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Demystifying Interdisciplinary Working

(in Valuing Nature)

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The CoastWEB Team

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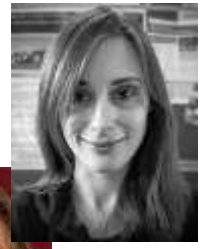

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Why Interdisciplinary Working?

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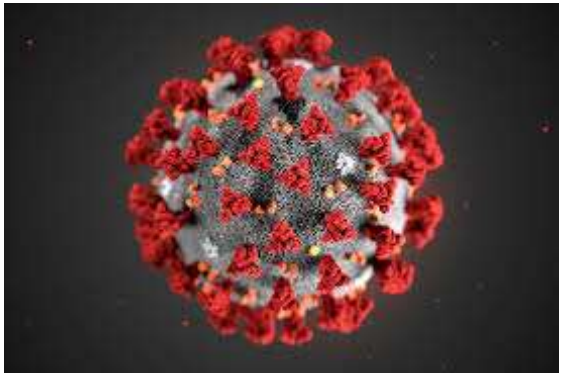

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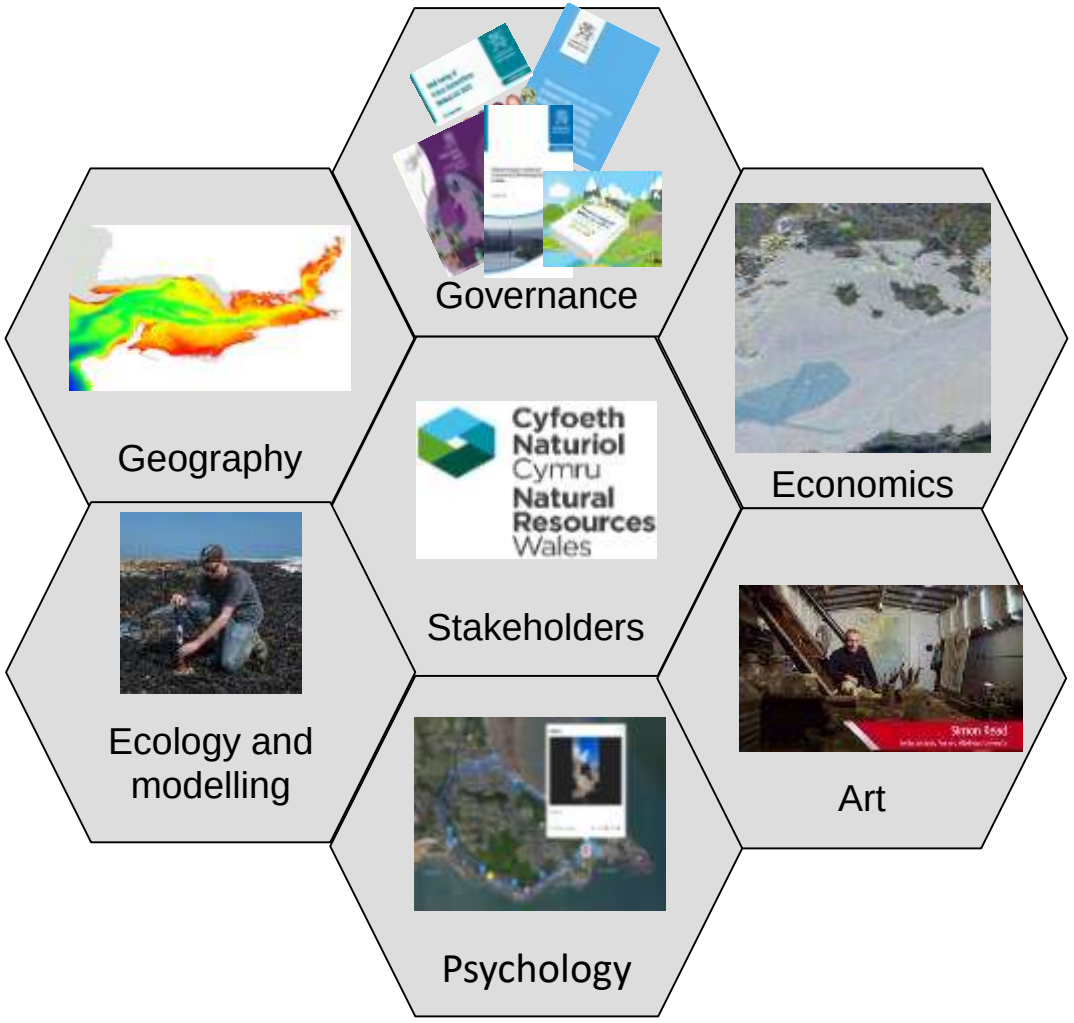
Valuing the contribution which saltmarshes make to human health and wellbeing



