



UK landscape ecology: trends and perspectives from the first 25 years of ialeUK

Chris Young (University of Wolverhampton)

James Millington (King's College London)



25 Years of Conferences

Table 1 List of ialeUK conferences (– = no UK conference)

Year	Conference Theme	Location	No. of abstracts
1992	Landscape Ecology in Britain	Nottingham	19
1993	The Ecology and Management of Cultural Landscapes	Cheltenham	12
1994	Fragmentation in Agricultural Landscapes	Preston	30
1995	Landscape Ecology: Theory and Application	Reading	44
1996	The Spatial Dynamics of Biodiversity	Stirling	33
1997	Species Dispersal and Land Use Processes	Coleraine	62
1998	Key Concepts in Landscape Ecology	Manchester	62
1999	Heterogeneity in Landscape Ecology: Pattern and Scale	Bristol	33
2000	Quantitative Approaches to Landscape Ecology	Bangor	24
2001	Hedgerows of the World: Their Ecological Functions in Different Landscapes	Birmingham	58
2002	Avian Landscape Ecology: Pure and Applied Issues in the Large-scale Ecology of Birds	Norwich	71
2003	No conference		–
2004	Landscape Ecology of Trees and Forests	Cirencester	66
2005	Planning, People and Practice: The Landscape Ecology of Sustainable Landscapes	Northampton	29
2006	Water and the Landscape: The Landscape Ecology of Freshwater Ecosystems	Oxford	58
2007	No conference		–
2008	Landscape Ecology and Conservation	Cambridge	24
2009	Ecological Networks: Science and Practice	Edinburgh	33
2010	Future Landscape Ecology	Brighton	33
2011	Landscape Ecology and Ecosystem Services	Wolverhampton	46
2012	Landscape Ecology: Linking Environment and Society	Edinburgh	36
2013	Changing European Landscapes: Landscape Ecology, Local to Global (IALE-Europe conference hosted by ialeUK)	Manchester	–
2014	Urban Landscape Ecology: Science, Policy and Practice	London	40
2015	Seascape Ecology: Connecting Land, Sea and Society	Edinburgh	40
2016	Landscape Characterisation: Methods & Applications in Landscape Ecology	Reading	27
2017	25 Years of Landscape Ecology	Manchester	46

Questions

- What trends are there in UK landscape ecological research as evidenced by the ialeUK conference proceedings?
- How do any trends identified in UK landscape ecology compare to the discipline elsewhere in the world?
- How can ialeUK best support landscape ecology research and practice into the future?

