NEWS and VIEWS

'Long overdue' Aboriginal education plan launched
Western Australian schools with a high number of Aboriginal students will be able to change the way they educate their students under a new State Government initiative.

WA Education Minister Liz Constable said the Aboriginal Network Schools initiative would allow principals and teachers to change their school opening times and ways of teaching.


The science and the art of language fieldwork
Associate Professor Claire Bowern from the Department of Linguistics at Yale University, talks about the research work of linguists and the importance of field work in that area.

You can read the transcript or listen to the audio at http://www.abc.net.au/rn/ockhamsrazor/stories/2011/3215173.htm

INDIGENOUS ASTRONOMY

Australian Aboriginal Astronomy Project
The Aboriginal Astronomy Project at Macquarie University in Sydney has published a new paper describing eclipses in Aboriginal cultures. The paper will be published in the July edition of the Journal of Astronomical History and Heritage (Volume 14, Issue 2), but readers can access a free a preprint on arXiv at http://arxiv.org/abs/1105.2635

In the paper, we explore 50 Australian Aboriginal accounts of lunar and solar eclipses to determine how Aboriginal groups perceived this phenomenon. We summarise the literature on Aboriginal references to eclipses, showing that many Aboriginal groups viewed eclipses negatively, frequently associating them with bad omens, evil magic, disease, blood and death. In many communities, Elders or Clever Men were believed to have the ability to control or avert eclipses by magical means, solidifying their role as provider and protector within the community. We also show that many Aboriginal groups had worked out the complex
motions of the sun-earth-moon system, understood the connection between the lunar phases and tides, and acknowledged that solar eclipses were caused by the moon blocking the sun.

Coincidentally, we will have the opportunity to witness a total lunar eclipse just before dawn on the morning of June 16th (Australian Eastern Standard Time). The moon will reach totality before setting, so get up early and don't miss it!

Cheers,
Duane Hamacher
Blog: aboriginalastronomy.blogspot.com

Victorian School Adopts Indigenous Astronomy
Reservoir Views Primary School is adopting a theme relating to the astronomy of a clan from north-west Victoria for 2011. The initiative of Peter Mousaferiadis, CEO of Cultural Infusion Ltd, the grand finale for this project will be a fifteen minute segment at Federation Square in Melbourne on Australia Day 2012 where the children will parade as creatures that are represented in the Boorong night sky. In term 3 a community concert will feature the Australian zodiac.

Peter first thought of the idea of an Aboriginal zodiac in 2006. He took it to the school who made an application to Arts Victoria in conjunction with Cultural Infusion Ltd. Cultural Infusion has established an enviable record of bringing diverse cultural events to schools over many years. The school won a grant of $35,000 to facilitate the project.

However, in his research, Peter read about the astronomy of the Boorong clan who lived around Lake Tyrrell in north-west Victoria whose astronomy was recorded by William Stanbridge. This record formed the basis for a master’s degree for John Morieson, a student at the Australian Centre at the University of Melbourne.

Peter decided that the real astronomy should take precedence and revised his “Project Lunamalia” to feature the astronomy of the Boorong clan. School Principal, Pam Siostrom, is delighted to honor the indigenous legacy, “We have several students from indigenous families and they are immensely proud that this aspect of their culture is the theme for this year”, she said. “The school population is very diverse, fifteen different languages are spoken at home so it is great to have such a stimulating and unifying influence as our focus for this year”.

Cultural Infusion education coordinator Douglas Montgomery is supervising the project at the school. He said that every aspect of the creative arts will be used in developing the project including puppetry, storytelling, music and painting.

John Morieson

Other news
John Morieson has been invited by the Barengi Gadjin Land Council to run a second workshop on his interpretation of the Stanbridge material next month in the July school holidays. The BGLC is the present day custodian of the Wergaia culture. The Boorong clan was the northernmost clan of the Wergaia speaking peoples.
RESOURCES

Recent papers


Abstract: This paper explores, with a qualitative framework, critical social theory and thematic analysis, the narratives of many Aboriginal elders of Mornington Island (Kunhanhaa) about their history and their potential to form productive kin-based relationships with visiting teachers in order to influence the curriculum and pedagogy delivered at the local school. One exemplary teacher's journey provides educational insights that teachers need to be culturally responsive, friendly and compassionate and should heed the advice of senior Indigenous members of a community to be successful teachers. No other teachers are interviewed, nor are the opinions of the Queensland Department of Education sought. I spent from 1998 to mid 2003 researching this topic for my PhD after many of the elders asked for my help to improve the educational outcomes of the local school and the lives of the children in the community. Thirty of the male elders and 12 female elders asked me to help them regain their former positions as teachers at the local school, as they had severe misgivings about prevailing relationships with the teachers and the contribution of the school to their community. This participatory action research paper positions the elders as active agents, insistent that teachers act as edu-carers to ensure the community’s young people's survival in the face of worsening anomie.


