



INQUA
International Union for Quaternary Research



Report
2009 OZ-INTIMATE workshop
AINSE, Lucas Heights:
16-17th December, 2009
Conveners – Tim Cohen & Jessica Reeves

Sixteen Australian researchers were invited to attend the second OZ-INTIMATE workshop, hosted by AINSE. The primary aim of the workshop was to re-invigorate the Australian palaeo-community toward the objectives of the INTIMATE project and clearly outline a way forward for the group.

The initial Australian INTIMATE workshop was held in 2004, with two objectives:

- 1. To identify and prioritise the Australian onshore and offshore reference records for the OIS 2/1 transition*
- 2. Promote ways to effect high-precision dating of key Australian onshore and offshore records or the determination of a regional event stratigraphy.*

These overall objectives were upheld for the 2009 workshop however the timeframe was extended to cover the last 30,000 years.

The approach for this meeting was to assign regional “leaders” to each of the broad climatic zones of the Australian region: tropical, temperate, arid interior, Southern Ocean. Where possible, early career researchers were chosen and asked to present a synthesis of the key records for their region. This was then opened up for discussion, before the final records to be incorporated into an event stratigraphy (stage II) were decided upon. The criteria for record choice included:

1. Key continuous records
2. Discontinuous records with clear interpretation (ie fluvial, dune)
3. Sound chronology
4. High resolution short-term records for key periods
5. A range of proxy data for each region

The workshop was divided into 4 two-hour sessions, including a 30 minute presentation by the group leaders for that climatic region, with 90 minutes discussion time. Rather than the presenters talking solely on their research, a synthesis approach was taken, to ensure that the best records from the broader Australian palaeoresearch community be included in the construction of a CES. Importantly, palaeoclimate modellers also participated in the workshop, which lead to fruitful discussions of mutual benefit and short-comings between the two groups.

The key outcomes for the meeting were:

1. Key records defined from this workshop to be compiled into an OZ-INTIMATE poster, with stage II of the Australian CES, and presented at AQUA, Stradbroke Island, July 2010

2. Proposal of an INTIMATE session (OZ and NZ), with each of the regional groups giving separate papers, to be included in the program for AQUA, 2010
3. Publication of the Australian CES stage II in the December, 2010 issue of *Quaternary Australasia*
4. Redevelopment of the OZ-INTIMATE website, to be hosted by the Australasian Quaternary website, including a review of the age-depth model protocols from the outcomes of the 2004 meeting.

Future proposals include:

1. Development of 4 Australian regional CES's to be presented in a Southern Hemisphere INTIMATE session at INQUA, 2011, with individual publication to follow
2. Finalising of Australian CES for publication in 2012
3. Development of Australasian CES for publication in 2012-3.

The agreed approach for the development of the CES's (regional and Australian) was to compile and compare the records initially, with an understanding of the response of the proxies and robust chronology, before significant events can be defined. As the region under consideration spans some >60 degrees latitude, it was strongly believed that an understanding of the mechanisms of the broad climatic regions was necessary, before a complete synthesis can be meaningfully attempted. The group also agreed that a continuous Antarctic and equatorial record were necessary to act as end-member climatic comparisons for the region. The meeting showed a true collegiate response from the group and commitment to move the OZ-INTIMATE project forward.

Jessica Reeves & Tim Cohen

30th December, 2009

PROGRAM

16-17th December

Day 1 (Wednesday 16th December)

11:00 - 11:30 Registration
11:30 - 12:15 **Session 1 Introduction – Jessica Reeves/Tim Cohen/Tim Barrows**
12:15 - 13:00 Lunch
13:00 - 15:00 **Session 2 Tropical records – Helen McGregor, Michael Griffiths, Stephen Lewis** (*chair: Jamie Shulmeister*)
15:00 - 15:30 Coffee break
15:30 – 17:30 **Session 3 Temperate records – Lynda Petherick, (Patrick De Deckker)** (*chair: Scott Mooney*)
18:00 – 22:00 Drinks & Dinner

Day 2 (Thursday 17th December)

8:30 - 10:30 **Session 4 Arid Interior – Kat Fitzsimmons** (*chair: Tim Cohen*)
10:30 – 11:00 Coffee break
11:00 – 12:00 **Session 5a Southern Ocean, Antarctic – Tim Barrows, (Leanne Armand)**
12:00 – 1.00 **Session 5b Palaeoclimate modelling - Steven Phipps**
13:00 – 13:45 Lunch
13:45 – 15:45 **Session 6 Synthesis - Tim Barrows, Jessica Reeves, Tim Cohen**

GROUP LEADERS:

*Michael Griffiths (Newcastle)	Tropical terrestrial
*Helen McGregor (UoW, ANSTO) & *Stephen Lewis (JCU)	Tropical marine
*Lynda Petherick (UQ)	Temperate terrestrial
Patrick DeDeckker (ANU)	Temperate marine
*Kat Fitzsimmons (ANU) & *Paul Hesse (Macquarie)	Arid interior
Leanne Armand (Macquarie) & Will Howard (UTas)	Southern Ocean/Antarctic
*Steven Phipps (UNSW)	Climate modelling
*Tim Barrows (Exeter)	Overview
*David Fink (ANSTO)	Overview
*Scott Mooney (UNSW)	Overview
*Jamie Shulmeister (UQ)	Overview
*Tim Cohen (Macquarie)	Co-ordinator
*Jessica Reeves (RMIT)	Co-ordinator

Other:

*Gerald Nanson (UoW)
*Justine Kemp (U. Northumbria)
*Matt Fischer (ANSTO)

*= attended