**IAWA Bulletin New Series - Volume 8(4)**

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| **Author(s):** | Editors IAWA Journal |
| **Title:** | **Preliminary material** |
| **Source:** | IAWA Bulletin NS, Volume 8, Issue 4 |
| **Publication Year:** | 1987 |
| **Pages:** | i-iv |
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| **Abstract:** |  |
| **DOI:** | [10.1163/22941932-90000447](http://dx.doi.org/10.1163/22941932-90000447) |

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| **Author(s):** | Editors IAWA Journal |
| **Title:** | **Iufro-Iawa Meeting 'from Cell Wall Formation to Timber Behaviour'** |
| **Source:** | IAWA Bulletin NS, Volume 8, Issue 4 |
| **Publication Year:** | 1987 |
| **Pages:** | 307-322 |
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| **Author(s):** | H.G. Richter; U. Schmitt |
| **Title:** | **Unusual Crystal Formations in the Secondary Xylem of Cosmocalyx Spectabilis Standl. (Rubiaceae)** |
| **Source:** | IAWA Bulletin NS, Volume 8, Issue 4 |
| **Publication Year:** | 1987 |
| **Pages:** | 323-329 |
| **Keywords:** | Mega-styloids; wood identification |
| **Abstract:** | The presence of exceptionally large styloid crystals in the secondary xylem of Cosmocalyx spectabilis Standl. (Rubiaceae) is reported. These crystals are rather unusual also in terms of habit, structure, and distribution. |
| **DOI:** | [10.1163/22941932-90000449](http://dx.doi.org/10.1163/22941932-90000449) |

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| **Author(s):** | Pieter Baas |
| **Title:** | **Review** |
| **Source:** | IAWA Bulletin NS, Volume 8, Issue 4 |
| **Publication Year:** | 1987 |
| **Pages:** | 330-330 |
| **Keywords:** |  |
| **Abstract:** |  |
| **DOI:** | [10.1163/22941932-90000450](http://dx.doi.org/10.1163/22941932-90000450) |

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| **Author(s):** | R. Vijendra Rao; S.S. Bisen; Babulal Sharma; R. Dayal |
| **Title:** | **Sem Observations of Perforation Plates in Sonneratia Linn. (Sonneratiaceae)** |
| **Source:** | IAWA Bulletin NS, Volume 8, Issue 4 |
| **Publication Year:** | 1987 |
| **Pages:** | 331-336 |
| **Keywords:** | multiple perforation plates; Sonneratia |
| **Abstract:** | Vessels of Sonneratia belonging to the family Sonneratiaceae, have so far been shown to have only simple perforations. However, in the present study, simple, scalariform, modified scalariform and reticulate types of perforations in the vessels of four species of Sonneratia have been found for the first time. Besides scalarifonn and reticulate perforations, a variety of intermediate forms have also been observed. |
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| **Author(s):** | R. Vijendra Rao; Babulal Sharma; Laxmi Chauhan; R. Dayal |
| **Title:** | **Reinvestigations of the Wood Anatomy of Duabanga and Sonneratia With Particular Reference to Their Systematic Position** |
| **Source:** | IAWA Bulletin NS, Volume 8, Issue 4 |
| **Publication Year:** | 1987 |
| **Pages:** | 337-345 |
| **Keywords:** | Sonneratiaceae; ecological trends; systematic wood anatomy |
| **Abstract:** | The wood anatomy of Duabanga and Sonneratia is described in detail. Based on the present investigation as well as on the well recognised differences between these two genera, their systematic position is discussed. The study endorses the suggestion made by Dahlgren and Thorne (1984) to raise the status of these two genera to two subfamilies within the Lythraceae. The ecological differences between these two genera in relation to their xylem anatomy is also discussed. |
| **DOI:** | [10.1163/22941932-90000452](http://dx.doi.org/10.1163/22941932-90000452) |

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| **Author(s):** | Pieter Baas |
| **Title:** | **Review and Announcement** |
| **Source:** | IAWA Bulletin NS, Volume 8, Issue 4 |
| **Publication Year:** | 1987 |
| **Pages:** | 346-346 |
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| **Abstract:** |  |
| **DOI:** | [10.1163/22941932-90000453](http://dx.doi.org/10.1163/22941932-90000453) |