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What is Interdisciplinary Working?

Intradisciplinary

Working within a single discipline either as an individual or a collaboration of people from the same discipline.

Crossdisciplinary

Working in one discipline with awareness of one or more other disciplines, sometimes using your discipline in the context of issues normally belonging to another. This approach rarely involves the deep engagement with expertise from another discipline.

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Multidisciplinary

A process whereby people from different disciplines work together simultaneously or in close succession, sharing their disciplinary knowledge in a way which is additive rather than integrative. That is, the disciplinary perspectives are not changed by the process, only contrasted (Klein, 1990).

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Interdisciplinary

Integrating knowledge and methods from different disciplines, using a true synthesis of two or more disciplines, leading to the establishment of a new level of discourse and integration of knowledge. The collaboration between people from different disciplines with the goal of producing new knowledge.

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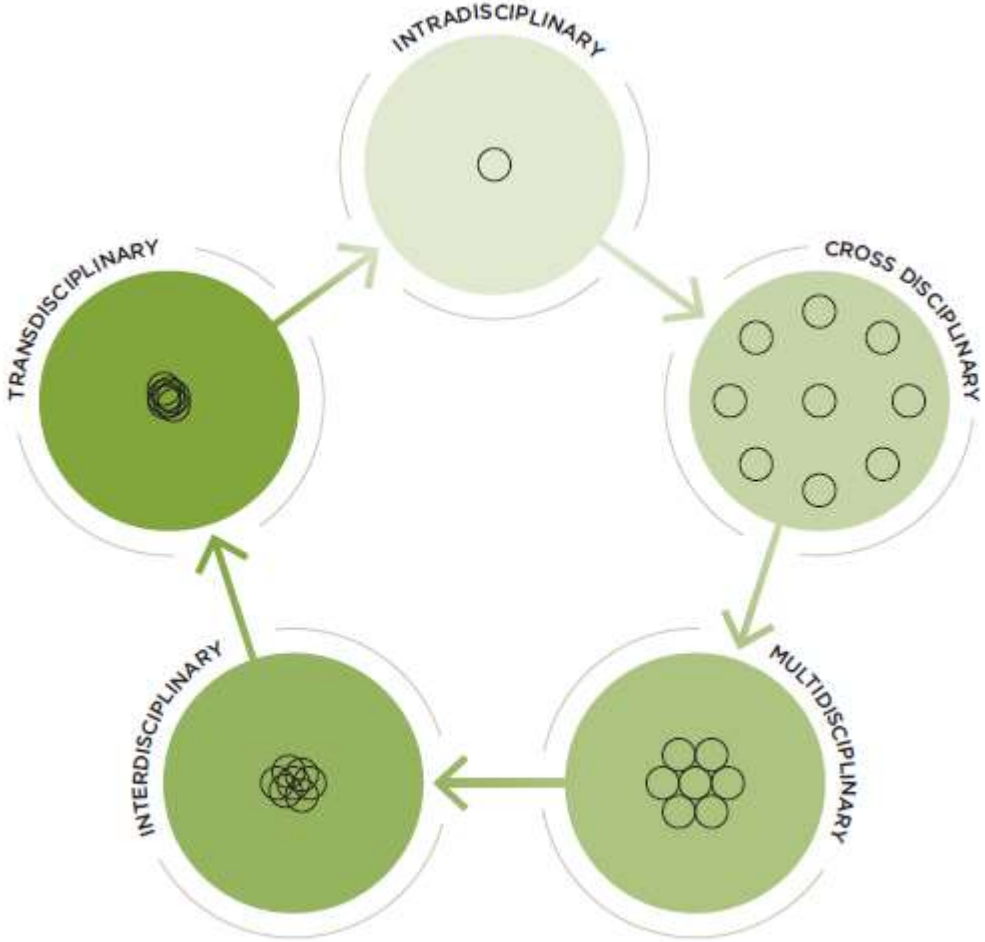
Transdisciplinary

A holistic approach which creates a unity of intellectual frameworks beyond the disciplinary perspectives , subordinating disciplines and resulting in an outcome which is not recognisable from the original parts (Klein, 1990).

