**IAWA Bulletin New Series - Volume 6(3)**

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| **Author(s):** | Hans Georg Richter |
| **Title:** | **Wood and Bark Anatomy of Lauraceae. ii. Licaria Aublet** |
| **Source:** | IAWA Bulletin NS, Volume 6, Issue 3 |
| **Publication Year:** | 1985 |
| **Pages:** | 187-199 |
| **Keywords:** | Licaria; bark anatomy; wood anatomy; taxonomy; Lauraceae |
| **Abstract:** | Qualitative features of the secondary xylem of Licaria present a rather uniform structural profile. Constant differences in primarily quantitative characters lead to the formation of speeies groups wh ich loosely correspond to infrageneric sections based on floral and vegetative morphology. This subdivision is strongly corroborated by the highly variable secondary phloem structurc revealing considerable diversity in type and distribution of sc1erenchymatic tissues. Inorganic inclusions in the secondary xylem, crystals and silica, constitute an important diagnostic tool for differentiating certain species and species groups, but are hardly of importance in the bark. |
| **DOI:** | [10.1163/22941932-90000938](http://dx.doi.org/10.1163/22941932-90000938) |

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| **Author(s):** | J. T. Quirk; R. B. Miller |
| **Title:** | **Vestured Pits in the Tribe Cassieae Bronn (Leguminosae)** |
| **Source:** | IAWA Bulletin NS, Volume 6, Issue 3 |
| **Publication Year:** | 1985 |
| **Pages:** | 200-212 |
| **Keywords:** | Leguminosae; wood identification; Duparquetiinae; vestured pits; Cassieae; Labicheinae; Ceratoniinae; Dialiinae; Caesalpinioideae |
| **Abstract:** | The woods of 15 genera of the tribe Cassieae and 4 genera of the Cercideae were studied for presence or absence of vestured pits. Vestured pits are absent from the subtribes Dialiinae, Duparquetiinae and Labicheinae and from all Cercideae studied. These results are compared with variation patterns in other wood anatomical features and discussed in terms of tribaI delimitation and affinities between subtribes in this part of the Leguminosae. |
| **DOI:** | [10.1163/22941932-90000939](http://dx.doi.org/10.1163/22941932-90000939) |

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| **Author(s):** | Laxmi Chauhan; R. Dayal |
| **Title:** | **Wood Anatomy of Indian Albizias** |
| **Source:** | IAWA Bulletin NS, Volume 6, Issue 3 |
| **Publication Year:** | 1985 |
| **Pages:** | 213-218 |
| **Keywords:** | parenchyma distribution; Albizia; septate fibres; wood identification; fibre walls; ray size; colour |
| **Abstract:** | Ten Indian species of Albizia can be distinguished on a num ber of characters such as seriation of rays, frequency of uniseriate and triseriate rays, presence of septa in fibres, presence or absence of a distinct S3 layer in fibre walls and specific gravity. |
| **DOI:** | [10.1163/22941932-90000940](http://dx.doi.org/10.1163/22941932-90000940) |

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| **Author(s):** | Peter Gasson |
| **Title:** | **Automatic Measurement of Vessel Lumen Area and Diameter With Particular Reference to Pedunculate Oak and Common Beech** |
| **Source:** | IAWA Bulletin NS, Volume 6, Issue 3 |
| **Publication Year:** | 1985 |
| **Pages:** | 219-237 |
| **Keywords:** | vessel area; vessel diameter; image analysis; percentage conductive area; Quercus; Fagus; aerial and root xylem |
| **Abstract:** | A method for measuring cell diameter and area in transverse seetions of wood with an automatie image analyser is described. The parameters measured were vessel lumen area, vcssel lumen diameter and percentage conductive area (PCA). The automatie image analyser was used to measure these parameters in root, trunk and branch wood of pedunculate oak (Quercus robur L.) and European beech (Fagus sylvatica L.). The measurements were compared with those obtained with a digitiser from sampies of holm oak (Quercus ilex L.) and Turner's oak (Quercus × turneri Willd. = Quercus ilex × Q. rabur). Both techniques permit the rapid examination of transverse seetions of wood and the accumulation of a large data base. The automatie method is more rapid than the semi-automatic one using a digitiser, the measurements are more accurate and the method is less labour intensive. The data obtained permit the interpretation of variation in vessel size and distribution throughout the tree and relate this to the water carrying capacity .of the xylem. In Quercus robur, PCA and vessel diameter tend to increase [rom immature aerial, to mature aerial, to root xylem, whereas in Fagus sylvatica although vessel diameter tends to show the same trend, PCA does not. The conclusions reached for Quercus ilex and Q. × turneri were less definite. |
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| **Author(s):** | Pieter Baas |
| **Title:** | **Characteristics, properties and uses of tim bers, vol. 1. Southeast Asia, Northern Australia and the Pacific. W. G. Keating and E. Bolza, xxx + 362 pp., 22 colour plates, 1983. Texas A ' M University Press, Drawer C, College Station. Price: US$ 39.50 (hard back).** |
| **Source:** | IAWA Bulletin NS, Volume 6, Issue 3 |
| **Publication Year:** | 1985 |
| **Pages:** | 238-238 |
| **Keywords:** |  |
| **Abstract:** |  |
| **DOI:** | [10.1163/22941932-90000942](http://dx.doi.org/10.1163/22941932-90000942) |

