Online Larrakia seasonal calendar launched
Gulumoerrgin (Larrakia) people know it’s time to start collecting Magpie Goose eggs when the local Speargrass starts flowering. As the Speargrass turns brown the eggs hatch, marking the end of Mayilema - the goose egg season.

Gerry's crossing the cultural and scientific divide
Australia's only Indigenous ethnobotanist says he's comfortable working in the crossover between the world of conventional science and traditional ecological knowledge.


INDIGENOUS ASTRONOMY

Ancient Skies
Presented by Workers' Educational Association of South Australia Inc.
Saturday 7 December 2013 - 7:30-9:30pm
Adelaide Planetarium,
Mawson Lakes Campus,
University of South Australia

Paul Curnow
Adelaide Planetarium
University of South Australia

Abstract: Do all cultures see the night sky the same way? Do Native Americans interpret the constellation of Orion the same as the Ancient Egyptians once did? How does the Australian Aboriginal view of the night sky differ from how it was seen in early Japan? Come and learn about the night sky as seen by the various cultures of our world under the dome at the Adelaide Planetarium. Learn how to identify some of the prominent constellations and hear about the stories behind the stars and the early beliefs attached to them.
Paul Curnow (B.ED) is a council member of the Astronomical Society of South Australia and a former council member of the Field Geology Club of South Australia. He has been a lecturer at the Adelaide Planetarium since 1992 and was the recipient of the ASSA editor’s award for 2000, and then again in 2010. In 2002, he served as a southern sky specialist for visiting U.S. and British astronomers who were in Australia for the total solar eclipse. He is regarded as one of the world’s leading authorities on Australian Aboriginal night sky knowledge; and in 2004, he worked in conjunction with the Lake Erie Nature and Science Center Planetarium in Ohio, on the creation of a show that features Indigenous Australian stories of the night sky. In addition, Paul runs a number of popular courses for the general public that focus on the constellations, planetary astronomy, historical astronomy and ethnoastronomy, which primarily deals with how the night sky is seen by non-western cultures. He appeared as the keynote speaker at the inaugural 2010 Lake Tyrrell Star Party in Sea Lake, Victoria and recently returned from New Zealand after being a special guest speaker at the Carter Observatory in Wellington. Since 2012 Paul has taken the role of lecturer for the Astronomy & Universe course (EDUC1036) for the School of Education at the University of South Australia. Paul appears regularly in the media and has authored over 40 articles on astronomy.

Seats $35.00 - to make a booking: contact the WEA at 223 Angas Street, Adelaide, South Australia 5000 Phone: (08) 8223 1272 Fax: (08) 8232 3690 or visit their website at: http://www.wea-sa.com.au/ http://www.wea-sa.com.au/search_results.php

AUSTRALIAN SOCIETY FOR INDIGENOUS ASTRONOMY
The inaugural meeting of the Australian Society for Indigenous Astronomy took place on 3 October at the University of New South Wales, in conjunction with the 2013 Australian Space Sciences Conference. The event was a success, with most of the researchers, educators, and elders involves in Indigenous astronomy in attendance (with apologies from Paul Curnow, Philip Clarke, and Steven Tingay). The society is open to active (published) researchers, educators, and Indigenous elders that contribute to the field of Australian Indigenous (Cultural) Astronomy. The society was founded and Chaired by Dr Duane Hamacher (UNSW) and co-Chaired by John Goldsmith (Curtin).

Scholarship and Publications
Papers presented at the ASSC session on Indigenous Sky Knowledge (see previous bulletin), along with a couple of other submissions, will be refereed and published in the second issue of the Journal of Astronomical History and Heritage in 2014. The issue will be dedicated to Indigenous Astronomy and will be edited by Duane Hamacher.

Bob Fuller, Ray Norris, and Michelle Trudgett submitted a research paper entitled “The Astronomy of the Kamilaroi People and their Neighbours” to the journal Australian Aboriginal Studies. This research is part of Bob’s MPhil thesis at Macquarie University.

