the Australian Tropical Herbarium, even in just naming plants with western scientific knowledge to add to Indigenous data sets, creates opportunities to engage younger generations into this industry. Both Indigenous and non-Indigenous people can access information in one place, held under cultural protocols and controlled by Traditional Owners.

**Community initiatives**

Warren began working in cultural and natural resource management with DERM Queensland Parks and Wildlife Service and broadened his education experience. For a number of years he was responsible for Indigenous engagement, training and delivery of the Wet Tropics Cultural Heritage Mapping Project that was managed by the now folded Aboriginal Rainforest Council (ARC) in partnership with the Wet Tropics Management Authority and Terrain Natural Resource Management Board. The Rainforest Aboriginal Advisory Committee (RAAC) that represents Traditional Owner concerns regarding the Wet Tropics management, (under _Section 40 of the Wet Tropics World Heritage Area Protection and Management Act 1993 Queensland_) nominated four pilot groups: Mamu, Ngadjon-jii, Jiddabul and Kuku Nyungkal to begin work on their cultural heritage mapping projects.
The project enabled the four groups in the Wet Tropics to train in a culturally tailored Certificate Three in Conservation and Land Management, specific to Cultural Heritage Mapping and their own community management priorities and initiatives. Local Indigenous Cultural Heritage Mapping project officers worked closely with TAFE, Elders and the community to ensure effective delivery of training and on-ground outcomes. There were lots of lessons learnt through this process and a lot of community capacity building that continues to support local Indigenous initiatives. However, ongoing momentum requires resources to keep projects growing and developing and to maintain community spirit. Through the Indigenous driven ethnobotany partnership network the resources for IC and IP protection created by local Indigenous people in their cultural heritage mapping projects can be utilised. Government partners committed to supporting the process can assist Traditional Owners with direction for long-term funding support.

As a cultural broker for CSIRO, Warren worked closely with the Mullumburra Yidinji, Elders, TOs and a researcher from James Cook University, Monica Grattini, on a pilot project looking at impacts on the health of the Mulgrave River and links to social well-being.

\textit{We are at the top of the mountain and whatever comes from the top goes down the bottom and we see the degradation of the main rivers the Mulgrave, the Russell, the Barron and the North Johnson. We can see every time the rivers flood, the flowing water goes really red, whereas, orally handed down accounts recall these rivers as running much clearer many years ago. These are major river systems that all eventually run out into the Great Barrier Reef. As Traditional Owners if we see sick country we see sick people.}

The pilot project put a plan together with all the elements connected, social and environmental.

\textit{As Traditional Owners we are part of that system, there was domiculture in the rainforest ourselves … an orchard within the rainforest areas at home where the Ngadjon-jii people cultivated Burdekin Plum for trading with Traditional Owners from Mt Molloy and Kuranda.}

The lower Mullumburra Yidinji who were involved in this project would like to extend it to other Mullumburra areas along the Mulgrave River. Warren is also a Director of the new Central Wet Tropics Institute Caring for Country that along with Traditional Owners from that sub-region have submitted an Indigenous Protected Area (IPA) proposal. An IPA would enable them to work alongside Girringun Traditional Owners Elders Reference Group and Jabalbina, who currently have IPAs in their sub-regions of the wet tropics.

Recently the Caring for Our Country Working on Country program has funded ten rangers from the Kuku Nyungkal language group, for three years to undertake cultural conservation and land management projects including planning, knowledge recording and an introduction to ethnobotany. Traditional Owners have been funded to undertake their priorities with regards to management. This is a much better process as it enables Traditional Owners to educate Government on:

\textit{how we do business so that they know how to do the proper process and protocol instead of just asking any murri off the street because that causes a lot of problems and conflict within groups.}
Girringun Elders Reference Group are working on the same process as well as Mandingalbay Yidinji at Yarrabah. Jirrabal and Ngadjon-jii have received some support for three years to go out and undertake revegetation on their country.

everyone doesn’t want to be a Ranger there are a lot of different avenues. The University is right here the new Cairns Institute is committed to Indigenous pathways, to support Indigenous people to find the correct pathway to help out with future generations to get younger people involved.

The importance of country
Warren’s presentation highlighted the importance of being on country for learning experiences to be culturally relevant.

Country and culture and Traditional Owners are connected we see them as one.

Kuku Nyungkal Traditional Owners Marilyn and Peter Wallace have fought long and hard to establish infrastructure on their country. They see this as critical to being able to do projects, to have a base to educate people from, to get the young people back on country and away from negative influences. Through his experiences Warren has learnt that:

this is most important to get people out on country so that they can understand so that we can keep that culture strong and alive for future generations and also working with government so that they can understand where we are coming from as Traditional Owners instead of sitting in an office and just reading bits of paper, if they can experience country then that plays a major role where Traditional Owners and partnership can go forward.
Indigenous knowledge of plants

John Locke

Plate 26. John Locke, DERM

Protecting and supporting Indigenous Intellectual Property and innovations
Indigenous cultural & intellectual property

John Locke is the Manager of the Indigenous Engagement Unit in DERM. He began his presentation by acknowledgement to Traditional Owners of the area and his cultural connection as a Mullumburra Yidinji and Cape Kuku Mini Western Yalanji person. He had invited a colleague Jason Field to attend the workshop. Jason currently sits on the Indigenous Advisory Committee for the Australian Government and is involved in the international arena dealing with the Convention of Biological Diversity. Jason Field was not able attend but was keen to engage in future by providing information on that international perspective of Indigenous Cultural and Intellectual Property (IC & IP).

The Indigenous Engagement Unit (IEU) in DERM plays a central strategic role in relation to Indigenous engagement and Indigenous partnerships. The unit deals with the theory and process of engagement so that DERM staff working with the community are doing so in the right way. Internally the role is to think about how a partnership is created, developed and sustained. Much of this focuses on IC&IP, more specifically Indigenous customary law, traditional knowledge, traditional ecological knowledge, and traditional cultural expression—defining processes that start to try to construct better ways of engaging Indigenous peoples in business occurring within the department.

Traditional Ecological Knowledge (TEK) is recognised globally. These following points are some of the triggers that engage TEK across the world and that the IEU engages with in relation to its role.
International, national and state interface with TEK

**Convention of Biological Diversity**

Article 8(j). In-situ Conservation: Subject to its national legislation, protect, preserve and maintain knowledge, innovations and practices of Indigenous and local communities embodying traditional lifestyles relevant for the conservation and sustainable use of biological diversity and promote their wider application with the approval and involvement of such holders of the knowledge, innovations and practices and encourage the equitable sharing of benefits arising from the utilisation of such knowledge, innovations and practices.

**World Intellectual Property Organisation (WIPO)**

(IGC) Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore Traditional knowledge (TK), genetic resources (GRs) and traditional cultural expressions (TCEs, or "expressions of folklore") are economic and cultural assets of Indigenous and local communities and their countries.

WIPO's work addresses the role that Intellectual Property (IP) principles and systems can play in protecting TEK and traditional cultural expression TCE from misappropriation. They also work in generating and equitably sharing benefits from the commercialisation of TEK and TCE and the role of IP plays in ensuring access to benefit-sharing in genetic resources.

**National Strategy for Conservation of Australia’s Biodiversity**

Objective 1.8 Recognise and ensure the continuity of the contribution of the ethnobiological knowledge of Australia's Indigenous peoples to the conservation of Australia's biological diversity.

**Environment Protection & Biodiversity Conservation Act 1999**

Protect and manage nationally and internationally important flora, fauna, ecological communities and heritage places of national environmental significance

**Nature Conservation Act 1992**

Recognising the interest of Aborigines and Torres Strait Islanders in nature, and involving them in its conservation

**Cape York Peninsula Heritage Act 2007**

Recognise the economic, social and cultural needs and aspirations of Indigenous communities in relation to land use in the region

**Aboriginal Land Act 1991**

National parks declared 'claimable' can be claimed in recognition that land is of spiritual, social, historical, cultural and economic importance to Aboriginal people.

