



## Past Carbon Isotopic Events & Future Ecologies:

Palaeoanalogue CIEs and current biosphere & ecological change as a guide to the 22<sup>nd</sup> century & beyond

## Tuesday 02 – Wednesday 03 November 2010

Tuesday 02 November 2010		
09.15	Registration & coffee	
09.45	Welcome	
	Sir Crispin Tickell	
10.05	Introduction – Why consider Carbon Isotope Excursion (CIE) palaeoanalogues for	
10.20	current warming	
	Jonathan Cowie, Concatenation Science Communication	
SESSION THEME: Past and current CIEs (Session Chair: Tim Sparks)		
10.25	The tempo of climate and carbon cycle variability across the Paleocene-Eocene boundary: Implications for the origin of hyperthermals	
10.50	Jim Zachos, University of California	
11.00	Questions	
11.05	Theories of the cause and nature of the Toarcian and other CIEs	
	Anthony Cohen, Open University	
11.30		
11.40	Tea & coffee	
12.10	The Cause and Nature of the Current and Possible Future Carbon Isotope Excursions	
	Peter Cox, Exeter University	
12.35	Questions	
12.50	Comparison of early Eocene and end-21 <sup>st</sup> century climate model forecasts	
	Paul Valdes, University of Bristol	
13.15	Questions	
13.25	Lunch (not provided)	
SESSION THEME: CIEs and the terrestrial environment (Session Chair: Peter Cox)		
14.10	Cretaceous carbon-isotope excursions and their significance for global change	
14.35	Hugh Jenkyns, University of Oxford Questions	
14.50	Climate change and mammalian evolution across the PETM/IETM in the continental	
	record of North America (mid-latitude)	
	Ross Secord, University of Nebraska	
15.15	Questions	
15.30	Tea & coffee	
16.00	Mid to high latitude land ecosystem changes across the Palaeocene-Eocene Thermal	
	Maximum in northwest Europe	
16.25	Margaret Collinson, Royal Holloway, University of London Questions	
16.40	Current signs of terrestrial ecosystem change	
-	Tim Sparks, formerly Centre for Ecology & Hydrology	
17.05	Questions	
17.20	Wine reception (& followed by conference dinner for speakers and those who booked)	

Wednesday 03 November 2010		
08.30	Registration & coffee	
SESSION THEME: CIEs the marine environment and global biodiversity (Session: Chair Margaret Collinson)		
09.00	Evolution and extinction in marine environments during the Paleocene-Eocene thermal maximum (PETM) Ellen Thomas, Yale University	
09.25	Questions	
09.40	Biological consequences of present and future acidification of the ocean John Raven, University of Dundee	
10.05	Questions	
10.20	Global biodiversity and global climate the deep time perspective Peter Mayhew, University of York	
10.45	Questions	
10.55	Tea & coffee	
SESSION THEME: Consequences for the 22 <sup>nd</sup> century (Session Chair Anthony Cohen)		
11.25	Terrestrial environmental and ecological (IPCC) B-a-U consequences Pam Berry, Environmental Change Institute Oxford	
11.50	Questions	
12.05	The marine environment and the ecological consequences of a business-as-usual scenario Manuel Barange,	
12.30	Questions	
12.45	Probabilities, possibilities and uncertainties: Early warning of future tipping points Tim Lenton, University of East Anglia	
13.10 13.20	Questions Lunch (not provided)	
14.05	Ecosystem (service) vulnerability in the event of an PETM / IETM analogue	
14.30	Jonathan Cowie, Concatenation Science Communication Questions	
14.45	Avoiding catastrophic climate change: Towards a sustainable future? Lord Robert May, Oxford University	
15.10	Questions	
15.35	General conference discussion	
16.00	Summation	
16.15	Break	
16.30	Outreach event: Past rapid changes in CO <sub>2</sub> levels and the climate system: lessons for the future Welcome and Introduction followed by Panel Debate with contributions from the floor John Raven (Chair), David MacKay (Chief Scientific Advisor Department Energy & Climate Change), Brian Lovell (President, Geological Society).	
	Thanks: Hazel Norman (General Secretary, British Ecological Society)	
17.45	Reception Networking session	