

## Ecology and evolution in the molecular era

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The Royal Botanical Society of Belgium and the National Botanic Garden of Belgium have tight links ever since the times of their foundation in the nineteenth century. In 2009, the two organizations decided to further strengthen their co-operation through joining forces with regard to publishing. As a result, the two principal Belgian botanical journals, *Belgian Journal of Botany*, and *Systematics and Geography of Plants*, are merged to become *Plant Ecology and Evolution*.

*Belgian Journal of Botany*, published by the Society, was a journal of general botany, whereas *Systematics and Geography of Plants*, published by the National Botanic Garden, had a narrower scope, restricted to plant systematics and allied disciplines. The two journals, however, showed a major overlap. Through their fusion, we intend to create a better international journal in uniting the strong points of the two former journals, respectively ecology and evolutionary systematics. Purely physiological contributions will no longer be accepted, the scope being now restricted to ecophysiology for that discipline.

The two journals started as the members' journal and home journal of the Society and Botanic Garden, respectively, as it was reflected in the initial titles, *Bulletin de la Société Royale de Botanique de Belgique* and *Bulletin du Jardin botanique de l'Etat*. The two titles gradually became truly international journals, a history that I have sketched for the home journal of the Botanic Garden on the occasion of the 100<sup>th</sup> year of scholarly publishing by the institute (Robbrecht 2002). The scientific involvement of Belgium in central Africa no doubt played an important role in this development. One could cite, as examples, many contributions with long-lasting impact on afro-tropical floristics, vegetation studies and phytogeography, e.g. Duvigneaud & Denaeyer-De Smet (1963) and White (1979, 1993). I therefore in particular welcome the contribution by Faucon et al. (2010) that opens this first issue with a review of the geography and taxonomy of central African metallophytes; a number of important references in this paper were published in the former journals. The review also indicates how important ecological and evolutionary studies became for conservation. That is also the reason why our guidelines ask to include, whenever possible, IUCN conservation assessments in taxonomic works; this has here been applied in the abovementioned review of metallophytes and to the novelty *Psychotria sonkeana* (Lache-naud & Séné 2010).

The publication of taxonomic revisions was a long tradition in the two journals. It is therefore not surprising that the

first issue of the renewed journal also contains a classic taxonomic revision (Breteler 2010). The journal will continue to publish taxonomic papers, regardless their length. In doing so, we go against the tide as taxonomic papers are increasingly refuted in botanical journals because their chances to be cited in a short term are often limited. We are convinced, however, of the long-standing value of taxonomic papers and the importance to have them published along with contributions with a higher short-term impact. The journal therefore also adheres to the code of Appropriate Citation of Taxonomy, ACT (Anonymous 2008). This decision constitutes the largest format change of the new title compared to the two former ones.

The journal's visibility and accessibility are vital issues in the rapidly changing and competitive world of scientific publishing. Therefore, *Plant Ecology and Evolution* implements digital object identifiers (DOIs), makes use of electronic pre-publication and provides free access to all published content through IngentaConnect ([www.ingentaconnect.com/content/botbel/plecevo](http://www.ingentaconnect.com/content/botbel/plecevo)).

The two former journals were intended to cover all groups of plants in the traditional sense since their creation. We want to continue in this line, and bryological, lichenological, mycological and phycological contributions will likewise be considered. This is hardly exemplified in this first issue, where mainly vascular plants are dealt with.

The present bonding of ecology and evolution comes at a moment when ecology, systematics, phylogeny and conservation biology have a growing mutual influence on each other, already stressed at the end of the twentieth century (Wilson 1997). This 'holistic' trend is reflected, for example, in vegetation science, where phytosociology (classification of plant communities) evolves into an integration of plant community assembly and biodiversity, by linking community ecology and evolutionary biology. The creation of research units for ecology and evolution, and the publication of totally new kinds of university textbooks, such as the marvellous 'Evolution and ecology of the organism' (Rose & Mueller 2006), are in the same line.

In the last decade we thus truly entered the era of Darwinian biology, where a vast array of molecular techniques offered new tools for population genetics, population and community ecology, evolutionary ecology, phylogenetic reconstruction, phylogeography and 'new' morphology.

I wish to thank all people who played a role in the launching of the new title. The Director of the National Botanic

Garden and the Council of the Royal Botanical Society supported the initiative. The team of Editors participated with enthusiasm in conceiving and shaping the new title; they took up the task of following up the review process for the papers in this and forthcoming issues. I especially appreciate the help of three Editors from outside the Botanical Society or the Botanic Garden, François Gillet (France), Myriam Heuertz (Spain) and Tariq Stévant (USA). Natacha Beau faced the challenge to take up the job of Editorial Assistant, and when preparing this issue proved to have excellent desk editor skills. Sven Bellanger designed the graphic elements including the cover, whereas Quentin Groom developed the journal's web page and will manage it in the future. Many colleagues in Europe and other parts of the world willingly accepted a position in the Editorial Board, to fulfil their advisory role to the Editors.

It is a convenient circumstance that *Plant Ecology and Evolution* is launched in the Biodiversity Year 2010; I hope it becomes an important international journal for biodiversity studies in the widest sense.

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