A Spectrum



Inter disciplinary: "projects that integrate both academic researchers from different unrelated disciplines and user-group participants to reach a common goal“ Tress et al (2003)

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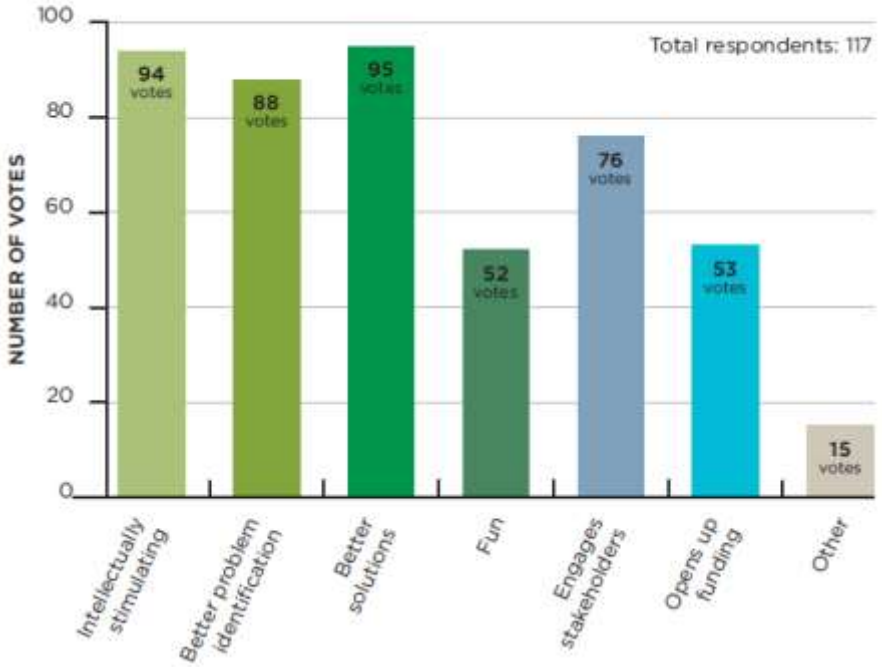
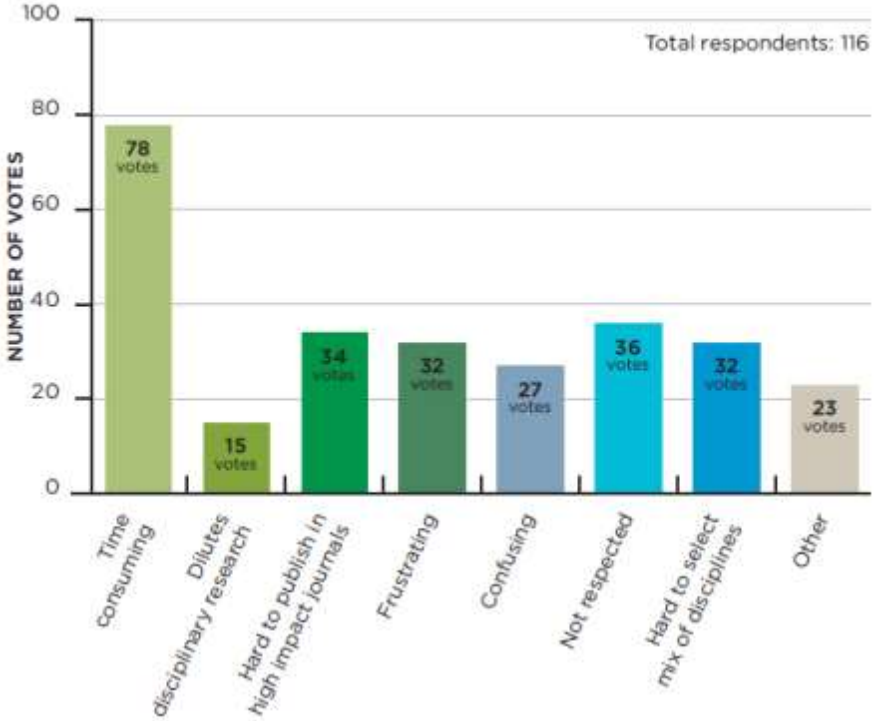
Positives and negatives