Dr Ragbir Bhathal is researching and writing a paper on certain aspects of the interpretations of the night sky by Aboriginal and Torres Strait Islander people and how their world-view has clashed with Australia’s dominant culture. These clashes have had, and continue to have, several ramifications for Australian culture and society.

Grant Success
The Nura Gili Indigenous Centre at the University of New South Wales congratulates Dr Duane Hamacher on the success of his Discovery Early Career Researcher Award – a highly competitive research grant awarded by the Australian Research Council. The grant, worth $352,000, will explore the astronomical knowledge and traditions of Torres Strait Islanders.
Nura Gili also recently applied for an ARC Linkage Grant with Microsoft Research and the State Library of New South Wales for the “Aboriginal Sky Stories Project”, headed by Professor Martin Nakata, Director of Nura Gili. This project will develop an online source for Indigenous communities to upload and share their sky stories with the world. These stories will be incorporated into the WorldWide Telescope and available to a global audience.

The Lachlan Catchment Management Authority awarded Duane Hamacher a small grant of $12,000 to provide a report and brief literature review on Wiradjuri astronomy. Trevor Leaman, who will begin a PhD at Nura Gili in February, completed the literature review and Duane is meeting with Wiradjuri elders this week to present the report and discuss a long-term collaboration. A published paper on Wiradjuri astronomy will follow in 2014.

**Outreach & Education**

In October, Ragbir Bhathal and Duane Hamacher presented short talks on Indigenous astronomy at the Bundanoon Niteworks event on the Shoalhaven River outside of Nowra to a group of over 1000 people. Duane gave an interview with SBS Latvian radio at the event ([Aboriginal Astronomy, What are their constellations?](#))

Duane Hamacher led a group of amateur astronomers with the Northern Sydney Astronomical Society to rock art sites in Kuringai Chase National Park. We were disappointed to see a lot of damage to the sites by tourists and school groups. We decided to no longer take groups to these sites to help alleviate traffic and the damaging results of tourists,

Duane Hamacher gave a lecture on Indigenous Astronomy to a group of visiting high school students at UNSW in October. He also gave a guest lecture at Macquarie University to students in a 1st year Science Communication unit.

In November, Ray Norris gave a lecture on Indigenous Astronomy for the “Corroboree Sydney” at Australian Museum along with Dharawal elder Les Bursill, who spoke about rock art in the Royal National Park south of Sydney.

Ragbir Bhathal and Dr Less Vozzo (University of Western Sydney) are working on preparing teaching notes on Aboriginal Astronomy for teachers to be used in rural schools in NSW. They are being assisted by Aboriginal students who wish to take up careers in teaching. Ragbir conducted workshops on engineering physics and Aboriginal astronomy for talented Aboriginal students from the Sydney metropolitan area. The aim of the workshops is to encourage the students to consider taking up careers in engineering. There is at present a dearth of Aboriginal engineers in Australia. Ragbir also gave a workshop on Aboriginal Astronomy to Aboriginal students who are intending to become teachers in rural Australia. The students were involved in hands-on activities that they will be able to use in their teaching activities.

**In The Media**

ABC Science published an article about Duane Hamacher’s research into Aboriginal views of aurorae ([Southern ‘fire’ an omen in Aboriginal cultures](#)).

Dr Alice Gorman of Flinders University wrote a fantastic article on the Aboriginal music included on the disc that is now in deep space on the Voyager mission ([Beyond the morning star: the real tale of Voyagers’ Aboriginal music](#)).

In December 2012, Professor Steven Tingay gave a talk at TEDx Perth about his work with the new generation radio telescope and his collaboration with Aboriginal communities at the telescope site in Western Australia. The talk was entitled [Science, Art, and Reconciliation](#).
In August 2013, Dr Duane Hamacher gave a talk at TEDx NorthernSydneyInstitute on Indigenous Astronomy and Nura Gili’s work with the WorldWide Telescope. His talk was entitled *Look Up! There’s an Emu in the Sky*.

A video called *Stories Under Tagai* was prepared by John Whop and Torres Strait Islander communities about their efforts to revitalize Islander astronomy.

