**IAWA Bulletin New Series - Volume 10(1)**

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| **Author(s):** | Hans Heinrich Bosshard |
| **Title:** | **Obituary** |
| **Source:** | IAWA Bulletin NS, Volume 10, Issue 1 |
| **Publication Year:** | 1989 |
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| **Author(s):** | Ben J.H. ter Welle |
| **Title:** | **IAWA Builetin New Series -10th Anniversary** |
| **Source:** | IAWA Bulletin NS, Volume 10, Issue 1 |
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| **Author(s):** | E. A. Wheeler; C. A. LaPasha; R. B. Miller |
| **Title:** | **Wood Anatomy of Elm (Ulmus) and Hackberry (Celtis) Species Native to the United States** |
| **Source:** | IAWA Bulletin NS, Volume 10, Issue 1 |
| **Publication Year:** | 1989 |
| **Pages:** | 5-26 |
| **Keywords:** | hackberry; Wood anatomy; wood identification; Celtis; elm; Ulmaceae; Ulmus |
| **Abstract:** | Wood anatomy of Ulmus and Celtis species (Ulmaceae) native to the United States is described. Ulmus differs from ring-porous species of Celtis in ray structure, crystallocation, and colour and fluorescence of water extracts. The soft elms/non-winged bark species (Ulmus americana and Ulmus rubra) differ from the hard elms/winged bark species (U. alata, U. crassifolia, U. serotina, and U. thomasii) in density, earlywood pore diameter, and appearance of crystal-containing axial parenchyma. Some species of hard elm can be distinguished from one another by a combination of characters: water extract colour and fluorescence, earlywood pore diameter and spacing. The anatomy of ring-porous species of Celtis is unifonn, except that in C. reticulata earlywood pores have a smaller radial diameter than the other species. Celtis pallida is diffuse-porous and resembles other diffuse-porous species of the genus. Vessel element lengths are similar for all species within these two genera regardless of habitat. |
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| **Author(s):** | A. Vidal Gomes; L. Lopes Teixeira; E. Gomes Schaitza; R. M. Hofmeister |
| **Title:** | **Perforation Plates in Vessels of Citharexylum Myrianthum Cham. (Verbenaceae)** |
| **Source:** | IAWA Bulletin NS, Volume 10, Issue 1 |
| **Publication Year:** | 1989 |
| **Pages:** | 27-34 |
| **Keywords:** | radiate perforation plates; Verbenaceae; Citharexylum myrianthum |
| **Abstract:** | An unusual type of perforation plate is reported for Citharexylum myrianthum (Verbenaceae). It is a multiple perforation variant with a radiating pattern of wall material from a thickened central portion. In C. myrianthum it occurs together with simple and foraminatereticulate perforatio n plates; four types of combination perforation plates are also reported. |
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| **Author(s):** | Jun Ohtani; Wu Jing; Kazumi Fukazawa; Xian Shao qun |
| **Title:** | **Multiple Perforation Plates in Gmelina Arborea Roxb. (Verbenaceae)** |
| **Source:** | IAWA Bulletin NS, Volume 10, Issue 1 |
| **Publication Year:** | 1989 |
| **Pages:** | 35-41 |
| **Keywords:** | multiple perforation plate; scanning electron microscopy; vessel member; Gmelina arborea Roxb.; Verbenaceae |
| **Abstract:** | Vessel members of Gmelina arborea Roxb. (Verbenaceae) have been reported so far to have exclusively simple perforations. In the present study based on SEM observations, however, various forms of multiple perforation plates have been found. These perforation plates always occurred as simple to multiple combination plates and the vessel members having them occurred only rarely, irregularly and solitarily in the wood. The morphology of the multiple perforation plates is illustrated by SEM micrographs. |
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| **Author(s):** | Pieter Baas |
| **Title:** | **Review** |
| **Source:** | IAWA Bulletin NS, Volume 10, Issue 1 |
| **Publication Year:** | 1989 |
| **Pages:** | 42-42 |
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| **Author(s):** | S. Lev-Yadun; Nili Liphschitz |
| **Title:** | **Sites of First Phellogen Initiation in Conifers** |
| **Source:** | IAWA Bulletin NS, Volume 10, Issue 1 |
| **Publication Year:** | 1989 |
| **Pages:** | 43-52 |
| **Keywords:** | Cupressaceae; Phellogen; Pinaceae; bibliography |
| **Abstract:** | Sites of first phellogen initiation were studied in ten species of Pinaceae and Cupressaceae. The distance from the apex, age and the tissue from which the first phellogen is initiated, were determined. In Pinaceae the first phellogen arises at a shorter distance from the apex than in Cupressaceae. In fastgrowing leaders, or seedlings, suberization appears at a larger distance from the apex as compared to slow growing branches. Differences between Pinaceae and Cupressaceae are probably related to differences in the contribution of leaf-bearing organs and branches to photosynthesis. These differences represent a compromise between protection by suberisation in Pinaceae and increase in the photosynthetic area in Cupressaceae. |
| **DOI:** | [10.1163/22941932-90001110](http://dx.doi.org/10.1163/22941932-90001110) |