Figure 4: What are the positives of interdisciplinary working?



> Interdisciplinary working is never boring or dull! But its benefits are great and many — inspiration, different ways of thinking and working, etc.
>
> VNP/CoastWEB team

Figure 5: What are the negatives of interdisciplinary working?



> Frustrating, as sometimes language and different concepts can make progress slow and communication difficult.
>
> VNP/CoastWEB team

Barriers and Solutions

Barriers	Solutions
i. Inadequate Communication	i. Enhanced communication
ii. Poor understanding of ‘the other’	ii. Improving understanding of ‘the other’
iii. Lack of time and facilitation	iii. Time allowance and active facilitation
iv. Narrow Academic Training	iv. Revised academic training
v. Funding constraints	v. New approaches to funding:
vi. Impediment to career progression	vi. Changes to career progression
vii. Current evaluation of ‘success’	vii. New methods to evaluate ‘success’

> “You’re almost expected to identify with a ‘main’ discipline however interdisciplinary you are.”
> VNP/CoastWEB team

> “I have just submitted a marie curie application that has a strong natural but also a strong social component. I would have never done it before, if I hadn’t been interacting with social scientists.”
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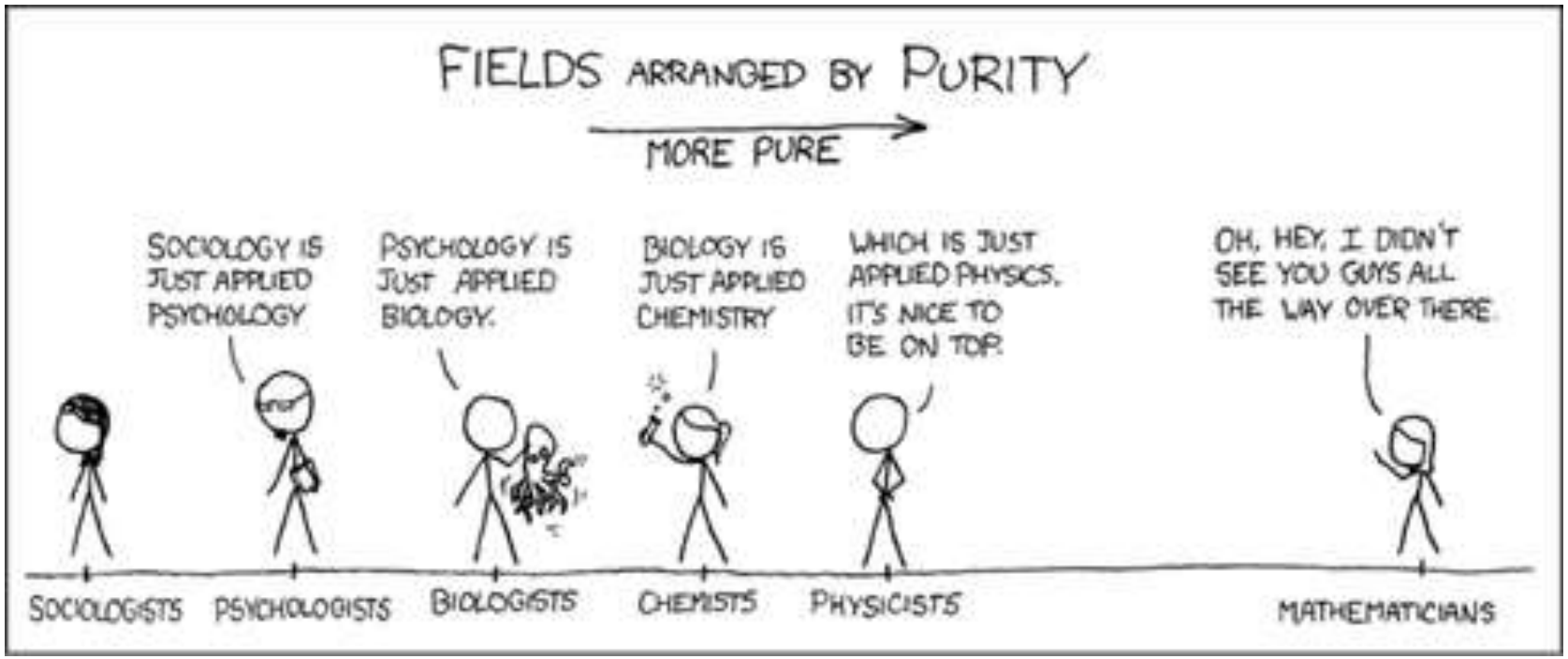
> “Difficult to do any interdisciplinary work within the standard UK funding routes, still... Largely because peer-review is fraught with problems...”
>
> VNP/CoastWEB team

