

The background of the cover is a high-magnification micrograph of wood tissue. It shows a dense network of cells with prominent vertical tracheids and scattered larger vessels. The vessels are circular to oval in cross-section, some containing dark deposits. The overall color is a warm, light brown or tan.

**Wood Atlas
of the Euphorbiaceae s.l.**

by

Lubbert Y.Th. Westra

and

Jifke Koek-Noorman

IAWA Journal, Supplement 4

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Cover: *Aleurites moluccana* (L.) Willd. (Uw 24065), see Figure 7d.

Contents

Introduction	4
About the book	4
Materials and methods	5
What information can be retrieved from the pictures?	5
Growth rings	6
Vessels	6
Axial parenchyma	7
Rays	7
Interspecific variation	7
Acknowledgements	8
References	8
List of material	10
Plates	27

SUMMARY

End-grain photographs are presented of 393 woods of Euphorbiaceae from the wood collection of the Utrecht University branch of the Nationaal Herbarium Nederland (Uw). Close to half of the total number of woody genera of Euphorbiaceae in the wide sense are represented. The photographs are intended as an aid in hand-lens inspection and identification of wood.

Key words: Euphorbiaceae, wood characters, end-grain, hand-lens images.

INTRODUCTION

The idea of presenting this assortment of end-grain photographs of Euphorbiaceae woods finds its roots in an inventory of the collection of microscope slides which forms part of the large wood collection at the Utrecht University branch of the Nationaal Herbarium Nederland (NHN). This inventory was carried out by M.E. Bakker from 1999–2001, and involved, among others, making digital images of over 6000 slides. These images can now be viewed on the website of the NHN (<http://www.nationaalherbarium.nl>), and high resolution copies are available on request.

End-grain reproductions conforming to the low magnification of an ordinary hand-lens (8–12 \times) bridge the gap, so to speak, between the unaided eye and the microscope. The advantage of these images lies in the fact that they correspond to the practice of lens inspection, the usual approach in identifying an unknown wood sample. For a considerable time this type of photographs used to illustrate local timber floras. A good example is the “Bomenboek voor Suriname” (Lindeman, Mennega & Hekking 1963). Later on, however, microphotographs of sections prevailed in anatomical treatments.

A revival of the use of end-grain pictures, however, can be found in for instance J. Ilic’s “CSIRO Atlas of Hardwoods” (1991). In this book, consisting of two parts: a Macro-atlas and a Micro-atlas, the Macro-part deals with end-grain pictures at a 10 \times magnification. Though the Euphorbiaceae (s.l.) are well represented by 40 genera, it nevertheless seemed worthwhile, in view of the large total number of woody genera (> 300) recognized in the family, to present a volume based on taxa represented in the Utrecht wood collection. This involves nearly 150 genera, and forms another tribute to the diversity of wood structure within the Euphorbiaceae in the wide sense.

ABOUT THE BOOK

While we have tried to give as wide a coverage as possible, practical reasons dictated us to limit ourselves to wood samples with a clean-cut cross section surface already available. Consequently, some genera are not or only poorly represented, while other genera, in particular large ones, are represented by several species, sometimes taking up an entire page or more (e.g. *Croton*, *Sapium*). In a number of cases two photographs of the same object are offered: the second photograph is an enlargement of a part of the first. This we did in order to make the structure more clear in blocks with a surface showing only a poor contrast and/or little detail of the elements at the standard magnification, usually due to a very dense structure (fine grain).

As is customary in this kind of atlases, the sequence of the pictures is alphabetical by plant name. The nomenclature as laid down in recent taxonomic treatments cited here has been followed. Due to circumstances, we used the old spelling in our list in two cases (*Coelodepas* = *Koelodepas*, and *Hyeronima* = *Hieronyma*). Because of the alphabetical sequence, leafing through the pages will not lay bare information on taxonomic relationships, but will focus the eye on the great variety of patterns in the first place. In the figure legends both the name of the plant and the Uw number are given. The Uw numbers provide the link with the other data given in the list of material.

The family is taken in the old wide sense (Webster 1994a, b), including the often disputed Pandaceae, and the more recently reinstated Phyllanthaceae, Picrodendraceae, and Putranjivaceae. Molecular research of recent years indicates that the concept of the family in the traditional wide sense will have to undergo changes (Wurdack & Chase 1999, 2002). This research is still ongoing, and the time for a new, stable classification seems not to have arrived yet. In Webster's classification (1994a, b) five subfamilies are recognized in the family. Two of them, Phyllanthoideae and Oldfieldioideae, represent the biovulate taxa, while Acalyphoideae, Crotonoideae, and Euphorbioideae represent the uniovulate taxa (the latter three subfamilies constituting Euphorbiaceae s.str.). Within the last two decades overviews of the wood anatomy of three of these subfamilies were published, viz. Oldfieldioideae (Hayden 1994), Acalyphoideae (Hayden & Hayden 2000), and Phyllanthoideae (Mennega 1987), while an overview of Euphorbioideae is forthcoming (Mennega in prep.).

These wood anatomical studies so far have shown a great variety in structure among taxa in the biovulate subfamilies, while uniovulate genera tend to have a more or less identical pattern. Disputed genera, e.g. *Bischofia* (Fig. 13c), *Dicoelia* (Fig. 28b), *Galearia* (Fig. 36f, 37a–d), *Martretia* (Fig. 53f), *Panda* (Fig. 59a), or *Pentabrachion* (Fig. 61e, f), do not manifest themselves as out of place in their respective subfamilies.

MATERIAL AND METHODS

A list of all photographed specimens arranged by the Uw (Utrecht wood collection) numbers is given on pages 27–110.

For photography, small wood blocks were used that previously had been cut to size and treated in order to enable microtome sectioning. The flat surface left after the cutting of microtome slices was photographed using a Zeiss Luminar 40 mm f/4.5 macro objective (stopped down ½ stop) on Kodachrome 25 film. All objects were photographed at a standard repro ratio of 5 : 1. Thus an image on the 35 mm film frame represents a rectangle of $\pm 7 \times 4.5$ mm on the object. When viewed from a normal reading distance (25–30 cm = 10–12 in.), the printed images should correspond to images seen through a hand-lens with a magnification of $\geq 10\times$. Additional photographs at higher magnification were taken at repro ratios of 10 : 1 or 15 : 1, using Zeiss Luminar 25 mm f/3.5, and 16 mm f/2.5 macro objectives, respectively (also stopped down ½ stop). From the original colour slides digital scans were made for further processing.