Abstract: Narratives have always been integral to Indigenous knowledge transfer. In this autoethnography the author shares her border crossings between her Indigenous knowledge systems and the often dominant Western knowledge system. Pertinent to these experiences are the stark contrasts that exist between the two knowledge systems and their educational goals. This paper opens up space for conversation amongst those educators who are keen to learn and enhance their teaching and learning experiences in schools, particularly of those students whose cultural background differs from their own.


Abstract: This paper illustrates how important changes can occur in science learning and teaching if teachers take the trouble to understand and respect the cultural worlds of Indigenous students, and incorporate something of this understanding within their teaching practice. Ten teachers participated in a specially-designed one-year university postgraduate course, which encouraged them to incorporate into their classroom learning two Maori pedagogical principles, ako and whakawhanaungatanga. Ako is a responsive and reciprocal process, through which both teaching and learning roles are shared. Whakawhanaungatanga is the process of constructing relationships in the classroom between people, between students' cultural knowledge and domain knowledge. This paper draws on co-constructed narratives from four of the teachers, two Maori and two Pakeha (New Zealanders of European descent). The teachers built trusting and respectful relationships with their Maori students by facilitating connections between Western and Maori worldviews of science. They shared their teaching role with Maori elders (kaumatua) and members of the extended family of their students (whanau). The teachers learned a great deal from their Maori students who became highly engaged and agentic in their science learning. Students took collaborative responsibility for asking learning questions, and sought information on science topics from both Western and Maori worldviews.


Abstract: This article provides classroom examples and commentaries for extending and deepening culturally relevant science teaching efforts in classrooms. It examines instructional efforts used by one of the authors with high school and university students. Together, the three authors rethink and reconsider several aspects against a culturally relevant pedagogical backdrop. The commentary points out considerations for focusing on student achievement, cultural competence, and critical and sociopolitical consciousness. The necessity and difficulty of centering culture, equity, and power relations are emphasized.


Abstract. As educators, we can agree that a passion for science is de...
I then show culturally relevant and responsive teaching and learning strategies that can be used to reflect upon personal practice and mobilize the inclusiveness and equity that is implicit in science. This results in an effective approach to reflexive teaching, which is suitable for all science educators, as evidenced by practical learning activities that will be demonstrated. Further, university and college professors can use the inclusive approaches shared while working in their community alongside elementary, middle, and high school teachers to more effectively promote science to a wider audience of learners.

**Biography.** Thelma Akyea is a Math, Science, Design, and Technology teacher at Carleton Village Public School in the Toronto, Canada. She has a Master in Education with a specific focus on Urban Education. Her research interests include developing and implementing inclusive ways to address the science and technology curriculum. Thelma uses innovative teaching and learning strategies, which value indigenous ways of knowing, to engage inner-city youth in science with remarkable results.

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**PACIFIC CRYSTAL CENTRE FOR SCIENCE, MATHEMATICS, AND TECHNOLOGY LITERACY: LESSONS LEARNED**

*Edited by: Larry D. Yore, Eileen Van der Flier-Keller, David W. Blades, Timothy W. Pelton -- all of University of Victoria, British Columbia, Canada; and David B. Zandvliet, Simon Fraser University, Burnaby, British Columbia, Canada. Published by Sense Publishers.*

Pacific CRYSTAL is intended to promote scientific, mathematical, and technological literacy for responsible citizenship through research partnerships with university and educational communities. Pacific CRYSTAL's functional structure consisted of 3 research and development nodes connected to a leadership and administrative node, which was charged with facilitating the activities of 19 projects and 42 principal investigators, partners, and research associates. This book provides descriptions of the target goals, research and development projects, and lessons learned. [Click here for a full description and free preview](#).

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**Indigenous Weather Knowledge**

*In the previous issue I noted the existence of the Indigenous Weather Knowledge website, [http://www.bom.gov.au/iwk/](http://www.bom.gov.au/iwk/), operated by the Australian Bureau of Meteorology. I asked if anybody knew of similar weather knowledge from other places, both in Australia and elsewhere. Here is a response.*

Here are some links to other Indigenous calendars that have been integrated as part of interactive learning modules focusing on land management issues in northern Australia.


I'm not sure if you have seen the interesting Ngan'gi Seasons Calendar that was a collaborative effort between women from Nauiyu Nambiyu (on the Daly River) and TRaCK researcher Emma Woodward ([Emma.Woodward@csiro.au](mailto:Emma.Woodward@csiro.au))

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Julie Crough
Journal for Activism in Science and Technology Education (JASTE)
We are happy to announce release of our latest issue of the Journal for Activism in Science and Technology Education (JASTE). It focuses on Climate Change issues and actions and features an editorial and eight articles.

This Special Issue is located at:  http://www.wepaste.org/jaste3.1.html

JASTE is part of the Project for Activism in Science and Technology Education. It is a place for educators, scientists, engineers, media personnel, etc. to encourage discussion and debate regarding socioscientific issues. Our forum for discussion about items in this or other issues of JASTE is at: http://www.wepaste.org/paste.html Registration is free and we hope you find the time and inclination to engage any of the authors in discussion!

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CONFERENCES

AUSTRALIAN TROPICAL HERBARIUM and the WET TROPICS MANAGEMENT AUTHORITY – PLANT IDENTIFICATION SHORT COURSES
If you've ever taken a walk through our complex and biodiverse rainforests, and wondered about the names of the plants surrounding you, then this series of short course are for you.