"This really is an innovative approach, but I'm afraid we can't consider it. It's never been done before."

https://usafamilymedicine.wordpress.com/tag/black-belt-of-alabama/

7 Principles of Interdisciplinary working

1. Respect



Source: http://xkcd.com/435/

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1. Respect – Top tips

- Keep an open mind, listen deeply and ask questions
- Avoid pre-conceptions, assumptions and patronisation
- Co-develop project guidelines for respect and equality
- Acknowledge and demonstrate appreciation for all contributors involved in achieving goals
- Write an early joint publication to provide an immediate shared goal.

> "The assumption of what I can bring to the table can be rather simplistic. I think that my role in a project such as this is to shed a different light upon the study." VNP/CoastWEB team

> "The main difficulty for me is where there can be a fundamental misunderstanding of my role and skill set and this is where I am frequently expected to make difficult data accessible or act as an illustrator or designer." VNP/CoastWEB team

2. Take Time

There is a need to learn and understand different backgrounds, methods and language.

"it is a pity that as a team we are so disparate that there is precious little opportunity to get under the skin of each others process."

http://www.pkal.org/collections/Vol4InterdisciplinaryResearch.cfm

2. Take Time – Top Tips

- Build additional time into project timelines, both overall and for specific interdisciplinary activities
- Build additional time into meetings for extended discussions
- Explicitly budget for the extra time, resources and activities required.

3. Communicate

Don’t assume that the forms of communication within your discipline are universal, different disciplines may use the same words but with very different meanings.

3. Communicate – Top tips

- Collaboratively develop a project-specific dictionary
- Do not be afraid to admit that you do not understand;
- Listen actively and repeat back what you have heard in your own words to ensure that you have understood;
- Visit a field site and ask each team member to explain what they see - listen to the differences;
- Remember that simplicity in communication is not the same as being simple, explaining complex issues to non-experts requires skill.

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4. Embrace personalities

Successful interdisciplinary working is not just about bringing two or more disciplines together; it is about bringing two or more people harmoniously together.

Jay Shaw's Blog

> "The social science fellow in the project and I (the natural science fellow) get along very well, which is always a prerequisite (I believe) to be able to work with somebody." VNP/CoastWEB team

> "The relationship was especially extremely enriching." VNP/CoastWEB team

4. Embrace personalities – Top tips

- Create opportunities to get to know each other outside of the usual work place, e.g. outreach and STEM events are valuable as they place people in an impartial space, often outside their comfort zone, and create a shared experience.
- Remember that no one person embodies an entire discipline and it can take time to find a suitable disciplinary representative for your team/project.

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5. Prepare

The development of an interdisciplinary collaboration can require unfamiliar procedures which need additional consideration.

Top tips:

- Take time at the beginning of a collaboration to determine if an interdisciplinary approach is required, what disciplines are needed, and how they will be organised
- Ensure roles and responsibilities are clear including who will be delivering what and to whom, and when
- Have an agreed publication strategy with an emphasis on inclusivity

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6. Adapt

Interdisciplinary working can be unpredictable requiring adaptability.

