

# Bringing botany into the 21st Century

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Botanical taxonomy, which extends to include the formal scientific naming of all plants, algae and fungi has gone through a landmark change in the procedure scientists need to follow when they describe new species. Details of the forthcoming changes to the newly-named 'International Code of Nomenclature for algae, fungi and plants' are laid out by Dr Sandra Knapp and colleagues in an article published in BioMed Central's open access journal *BMC Evolutionary Biology*. It has been suggested that perhaps only 10% of all species in the world have been named, and new species are discovered on a daily basis. Currently, in an era when scientific research is increasingly published online, the names and descriptions of all new species of algae, fungi and plants still must be lodged as printed copies at the libraries of several botanical institutions.

This existing, somewhat archaic, requirement for printed descriptions of new [species](#) to be deposited in relevant institutions has been a frustrating requirement of the code for scientists choosing to publish in online-only journals, such as [BMC Evolutionary Biology](#). They have had to ensure that a printed copy of their article is also archived at several relevant institutions in addition to the version available online. This has become an impediment to science, not to mention creating a great deal of administrative hassle in the more efficient digital age. When the cost to scientists and institutions of subscribing to hard copies of journals is becoming prohibitive, not to mention the delays between article acceptance and publication inherent to publishing in print, why should online-only journals be penalised by the Code?

Changes to the international Code for naming algae, fungi or plants are decided on every six years at the International Botanical Congresses (IBC). Earlier this year, at the XVIII IBC held in Melbourne, Australia, it was decided that from 1 January 2012 scientists who describe new taxa (species, genera, families) will be able to publish their discoveries entirely online. Dr Sandra Knapp, from the Natural History Museum in London explained that, "From January, authors will be able to use either Latin or English to distinguish their new taxon from all others, and authors describing new plants, algae and fungi will be able to publish these novelties in appropriately registered electronic-only journals or books. This does not mean that new names can appear on websites or in ephemeral on-line resources. It does mean that new names will be more accessible, and that publication of new species in [algae](#), fungi and plants will now be keeping pace with the exciting changes happening in the publishing world. Botanists and mycologists will have to work closely with the editors and publishers of these types of articles to be sure the rules of the Code are followed, but these new changes will bring names of organisms treated under the Code to wider audiences and will increase accessibility of biodiversity information when we need it most in order to help conserve what is rapidly being lost."

These changes that will appear in the 'Melbourne Code' as it will be known, are so important to biological and medical taxonomists that this information has simultaneously been published in BMC Evolutionary Biology, and several other journals including *Botanical Journal of the Linnean Society*, *Brittonia*, *Cladistics*, *MycoKeys*, *Mycotaxon*, *New Phytologist*, *North American [Fungi](#)*, *Novon*, *Opuscula Philolichenum*, *PhytoKeys*, *Phytoneuron*, *Phytotaxa*, *Plant Diversity and Resources*, *Systematic Botany* and *Taxon*.

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