A documentary video discussing the Society for Maori Astronomical Research and Traditions (SMART group’s) work on Maori astronomy appeared in October on *Maori Television.*
RESOURCES

International Journal of Multicultural Education (IJME)
International Journal of Multicultural Education (IJME) is pleased to announce the publication of its latest issue (Vol. 15, No. 2) at http://www.ijme-journal.org/index.php/ijme.

IJME is a peer-review open-access e-journal sponsored by Eastern University and endorsed by Directory of Open Access Journals. Currently it reaches readers of over 150 countries in the world. Thanks to the institutional sponsorship of Eastern University, we are again able to open the access to this volume for you.


Articles (Peer-reviewed)
Nishantha Rohan Nethsinghe. The Notion of Authenticity in Multicultural Music: Approaching Proximal Simulation


Sophia Harryba, Shirlee-ann Knight. University Staff Members Experiencing International Student Burnout: The Impact of a Mainstreamed Model of Service Provision

Vincent M. Mugisha. Culturally Responsive Instructional Leadership: A Conceptual Exploration with Principals of Three New Zealand Mainstream Schools


Patrick Roz Camangian. Reading in their Own Interests: Teaching Five Levels of Analysis

Indigenous Education Resource Update
International Journal of Environmental & Science Education

New issue of the International Journal of Environmental & Science Education is available at: http://ijese.com/currentissue.htm

For a warmer future, Australia employs Aboriginal wisdom

Faced with its worst drought in history, meteorologists are plumbing the Aborigines' 40,000 years of lore.


Recent papers and books


Abstract This work brings together theorists that inform a cultural ecological analysis of the environmental crisis by exploring the ways in which language informs ways of knowing and being as they outline how metaphor plays a major role in human relationships with natural and reconstructed environments. It's an essential collection for researchers, graduate and undergraduate students in faculties of education, multicultural education, women's studies and more.

... see free preview and full description.


Abstract This paper draws from a study that explored issues of student equity, marginality and diversity in two secondary schools in regional Queensland (Australia). The paper foregrounds interview data gathered from administration, teaching and ancillary staff at one of the schools, ‘Crimson’ High School. The school has a high Indigenous student population and is well recognised within the broader community as catering well to this population. With reference to the school’s concerns about Indigenous disadvantage and the various approaches undertaken to address this disadvantage, the paper articulates the significance of educators being critically aware of how they construct race and use it as an organising principle in their work. This awareness is central to moving beyond the culturalism and racial incommensurability that tend to predominate within Indigenous education—where cultural reductionism homogenises indigeneity within and against a dominant White norm. With reference to a specific approach at the school designed predominantly for Indigenous male students—to foster inter-cultural awareness and respect through sport—we highlight ways in which notions of culturalism and racial incommensurability might be disrupted.


Abstract This article reports on a large mixed methods research project that investigated the conditions of success for Aboriginal school students. The article presents the qualitative case study component of the research. It details the work of four schools identified as successful for Aboriginal students with respect to social and academic outcomes, and showed what was common and contextually different in their relationships with community and their approaches to curriculum and pedagogy. The article shows there were eight common themes that emerged in the analysis of the schools’ approaches, and these themes are considered key indicators of the ‘seeding success’.

Abstract Increasingly, Indigenous people are re-conceptualising Western educational programs and services that were historically delivered by non-Indigenous governments. Community-based programs and culturally relevant curriculum, as well as models for learning that reflect Indigenous priorities, are products of these initiatives. In exploring ways to respectfully include Indigenous knowledges and pedagogies within learning programs, the challenge is to ensure strategies used will meaningfully support learning while reflecting local cultural traditions, languages, beliefs, and perspectives. Two initiatives set out to answer the question “What are the necessary components in science programming in Indigenous settings?” One initiative developed a life-long learning model for science and math programming in Indigenous settings by using appropriate research literature and then facilitating a discussion with Indigenous educators to further refine it. A second initiative implemented a Grade 4 land-based program that incorporated Indigenous knowledge. In this chapter the model for life-long learning in science and math in Indigenous populations is applied to the Bridging the Gap (BTG) program to examine the components present or absent in the later program. Evaluating BTG within the context of Ininiwi-kiskānītamowin generates an enlightening illustration of the nature of the model as a process of life-long learning.