Quantitative Analysis - Methods

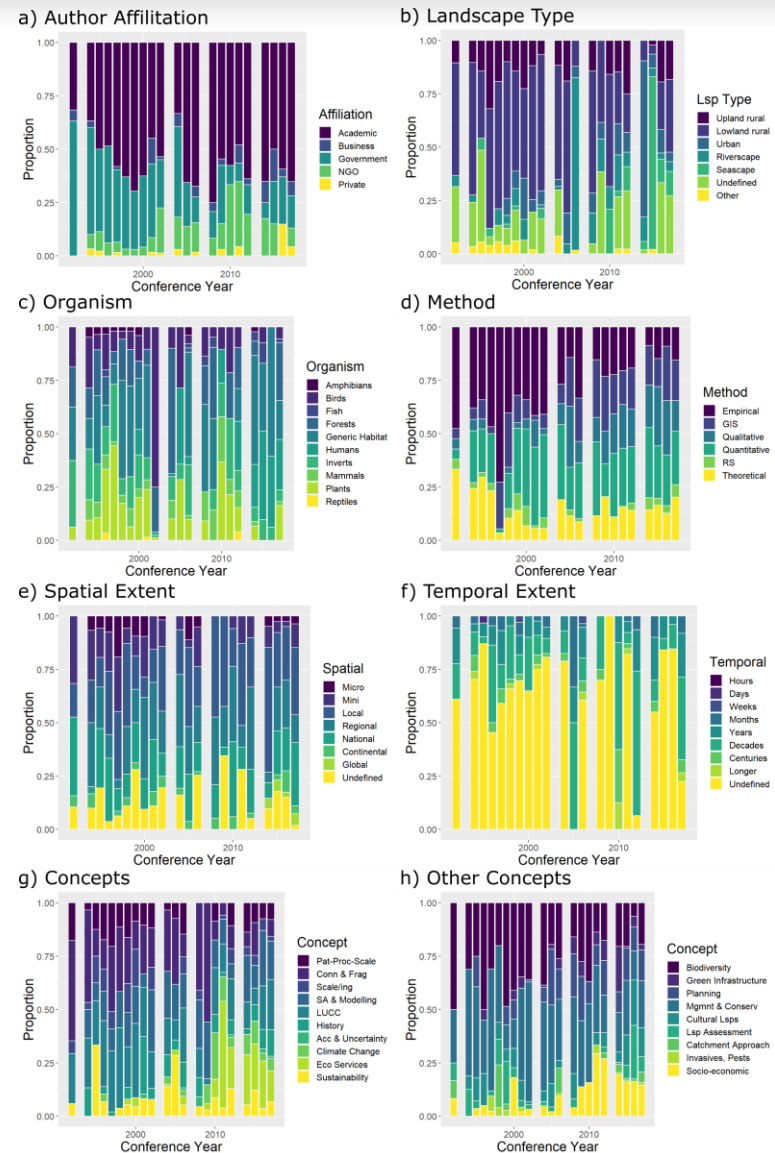
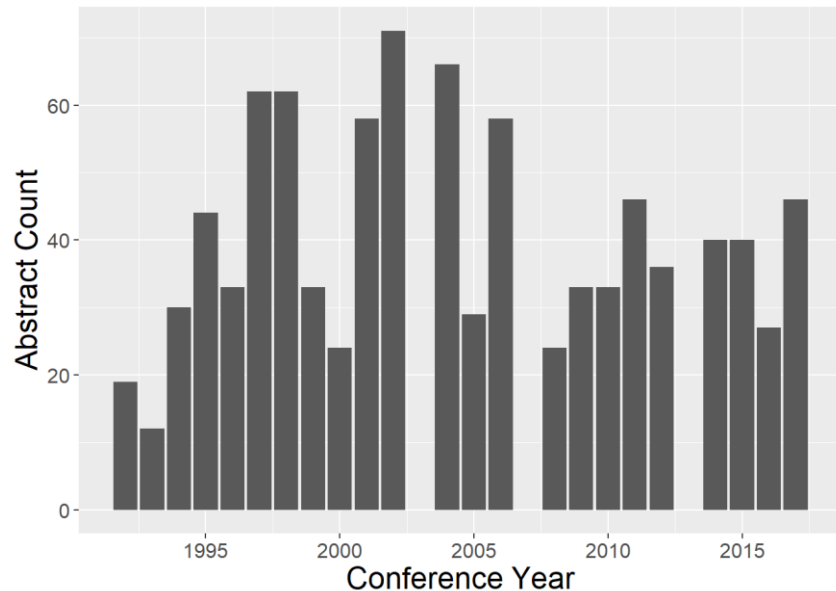
- Database of conference abstracts (oral & poster)
- Categorisation of 914 abstracts

