**IAWA Bulletin New Series - Volume 11(1)**

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| **Author(s):** | P. E. Gasson; D. F. Cutler |
| **Title:** | **Root Anatomy of 17 Genera Growing in the British Isles** |
| **Source:** | IAWA Bulletin NS, Volume 11, Issue 1 |
| **Publication Year:** | 1990 |
| **Pages:** | 3-46 |
| **Keywords:** | Dicotyledons; Rootwood anatomy |
| **Abstract:** | Roots of 23 woody species are described anatomically. They are mostly from species uncommonly planted in the British Isles, and were unavailable at the time the Root Identification Manual of Trees and Shrubs (Cutler et al. 1987) was being written. They were collected from trees blown down in the stonn of October 1987, which uprooted over 15 million trees in the south and east of England. All but one (Tetracentron sinensis) are from the Royal Botanic Gardens, Kew, or Wakehurst Place. |
| **DOI:** | [10.1163/22941932-90001142](http://dx.doi.org/10.1163/22941932-90001142) |

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| **Author(s):** | H. G. Richter |
| **Title:** | **Wood and Bark Anatomy of Lauraceae III. Aspidostemon Rohwer ' Richter** |
| **Source:** | IAWA Bulletin NS, Volume 11, Issue 1 |
| **Publication Year:** | 1990 |
| **Pages:** | 47-56 |
| **Keywords:** | taxonomy; Aspidostemon; Lauraceae; wood anatomy; bark anatomy; Cryptocarya |
| **Abstract:** | A group of Madagascan species hitherto ascribed to the genus Cryptocarya is segregated on account of its widely differing morphology and anatomy of wood and bark. The new genus, Aspidostemon Rohwer ' Richter, constitutes a small and very homogeneous taxon, and its wood and bark characteristics are described in detail. Aspidostemon contrasts Cryptocarya proper in nearly all qualitative and quantitative features to a high degree. This does not only justify its segregation from, but also precludes any close relationship with Cryptocarya. In order to properly accommodate Aspidostemon in the framework of lauraceous taxonomy, additional evidence from other botanical disciplines is required. |
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| **Author(s):** | Zhang Xinying; Pieter Baas; Alberta M. W. Mennega |
| **Title:** | **Wood Anatomy of Bhesa Sinica (Celastraceae)** |
| **Source:** | IAWA Bulletin NS, Volume 11, Issue 1 |
| **Publication Year:** | 1990 |
| **Pages:** | 57-60 |
| **Keywords:** | Celastraceae; Systematic wood anatomy; China; Bhesa |
| **Abstract:** | The wood anatomy of Bhesa sinica (Chang ' Liang) Chang ' Liang, the only species of the genus occurring in China, is described in detail and compared with other Celastraceae. Bhesa sinica closely resembles other species of the genus, in e. g. vessels mainly in radial multiples, exclusively scalariform perforations, large and (almost) simple vessel-ray pits; parenchyma in fine irregular bands, in long (over 8-celled) strands; thick-walled, non septate libriform fibres; 1-5-seriate heterocellular rays, and prismatic crystals in chambered axial and ray parenchyma cells. This combination of characters is not known to occur in any of the other genera of the Celastraceae, and most individual wood anatomical character states of Bhesa are also unusual within the family. The isolated position of the genus in the Celastraceae is discussed. |
| **DOI:** | [10.1163/22941932-90001144](http://dx.doi.org/10.1163/22941932-90001144) |

