

NOTE FROM THE EDITORS

Pollination biology is a venerable part of the life sciences, with the first major book (Sprengel's *The Secret of Nature in the Form and Fertilisation of Flowers Discovered*) having been published in 1793. Nevertheless, in the first half of the 20th Century, pollination seemed to take on the cloth of a "has-been" part of biology. Perhaps Paul Knuth's encyclopaedic, multi-volume, general treatise *The Handbook of Flower Pollination* led to the view that most of what needed to be known was known, and the important reference books by McGregor and then by Free may have been regarded as the last word needed for crop pollination. In the latter part of the 20th Century, however, pollination ecology came into its own. The discipline was led by major advances into optimal foraging and population genetics with strong theoretical and methodological foundations. Nowadays, pollination has surged into new prominence. Old ideas from generalizations made at the end of the 19th Century, and repeated through most of the 20th, have been re-examined and interesting debates into evolutionary ecology have arisen. The issues associated with breeding and mating systems of plants have taken on great importance for evolutionary principles associated with sexual expression and investment into female and male reproductive output. Moreover, the importance of floral resources in the lives of so much of the world's terrestrial biota is becoming more and more appreciated. Assemblages of plants and their pollinators are central to the emergence of new ideas in community ecology as patterns of interaction between animals and plants are elucidated. Mutualistic relationships, or reciprocal parasitism, have become recognized as being more and more the usual state of affairs in nature than the older view of "nature red in tooth and claw". These patterns of interactions are known to be part of the palaeontological record for the diversification of the Earth's terrestrial biota, and to have been part of the process of evolution of terrestrial ecosystems since life colonized the land, long before flowering plants and pollinators became mainstream.

On the other hand, the importance of pollination to agriculture, food and fibre security, and to the continued functioning of ecosystems, cannot be denied. It is assumed that one third of the world's crop production

depends on pollination, and its global economic value adds up to €153 billion (Gallai et al. 2009). Pollination plays a central role in supporting other ecosystem services. Not only does plant diversity rely on animal pollination by guaranteeing the reproduction of the great majority of plant species, but also a multitude of primary consumers, from plant-feeding insects to fruit-eating monkeys and birds, depend on it too. Pollinators themselves add to this species richness with some 25,000 bee-species, plus a wide variety of birds, mammals and other taxa.

Now, the pollination of both wild and crop plants is widely regarded as being in jeopardy. The demise of the world's biota is of utmost concern; the centrality of biotic pollination in almost all terrestrial ecosystems has been recognized and pollinator conservation has surfaced as crucial to the well-being of the Earth, its biota, and people. With that in mind, the Sao Paulo Declaration on Pollinators led to the Convention on Biological Diversity embracing pollination as an ecosystem service worthy of its attention.

The need for a journal devoted to all aspects of pollination, both basic science and applied aspects, has been mooted over the years. Now, with such urgency confronting the need for protection, restoration, and conservation of an essential ecosystem service, and a growing realisation that there is much that we do not understand about both biotic and abiotic pollination biology, we must proceed apace.

With this in mind, the editors welcome you to the Journal of Pollination Ecology. The aim of the journal is to provide pollination biologists with an open access, freely available, online forum in which to disseminate new ideas and novel research. Please consider submitting your next manuscript to the *Journal of Pollination Ecology*!

REFERENCES

- Gallai N, Salles JM, Settele J, Vaissière BE (2009) Economic valuation of the vulnerability of world agriculture confronted with pollinator decline. *Ecological Economics* 68: 810-821.