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| **Author(s):** | Georgina M. Dei Fueyo; Edith L. Taylor; Thomas N. Taylor; N. Rubén Cúneo |
| **Title:** | **Triassic Wood from the Gordon Valley, Central Transantarctic Mountains, Antarctica** |
| **Source:** | IAWA Journal, Volume 16, Issue 2 |
| **Publication Year:** | 1995 |
| **Pages:** | 111-126 |
| **Keywords:** | Antarctica; Petrified forest; Triassic; anatomy; Podocarpaceae; wood; gymnosperms |
| **Abstract:** | Wood from an in situ permineralized forest from the Middle Triassic of Gordon Valley (Queen Alexandra Range, central Transantarctic Mountains) in Antarctica is described as a new taxon, Approximately 100 trunks in growth position are present at the site; they range from 13-61 cm in diameter and suggest that some of the trees were up to 20 m tall, Pits in the radial walls of the tracheids are of the abietinean type, Rays are uniseriate and 1-9 cells high; cross fields include one to two pits that appear to be simple, Axial parenchyma is absent. Pith and cortex are not preserved. The Antarctic wood is compared with existing fossil wood types from Antarctica and other parts of Gondwana. Although the fossil wood shares a number of characteristics with the Podocarpaceae, it differs from any existing genera and is described as a new taxon, Jeffersonioxylon gordonense. |
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| **Author(s):** | E. A. Wheeler |
| **Title:** | **Wood of Platanus Kerrii** |
| **Source:** | IAWA Journal, Volume 16, Issue 2 |
| **Publication Year:** | 1995 |
| **Pages:** | 127-132 |
| **Keywords:** | Platanus; Platanaceae; Platanus kerrii; wood anatomy |
| **Abstract:** | Mature wood of extant Platanus kerrii Gagnep., native to Laos and Vietnam, is described for the first time. Its general characteristics are similar to other Platanus species; it has narrow, mostly solitary vessels, perforation plates both simple and scalariform, opposite intervessel pitting, diffuse-in-aggregates axial parenchyma, mostly wide (> 10-seriate) rays that usually are homocellular. Rays are wider (up to 30 cells wide) than in other extant species and in this feature P. kerrii resembles Cretaceous and Paleogene platanoid woods more than other extant species do. Vessel element lengths are similar to other species, although the incidence of scalariform perforation plates is greater than in other extant Platanus species. |
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| **Author(s):** | Sherwin Carlquist; Karen Dauer; Stefanie Y. Nishimura |
| **Title:** | **Wood and Stem Anatomy of Saururaceae with Reference to Ecology, Phylogeny, and Origin of the Monocotyledons** |
| **Source:** | IAWA Journal, Volume 16, Issue 2 |
| **Publication Year:** | 1995 |
| **Pages:** | 133-150 |
| **Keywords:** | Piperaceae; Lactoridaeeae; Aristolochiaceae; Houttuynia; Anemopsis; endodermis; Saururus; paleoherbs; ethereal oil cells; Angiosperm origins; monoeotyledon origins |
| **Abstract:** | Stern and rhizome anatomy is reported for Anemopsis californica Hook., Houttuynia cordata Thunb., and Saururus cernuus L. Secondary growth is reported for the first time in Saururaceae. Cambia function indefinitely in Anemopsis in both fascicular and interfascicular areas. Interfascicular cambium is minimal in Saururus and absent in Houttuynia; fascicular cambium is present in both genera and produces a finite quantity of vessels, fiber-tracheids, and axial parenchyma but no rays. Anemopsis has vessels with simple perforation plates plus tracheids in wood, suggestive of adaptation to fluctuating water availability. The scalariform perforation plates of Houttuynia and Saururus suggest an unbroken history of occupancy of mesic habitats. Ethereal oil cells are reported for rays of Anemopsis, and for pith and cortex of the three genera studied. Stern idioblasts and other histologieal details are ineluded along with wood data in anatomical deseriptions of sterns. DNA data as weIl as maeromorphologie al data implicate Saururaeeae, along with Aristolochiaceae, Lactoridaceae, and Piperaceae as paleoherbs elose to the origin of monoeotyledons. Key wood features that unite these families are cited. Chloranthaeeae, whieh share stern endodermis and sealariform perforation plates with Saururaeeae, are also considered elose. Features of Saururaceae that are analyzed with respeet to monoeotyledon origin inelude loss of interfaseieular cambium, minimization of faseieular cambium, lack of imperforate traeheary elements in monocotyledon bundles, trimery, the sympodial habit, and production of adventitious roots. |