WHAT INFORMATION CAN BE RETRIEVED FROM THE PHOTOGRAPHS?

For the ultimate identification of a wood sample, sections in three planes are needed, and examination should also include high magnification images through a microscope. When working with a hand-lens, most information will generally be obtained from examining a cross section. Tangential and radial sections normally will yield their secrets only under the microscope, bar exceptions in some plant families. For that reason we did not include photographs of longitudinal sections in this atlas. Admittedly, also a

picture of a cross section at the low magnification of a hand-lens offers only restricted information as compared to the higher power images from a microscope. Nevertheless, as the photographs show, variation is evident even then in, e.g., size and arrangement of vessels, distribution of axial parenchyma, characteristics of rays, and the ground tissue consisting of fibres. Or, in other words, patterns characteristic for a genus or groups of related genera due to combination and variation of the elements composing the wood can become apparent even to the field worker equipped with no more than a good hand-lens and a sharp knife. Also preliminary quick identifications down to family or infrafamilial level, for instance in making inventories, will often be possible.

The black-and-white reproductions offered here do not show colour gradations which can be observed in wood samples, and which are captured in the original colour slides. Most samples are light brown to brown, and will accordingly be seen in shades of gray. Very dark wood is not common in Euphorbiaceae. A marked difference between sapwood and heartwood is rarely seen. In specimens of some genera tangential banding patterns of lighter and darker zones, often attractive, catch the eye (e.g. Fig. 2d, e, Fig. 76a, b, Fig. 81e, f, Fig. 82a, b). In a number of cases dark discolorations resembling irregular lines or flames were noticed, usually still apparent in black-and-white prints (see, for example, Fig. 24a, Fig. 81a, d). These appear to be artifacts (not restricted to Euphorbiaceae only!), mostly being the result of fungal attacks, and have no relation to taxonomic affinity.

For those not familiar with terms used in wood anatomy we refer to the "IAWA list of microscopic features for hardwood identification" which contains detailed definitions, descriptions, and illustrations of individual wood characters (IAWA Committee 1989).

Growth rings

As most woody Euphorbiaceae grow in the tropics, growth rings seldom are a striking feature. If present, the boundaries are mostly indicated by a narrow vesselless zone or by a different parenchyma distribution (see, for example, Fig. 31b, c, Fig. 44e, Fig. 75c–e, Fig. 76a, b). Well-marked growth rings, indicated by suddenly enlarged vessels, are present in *Acalypha cincta* (Fig. 1a), some species of *Phyllanthus* (Fig. 64c, Fig. 66b, c) and *Sapium glandulosum* p.p. (Fig. 73a). In the two specimens of *Tetracoccus* (Fig. 81e, f, Fig. 82a, b) large vessels are prominently distributed in concentric rings which might be related to seasonal growth. Strikingly, a specimen of *Flueggea suffruticosa* from a plant cultivated in a Dutch greenhouse shows very marked growth rings formed by change in both parenchyma and vessel distribution (Fig. 36b), in contrast to the other specimens which are all of non-temperate origin. In these there is a very slight tendency toward growth rings at most, e.g. *Flueggea acidoton* (Fig. 35c, d) and *F. leucopyrus* (Fig. 35f).

Vessels

More important information can be gained from the vessels by their distribution, size and numbers. A feature characteristic for many genera are the short to long radial multiples, often with some flattened vessels in the middle of the rows (see, for instance,

Balakata, Fig. 12d–f, *Conceveiba*, Fig. 22c–e, 23a–f, *Croton*, Fig. 24–27, *Grossera*, Fig. 39b, *Mabea*, Fig. 48, *Senefelderopsis*, Fig. 77f). Often there is a noticeable tendency towards a radial pattern of vessels and vessel multiples (e.g., *Chamaesyce*, Fig. 17d, e, *Codiaeum*, Fig. 21e–f, *Euphorbia*, Fig. 32e–f, 33a–e, *Strophoblachia*, Fig. 80c, d, *Wielandia*, Fig. 84d, e). A remarkable feature are the radial zones without vessels present in some genera, e.g. *Actinostemon* (Fig. 3c, d), *Necepsia* (Fig. 56d), *Pseudosenefeldera* (Fig. 69c), or *Strophoblachia* (Fig. 80c–d), while in *Rhodothyrsus* radial vessel-less zones appear to vary from present, present in part, to absent (Fig. 70c–e). Exclusively solitary vessels are rare (*Hieronyma*, Fig. 44a–e, *Microdesmis*, Fig. 55b, c). The vessel diameter covers a wide range (50–300 µm); however, genera with narrow vessels form the majority. In the climbing taxa *Fragariopsis* (not depicted) and *Plukenetia* (Fig. 68a) very wide solitary vessels co-exist with minute ones in short radial multiples. The number of vessels also varies widely (5–150/sq.mm) and is often inversely related to size. Tyloses can be observed in several genera, with *Hevea* (Fig. 41a–d) and *Pera* (Fig. 62b–f, 63a) as most obvious examples.

Axial parenchyma

Axial parenchyma is present in almost all genera of the uniovulate subfamilies, and in part of the biovulate genera. Most frequently it is distributed in narrow, regular and numerous bands not related to the vessels (e.g. *Borneodendron*, Fig. 14e, *Hevea*, Fig. 41a–d, *Pera*, Fig. 62b–f & 63a–c), or the bands are often interrupted resulting in a reticulate or diffuse-in-aggregates pattern (e.g. *Alchorneopsis*, Fig. 7a–b, *Aleurites*, Fig. 7c–d). Wide bands, like in *Pseudolachnostylis* (Fig. 69a, b), are a rare feature; most extreme is *Piranhea* (Fig. 67c–d), where the parenchyma bands even include most of the vessels (a pattern familiar from many Fabaceae). Also, parenchyma that is clearly associated with the vessels as narrow rings (complete or incomplete), or in wider confluent rings (*Cephalomappa*, Fig. 16e, *Triadica*, Fig. 82f & 83a, *Uapaca*, Fig. 83d–f) seldom occurs. Parenchyma appears to be lacking altogether in a number of genera of the biovulate subfamilies (e.g. *Phyllanthus*, Fig. 64c through Fig. 66f), and exceptionally so in taxa of the uniovulate subfamilies. But even when present, parenchyma may be difficult to spot in the photographs, either because the vessel-associated tissue in particular is scarce, or, as can happen with the banded type, when parenchyma cells and ground tissue fibres have approximately equal size and wall thickness when seen in a cross section. (Note: slightly wetting the surface can help here!)