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| **Author(s):** | Pieter Baas |
| **Title:** | **Contributi Scientifico-Pratici per una migliore conoscenza ed utilizzazione del legno (Applied scientific contributions for a better knowledge and utilisation of wood). Aseries of monographs published by the Istituto dei Legno, Firenze, Italy. Price: ca. US$ 2.50 per issue.** |
| **Source:** | IAWA Bulletin NS, Volume 6, Issue 3 |
| **Publication Year:** | 1985 |
| **Pages:** | 238-238 |
| **Keywords:** |  |
| **Abstract:** |  |
| **DOI:** | [10.1163/22941932-90000943](http://dx.doi.org/10.1163/22941932-90000943) |

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| **Author(s):** | Nili Liphschitz; S. Lev-Yadun; Y. Waisel |
| **Title:** | **The Annual Rhythm of Activity of the Lateral Meristems (Cambium and Phellogen) in Pistacia Lentiscus L.** |
| **Source:** | IAWA Bulletin NS, Volume 6, Issue 3 |
| **Publication Year:** | 1985 |
| **Pages:** | 239-244 |
| **Keywords:** | phellogen; Pistacia; Cambial activity; annual rhythm |
| **Abstract:** | Cambial and phellogen activities in Pistacia lentiscus were followed by the radiological method. Under natural conditions xylem was produced in most cases during two separate seasons of the year, i.e. spring and autumn. The phloem was produced during two different periods that were shorter than those of the xylem production. The phellogen was active once a year in some branches, during the end of April and May. The cambium of irrigated plants was continuously active throughout the spring, summer and autumn. The cessation of activity of the lateral meristems during the winter and summer seems to represent rest periods. The pattern of activity of the lateral meristems in Pistacia lentiscus suggests that this species is weil adapted to the Mediterranean climatic rhythm. |
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| **Author(s):** | Nobuo Yoshizawa; Shuichi Matsumoto; Toshinaga Idei |
| **Title:** | **Morphological Features of Tracheid Tips Associated With Compression Wood Formation in Larix Leptolepis Gord.** |
| **Source:** | IAWA Bulletin NS, Volume 6, Issue 3 |
| **Publication Year:** | 1985 |
| **Pages:** | 245-253 |
| **Keywords:** | tracheid tips; tracheid length; cell division; Cambium; Larix leptolepis; compression wood |
| **Abstract:** | Variation in the morphological features of tracheid tips was observed within and among sterns of larch (Larix leptolepis Gord.) with several different angular displacements from the vertical. The formation of compression wood increased with an increasing angle of stern deviation. Decrease in tracheid length occurred with thc development of compression wood within a growth ring. Compression wood also was accompanied by an increase in the occurrence of abnormal tips. Flattened and Lshaped tips of tracheids increased in number with the development of compression wood and the number of smoothly tapered tips decreased, indicating that the intrusive growth between adjacent cells does not proceed smoothIy in compression wood. It is considered that the spatial readjustment of developing cells is restricted in compression wood, and results from the great increase in the rate of cell division. A negative correlation between tracheid length and morphological abnormalities of tracheid tips was found within growth rings, apparently associated with the severity of compression wood development. |
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| **Author(s):** | Pieter Baas |
| **Title:** | **Anatomy of North American woods. An atlas of light and scanning electron micrographs (I). Hardwoods. Takeshi Furuno, 151 pp., inc1uding 142 pp. of half-tone plates, 1985. Studies of the San'in Region, Research Data and Source Material No. 1, Center of Studies of the San'in Region, Shimane University, Matsue, Shimane 690, Japan. Price unknown (paper).** |
| **Source:** | IAWA Bulletin NS, Volume 6, Issue 3 |
| **Publication Year:** | 1985 |
| **Pages:** | 254-254 |
| **Keywords:** |  |
| **Abstract:** |  |
| **DOI:** | [10.1163/22941932-90000946](http://dx.doi.org/10.1163/22941932-90000946) |

