



Adaptation, Science and Practice

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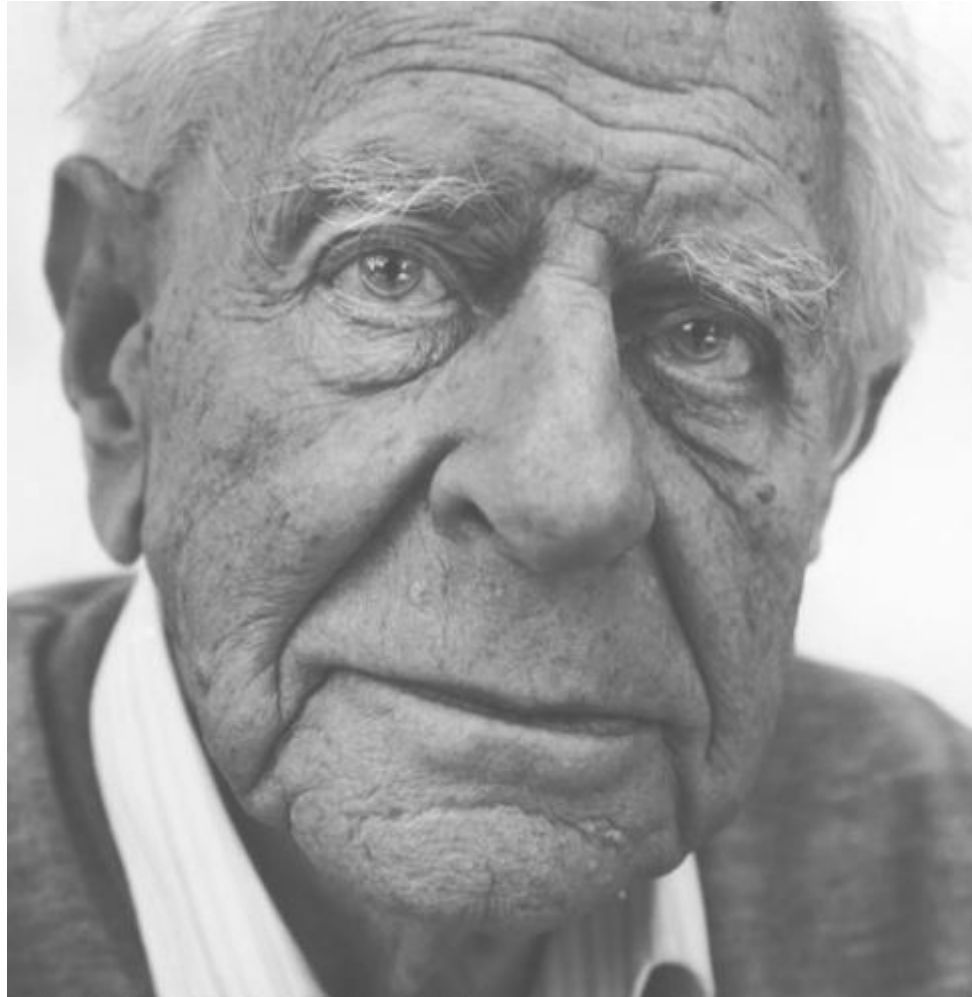
Honorary Postdoctoral Research Fellow, Salford University

Waterfront Hall Studio, Belfast, 16th April 2008.

William of Ockham (1288-1347)



Karl Popper (1902-1994)



The great divide

The gap between theory and practice remains surprisingly wide in conservation biology.

“Conservation biologists write and publish papers, which the practitioners seldom read. The practitioners, in turn, rarely document their actions or collate their data in forms useful to conservation biologists. Typically, practitioners make decisions based on personal experience and intuition. Their knowledge stays untapped by others — and can be impervious to fresh scientific findings.”

nature

Best Practice?



Complexity, Uncertainty and Assumptions



Known, knowns – Physical Systems

Known, unknowns – Biological Systems

Unknown, unknowns – The Future!

