

# The challenge of determining the impact of timber use in construction on forest biodiversity

Need to choose your question:

1. What is the impact on biodiversity if we source timber from forest X?

Or

2. Can we guarantee to clients that if we source timber from forest X it will have no negative impacts on biodiversity?

**John Healey**

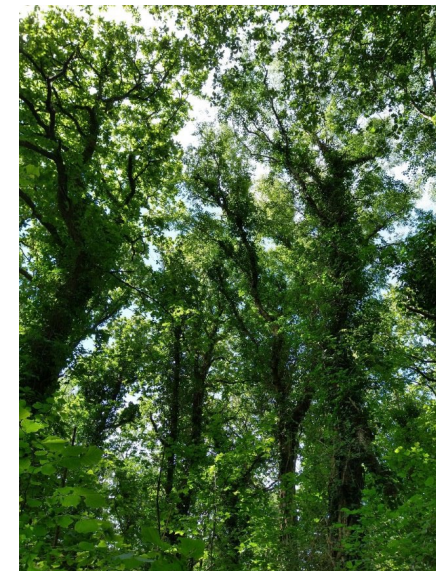
**Professor of  
Forest Sciences**



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**To answer such questions, we need to decide:  
What alternative scenario should we compare  
our choice with – the “counter-factual”?**



- Compare biodiversity of forest managed for wood production with an equivalent forest left unharvested?
- Or one managed as a nature reserve?



**Or can we make the counter-factual more explicit  
in our question? E.g.**



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**3. Should we source our  
wood from forest X**



**or from forest Y?**

**But there are still fundamental challenges in answering this  
question .....**

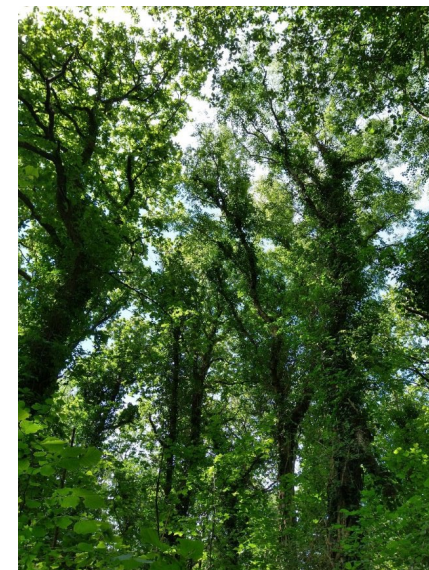




**OR**



**+**



**Conserve biodiversity  
within the production  
forest (“land sharing”)?**

**OR “offset” elsewhere  
 (“land sparing”)**



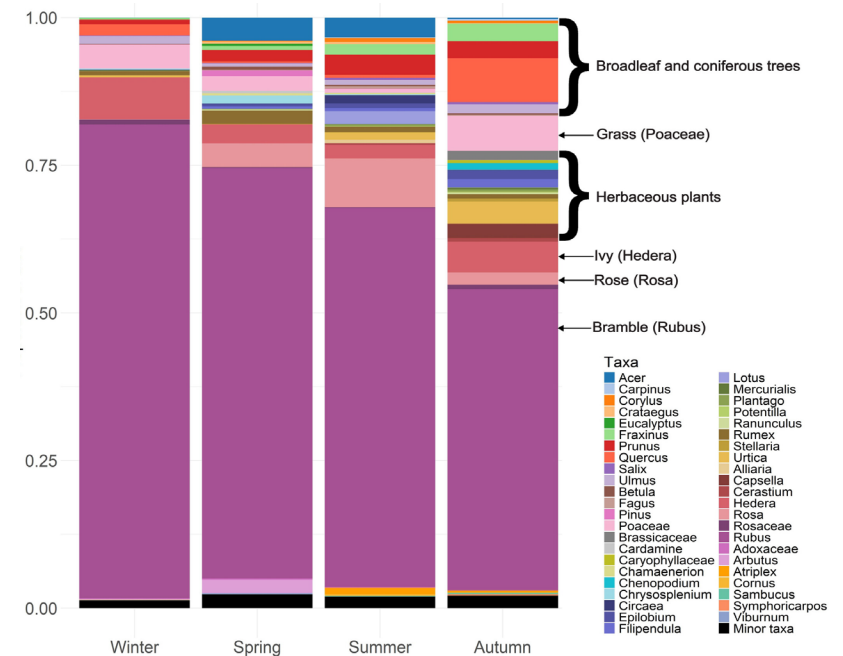
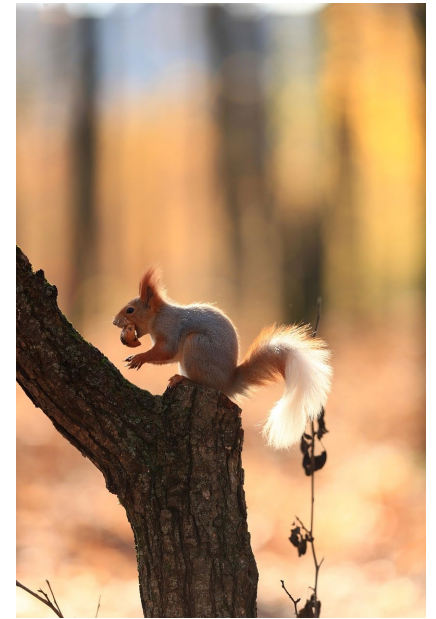
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# Judge performance by actions or by outcomes?

