

INTERNATIONAL GEOSCIENCE EDUCATION ORGANISATION (IGEO) NEWSLETTER
1/12

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**34TH INTERNATIONAL GEOLOGICAL CONGRESS (IGC) 5TH – 10TH AUGUST 2012
BRISBANE AUSTRALIA**

34th International Geological Congress (IGC) – please note call for Abstracts closes 17th February – please consider submitting a paper in one of the Theme symposia listed below. Click on the links for more information about the symposia.

[Theme 1. Geoscience for Society](#)

Symposia 1.1 Geoheritage, geoparks and geotourism
Symposia 1.2 Geoscience Education
Symposia 1.3 Geoscience outreach

[Theme 2. Geoscience Benefiting Low Income countries](#)

Symposia 2.3 Developing Geoscience education and awareness for the benefit of society
Symposia 2.6 Role of women geoscientists in resource development

Submission of abstracts must occur online at:

<http://www.34igc.org/>

IMPORTANT DATES TO NOTE

17 February 2012	Submitted Abstract closes
30 March 2012	Formal notification to authors of the success or otherwise of their abstract/s
30 April 2012	Presenters of abstracts (oral and poster) accepted for the 34th IGC must pay for their registration for the Congress by this date or be automatically deleted from the Congress Program

Australia, Brisbane, 2012, <http://www.34igc.org/>

**THE EVOLUTION OF THE INTERNATIONAL GEOSCIENCE EDUCATION ORGANISATION
(IGEO)
Chris King - UK**

Many thanks to Chris King for providing this summary providing an update to members about how IGEO came about, and other activities associated with the Organisation. There is a link to this document on the IGEO website. Please forward any comments/ edits to Chris via the IGEO website.

The evolution of:

- **Geoscience Education (GeoSciEd), conferences**
- **the International Geoscience Education Organisation (IGEO)**
- **the International Earth Science Olympiads (IESO) and**
- **the International Union of Geological Sciences (IUGS) Commission on Geoscience Education and Technology Transfer (COGE)**

Summary

The sections below comprise:

- a timeline of GeoSciEd conferences, IGEO and IESO meetings and development
- a GeoSciEd conference section
- an International Geoscience Education Organisation (IGEO) section
- an International Earth Science Olympiad (IESO) section
- an International Union of Geological Sciences (IUGS) Commission on Geoscience Education and Technology Transfer (COGE) section

Timeline

1990	<ul style="list-style-type: none"> • International Union of Geological Sciences (IUGS) Commission on Geoscience Education and Training (COGEOED)
1993	<ul style="list-style-type: none"> • International Conference on Geoscience Education and Training, Southampton, UK
1994	
1995	
1996	<ul style="list-style-type: none"> • Publication of GEOSCIENCE EDUCATION & TRAINING, Stow & McCall (eds) proceedings of the First Conference, Balkema Publ., 855pp.
1997	<ul style="list-style-type: none"> • GeoSciEd II, Hilo, Hawaii, USA • International geoscience education association development committee formed
1998	
1999	
2000	<ul style="list-style-type: none"> • GeoSciEd III, Sydney, Australia • International Geoscience Education Organisation (IGEO) formed; first General Meeting • First IGEO Council meeting
2001	
2002	
2003	<ul style="list-style-type: none"> • GeoSciEd IV, Calgary, Canada • Second IGEO General meeting • Second IGEO Council meeting
2004	<ul style="list-style-type: none"> • 32nd International Geological Congress (IGC), Florence, Italy, IGEO organisation of three themes (school, higher and outreach education) • Third IGEO Council meeting • Formation of the International Union of Geological Sciences (IUGS) Commission on Geoscience Education and Technology Transfer (COGE)
2005	
2006	<ul style="list-style-type: none"> • GeoSciEd V, Bayreuth, Germany • Third IGEO General meeting • Fourth IGEO Council meeting
2007	<ul style="list-style-type: none"> • 1st International Earth Science Olympiad, Daegu and Youngwol,, Korea.
2008	<ul style="list-style-type: none"> • 33rd International Geological Congress (IGC), Oslo, Norway, IGEO organisation of an education theme • Fifth IGEO Council meeting • 2nd International Earth Science Olympiad, Manila and Bicol, the Philippines
2009	<ul style="list-style-type: none"> • 3rd International Earth Science Olympiad, Taipei, Taiwan • IGEO supported the International Conference for Global Development (GeoDev), Dhaka, Bangladesh
2010	<ul style="list-style-type: none"> • GeoSciEd VI, Johannesburg, South Africa • Fourth IGEO General meeting • Sixth IGEO Council meeting • 4th International Earth Science Olympiad, Yogyakarta, Indonesia. • IGEO supported the Joint Assembly of Geoscience Organisations in the Americas, Iguassu Falls, Brazil.
2011	<ul style="list-style-type: none"> • 5th International Earth Science Olympiad, Modena, Italy
2012	<ul style="list-style-type: none"> • 34th International Geological Congress (IGC), Brisbane, Australia, IGEO organisation of three themes (school, higher and outreach education) planned

