***environmental SCIENTIST* journal: learning resource notes**

The purpose of these educational resource notes is to provide a format for informal, seminar-style discussions of the topics explored in the latest edition of the journal of the Institution of Environmental Sciences.

Through discussion of the ideas and issues presented within the journal, they aim to supplement and enhance students’ knowledge and understanding of a broad range of environmental science issues and provide insights into the professional concerns of practising environmental scientists.

**Articles in focus**

The following articles have been selected as particularly relevant for in-depth discussion, allowing for wider debate of the key elements of the article topic. Some specific questions/points you may wish to consider when reading and discussing these articles are outlined.

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| Learning outcomes | * Understand the main ideas discussed in the publication
* Describe the main conclusions and their relevance to the environmental science sector
* Critically reflect on the main concepts discussed
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| Format | * Articles of particular interest are to be selected and shared with the group to read ahead of the discussion. Suggestions of focus articles are attached here
* Small group discussions of articles that closely relate to programme content to supplement learning
* Discussions can be led by participants or the tutor, using the ‘articles in focus’ resource to prompt debate and aid the conversation
* The suggested discussion points and questions provided in this pack for selected articles can be used as a starting point to guide the discussion
* Students can be encouraged to choose to discuss any of the other articles within the issue
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e*nvironmental SCIENTIST* **Reconnecting society with its ecological roots**Vol 29, Issue 3

 [www.the-ies.org/resources/reconnecting-society-ecological-roots](http://www.the-ies.org/resources/reconnecting-society-ecological-roots)

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| **Topic overview**  | Recognition of feedback between human activities and our supportive ecosystems, in turn affecting human health, economic prospects, security and opportunity, has been well documented. This edition of the *environmental SCIENTIST* discusses the need for a new paradigm that places ecosystems and their processes at the centre of societal thinking, policy, fiscal systems and resource use habits, ultimately reconnecting society with its ecological roots. Within this issue, the authors examine how a systems approach could provide positive transformations for human health, water management, flood regulation, defence, nature conservation and many more areas. |
| **Articles in focus** |
| **The natural basis for meeting human needs – a reality check****David Tickner (p.37)** | **Article overview:** explores the topic of effective communication by environmentalists to ensure coherent research, policy and planning across disciplines, and presents potential shifts in the approaches that conservationists should take when advocating for change. |
| * In your opinion, what is the key message of the article?
* Are there any examples from recent years that you think could be classed as a ‘hot moment’? Why did you choose this particular example, and are you aware of any developments in policy as a result of this?
* In moving the environment from the periphery towards the mainstream of policymaking, the author acknowledges the challenge of using necessarily simple campaigning arguments while also acknowledging the complexity inherent in ecosystem management. How do you think this challenge can be best approached, and what are the risks of such an approach?
* How could we address the disconnect between research and advocacy in different disciplines and specialist networks (for example between the social and natural sciences), to achieve coherent research, policy and planning for ecosystem management?
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| **The benefits of nature’s recovery****Gary Mantle (p.62)** | **Article overview:** This article explores the benefits of landscape-scale conservation, in comparison with a preservationist approach to nature conservation characterised by protected but fragmented natural spaces, and discusses the living landscapes approach proposed by The Wildlife Trusts.  |
| * What do you see as the main benefits of a landscape-scale approach to nature conservation such as the living landscapes approach proposed by The Wildlife Trusts?
* What do you think the main challenges might be in achieving a landscape-scale approach to nature conservation?
* How might a preservationist approach to nature conservation be of benefit? Are there any instances where this approach might be preferable?
* The article makes several recommendations for the way forward, what do you think the key message of the article is?
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| **Ecosystems, Covid-19****and other zoonotic****diseases****Mark Everard, Paul Johnston,****David Santillo and Chad Staddon** **(p.76)** | **Article overview:** This article explores reasons for the increasing incidence of zoonotic diseases, highlighting the role of ecosystem degradation in reducing the ecosystem service of disease regulation, and emphasises the importance of ecosystem health in the management and mitigation of current and future pandemics.  |
| * Why do you think most human infectious disease events emerging over recent decades have had zoonotic (animal to human) origins?
* Why is ecosystem degradation an important factor in human vulnerability to disease?
* Acknowledging the role of ecosystems and their services in providing solutions to current and likely future zoonotic emergence and management, what do you think policy responses addressing zoonotic threats should include?
* The article argues that rapid political responses to the pandemic, including emergency legislation and stimulus packages, demonstrate that systemic change is achievable at scale and pace, and is also therefore transferrable to other global-scale threats including climate change and the ‘biodiversity crisis’. What do you think needs to be done to ensure concerted global action on these issues?
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