Table 2 Categories and classes used to characterise conference abstracts

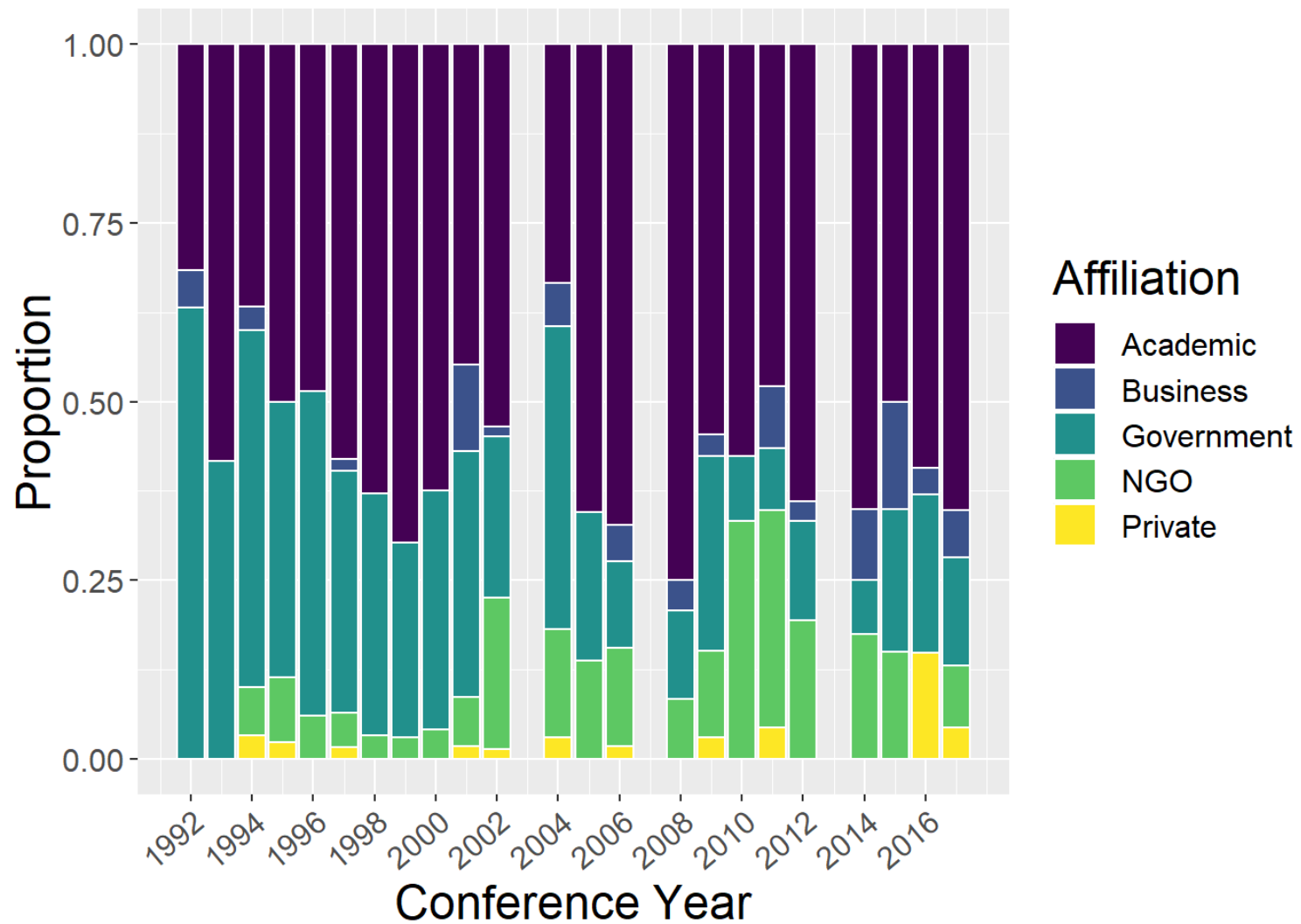
Category	Classes
Author Affiliation	Academic, Government, NGO (Non-Government Organisation), Business, Private
Landscape Type	Upland Rural, Lowland Rural, Urban, Riverscape, Seascape, Undefined, Other
Organism	Mammals, Humans, Birds, Reptiles, Inverts, Plants, Amphibians, Fish, Generic Habitat, Woodland/Forests
Methods	Empirical, Theoretical, Qualitative, Quantitative, Geographical Information Systems (GIS), Remote Sensing (RS)
Spatial Extent	Micro (less than 1 ha), Mini (1 ha–10 km ²), Local (10–100 km ²), Regional (1000–10,000 km ²), National Continental, Global, Undefined
Temporal Extent	Hours, Days, Weeks, Months, Years, Decades, Centuries, Longer, Undefined
Concepts	Pattern–Process–Scale relationships of landscapes (Pat-Proc-Scale), Landscape Connectivity and Fragmentation, Scale and Scaling, Spatial Analysis and Landscape Modelling, Land Use and Land Cover Change (LUCC), Landscape History and Legacy Effects, Landscape and Climate Change Interactions, Ecosystem Services in Changing Landscapes (Eco services), Landscape Sustainability, Accuracy Assessment and Uncertainty Analysis (Acc and uncertainty)
Other Concepts	Green Infrastructure, Planning and Architecture, Management and Conservation (Mgmt & Conserv), Cultural Landscapes (Cultural Lsp), Socio-economic Dimensions, Biodiversity, Landscape Assessment (Lsp Assessment), Catchment Based Approach, Invasives, Pests & Diseases