Rays

Ray features of importance are restricted here to number, width, and the ratio between wide and narrow rays in case both are present (e.g. *Flueggea*, Fig. 35a–f & 36a–d). Most frequently rays are one or two cells wide, and are numerous.

Interspecific variation

At least some impression of interspecific variation can be obtained from the pages devoted to large genera, like, among others, *Croton*, *Drypetes*, *Macaranga*, *Mabea*, and *Sapium*. Generally the pattern between species is conform, showing mainly some

variation in size and number of the vessels. However, caution is in order here, as such differences may also be connected in part to the origin of the sample, i.e., whether from a twig or from the trunk, or result from habitat circumstances.

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A selection of recent papers is given. Supplementary information on the wood anatomy of particular genera or species can be found in Gregory's and Hayden's contributions cited.

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LIST OF MATERIAL

The list of wood samples is arranged according to the Uw (Utrecht wood collection) number. The addition of the capital N (in 'UNw') indicates material collected in the Netherlands (whether in the wild or from a cultivated plant). Next to the country of origin, the collector and collection number, and/or the distributing institute, indicated by the standard code of IAWA (Stern 1988), are given. After that a reference to a recent wood anatomical survey of the subfamily concerned (*sensu* Webster 1994a, b) is provided, including a paper on wood anatomy of the subfamily Euphorbioideae now in the preparatory stage (Mennega 2005 in prep.). Genera belonging to the subfamily Crotonoideae, not yet treated, are indicated by double asterisks. Segregate families are mentioned between square brackets. Further notes on certain numbers can be found at the end of the list.

- UNw 410: *Flueggea suffruticosa* (Pallas) Baill.: Botanical Gardens Utrecht University C 5148 (cult.) (Mennega 1987) [Phyllanthaceae]
- Uw s.n.: *Alchornea schomburgkii* Klotzsch: Suriname — Wessels Boer 1000 (Hayden & Hayden 2000)
- Uw 28: *Amanoa guianensis* Aubl.: Suriname — Stahel 28 (Mennega 1987; Hayden et al. 1993) [Phyllanthaceae]
- Uw 52: *Hura crepitans* L.: Suriname — Stahel 52 (Mennega in prep.)
- Uw 60: *Conceveiba guianensis* Aubl.: Suriname — Stahel 60 (Hayden & Hayden 2000)
- Uw 82: *Pera bicolor* (Klotzsch) Müll. Arg.: Suriname — Stahel 82 (Hayden & Hayden 2000)
- Uw 102: *Hieronima [Hyeronima] laxiflora* (Tul.) Müll. Arg.: Suriname — Stahel 102 (Mennega 1987) [Phyllanthaceae]¹
- Uw 153a: *Chaetocarpus schomburgkianus* (Kuntze) Pax & K.Hoffm.: Suriname — Stahel 153 (Hayden & Hayden 2000)
- Uw 155: *Hevea guianensis* Aubl.: Suriname — Stahel 155**
- Uw 294: *Aparisthium cordatum* (A. Juss.) Baill.: Suriname — Stahel 294 (Hayden & Hayden 2000)
- Uw 296: *Pogonophora schomburgkiana* Miers ex Benth.: Suriname — Stahel 296 (Hayden & Hayden 2000)
- Uw 311: *Sagotia racemosa* Baill. subsp. *racemosa*: Suriname — Stahel 311**
- Uw 631: *Croton matourensis* Aubl.: Suriname — BBS 34**
- Uw 730: *Sapium glandulosum* (L.) Morong: Suriname — BBS 142 (Mennega in prep.)
- Uw 869: *Hevea pauciflora* (Spruce ex Benth.) Müll. Arg. var. *coriacea* Ducke: Guyana — For. Dept. 4153**
- Uw 872: *Maprounea guianensis* Aubl.: Guyana — For. Dept. 3330 (Mennega in prep.)
- Uw 873: *Dodecastigma integrifolium* (Lanj.) Lanj. & Sandwith: Guyana — For. Dept. 4764**

- Uw 878: *Sandwithia guyanensis* Lanj.: Guyana — For. Dept. 3273**
- Uw 879: *Sapium paucinervium* Hemsl.: Guyana — For. Dept. 2703 (Mennega in prep.)
- Uw 1097: *Drypetes variabilis* Uittien: Guyana — For. Dept. 2273 (Mennega 1987) [Putranjivaceae]
- Uw 1425: *Alchornea triplinervia* (Spreng.) Müll. Arg. var. *laevigata* Müll. Arg.: Suriname — Lanjouw & Lindeman 1216 (Hayden & Hayden 2000)
- Uw 1443: *Alchorneopsis trimera* Lanj.: Suriname — Lanjouw & Lindeman 1288 (Hayden & Hayden 2000)
- Uw 1838: *Micrandra elata* (Didr.) Müll. Arg.: Suriname — Lanjouw & Lindeman 2571**
- Uw 1965: *Mabea speciosa* Müll. Arg. subsp. *speciosa*: Suriname — Lanjouw & Lindeman 2879 (Mennega in prep.)
- Uw 1973: *Pausandra martinii* Baill.: Suriname — Lanjouw & Lindeman 2918**
- Uw 2197: *Conceveiba hostmannii* Benth.: Suriname — Bosbeheer 60 (Hayden & Hayden 2000)
- Uw 2478: *Croton tafelbergicus* Croizat: Suriname — Maguire 24582 (type coll.)**
- Uw 2481: *Cunuria spruceana* Baill.: Suriname — Maguire 24279**
- Uw 2720: *Hevea pauciflora* (Spreng. ex Kunth) Müll. Arg. var. *coriacea* Ducke: Suriname — Lindeman 3731**
- Uw 2960: *Mabea taquari* Aubl.: Suriname — A.M.W. Mennega 354 (Mennega in prep.)
- Uw 4088: *Sapium paucinervium* Hemsl.: Suriname — Lindeman 5950 (Mennega in prep.)
- Uw 6195: *Hippomane mancinella* L.: USA, Florida Keys — Stern & Brizicky 351 (Mennega in prep.)
- Uw 6263: *Drypetes diversifolia* Krug & Urb.: USA, Florida Keys — Stern & Brizicky 463 (Mennega 1987) [Putranjivaceae]
- Uw 6309: *Gymnanthes lucida* Sw.: USA, Florida Keys: — Stern & Brizicky 541 (Mennega in prep.)
- Uw 6343: *Sebastiania argutidens* Pax & K. Hoffm.: Brazil — Reitz & Klein 3841 (HBR 14548) (Mennega in prep.)
- Uw 6374: *Tetrorchidium rubrivenium* Poepp. & Endl.: Brazil — Reitz & Klein 4057 (HBR 14918)**
- Uw 6559: *Uapaca guineensis* Müll. Arg.: Cameroun — Leeuwenberg 2561 (Mennega 1987) [Phyllanthaceae]
- Uw 6580: *Macaranga spinosa* Müll. Arg.: Cameroun — Leeuwenberg 2920 (Hayden & Hayden 2000)
- Uw 6655: *Phyllanthus attenuatus* Miq.: Suriname — Heyligers 72 (Mennega 1987) [Phyllanthaceae]
- Uw 6955: *Pera obovata* Baill.: Brazil — Reitz & Klein 4114 (HBR 22180) (Hayden & Hayden 2000)
- Uw 6956: *Actinostemon concolor* (Spreng.) Müll. Arg.: Brazil — Reitz & Klein 7030 (HBR 22181) (Mennega in prep.)²