	<ul style="list-style-type: none"> • <i>Seventh IGEO Council meeting planned</i> • <i>6th International Earth Science Olympiad planned for Argentina in October</i>
2013	<ul style="list-style-type: none"> • <i>7th International Earth Science Olympiad planned for India</i>
2014	<ul style="list-style-type: none"> • <i>GeoSciEd VII, planned for Bangalore, India</i> • <i>Fifth IGEO General meeting planned</i> • <i>Eighth IGEO Council meeting planned</i> • <i>8th International Earth Science Olympiad planned for the USA</i>
2015	<ul style="list-style-type: none"> • <i>9th International Earth Science Olympiad planned for Russia</i>
2016	<ul style="list-style-type: none"> • <i>35th International Geological Congress (IGC), Cape Town, South Africa</i> • <i>Ninth IGEO Council meeting planned</i> • <i>10th International Earth Science Olympiad planned</i>

GeoSciEd Conferences

1990 – Formation of the International Union of Geological Sciences (IUGS) Commission on Geoscience Education and Training (COGEOED)

- Senior Officers:
 - Chair: Gerry Cooray
 - Secretary/Treasurer: Dorrik Stow
 - Newsletter Editor: John Carpenter

1993 - The first geoscience education conference:

International Conference on Geoscience Education and Training

- Dates: 20th – 24th April, 1993
- Venue: University of Southampton, UK
- Main sponsors: the Association of Geoscientists for International Development (AGID) and the International Union of Geological Sciences (IUGS) Commission on Geoscience Education and Training (COGEOED)
- Additional sponsors: ICSU, ASE (International), ESTA (UK), Geological Society, Geographical Association, BGS plus a wide range of financial sponsors
- Conference convenor: Dorrik Stow (UK); theme convenors:
 - Geoscience education in schools: Chris King (UK) and David Thompson (UK)
 - Higher Education: Bill Gaskarth (UK) and Brian Daley (UK)
 - Geoscience Training for Business, Industry and Public Service: Tony Reedman (UK)
 - Public understanding of geoscience: Ian Sutton (UK)
- Abstract volume: published by the Geology Department, University of Southampton, UK, 1993
- Proceedings volume: *Geoscience education and training*, ed. DAV. Stow and GJH. McCall, Balkema, Rotterdam, 1996.
- Notes:
 - David Thompson, Nir Orion and Chris King met in a small café to discuss the development of an international association.

1997 – GeoSciEd II

- Dates: 28th – 31st July, 1997
 - Venue: University of Hawaii at Hilo, Hawai'i, USA
 - Conference convenors: John Carpenter (USA), Vic Mayer (USA), Nir Orion (Israel), Frank Ireton (USA) Laure Wallace (USA)
 - Proceedings volume: *Conference proceedings: second international conference on Geoscience Education*, Ed. Fortner, W. and Mayer, M., Ohio State University, USA, 1998.
 - Support for production and distribution of Proceedings volume provided by:
 - National Science Foundation, Directorate for Education and Human Resources (US)
 - National Aeronautics and Space Administration, Mission to Planet Earth programme (US)
- Conference registrations

- The Ohio State University, School of Natural Resources and Office of Applied Communications
- The Alphyll Memorial Endowment Fund of the Ohio State University, a fund established in honour of Victor C. and Phyllis C. Mayer.
- Awards for lifetime service to geoscience education:
 - Yolanda Alba de Gonzales (Venezuela)
 - Victor J. Mayer (USA)
 - Emmanuel Mazor (Israel)
 - David Thompson (UK)
- Notes:
 - A group of geoscience educators met in a small restaurant (Uncle Billy's Hilo Hideaway) in a rainstorm to formalise a proposal for an international association, prompted by Nir Orion.
 - This proposal was put to the general assembly at the conference, and was enthusiastically endorsed.
 - This was the formal beginning of an international association for earth science education.
 - Nir Orion and Chris King agreed to lead a development committee that would, among other things, determine the name of the association
 - Later, having discussed different names, including the International Geoscience Education Association (IGIA), the name of the new association was eventually agreed as the International Geoscience Education Organisation (IGEO).