Terry Janke is an Indigenous lawyer is a leading authority on Indigenous Cultural and Intellectual Property. She lists a broad range of cultural processes and activities relative Indigenous Cultural and Intellectual Property and to traditional cultural
expression as recognised by WIPO above. John defined the following examples he saw, as fitting within “traditional cultural expression (TCE).” He explained it was about Indigenous people’s knowledge and the way in which they used this knowledge to culturally express their culture and themselves:
  - Art
  - How you take plants and turn them into artefacts
  - Boomerangs, the angle of resistance, lift and drag, reverse engineering
  - Heat spoiling, traditional ecological knowledge in relation the heat from the sun and cold weather cracking rocks
  - Earlier simpler forms of explosives, using fire to heat rock and cold water to explode pieces away for use
  - Major Aboriginal rock quarries for example.

He re-iterated that it is important to acknowledge the depth of knowledge that Indigenous people have of the natural environment but also of systems and structures. “Indigenous people should place themselves in a space where they rightly are.” Cultural structures are built on natural systems where Indigenous knowledge relates very neatly to conservation, natural resource management, protection and planning.

Internally within the Department good policies can drive legislative change. This is important to keep in mind because over time legislation gets reviewed, processes change, things get better. This doesn’t happen without that continued interface and dialogue between the ground level and higher levels of Government.

Current dynamics regarding traditional ecological knowledge
Globally recognised
Currently Traditional Ecological Knowledge is globally recognised as: Traditional Knowledge (TK), Traditional Ecological Knowledge (TEK) and Traditional Cultural Expression (TCE). Indigenous Cultural and Intellectual Property is consistently engaged with on a daily basis in the Department of Environment and Resource Management (DERM), other Government, Industry and NGO areas. There are very high levels of intellectual and social capital of Indigenous people in government, industry and NGOs—Indigenous communities are suffering because that capital has been taken away and it is not consistently interacting with their communities. These are some of the things that Indigenous people, government agencies and institutions need to seriously look at when considering what needs to be done in relation to any identified partnership.

Indigenous movement to protect IC & IP
There is a concerted move by Indigenous peoples globally, to protect their Indigenous Cultural and Intellectual Property. This takes many forms. An interesting example is western desert dot art. People seek western dot art and it’s sold around the world. However, not many people know that particular a group of artists from Papunya created the current form in the 1960s. Their original works were stoned in Alice Springs, so those old men went away, looked at the art, then they spatially jumped away to produce the mosaics of country that you see now in the paintings. This makes

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the point that traditional cultural expression takes many forms. Each initiative needs to find a way and develop a process that ensures protection of that knowledge.

There are currently a wide range of processes used by Indigenous people to protect their knowledge. An example is the San people in Southern Africa, traditionally they use the *Hoodia sp.* cactus on long range hunts in relation to dry country to stave off hunger and thirst. They have a benefit sharing arrangement with University of California Berkley and that particular product is globally in use in dietary food. So that’s were knowledge can end up and that’s how important and valuable Indigenous cultural and intellectual property is. It is critical to develop effective processes to protect that knowledge and to ensure benefit sharing.

Regionally relevant examples of Indigenous initiatives that are working to protect IC & IP are:
- ARC Intellectual Property Sub-Committee (Development IP Kit) for use in the Cultural Heritage Mapping Project and Cultural Heritage Information Management System
- Traditional Knowledge Revival Pathways Systems
- Traditional Custodians’ Notices
- Protocols and Agreements
- Dugul Jambula

At this particular point in time there are no specific legal framework in relation to protecting the IC and IP. However, building on the types of things that Terry Janke talks about as mechanisms to protect IC & IP the IEU did some work on the QLD Biodiversity strategy using traditional custodian notices. These are an administrative process. So in the Biodiversity strategy when it comes out for comment on it, if specific Traditional Owner TEK examples are used in there we hope to have Traditional Custodian Notices used to define who this knowledge belongs to. The example below is from the South East Queensland area. DERM IEU talked to mobs around there so it says things like who turned up, were they were from and who that knowledge belongs to and discusses things like publications, benefit sharing etc.

The following is a detailed example from South East Queensland of the proposed use of Traditional Custodians’ Notices to assist in protecting IC & IP.

*The information contained in the South East Queensland Bioregional document includes traditional knowledge and traditional cultural expression provided by participating Aboriginal persons belonging to discrete Traditional Owner groups and Aboriginal organisations in the South East Queensland bioregion. Participating Aboriginal persons were from the Yugambeh peoples, Mununjali peoples, Butchulla peoples, Goereng Goereng peoples, Djaku-Nde / Wulli Wulli peoples, some of which were also associated with the Gidarjil Development Corporation, South East Queensland Traditional Owner Alliance, Goereng Goereng Council, and Burnett Mary Regional Group.*

*The information provided is published with the consent of participating Aboriginal persons and Aboriginal organisations. This information should not be used without observing the Indigenous cultural protocols of prior informed consent, attribution to traditional Indigenous communities, cultural integrity,*
and the sharing of benefits. The relevant Traditional Owner groups and Aboriginal Organisations should be contacted for any further use of this information.

Traditional Custodian Notices put people on notice that the information that is contained therein belongs to those particular people, and that it was only given with that expressed purpose, not for any other use. That information cannot be migrated somewhere else in a department and used for another purpose. This is an example of the types of protocols that can be developed around TEK business. You can be quite defined on things around how your knowledge is used. It’s mechanism like these that may help people to feel more comfortable about where, how and when their knowledge is being engaged.

**Engagement of traditional ecological knowledge**

Indigenous Customary Law imposes certain obligations and responsibilities and is one of the areas that the IEU focuses on because that’s the cultural process that’s already there. That’s the thing that DERM is thinking more about when we are engaging. With regards to engagement from the departmental perspective, it is currently recognised that we need to cover out of pocket expenses for bringing people together. However, it is not yet fully recognised that when you are engaging in IC and IP then you are engaging in a consultancy process therefore that’s what we should understand in relation to our Traditional Owner services and payments.

This approach has two components; one is for the Government to understand that this is what is required but also because it is a market placed base approach Traditional Owners need to develop for their own use a fee for services schedule. This allows DERM to look at a particular project and know that in the planning phases we have to allocate A, B, C and D in the budgeting process to enable effective engagement of TEK to occur. The longer that these issues are ignored because of the “invisibility” factor, which is people say, “well I don’t know that I have to do that” and fall back on the simple process of working with existing data and information, the longer it will take for holders of TEK to be appropriately renumerated for the contribution of that knowledge. The problem is that there is not presently a greater understanding that to engage with Traditional Ecological Knowledge it is going to incur a cost.

The TKRP KTFMRP has suggested the establishment of Traditional Owners as “preferred providers” for specific projects. As you go forward you might consider negotiating these types of agreements about how you engage. “Preferred providers” picks up a number of things, you can explore how standing offer arrangements occur within the Department. This means that we are able to pick up a particular service without going out to tender process. Preferred provider means that you need that person because they have those particular skills and knowledge sets only. No one else has the knowledge that a Traditional Owners has about their country. This puts them into that sphere as a distinct preferred provider. TKRP KTFMRP co-generative researcher recognises that:

> the knowledge (TEK) is so valuable that … it is hard to quantify how much that is worth in a western economic system … so we have always made sure that people are paid for their time at a rate that is commensurate with them being a consultant at a professional level having a set of expertise that nobody else has because the knowledge itself if you were to charge for that then you
would be charging millions of dollars because it is something that is so useful and so valuable not only to your own culture but also to everybody else’s … this is something to consider when you are creating these systems for yourself because you are not selling knowledge as such you are selling your expertise and time. Peta Standley

The IEU is a fee for service unit that works with any part of DERM in relation to Indigenous partnerships and how partnerships are structured. The unit works across the department to educate different organisational groups that it is more to Indigenous identified and specified positions. Section 25 of the Anti-Discrimination Discrimination Act which relates to “genuine occupational requirement.” “That’s where we’ve got to get to, bringing those Indigenous knowledge sets into the department or into NGO’s, Industry so we are connecting better with the community. That’s the value, that the part that is critically important.” Within these departments and institutions there still needs to be some big cultural shifts, but this is occurring and these are the types of issues that the IEU are dealing with.