- Uw 6990: *Pausandra morisiana* (Casar.) Radlk.: Brazil — Reitz & Klein 4123 (HBR 23392)**
- Uw 7071: *Croton billbergianus* Müll.Arg.: Panama — U.S. Nat.Herb. 716480**
- Uw 7466: *Margaritaria nobilis* L.f.: Brazil — Krukoff 6079 (Mennega 1987) [Phyllanthaceae]
- Uw 7469: *Pausandra hirsuta* Lanj.: Brazil — Krukoff 6084 (type coll.)**
- Uw 7477: *Bernardia tamanduana* Müll.Arg.: Brazil — Krukoff 6095 (Hayden & Hayden 2000)
- Uw 7483: *Pausandra trianae* Baill.: Brazil — Krukoff 6106**
- Uw 7518: *Mabea piriri* Aubl.: Brazil — Krukoff 6154 (Mennega in prep.)
- Uw 7520: *Sapium glandulosum* (L.) Morong: Brazil — Krukoff 6158 (Mennega in prep.)
- Uw 7524: *Piranhea trifoliata* Baill.: Brazil — Krukoff 6163 (Hayden 1994) [Picramniaceae]
- Uw 7541: *Hevea spruceana* (Benth.) Müll.Arg.: Brazil — Krukoff 6187**
- Uw 7558: *Drypetes amazonica* Steyererm.: Brazil — Krukoff 6210 (type coll.) (Mennega 1987) [Putranjivaceae]
- Uw 7632: *Sapium obovatum* Klotzsch ex Müll.Arg.: Brazil — Krukoff 6307 (Mennega in prep.)
- Uw 7660: *Cleidion praealtum* Croizat: Brazil — Krukoff 6357 (Hayden & Hayden 2000)
- Uw 7661: *Nealchornea stipitata* B.Walln.: Brazil — Krukoff 6358 (Mennega in prep.)
- Uw 7670: *Amanoa guianensis* Aubl.: Brazil — Krukoff 6370 (Mennega 1987; Hayden et al. 1993) [Phyllanthaceae]
- Uw 7756: *Conceveiba simulata* Steyererm.: Brazil — Krukoff 6475 (Hayden & Hayden 2000)
- Uw 7781: *Glycydendron amazonicum* Ducke: Brazil — Krukoff 6572**
- Uw 7787: *Didymocistus chrysadenius* Kuhlmann: Brazil — Krukoff 6579 (Mennega 1987) [Phyllanthaceae]
- Uw 7935: *Conceveiba martiana* Baill.: Brazil — Krukoff 6798 (Hayden & Hayden 2000)
- Uw 8034: *Pera decipiens* (Müll. Arg.) Müll. Arg.: Brazil — Krukoff 6905 (Hayden & Hayden 2000, as *P. bicolor*)
- Uw 8035: *Alchornea brachygyne* Pax & K.Hoffm.: Brazil — Krukoff 6906 (Hayden & Hayden 2000)
- Uw 8045: *Richeria racemosa* (Poepp. & Endl.) Pax & K.Hoffm.: Brazil — Krukoff 6917 (Mennega 1987) [Phyllanthaceae]
- Uw 8105: *Amanoa oblongifolia* Müll. Arg.: Brazil — Krukoff 7015 (Mennega 1987; Hayden et al. 1993) [Phyllanthaceae]
- Uw 8190: *Pera coccinea* (Benth.) Müll.Arg.: Brazil — Krukoff 7121 (Hayden & Hayden 2000)
- Uw 8204: *Phyllanthus madeirensis* Croizat: Brazil — Krukoff 7163 (Mennega 1987) [Phyllanthaceae]

