



Title: Creating the Ngan’gi Seasons calendar: Reflections on engaging Indigenous knowledge authorities in research

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I would like to acknowledge the Traditional Owners of this country, the Larrakia people, upon whose Country we meet, and wish to also acknowledge an inspirational woman, Patricia Marrfurra McTaggart; linguist, author, patient teacher and Nauiyu community leader on the Daly River whose Ngan’gi ecological knowledge has been documented in the calendar that I will talk about today.

Introduction

This paper will reflect on the making of the ‘Ngan’gi Seasons’ calendar, a project that was dependent on the close engagement of researchers from CSIRO, an Australian research organisation, with Indigenous knowledge authorities from Nauiyu Nambiyu Aboriginal community on the Daly River, Northern Territory. The project ran for ten months and involved the documentation of Aboriginal ecological knowledge and seasonal indicators that were collated into a calendar depicting the thirteen recognised seasons of the Ngan’gi set of Aboriginal languages, known as Ngan’gikurunggurr and Ngen’giwumirri. This project forms one part of a larger research program that attempts to reveal the range of socio-economic values that Aboriginal people, living along the Daly River, attribute to water resources. This paper will not attempt to situate its findings within available literature on theories of knowledge or engagement, but wishes simply to provide a reflection of a project that actively sought engagement between two diverse knowledge institutions.

Three key findings or ideas that emerged from the project will guide this reflection. The first is the need to be both flexible and reliable in order to develop strong working relationships with Indigenous knowledge authorities. Effective relationship building can be fostered through a combination of tailored communication and good will that comes with being adaptable to local situations, including adopting the most appropriate financial structures to allow for timely payment of Indigenous knowledge authorities. Reliability refers to ensuring you deliver on your research promises and that the engagement is of benefit to both parties. Secondly is recognition of the necessity of time and place in working with Indigenous knowledge authorities and in understanding local indigenous knowledge. This finding necessitates that research agencies must be willing to work, geographically, where the knowledge being documented is local. They must also be willing to work within longer-term time frames. Thirdly is the importance of creating a mutually respectful and inclusive space where the representation of knowledge can be openly discussed and/or debated between the researcher and the Indigenous knowledge authority, and where the research process and end products are negotiated and evaluated. The importance of this interaction became most apparent when I was lead to question the representation of Ngan’gi ecological knowledge amid broad interest in the Ngan’gi Seasons calendar. It is also raises the question for research agencies and institutions working with Indigenous knowledge authorities: To what extent should research agencies and institutions be responsible for instigating a joint-evaluation of the research engagement that has occurred?

Context

The Commonwealth Scientific and Industrial Research Organisation (CSIRO) is Australia's national science agency and one of the largest and most diverse research agencies in the world. CSIRO released its first Indigenous Engagement Strategy in 2007. The Strategy states that it aims to achieve greater Indigenous participation in CSIRO's research and development agenda and activities. The organisation is looking for ways in which they might boost their Indigenous engagement, including funding more research of Indigenous interest. This paper provides some insight and on-ground experiences into what some of the practicalities are of 'engaging' with Indigenous knowledge authorities. Such field observations might prove useful to any academy wishing for more engagement with Indigenous knowledge authorities in northern Australia and elsewhere.

The experiences reported here contribute to a larger research program entitled 'Indigenous socio-economic values and river flows'. This research is currently being undertaken by CSIRO staff under the auspices of the Tropical Rivers and Coastal Knowledge (TRaCK) hub (<http://www.track.gov.au/>). TRaCK is an Australian Government Initiative that sits within the Commonwealth Environmental Research Facilities scheme. The research was initiated so that its findings can inform public debate, policy and management decisions about the future of rivers and estuaries of northern Australia. The research agenda also reflects in part identified knowledge gaps regarding the National Water Initiative policy to engage Indigenous peoples in water planning processes, and to determine their interests and values in water (Jackson 2006, 2008; Jackson and Morrison 2007).

The TRaCK hub comprises of a group of over 50 researchers that are working on 22 projects across northern Australia in the Northern Territory, Western Australia and Queensland. TRaCK participants, including universities and government agencies, seek greater understanding of tropical rivers – their biophysical processes, as well as their economic and social values. The three-year project which included the development of the Ngan'gi Seasons calendar began in 2007 and is led by Dr Sue Jackson from CSIRO, Darwin. The project aims to determine some of the values connected to river flows by Aboriginal people living along two Australian tropical rivers: the Daly River in the Northern Territory and the Fitzroy River in Western Australia.