The importance of data
The IEU looks seriously at “Closing the Gap”. Most of the empirical data that informs decision-making on social, environmental and economic issues comes from Government and statisticians. There is a significant lack of information or rather data from the community level, there is a “gap” in relation to monitoring and evaluation and we need to work out a way that we can incorporate both knowledge sets and ways of meeting multiple obligations, including Indigenous cultural well being.

For example currently within contemporary obstetric practices I would say one of three things occur with after-birth, it may be taken at point of birth, it may be held in cold storage until you collect it or it is sent away as hospital waste. This produces three sets of data. What if a fourth data set was added that is “one our mob comes and picks that up and takes it away for your connection to country and it is buried beside a particular tree. You then start to change the data set it starts telling them (educating non-Indigenous people) that it is critical to our mobs connection to country, who you are right from that particular point of birth.” So the way that people talk about after birth starts to change the conversation that includes the Indigenous cultural practice of afterbirth burial and builds recognition that this is significant to connection to country. So adding to the data set is one of the things that we need to be looking at, and having those discussions about how we really can change something. Once one thing starts changing this has an effect on other areas of closing the gap.

A further example of the importance of data is an archaeological site. These areas convey species information and are libraries in their own right. However, we need to start expanding the data set. So if you have an archaeological site and you list all the cultural and traditional ecological values down, then lay down all other available data sets we have in relation to species you start to get the living broader cultural environment that exists around that site. The interpretation of that data starts to

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10 Indigenous Australians are at a marked disadvantage compared to non-Indigenous Australians and the gap has not decreased over the past decade or more. The Closing the Gap strategy aims to reduce Indigenous disadvantage with respect to life expectancy, child mortality, access to early childhood education, educational achievement and employment outcomes. See http://www.socialinclusion.gov.au/initiatives/pages/closingthegap.aspx for more information.
become a very different thing and it adds other empirical data sets to the actual values of that place, starting to change the dialogue between science and culture.

Currently Indigenous natural resource management and conservation and the arts sit under a strategic area for action for the QLD government called Land and Culture. Even though there is no specific COAG and Q2 targets related to these areas for action, they in essence are adrift from all these other big funding buckets under Closing the Gap. Yet Indigenous art at present is worth half a billion dollars a year, and art relies heavily on biodiversity to generate this artistic form of traditional cultural expression. So there are very clear linkages and we need to start thinking about those, and how we move those arguments forward. The IEU role at DERM is to think about those sorts of things, but also to engage and say well ok how do we move this forward and generate those types of discussions and outcomes you seek.

Employment and training
The IEU has begun an internal dialogue about the way in which DERM are currently providing training. The IEU would like to change the way that this occurs so rather than just being trained to get a Certificate 2, 3 or 4 or diploma in Conservation and Land Management, the IEU are encouraging them to think about employment and training together. This means employing a person to do something while they are training. One of the key things to keep in mind around things like this is if we are trying to close the gap it will only ever change if you provide substantive equity. There are two things; there is passive equity and substantive equity. Where you apply passive equity this means the same as everyone else gets, then nothing changes so you need to provide substantive. With regards to training and employment, the current process would benefit if we can have balance between a person studying and working for three years, and concentrating on something that is very critical to a mob and moving them forward in relation to specific projects relative to traditional ecological knowledge and western science for example.

This type of training and employment initiative requires a shift in thinking about the way in which Government currently provide that funding and opportunity. It takes turning the switch to get peoples lights on. It is about recognising that there is no point in going out and just training people. It is about the role of recognising what prior learning (RPL) can do in strengthening partnerships. The IEU has been talking to experts in DERM like Col Limpus (turtle management) about on the job training and assessment. He can go out in the field and do something with community around turtle census take and the collation of data. However if you also incorporate into that a process of how Traditional Owners interpret data, that creates an additional and valuable data set which brings the cultural layers to it. If Col is there, he would be able to assess employees or trainees. Scientists could actually sign off on RPL. They can assess and sign off on your turtle census data skills which could accelerate someone getting a certificate or degree level outcome earlier. Another example of on-country training and certification in: FPINCR033A - Plan burning activities natural and cultural resource management and FPINCR034A - Utilise burning for natural and cultural resource management was delivered by the TKRP Fire Program at Bizant on Lakefield National Park in 2010. This training program was led and delivered by Indigenous people and Traditional Owners and combined both TEK and western fire knowledge.
**Dugal Jambula – DERM Internal Cultural Heritage Information management system**

*Dugal Jambula* was developed internally to better knowledge manage the ever growing number of partnerships that DERM currently have with the Indigenous community. It is an internal mechanism developed by the current IEU because historically knowledge management surrounding partnerships have not been managed well, therefore communication and engagement will suffer and not go well as expected. So the IEU has developed this internal system to gather the two sets of knowledge from both a department and Traditional Owners perspective. It is not about IP it is about the business partnerships that DERM have relating to projects, and the record keeping and information management that occurs around those partnerships. Up until know the system has not held onto information on TEK, but there are processes in this system that allow us to put security processes in place to protect Indigenous knowledge and develop cultural protocols with regards to access and use.

*Dugal Jambula* uses all available GIS layers to present a cartographic view of the layers of information available for a specific tribal group area. Recent versions of the system have a new mud-mapping feature. The *Dugal Jambula* system sits on the back of Queensland Parks and Wildlife Service (QPWS) Parkinfo system. The Indigenous Engagement Unit had moved ahead of QPWS’s current system and now the QPWS has utilised the IP of the *Dugal Jambula* system to assist in developing a better ParkInfo system. The current IEU is very savvy on technology systems and the way in which they should work.
relative to Indigenous partnerships. The key point on the relationship to IC and IP is that people look at the system and go brilliant computer program, but that is because it was actually built on that interplay between Indigenous knowledge and the binary code (computer programming), being able to make this system operate the way that culture operates. The development of Dugul Jambula was a very difficult process.

Plate 30 illustrates the South East Queensland World heritage on the border of New South Wales. The Dugul Jambula system is capable of developing mapping products down to the lot and plan right on the desktop itself.

An issue for DERM is what comes after native title and cultural heritage is recognised and stronger partnerships are formed. DERM needs from mobs a better spatial footprint of their country (see Plate 31 below). If we have the whole state mapped properly, with all Indigenous tribal areas, then from a planning perspective this allows better information flow to groups, overlaying of these spatial layers provide clarity around better engagement and consistency in partnership approaches. In time as these cultural layers are developed then footprints for a particular tree or plant community for example can be linked with individual or multiple tribal groups, giving a direct engagement process to land and sea managers. Going beyond what the current data says, the results raise relevant research questions. For example if a group has a skin connection or a cultural value in relation to species, but that animal or plant is not found in that country now, was it there in the first place based on that knowledge of what that skin connection or value tells you?

That then starts opening up another dialogue on how come you’ve got that name or value in modern times if that particular species doesn’t appear there anymore? Did it appear there thousands of years ago? The reason we need to search through rock art sites is the same, what does rock art tell us? Mimi art and x-ray art? Mimi art has got
particular times of yam appearing in art, while X-ray art styles have saltwater fish for that same country. So art is signifying the changes occurring from freshwater to salt water and what are the changes in traditional ecological knowledge bases across time there? What is the movement, what is the climate adaptation that has occurred? There is a lot of this TEK that DERM can now engage with TOs on, across those types of parameters.

The front end of the Dugul Jambula system can show you organisation or tribal groups profiles, and has other relevant tags such as: an overview, general information, protocols, contacts, budgets and diary pages (see Plate 33). The diary is an important part of the system, it can record every date that any one of us in DERM is meeting with members or groups from the Indigenous community. This can enable DERM to monitor the amount of consultation that is occurring and lessen consultation fatigue. Staff where possible can align dates to join with other events or meetings or determine if there are relevant connections between the work that they are engaging in with community.