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| **Author(s):** | Gudrun Weiner; Walter Liese |
| **Title:** | **Ratians - Stem Anatomy and Taxonomic Implications** |
| **Source:** | IAWA Bulletin NS, Volume 11, Issue 1 |
| **Publication Year:** | 1990 |
| **Pages:** | 61-70 |
| **Keywords:** | Palmae; taxonomy; phloem; stem anatomy; Calamoideae; vascular bundles; xylem; morphology; parenchymatous tissue; rattan |
| **Abstract:** | The stem anatomy of 114 species of the 13 rattan genera of the subfamily Calamoideae has been examined and described. Characters of taxonomic and diagnostic significance are the number of metaxylem vessels and phloem fields in the vascular bundles, the type of ground parenchyma, and the tissue arrangement in the cortex. The 13 rattan genera can be distinguished on the basis of these features. |
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| **Author(s):** | Roland R. Dute; Ann E. Rushing |
| **Title:** | **Torus Structure and Development in the Woods of Ulmus Alata Michx., Celtis Laevigata Willd., and Celtis Occidentalis L.** |
| **Source:** | IAWA Bulletin NS, Volume 11, Issue 1 |
| **Publication Year:** | 1990 |
| **Pages:** | 71-83 |
| **Keywords:** | Celtis; torus; hardwood; wood ultrastructure; Ulmus |
| **Abstract:** | Pit membranes between tracheary elements of Ulmus alata, Celtis laevigata, and Celtis occidentalis often contained tori. The degree of development of tori varied and was greatest in those membranes connecting elements of small diameter. Complete tori consisted of two wall thickenings adjoined by a central layer. In three dimensions the shape of the torus often approximated a grooved wheel. Initiation of thickening in the pit membrane occurred first on the side of the older cell and was well underway prior to the beginning of secondary wall synthesis. Torus formation resulted from the thickening of the primary walls of the pit membrane. Development of the torus was associated with membranous vesicles and cisternae but not with microtubule complexes as was reported in Osmanthus. The pit membranes in this study are capable of aspiration, and the tori may prevent rupture of the pit membrane during this process. |
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| **Author(s):** | Ben J.H. ter Welle |
| **Title:** | **Madeiras da Amazônia. Descricao do lenho de 40 espécies ocorrentes na Floresta Nacional do Tapajós. Lourdes Cobra Fedalto, Irene da Costa Alvarenga Mendes and Vera Teresinha Rauber Coradin. 156 pp., illus., 1989. Instituto Brasileiro do Meio Ambiente e dos Recursos Naturais Renováveis - IBAMA, Brasflia. Price: US$ 10 (paperback). Available from: Laboratório de Produtos Florestais, Sain L/4 Lote 04, c.P. 152874, CEP. 70770 - Brasflia-DF, Brazil.** |
| **Source:** | IAWA Bulletin NS, Volume 11, Issue 1 |
| **Publication Year:** | 1990 |
| **Pages:** | 84-84 |
| **Keywords:** |  |
| **Abstract:** |  |
| **DOI:** | [10.1163/22941932-90001147](http://dx.doi.org/10.1163/22941932-90001147) |

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| **Author(s):** | Editors IAWA Journal |
| **Title:** | **Indonesian Wood Atlas, Volume I. Abdurahamin Martawijaya, lding Kartasujana, Kosasi Kadir, and Sowanda Among Prawira, vi + 166 pp., illus., 1986** |
| **Source:** | IAWA Bulletin NS, Volume 11, Issue 1 |
| **Publication Year:** | 1990 |
| **Pages:** | 84-84 |
| **Keywords:** |  |
| **Abstract:** |  |
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| **Author(s):** | Editors IAWA Journal |
| **Title:** | **Atlas Kayu Indonesia, Jilid II (Indonesian Wood Atlas, Volume II). Abdurahamin Martawijaya, Iding Kartasujana, Y.I. Mandang, Sowanda Among Prawira, and Kosasi Kadir, vi + 167 pp., illus., 1987.** |
| **Source:** | IAWA Bulletin NS, Volume 11, Issue 1 |
| **Publication Year:** | 1990 |
| **Pages:** | 84-84 |
| **Keywords:** |  |
| **Abstract:** |  |
| **DOI:** | [10.1163/22941932-90001149](http://dx.doi.org/10.1163/22941932-90001149) |