Briefly, the objectives of the 'Indigenous socio-economic values and river flows' project are to:

- Document the significance of water and river systems to Indigenous communities in two sub-catchments;
- Survey Aboriginal households to quantify the direct economic benefit derived from indigenous use of wild resources that are dependent on rivers and wetlands, for instance for food, medicine, tools and art products;
- Assess the potential impacts of changes to the rivers' flow regime on Indigenous communities that live along them;
- Work with ranger groups and other interested community groups to develop and trial a participatory monitoring program – to use indicators chosen by the communities to monitor for change to the river flow or wild resource use, and
- Develop relationships with government water planners to help them build the capacity to incorporate this kind of social assessment information that we are collecting into plans that make decisions about water use and how it is allocated between different groups.

TRaCK researchers work in accordance with the TRaCK Indigenous Engagement Strategy which draws on Australian Institute of Aboriginal and Torres Strait Islander Studies (AIATSIS) Guidelines for Ethical Research in Indigenous Studies. TRaCK projects that involve collecting information from people must also be reviewed and approved by the Charles Darwin University

Human Research Ethics Committee. A key understanding of TRaCK's indigenous engagement strategy is that all Indigenous knowledge remains the intellectual property of the Indigenous owner at all times. Also, that the owners of that knowledge can negotiate the use of that information by researchers, and that this use must be fully acknowledged. The strategy also states that negotiation surrounding the use of Indigenous knowledge is an ongoing one that involves the researchers, the Indigenous Knowledge holders and their representative bodies (e.g. Aboriginal land councils). TRaCK has also signed research agreements with the Northern Land Council and Kimberley Land Council. These agreements clearly outline the Intellectual Property rights of their Aboriginal constituents, and the process for obtaining permissions and consent from research participants before collecting and documenting information, including Indigenous knowledge. All research project information must also be forwarded to the respective Land Council sixty days before its intended publication date, to ensure protection against the publishing of sensitive information.

The second key understanding of the TRaCK Indigenous Engagement Strategy relates to the proper payment of Indigenous knowledge authorities, who are engaged to provide Indigenous knowledge, and Indigenous community members who are employed in often combined roles of community liaison/networker/sometime interpreter/sometime translator and research documenter. The 'Indigenous socio-economic values and river flows' project adopts a scaled remuneration system to ensure research participants and informants are paid in accordance with their level of skill and knowledge.

Developing strong working relationships

Allocating time for engagement

Initial discussions were held between the project leader Dr Sue Jackson and community leaders from Nauiyu Nambiyu, Daly River with whom she had worked on water issues in the region since 2002. Community members expressed a strong desire to see more research done about the Daly River and were keen to discuss their concerns about the river in the context of planning for some research to occur. Potential research objectives for this project were discussed with community representatives from 2004, and the project began in 2007. At the 'formal' start of the project, when the research funding began to flow, team members including myself went back to Nauiyu with Sue to be introduced to community leaders and to talk about what the research project might entail. We discussed which community members might be interested in participating, and sought names of people we should talk to at that early stage. The team also developed a plain English booklet outlining the context and aims of the proposed project, which was explained and left with each community member we spoke with. It was recommended by the community that we present to the local corporation, Nauiyu Inc, which comprises representative members of the community. We came back and presented with other TRaCK researchers a few months later. The representatives were happy for the project to go ahead, as people were concerned about development within the region, particularly increasing farming upstream, and had concerns about how such development might impact upon the river and their continued use of it. The period of initial engagement to determine the communities concerns and their potential research interests along 'their' stretch of the River, occurred from 2004 until 2007, during which time some of the residents were engaged with other water planning related research being undertaken by the research leader, Sue. Once funding had been received the engagement period that led to a formal presentation to Nauiyu Inc was about 6 months. We operated within and alongside community processes and institutions, following the advice of local leaders.

These local leaders emerged through the early discussions. They were people who were recommended by other community members and who in turn were keen to participate and organise others to participate. At the beginning of this project the two on-ground researchers (which included me) had no relationship with any of the participants from the community. This

necessitated that a reasonable amount of time in the initial stages would be spent trying to establish some working relationship with the Indigenous knowledge authorities we had engaged. This became particularly apparent after learning of the communities past research experiences.