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| **Author(s):** | Lin Jinxing |
| **Title:** | **Distribution, Size and Effective Aperture Area of the Inter-Tracheid Pits in the Radial Wall of Pinus Radiata Tracheids** |
| **Source:** | IAWA Bulletin NS, Volume 10, Issue 1 |
| **Publication Year:** | 1989 |
| **Pages:** | 53-58 |
| **Keywords:** | pit number parameter; effective aperturearea; Pinus radiata; Bordered pits; aspirated pits |
| **Abstract:** | The distribution, size and effective aperture area of inter-tracheid pits were studied in a 29-year-old plantation-grown tree of Pinus radiata by means of light and electron microscopy. It was found that the number of pits per tracheid in the first ten years is related more to tracheid length than to the age of the wood. Beyond the tenth year, the number of pits per tracheid is mainly related to the age of the wood, regardless of tracheid length. In addition, there is a positive linear relationship between tracheid diameter and pit diameter, indicating that the larger tracheids contain larger pits. The percentage of the effective aperture area per mrn length of radial tracheid wall is discussed, in relation to the 'percentage of aspirated pits and total area of pit aperture per tracheid. |
| **DOI:** | [10.1163/22941932-90001111](http://dx.doi.org/10.1163/22941932-90001111) |

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| **Author(s):** | M.P. Denne |
| **Title:** | **Definition of Latewood According to Mork (1928)** |
| **Source:** | IAWA Bulletin NS, Volume 10, Issue 1 |
| **Publication Year:** | 1989 |
| **Pages:** | 59-62 |
| **Keywords:** | latewood; Mork; wood anatomy definition; early wood |
| **Abstract:** | The definition of latewood proposed by Mork (1928) is discussed and quoted in full since it has been interpreted in two ways by subsequent authors. Some examples are given to illustrate differences in percentage latewood calculated according to the two versions of Mork's formula. |
| **DOI:** | [10.1163/22941932-90001112](http://dx.doi.org/10.1163/22941932-90001112) |

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| **Author(s):** | K. M. Bhat; K. V. Bhat; T. K. Dhamodaran |
| **Title:** | **Fibre Length Variation in Stem and Branches of Eleven Tropical Hardwoods** |
| **Source:** | IAWA Bulletin NS, Volume 10, Issue 1 |
| **Publication Year:** | 1989 |
| **Pages:** | 63-70 |
| **Keywords:** | within-tree variation; Tropical hardwoods; fibre length |
| **Abstract:** | Variation in fibre length within the tree, including branches, has been studied in eleven tropical Indian hardwoods growing in Kerala. Branch fibres were significantly shorter than stem fibres. Cashew had the shortest fibres (900/μm) and dillenia had the longest fibres (> 1600/μm) while the remaining woods had medium-length fibres (900-1600/μm). The most common pattern of radial variation was an initial increase in fibre length which reached a maximum and then decreased toward the bark. However, the radial pattern of variation often differed not only between species but also between levels within the tree of certain species. Fibre length followed a nearly linear increase in branches from the pith to the bark indicating juvenile growth. In the axial direction mean fibre length decreased from the base of the stem or branch to 50% and 75% of the stem or branch length. |
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| **Author(s):** | L. C. Lin; J. J. Morrell; R. L. Krahmer |
| **Title:** | **Fungal Colonisation of Douglas Fir and Ponderosa Pine by Poria Carbonica, Coriolus Versicolor, and Chaetomium Globosum; Visualisation With Fluorescent-Coupled Wheat-Germ Agglutinin** |
| **Source:** | IAWA Bulletin NS, Volume 10, Issue 1 |
| **Publication Year:** | 1989 |
| **Pages:** | 71-76 |
| **Keywords:** | Douglas fir; brown rot; soft rot; ponderosa pine; Basidiomycetes; white rot; wood decay |
| **Abstract:** | Fluorescent-coupled wheat-germ agglutinin (WGA) was used to examine fungal colonisation of ponderosa pine sapwood and Douglas fir heartwood by two Basidiomycetes and a soft rot fungus. Tracheid lumens were occupied by hyphae within one week of incubation with the three fungi. Three to seven weeks of coloni sation were required before bore holes or other penetrations were evident in the tracheid walls. The WGA technique proved particularly useful at the earliest stages of colonisation when few hyphae were present. |
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| **Author(s):** | A.P. Wilkins |
| **Title:** | **Relationsillp Beiween Broken Fibres in Macerated Eucalypt Wood and the Abundance of Cell Wall Deformations** |
| **Source:** | IAWA Bulletin NS, Volume 10, Issue 1 |
| **Publication Year:** | 1989 |
| **Pages:** | 77-81 |
| **Keywords:** | Eucalyptus; cell wall deformations; brittle heart; slip planes |
| **Abstract:** | The occurrence of brittle heart, the wood of low toughness often found near the centre of tree stems, has been considered to be indicated by the presence of both large numbers of broken fibres in macerated wood and cell wall deformations (slip planes and compression creases). |
| **DOI:** | [10.1163/22941932-90001115](http://dx.doi.org/10.1163/22941932-90001115) |