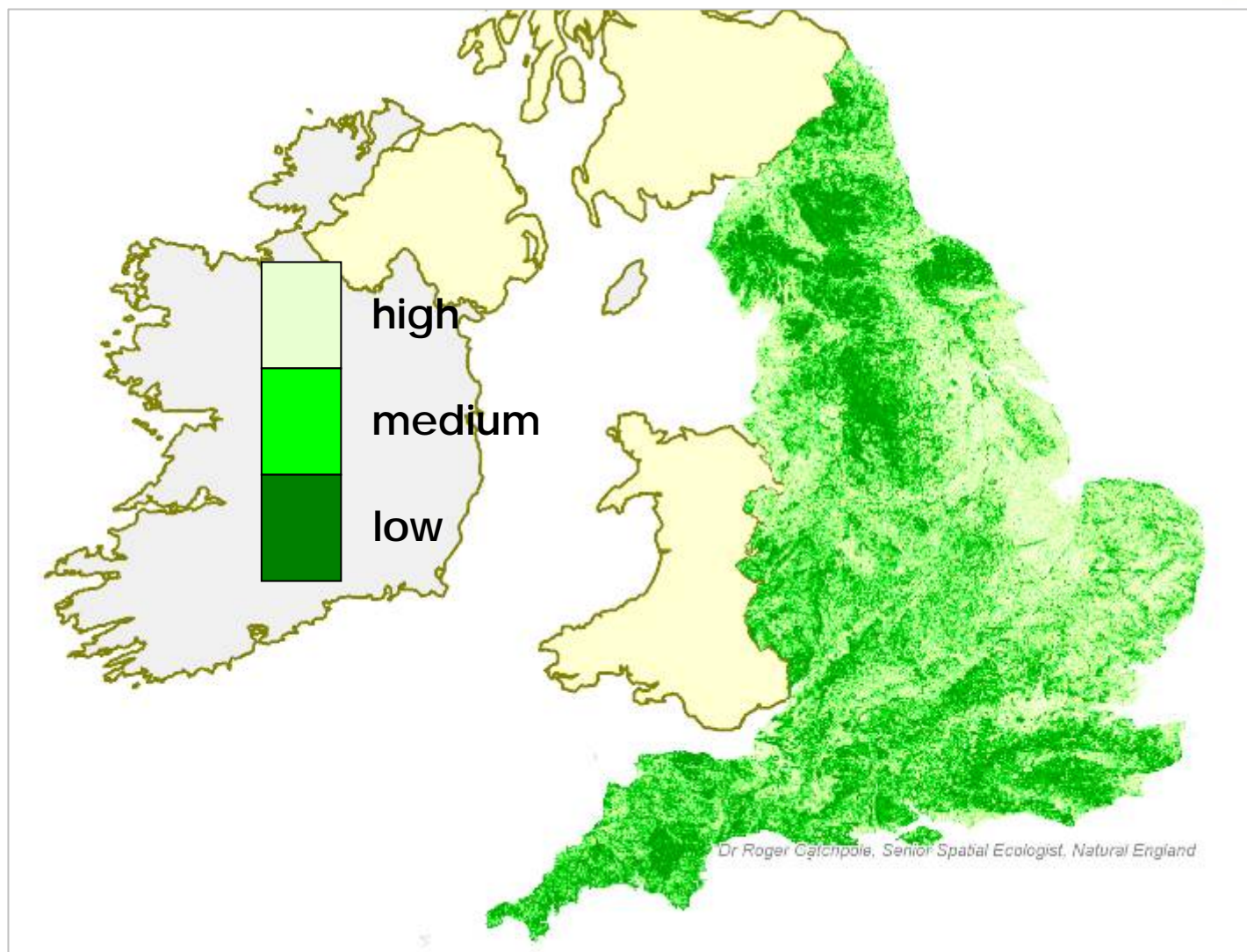
“.....as we know, there are known knowns; there are things we know we know. We also know there are known unknowns; that is to say we know there are some things we do not know. But there are also unknown unknowns - the ones we don't know we don't know.” *Donald Rumsfeld, 12 February 2002.*