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| **Author(s):** | C.A. LaPasha; E.A. Wheeler |
| **Title:** | **A Microcomputer Based System for Computer-Aided Wood Identification** |
| **Source:** | IAWA Bulletin NS, Volume 8, Issue 4 |
| **Publication Year:** | 1987 |
| **Pages:** | 347-354 |
| **Keywords:** | microcomputer; Wood identification; GUESS |
| **Abstract:** | A microcomputer based system (GUESS) was developed for using large databases on small microcomputers for computer-aided wood identification. The extensive user interface makes program operation easy and permits the user to concentrate on sample description. The system is being used successfully for wood identification using the databases computerised at North Carolina State University. The system is flexible and can be used with various suitably formatted databases. The program helps the user to select a small list of taxa that can be critically compared to the unknown sample using reference collections and descriptions in the literature. The lists of features used in the databases are selected for their utility for identification, but these lists of features should not be construed to be adequate for complete taxonomic descriptions. |
| **DOI:** | [10.1163/22941932-90000454](http://dx.doi.org/10.1163/22941932-90000454) |

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| **Author(s):** | E.A. Wheeler; R.C. Pearson; C.A. LaPasha |
| **Title:** | **Objectives of Computerised Databases for Wood** |
| **Source:** | IAWA Bulletin NS, Volume 8, Issue 4 |
| **Publication Year:** | 1987 |
| **Pages:** | 355-362 |
| **Keywords:** |  |
| **Abstract:** |  |
| **DOI:** | [10.1163/22941932-90000455](http://dx.doi.org/10.1163/22941932-90000455) |

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| **Author(s):** | S. K. Datta; Anjani Kumar |
| **Title:** | **Histochemical Studies of the Transition from Sapwood to Heartwood in Tectona Grandis** |
| **Source:** | IAWA Bulletin NS, Volume 8, Issue 4 |
| **Publication Year:** | 1987 |
| **Pages:** | 363-368 |
| **Keywords:** | phenolics; proteins; lipids; Starch; enzymes; nucleic acids |
| **Abstract:** | Histochemistry of the wood of Tectona grandis Linn. f. (Verbenaceae) has been studied during the transition from sapwood to heartwood. Starch, lipids, proteins, nucleic acids, phenolics and the enzymes peroxidase, succinate dehydrogenase, acid phosphatase, adenosine triphosphatase and glucose-6-phosphatase show significant changes during the transition. Peroxidase and adenosine triphosphatase are highly active in the sapwood and moderate in the transition zone while succinate dehydrogenase, glucose-6-phosphatase and acid phosphatase are moderate throughout the sapwood. |
| **DOI:** | [10.1163/22941932-90000456](http://dx.doi.org/10.1163/22941932-90000456) |

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| **Author(s):** | Nili Liphschitz; Zvi Mendel |
| **Title:** | **Histological Studies of Pinus Halepensis Stem Xylem Affected by Matsucoccus Josephi (Homoptera: Margarodidae)** |
| **Source:** | IAWA Bulletin NS, Volume 8, Issue 4 |
| **Publication Year:** | 1987 |
| **Pages:** | 369-376 |
| **Keywords:** | tracheids; Annual rings; auxin transport.; resin ducts; parenchyma; discoloration |
| **Abstract:** | The injury caused by Matsucoccus josephi Bodenheimer ' Harpaz to naturally and artificially infested Pinus halepensis Mill. was studied with special emphasis on the reaction of the cambium to the insect attack and the subsequent changes in the xylem. Scars from stem injury were easily detected macroscopically due to discoloration on the stem cross section and involve narrowing of annual rings at the injury site for several years. Microscopic sections reveal production of abnormal xylem in the injured zone, i. e., lignified parenchyma cells instead of tracheids, curved tracheids and lignified resin ducts. Histological disorganisation is compared with mechanical injuries. Changes in the orientation of cells in the xylem suggest that the effect of infestation is not only mechanical; interrupted polar auxin transport into loops is probably responsible for abnormal xylem formation. |
| **DOI:** | [10.1163/22941932-90000457](http://dx.doi.org/10.1163/22941932-90000457) |

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| **Author(s):** | Pieter Baas |
| **Title:** | **Review and Announcement** |
| **Source:** | IAWA Bulletin NS, Volume 8, Issue 4 |
| **Publication Year:** | 1987 |
| **Pages:** | 377-378 |
| **Keywords:** |  |
| **Abstract:** |  |
| **DOI:** | [10.1163/22941932-90000458](http://dx.doi.org/10.1163/22941932-90000458) |

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| **Author(s):** | Editors IAWA Journal |
| **Title:** | **Wood Anatomy News** |
| **Source:** | IAWA Bulletin NS, Volume 8, Issue 4 |
| **Publication Year:** | 1987 |
| **Pages:** | 378-378 |
| **Keywords:** |  |
| **Abstract:** |  |
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