Quantitative Analysis - Results

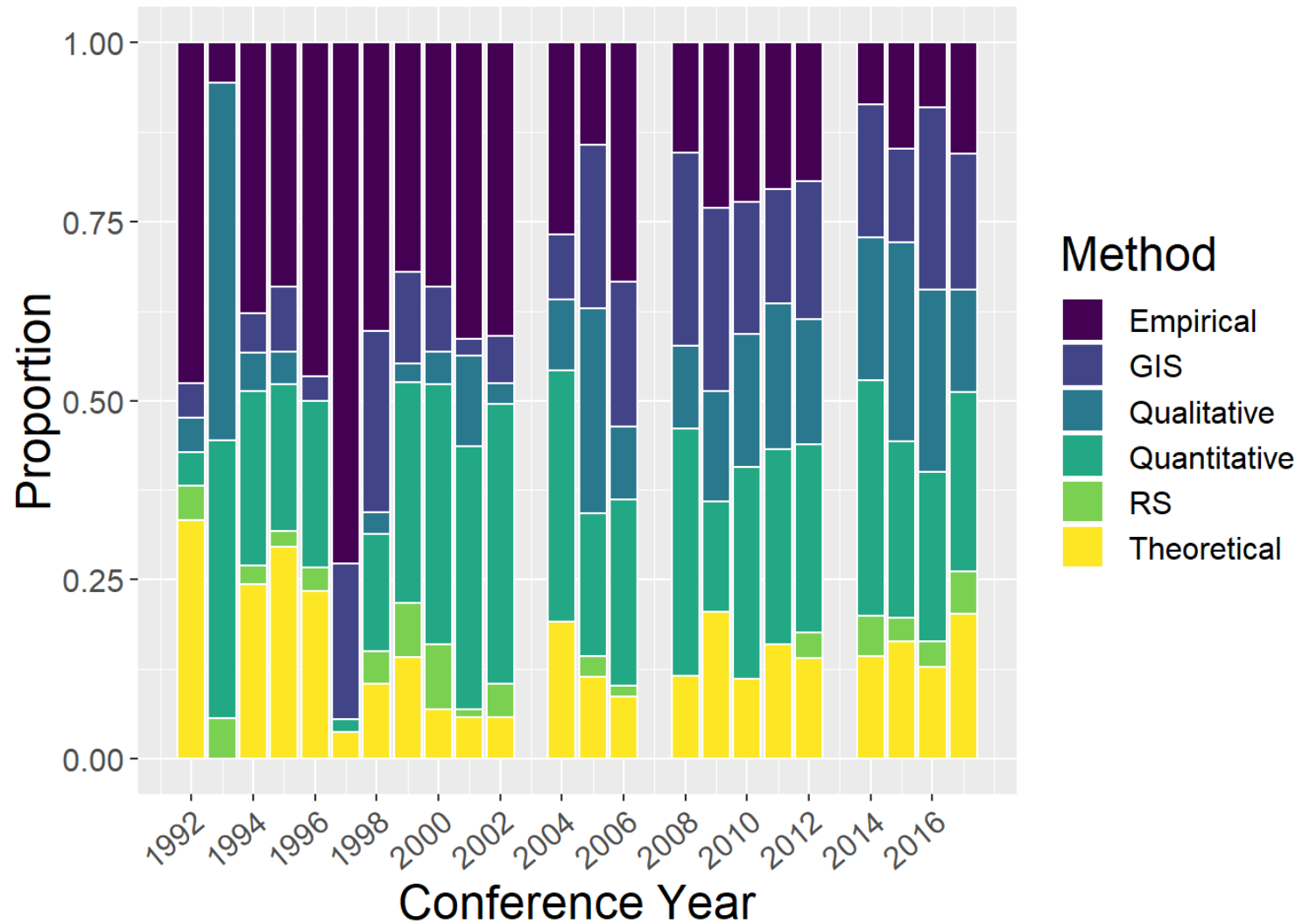
- Database available at: <https://bit.ly/ialeUK25data>
- Full analysis (with code): <https://bit.ly/ialeUK25book>