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| **Author(s):** | R. W. den Outer; W. L. H. van Veenendaal |
| **Title:** | **Development of Included Phloem in the Stem of Combretum Nigricans (Combretaceae)** |
| **Source:** | IAWA Journal, Volume 16, Issue 2 |
| **Publication Year:** | 1995 |
| **Pages:** | 151-158 |
| **Keywords:** | anomalous secondary growth; phloem network; diffuse included phloem; Combretum |
| **Abstract:** | The development of diffuse included phloem strands in Combretum nigricans sterns is described, During a short period of time, a small phloem strand is cut off locally in an inward direction by an otherwise normal bidirectional vascular cambium. This contrasts with previous descriptions and interpretations because these strands are not formed after redifferentiation of secondary xylem parenchyma. A complementary cambium formed at the inner border of the young strand somewhat enlarges the strand and, during a relatively long period, produces secondary phloem outwards. Finally this complementary cambium stops functioning as a cambium and merges with the secondary phloem it has produced. Radial rows of cells are present within the included phloem strands which continue into the later-formed secondary xylem; rays transverse the strands. Crushing of the phloem takes place near the outer border of the strand, forming cap-like tissues of disorganized cells. |
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| **Author(s):** | Alexei A. Oskolski |
| **Title:** | **Wood Anatomy of Schefflera and Related Taxa (Araliaceae)** |
| **Source:** | IAWA Journal, Volume 16, Issue 2 |
| **Publication Year:** | 1995 |
| **Pages:** | 159-190 |
| **Keywords:** | Didymopanax; Tupidanthus; Schefflera; Araliaceae; Scheffleropsis; systematic wood anatomy; ecology |
| **Abstract:** | The wood anatomy of 31 Schefflera species from Indochina, Australia, Oceania, Africa, and South America, 3 species of Didymopanax from South America, and Tupidanthus calyptratus and Scheffleropsis hemiepiphytica from Indochina (Araliaceae) are described. Seven groups of species can be recognised. |
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| **Author(s):** | Li Baizhong; B. J. H. ter Welle; R. K. W. M. Klaassen |
| **Title:** | **Wood Anatomy of Trees and Shrubs from China Vii. Sapindaceae** |
| **Source:** | IAWA Journal, Volume 16, Issue 2 |
| **Publication Year:** | 1995 |
| **Pages:** | 191-215 |
| **Keywords:** | wood identification; Sapindoideae; Dodonaeoideae; Systematic wood anatomy; China; Sapindaceae |
| **Abstract:** | The wood anatomy of 24 species belonging to 18 genera of the Sapindaceae native to China is described. Despite the wood anatomical homogeneity of the Chinese taxa of the family, it is possible to key out individual genera as long as the unknown material is confined to Chinese species. In general, the wood of Sapindaceae is characterised by diffuse-porous vessel distribution, simple perforations, alternate intervessei pits, comrnonly septate libriform fibres, usually scanty paratracheal parenchyma, mainly uniseriate rays and prismatic crystals common in chambered parenchyma and or fibres. The two taxa from temperate regions are ring-porous. |
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| **Author(s):** | Editors IAWA Journal |
| **Title:** | **Review** |
| **Source:** | IAWA Journal, Volume 16, Issue 2 |
| **Publication Year:** | 1995 |
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| **Title:** | **Wood Anatomy News** |
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| **Source:** | IAWA Journal, Volume 16, Issue 2 |
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