- if actions, are they “additional”?
- if outcomes,
  - what measure of biodiversity?
  - are they “permanent”?

With sufficient flexibility to enable forest resilience to be maintained by future “adaptive” forest management?





**If comparing alternative source forests,  
should the answer depend on the biodiversity  
potential of each site if it was not managed as a forest?**



# Or a more fundamental question with an in-built counter-factual



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**Should we use wood from forest X**

or not use wood at all  
(use a different material)?

- Lack of a rigorous framework to compare impacts on biodiversity of alternative materials
  - no suitable LCA framework for biodiversity





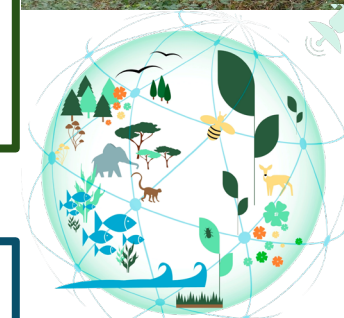
**Across all four questions:**

**What will be the overall impact on biodiversity if forest X is not managed to produce timber for our use?**

**This raises the big consideration:**

- **Is our focus only on the biodiversity that exists in forest X, or the net effect of our decision on global biodiversity?**

- **Leakage from reducing timber production in forest X – e.g. potential biodiversity costs of using imported timber**  
**Versus: threats to biodiversity from deforestation if global forests are not valorized by sustainable wood production**





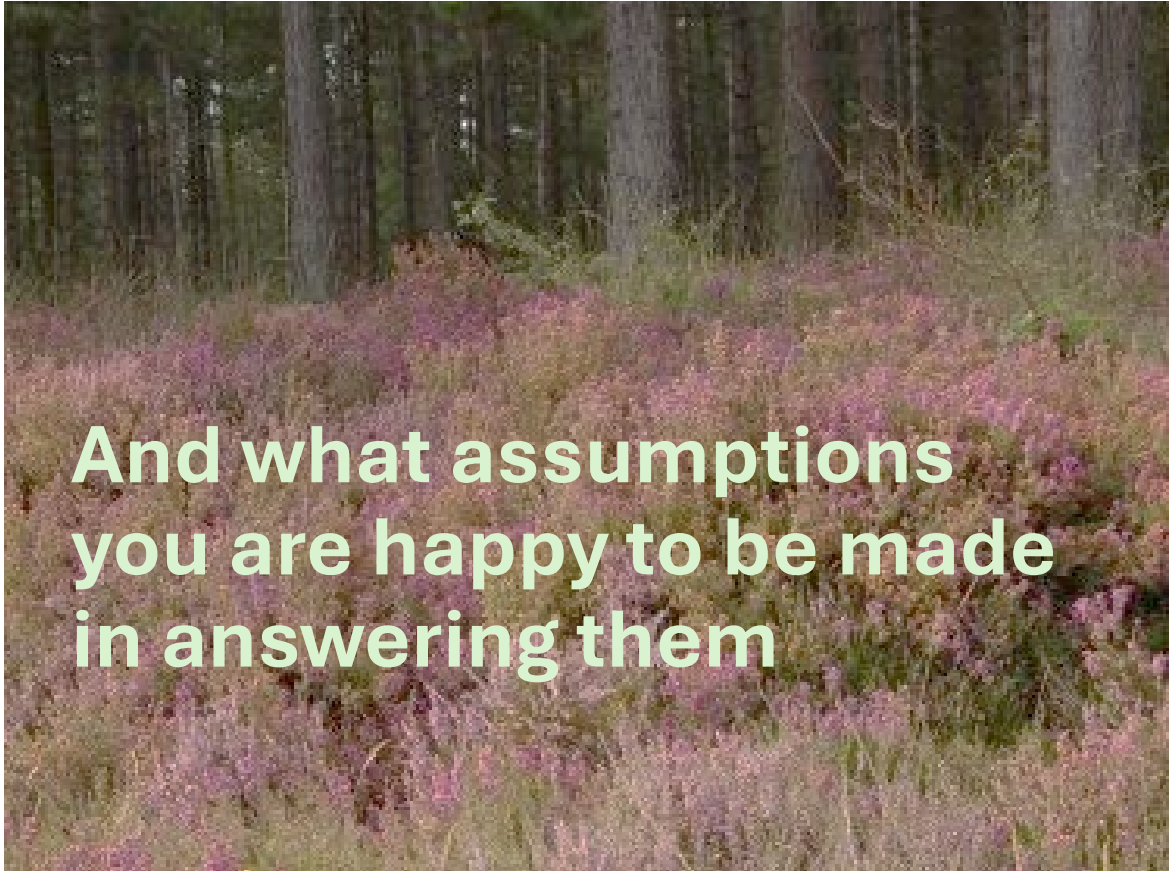
# Take home message



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**As specifiers or  
purchasers of timber  
you need to be very  
clear about exactly  
what questions you  
want to be answered**



**And what assumptions  
you are happy to be made  
in answering them**