2000 – GeoSciEd III

- Dates: 16th – 21st January, 2000
- Venue: University of New South Wales, Sydney, Australia
- Major sponsor: Australian Geological Survey Organisation (AGSO)
- Conference convenors: Malcolm Buck (Australia), Ian Clark (Australia), Gary Lewis (Australia)
- Abstract and Proceedings volume: *3rd international conference on geoscience education: abstract volume*. Ed. Ian Clark, AGSO, Canberra, 2000.
- Award for lifetime service to geoscience education:
 - John Carpenter (USA)
- Notes:
 - The International Geoscience Education Organisation name was formally approved.
 - IGEO Chair elected: Chris King.
 - Later, the IGEO logo, website and constitution were developed.

2003 – GeoSciEd IV

- Dates: 10th – 14th August, 2003.
- Venue: University of Calgary, Alberta, Canada.
- Major sponsors: IGEO, EnCana Corporation, Canadian Society of Petroleum Geologists Educational Trust
- Conference convenors: Alan Morgan and Godfrey Nowlan
- Abstract and Proceedings volume: *Earth science for the global community: conference proceedings*. Ed. The GeoSciEd IV organising committee, Calgary, Canada, pp257, 2003.
- Awards for lifetime service to geoscience education:
 - Gerry Cooray
 - Ward Neale
- Notes:
 - IGEO Chair elected: Ian Clark (Australia).



GeoSciEd IV delegates at the Royal Tyrrell Museum of Paleontology, Drumheller, Alberta. *Photo: Alan Morgan*

- The IGEO contribution to the forthcoming 32nd International Geological Congress in Florence, Italy in 2004 was planned.

2006 – GeoSciEd V

- Dates: 18th – 21st September, 2006.
- Venue: University of Bayreuth, Germany.
- Major sponsors: IGEO
- Conference convenors: Sylke Hlawatsch (Germany), Gabriele Obermaier (Germany), Ulrike Martin (Germany)
- Abstract volume: *Geoscience education: understanding system Earth*. Volume 48, the German Society of Geosciences, Hannover, 2006.
- Proceedings volume: *Abstract volume of GeoSciEd V*, 96. Hannover: Schriftenreihe der Deutschen Gesellschaft für Geowissenschaften SDGG.
- Notes:
 - IGEO Chair elected: Chan-Jong Kim (Korea).
 - Plans were presented for the 1st Earth Science Olympiad, to be held at Seoul National University in Korea in October 2007.
 - Presentations were made to host GeoSciEd V by India and South Africa; South Africa was chosen.
 - Later the Senior Officers decided that IGEO should support:
 - the International Conference for Global Development (GeoDev) to be held in Dhaka, Bangladesh, on the 26th – 31st October, 2009 and
 - the Joint Assembly of Geoscience Organisations in the Americas, to be held at the Iguassu Falls, Brazil, on the 8th - 13th August, 2010.



GeoSciEd V delegates.
Photo: Alan Morgan

2010 – GeoSciEd VI

- Dates: 30th August – 3rd September, 2010.
- Venue: University of the Witwatersrand, Johannesburg, South Africa.
- Major sponsors: IGEO
- Conference convenor: Ian McKay
- Abstract volume: *Geoscience education/developing the world*. University of the Witwatersrand, Johannesburg, South Africa, 2010.
- Notes:
 - IGEO Chair elected: Sylke Hlawatsch (Germany).
 - The IGEO contribution to the forthcoming 34th International Geological Congress in Brisbane, Australia, in 2012 was planned.
 - A presentation was made by India to host GeoSciEd VI, which was approved.