**Security and access to information**

The system enables file notes to be created on projects, established protocols, spatial notes, tags on National Parks and towns, etc. The system enables Members and Subscribers to be created so that multiple people can access certain documents or levels of information.

The plates in this presentation contain a lot of detailed information because it is marked private to John Locke and it is being viewed from his computer. However, if you were viewing this private page from another officer’s computer within DERM you would only see the overview page. So internally different levels of information can be protected. This system is making it easier for DERM to do business with Indigenous communities better by creating systems that work well internally for managing knowledge.
Plates 34 to 36 show internally what occurs if you log a document into the system and are asking for comments on it. *Dugal Jambula* can create an internal blog that tracks everyone’s comments about a certain particular issue. In this way the information on project management and issues are accessible records after staff members move on.

When you think about information you have to think about input and output, how people are putting information in and how people are taking information out of it. Up until recently we have not had to deal with information with TEK being held in the database so we are still coming up with systems to protect that knowledge. One way is that you can input information in a coded way. For example the knowledge in the system may relate to particular tree, the information might be language name, common name botanical name but then in the code form it might say L122SS5C7R5IK6 a total of 28 indicating it has 28 levels of knowledge in relation to one species and that is a trigger. Then it leads you back to that overview point in the system for that particular language group, where it says the protocol on how you contact them in relation to that particular species.

The *Dugal Jambula* system is a State Wide DERM program that is web based, Indigenous groups in North Queensland working in partnership with DERM should be able to use this system in negotiating better protocols with DERM. Currently within DERM, Memorandum of Understandings and Protocols are used to engage with community concerning cultural activities. To date in DERM the conversation on TEK and IC and IP has been about how to engage that knowledge, similar to where you are at now with the ethnobotany initiative. Many partnership conversations discuss how to legally protect knowledge and make sure that any benefits arising from it are going back to the holders of that knowledge and their communities. A recent initiative within DERM is the establishment of the Innovations reference group and
because innovation is about process, this is where this issue sits and we can start thinking about a way forward. Over time using all the partnerships we have and all the things we have been doing, as examples to generate discussion to ongoing issues such as IC&IP and what solutions there are to protecting that knowledge. Establishment of an internal Indigenous knowledge advisory committee is one of those much needed processes.

Plate 35. Database record showing Front Profile and information on organisation, cultural protocol, language pronunciation and additional fields

Art is an integral part of Indigenous knowledge and ethnobotany. These links provide information to assist Indigenous people with copyright and royalties:

- [www.optapra.net/](http://www.optapra.net/)

**Critical things to consider with regards to an ethnobotany partnership**

There needs to be provision for discussions surrounding the collection, collation, storage, management, security, use and presentation of your Indigenous Cultural and Intellectual Property (IC&IP) within the ethnobotany partnership model. All the elements about “if I give information, where does it go how is it used?” need to be considered.
**Global ethnobotany developments**

Glenn Wightman, Biodiversity Conservation, Department of Natural Resources, Environment, The Arts and Sport (NRETAS), Northern Territory.

Glenn Wightman is an ethnobiologist who works for the Department of Natural Resources, Environment, The Arts and Sport in the Northern Territory. His position is part of the Biodiversity Conservation Group and is responsible for ethnobiology projects that help people to record their knowledge of flora and fauna. He works with Traditional Owners and Elders out on country. The program he delivers is called the Traditional Biodiversity Knowledge Project (TBKP), previously known as the Ethno Biology Project. Glenn has experience and knowledge of projects in Malaysia, Indonesia, the Solomon Islands, New Guinea, New Zealand, United States and the United Kingdom. Glenn’s presentation focused on global ethnobotany programs and considerations that may be relevant to the establishment of an ethnobotany centre in north Queensland. Glenn has extensive experience working with Traditional Owners in the NT and Kimberley, north of the desert country. He began by acknowledging the Traditional Owners of the local area, and explaining his lack of experience with plants, animals and customs of the region where the workshop was being held.

What is happening in the rest of the world with regards to ethnobotany is worth considering. However it is also important to recognise the uniqueness of Australia and make sure that the programs developed are relevant. *Australia is really different. It’s different from New Guinea. It’s different from the Solomon Islands. It’s different from Indonesia, Malaysia, our close neighbours.* Glenn Wightman.

Glenn’s presentation highlighted ethnobotany programs that exist around the world and also showcased work being undertaken in Australia that may be of greater relevance to North Queensland Traditional Owners.

**New Zealand**

In New Zealand the Maori speak one language, there exist dialect differences but everyone can understand each other. This makes developing programs a lot easier. Maori have really good programmes aimed at recording their knowledge and promoting it. The National Museum, Te Papa, houses a big data base of traditional knowledge of plants and the Maori have wonderful access to it. They own the knowledge. It’s available to the public, but has restrictions about who can access it and who can’t. It’s a powerful thing. In New Zealand more Maori are speaking their language than they were 20 years ago. New Zealand has been very successful at developing cultural programs. However they don’t have the cultural diversity that
exists in Australia, so it’s a lot simpler. Although important and unique, New Zealand’
biocultural diversity is less then Australia and this is particularly so when compared to
the wet tropics and northern Queensland.

**Wales**
Wales is part of the UK, the United Kingdom in England and it’s one of two places in
the world that have reinvigorated their traditional languages. In Wales they have their
own Welsh language and to be a ranger in Wales you have to speak Welsh. They have
reinvigorated their language quite strongly.

**Solomon Islands**
In the Solomon Islands there are programmes run about ethnobotany by the
government. A botanist from the Solomon Islands Herbarium came to work for three
months in Northern Australia with Glenn to learn what we were doing and to see if
there was relevance to the Solomon Islands. They are now running similar
programmes. The Solomon Islands have large cultural diversity, linguistic diversity
and fairly significant biodiversity.

**Papua New Guinea**
In Papua New Guinea the government along with various non-government
organisations (NGOs) run ethnobotany programmes to record and promote traditional
knowledge of plants and animals. Culture in New Guinea is very strong and
knowledge of plants and animals is passed on traditionally, although in some areas
knowledge is definitely threatened. They have large programmes running, often by
NGOs. They have lots of their own institutions. We don’t have similar ones in
Australia.

**Indonesia**
In Indonesia, the botanic gardens of Indonesia run their own ethnobotany programme.
They have their own ethnobotany museum in Java and they have huge biocultural
diversity. Some of it is threatened, some of it is very strong and it looks like it will
stay strong for quite a long time.

**Malaysia**
Malaysia is quite similar. They have their own government department that looks after
ethnobotany. It’s actually a government department, and a lot of NGOs record
knowledge there as well, but again a lot of knowledge is not really threatened. People
are living quite traditionally. They are using their plants all the time and they know
what they are doing and it is getting passed down to the young people very strongly.

**United States of America**
Missouri Botanic Gardens, St Louis have traditionally had a big programme running
on ethnobotany through the tropics. They do work in a whole lot of places, mainly in
tropical parts of the world. The Botanical Research Institute of Texas in Fort Worth
have a big programme that runs around the world, especially the Amazon, recording
knowledge with Indigenous people of plants and animals. The ethnobotanical
knowledge is stored in a technologically advanced data base system, as you would
expect, something from Texas in the US. However, there is a large team of around
seven people working on those projects. The New York Botanic Gardens has a big
programme running and they have had for 30 years recording traditional knowledge of plants with various Indigenous people in the Pacific and other parts of the tropics.

**United Kingdom**
Royal Botanic Gardens Kew is an old institution focused on plant taxonomy and ethnobotany. In the past they have had a big ethnobotany programme running in different parts of the world where they help people to record knowledge, but it has wound back a fair bit now. They have a wonderful museum of parts of plants and artefacts that were collected from all around the world including New Zealand, very few from Australia. They have those collections and they’ve published lots of literature that has traditional knowledge in it.