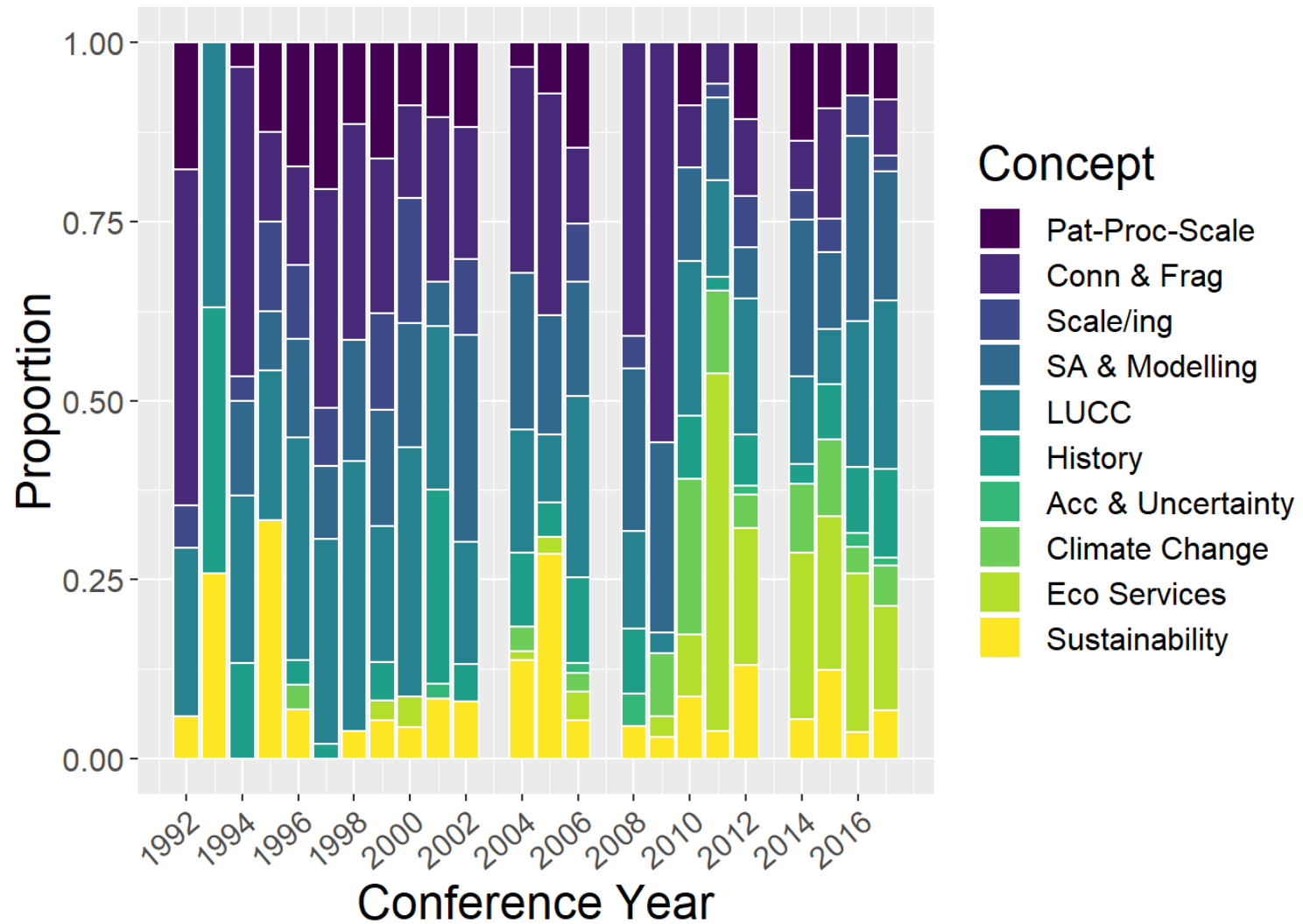
Results - Author Affiliation



Results - Methods



Results - Concepts



Landscape Ecology: UK vs Elsewhere

- Studies of **urban and cultural** landscapes have increased at ialeUK conferences
 - Urban emphasis common across Asia
- Consideration of **human role** in shaping landscapes more consistent with European than North American focus
- Understanding the role of traditional and **indigenous knowledge** is less prominent in UK
 - Earlier industrialization? No 'European disruption'?

