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Open access to science on ecosystem services and biodiversity

Alexander P.E. van Oudenhoven, Matthias Schröter & Rudolf de Groot

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EDITORIAL

Open access to science on ecosystem services and biodiversity

***IJBESM* fully open access from September 2016**

The *International Journal of Biodiversity Science, Ecosystem Services & Management (IJBESM)* will be moved to full open access from 26 September 2016 onwards. This means that the research it publishes will be available for anyone to read, anywhere, at any time, providing they have an internet connection. We have elected to make this change in consultation with our five Associate Editors, who all supported the move wholeheartedly. As editorial team, we see many advantages of this step. There is currently a trend towards publishing open access and funders increasingly acknowledge the need for results being publicly available. Additionally, funders also increasingly make money available for open access publication. Open access will, of course, increase the visibility and discoverability of research published in *IJBESM*. We consider this aspect important for at least two reasons. First, as we aim to publish results with high relevance for management, easy access of studies to managers and decision-makers is crucial. Second, a considerable part of research published in *IJBESM* is from non-western countries. Knowledge from these regions will hence be more easily available to researchers, students and managers from these regions. Authors from developing countries will be able to easily share and spread their results. Overall, we expect a strong growth in usage and, subsequently, citations. We are confident that the Journal will have a more secure future and will be more influential as an open access journal as compared to a journal continuing to rely on subscriptions.

Submitted papers to *IJBESM* will still be subject to double-blind peer review, as before. The Journal will retain rigorous quality control such that only meaningful and important new results are accepted for publication. The article publishing charge (APC) for *IJBESM* will be £470 (\$750/€625), which is in line with current funding and other journals in the field. Taylor & Francis, our publisher, has also negotiated APC discounts with some institutions that will cover their authors' APCs at a discounted rate. In addition, our publisher will support a waiver programme for scholars in emerging regions (no fee, or \$250, depending on country). Taylor & Francis are continuously working to complete more of these arrangements, so more authors can benefit. More information can be found at <http://www.tandfonline.com/page/open-access/members>.

Finally, in order to strengthen the ties with the Ecosystem Services Partnership (ESP) (www.es-partnership.org), full members of the ESP will receive a discount of 15% on their APC.

Papers in this issue

Ntshane and Gambiza (2016) applied the biodiversity modelling tool of the well-known InVEST model (Tallis et al. 2011) to assess the condition of habitats to support the delivery of ecosystem services in the Vhembe Biosphere Reserve in South Africa. InVEST stands for 'Integrated Valuation of Ecosystem Services and Trade-offs', and the InVEST biodiversity model uses information about threats to biodiversity and habitats together with land-use and land-cover change to produce habitat quality and degradation maps. Ntshane and Gambiza (2016) use these maps to provide information about the quality and degradation of different habitat types over time, which matters for the delivery of ecosystem services. It should be noted that an area of over 3 million hectares was mapped, an area purposefully chosen so that it would also include the northern section of the Kruger National Park and other important buffer areas. Ntshane and Gambiza (2016) found that 72% of the surveyed habitats were of high quality to provide the necessary services. However, agriculture, mining and urban areas could be related to substantial habitat loss. For instance, at least 56% of the studied vegetation types were found to be threatened by these three drivers. The authors plea for strategies to be put in place to inform management of vegetation types that are threatened by degradation, especially because habitat condition forms the basis for the provision of many, if not all, ecosystem services in South Africa.

Kuyah et al. (2016) conducted a structured literature review about ecosystem provision by trees on farms and, more generally, in agricultural landscapes in sub-Saharan Africa. The review was conducted in response of the recent interest in multifunctional agricultural landscapes, which has not yet been matched by sufficient assessment of the roles that trees and forest patches play for ecosystem service provision. The authors assessed 350 journal articles (1995–2014) and found information on 15 ecosystem services in 23 countries. In general, provisioning (39%, especially food provision) and supporting (35%, especially nutrient cycling) services were reported in the studies, followed by regulating (26%,

especially water regulation) and close to no cultural services. Impacts were found to be largely beneficial, particularly in semi-arid zones, where water availability and nutrient cycling were enhanced due to trees. Kuyah et al. (2016), furthermore, highlight the need to consider trade-offs between different ecosystem services provided by trees as well as increasing complementarity between trees and crops. This important review paper underpins that trees on farms and in agricultural landscapes in sub-Saharan Africa provide ecosystem services that support food security, agricultural productivity and sustainable natural resource management.