GeoSciEd VI - IGEO Senior Officers
Photo: Alan Morgan

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International Geoscience Education Organisation (IGEO)

- 1997 The formation of an international geoscience education association proposed and endorsed
Chairs of the association development committee: Nir Orion and Chris King.
- 2000 International Geoscience Education Organisation (IGEO) formed (Sydney, January 2000).
First General Meeting.
- Senior Officers, 2000 - 2003:
- Chair: Chris King (UK).
 - Newsletter editors: Laure Wallace (USA) and Mary Dowse (USA)
- IGEO logo, constitution and website developed.
- 2003 Second IGEO General meeting (Calgary, August 2003)
Second IGEO Council meeting (Calgary, August 2003)
- Senior Officers, 2003 - 2006:
- Chair: Ian Clark (Australia)
 - Vice-Chair (retiring): Chris King (UK)
 - Vice-Chair (elect): Chan-Jong Kim (Korea)
 - Secretary/treasurer: Alan Morgan (Canada)
 - Newsletter editor: Bronte Nicholls (Australia)
- 2004 Third IGEO Council meeting (Florence, Italy, August 2004)
- 2006 Third IGEO General meeting (Bayreuth, Germany, September 2006)
Fourth IGEO Council meeting
- Senior Officers, 2006 - 2010:
- Chair: Chan-Jong Kim (Korea)
 - Vice-Chair (retiring): Ian Clark (Australia)
 - Vice-Chair (elect): Sylke Hlawatsch (Germany)
 - Secretary/treasurer: Alan Morgan (Canada)
 - Newsletter editor: Bronte Nicholls (Australia)
- 2008 Fifth IGEO Council meeting (Oslo, Norway, August 2008)
- 2010 Fourth IGEO General meeting (Johannesburg, South Africa, September 2010)
Sixth IGEO Council meeting (Johannesburg, South Africa, September 2010)
- Senior Officers, 2010 - 2014:
 - Chair: Sylke Hlawatsch (Germany)
 - Vice-Chair (retiring): Chan-Jong Kim (Korea)
 - Vice-Chair (elect): Shankar Rajasekharaiah (India)
 - Secretary: Roberto Greco (Italy)
 - Treasurer: Gabriele Obermaier (Germany)
 - Newsletter editor: Bronte Nicholls (Australia)
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International Earth Science Education Olympiads (IESOs)

1st Earth Science Education Olympiad

- Dates: 21st – 29th October, 2007
- Venue: Daegu and Youngwol, Korea.

- Convenor: Moo Young Song
- Number of participating countries: 8
- Chair of the IESO Advisory Committee: Chan-Jong Kim
- Chair of the IESO Coordinating Committee: Moo Young Song

2nd Earth Science Education Olympiad

- Dates: 31st August – 8th September, 2008
- Venue: Manila and Bicol, the Philippines.
- Convenor: Miguel Cano
- Number of participating countries: 7
- Chair of the IESO Advisory Committee: Chan-Jong Kim
- Chair of the IESO Coordinating Committee: Moo Young Song

3rd Earth Science Education Olympiad

- Dates: 14th – 22nd September, 2009
- Venue: National Taiwan Normal University, Taipei, Taiwan.
- Convenor: Chun-Yen Chang
- Number of participating countries: 18
- Chair of the IESO Advisory Committee: Chan-Jong Kim
- Chair of the IESO Coordinating Committee: Moo Young Song

4th Earth Science Education Olympiad

- Dates: 19th – 28th September, 2010.
- Venue: Gadjah Mada University, Yogyakarta, Indonesia.
- Convenor: Hendra Amijaya
- Number of participating countries: 20+
- Chair of the IESO Advisory Committee: Chan-Jong Kim
- Chair of the IESO Coordinating Committee: Moo Young Song

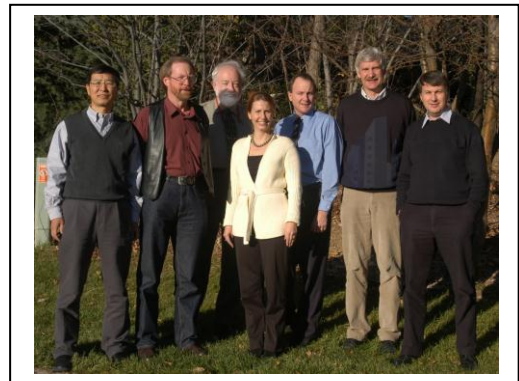
5th Earth Science Education Olympiad

- Dates: 5th – 14th September, 2011
- Venue: University of Modena and Reggio Emilia (Unimore), Modena, Italy
- Convenor: Roberto Greco
- Number of participating countries: 26 country teams, 34 countries represented
- Chair of the IESO Advisory Committee: Sylke Hlawatsch
- Chair of the IESO Coordinating Committee: Moo Young Song

The International Union of Geological Sciences (IUGS) Commission on Geoscience Education and Technology Transfer (COGE)

