



**PALAEOECOLOGY  
GROUP**



**CONSERVATION  
ECOLOGY  
GROUP**



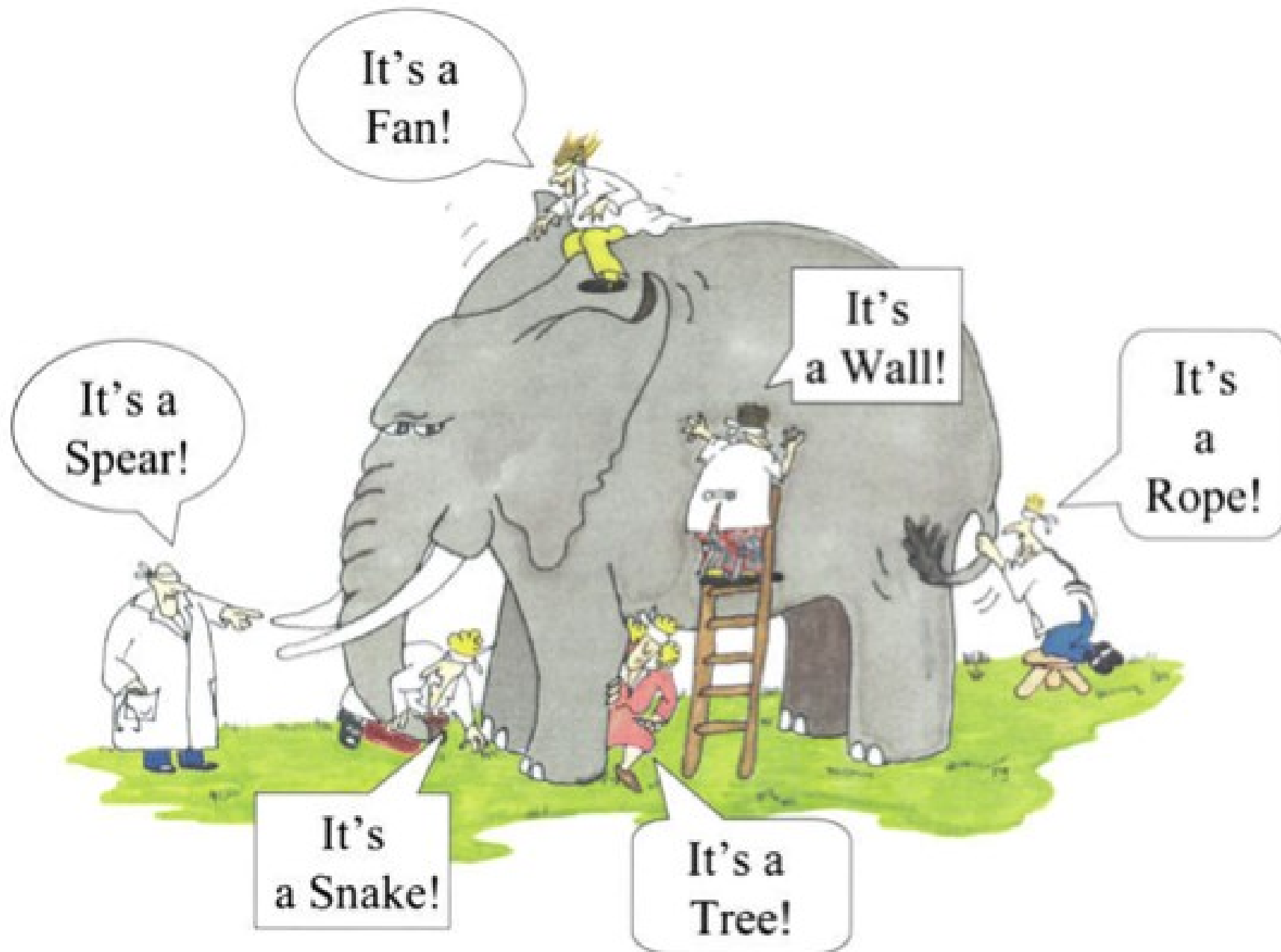
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**LIVERPOOL**

# Tools of the *Interdisciplinary* Trade: how to make your interdisciplinary project a success

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It's a Fan!