- Uw 8205: *Mabea klugii* Steyererm.: Brazil — Krukoff 7168 (type coll.) (Mennega in prep.)
- Uw 8208: *Rhodothyrsus macrophyllus* (Ducke) Esser: Brazil — Krukoff 7171 (Mennega in prep.)
- Uw 8234: *Cunuria spruceana* Baill.: Brazil — Krukoff 7201 (type collection of *Cunuria australis* R.E. Schult.)**
- Uw 8259: *Richeria racemosa* (Poepp. & Endl.) Pax & K. Hoffm.: Brazil — Krukoff 7231 (Mennega 1987) [Phyllanthaceae]
- Uw 8321: *Acidoton urens* Sw.: Jamaica — USw 5934**
- Uw 8376: *Margaritaria nobilis* L.f.: Suriname — (Mennega 1987) [Phyllanthaceae]
- Uw 8349: *Omphalea diandra* L.: Jamaica — USw 5999 (Hayden & Hayden 2000, as *O. triandra*)
- Uw 8613: *Mabea speciosa* Müll. Arg. subsp. *guianensis* Esser: Suriname — Jonker & Daniëls 1161 (Mennega in prep.)
- Uw 9121: *Micrandra siphonoides* Benth.: Brazil — Pires et al. 51922 [in series Maguire]**
- Uw 9235: *Euphorbia dendroides* L.: Italy — Stud. Acad. Rheno Traj. in itinere [Italy 1963:] 701 (Mennega in prep.)
- Uw 9269: *Macaranga schweinfurthii* Pax: Cameroun — Breteler 847 (Hayden & Hayden 2000)
- Uw 9288: *Drypetes floribunda* (Müll. Arg.) Hutch.: Cameroun — Breteler 1226 (Mennega 1987) [Putranjivaceae]
- Uw 9318: *Discoglypemma caloneura* Prain: Cameroun — Breteler 1391 (Hayden & Hayden 2000)
- Uw 9437: *Phyllanthus muelleranus* (Kuntze) Exell: Cameroun — Breteler 1956 (Mennega 1987) [Phyllanthaceae]
- Uw 9671: *Pogonophora schomburgkiana* Miers ex Benth.: Brazil — Pires et al. 51927 [in series Maguire] (Hayden & Hayden 2000)
- Uw 10204: *Gymnanthes lucida* Sw.: USA, Florida — A.F. Wilson F-41 (Mennega in prep.)
- Uw 10292: *Ricinodendron rautanenii* Schinz: N. Rhodesia — W.A. Rainford [USw 20915]**
- Uw 10373: *Hura polyandra* Baill.: Mexico — King & Soderstrom [USw 27005] (Mennega in prep.)
- Uw 10449: *Drypetes crocea* Poit.: USA, Florida Keys — Stern 1440 (Mennega 1987) [Putranjivaceae]
- Uw 10631: *Actinostemon schomburgkii* (Klotzsch) Hochr.: Suriname — Schulz 10061 (Mennega in prep.)²
- Uw 10702: *Balakata luzonica* (Vidal) Esser: Philippines — PRFw 209 (Mennega in prep.)
- Uw 10704: *Excoecaria agallocha* L.: Philippines — PRFw 223 (Mennega in prep.)
- Uw 10758: *Mallotus mollissimus* (Geiseler) Airy Shaw: Philippines — PRFw 522 (Hayden & Hayden 2000, as *M. ricinoides*)
- Uw 10783: *Mallotus confusus* Merr.: Philippines — PRFw 585 (Hayden & Hayden 2000)

- Uw 10792: *Cleidion javanicum* Blume: Philippines — PRFw 633 (Hayden & Hayden 2000)
- Uw 10893: *Bridelia penangiana* Hook. f.: Indonesia — BZFw 2795 (Mennega 1987) [Phyllanthaceae]
- Uw 10895: *Galearia celebica* Koord.: Indonesia — BZFw 10043 (Hayden & Hayden 2000) [Pandaceae]
- Uw 10896: *Glochidion borneense* Boerl.: Indonesia — BZFw s.n. (Mennega 1987) [Phyllanthaceae]
- Uw 10897: *Aporosa arborea* (Blume) Müll. Arg.: Indonesia — BZFw 3422 (Mennega 1987) [Phyllanthaceae]³
- Uw 10898: *Aporosa octandra* (Buch.-Ham. ex D. Don) Vickery var. *malesiana* Schot: Indonesia — BZFw 8982 (Mennega 1987) [Phyllanthaceae]³
- Uw 10899: *Bridelia tomentosa* Blume: Indonesia — BZFw E 1066 (Mennega 1987) [Phyllanthaceae]
- Uw 10900: *Drypetes globosa* (Merr.) Pax & K. Hoffm.: Indonesia — BZFw 20480 (Mennega 1987) [Putranjivaceae]
- Uw 10901: *Drypetes longifolia* (Blume) Pax & K. Hoffm.: Indonesia — BZFw 24832 (Mennega 1987) [Putranjivaceae]
- Uw 10902: *Glochidion capitatum* J. J. Sm.: Indonesia — BZFw 22398 (Mennega 1987) [Phyllanthaceae]
- Uw 10903: *Glochidion philippicum* (Cav.) C. B. Rob.: Indonesia — BZFw 22415 (Mennega 1987) [Phyllanthaceae]
- Uw 10905: *Phyllanthus indicus* Müll. Arg.: Indonesia — BZFw 20012 (Mennega 1987) [Phyllanthaceae]
- Uw 10906: *Glochidion obscurum* (Roxb. ex Willd.) Blume: Indonesia — BZFw 2076 (Mennega 1987) [Phyllanthaceae]
- Uw 10907: *Cleistanthus papuanus* (Lauterb.) Jabl.: Indonesia — BZFw 2425 (Mennega 1987) [Phyllanthaceae]
- Uw 10908: *Putranjiva roxburghii* Wall.: Indonesia — BZFw 3432 (Mennega 1987) [Putranjivaceae]
- Uw 10909: *Androstachys johnsonii* Prain: Mozambique — coll. Belem s.n. (Hayden 1994) [Picrodendraceae]
- Uw 10910: *Margaritaria discoidea* (Baill.) G. L. Webster: Suidafrikaanse Buro vir Standaarde Pretoria 997 (Mennega 1987) [Phyllanthaceae]
- Uw 10912: *Drypetes principum* (Müll. Arg.) Hutch.: Ghana — Boseexpl. Wag. 3423 (Mennega 1987) [Putranjivaceae]
- Uw 10913: *Uapaca togoensis* Pax: Ghana — Boseexpl. Wag. 2048 (Mennega 1987) [Phyllanthaceae]
- Uw 10915: *Uapaca kirkiana* Müll. Arg.: Ghana — Boseexpl. Wag. 776 (Mennega 1987) [Phyllanthaceae]
- Uw 10947: *Actephila excelsa* (Dalzell) Müll. Arg. var. *javanica* (Miq.) Pax & K. Hoffm.: Indonesia, Sumatra — Krukoff 4407 (Mennega 1987) [Phyllanthaceae]
- Uw 10948: *Petalostigma quadriloculare* F. Muell.: Queensland — F. P. R. L. 10913 (Hayden 1994) [Picrodendraceae]