Questionnaire Survey

1. In its 25 years what contribution has ialeUK made to Landscape Ecology as a discipline?
2. What have been the particular successes of ialeUK?
3. What challenges remain for landscape ecology in the UK?
4. What role do you see for ialeUK in the next 25 years?

Emerging themes: (1) Developing new researchers

Particularly towards early career researchers and PhD students

1. *“For students, I like the fact that the annual student event includes a training element as well as a forum for networking.”*

Emerging themes: (2) Facilitating conferences for networking, learning and discussion

Overall Importance:

1. *“the conferences and events are always super-friendly”* and
2. *“high quality annual conferences”*

Linking policy and practice;

1. *“The conferences have offered a real range of topics and have been a forum for presenting and discussing excellent research and other initiatives in policy and practice.”*

Emerging themes: (3) Linking policy with practice

1. *“ialeUK has provided a friendly hub of knowledge exchange and networking for researchers, policy makers, ecological consultants and practitioners”.*
2. Strategically how ialeUK has *“...consistently championed the integration of academics, researchers and practitioners”*
3. Indeed one respondent stated categorically they did not know of *“another organisation that achieves this [combination of activities] as well as ialeUK”.*

Emerging themes: (4) Driving the continued growth of landscape ecology as a discipline

Reflecting subject-related ecological changes and driving these as areas.

Typical comments:

1. *“supported continual development of landscape ecological science”*
2. *“It has raised the profile of Landscape Ecology”*
3. *“ialeUK is recognised as one of the active and leading chapters of IALE”*

Ongoing Challenges

1. *“explaining what landscape ecology is to those outside of the landscape ecology community and how what they do is actually landscape ecology...but they don’t realise it!”*
2. *“to make more people aware that landscape ecology applies to the work they do”.*
3. *“getting more businesses on board and using landscape ecology principles”*
4. *Needing “landscape ecologists that can penetrate and weave through normal practice showing the benefits of a different approach”.*
5. *So needing the “integration of research into spatial ecology with the long-term dynamics of biodiversity changes”*

Future Directions

1. *“support researchers, inform policy makers and practitioners,”*
2. *“continuing to provide a community of practice”*
3. *“Collaboration with engineering and landscape architects to promote approach”*
4. *“Advocating partnership to deliver better outcomes with limited resources”*

The message - what we have been doing well we need to continue doing well, but stressing the need for *“multidisciplinary cooperation”*.

Trends

1. Research - Fewer government representatives, decreasing empirical fieldwork-based studies/increases in qualitative studies, and increases in studies of climate change and ecosystems services with a seeming decrease in studies specifically about connectivity and fragmentation.
2. UK distinctiveness - More qualitative research, less focus on connectivity/fragmentation, absence of landscape genetics studies
3. Aspiration - Improved collaboration with other landscape-related professional bodies and contributions to wider sustainability agendas.

Conclusions

1. A healthy diversity in UK landscape ecology
2. Concepts have been brought into more mainstream planning and nature conservation policy and practice since the chapter came into being.
3. “...landscape ecological knowledge is not used in decision making as effectively as it might” (Haines-Young 2017).
4. ialeUK needs to continue to aim to help ensure that the discipline plays a significant role in wider sustainability agendas.

Acknowledgements

We would like to thank everyone who has contributed to the range of ialeUK activities over the past 25 years. Special thanks are given for past committee members and conference organisers who have devoted considerable professional and personal time to the success of ialeUK.

Full paper at:

Young, C., Bellamy, C., Burton, V., Griffiths, G., Metzger, M.J., Neumann, J., Porter, J. and Millington, J.D.A. (2020) UK Landscape Ecology: Trends and perspectives from the first 25 Years of ialeUK. *Landscape Ecology*, 35(1), pp. 11-22. DOI: [10.1007/s10980-019-00945-1](https://doi.org/10.1007/s10980-019-00945-1)