POSITIONS VACANT

1. The Department of Teaching, Learning and Sociocultural Studies, College of Education, University of Arizona Announces a Tenure-Track Assistant/Associate Professor Position in Indigenous Education

The internationally recognized Language, Reading and Culture (LRC) program in the department of Teaching, Learning and Sociocultural Studies (TLS) at the University of Arizona (UA) announces an Assistant/Associate professor position in Indigenous Education effective August 2014. The UA not only lies in a dynamic transnational border region, but in close proximity to rich Native American cultures, including 22 federally recognized tribes in the state of Arizona. Native American students on the UA campus represent over 75 Native American tribes with the majority coming from Arizona tribes and reservations. As a land grant institution, the UA has an important responsibility to Native American students and Nations. With the current open position, the College of Education at the UA seeks to further strengthen our undergraduate and graduate programs with the integration of Indigenous knowledge systems, epistemologies, and decolonizing research methodologies.

This position offers an opportunity to join a department comprised of two outstanding programs: Language Reading and Culture (LRC) and Teaching and Teacher Education (TTE). TLS faculty engage in interdisciplinary research and teaching, and demonstrate a deep commitment to social justice. TLS provides a collaborative work environment for faculty research and grant development and encourages cross-program and cross-departmental research initiatives, along with opportunities of collaboration across the college and the university. Existing faculty research and teaching interests in the area of Indigenous education include Indigenous youth language learning and practice; maintenance and revitalization of Indigenous language and culture; transnational Indigenous teacher education efforts; and Indigenous knowledge systems, including Traditional Ecological Knowledge (TEK) systems. Additional faculty areas of expertise and interest across the department include multicultural, multilingual and multiliteracy education; anthropology and education; immigrant education; applied linguistics; language policy and planning; literacy processes and pedagogy; early childhood education; world children’s and adolescent literature; STEM education; technology and literacy; teacher education; and environmental learning and sustainability education.

LRC attracts diverse and highly qualified students, including Native American students and Indigenous students from Latin America, to our master's and doctoral programs. LRC is also engaged in transnational inter-university collaborations in Indigenous education, providing opportunities for faculty and students through courses, conferences, etc. with a global network of Indigenous scholars and students across Arizona and in Hawaii, Alaska, New Zealand, Canada, and Mexico. Faculty across the department are additionally
working on incorporating Native American education-related offerings into our department’s early childhood, elementary and secondary teacher preparation programs and our undergraduate education non-teaching degree programs. Thus, LRC is committed to creating and supporting a community of Indigenous scholars engaged in critical exploration and redefinition of how research in Indigenous education gets done and how it is engaged in community, university, and other academic disciplines.

Our location in the southwestern United States and our long history of involvement with the education of Native American and minority youth throughout the state and in the border region offer many opportunities to conduct field-based research with diverse urban and rural populations. The position will provide opportunities to work with the UA’s distinguished American Indian Language Development Institute (AILDI), widely-recognized for its influential efforts in Indigenous language teaching, language revitalization and documentation. Teaching, research and outreach activities are also possible with SEED (Scholarships for Education and Economic Development), a vibrant, international Indigenous education exchange program that annually brings diverse Indigenous teachers and curriculum developers from Mexico for a year-long program in collaboration with institutions in Mexico. The College of Education offers additional opportunities for collaboration with Project SOAR, a service-learning experience that connects Native American undergraduate mentors with Native American middle school students in the Tucson area. The University of Arizona further provides opportunities for collaboration with renowned Native American faculty and programs in Linguistics, Indigenous Law and Policy, and American Indian Studies.