Delivering on promises and mutual benefit

Disappointingly, we were told of several past projects where there was little or no follow-up by researchers who had collected Indigenous knowledge from people engaged on our project. How research agencies engage with Indigenous knowledge authorities creates a legacy for the next researchers who arrive in the community. One prior project had involved the intensive collection of Indigenous ecological indicators, apparently for a student's tertiary education project. The community partner, a linguist and author in her own right, did not hear from the researcher again nor did she find out how her knowledge had been used. Perhaps the researcher truly believed that supplying the Indigenous knowledge authority with photocopied notes he had taken in discussion with her constituted 'follow-through'. Other researchers have also failed to follow-up on projects they have discussed and started with community members. This history provided the starting point for the project and reinforced our need to consistently communicate our intentions with members of the community, including being clear, open and transparent in all of our actions and to follow up and provide feedback to people at regular intervals. When delivering information back to the community it is also important to consider the time commitment you are requesting of people when you engage them.

Flexibility and competing interests

Researchers must be aware that the demands on Aboriginal community leaders; from government agencies, Aboriginal land councils, land trusts, community representative bodies, local institutions including police and the judicial system, members of their extended family, as well as multiple other environmental and cultural projects, are astounding. This necessitates flexible research timeframes, in order that the researchers can work around participants' commitments. Sometimes we would find ourselves standing third in line behind government representatives outside peoples' homes in order to talk with them. Many times we worked around community engagements – meeting before Court sittings that demanded the translation skills of our participants, and catching up after government meetings that were arranged in the time between calling our research participants to arrange meetings, and us arriving in the community.

Naiyu Nambiyu is a five hour round trip (drive) from Darwin where the research team is based. In the early stages of engagement, we as researchers were still new to the community and people were yet to see what we might contribute to the community and whether we would be coming back. Considering the past mixed history of community research engagement, this caution was to be expected. If we wanted the time of community people we had to be prepared to wait, to come back 3 or 4 times over 2 days, whilst staying in the community, to see if someone was home and available to talk about the project.

I believe there were three key differences between ourselves and the government representatives who we witnessed demanding the time of community people, which contributed to successful relationship building and the completion of the calendar. Firstly, the objectives and outputs of the social component of our project were open for discussion and there was an opportunity for participants to decide what information and types of communication products they would like to see returned to the community. While we started out with some research money and a broad aim to document the social and cultural importance of the local rivers and wetlands to Aboriginal people at Naiyu Nambiyu, our research plan stated that we would determine the focus of the social-cultural component in collaboration with the community. The projects and methodology were deliberately left open to allow the community to put forward ideas about what they thought was important and/or of interest to them. This allowed potential research participants to feel some ownership over the project, allowing a foundation for the creation of strong working

relationships. Secondly, we always contacted key community members in advance of arriving at the community to try and work around their other commitments; we were always respectful of people's time and were as flexible as possible in arranging meetings once we were in the community. We also planned our community visits to last for several days each time so that we could afford to wait around for the opportunity to talk with people. We never pushed people for their time and always offered to come back when it was most convenient for that person. Thirdly, we were able to demonstrate that we valued peoples' time and knowledge, by paying each person for the time they spent contributing to the development of the seasonal calendar.

Financial flexibility

From previous experience I knew that payment of Indigenous knowledge authorities on this project should be handled directly between the researcher and the participant, immediately after each days work. Direct payment seemed to be the only way we could ensure that people were paid in a timely manner, which was integral to maintaining a good working relationship with research participants. CSIRO, like other research and government agencies, operates its finances and the payment for goods and services on a standard business model. If we were to submit invoices on behalf of those participants who hold Australian Business Numbers (a requirement of the Australian Tax Office if you wish to avoid paying the highest amount of tax on services rendered) they might wait at least 30 days for payment once the invoice had reached a central processing point in another city. Likewise if participants were to be put on the 'casual payroll', they would have to wait up to 2 weeks to be paid each time they worked, and then a contract for their casual appointment would last only 3 months. Fulfilling the contractual paperwork requirements for 30 people who each undertake a half days work is both a difficult and time-wasting challenge for both parties.

