**IAWA Bulletin New Series - Volume 5(1)**

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| **Author(s):** | J. Ohtani; B. A. Meylan; B. G. Butterfield |
| **Title:** | **Vestures or Warts - Proposed Terminology** |
| **Source:** | IAWA Bulletin NS, Volume 5, Issue 1 |
| **Publication Year:** | 1984 |
| **Pages:** | 3-8 |
| **Keywords:** | warts; chemical degradation; vestured layer; Vestures |
| **Abstract:** | There appears to be no difference between vestures and warts in morphology, origins or chemical composition. It is suggested therefore that the terms warts and warty layer should be abandoned and replaced by the terms vestures and vestured layer. |
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| **Author(s):** | J. Ohtani; B.A. Meylan; B.G. Butterfield |
| **Title:** | **A Note on Vestures on Helical Thickenings** |
| **Source:** | IAWA Bulletin NS, Volume 5, Issue 1 |
| **Publication Year:** | 1984 |
| **Pages:** | 9-11 |
| **Keywords:** |  |
| **Abstract:** |  |
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| **Author(s):** | Editors IAWA Journal |
| **Title:** | **Instructions to Authors** |
| **Source:** | IAWA Bulletin NS, Volume 5, Issue 1 |
| **Publication Year:** | 1984 |
| **Pages:** | 12-12 |
| **Keywords:** |  |
| **Abstract:** |  |
| **DOI:** | [10.1163/22941932-90000852](http://dx.doi.org/10.1163/22941932-90000852) |

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| **Author(s):** | Katherine Esau; Vernon I. Cheadle |
| **Title:** | **Anatomy of the Secondary Phloem in Winteraceae** |
| **Source:** | IAWA Bulletin NS, Volume 5, Issue 1 |
| **Publication Year:** | 1984 |
| **Pages:** | 13-43 |
| **Keywords:** | phloem anatomy; primitive dicotyledons; sieve elements; Winteraceae phloem |
| **Abstract:** | The secondary phloem of nine species in five genera of Winteraceae was examined with regard to features that could serve for taxonomic and phylogenetic evaluation of the family. The species examined were as follows: Bubbia pauciflora, B. semecarpoides, Drimys lanceolata, D. winteri, Exospermum stipitatum, Pseudo wintera axillaris, Zygogynum baillonii, Z. bicolor, and Z. vinkii. The nine species showed the following common characteristics: 1) origin from nonstoried vascular cambium with long fusiform initials; 2) ray system consisting of high multiseriate and high uniseriate rays; 3) occurrence of secondary partitioning in the differentiating phloem so that the sieve elements are much shorter than the tracheids; 4) lack of sharp differentiation between lateral sieve areas and those of the sieve plates; 5) predominance of compound sieve plates; 6) short companion cells, often single in a given sieve element; 7) phloem parenchyma cells in strands; 8) lack of specialised fibres (bast fibres) in the secondary phloem; 9) presence of nondispersing protein body in the sieve element protoplast. Features numbered 1, 2, 4-6 are considered to be indications of low evolutionary level. The significance of the other three features (3, 7-9) requires further evaluation. Among these three is the secondary partitioning the occurrence of which seems to imply that in some taxa the well known sequence of evolutionary shortening of cambial initials and their derivatives may be accelerated on the phloem side. |
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| **Author(s):** | Editors IAWA Journal |
| **Title:** | **Iawa Promotion** |
| **Source:** | IAWA Bulletin NS, Volume 5, Issue 1 |
| **Publication Year:** | 1984 |
| **Pages:** | 44-44 |
| **Keywords:** |  |
| **Abstract:** |  |
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| **Author(s):** | Pieter Baas; Lee Chenglee; Zhang Xinying; Cui Keming; Deng Yuefen |
| **Title:** | **Some Effects of Dwarf Growth on Wood Structure** |
| **Source:** | IAWA Bulletin NS, Volume 5, Issue 1 |
| **Publication Year:** | 1984 |
| **Pages:** | 45-63 |
| **Keywords:** | cell length; vessel members; ecological anatomy; Tracheids; bonsais; fibres |
| **Abstract:** | The effects of dwarf growth on wood structure, especially on element length, are described for 13 species of artificially induced or naturally occurring dwarf trees. In all cases element length is reduced, but there is no close correlation between the precise growth rate and the amount of length reduction. Conifers appear to show the greatest response. In the hardwood species studied, vessel frequency is higher and vessel diameter lower in dwarfs than in normal trees. |
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| **Author(s):** | Editors IAWA Journal |
| **Title:** | **Association Affairs** |
| **Source:** | IAWA Bulletin NS, Volume 5, Issue 1 |
| **Publication Year:** | 1984 |
| **Pages:** | 63-63 |
| **Keywords:** |  |
| **Abstract:** |  |
| **DOI:** | [10.1163/22941932-90000856](http://dx.doi.org/10.1163/22941932-90000856) |