**Ireland**
In Ireland there is very little living memory of traditional plant use. At the botanic gardens in Dublin a colleague, Peter Wyse Jackson worked on an ethnobotany project to re-invigorate this knowledge.

Peter Wyse Jackson found these old books that were written 450 years ago. They were in their museum at the botanic gardens. They were written in a language that he couldn’t actually read, but he taught himself how to read it. Out of that he discovered that half of the flora had uses and they had names for them and they had been sitting in that book all that time. All that knowledge was actually written down in this old book so it’s like looking back into Ireland 450 years ago. It was written down by monks and other people who were developing the written word for their language at that time, but that was their resource. At the Botanic Gardens of Ireland in Glasnevin, Dublin now they are going to try and reinvigorate that knowledge, make it strong again, get it back into schools, teach people what their traditional food tastes like.

**Australia**
Australia has rich biocultural diversity and really is quite different from other places in the world. Currently, there are a number of best practice models on ethnobotany and traditional knowledge recording being undertaken by and with Indigenous communities.

The Biocultural Knowledge Project (BKP) works with Elders, Indigenous communities and ethnobotanists to record knowledge about plants and animals on country, documenting this knowledge in written and visual formats with the intent of developing communication products useful to the community. This process can sometimes take a long time. For example, Nicholas Smith started collecting information in 1986 for a Ngarinyman plants book with Elders, some of whom have passed away. The BKP began working with the community in 1989, but funding prevented the book being published until last year. The book now belongs to Ngarinyman people through the Katherine Language Centre. They are going to sell the book for their people. It contains a lot of invaluable knowledge on cultural use of plants and animals.

The BKP has been working with Larrakia people, Traditional Owners of where Port Darwin is, in Northern Territory. The project has put together a small book, with 30 or 40 plant and animal names in it. So it’s true what the old people say, they are worried about losing their knowledge when they pass away. These project examples highlight
the benefits of ethnobotany projects not only at recording knowledge but enabling local knowledge of plants and animals to be revived and kept alive through communication products that can be used in the community, at schools and to educate the wider community.

**Katherine Region**
The Katherine Region has about 37 languages and covers a large geographic area surrounding Katherine. It takes a long time to travel across the 37 language groups. After working with these communities it became evident to the BKP that that there was a lot of interest in ethnobiology projects to communicate plant and animal knowledge. To be efficient in the Katherine Region the program developed a traditional knowledge digital powerpoint template for biological knowledge that community can populate with locally relevant knowledge that they would like to communicate. There is a place for people to put their language name, common English name, the right scientific name and the BKP put in pictures and information so people can help identify the plants, but that can be taken out if communities prefer and put in whatever is relevant to them. In this way communities are in control of what information is shared and their own Intellectual Property and they can determine what they want to do with it themselves.

To date there have been twenty small plant and animal ID books produced and twenty posters that go with them and they are a very popular resource with the Elders and schools. The acronym for the templates is the KRACKT, Katherine Region Aboriginal Bio-Cultural Knowledge Templates. Communities across the Katherine region can access them for their own use or they can ask us to help them to complete them. A lot of the old people the program works with can’t really read very well, but it doesn’t matter, they just look at the picture and they know instantly what it is.

Plate 37. Glenn shows one of the booklets being developed using the PowerPoint template KRACKT
Glenn’s presentation generated much discussion on: Intellectual property; tenure and legislative differences across Australia; the role of multi-media in collating and communicating cultural plant knowledge; and excitement at the potential to develop templates that could prove useful to ethnobotanical projects in the north Queensland region.

It was considered that templates could be developed as a pilot project of an Indigenous-driven ethnobotany partnership model. Currently libraries are populated with western scientific knowledge. Glenn believes that it should be a priority of government to support communities to promote their own traditional knowledge for the benefit of all people. He highlighted that Government organisations have access to wonderful drawings, pictures and information that can be communicated alongside cultural knowledge of the use of plants to support communities to collect and present their own knowledge. This is where organisations like The Australian Tropical Herbarium have a role to play in supporting ethnobotany.

>Countrymen should feel comfortable coming in to it. You should be able to come in and see Gerry, see Darren, have a cup of tea, go and look at plants, ask Gerry for advice and that’s why these institutions are for everyone. They are not just for white fellas and they are not just for scientists, they are full the whole world to use. They are public institutions... the take home message is that if you can engage with the government and have respect shown both ways through these institutions then it will work for you. Glenn Wightman
Workshop planning, preparation delivery and follow-up
Peta Standley and Rosemary Hill

The objective of the workshop was for Traditional Owners and scientists to explore ways to empower Indigenous people to lead the renewal, strengthening, promotion and preservation of their cultural knowledge and practices about plants. This provided an opportunity for potential Indigenous community partners to comment on the potential role of an ethnobotany centre and consider what was required to make it a success.

Participants engaged in interactive discussions of their needs and priorities regarding cultural plant use. Topics included the development of Traditional Owner partnerships, intellectual property, information storage, requirements and considerations for the development of an Indigenous-driven ethnobotany centre based at the Australian Tropical Herbarium.

The coordinating committee met several times to plan the workshop. A briefing paper was developed on the concept of a tropical Indigenous ethnobotany centre that included a draft vision, model, focus and discussion questions. This briefing paper was created for the purpose of generating discussion prior to the workshop, and to encourage attendance by local Indigenous people with interest, skills and knowledge in ethnobotany. Warren and Gerry used the briefing paper in discussions with Traditional Owners prior to the workshop.

The report has been prepared from notes and recordings made of information presented at the workshop. This information has been used with the prior informed consent of the workshop participants. Presenters edited and approved the texts of their sections of the report. Peta Standley and Rosemary Hill used techniques of qualitative data analysis to identify the most important themes and issues raised at the workshop. Their analysis was reviewed by the coordinating committee. All attendees at the workshop were given an opportunity to comment on a draft version of the report before its finalisation.

The coordinating committee continues to meet to review workshop outcomes, support the convening of the Indigenous working group, and assist with production and distribution of the workshop report. This ongoing work focuses on supporting the establishment of Indigenous-driven tropical ethnobotany and communicating the potential mutual benefits for both the Indigenous community and host organisations.
## Appendices