Tenzin and Hasenauer (2016) studied the effect of anthropogenic disturbance on tree species composition and diversity in Bhutan. These anthropogenic activities include the use of different provisioning services like timber harvest, fuel wood production and grazing. In total, 140 plant species were found in the area. A lower number of species was found in semi-disturbed and settlement/agricultural areas than in natural forest areas; similar patterns were found for different diversity measures. The authors point out that the absence of a sustainable forest management plan can lead to an increase of less valuable species which cannot be used for timber purposes. According to Tenzin and Hasenauer (2016), monitoring of regeneration and of resource extraction is needed.

Saswattecha et al. (2016) studied land-use change through increased use of palm oil and analysed the effects on food production, carbon storage and biodiversity conservation in Thailand. In particular, they found that indirect land-use change took place when oil palm plantations replaced rubber production areas, which in turn led to land conversion elsewhere. Their management suggestions include an increase in productivity of oil palm production and a stop of land conversion.

Ezebilo (2016) studied the economic value of nature recreation in Sweden based on a large-scale survey into travel costs. Travel costs per trip amounted to 117 SEK (16 \$) on average, the majority of trips taking place within a distance of only 5 km. The frequency of trips to nature areas depended on travel costs, but also on type of nature areas: forests and meadows were more frequently visited than mountain areas. For mountain areas, travel costs were highest. In order to enhance the provision of this cultural service, the author points, among other things, to increasing accessibility of nature areas through road improvement and investments in public transport.

Bark and Crabot (2016) took up the recommendation from the Convention on Biological Diversity (CBD) mandated experts to develop policy indicators for biodiversity, especially with regard to monitoring progress towards Aichi Target 3. This Target 3 tracks the policy responses of signatory countries to,

respectively, eliminate harmful incentives and introduce positive incentives to biodiversity by 2020. Bark and Crabot (2016) reviewed biodiversity policies, in relation to climate-change policies, and implemented between 1952 and 2012 in 54 nations using an Organisation for Economic Co-operation and Development (OECD) database. The authors found that the number of countries implementing biodiversity policies has increased steadily, which has been accompanied by continuous innovation and even evidence of policy revision and shifts in jurisdiction. However, the OECD database was designed before international focus on biodiversity, which complicated the authors' assessment. Therefore, the authors recommend that the database could be modified to include and better match biodiversity and ecosystem service-related policies. Finally, an important gap identified by Bark and Crabot (2016) is the scarce information on both the effectiveness and the efficiency of existing policy instruments and their transferability.

One of the most important criteria for research published in *IJBESM*, such as featured above, relates to relevance for decision-making and management. Research on ecosystem services and biodiversity should, in principle, always have this relevance, which is why we think the shift of *IJBESM* towards publishing open access is the right thing to do in this day and age. As an illustration, in 2017, *IJBESM* will publish Special Issues on 'Operationalizing marine and coastal ecosystem services', 'Certifying environmental social responsibility' and 'Ecosystem services supporting integrative natural resource management'. We look forward to publishing innovative new research, in terms of both scientific innovation and covering understudied geographical regions, that will always be available to everyone.

Disclosure statement

No potential conflict of interest was reported by the authors.

Alexander P.E. van Oudenhoven
*Institute of Environmental Sciences CML, Leiden
University, Leiden, The Netherlands*

 a.p.e.van.oudenhoven@cml.leidenuniv.nl
 <http://orcid.org/0000-0002-3258-2565>

Matthias Schröter
*UFZ – Helmholtz Centre for Environmental Research,
Department Ecosystem Services, Leipzig, Germany
German Centre for Integrative Biodiversity Research
(iDiv) Halle-Jena-Leipzig, Leipzig, Germany*

Rudolf de Groot
*Environmental Systems Analysis group, Wageningen
University, Wageningen, The Netherlands*

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