We had to be creative in order to obtain the cash to pay 'cash in hand' to participants. After some discussion, and with the quiet endorsement from a senior member in finance, we began making claims for petty cash that we hadn't yet spent. This money is paid into our personal savings accounts, which we then withdraw in instalments, as we need to pay people, throughout each period of field work. Recipients of payments sign a form acknowledging the payment made as well as creating an 'invoice' for CSIRO by signing a pre-made invoice template outlining the amount that we owe them for their participation in the research. The researchers counter-sign the deposit into and withdrawal of such monies from a central 'cashbox' to create a form of check and balance. As researchers we have chosen to operate this way, for we depend on the development and ongoing maintenance of effective working relationships with each of our research participants, including Indigenous knowledge authorities to ensure that the project succeeds at all levels. However this mode of payment is not a perfect system and is something that will need to be addressed within many research organisations and institutions if they wish to successfully engage with Indigenous knowledge authorities. We are fortunate that there is sufficient flexibility for us to work within our system and to pay people instantaneously for their time. This, we feel, has contributed greatly to maintaining an enduring working relationship with our research participants.

After four to five months of visiting the community on a fortnightly to monthly basis, the community's Indigenous knowledge authorities began to open up to us. We were given private home numbers and we were prioritised over other meetings: that is community people would choose to sit and talk to us over attending other group meetings that had been arranged by government agencies. Each time we visited the community we were invited along to go hunting or fishing in the evenings and on the weekend. At this point true engagement commenced on behalf of the Indigenous knowledge authorities and the researchers on our project. Trust seemed to be beginning to grow, and so began a process of teaching on country—myself as the student and Patricia Marrfurra McTaggart and her extended family the teachers—which culminated in the production of the Ngan'gi seasons calendar.

The necessity of time and place

Teaching and learning on country All of our interaction and collation of information over the course of the project occurred either in the community or out in the surrounding wetlands, whilst hunting, gathering or fishing. Participants were very keen to teach from country, demonstrating the knowledge they had verbalised and which I had documented earlier in the day whilst sitting around in the community.

In documenting this knowledge I chose to write notes, often on bush trips, rather than using audio recording as people appeared uncomfortable, even though they had agreed to the use of the digital recorder. The knowledge was collected in different places, at different favoured fishing and hunting places and places of cultural significance. I was taught stories of historical and contemporary use of these water places as well as environmental cues, seasonal indicators and species specific information as it was seen and recalled. I was shown fishing and hunting methods, food preparation and collection. There was no intention of creating a seasonal calendar at the outset of the research, only to collect information that showed a social or cultural attachment to the Daly River and surrounding wetlands. Sometime during the collecting of information the importance of the seasonal cycle became more apparent and Patricia said she would like to see the information displayed in a way that was accessible to younger generations – and might be used as a teaching aid.



Preparing malarrgu (long-necked turtle) gut for eating



Hunting for malarrgu at the end of the dry season (Molly Yawulminy and Emma Woodward)



Miwulngini (red lotus lily) that has been collected from a billabong



Anganni (Magpie goose) being prepared for roasting



Minimindi (waterlily) that has been roasted in the coals



Ewerrmisya (freshwater crocodile) eggs are a favourite food of older people



Migemininy (bush apple) is favoured by awin (black bream) when it falls into the water

It was this flexibility that allowed the community to drive outcomes including the kind of products they were interested in: such as the creation of a poster that could be used in schools.

I took notes over a 9 month period—collecting season specific information according to the seasons that came and went. The timely documentation of seasonal information was integral to the compilation of the calendar, as recollection of ecological indicators was stimulated by environmental cues. This again necessitated a fairly extended time period of engagement. The next stage of the project's development was to think how the information might be displayed.

The representation and interpretation of knowledge

I initially drew a circle on a piece of paper and asked Patricia and family members whether this might represent the cyclical nature of seasons, and in retrospect I question the wisdom of this suggestion. Although others have used the circle to represent seasons, including those writing of Indigenous seasonal knowledge for other Aboriginal language groups, it was not clear who had decided this should represent the nature of seasons.

Patricia gave me the photocopied notes from the researcher who had sought Ngan'gi seasonal knowledge from her previously. He too had been using circles to present information. However, the notes also included a table showing Ngan'gi knowledge of 'cause and effect', specifically stating that Patricia wanted such information shown in table form.

I therefore explicitly asked her what she thought of the use of the circle to depict the Ngan'gi seasons. She said that it made sense as a circle has no beginning or end like the cycle of the seasons – it just kept going. Interestingly there are other language groups that we are working with in the Daly and Fitzroy River regions that have seen the completed seasonal calendar and wish to work on one for their own language group. They have all seen the circular depiction. It will be interesting to see whether there will be different visual representations of seasonal knowledge in those calendars yet to come.

