



Editorial

What is a plant? and what is aquatic botany?



Sometimes authors and editors of *Aquatic Botany* answer these questions differently. To reduce confusion, we invited Professor John J. Bolton to address these questions in the 1000th accepted paper since *Aquatic Botany* moved to online manuscript submission in early 2004. We thought this milestone would be a timely opportunity to reflect on the scope of our journal, as it continues to play a role in the increasingly complex publication landscape.

As Bolton (2016) writes in his opinion paper, a clear delineation of what is a *plant* or what is included in *botany* is not simple. In line with Bolton's definition we consider our "NTGO" (non-taxonomic term for the group of organisms) treated in *Aquatic Botany* as "all aquatic macroscopic plants, including aquatic embryophytes and macroalgae", irrespective of whether they are within the Chlorobionta or other chloroxygenic primary producers, such as kelps or macroscopic red algae.

Papers on microalgae, whether phytoplankton or periphyton, have generally not been considered for publication in *Aquatic Botany* even if they are also considered 'plants' under Bolton's definition. Unless, of course, they have been part of a macrophyte-dominated system. This practice follows the original intention of the journal when it was launched in 1975, to gather papers on macroscopic aquatic plants, which at that time were scattered across general botanical, limnological or marine biological journals (Den Hartog, 1975). The evolution of the journal, including further details on its scope has been well outlined in a later editorial by the founding editor Cornelis Den Hartog (2006).

When the scope of the journal was originally formulated, the commonly accepted definitions of *plant* and *botany* were different from what we now deem appropriate. While the kingdom Plantae is limited to the Chlorobionta and Archaeplastida depending on broader or narrower definitions, the current tree of life shows a diversity of organisms performing chloroxygenic photosynthesis, and these are scattered across many different super-groups (Adl et al., 2012). On the other hand, *botany* is often called the science of plants, but has traditionally also included the study of fungi and algae, as highlighted by Bolton (2016).

We will not change the journal name, but will remain with *botany* in the title. We will, however, redefine our scope more precisely. Studies on fungi or microalgae will remain outside the scope of *Aquatic Botany* unless these organisms are in relation to *macroscopic aquatic plants*, in line with the main focus of this journal since its launch in 1975 (Den Hartog, 2006). Macrophytes and macroalgae *sensu* Den Hartog (1975) will remain the core focus.

Consequently, *Aquatic Botany* remains a specialized journal dedicated to research on macroscopic aquatic plants *sensu* Bolton (2016). Nowadays, the various data bases and search engines no longer require to screen the table of contents (TOCs) of various journals; a simple keyword or subject search will yield all recently published work on a certain topic. In this context, papers on aquatic macroscopic plants are beginning again to be scattered across a wide range of journals. Nevertheless, *Aquatic Botany* continues to publish about 100 papers per year, with constant submission numbers since several years.

Aquatic Botany offers a platform for papers on all fundamental and applied aspects of aquatic macroscopic plants, but also where specialized publications on certain rare taxa or papers on aquatic macroscopic plants from underrepresented regions in the world can find their place. The decision on what to include or not will continue to be subject to evaluation by editors and reviewer comments. Occasionally, borderline submissions might be rejected if the main topic of the submission seems better suited for other specialized journals, such as those dedicated to ecotoxicology or plant cell culture studies. Also, publication on plants that are only marginally associated with water, i.e. those that do not, at least most of their life cycle, have their roots or shoots in the water, do not fall within the narrower scope of the journal.

Aquatic Botany is an international journal with a broad readership, and papers should present work in a context of ecology or environmental biology that is of significance and interest beyond the local context of the study. We would like to increase the publication of opinion papers and reviews, especially on current topics and topics which provide new ideas. We encourage authors to discuss propositions for such papers with the editors prior to submission.

The updated scope of our journal is accordingly:

Aquatic Botany is publishing fundamental and applied studies of molecular, biochemical and physiological aspects of **macroscopic aquatic plants** as well as the classification, structure, function, dynamics and ecological interactions in **plant-dominated aquatic communities** and **ecosystems**. It is an outlet for papers dealing with research on the consequences of disturbance and stressors (e.g., environmental fluctuations and climate change, pollution, grazing and pathogens), use and management of aquatic plants (plant production and decomposition, commercial harvest, plant control) and the conservation of aquatic plant communities (breeding, transplantation and restoration).

References

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