Operational Science



Source: Rob Jongman

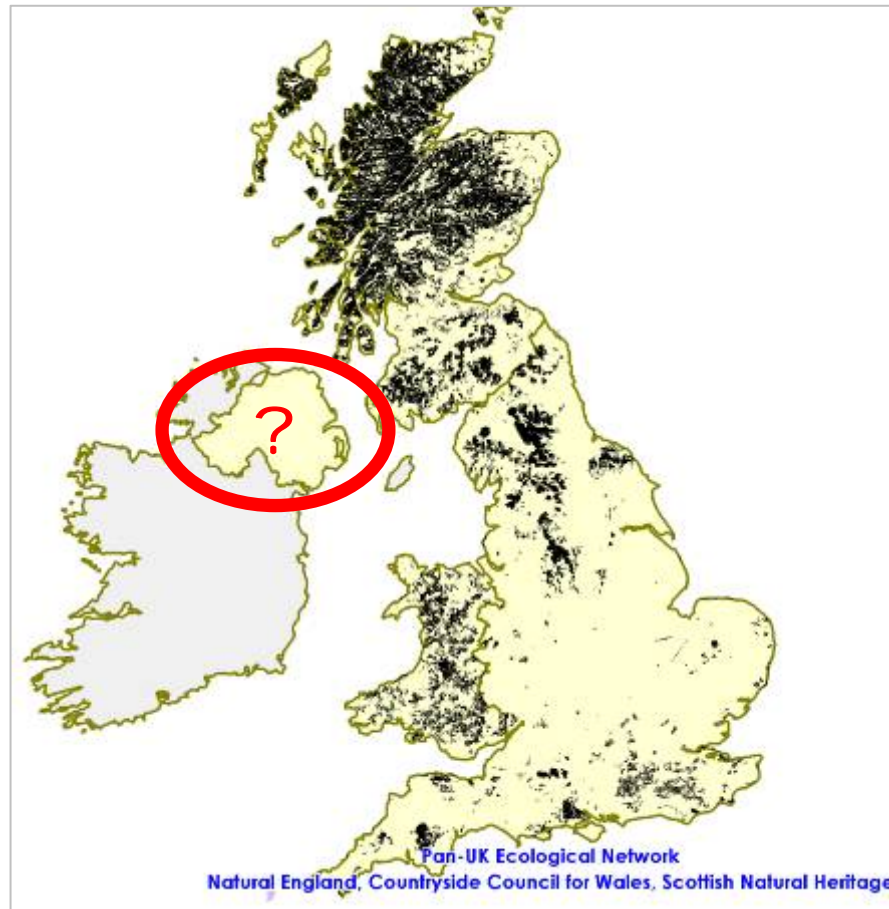
Terrestrial Vulnerability



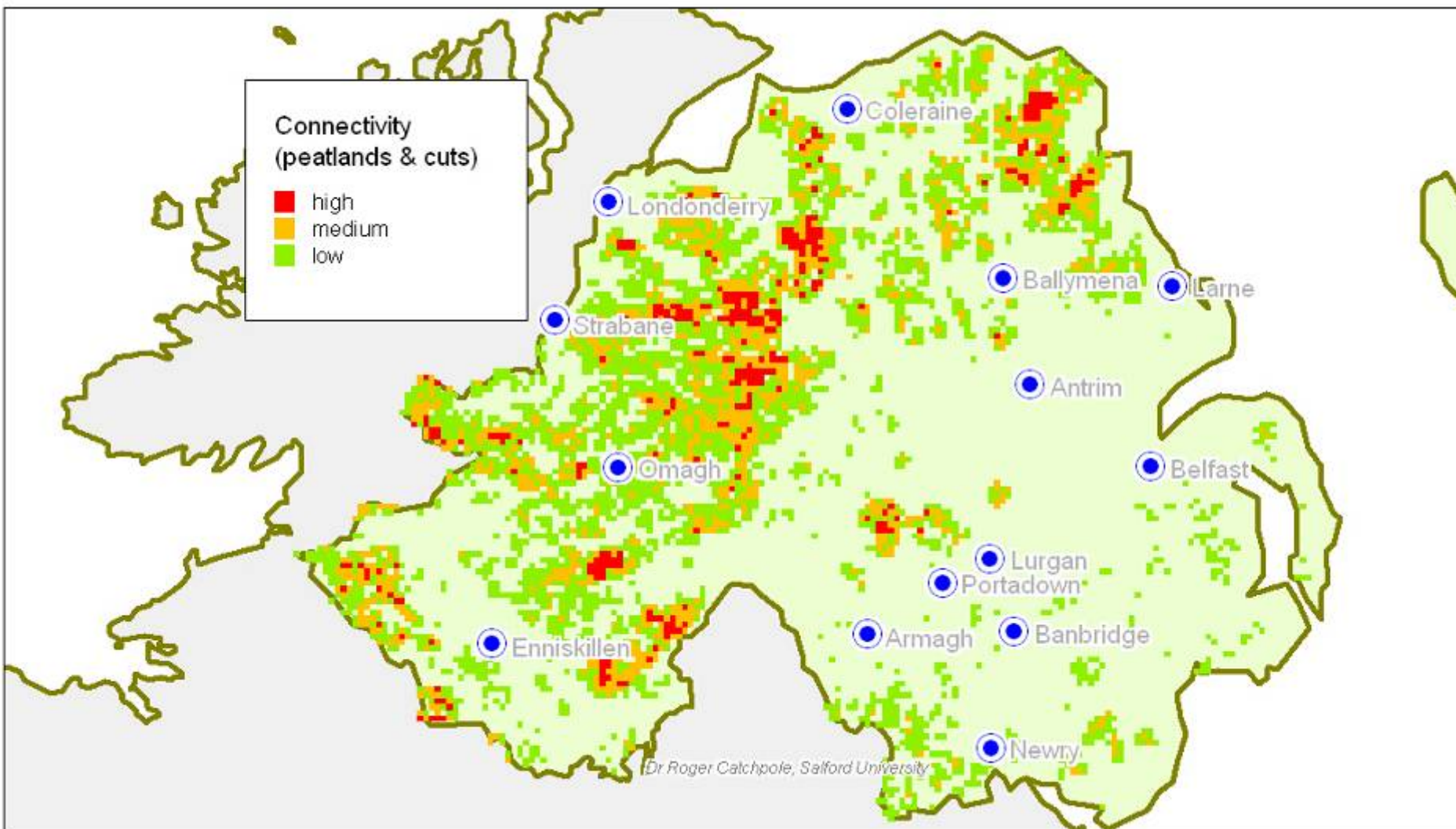
Pan-UK Habitat Network – The Green Grid



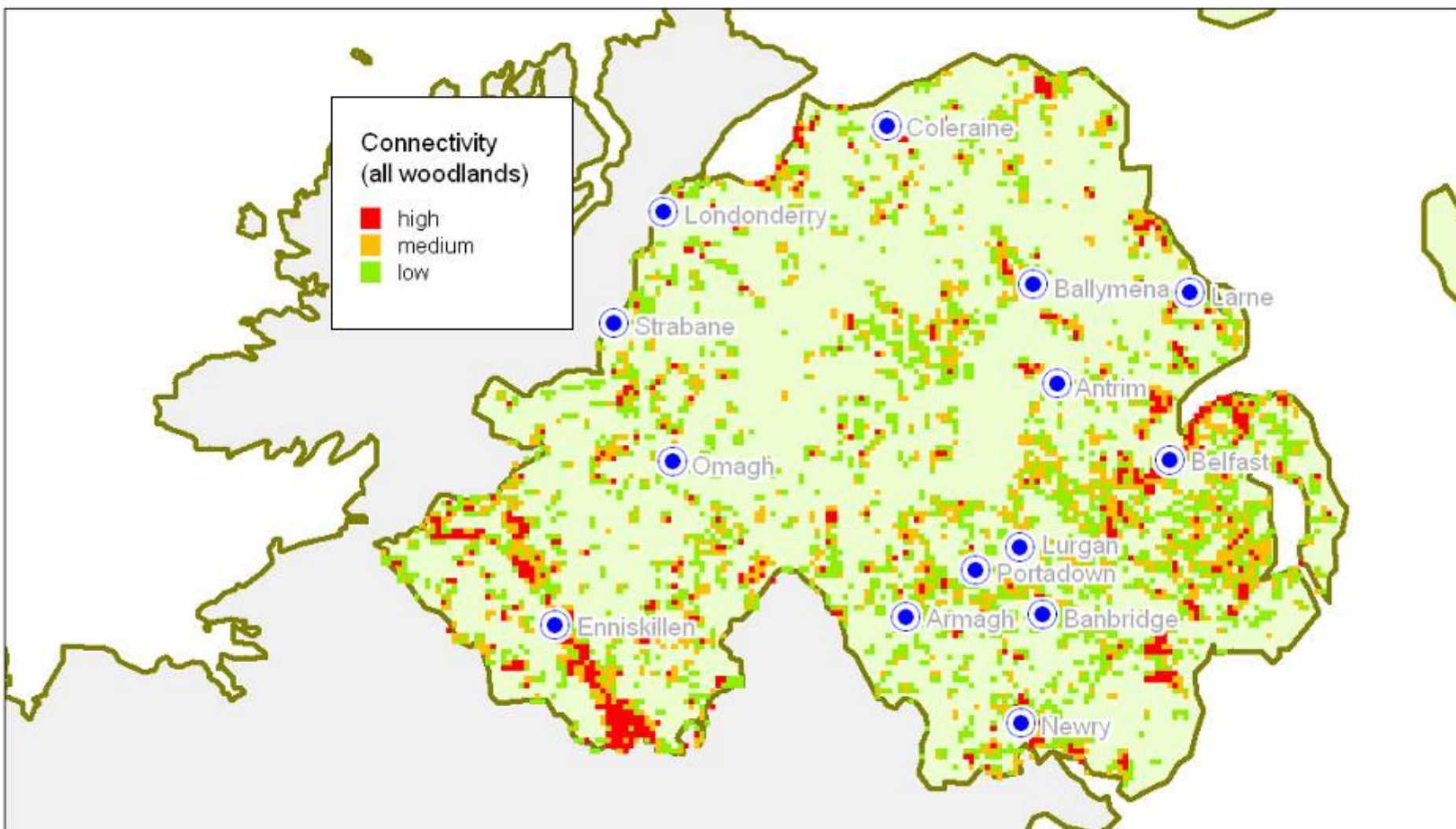
England, Wales and Scotland Ecological Network 08



Peatland Networks



Woodland Networks



The Middle Path



Photo By Krishnagopal Kodoth. Location Thailand. Ayuthaya

Delayed Gratification!

Fit for Purpose?

First Principles?

Existing Information?

Never Trust a Map!

Never Trust Opinions!

Keep it Simple!

Understand Assumptions!

Test Assumptions!

Thank You

