

sDiv Workshop Summary

Next generation models for ecosystem services and biodiversity (sESMOD)

14 – 17 April 2015

Contact

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Summary

Over the past decade, considerable progress has been made in modeling ecosystem services (ES) and biodiversity, capturing complex processes with relatively simple approaches to demonstrate the benefits of nature to people. While these models capture much of the basic processes of ES, our understanding of the ecological underpinnings of ES remains rudimentary. We will synthesize what has been learned from these models, highlight key gaps, and suggest improvements that would improve the usefulness of these models in real world decision-making.

Participants

Paul Armsworth (U. Tennessee, NIMBios), Elena Bennett (McGill University), Katrin Böhning-Gaese (Biodiversity and Climate Research Centre), Aletta Bonn (iDiv, Universität Berlin), Becky Chaplin-Kramer (Natural Capital Project, Stanford University), Graeme Cumming (University of Cape Town), Gretchen Daily (Stanford University), Felix Eigenbrod (University of Southampton), Volker Grimm (iDiv, UFZ, University of Potsdam), Bethanna Jackson (Victoria University of Wellington), Alexandra Marques (iDiv), Henrique Pereira (iDiv, University of Lisbon), Subrghendu Pattanayak (Duke University), Garry Peterson (Stockholm Resilience Centre, Stockholm University), Jesse Rieb (McGill University), Mattias Schroeter (iDiv), Lisa Schulte-Moore (Iowa State University), Ralf Seppelt (iDiv, UFZ, Martin Luther University –Halle), Monica Turner (U. Wisconsin)

Feedback of applicants

Our discussions focused on the gaps that currently exist in models of biodiversity and ecosystem services. While our background document suggested five main gaps, at the workshop, we whittled this list down to three key challenges for the next generation of models: accurately portraying feedbacks among ecosystem services; understanding and modeling the relationships between ecosystem service providers and beneficiaries; measuring and modeling change in multiple ecosystem services across time and space. Ultimately, all three of these gaps revolve around improving our understanding of when biodiversity (all types of biodiversity) contribute to the provision of services and when it is not the critical component leading to service provision.

Next steps

We have begun to work on a high level synthesis paper, aimed at Science that attempts to take on these three challenges from the perspective of key users of ecosystem service models, including big governments, corporations, and local NGO and government organizations. This paper will start with the types of questions that these users are asking and cannot answer, and proceed to discuss the implications for the next generation of ecosystem service models.

The general working atmosphere was great. We had really lovely space, plentiful coffee, tea, and snacks, and nice interaction with our hosts. We enjoyed having many workshop participants from the iDiv community and the opportunity to walk through the city daily was a major benefit for everyone's mental well-being and ability to focus during the day!



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for Integrative
Biodiversity Research

Tuesday 14th April	
9:00am	Registration & Workshop presentation, goals of meeting, introductions
10:00am	<i>Coffee Break</i>
10:30am	Gaps 'game' and discussion
1:00pm	<i>Lunch</i>
2:00pm	Break-out groups based on key modeling gaps from the game Goal: define the gap
3:30pm	<i>Coffee Break</i>
4:00pm	Plenary presentations, report back from break-out groups, consider whether we are missing any key gaps given the paper(s) we aim to develop together.
5:00pm	Free time
7:00pm	<i>Dinner</i>



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Wednesday 15th April	
8:30am	Brief morning plenary
8:45am	Break-out groups: by types of ecosystem services: Which of the key gaps are most critical for your services and why?
<i>10:00am</i>	<i>Coffee Break</i>
10:30am	Report back from break-out groups and discussion
11:00am	Break-out groups: by types of decision: Which of the key gaps are most critical for your these decisions and why?
<i>1:00pm</i>	<i>Lunch</i>
2:00pm	Report back from break out groups and discussion of the outline of the main group paper
<i>3:00pm</i>	<i>Coffee Break</i>
3:30pm	iDiv Public seminar
<i>7:00pm</i>	<i>Dinner</i>

Thursday 16th March	
9:00am	Focused discussion of synthesis paper outline based on gaps discussions so far
<i>10:00am</i>	<i>Coffee Break</i>
10:30am	Writing in small groups, further discussion
<i>1:00pm</i>	<i>Lunch</i>
2:00pm	Report back from break-outs and writing groups, discussion of remaining gaps
<i>3:00pm</i>	<i>Coffee Break</i>
3:30pm	Continued writing
5:30pm	Free time
<i>7:00pm</i>	<i>Dinner</i>

Friday 17th April	
8:30am	Plenary: discuss outline again
<i>10:00am</i>	<i>Coffee Break</i>
10:30am	Writing in small groups based on outline
<i>1:00pm</i>	<i>Lunch</i>
2:00pm	Writing in small groups based on outline
<i>3:30pm</i>	<i>Coffee Break</i>
4:00pm	Summary and synthesis + next steps
5:00	Free time
<i>7:00pm</i>	<i>Dinner</i>

Participant list:

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