

National Science Week 2009

In 2009, there were four Science Week events, one in Perth, and three in Regional centres:

Hitchhiker's Guide to the Galaxy and beyond...

As part of the International Year of Astronomy 2009, and National Science Week 2009, on Monday, August 17th, some 180 Royal Society of Western Australia members and the general public were present at the Society's National Science Week Event sponsored by Horizon - the Planetarium to view the visually spectacular presentation "Hitchhiker's Guide to the Galaxy and beyond...", using a digital projection system which accurately displays stars, planets and other celestial bodies on its dome screen.

The evening was opened by RSWA President, Dr Lynne Milne, a welcome by Paul Nicholls (Scitech), and an short address by WA's Chief Scientist, and RSWA Vice-Patron Professor Lyn Beazley OA about Science in Western Australia, the International Year of Astronomy, the Square Kilometer Array, and the role of RSWA in promoting science. Carley Tillet, from Horizon – the Planetarium, the projectionist and designer of the specific journey for the RSWA event took charge of the control panel and commenced the presentation.



RSWA President Dr Lynne Milne opening the event | Prof. Lynne Beazley describing events taking place in 2009 for IYA | Carley Tillet, from Horizon – the Planetarium projectionist and navigatrix for the journey

With ongoing informative narration from Carley Tillet, the digital journey commenced from Earth, progressing to the Moon, where 40 years earlier, astronauts landed for the first time on its surface (in July 1969), then to Mars, through the Jovian Planets, to the Oort Cloud, and moving from there to show our Solar System in perspective against a field of stars and empty space. The journey continued outwards, with constellations used as markers, to the outside of the Milky Way Galaxy to view the Sun and its Solar System of planets as a faint star in the myriad of stars in the Milky Way Galaxy.

The journey then moved to the outer reaches of known space, looking back at our Milky Way Galaxy lost in Space sprinkled with billions to trillions of other galaxies.

The journey was periodically augmented by rotations of the star and galaxy fields to provide an (overwhelming) sense of place of where we fit in the Universe. The ending of the journey was a rapid return to Earth accelerating through the outer galaxies, our own Milky Way Galaxy, through the Oort Cloud, through the outer planets of the Solar System, and then back home to Earth.

The visually impressive evening was enjoyed by all. Thanks go to Carley Tillet who provided an excellent presentation, and Horizon – the Planetarium for sponsoring the event on behalf of the Royal Society of Western Australia.

Mangroves of the Leschenault Inlet

For National Science Week 2009, the Leschenault Catchment Council requested that this year's RSWA event focus on mangroves of the Leschenault Inlet estuary. On Wednesday August 19th, several members of the Royal Society of Western Australia (Vic Semeniuk, Joy Unno, Cate Tauss, and Penelope Clifford) travelled to the Discovery Holiday Park, Koombana Bay, Bunbury to hold a workshop on Western Australia's most southern occurrence of mangroves. The workshop was attended by about 50 adults and children. After an introduction and welcome by Joanna Hugues-Dit-Ciles, Leschenault Catchment Council Coordinator, and David Smith, the Mayor of Bunbury, the evening began with a presentation by Vic Semeniuk on what mangroves are, how they have adapted to tidal and salty environments, and what is their function in the ecosystem at Leschenault Inlet.



The Mayor of Bunbury David Smith introducing the evening | Young members of the audience acting as trees to have mangrove environmental adaptations explained

After the presentation, the audience then was engaged in microscope work to look at the anatomy and function of the leaves and pneumatophores of *Avicennia marina* with the supervising assistance of Joy Unno, Cate Tauss, and Penelope Clifford.

Astronomy in Karratha: The night sky in the Pilbara, and Day-time astronomy

Also as part of the International Year of Astronomy, and National Science Week 2009, on August 21st and 22nd, 103 adults and children attended at the Department of Environment &

Conservation (Karratha) for the joint RSWA-Scitech event “The night sky in the Pilbara” for Friday evening, and “Day-time astronomy” for Saturday morning. Several RSWA members (Vic Semeniuk, Joy Unno, and Margaret Brocx) and Scitech staff (Peter Birch and Alecea Jongeward) journeyed to Karratha to present, and supervise this event. The evening began with an introduction by Vic Semeniuk explaining the role of RSWA, in regional centers such as Karratha, during the International Year of Astronomy 2009 and National Science Week.

Peter Birch gave a short illustrated presentation on the astronomical bodies that would be viewed during the evening, describing the inner planets, the Jovian Planets, and the bodies of the Kuiper Belt. Vic Semeniuk followed with a short film presentation of the Charles and Ray Eames classic, “The Powers of Ten”, where the objects of the Universe progressing from the Earth, Moon, Solar System, Milky Way Galaxy, and outer galaxies were examined in powers of ten.



Peter Birch explaining the objects of the Solar System

The audience then moved outdoors for a couple of hours viewing celestial objects in small groups for the ten telescopes available. The Moon was a very thin crescent. A range of telescopes, from refractors to reflectors to Cassegrains, were used to observe Mercury, Saturn, Jupiter, the Jewel Box, globular clusters, and binary stars. With a laser pointer, Peter Birch showed constellations such as the Southern Cross and Scorpio. After the event, the audience returned to the tea-room for refreshments.

Astronomy in Port Hedland: The night sky in Port Hedland

Continuing the theme of the International Year of Astronomy, and National Science Week 2009, on Saturday night August 22nd, 169 adults and children attended the Port Hedland Civic Centre for the joint RSWA-Scitech event “The night sky at Port Hedland”. RSWA members Vic Semeniuk, Joy Unno, and Margaret Brocx, and Scitech staff, Peter Birch and Alecea Jongeward, travelled to Port Hedland to present, and supervise this event. Because the crescentic Moon was more clearly visible and higher in the sky than the previous night, the evening began with a viewing before it set. The Moon, Mercury and Saturn were observed through telescopes. The Moon was in thin crescent form (points of light of mountain tops at its termination, craters partially lit by sun-rise, and the Moon lit by Earth-shine). Thereafter, the audience moved indoors for the presentations, and to wait for the sky to darken.

Inside, the evening began with an introduction by Vic Semeniuk explaining the role of RSWA, in regional centres such as Port Hedland, followed by a short introduction by Tom Stephens, Member for the Pilbara, who explained the history and role of the Royal Society of Western Australia from its historical roots in the original Society in London. He thanked the Royal Society of Western Australia for introducing Science to the Port Hedland public in this The International Year of Astronomy and during National Science Week.

Peter Birch then gave an illustrated talk on the astronomical bodies of the Solar System, similar to the Karratha presentation, and Vic Semeniuk, again, followed with the short film on “The Powers of Ten”. The audience moved outside to aggregate and queue in small groups for the ten telescopes available to view Jupiter, the Jewel Box, globular clusters, and binary stars, with explanation by the attending RSWA delegates and Scitech staff, and with an occasional explanation of the main constellations by Peter Birch with his laser pointer.

Special thanks for the success of the evening goes to Shire of Port Hedland for making the venue available, Port Hedland Tourist Bureau for promoting the event, Howard Clancy, Patty Clancy, Jim Rose, Brad Anderson, Karen Enwright of Rotary of Port Hedland for the catering and assistance, Tom Stephens for a valuable introductory talk, and Electoral Officer Mary Jane Coates for helping facilitate the event, and Steve Coates, resident of Port Hedland, for providing their own telescope and contributing to the viewing night.