

What can palaeo-study teach us
about the global monsoons?

Session 2 panel discussion

Session talks/posters

- Thermal contrast variations
- “Asian-Pacific Oscillation”: touches on co-variability of the NH monsoons

Problems

Understanding variety of palaeo-records

- Coral, tree rings, speleothems

How to combine observational and modelling work on palaeo-scales.

Can isolated palaeo-records really represent even the regional monsoons?

- Use other supporting records, evidence from models.
- Co-variability in modelling studies may be unrealistic due to systematic model biases.

Seems to be a large gap between seasonal-decadal and multidecadal-centennial time scale work that may prevent interdisciplinary research

- c.f Annamalai's talk; Zhao's talk.

Historically both communities have looked at single monsoon regions rather than coherent hemispherical/global monsoons

Questions

Do we under-utilize palaeo-study in our understanding of the present monsoon variability and future change?

- Constraining monsoon seasonal cycle etc.
- Understanding variations in monsoon predictability.

Questions

How can we use evidence of palaeo-monsoon variations on multi-decadal timescales to constrain monsoon processes in present day simulations?

- Constraining monsoon seasonal cycle etc.
- Understanding variations in monsoon predictability.
- Reinforcement in belief that decadal monsoon variability may actually exist (providing longer time series than the observed record).
- Allows consideration without the contamination of anthropogenic forcing; other factors such as orbital forcing can easily be removed.

May not act as a constraint; in fact may reveal much greater “natural” variability than we see in relatively short CMIP integrations.

Questions

Why are the modern and palaeo- communities still distinct and how can there be better interaction between them?

- WHY: cross-scepticism of communities.
- HOW: Group interaction/joint meetings.