### Appendix A: Attendees

<table>
<thead>
<tr>
<th>Name</th>
<th>Language Group</th>
<th>Role</th>
<th>Organisation/Affiliation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gerry Turpin</td>
<td>Mbarburrum</td>
<td>Ethnobotanist</td>
<td>Australian Tropical Herbarium</td>
</tr>
<tr>
<td>Warren Canendo</td>
<td>Ngadjon jii</td>
<td>Cultural Broker</td>
<td>CSIRO</td>
</tr>
<tr>
<td>Dr. Rosemary Hill</td>
<td>Sr. Research Scientist / Biodiversity Planning</td>
<td>Senior Research Scientist / Biodiversity Planning</td>
<td>CSIRO Ecosystem Sciences Northern Australia Futures Group</td>
</tr>
<tr>
<td>Darren Crayn</td>
<td>Jirrabal / Ngadjon-jii</td>
<td>Director</td>
<td>Australian Tropical Herbarium</td>
</tr>
<tr>
<td>Marita Budden</td>
<td>Jirrabal / Ngadjon-jii</td>
<td>Traditional Owner</td>
<td></td>
</tr>
<tr>
<td>Margaret GoSam</td>
<td>Jirrabal / Ngadjon-jii</td>
<td>Traditional Owner</td>
<td></td>
</tr>
<tr>
<td>Peta-Marie Standley</td>
<td></td>
<td>Research Coordinator TKRP, Report writer</td>
<td>Traditional Knowledge Revival Pathways TKRP Kuku Thaypan Fire Management Research Project, James Cook University PhD candidate CSIRO student support, consultant</td>
</tr>
<tr>
<td>Arthur Budden</td>
<td>Yidinji</td>
<td>Traditional Owner</td>
<td></td>
</tr>
<tr>
<td>Patrick Barlow</td>
<td>Ngadjon-jii / Tableland Yidinji (?)</td>
<td>Traditional Owner</td>
<td></td>
</tr>
<tr>
<td>Phillip Barlow</td>
<td>Ngadjon-jii / Tableland Yidinji (?)</td>
<td>Traditional Owner</td>
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<tr>
<td>Ron Turpin</td>
<td>Yidinji</td>
<td>Traditional Owner</td>
<td></td>
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<tr>
<td>Viola Davis</td>
<td>Yidinji</td>
<td>Traditional Owner</td>
<td></td>
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<tr>
<td>Yvonne Canendo</td>
<td>Ngadjon-jii</td>
<td>Traditional Owner</td>
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<tr>
<td>Des Rumble</td>
<td>Jirrabal</td>
<td>Traditional Owner</td>
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<tr>
<td>Stu Jordon</td>
<td>Murawurri</td>
<td></td>
<td>SEWPAC</td>
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<tr>
<td>Joe Miller</td>
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<td>CSIRO Canberra</td>
</tr>
<tr>
<td>Peter &amp; Marilyn Wallace</td>
<td>Yalanji</td>
<td>Traditional Owner</td>
<td>Bana Yarralji</td>
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<tr>
<td>Name</td>
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<tr>
<td>Katrina Keith</td>
<td>The Cairns Institute James Cook University</td>
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<tr>
<td>Sarah-Jane Warne</td>
<td>The Cairns Institute James Cook University</td>
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<tr>
<td>Glenn Wightman</td>
<td>Ethnobiologist</td>
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<td></td>
<td>NRETAS (NT) Biodiversity Conservation</td>
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<tr>
<td>Ramona McIvor</td>
<td>Anthropologist</td>
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<tr>
<td>(Binthi) Yimithirr</td>
<td>DERM</td>
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<tr>
<td>Reg Lawrence</td>
<td>Linguist</td>
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<tr>
<td>Marceil Lawrence</td>
<td>Western Yalanji</td>
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<tr>
<td></td>
<td>Linguist</td>
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<tr>
<td>Sharon Brady</td>
<td>Western Yalanji</td>
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<tr>
<td></td>
<td>Commerce Student</td>
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<tr>
<td></td>
<td>Deakin University, Geelong, Victoria</td>
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<tr>
<td>Allison Halliday</td>
<td>Mullumburra Yidinji</td>
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<tr>
<td></td>
<td>Science and Technology Student</td>
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<tr>
<td></td>
<td>Deakin University, Geelong, Victoria</td>
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<tr>
<td>Sally Davis</td>
<td>Yidinji</td>
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<tr>
<td>Melissa Jess</td>
<td>Senior Research Manager, Reef &amp; Rainforest</td>
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<td></td>
<td>Research Centre</td>
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<td>RRRC</td>
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<tr>
<td>Dan Metcalfe</td>
<td>Ecologist</td>
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<td>CSIRO</td>
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<tr>
<td>Jim Walker</td>
<td>Indigenous Engagement Officer</td>
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<td>CSIRO</td>
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<tr>
<td>Intu Boedhiharitono</td>
<td>Senior Lecturer</td>
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<td></td>
<td>James Cook University School of Earth and</td>
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<td></td>
<td>Environmental Sciences</td>
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<tr>
<td>Jenny Creek</td>
<td>Kaantju</td>
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<tr>
<td></td>
<td>Cultural heritage officer</td>
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<td></td>
<td>Kulan Rangers</td>
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<tr>
<td>Ailsa Holland</td>
<td>Botanist</td>
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<td></td>
<td>Queensland Herbarium DERM</td>
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<tr>
<td>John Locke</td>
<td>Yidinji</td>
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<tr>
<td></td>
<td>Manager Indigenous Engagement Unit Aboriginal &amp;</td>
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<td></td>
<td>Torres Strait Island Land Services</td>
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<td></td>
<td>DERM Land and Indigenous services Division</td>
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<tr>
<td>Dr. Tommy George</td>
<td>Kuku Thaypan</td>
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<td></td>
<td>Senior Elder</td>
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<td></td>
<td>Traditional Knowledge Revival Pathways</td>
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</table>
Appendix B: Notes from workshop discussions

First small group discussion focus questions
Q1. What are your interests and experiences in ethnobotany?
Q2. What is your vision for whether and how an ethnobotany centre could support Traditional Owners knowledge and practices?
Q3. How would you write a draft vision statement?
Q4. Are there any ethnobotany projects you would like to see conducted as part of this vision?
Q6. What would you like to be part of working group to take this forward?*

Second small group discussion questions about draft vision and model
Q1. What are the strengths and weaknesses of the model?
Q2. Does the model provide the right support for your interests in ethnobotany?
Q3. How would you write a draft vision statement?
Q4. How would you modify the model – suggest changes.
Q5. What steps do we need to take to put the model into reality?

* This question was addressed during whole group discussions and during plenary session, this resulted in the nomination of an Indigenous working group to take the forward the idea of an Indigenous driven ethnobotany partnership model.
1. What are your interests and experiences in ethnobotany?

<table>
<thead>
<tr>
<th>Group 1</th>
<th>Group 2</th>
<th>Group 3</th>
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</thead>
<tbody>
<tr>
<td>Plate 39 Group one&lt;br&gt;Nil in ethnobotany but huge and diverse in TEK and language</td>
<td>Plate 40 Group two&lt;br&gt;Not specifically addressed</td>
<td>Plate 41 Group three&lt;br&gt;Revegetation&lt;br&gt;Rehabilitation&lt;br&gt;Getting food/medicine plants back into the landscape&lt;br&gt;Bush Tucker Business</td>
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</table>

2. What is your vision for how an ethnobotany centre could support Traditional Owner’s knowledge and practices?

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<thead>
<tr>
<th>Group 1</th>
<th>Group 2</th>
<th>Group 3</th>
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</thead>
<tbody>
<tr>
<td>Depends on name: Is it an alliance?&lt;br&gt;Progress IP rights&lt;br&gt;Economic development and sustainability&lt;br&gt;Training&lt;br&gt;Cultural awareness training has to be compulsory&lt;br&gt;GIS mapping has to be included for all aspects (Springs, waterfalls, rock art sites, etc)&lt;br&gt;Schools to pass onto younger generation&lt;br&gt;Land and Sea (tenure)</td>
<td>Area – All Indigenous wet and dry tropical regions&lt;br&gt;Interests&lt;br&gt;Preserve and keep alive cultural knowledge&lt;br&gt;Manage traditional areas</td>
<td>Vision generally good&lt;br&gt;Needs to include protection in statement&lt;br&gt;Needs to include sensitivity in statement</td>
</tr>
</tbody>
</table>
### 3. How would you write a draft vision statement?

<table>
<thead>
<tr>
<th><strong>Group 1</strong></th>
<th><strong>Group 2 First attempt</strong></th>
<th><strong>Group 3</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Australian Indigenous Traditional Owners&lt;br&gt;Australian traditional custodians&lt;br&gt;Aboriginal Australians&lt;br&gt;Traditional Biodiversity Knowledge Program&lt;br&gt;Traditional Bio-cultural Knowledge Program&lt;br&gt;Ethnobotanical knowledge support network</td>
<td><img src="" alt="Diagram" /></td>
<td>A tropical Indigenous ethnobotany centre partnership empowering sensitive protection of Indigenous knowledge, country and cultural use of plants. Name of centre – Possible Aboriginal word</td>
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</tbody>
</table>

A Tropical Indigenous ethnobotany partnership network owned and controlled by Indigenous people to preserve and keep cultural knowledge and use of plants alive.
4. Are there any ethnobotany projects you would like to see conducted as part of this vision?

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<thead>
<tr>
<th>Group 1</th>
<th>Group 2</th>
<th>Group 3</th>
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</thead>
</table>
| Cultural Heritage Mapping  
Land and Sea  
Sites  
Language  
Flora  
Fauna  
Cultural practices relevant to TK  
Pilot project TKRP KTFMRP ethnobotany flip book with TEK of fire management | Projects linked into other activities like this: | Book/pamphlet templates  
Exploring Bush medicines and tucker businesses – ice creams, jams, etc  
Bush Tucker gardens – at school, at home  
Bush Tucker nursery  
Links to existing programs to build their capacity to support i.e. NRM Re-vegetation units, TREAT, Lake Eacham nursery DERM/QPWS |
1. What are the strengths and weaknesses of the model?