**Qualifications:**
Earned doctorate in education or in a closely related field. Strong commitment to and experience in Indigenous and equity education, and a clear research and teaching agenda in Native American and Indigenous education, including one or more of areas such as the following:

- Indigenous language maintenance, revitalization, planning and policy
- Indigenous teacher preparation
- Indigenous children’s/young adult literature
- Indigenous education and new technologies
- Indigenous knowledge systems including Traditional Ecological Knowledge, STEM education, and place-based education

**Responsibilities:**
- Faculty load includes teaching, research and service
- Develop a strong program of research, publication, and grant support
- Teach graduate and undergraduate courses in areas of specialization
- Advise masters and doctoral students, and participate on graduate student committees

Indigenous scholars are strongly encouraged to apply. Applicants with proficiency in one or more Indigenous languages and/or experience working with Indigenous populations in schools and/or communities are especially encouraged to apply.

**Compensation:**
Competitive salary plus opportunities for summer teaching and research support.

**Application Process:** Please complete the electronic application form (Job 53712) and attach a letter of interest, a statement of research and teaching interests, your curriculum vitae, three representative publications/papers, and names and contact information for three professional references on-line at: [http://www.hr.arizona.edu](http://www.hr.arizona.edu)

Applications are now being accepted and will be reviewed starting on November 15, 2013. Review will continue until the position is filled.
For further information please call (520) 621-2928, or contact:

Dr. Leisy Wyman (lwyman@email.arizona.edu) Committee Chair
Department of Teaching, Learning and Sociocultural Studies
P. O. Box 210069
College of Education, University of Arizona
Tucson, AZ 85721-0069

The University of Arizona is an EEO/AA Employer. Women and minorities are strongly urged to apply.

2. University of New Hampshire (UNH), Informal Science Education Postdoctoral Research Associate for 2014/2015
The SPIRALS program, Supporting and Promoting Rural and Indigenous Adolescents’ Learning of Science, at the University of New Hampshire (UNH) and funded by a National Science Foundation Informal Science Education (ISE) Award invites applications for a postdoctoral research associate in Informal Science Education and Adolescent Research. The position may be renewable for up to 2 years and may begin as early as May 2014.

SPIRALS is focused on the impacts of contextualization on science learning, motivation and attitudes toward science. The project uses a systematic approach that incorporates mixed methods of data collection and analysis to examine how culture and community impact STEM learning. The project team has a community-based participatory research orientation; therefore, local community group members provide expertise that contributes to the design of the curriculum and the research as well as the interpretation of the findings. The project will contribute to what we know about how underserved and underrepresented youth engage in STEM learning in relation to their world views.

The postdoctoral research associate will be instrumental in creating and implementing a curriculum with a diverse group of community members to support community-based youth groups in New England explore a local sustainable practice. In addition, the researcher will be responsible for implementing the project research plan.

Required and Preferred Qualifications
Required qualifications are:
- a Ph.D. in science education or educational psychology;
- a strong expertise in quantitative methodologies including multilevel modeling;
- the abilities to prioritize tasks, to engage in long- and short-term planning,
- and to handle a variety of demands simultaneously are critical.

The following attributes, experiences and knowledge are preferred:
- working directly with culturally diverse populations at many levels;
- formal or informal teaching experience;
- experience with databases, quantitative and qualitative analysis skills;
- an understanding of adolescent development;
- and knowledge of sustainability and systems thinking.

Candidates should be willing and able to work a flexible schedule, including occasional travel, weekends, and extend hours during periods of intense activity. We seek self-motivated, creative individuals who have excellent interpersonal, written and public speaking skills, and who can work both independently and as part of a team effort.

Salary and Appointment
This Postdoctoral Research Associate position is full-timed, salaried, and benefited position at the University of New Hampshire. The position is annually renewable, depending on performance and
anticipated continuing grant funding. Salary is competitive and commensurate with professional experience and qualifications of the candidate. The University of New Hampshire offers a competitive benefits package.

**Application Procedure**
To apply for the SPIRALS Postdoctoral Research Associate position, please submit the following to the Lisa Wilder via email: lisa.wilder@unh.edu:

1. a letter of interest in the position, including your career goals (no more than two pages),
2. a current curriculum vitae,
3. statement of teaching and research philosophy (no more than 2 pages), and
4. the names of three professional references, including current position, relationship to the applicant, and phone and email contact information.