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| **Author(s):** | Pieter Baas |
| **Title:** | **Données actuelles sur les Tissus Conducteurs - Complexité des structures et diversité des mécanismes mis en jeu. A.M. Catesson (ed.), 120 pp., illus., 1987. Bulletin de la Société Botanique de France 134 (3/4). Société Botanique de France, rue J. B. Clément, 92296 Chatenay, Malabry Cedex, France. Price: FF 100 (paper).** |
| **Source:** | IAWA Bulletin NS, Volume 10, Issue 1 |
| **Publication Year:** | 1989 |
| **Pages:** | 82-82 |
| **Keywords:** |  |
| **Abstract:** |  |
| **DOI:** | [10.1163/22941932-90001116](http://dx.doi.org/10.1163/22941932-90001116) |

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| **Author(s):** | Pieter Baas |
| **Title:** | **The Jarrah Forest - A complex Mediterranean ecosystem. B. Dell, J.J. Havel and M. Malajczuk (eds.), xiv + 408 pp., illus., 1988. W. Junk/Kluwer Academic Publishers Group, Dordrecht, Boston, London. Price: Dfl. 325; US$ 169; UK£ 94.95 (cloth).** |
| **Source:** | IAWA Bulletin NS, Volume 10, Issue 1 |
| **Publication Year:** | 1989 |
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| **Author(s):** | Pieter Baas |
| **Title:** | **Check-list of woody plants of Guyana. E.A. Mennega, W.e. Tammens-de Rooij, M.J. Jansen-Jacobs (eds.), 281 pp., 1988. Tropenbos Technical Series 2, The Tropenbos Foundation, Ede, The Netherlands. Price: Dfl. 25; US$ 15 (paper).** |
| **Source:** | IAWA Bulletin NS, Volume 10, Issue 1 |
| **Publication Year:** | 1989 |
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| **Author(s):** | Dieter Eckstein |
| **Title:** | **Wood Anatomy News** |
| **Source:** | IAWA Bulletin NS, Volume 10, Issue 1 |
| **Publication Year:** | 1989 |
| **Pages:** | 84-85 |
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| **Author(s):** | Ben J.H. ter Welle |
| **Title:** | **Assocation Affairs** |
| **Source:** | IAWA Bulletin NS, Volume 10, Issue 1 |
| **Publication Year:** | 1989 |
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| **Author(s):** | Pieter Baas |
| **Title:** | **Wood anatomy in archeology - a matter for optimistic concern** |
| **Source:** | IAWA Bulletin NS, Volume 10, Issue 1 |
| **Publication Year:** | 1989 |
| **Pages:** | 88-88 |
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| **Author(s):** | Editors IAWA Journal |
| **Title:** | **Association Affairs** |
| **Source:** | IAWA Bulletin NS, Volume 10, Issue 1 |
| **Publication Year:** | 1989 |
| **Pages:** | 89-90 |
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