It's a Snake!

It's a Wall!

It's a Rope!

It's a Snake!

It's a Tree!

....busy "constructing a comprehensive perspective"?!







# Introduction

- **Aims**

- Identify common pitfalls and good practices for interdisciplinary *research* in ecology
- Redress the lack of training and the need to learn 'on the job'
- Gather collective experience and reflections

- The workshop will cover **four stages** of an interdisciplinary research project (basis for groupwork)

- Managing expectations

- What do we mean by interdisciplinary?
- Focus on (western) sciences and research process



# Group exercise

- Split into four groups to consider one of the different stages of a project:
  - 1) Funding proposal development
  - 2) Project initiation
  - 3) Planning and undertaking data collection
  - 4) Organising and co-producing outputs
- Each group to discuss and note down:
  - Potential challenges that may arise at your allocated stage of research
  - Associated solutions - to pre-empt or resolve these issues
  - Feedback in general discussion (your group's top 5 points)

# 1) Funding proposal development

- Which comes first: the challenge or the team?
- Building a cohesive, functional team, vs. the *Tinder* approach to picking
- Strong, experienced leader(s) - to initiate and refine the project
- Collectively define the challenge
- Dealing with uncertainty – choose your funder wisely
- Develop a vision for shared questions, roles & outputs
- Be prepared to adapt



## 2) Project initiation

- Expect and allow extra time
- Communication, communication, communication:
  - Lack of mutual clarity and vocabulary is a common cause of failure
  - Be open to epistemological plurality
  - Learn one another's language via regular reading groups
- Relationship building: establish mutual understanding and trust
- Both leadership and giving space to everyone are essential
- Navigating disciplinary 'territories' - expect to learn about individual disciplines/ methods and how to integrate them
- Keep in mind shared goals: maintain group cohesion

### 3) Planning and undertaking data collection and analysis

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#### CHALLENGE

#### SOLUTION

Different theories around data collection/data as an entity across disciplines

- Work through disciplinary examples as a team: practical understanding of each data type/collection methods
- Especially across quantitative-qualitative divide: show what outputs are possible

Different approaches to fieldwork

- Discuss individual field requirements early & openly
- Patience & empathy
- Ensure safe and ethical working conditions
- Manage expectations

Ethics and etiquette of working with human subjects and in unfamiliar environments

- Discuss potential field scenarios for each team
- Try to be explicit, not implicit about requirements for your work & not take disciplinary knowledge for granted
- Sensitivity to the needs of individuals

Different expectations of what constitutes 'rigour' in data analysis

- Explain data analysis options and norms for each discipline
  - Ensure disciplinary rigour is not compromised
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# 4) Organising and co-producing outputs

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## CHALLENGE

## SOLUTION

Keeping up-to-date with ongoing progress

- Group newsletter especially when in multiple locations
- Regular update & discussion meetings

Planning what group outputs will be

- Co-create & distribute a mind-map for discussion
- Allocate a leader for each smaller project

What to publish: disciplinary depth vs interdisciplinary breadth

- Acknowledge the range of individual (career), group, message and audience choices

Where to publish: new interdisciplinary journals vs challenge established outlets for potential greater impact

- Delegate a leader for each publication
- Accept imbalance of involvement across output production process

Stagnation/lack of progress

- Allocate a leader to drive each individual output

Creating a truly interdisciplinary output that answers project goals

- Define the framework and narrative as a group
- Always keep central challenge in mind: are you meeting your goals?

Having "impact"

- From the start, be realistic and explicit about what impact the project *could* have and develop a clear pathway to that with the whole group

# General tips for interdisciplinary working

1. Mindset: open-mindedness
2. Common language
3. Communication strategy
4. Choose your group wisely and manage your group well
5. Shared goals
6. Time – you need more of it!

....and look out for our article in *The Niche!*