Just before I gave this talk, I gave a copy of the calendar to a work colleague who asked me if I had to get copyright permission to produce the calendar. I was a bit stumped for a moment because I thought they might have been talking about the Indigenous knowledge but they were talking about the use of the circular representation to depict the seasonal cycle. They had seen

this used somewhere else, both in Aboriginal cultural interpretative centres and elsewhere, and assumed that someone would own the right to the design and circular representation of seasons.

It was made quite clear from the beginning of the calendar's construction that the importance of the end product laid foremost in its potential use by the community. Patricia and I constantly checked and rechecked the knowledge that I gathered over a period of nine months talking with Patricia and her extended family. We discussed the meanings of words, their accurate context, their spellings and their links with other words and seasons. The importance of each seasonal observation and occurrence then had to be discussed as there was not enough space on the paper to include all knowledge that had already been noted down. We discussed which stories and knowledge should receive prominence on the outside section of the calendar, and what knowledge should be contained under each seasonal heading. This was mixed in with discussion about which photographs were most appropriate to include and which colours would be most representative of seasons.

We discussed the mixed use of English and Ngan'gi in the poster and I specifically asked Patricia whether she thought we should add the English months of January, February, and March etc to be lined up against the Ngan'gi seasons. She said that when she thought of the English calendar month words her head was empty—they held no meaning for her and for Ngan'gi speakers. Further, Ngan'gi seasons do not occur according to a specific date each year, the season is in existence when specific events occur in the environment, such as a change in colour of the spear grass. Indeed, Ngan'gi seasons might fall during different months each year.

The representation and interpretation of the knowledge that was documented occurred through ongoing discussion between me as the researcher and representative of the research agency (CSIRO) and Patricia as the representative of Ngan'gi Indigenous ecological knowledge. It wasn't long before external actors became vocal in seeking their own interpretations of how the knowledge should be represented. This began within the research agency with a communication specialist asking that I reconsider the fact that there were no English months on the calendar. How would tourists and non-Indigenous community members engage with such knowledge if there was no English months with which to reference Indigenous knowledge against? Perhaps I could consider writing on the poster at least when the Wet and Dry Seasons occurred to make it more accessible to the general public?

The calendar has been received with great interest by the general public. There have been numerous requests for copies of the calendar by primary, secondary and tertiary institutions, academics and other members of the public. We also distributed copies of the poster to the local schools and various community institutions. At the Merrepen Arts Festival there were requests from the public for more information about how the calendar was created. Some people wanted more than the end product, they wanted to know the detailed process, the process of engagement, that resulted in the calendar and they encouraged the writing down of this process so that it might be of use to others.

There have been other unforeseen benefits and positive outcomes from the engagement that resulted in the Ngan'gi Seasons Calendar. One education worker reported that she was working at Nauiyu Nambiyu in her role as lecturer to the Aboriginal teacher aides in the local school and was trying to start a discussion about Indigenous Ecological Knowledge (IEK) and education. She said it was going very slowly when she came upon one of the Ngan'gi Seasons calendars in the school library. The calendar prompted a long and detailed discussion on the validity and importance of IEK in education, and she felt that the calendar gave the idea of IEK more validity and legitimacy amongst the Indigenous aides.

The idea that research can legitimise Indigenous knowledge in the eyes of younger Aboriginal people throws forth many questions. How might the calendar engage with younger school-aged people? Will it be a useful educational tool in schools, as was the driving desire of Patricia and others? Where do our responsibilities lie as research agencies and academics in working with Indigenous knowledge authorities to assess impact of our combined engagement? How do we monitor the outcomes and impacts of engagement and the products it has created?

Patricia and I have started a process of evaluating the engagement that occurred both in the creation of the calendar as well as other aspects of the broader Tropical Rivers and Coastal Research (TRaCK) research program that the Nauiyu community has been engaged in. I think as researchers working with Indigenous knowledge authorities we need to start taking very seriously evaluation of the engagement that has occurred. This would involve initiating a space for shared reflection and open critique. This learning, through the active process of evaluation, will inform the creation of productive engagements between Indigenous knowledge authorities and research institutions in the future.

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Further Reading

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