A NEW MULTILINGUAL GLOSSARY OF TERMS USED IN WOOD ANATOMY?

At the wood anatomy conference in Curitiba last January, Dr. Bosshard (Zürich, Switzerland) made a strong plea for revising the Multilingual Glossary used in Wood Anatomy (1964), based on the earlier glossary in English compiled by the IAWA Committee of Nomenclature in 1933 and revised in 1957.

The problem Dr. Bosshard signalled has been around us for some time, and at various IAWA meetings of the last decade concern has been expressed about the fact that our present glossary is incomplete and partly outdated. In fact it led to the suggestion by Dr. Richard Keating at the first IAWA regional wood anatomy meeting in Blacksburg, Virginia in 1978 to start a column in the IAWA Bulletin for proposals of new definitions and terms. This suggestion was wholeheartedly welcomed and in IAWA Bulletin 1978/4 (p. 80) the first new or amended definitions for ray initial, ray cell initial, protoxylem, metaxylem and tile cells were duly published. In 1979 (IAWA Bull. 1979/2&3: 45–46) Dr. Rudolf Schmid contributed a second instalment of the column ‘Proposals on Wood Terminology’ with a discussion of the protoxylem/metaxylem definitions and definitions of xylem lacuna, xylic-phloic lacuna, vascular lacuna and protoxylem lacuna. At the Amsterdam Wood Anatomy Congress in 1979, Dr. Alberta M. W. Mennega proposed the preparation of a new edition of the multilingual glossary of terms, but that at meeting the preparation of a standard list of characters used in computerised wood identification was given priority. Despite my plea in 1978 for active contributions by IAWA members to the Bulletin column on terminology no further copy for it was ever received.

Pending the uncertainties of finding qualified wood anatomists who are willing to take on the herculean task of a comprehensive revision and extension of the glossary, it seems appropriate to revive the column ‘Proposals on Wood Terminology’. This should really be a forum for critical reactions as well as new proposals. Lively discussions will be promoted by direct publication in our quarterly Bulletin.

To stimulate the vitality of this column, I would like to challenge our readers to improve on the definitions for tracheid, fibre-tracheid and libriform fibres. The criterion of simple pits given for libriform fibres in the glossary is most unsatisfactory, because truly simple interfibre pits are hardly ever found, and virtually all hardwood fibres, even with the minutest borders to their pits, would have to be classified as fibre-tracheids. I much prefer the characterisation of libriform fibres by simple to minutely bordered pits, as a rule mainly confined to the radial walls. A further qualification for minutely bordered could be added: less than 2.5 μm in diameter. Fibre-tracheids are then elements with distinctly bordered pits (diameter 3 μm or larger), as a rule common in both the tangential and radial walls. These concepts of fibre-tracheids and libriform fibres are far from original, and they have proved their usefulness in comparative anatomy, because the number of species with unclassifiable fibres (size and distribution of pit borders intermediate between those of libriform fibres and fibre-tracheids) is quite limited, and in these definitions fibre type is often a powerful taxonomic character, correlated with a set of other differential characters. On the other hand, several authors prefer to reserve the above definition of fibre-tracheids for ‘true tracheids’; they maintain the narrow definition of the glossary for libriform fibres, and use the term fibre-tracheids for an intermediate class of imperforate elements. As explained above, the main objection to this treatment is that it reduces the category of libriform fibres to an almost non-existing one, and that it shifts the problem to where the borderline should be drawn between fibre-tracheids and tracheids. The latter term should in my opinion be reserved for localised elements with intervessel-like pits, e.g. in the latewood and around vessels (vasicentric tracheids) in certain hardwoods. For softwoods the definition of tracheids or fibre-tracheids (latewood tracheids) is purely academic and does not need to bother us. Some readers might well argue that the definition of ground tissue fibres in hardwoods is also rather academic, and that the late Dr. L. Chalk was perhaps the wiser when he consistently avoided the terms libriform fibres and fibre-tracheids and just described the pitting of fibres in the first edition of Metcalfe & Chalk’s Anatomy of the Dicotyledons (1950). The above discussion of fibre types is not conclusive. I can only hope that it stirs up some reactions and that on this and other moot points of terminology readers will actively contribute to the now reinstated column ‘Proposals on Wood Terminology’. Please let us have some copy for this column so that history will not repeat itself and any future revision of the glossary can draw on sound proposals, amply discussed by the wood anatomical community.

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