> "The result are several collaborations, that were not even in the project call, but that are truly interdisciplinary and exciting — This wouldn't have occurred to us, if it hadn't been for the different views I have as a natural scientist (and a bit idealistic natural scientist) compared to the pragmatic views of the social fellow."
>
> VNP/CoastWEB team

6. Adapt – Top tips

- Jointly develop and regularly revisit a Gantt chart, if an activity is struggling be proactive and do not be afraid to change direction if needed
- Include risk management strategies in the proposal to address delays and non-delivery, or the delivery of alternative outputs;
- Maintain open communication and encourage partners to vocalise concerns without the risk of reprimand.

7. Share

Interdisciplinary working is challenging and to support and improve success, the sharing of experiences is critical before, during and after a project is undertaken.

Top tips:

- Discuss with other people who are working in an interdisciplinary context
- Keep a record or diary of what works well and what works less well
- take time to read some of the extensive interdisciplinary literature
- Write up and publicise your own interdisciplinary experiences.

Reclaiming Wetland Values:
Marsh, Mud and Wonder

Tuesday 28 January — Sunday 2 February 2020
Royal Geographical Society
1 Kensington Gore, London SW7 2AR

valuing-nature.net/wetlandvalues
#wetlandvalues

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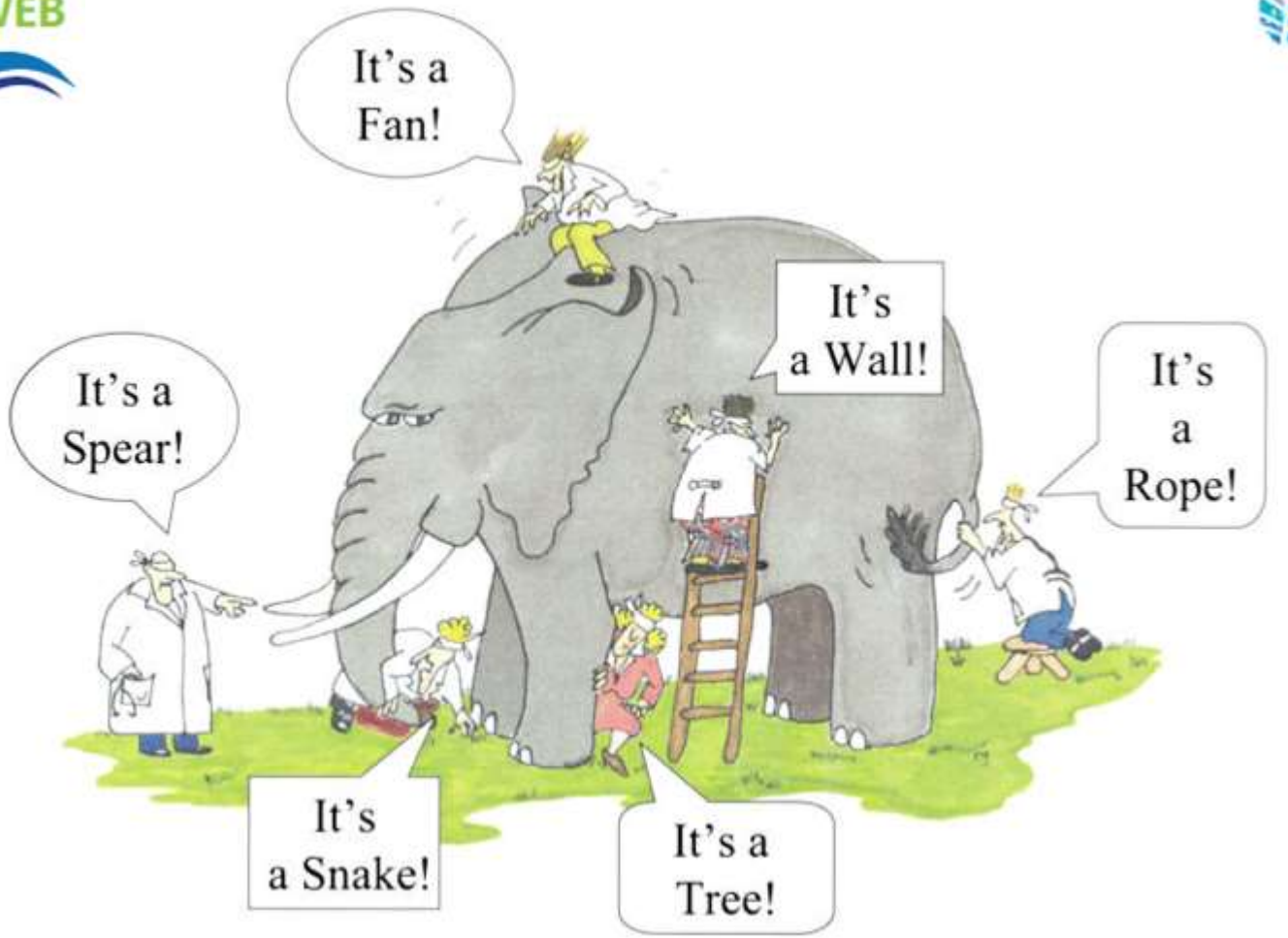