The Australian Tropical Herbarium and the Wet Tropics Management Authority are conducting a series of "Rainforest Plant Identification Workshops" over the next few months, and we'd like to invite interested persons to participate.

The introductory to mid-level courses provide an introduction to the skills and resources you need for rainforest plant identification, covering both weeds and native rainforest species.

Our short courses are to be held in Cairns on the following dates:

21-23 June - Introductory Module
11-13 July - Introductory Module
14 July - Advanced Module
22-23 November - Weeds Module

For more information about prices and how to register, please visit the Australian Tropical Herbarium website or email us on enquiry@ath.org.au. We can also organise special courses for interested groups.

Western Conference on Science Education
London, ON, Canada
6-8 July 2011
http://www.thewesternconference.ca/

We hope you will join us in London for the first Western Conference on Science Education. This event will offer a rare opportunity to join a national community of colleagues, from across the disciplines of Science, to share experiences, innovations, developing ideas, works in progress, and research related to teaching and learning in higher education. The Conference will be sparked by the ideas of five of Canada’s preeminent science educators and fuelled by the scholarly work of teaching and research faculty, librarians and other science education professionals from universities and colleges across Canada.
The 27th Annual Pacific Educational Conference (PEC) 2011 will be held in Pohnpei, Federated States of Micronesia, July 19–21, 2011. PEC 2011 will be cohosted by the Pohnpei Department of Education (Pohnpei DOE), the College of Micronesia-FSM (COM-FSM), and Pacific Resources for Education and Learning (PREL). The PEC is one of the largest educational conferences in the western Pacific and a major source of professional development opportunities for educators. The PEC is organized by Pacific educators for Pacific educators, who also present the majority of the workshops.

Please submit your workshop and/or meeting proposals and contribute to an outstanding conference. To do so, visit PREL’s PEC Registration webpage, to register for the conference and submit your workshop, meeting proposal, and/or exhibit. The deadline for submissions is April 28, 2011. We look forward to seeing you there! To see the complete Call for Proposals click here.

**ACER Research Conference 2011 - Indigenous Education: Pathways to success**
7-9 August 2011
Darwin Convention Centre, Darwin

Research Conference 2011 will focus on what we can learn from research about creating and sustaining positive educational outcomes for Indigenous students. Presenters will highlight the conditions, contexts, curriculum, pedagogy and practices that establish pathways to success for Indigenous students.

**European Society for Astronomy in Culture (SEAC)**
Stars and stones: Voyages in Archaeoastronomy and Cultural Astronomy
19-24 September 2011
Evora, Portugal

**American Educational Research Association (AERA) annual meeting**
13-17 April 2012
Vancouver, BC, Canada
[http://www.aera.net/](http://www.aera.net/)

“The mission of AERA is “to advance knowledge about education, to encourage scholarly inquiry related to education, and to promote the use of research to improve education and serve the public good.” Our mission is sound.

“We have been vigilant in executing the first half of our mission: We hold each other to high standards, we review critically each other’s scholarship, and we invest significant time and energy in an effort to publish only the best education research. We have been less vigilant and less effective, however, in promoting “the use of research to improve education and serve the public good.” In an effort to pursue more fully our mission—and to emphasize the use of education research—the 2012 Annual Meeting in Vancouver, British
Columbia, Canada, will include a host of innovative sessions and special events designed to engage AERA members and other participants in intense dialogue on the theme *Non Satis Scire: To Know Is Not Enough.*

Submissions for the AERA annual meeting open on 1 June 2011 and close on 22 July 2011.

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**CALENDAR OF EVENTS**

This is mostly a summary of upcoming conferences. More details may have been given in this or previous bulletins as shown. A web-based contact is usually included. Inclusion of conferences in this list is not to be read as an endorsement of the conference.

**2011**

**June 2011**
19-21 June: Research Based Undergraduate Science Teaching: Investigating Reform in Classrooms, Bryant Conference Center, University of Alabama Campus, Tuscaloosa, AL (http://nseus.org) (Feb11)


**July 2011**


**August 2011**


**September 2011**

19-23 September: 1st World Conference on New Trends in Science Education (WCNTSE), Kusadasi-Turkey (http://www.wcntse.org/) (Feb11)


**November 2011**
December 2011
7-10 December: 2nd INTERNATIONAL CONFERENCE ON POPULAR CULTURE AND EDUCATION, Centre for Popular Culture and Education, Hong Kong Institute of Education, Conference website: http://home.ied.edu.hk/~hkpop/conference2011.html (Feb11)

2012

February 2012

March 2012
24-28 March: National Association for Research in Science Teaching (NARST) annual conference, Indianapolis IN, USA (http://narst.org/)

April 2012
13-17 April: American Educational Research Association (AERA) annual meeting, Vancouver, BC, Canada (http://www.aera.net/)

I hope to meet up with some other members of the network at the upcoming ASERA conference in Adelaide at the end of this month and at the CONASTA conference in Darwin in July. MM.