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| **Author(s):** | Pieter Baas |
| **Title:** | **Indian Woods - their identification, properties and uses. Vol. 4. S.K. Purkayastha, viii + 172 pp. + 30 plates, 1983. Government of India Press, Delhi 110 054. Price: Indian Rs 145.00; UK£ 16.91; US$ 52.20 (hard cover).** |
| **Source:** | IAWA Bulletin NS, Volume 5, Issue 1 |
| **Publication Year:** | 1984 |
| **Pages:** | 64-64 |
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| **Abstract:** |  |
| **DOI:** | [10.1163/22941932-90000857](http://dx.doi.org/10.1163/22941932-90000857) |

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| **Author(s):** | Editors IAWA Journal |
| **Title:** | **Biological nitrogen fixation in forest ecosystems: Foundations and applications. J. C. Gordon and C. T. Wheeler (eds.), 342 pp., illus., 1983. Nijhoff/Junk, The Hague, Boston, Lancaster. Price Dfl. 150.00; US$ 65.50 (cloth).** |
| **Source:** | IAWA Bulletin NS, Volume 5, Issue 1 |
| **Publication Year:** | 1984 |
| **Pages:** | 64-64 |
| **Keywords:** |  |
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| **DOI:** | [10.1163/22941932-90000858](http://dx.doi.org/10.1163/22941932-90000858) |

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| **Author(s):** | Editors IAWA Journal |
| **Title:** | **Pinus caribaea - Wood properties and uses. J. Fraser, 125 references, 1983. Annotated Bibliography No. F30, Commonwealth Agricultural Bureaux, Farnham Royal, Slough SL2 3BN, U.K. Price: UK£ 10.15; US$ 21.35 (paper).** |
| **Source:** | IAWA Bulletin NS, Volume 5, Issue 1 |
| **Publication Year:** | 1984 |
| **Pages:** | 64-64 |
| **Keywords:** |  |
| **Abstract:** |  |
| **DOI:** | [10.1163/22941932-90000859](http://dx.doi.org/10.1163/22941932-90000859) |

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| **Author(s):** | Editors IAWA Journal |
| **Title:** | **Bamboos II. L.M. Ridout, 94 pp., 1983. Annotated Bibliography No. F32, Commonwealth Agricultural Bureaux, Farnham Royal, Slough SL2 3BN, U.K. Price: UK£ 11.85; US$ 24.90 (paper).** |
| **Source:** | IAWA Bulletin NS, Volume 5, Issue 1 |
| **Publication Year:** | 1984 |
| **Pages:** | 64-64 |
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| **Abstract:** |  |
| **DOI:** | [10.1163/22941932-90000860](http://dx.doi.org/10.1163/22941932-90000860) |

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| **Author(s):** | Kazumi Fukazawa |
| **Title:** | **Juvenile Wood of Hardwoods Judged by Density Variation** |
| **Source:** | IAWA Bulletin NS, Volume 5, Issue 1 |
| **Publication Year:** | 1984 |
| **Pages:** | 65-73 |
| **Keywords:** | basic density; ringporous woods; age; diffuse-porous woods; cell morphology; Juvenile and mature wood; growth and height effects |
| **Abstract:** | In the ring-porous hardwoods the changes of basic density are influenced by ring width, while basic density of diffuse-porous hardwoods is almost independent of ring width. The radial variations of basic density in each ring width class are useful for distinguishing between age and growth effects. In three species of ring-porous hardwoods and four of diffuse-porous hardwoods grown in Hokkaido, Japan, these effects were investigated. The age effects on density were quite clear in all hardwoods, so juvenile wood could be defined as the region around the pith without growth effects on density and showing a decrease or increase in density outward. The growth effects on density were significant in mature wood of all ring-porous hardwoods and in the diffuse-porous Katsura (Cercidiphyllum japonicum), while in the other diffuse- porous hardwoods there was no growth effect on density. The change of basic density was also affected by the height level in the tree. Age and growth effects should be considered separately for lower, medium and upper height levels in the tree. Anatomical features were studied in some hardwoods in relation to age, growth and height effects on density variation. Age effects on density are due to the proportion of late wood in oak, to differences in vessel frequency and diameter in Katsura, and to relative fibre wall thickness in birch. |
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| **Author(s):** | Editors IAWA Journal |
| **Title:** | **Wood Anatomy News** |
| **Source:** | IAWA Bulletin NS, Volume 5, Issue 1 |
| **Publication Year:** | 1984 |
| **Pages:** | 74-74 |
| **Keywords:** |  |
| **Abstract:** |  |
| **DOI:** | [10.1163/22941932-90000862](http://dx.doi.org/10.1163/22941932-90000862) |