**Application Review Timeline**
Review of applications will begin on January 15th, 2014 and will continue until the position is filled.

**Questions?**
Questions about the position should be directed to the SPIRALS Principal Investigators:
Dr. Eleanor Abrams, Professor, Department of Education, Morrill Hall, University of New Hampshire, Durham, NH; email: eleanor.abrams@unh.edu
Dr. Michael Middleton, Associate Professor, Department of Education, Morrill Hall, University of New Hampshire, Durham, NH; email: michael.middleton@unh.edu

Please reference the NSF SPIRALS program in all communications.
The University of New Hampshire is an Equal Opportunity/Equal Access/Affirmative Action institution. The university seeks excellence through diversity among its administrators, faculty, staff, and students. The university prohibits discrimination on the basis of race, color, religion, sex, age, national origin, sexual orientation, gender identity or expression, disability, veteran status, or marital status. Application by members of all underrepresented groups is encouraged.

---

**CONFERENCES**

**Excellence in Professional Practice Conference**
Melbourne, Vic
16-17 May 2014

The Australian Council for Educational Research (ACER) has issued a call for papers by school teachers and leaders to be presented at the Excellence in Professional Practice Conference in Melbourne from 16 to 17 May 2014.

The Excellence in Professional Practice Conference is presented by practitioners, for practitioners. The conference theme is Teachers driving school improvement, as ACER recognises that, every day, teachers and school leaders are responsible for improving learning among students. As such we would love to hear from you and your members.

We encourage all teachers to contribute by submitting papers in their area of expertise in alignment with the nine domains of the National School Improvement Tool (NSIT) which will be used as an organisational framework for the conference.

As a recognised representative organisation for Australian educators, it would be greatly appreciated if you could forward this information on to your members, or feature this conference in your regular publications (such as newsletters, websites or electronic message boards) to encourage a wide range of educators and educational professionals to present at the conference.
International Conference on Education in Mathematics, Science and Technology (ICEMST)  
16-18 May 2014  
Konya, TURKEY  
http://www.icemst.com

We would like to invite you to the International Conference on Education in Mathematics, Science and Technology which will take place on May 16 - 18, 2014, at Necmettin Erbakan University in Konya, Turkey. The conference will be organized in partnership with the International Journal of Education in Mathematics, Science, and Technology (IJEMST).

The aim of the conference is to bring together scholars, students, and administrators from different countries, and to discuss theoretical and practical issues in the fields of information and communication technologies in education, science education and mathematics education.

Your prospective, valuable contributions on this field will be evaluated by the Scientific Committee and the ones approved to be presented will also be published in the Proceedings.

We will be pleased to generate an atmosphere where you can share your expertise, experience, and resources with your colleagues.

STEM Education and Our Planet: Making Connections across Contexts  
12-15 July 2014  
UBC Vancouver

The International Conference of STEM in Education is an opportunity for educators and researchers from schools, universities, colleges, businesses, industries and other private and public agencies to share and discuss their innovative practices and research initiatives that may advance STEM education.  
http://stem2014.ubc.ca/

---

**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.

**2013**

*December 2013*

2014

March 2014
30 March – 2 April: NARST 2014 Annual International Conference, Pittsburgh, PA, USA (https://www.narst.org/annualconference/futureconf.cfm)

May 2014


July 2014


12-15 July STEM Education and Our Planet: Making Connections Across Contexts, UBC Vancouver, Canada (http://stem2014.ubc.ca/)

28-30 July: Indigenous Men & Women Conference, Pullman Cairns International Hotel, Cairns QLD (www.indigenoushealth.net) (Oct13)

August 2014

Future Australasian Science Education Research Association (ASERA) conferences
2015 – Perth (host: University of Western Australia)
2016 – Canberra (host: University of Canberra)

Future National Association for Research in Science Teaching (NARST) conferences
11-14 April 2015 – Chicago IL