The Commission was formed in November, 2004 in Boulder, Colorado with the following membership:

- Gary Lewis - Commission chairperson (Geological Society of America - USA)
- Wesley Hill - Commission secretary and treasurer (Geological Society of America - USA)
- Chan-Jong Kim (Seoul National University - South Korea)
- Greg McNamara (Geological Society of Australia - Australia)



The first IUGS-COGE Commission
Photo: Alan Morgan

- Alan Morgan (Waterloo University - Canada)
- Chris King (Keele University - United Kingdom)
- Hans Albert Dahlheim (Germany)
- Ian Clarke (University of Adelaide - Australia)

The website was developed at: <http://www.geood.com.au/IUGSeducation/indexcomm.html> by Greg McNamara.

By 2010 the membership had altered, as follows:

- Jesús Martínez Frías - Chair (Spanish National Research Council, Spain)
- Jennifer Nocerino (Secretary/Treasurer – Geological Society of America)
- Chan-Jong Kim (Seoul National University - South Korea)
- Greg McNamara (Geological Society of Australia - Australia)
- Alan Morgan (Waterloo University - Canada)
- Chris King (Keele University - United Kingdom)
- Ian Clarke (University of Adelaide - Australia)
- Gary Lewis (Geological Society of America)
- R Shankar (Mangalore University - India)
- Miguel Cano (Bicol University - Philippines)
- Ashvin Wickramasooriya (South Eastern University of Sri Lanka)

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Note: These are the best recollections of some of those involved. Please email any corrections or updates to Chris King via the Webmaster, IGEO website.

CURRICULUM NEWS FROM INDIA

SURVIVAL COMPELS INTRODUCTION OF GEOLOGY IN INDIAN SCHOOL EDUCATION

If US historian Will Durant (1885-1981) was alive he would have been a happy man with the decision of the Government of India that disaster awareness should be an essential part of school education. He said as early as in the 19th century that *“Civilization exists by geological consent, subject to change without notice”*. Historically, school education in India imparted only scattered knowledge about the earth but never focused on the significance of earth processes and their impact on society. As a consequence of the Government of India-UNDP Disaster Risk Management Program (2004-2007) taken up by the National Disaster Management Division, Ministry of Home Affairs, the school syllabus has been re-designed. It aims to contribute to the socio-economic development goals of the National and State Governments, enable them to minimize losses to development gains and to reduce their vulnerability to natural disasters.

One of the major components of the project is development of appropriate school curriculum about earth processes. Specific chapters on Disasters have been incorporated in the syllabi for class VIII (survival tips), class IX (a set of disaster mitigation activities that help to reduce the impact of disasters and the importance of community as first the responder) and class X (important factors to be considered while constructing buildings that would be resistant to earthquakes, landslides, floods and cyclones in a chapter called “Safe Construction Practices”). Training programs are being organized by the Central Board of Secondary Education (CBSE), New Delhi to train teachers on the new topics introduced. Hopefully, this measure would create awareness among school children and educate them on the techniques available to mitigate the effects of natural hazards depending on the hazard identified, location, construction type and the specific performance requirements for a proposed building.

Other countries may consider the idea of taking similar steps to better educate children about natural and human-induced disasters and their mitigation.

R. BASKAR and R. SHANKAR, India

INTERNATIONAL UNION OF GEOLOGICAL SCIENCES (IUGS)

Please note that IGEO is officially affiliated with the IUGS and we thank them for their on-going support.

Keep up with what's on through their Electronic Bulletins available on:

<http://www.iugs.org/>

THE SIXTH INTERNATIONAL EARTH SCIENCE OLYMPIAD IESO 2012 – Argentina

IESO 2012 NEWSLETTER 2 15-December-2011

Dear IESO friends:

It is a great pleasure for me to contact you again regarding the forthcoming Olympiad in Argentina. These are the most relevant items for the moment:

Who can participate?

Teams from any country no matter they have or not a local National Olympiad. Countries without National Olympiads can send a representative team under the responsibility of a recognized educational organism or institution. This is so in order to give enough time, and encourage every country, to develop its own National Olympiad.

How can a new country participate?

By sending a *full team* (Two mentors and four students)

By sending a *reduced team*. (Two mentors and one to three students)

By sending *observers*. This option is highly recommended for those countries that have not enough time to prepare their team for IESO2012, but would like to participate in IESO2013.