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| **Author(s):** | A. E. Akachuku |
| **Title:** | **The Effects of Some Internal and External Factors on Growth Rate of Lovoa Trichilioides Deduced from its Wood Anatomy** |
| **Source:** | IAWA Bulletin NS, Volume 5, Issue 1 |
| **Publication Year:** | 1984 |
| **Pages:** | 75-80 |
| **Keywords:** | tree age; within-tree variation; crown diameter; ring areas; genetic variation; Ring width |
| **Abstract:** | In Lovoa trichilioides Harms (African Walnut) trees grown in the Nigerian swampy lowland rainforest, the growth rings are clearly visible and annual; the termination of each ring can be distinguished by a zone of thicker walled fibres and a narrow band of parenchymatous cells. The areas of the growth rings were computed from the ring widths and the radius of the pith of each disc. Variation in ring width between the sample plots was not significant. Between-tree variation in ring width within the sample plots was very highly significant with a variance component (V.C.) of 6.1 per cent. It is likely that part of the between-tree variation was genetic because the trees within plots were of the same age, planted at the same spacing and grown under uniform environment. The effect of distance above the ground on ring width was significant with a V.C. of 3.6 per cent. The average width of the outer five growth rings increased steadily up the tree from 3.4 to 4.7 mm. The effect of the interaction of trees and distances above the ground was very highly significant; V.C. = 14.2 per cent. The effect of cardinal direction on ring width was not significant. The age effect on ring width was very highly significant; V.C. = 40.0 per cent. Ring width decreased considerably with age from 13.2 mm in the first year to 1.5 mm in the 11 th year. Regression analysis showed that up to 91 per cent of the variation in ring width was determined by corresponding variation in age. The interaction effect of trees and ages was very highly significant; V.C. = 8.1 per cent. Ring area increased with age up to a point and then decreased steadily with age. For the quadratic model, up {o 96 per cent of the variation in ring area was explained by variation in age. Ring width and ring area were neither strongly related to crown diameter nor crown per cent. |
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| **Author(s):** | J.D. Patel; A.R.S. Menon; C.P. Reghu |
| **Title:** | **Growth Eccentricity in the Branchwood of Kigelia Pinnata (Jacq.) Dc.** |
| **Source:** | IAWA Bulletin NS, Volume 5, Issue 1 |
| **Publication Year:** | 1984 |
| **Pages:** | 81-84 |
| **Keywords:** | radialgrowth.; Reaction wood; branch angle |
| **Abstract:** | Growth eccentricity in relation to length and specimen angle has been investigated in branchwood of Kigelia pinnata (Jacq.) DC. (Bignoniaceae). Radial growth promotion is towards the upper side of the branch near its base, but it gradually diminishes towards its distal end. The eccentricity of the branches is also found to be directly related to specimen angle, and it decreases with increasing specimen angle. |
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| **Author(s):** | Michael Todorow |
| **Title:** | **Pinus Pinaster as a Raw Material for the Paper Industry** |
| **Source:** | IAWA Bulletin NS, Volume 5, Issue 1 |
| **Publication Year:** | 1984 |
| **Pages:** | 85-86 |
| **Keywords:** | rays; resin canals; Tracheids; pulp |
| **Abstract:** | Anatomical and pulping properties of Pinus pinaster are described and compared with those of P. nigricans. Pinus pinaster is a promising species for the paper industry. |
| **DOI:** | [10.1163/22941932-90000865](http://dx.doi.org/10.1163/22941932-90000865) |