https://www.elephantjournal.com/2011/07/why-elephant/

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VNP25

Demystifying Interdisciplinary Working
(in Valuing Nature)

Valuing Nature Paper | June 2020

7 Principles of Interdisciplinary Working

PRINCIPLES	TOP TIPS
1 Respect: Disciplines and activities should not be considered in a hierarchical fashion.	Keep an open mind, listen deeply and ask questions; avoid pre-conceptions, assumptions and patronisation; co-develop project guidelines for respect and equality; acknowledge and demonstrate appreciation for all contributors involved in achieving goals; write an early joint publication to provide an immediate shared goal.
2 Take time: Successful interdisciplinary work requires additional time as there is a need to learn and understand different backgrounds, methods and language.	Build additional time into project timelines, both overall and for specific interdisciplinary activities; build additional time into meetings for extended discussions; explicitly budget for the extra time, resources and activities required.
3 Communicate: Don't assume that the forms of communication within your discipline are universal, different disciplines may use the same words but with very different meanings.	Collaboratively develop a project-specific dictionary; do not be afraid to admit that you do not understand; listen actively and repeat back what you have heard in your own words to ensure that you have understood; visit a field site and ask each team member to explain what they see – listen to the differences; remember that simplicity in communication is not the same as being simple, explaining complex issues to non-experts requires skill.
4 Embrace personalities: Successful interdisciplinary working is not just about bringing two or more disciplines together; it is about bringing two or more people harmoniously together.	Create opportunities to get to know each other outside of the usual work place, e.g. outreach and STEM events are valuable as they place people in an impartial space, often outside their comfort zone, and create a shared experience; remember that no one person embodies an entire discipline and it can take time to find a suitable disciplinary representative for your team/project.
5 Prepare: The development of an interdisciplinary collaboration can require unfamiliar procedures which need additional consideration.	Take time at the beginning of a collaboration to determine if an interdisciplinary approach is required, what disciplines are needed, and how they will be organised; ensure roles and responsibilities are clear including who will be delivering what and to whom, and when; have an agreed publication strategy with an emphasis on inclusivity.
6 Adapt: Interdisciplinary working can be unpredictable requiring adaptability.	Jointly develop and regularly revisit a Gantt chart, if an activity is struggling be proactive and do not be afraid to change direction if needed; include risk management strategies in the proposal to address delays and non-delivery, or the delivery of alternative outputs; maintain open communication and encourage partners to vocalise concerns without the risk of reprimand.
7 Share: Interdisciplinary working is challenging and to support and improve success, the sharing of experiences is critical before, during and after a project is undertaken.	Discuss with other people who are working in an interdisciplinary context; keep a record or diary of what works well and what works less well; take time to read some of the extensive interdisciplinary literature; write up and publicise your own interdisciplinary experiences.

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An extract from: Beaumont, N. (ed), 2020. Demystifying Interdisciplinary Working (in Valuing Nature). Valuing Nature Paper VNP25.