- Uw 10951: *Oldfieldia dactylophylla* (Welw. ex Oliv.) J. Léonard: Tanzania — Cons. For. Tanganyika Territory 254 (Hayden 1994) [Picrodendraceae]
- Uw 10952: *Heywoodia lucens* Sim.: S. Africa — F.P.R.L. 14809 (Mennega 1987) [Phyllanthaceae]
- Uw 10953: *Heywoodia lucens* Sim.: S. Africa — F.P.R.L. 20696 (Mennega 1987) [Phyllanthaceae]
- Uw 10999: *Phyllanthus salviifolius* Kunth: Venezuela — Breteler 3312 (Mennega 1987) [Phyllanthaceae]
- Uw 11009: *Croton gossypifolius* Vahl: Venezuela — Breteler 3446**
- Uw 11053: *Cleistanthus collinus* (Roxb.) Hook.f.: India — FHOW s.n. (Mennega 1987) [Phyllanthaceae]
- Uw 11054: *Flueggea leucopyrus* Willd.: India — Ind. For. Dept. 93-1898 (Mennega 1987) [Phyllanthaceae]⁴
- Uw 11055: *Securinega durissima* J.F. Gmel.: Mauritius — F.P.R.L. (Mennega 1987) [Phyllanthaceae]
- Uw 11057: *Pseudolachnostylis maprouneifolia* Pax: Dem. Rep. Congo (Zaire) — M.A. Ringeot s.n (Mennega 1987) [Phyllanthaceae]
- Uw 11090: *Blotia oblongifolia* (Baill.) Leandri: Madagascar — Serv. For. 12169 (Mennega 1987) [Phyllanthaceae]
- Uw 11091: *Blotia ankaranae* Leandri: Madagascar — Serv. For. 12308 (Mennega 1987) [Phyllanthaceae]
- Uw 11092: *Blotia oblongifolia* (Baill.) Leandri: Madagascar — Serv. For. 13184 (Mennega 1987) [Phyllanthaceae]
- Uw 11187: *Maprounea guianensis* Aubl.: Suriname — Maas & Tawjoeran LBB 10729 (Mennega in prep.)
- Uw 11366: *Drypetes ovalis* (J.J. Sm.) Pax & K. Hoffm.: Indonesia, Java — Pfeiffer S.O.H. 1704 (Mennega 1987) [Putranjivaceae]
- Uw 11789: *Plukenetia polyadenia* Müll. Arg.: Venezuela — Breteler 3822**
- Uw 11853: *Phyllanthus acuminatus* Vahl: Venezuela — Breteler 4238 (Mennega 1987) [Phyllanthaceae]
- Uw 12206: *Croton croizatii* Steyerl.: Venezuela — Breteler 4575**
- Uw 12292: *Chaetocarpus schomburgkianus* (Kuntze) Pax & K. Hoffm.: Venezuela — Breteler 5053 (Hayden & Hayden 2000)
- Uw 12355: *Acalypha diversifolia* Jacq.: Suriname — Van Donselaar 3820 (Hayden & Hayden 2000)
- Uw 12965: *Gymnanthes klotzschiana* (Müll. Arg.) Müll. Arg. var. *trichoneura* Müll. Arg.: Brazil — Lindeman & De Haas 1220 (Mennega in prep.)
- Uw 13083: *Alchornea iricurana* Casar.: Brazil — Lindeman & De Haas 1411 (Hayden & Hayden 2000)
- Uw 13139: *Acalypha gracilis* Spreng.: Brazil — Lindeman & De Haas 1524 (Hayden & Hayden 2000)
- Uw 13234: *Gymnanthes klotzschiana* (Müll. Arg.) Müll. Arg. var. *klotzschiana*: Brazil — Lindeman & De Haas 1648 (Mennega in prep.)
- Uw 13355: *Sebastiania brasiliensis* Sprengl.: Brazil — Lindeman & De Haas 1830 (Mennega in prep.)

- Uw 13834: *Omphalea diandra* L.: Suriname — Stahel & Gonggrijp BW 3018 (Hayden & Hayden 2000)
- Uw 13995: *Croton compressus* Lam.: Brazil — Lindeman & De Haas 3157**
- Uw 14045: *Manihot grahamii* Hook.: Brazil — Lindeman & De Haas 3411**
- Uw 14072: *Gymnanthes klotzschiana* (Müll. Arg.) Müll. Arg. var. *klotzschiana*: Brazil — Lindeman & De Haas 3469 (Mennega in prep.)
- Uw 14074: *Phyllanthus sellowianus* Müll. Arg.: Brazil — Lindeman & De Haas 3476 (Mennega 1987) [Phyllanthaceae]
- Uw 14181: *Sapium haematospermum* Müll. Arg.: Brazil — Lindeman & De Haas 4830 (Mennega in prep.)
- Uw 14302: *Tetrorchidium rubrivenium* Poepp. & Endl.: Brazil — Lindeman & De Haas 5384**
- Uw 14331: *Croton urucurana* Baill.: Brazil — Hatschbach, Lindeman & De Haas 13369**
- Uw 14349: *Croton ceanothifolius* Baill.: Brazil — Hatschbach, Lindeman & De Haas 13717**
- Uw 14355: *Gymnanthes schottiana* (Müll. Arg.) Müll. Arg.: Brazil — Hatschbach, Lindeman & De Haas 13937 (Mennega in prep.)
- Uw 14579: *Savia dictyocarpa* Müll. Arg.: Brazil — Reitz & Klein 7556 (HBR 31106) (Mennega 1987) [Phyllanthaceae]
- Uw 14605: *Pentabrachion reticulatum* Müll. Arg.: Cameroun — Zenker 1688 (Mennega 1987) [Phyllanthaceae]
- Uw 14608: *Baccaurea bracteata* Müll. Arg.: Malaysia, Sarawak — USw 30789 (Mennega 1987) [Phyllanthaceae]
- Uw 14613: *Baccaurea philippinensis* (Merr.) Merr.: Philippines — Stearn 2376 (Mennega 1987) [Phyllanthaceae]
- Uw 14614: *Baccaurea ramiflora* Lour.: Myanmar (Birma) — USw 11183 (Mennega 1987) [Phyllanthaceae]
- Uw 14616: *Brenya cernua* (Poir.) Müll. Arg.: Indonesia, Sumatra — 'Boeea' 8029, USw 29110 (Mennega 1987) [Phyllanthaceae]⁵
- Uw 14619: *Cleistanthus collinus* (Roxb.) Hook. f.: India — USw 31146 (Mennega 1987) [Phyllanthaceae]
- Uw 14625: *Dissiliaria baloghioides* F. Muell. ex Baill.: Australia — USW 32037 (Hayden 1994) [Picrodendraceae]
- Uw 14631: *Drypetes sepiaria* (Wight & Arn.) Pax & K. Hoffm.: Sri Lanka — USW 21883 (Mennega 1987) [Putranjivaceae]
- Uw 14636: *Oldfieldia africana* Benth. & Hook. f.: Liberia — USw 4517 (Hayden 1994) [Picrodendraceae]
- Uw 14639: *Protomegabaria stapfiana* (Beille) Hutch.: C. Africa — USw 4881 (Mennega 1987) [Phyllanthaceae]
- Uw 14643: *Richeria submembranacea* Steyerl.: Peru — Krukoff 1513 (type coll.) (Mennega 1987) [Phyllanthaceae]
- Uw 14646: *Sauropus rhamnoides* Blume: Indonesia, Borneo — USw 19987 (Mennega 1987) [Phyllanthaceae]