<table>
<thead>
<tr>
<th><strong>Group 1</strong></th>
<th><strong>Group 2</strong></th>
<th><strong>Group 3</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Strengths</strong></td>
<td>Area – All Indigenous wet and dry tropical regions</td>
<td>Add employment to training and education</td>
</tr>
<tr>
<td>Keeping past and present knowledge</td>
<td>Interests</td>
<td>Add innovation blob (of practice)</td>
</tr>
<tr>
<td>Unity</td>
<td>preserve and keep alive cultural knowledge</td>
<td></td>
</tr>
<tr>
<td>Men’s and woman’s business</td>
<td>manage traditional areas</td>
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<tr>
<td>Being proactive</td>
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<tr>
<td>Following of cultural protocols</td>
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<tr>
<td>More resources</td>
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<tr>
<td>Lore and Law – Respect and Recognition</td>
<td></td>
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<tr>
<td>Strong communication</td>
<td></td>
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<tr>
<td>Understanding and learning of cultural values</td>
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<tr>
<td><strong>Weaknesses</strong></td>
<td></td>
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<tr>
<td>Not enough input from TO’s</td>
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<tr>
<td>People being inactive rather than pro-active</td>
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<tr>
<td>Communication</td>
<td></td>
<td></td>
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<tr>
<td>Lack of human resources</td>
<td></td>
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<tr>
<td>Resources</td>
<td></td>
<td></td>
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<tr>
<td>To TO’s for consultation etc</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Financial support for establishment</td>
<td></td>
<td></td>
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<tr>
<td>Intellectual property rights – Lack of</td>
<td></td>
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<tr>
<td>Abuse of system: Being $S$ and power driven instead of culturally driven</td>
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<tr>
<td>Disrespecting of cultural values and beliefs and acknowledgement</td>
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</tbody>
</table>
2. Does the model provide the right support for your interests in ethnobotany?

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<tr>
<th>Group 1</th>
<th>Group 2</th>
<th>Group 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes only if it is TO driven, reflects TO interests, and TO decision making. (What is needed to support this?)</td>
<td>Indigenous ethnobotany partnership network Made up by people/groups that want to be there rather than by geographical area Indigenous controlled/inclusive Works on respecting Indigenous people and their knowledge</td>
<td>Not specifically addressed</td>
</tr>
</tbody>
</table>

3. Are there any aspects that you are uncomfortable with (give examples)

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<thead>
<tr>
<th>Group 1</th>
<th>Group 2</th>
<th>Group 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model needs Economic Development and Sustainability e.g. Address fee for service Possible consideration of changing name from a centre to an Indigenous alliance/network.</td>
<td>Not specifically addressed</td>
<td>Not specifically addressed</td>
</tr>
</tbody>
</table>

4. How would you modify the model – suggest changes.

<table>
<thead>
<tr>
<th>Group 1</th>
<th>Group 2</th>
<th>Group 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Action Need an adequately and appropriately resourced (human &amp; $$) working group.</td>
<td>Funding submissions Legal advice</td>
<td>Not specifically addressed</td>
</tr>
</tbody>
</table>
5. What steps do we need to take to put the model into reality?

<table>
<thead>
<tr>
<th><strong>Group 1</strong></th>
<th><strong>Group 2</strong></th>
<th><strong>Group 3</strong></th>
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</thead>
<tbody>
<tr>
<td>An action to put forward names for working group Persons to be nominated by each TO group Those nominated will need to acknowledge that they are not decision makers but will need to take issues back to communities for decision – discussion and then bring back group/community endorsement to working group.</td>
<td>Select working group Talk to mobs Prepare report &amp; communication materials for community Take report back to community for feedback Pilot publications Show and tell meeting Collecting existing information and compiling to go back to TO’s Develop a web site for general information</td>
<td>Not specifically addressed</td>
</tr>
</tbody>
</table>
## Appendix C: Workshop program

### Workshop Program 19 November 2010

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
<th>Presenter(s)</th>
<th>Facilitators</th>
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<tbody>
<tr>
<td>8:30</td>
<td>Coffee &amp; informal introductions</td>
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<td>9:00</td>
<td>Acknowledgement to Country</td>
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<td>Introduction to consent forms</td>
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<tr>
<td>9:10</td>
<td>Introduction to the Australian Tropical Herbarium and the potential</td>
<td>Dr Darren Crayn, Director</td>
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<td>to support ethnobotany</td>
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<td>9:20</td>
<td>Ethnobotany projects and the potential contribution of a centre</td>
<td>Gerry Turpin</td>
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<td>9:40</td>
<td>Traditional Owners' presentation of plant projects</td>
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<td>10:15</td>
<td>Protecting and supporting Indigenous intellectual property and innovations</td>
<td>John Locke</td>
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<td>10:30</td>
<td>Global ethnobotany developments</td>
<td>Glenn Wightman</td>
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<td>10:45</td>
<td>Discussion</td>
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<td>11:00</td>
<td>Morning tea</td>
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<td>11:30</td>
<td>Workshop groups:</td>
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<td></td>
<td>Our draft vision is for</td>
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<td></td>
<td>&quot;a tropical Indigenous ethnobotany centre partnership to empower</td>
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<td></td>
<td>Indigenous people, country and cultural use of plants&quot;</td>
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<td>Questions for discussion</td>
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<tr>
<td></td>
<td>• What are your interests and experiences in ethnobotany?</td>
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<td></td>
<td>• What is your vision for whether and how an ethnobotany centre</td>
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<td>could support Traditional Owners knowledge and practices?</td>
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<td>• How would you write a draft vision statement?</td>
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<td>Ask people to sign consent forms</td>
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<td>12:30</td>
<td>Report-backs</td>
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<td>1:00</td>
<td>Lunch</td>
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<td>1:30</td>
<td>Tour of the herbarium</td>
<td>Frank Zich</td>
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<td>2:00</td>
<td>Workshop groups:</td>
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<td>Our draft model is (see attached).</td>
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<td>Questions for discussion</td>
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<td></td>
<td>• What are the strengths and weaknesses of the model?</td>
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<td></td>
<td>• Does the model provide the right support for your interests in</td>
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<td>ethnobotany?</td>
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<td></td>
<td>• Are there any aspects that you are uncomfortable (give examples)</td>
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<td>• How would you modify the model – suggest changes</td>
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<td>• What steps do we need to take to put the model into reality?</td>
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<td>• What projects would you want to do?</td>
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<td>3:00</td>
<td>Report-back sharing and discussion</td>
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<td>3:30</td>
<td>Coffee</td>
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<td>4:00</td>
<td>Next steps</td>
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<td></td>
<td>• Adoption of vision</td>
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<td>• Consideration of working group</td>
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<td>• Discussion of report process, check all forms signed</td>
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<td></td>
<td>• Other</td>
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<td>4:30</td>
<td>Close</td>
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*Note that Program changed slightly on the day to respond to increased question time required following presentations. Therefore, group work occurred following the herbarium tour. Groups considered Vision, Model, Focus and Discussion Questions in one session.*
Appendix D: Sample of information sheet and permission form

Information Sheet

Workshop on the Cultural Use of Plants

Sponsored by the Australian Tropical Herbarium, CSIRO Ecosystem Sciences and James Cook University Cairns Institute

19 November 2010

How will the information and knowledge of workshop participants be used in the workshop and after the workshop?
The objective of this workshop is for Traditional Owners and scientists to explore ways to empower Indigenous people to renew, strengthen, promote and preserve their cultural knowledge and practices about plants. Participants will engage in interactive discussions of their needs and priorities regarding cultural plant use. Topics include the development of Traditional Owner partnerships, intellectual property, and information storage and an ethnobotany centre based at the Australian Tropical Herbarium.