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| **Author(s):** | Pieter Baas |
| **Title:** | **Proceedings of the Symposium on Forest Products Research International - Achievements and the Future. 22-26 April 1985. Volume 1. iii + 406 pp., i11ust., 1985. The Distributor of 0001, Republic of South Africa. Price: $ 10.00 (paper).** |
| **Source:** | IAWA Bulletin NS, Volume 6, Issue 3 |
| **Publication Year:** | 1985 |
| **Pages:** | 254-254 |
| **Keywords:** |  |
| **Abstract:** |  |
| **DOI:** | [10.1163/22941932-90000947](http://dx.doi.org/10.1163/22941932-90000947) |

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| **Author(s):** | Jennifer Thorsch; Katherine Esau |
| **Title:** | **An Ultrastructural Study of the Phloem of Drimys (Winteraceae)** |
| **Source:** | IAWA Bulletin NS, Volume 6, Issue 3 |
| **Publication Year:** | 1985 |
| **Pages:** | 255-268 |
| **Keywords:** | Drimys; primitive dicotyledons; phloem ultrastructure; Winteraceae |
| **Abstract:** | The ultrastructural features of mainly primary phloem of three species of Drimys (Winteraceae), D. winteri J. R. ' G. Forst., D. lanceolata (Poiret) Baill. and D. granadensis L. f. var. mexicana (DC.) A. C. Smith are similar to those usually observed in dicotyledons. The sieve element is early discernible by its association with a companion cell, the deposition of callose in nascent sieve areas, and the appearance in the cytoplasm of the nondispersing paracrystalline protein body. Plastids with starch (and in D. lanceolata also with paracrystalline protein granules), mitochondria, sparse endoplasmic reticulum cisternae (ER), dictyosomes, and ribosomes are present in the young cell. Stacking of ER was not conspicuous. The nucleus is moderately chromatic before its breakdown. P-protein occurs in more or less dense aggregates that usually become dispersed after the tonoplast disappears. The subunits of the P-pro tein have tubular structure before the dispersal. The plasmalemma is retained. The sieve areas are combined into sieve plates on long radial walls and on some transverse walls originating during secondary partitioning of sieve element precursors. The numerous lateral sieve areas intergrade with those of the sieve plates. The pores develop from plasmodesmatal connections and may involve the formation of median cavities. The connections between sieve elements alld companion cells consist of the usual combination of a pore embedded in callose and one plasmodesma or several branches of one on the companion cell side. |
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| **Author(s):** | Narayan Parameswaran; Hartmut Knigge; Walter Liese |
| **Title:** | **Electron Microscopic Demonstration of a Suberised Layer in the Tylosis Wall of Beech and Oak** |
| **Source:** | IAWA Bulletin NS, Volume 6, Issue 3 |
| **Publication Year:** | 1985 |
| **Pages:** | 269-271 |
| **Keywords:** | subcrised cell wall; Quercus; Fagus; tyloses |
| **Abstract:** | The tylosis wall consists of three layers in the discoloured heartwood of Fagus sylvatica and of two layers in non-traumatic heartwood of Quercus robur. The central zone of one of these layers reveals suberised lamellae, particularly after KMnO4/uranyl acetate staining. The presence of suberin may impede the penetration of gases or liquids. |
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| **Author(s):** | Editors IAWA Journal |
| **Title:** | **Current Research on Environmental Pollution and Wood Structure - 2 Addenda** |
| **Source:** | IAWA Bulletin NS, Volume 6, Issue 3 |
| **Publication Year:** | 1985 |
| **Pages:** | 272-272 |
| **Keywords:** |  |
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| **Author(s):** | Editors IAWA Journal |
| **Title:** | **Announcements** |
| **Source:** | IAWA Bulletin NS, Volume 6, Issue 3 |
| **Publication Year:** | 1985 |
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| **Keywords:** |  |
| **Abstract:** |  |
| **DOI:** | [10.1163/22941932-90000951](http://dx.doi.org/10.1163/22941932-90000951) |

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| **Author(s):** | Ben J. H. ter Welle |
| **Title:** | **Association Affairs** |
| **Source:** | IAWA Bulletin NS, Volume 6, Issue 3 |
| **Publication Year:** | 1985 |
| **Pages:** | 273-273 |
| **Keywords:** |  |
| **Abstract:** |  |
| **DOI:** | [10.1163/22941932-90000952](http://dx.doi.org/10.1163/22941932-90000952) |

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| **Author(s):** | Editors IAWA Journal |
| **Title:** | **Association Affairs** |
| **Source:** | IAWA Bulletin NS, Volume 6, Issue 3 |
| **Publication Year:** | 1985 |
| **Pages:** | 274-274 |
| **Keywords:** |  |
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