- Uw 14651: *Flueggea virosa* (Roxb. ex Willd.) Voigt subsp. *virosa*: Thailand — B. King 5419 (Mennega 1987) [Phyllanthaceae]
- Uw 14652: *Pseudosenefeldera inclinata* (Müll. Arg.) Esser: Brazil — Krukoff 7126, USw 8193 (Mennega in prep.)
- Uw 14654: *Spondianthus preussii* Engl.: Ivory Coast — USw 24266 (Mennega 1987) [Phyllanthaceae]
- Uw 14655: *Spondianthus ugandensis* Hutch.: Liberia — USw 4553 (Mennega 1987) [Phyllanthaceae]
- Uw 14807: *Garcia nutans* Vahl ex Rohr: Panama — Stern et al. 1872**
- Uw 14815: *Mabea montana* Müll. Arg. subsp. *montana*: Panama — Stern et al. 1930 (Mennega in prep.)
- Uw 15288: *Glochidion philippicum* (Cav.) C.B. Rob.: Australia — s.n. (Mennega 1987) [Phyllanthaceae]
- Uw 15386: *Croton flavens* L. var. *balsamifer* (Jacq.) Müll. Arg.: Dominica — Chambers 2731**
- Uw 15478: *Martretia quadricornis* Beille: Congo — Sargos 880 (Mennega 1987)
- Uw 15480: *Microdesmis puberula* Hook. f.: Ivory Coast — Nogent CTFT 6291 (Hayden & Hayden 2000) [Pandaceae]
- Uw 15483: *Wielandia elegans* Baill. var. *perrieri* Leandri: Madagascar — Serv. For. 6827 (Mennega 1987) [Phyllanthaceae]
- Uw 15616: *Croton mubango* Müll. Arg.: E. Africa — Schlieben 506**
- Uw 15617: *Sclerocroton integerrimus* Hochst.: E. Africa — Schlieben 507 (Mennega in prep.)
- Uw 15645: *Pseudolachnostylis glauca* Hutch.: E. Africa — Schlieben 5447 (Mennega 1987) [Phyllanthaceae]
- Uw 15653: *Ricinodendron gracilius* Mildbr.: E. Africa — Schlieben 505**
- Uw 15667: *Spirostachys africana* Sond.: S. Africa — USw 31361A (Mennega in prep.)
- Uw 15818: *Maprounea africana* Müll. Arg.: E. Africa — Schlieben 1761 (RBHw) (Mennega in prep.)
- Uw 15869: *Ricinodendron schliebenii* Mildbr.: E. Africa — Schlieben 1838 (RBHw)**
- Uw 15880: *Hymenocardia ulmoides* Oliv.: E. Africa: Schlieben 1857 (RBHw) (Mennega 1987) [Phyllanthaceae]
- Uw 15897: *Antidesma membranaceum* Müll. Arg.: E. Africa — Schlieben 1680 (RBHw) (Mennega 1987) [Phyllanthaceae]
- Uw 15924: *Macaranga kilimandscharica* Pax: E. Africa — Schlieben 1701 (RBHw) (Hayden & Hayden 2000)
- Uw 15965: *Cnidocolus multilobus* I.M. Johnst.: Mexico — Breckon & Christman 677**
- Uw 16073: *Gavarretia terminalis* Baill.: Brazil — Krukoff 8916 (Hayden & Hayden 2000)
- Uw 16161: *Sapium marmieri* Huber: Brazil — Krukoff 8098 (Mennega in prep.)
- Uw 16162: *Nealchornea yapurensis* Huber: Brazil — Krukoff 8099 (Mennega in prep.)
- Uw 16190: *Conceveiba krukoffii* Steyererm.: Brazil — Krukoff 8396 (type coll.) (Hayden & Hayden 2000)

