"DeepMIP"

Deep-time Model Intercomparison Project

Working groups

DeepMIP has a very strong bottom-up component, with individual researchers using the DeepMIP framework to leverage funds, and to guide the direction of the group. However, there is some coordination of efforts.

DeepMIP is organised into working groups, which will are overseen by the Steering Committee.

Working groups have initially been set up for palaeogeographies, marine data, terrestrial data, carbon cycle, and modelling. Other working groups may emerge over time. The working groups ensure, for example, that methodologies are consistent across proxies, and across models.

Each working group has two or more overall coordinators, who will liaise with the Steering Committee, plus perhaps individuals leading specific efforts (e.g. for each proxy within the marine data working group). All working groups will have at least one modeller and one data person involved.

All members of DeepMIP are encouraged to join the various working groups. Below are listed the coordinators of each working group, their ultimate goals, their initial membership (** = coordinators), and initial questions which need to be addressed by each group.

Steering Committee:

Lunt, Donnadieu, Hollis, Huber, Otto-Bliesner, Zachos

Working Groups [coordinators]

Modelling [Huber, Lunt]

Palaeogeography [von de Heydt, Markwick]

Carbon cycle [Donnadieu, Foster]

Marine data [Dunkley Jones, Hollis, Lear, Zachos]

Terrestrial data [Salzmann, Wing]

Working groups

Marine Working Group

Main goal:

To produce 3 online open-access marine Eocene datasets, with quantitative and qualitative assessment of uncertainties, made up of existing and new data for the following time periods:

(a) EECO ($\sim 53 - 50$ Ma)

(b) Pre-PETM (~0.5 Ma prior to onset of carbon isotope excursion, e.g. 56.4-55.9 Ma)

(c) Core CIE PETM (~0.05 Ma duration, e.g. 55.9-55.85 Ma)

Initial tasks:

Review the text in the experimental design paper regarding proxy data (Section 6)

Collation of main pre-existing marine records into an initial version 0.1 database

➤ Formally define start and end point of each period (in consultation with terrestrial group). Tom Dunkley Jones **

Chris Hollis ** Carrie Lear ** Jim Zachos ** Paul Pearson Bridget Wade Reinhard Kozdon **David Evans** James Super Kate Littler Aradhna Tripati Sandy Kirtland Turner Jess Tierney Appy Sluijs **Richard Zeebe** Gavin Foster Steve Bohaty Eleni Anagnostou Kirsty Edgar **Richard Zeebe** Ellen Thomas **Rich Pancost** Dan Lunt Nele Meckler Petra Langebroek

Terrestrial Working Group

Main goal:

To produce an online open-access terrestrial Eocene dataset, with quantitative and qualitative assessment of uncertainties, made up of existing (and some new) data for the following time periods:

(a) EECO (~53 – 50 Ma)

Initial tasks:

Review the text in the experimental design paper regarding proxy data (Section 6)

Collation of main pre-existing terrestrial records into an initial version 0.1 database

Formally define start and end point of each period (in consultation with marine group).

Ulrich Salzmann ** Scott Wing ** Katie Snell Gary Upchurch Srinath Krishnan James Super Liz Kennedy Aradhna Tripati Alexis Licht Rich Pancost David Naafs Dan Lunt

Paleogeography Working group

Main goal:

To advise on issues related to the paleogeographies in DeepMIP, and to encourage the development of new paleogeographies if appropriate.

Initial tasks:

Review the text in the experimental design paper regarding paleogeographies (Section 4.2.1; Section 5.2)

Anna von der Heydt ** Paul Markwick ** Nicky Wright Michiel Baatsen Matt Huber Chris Hollis Bette Otto-Bliesner Alexis Licht Dan Lunt

Carbon Cycle

Main goal:

To advise on issues related to the carbon cycle in DeepMIP, and to encourage the development of new greenhouse gas concentration data if appropriate.

Initial tasks:

Review the text in the experimental design paper regarding CO₂ and CH₄ (Section 4.2.3; Section 5.1)

Yannick Donnadieu ** Gavin Foster ** Richard Zeebe Eleni Anagnostou Richard Zeebe Dan Lunt