Maximum number of observers per country is two.

Guests: Accompanying persons and guests of the participating teams are welcome and will be lodged with mentors and observers and will also participate in the meals, social and cultural activities together with the participants in IESO2012.

Extra participating students: Although a maximum of four students can represent each country, national delegations can incorporate extra students in order to train them for the forthcoming Olympiads. They participate in all the activities and tests (including the International Team Field Investigation), but their results do not count for the awards.

Schedule:

Just for information, and in order for you to start organizing your participation, I attach a preliminary program.

Registration Fees

The fees have been established as follows

<i>Full team:</i>	Before 15-July-2012	2.000 U\$\$	After that date 2.250 U\$\$
<i>Extra team members:</i>	Before 15-July-2012	1.500 U\$\$	After that date 1.800 U\$\$
<i>Observers:</i>	Before 15-July-2012	1.500 U\$\$	After that date 1.800 U\$\$
<i>Guests:</i>	Before 15-July-2012	1.750 U\$\$	After that date 2.000 U\$\$

Letters of invitation

Invitation letters will be sent to those of you who ask for them.

Special Contribution to help participation of developing countries

A special fund has been established in order to help developing countries participate in the Olympiad. If you or your institution/organization can donate with this objective please contact the Local Organizing Committee at ieso2012@gl.fcen.uba.ar for the details.

Administration of the Funds

As informed in the previous newsletter, the Natural Sciences Foundation, a non-profit organization working closely to our Faculty, has accepted to administrate the funds. This brings transparency to the handling of money and simplifies my duties. All payments including fees and donations will be received in their account. Please contact ieso2012@gl.fcen.uba.ar for the details of the account.

Exhibition of Geologic maps of participating countries

As suggested by many of you, it will be better to unify the size of the maps and not the scale. For the comparison of the sizes of the participating countries we decided to print a mural geological map of the whole world. The size of the National Geological maps will thus be uniform: 1.00m by 0,90m, representing the geology in terms of the age of the rocks, grouped as Precambrian, Paleozoic, Mesozoic and Cenozoic and using the international code of colors. Geographic names should be given in the local language. Cartographic projection should be identified and at least the coordinates (Lat and Long) of the four corners of the map should be included. North will be pointing up, as in standard geological maps.

Outstanding National Geological Features Poster contest

The size of the posters has been established as 0,90m (horizontal) by 1,00m (vertical) and the language will be English. Remember that the teams have to send it as a printable file and they will be printed and mounted in Argentina.

IESO2012 logo and website

The next NEWSLETTER, to be issued in January will (... almost surely) include the IESO2012 logo and the URL of the IESO2012 website.

I think this is all for this second NEWSLETTER. Please feel free to send me all your commentaries and suggestions and to distribute this information among all those you know are, or could be, interested in the Olympiad.

Best regards for all of you; Merry Christmas for those who celebrate it, and Happy New Year for everybody!

José Sellés-Martínez
Coordinator
Local Organizing Committee

IN MEMORIAM - VIC MAYER

Those of you who knew Vic Mayer will be saddened to hear, of his recent passing on Tuesday 26th July 2011, in Colorado. Some will remember the central role he played in supporting the International Geoscience Education Organisation through running, with Nir Orion and John Carpenter, the second GeoScience Education conference in Hawaii in 1997 (strongly supported by Rosanne Fortner). You can read about the Honorary Award given to Vic at that conference at: <http://www.geoscied.org/awards/mayer.htm>

Others will know the key part he played in working with others in the USA to develop a 'Framework for Earth Systems Education' that you can read at: <http://earthsys.ag.ohio-state.edu/framework.html> . To my knowledge, this was the first attempt to define the Earth

science education we would seek for all children, and so is a key marker in the development of Earth science education across the world.

Vic also edited two books on 'Global Science Literacy' - bringing together for the first time in book form, the thoughts of a range of geosciences educators across the world and did a great deal in the USA to support the development of Earth systems education. Vic has played a vital role in the development of geoscience education across the globe and, whilst it sad indeed to realise that he is no longer with us, it is good to be able to celebrate the legacy he has left us.

Chris King

If you have any articles, conference updates, courses or links of interest to other IGEO members, please email them to the Newsletter editor for inclusion in the next edition by **April 1, 2012**. Please contact me if your contact details have changed or if you wish to be removed from the membership list.

IGEO Newsletter editor:

Dr Bronte Nicholls: slab@internode.on.net

16/01/12