This information sheet is to help make sure that you understand and give permission for reporting and use of the information and knowledge you bring to the workshop and the talks we have in this workshop.

What is the idea behind the workshop?
The idea behind the workshop is to support tropical Indigenous ethnobotany through a centre housed at the Australian Tropical Herbarium and developed through mutually beneficial partnerships with Traditional Owners (TO), JCU, DERM, CSIRO and other government agencies and organisations. The attached briefing paper describes how this idea was started by Gerry Turpin, an Mbabaram Traditional Owner and Ethnobotanist, and what the idea is all about. The workshop will give Traditional Owners an opportunity to put forward their ideas on if and how such a centre could support their goals in relation to the cultural use of plants.

What will come from the workshop?
In this workshop we will talk about the cultural use of plants, the development of Traditional Owner partnerships, intellectual property, information storage and an ethnobotany centre based at the Australian Tropical Herbarium (ATH).
The Project Team that is working to organise and run this workshop are Gerry Turpin (Mbabaram Traditional Owner and ATH Ethnobotanist), Darren Crayn (Director ATH), Eda Addicott (ATH), Warren Canendo (Ngadjon Traditional Owner, CSIRO Cultural Broker), Ro Hill (CSIRO senior scientist), Katrina Keith (Cairns Institute of JCU) and Sarah Warne (Cairns Institute JCU).

The Project Team, with your help, will produce a workshop report. The aim of this report is to summarise what Traditional Owners and others at the workshop say. This might include a draft vision for if and how an ethnobotany centre could support cultural use of plants, and how it will be developed. If the workshop is positive about the idea of supporting cultural use of plants through an ethnobotany centre, the report will be used for much wider consultation about the idea. The report will have your name in it. It will include some of the information that you bring to the workshop and some of the things that you say at the workshop. It will include one or more photos of people at the workshop. The workshop report will be available to the public through the websites of the organisations sponsoring the workshop.

The report will not contain any information about Indigenous cultural use of plants.

A draft of the workshop report will be emailed to you by the end of December 2010. If you do not have an email address, we will post the report to you. You will have till mid-February 2011 to read the draft report and give your comments to Warren Canendo, Gerry Turpin or Ro Hill. Your comments can be over the phone or by email or you can print the draft, write your comments on the draft and post it. We will consider and endeavour to include your comments in the final copy of the workshop report. We may send your comments on to the other people in the Project Team unless you tell us you do not want this to happen. Your comments will not be available to other people. If you do not send any comments, we
will just use other people’s comments to make the final workshop report. A copy of the final report will be emailed to you in August.

During the workshop, people will make some photographs to use in the reports and articles. You will need to let the facilitators know if you do not want your photograph taken.
Workshop on the Cultural Use of Plants
November 2010
Permission form

I am a participant in the Workshop on the Cultural Use of Plants sponsored by the Australian Tropical Herbarium, CSIRO Ecosystem Sciences and James Cook University Cairns Institute. I have read the information sheet and the accompanying Briefing Paper and had it explained to me. I understand this information.

I give permission for my name and the information and knowledge that I bring to the workshop to be used to prepare a workshop report.

I will do my best to provide comments on the draft workshop report within 2 weeks.

I understand that the Project Team will do its best to take account of my comments. I understand that if I do not provide comments, the draft documents will be finalised without my input.

I understand that the Workshop Report will not contain any information on the cultural use of plants.

I give permission for photographs of me taken during the workshop to be used in the report.

Contact information for sending draft documents

Name: ........................................................................................................................................................................

Organisation or group: ..............................................................................................................................................

Email: ........................................................................................................................................................................

c/- (if applicable) ......................................................................................................................................................

Phone number: ...........................................................................................................................................................

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Post address (if needed) ............................................................................................................................................... 

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Signature: .................................................................................................................................................................

Date: ...........................................................................................................................................................................

Special conditions (please write what they are): ........................................................................................................

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Summary of the briefing paper
Coordinating Committee

Concept

- Mutually beneficial partnerships with Traditional Owners to drive the development of a tropical Indigenous ethnobotany Centre
- The Australian Tropical Herbarium, James Cook University, DERM, ATH, CSIRO and other government agencies and organisations support for these partnerships
- Gather information about cultural use of plants that has been previously collected into one place that Traditional Owners can access
- Support Traditional Owners to collect their own information under their control
- Promote and carry out research in a respectful and culturally appropriate way
- Provide awareness, training and education about cultural use of plants
- The centre could be recognised as an important place for ethnobotanical research in the Australian tropics, with a focus on north Queensland
- Potential future partnerships with neighbouring countries may be developed

Significance

A tropical Indigenous ethnobotany centre partnership could be very significant to empower Indigenous people to renew and strengthen their cultural knowledge and practices about plants. Many Traditional Owners believe that keeping their knowledge alive and passing it on to the next generation is very important. The centre could support Traditional Owner information sharing, practice and collaboration. The centre could also support keeping plant collections and data for Traditional Owners through shared protocols and legally binding agreements.

The centre could also be significant to a number of important State, National and International goals. At the State level, the Queensland Government aims to improve conservation of Indigenous knowledge and heritage. At the National level the Australian Government is committed to recognising and supporting the maintenance of ethnobotanical knowledge of Australia's Indigenous peoples and their role in protecting Australia's biological diversity. At the International level, many nations through the Convention on Biological Diversity are committed to recognising and respecting the contribution of Indigenous and local knowledge to the conservation and sustainable use of biodiversity and ecosystems.

Supporting the exploration of the centre idea with Traditional Owners was important to the Australian Tropical Herbarium (ATH). The Board of ATH has endorsed exploring this idea further. The ATH is a joint venture between DERM, CSIRO and James Cook University, and these three organisations all support the idea of an Indigenous-driven ethnobotany centre. Such a centre could address the following Australian Tropical Herbarium research themes:
Tropical ethnobotany
- Impacts of threatening processes on tropical flora
- Innovative utilisation of tropical plant and fungal resources
- Biodiversity and ecosystem mapping and management.

As a result of the need to find out more about Traditional Owners’ views on the idea of the proposed centre it was necessary to facilitate a workshop where Traditional Owners had the opportunity to express their opinions on and interest in the development of an Indigenous driven ethnobotany centre.

The following dot points as highlighted in the initial briefing paper provide some suggestions on what an Indigenous driven ethnobotany centre could provide for Traditional Owners and the potential role it could play in supporting them with managing their cultural knowledge and use of plants.

- Supporting Indigenous decision-making about plants and plant knowledge
- Protecting Indigenous intellectual and cultural property rights over plants
- Keeping traditional and cultural knowledge alive
- Focusing on building up trust with TOs before involving other agencies
- Passing knowledge onto the younger generation
- Getting existing collated information on Indigenous cultural use of plants back into the community
- Communicating cultural protocols on Men’s business and women’s business with regards to the use of plants
- Helping Traditional Owners access existing scientific knowledge and collections
- Supporting Indigenous plant projects
- Help Traditional Owners gain an understanding of purposes and opportunities from ethno-botanical work
- Bringing people through the Herbarium so they can learn more about what it is and what it does
- Helping to co-ordinate different projects happening with different people - not re-inventing the wheel
- Opportunities to work with people with differing science backgrounds and knowledge
- Plant identification service
- Search historical and library information databases.

**Traditional Owner interests**

- Important to make it Traditional Owner-driven
- Traditional Owner working group
- Who will direct the centre
- Partnerships (ATH/DERM, JCU, CSIRO, TOs)
- Aboriginal Rainforest Council Intellectual Property Sub-committee developed an IP kit which is currently being used
- Revitalise and support for the IP kit which is currently being used
- Keeping traditional knowledge alive
- Passing it on to the younger generation
- Employment and training
- Getting information back into the community
- Who will hold the information
- Potentially a good way to help Indigenous initiatives.

**Draft vision and model**

**Draft vision**
A tropical Indigenous ethnobotany centre partnership to empower Indigenous people, country and cultural use of plants.

**Draft model**