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| **Author(s):** | Guillermo Angeles |
| **Title:** | **Hyperhydric Tissue Formation in Flooded Populus Tremuloides Seedlings** |
| **Source:** | IAWA Bulletin NS, Volume 11, Issue 1 |
| **Publication Year:** | 1990 |
| **Pages:** | 85-96 |
| **Keywords:** | Hyperhydric tissue; secondary phloem; cortex; lenticels; periderm; hyperplasia; hypertrophy; flooding |
| **Abstract:** | Formation and development of hyperhydric tissue (HHT) were investigated morphologically and anatomically in Populus tremuloides seedlings flooded for 5, 9, 15,22,30, 45, and 80 days. HHT was initiated after 5 days of flooding (DF) by swelling of the filling tissue of lenticels, probably by water intake. At the same time, cell division was initiated in the phellogen and phelloderm of lenticels. Repeated divisions'of the phellogen of flooded lenticels produced long files of cells that pushed the filling tissue outwards. After 9 DF the activity of the phellogen extended beyond the lenticels. When large, extensive areas of phellogen were involved, HHT formed patches of short tissue covering most of the stem surface. When the activity of the phellogen was restricted to a small area, long columns of HHT were produced instead. In one case, in a stem flooded for 80 days, the formation of a new phellogen immediately below the old one was observed. Cells produced centrifugally by the active phellogen of flooded seedlings were thinwalled, not suberised, without nuclei, radially elongated or with irregular shape, firmly connected by their tangential walls, but with only a few points of contact with neighbouring cells by their radial walls, mainly by knoblike projections. After 22 DF the cortical parenchyma and rays of the secondary phloem started to take part in HHT formation, producing new, larger cells, rich in starch grains, with large aerenchyma spaces that greatly increased bark thickness and porosity. |
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| **Author(s):** | Editors IAWA Journal |
| **Title:** | **Association Affairs** |
| **Source:** | IAWA Bulletin NS, Volume 11, Issue 1 |
| **Publication Year:** | 1990 |
| **Pages:** | 96-96 |
| **Keywords:** |  |
| **Abstract:** |  |
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| **Author(s):** | Shinji Fujiwara; Seiro Iwagami |
| **Title:** | **Tree Growth and Cell Dimensions iii. Variations of Traciieid Cross Section Dimensions Across Growth Rings in Sugi (Cryptomeria Japonica)** |
| **Source:** | IAWA Bulletin NS, Volume 11, Issue 1 |
| **Publication Year:** | 1990 |
| **Pages:** | 97-101 |
| **Keywords:** | lumen area; Cell dimension; cell diameter; cross section area; cell wall thickness |
| **Abstract:** | Variations of tracheid cross section dimensions of sugi (Cryptomeria japonica D. Don) were studied in trees from three districts in Japan(Kochi, Tokushima and Ehime Pref.). |
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| **Author(s):** | Beata Zagórska-Marek; Hans Georg Richter |
| **Title:** | **The Old Wood Collection at Wroclaw (Poland)** |
| **Source:** | IAWA Bulletin NS, Volume 11, Issue 1 |
| **Publication Year:** | 1990 |
| **Pages:** | 102-104 |
| **Keywords:** |  |
| **Abstract:** |  |
| **DOI:** | [10.1163/22941932-90001153](http://dx.doi.org/10.1163/22941932-90001153) |

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| **Author(s):** | Yang Jiaju; Cheng Fang |
| **Title:** | **A Compliterised System for Features Image Display and Identification of Woods from China** |
| **Source:** | IAWA Bulletin NS, Volume 11, Issue 1 |
| **Publication Year:** | 1990 |
| **Pages:** | 105-105 |
| **Keywords:** |  |
| **Abstract:** |  |
| **DOI:** | [10.1163/22941932-90001154](http://dx.doi.org/10.1163/22941932-90001154) |

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| **Author(s):** | Tony Wilkins |
| **Title:** | **Wood Anatomy News** |
| **Source:** | IAWA Bulletin NS, Volume 11, Issue 1 |
| **Publication Year:** | 1990 |
| **Pages:** | 106-109 |
| **Keywords:** |  |
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| **Author(s):** | Editors IAWA Journal |
| **Title:** | **Association Affairs** |
| **Source:** | IAWA Bulletin NS, Volume 11, Issue 1 |
| **Publication Year:** | 1990 |
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| **Abstract:** |  |
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