- Uw 16204: *Croton palanostigma* Klotzsch: Brazil — Krukoff 8562**
- Uw 16232: *Croton cuneatus* Klotzsch: Brazil — Krukoff 8972**
- Uw 16259: *Hieronyma [Hyeronima] oblonga* (Tul.) Müll. Arg.: Brazil — Krukoff 8830 (Mennega 1987) [Phyllanthaceae]¹
- Uw 16261: *Hieronyma [Hyeronima] alchorneoides* Allemão var. *alchorneoides*: Brazil — Krukoff 8824 (Mennega 1987) [Phyllanthaceae]¹
- Uw 16610: *Maprounea brasiliensis* A. St.-Hil.: Brazil — Maguire et al. 57141 (Mennega in prep.)
- Uw 16852: *Pausandra martini* Baill.: Brazil — Irwin et al. 47394 [in series Maguire]**
- Uw 17587: *Pera glabrata* (Schott) Baill.: Venezuela — Steyermark 86353 (Hayden & Hayden 2000)
- Uw 18022: *Pleradenophora longicuspis* (Standl.) Esser: Guatemala — MADw 23129 (Mennega in prep.)
- Uw 18047: *Suregada multiflora* (A. Juss.) Baill.: E. India — MADw 24539**
- Uw 18048: *Antidesma ghesaembilla* Gaertn.: Pakistan — MADw 24540 (Mennega 1987) [Phyllanthaceae]
- Uw 18114: *Endospermum moluccanum* (Teijsm. & Binn.) Becc.: Indonesia — BW New Guinea 9880**
- Uw 18125: *Pimelodendron papuanum* Warb.: Indonesia — BW New Guinea 11787 (Mennega in prep.)
- Uw 18197: *Pimelodendron amboinicum* Hassk.: Indonesia — BW New Guinea 12316 (Mennega in prep.)
- Uw 18257: *Syndyophyllum excelsum* Laut. & K. Schum.: Indonesia — BW New Guinea 12477 (Hayden & Hayden 2000)
- Uw 18261: *Aleurites moluccana* (L.) Willd.: Indonesia, New Guinea — BW 12493**
- Uw 18326: *Homalanthus arfakiensis* Hutch.: Indonesia, New guinea — Vink 17460 (Mennega in prep.)
- Uw 18529: *Panda oleosa* Pierre: Ivory Coast — Leeuwenberg 8034 (Hayden & Hayden 2000) [Pandaceae]
- Uw 18559: *Claoxylon sandwicense* Müll. Arg.: Hawaii, Kauai Isl. — Stern & Herbst 2947 (Hayden & Hayden 2000)
- Uw 18597: *Chamaesyce celastroides* (Boiss.) Croizat & O. Deg.: Hawaii, Kauai Isl. — Stern & Herbst 2985 (Mennega in prep.)
- Uw 18707: *Chascotheca neopeltandra* (Griseb.) Urb.: Cuba — Jack 5722 (Mennega 1987) [Phyllanthaceae]
- Uw 18708: *Savia sessiliflora* (Sw.) Willd.: Cuba — A. Fors 211 (Mennega 1987) [Phyllanthaceae]
- Uw 18712: *Savia laurifolia* Griseb.: Cuba — Roig & Wilson 218 (Mennega 1987) [Phyllanthaceae]
- Uw 18718: *Flueggea acidoton* (L.) G.L. Webster: Cuba — A. Fors 1271 (Mennega 1987) [Phyllanthaceae]
- Uw 18723: *Flueggea acidoton* (L.) G.L. Webster: Cuba — R. Kanehira 3/15/30 (Mennega 1987) [Phyllanthaceae]
- Uw 18724: *Jablonskia congesta* (Benth. ex Müll. Arg.) G.L. Webster: Peru — L. Williams 2234 (Mennega 1984) [Phyllanthaceae]

- Uw 18727: *Flueggea flexuosa* (Müll. Arg.) Müll. Arg.: Philippines (?) — Bur. of Forestry Manila s.n. (Mennega 1987) [Phyllanthaceae]
- Uw 18770: *Bridelia ripicola* J. Léonard: Dem. Rep. Congo (Zaire) — Vermoesen 2577 (Mennega 1987) [Phyllanthaceae]
- Uw 19044: *Actinostemon amazonicus* Pax & K. Hoffm.: Brazil — Prance et al. P13992 (Mennega in prep.)²
- Uw 19055: *Mabea nitida* Benth.: Brazil — Prance et al. 14031 (Mennega in prep.)
- Uw 19159: *Pera glabrata* (Schott) Baill.: Brazil — Prance et al. 15752 (Hayden & Hayden 2000)
- Uw 19177: *Hura crepitans* L.: Brazil — Prance et al. 16342 (Mennega in prep.)
- Uw 19247: *Joannesia heveoides* Ducke: Brazil — Krukoff 1202**
- Uw 19286a: *Mabea paniculata* Spruce ex Benth.: Brazil — Krukoff 1317 (Mennega in prep.)
- Uw 19380: *Mabea angularis* Hollander: Brazil — Krukoff 1502 (type coll.) (Mennega in prep.)
- Uw 19416: *Pera cinerea* Baill.: Brazil — Krukoff 1595 (Hayden & Hayden 2000)
- Uw 19652: *Acalypha macrostachya* Jacq.: Brazil — Krukoff 4876 (Hayden & Hayden 2000)
- Uw 19852a: *Phyllanthus cladotrichus* Müll. Arg.: Brazil — Krukoff 5256 (Mennega 1987) [Phyllanthaceae]
- Uw 19869: *Nealchornea yapurensis* Huber: Brazil — Krukoff 5278 (Mennega in prep.)
- Uw 19974: *Pausandra trianae* Baill.: Brazil — Krukoff 5466**
- Uw 20024: *Actinostemon lundianus* Pax: Brazil — Krukoff 5551 (Mennega in prep.)²
- Uw 20026: *Caryodendron orinocense* H. Karst.: Brazil — Krukoff 5553 (Hayden & Hayden 2000)
- Uw 20164: *Paradrypetes subintegrifolia* G. A. Levin: Brazil — Krukoff 5747 (Mennega 1987) [Picodendraceae]
- Uw 20272: *Savia bahamensis* Britton: USA, Florida Keys — Stern 3049 (Mennega 1987) [Phyllanthaceae]
- Uw 20279: *Croton linearis* Jacq.: USA, Florida Keys — W.L. Stern et al. 3056**
- Uw 20676: *Alchornea cordata* Müll. Arg.: Costa Rica — I.I.C.A., CCO 23 (Hayden & Hayden 2000)
- Uw 20753: *Micrandropsis scleroxylon* (W.A. Rodrigues) W.A. Rodrigues: Brazil — INPA 21146**
- Uw 21083: *Cunuria spruceana* Baill.: Peru — Schunke V. 3612**
- Uw 21085: *Acalypha stachyura* Pax: Peru — Schunke 4347 (Hayden & Hayden 2000)
- Uw 21178: *Jatropha curcas* L.: Suriname — Den Outer 907**
- Uw 21322: *Mallotus claoxyloides* (F. Muell.) Müll. Arg.: Australia — For. Comm. N.S.W. 3860 (Hayden & Hayden 2000)
- Uw 21328: *Glochidion ferdinandi* (Müll. Arg.) F.M. Bailey: Australia — For. Comm. N.S.W. D 10.144 (Mennega 1987) [Phyllanthaceae]
- Uw 21365: *Bischofia javanica* Blume: Indonesia — NNG 2757 (Mennega 1987) [Phyllanthaceae]
- Uw 21367: *Koilodepas [Coelodepas] bantamense* Hassk.: Indonesia — RTIw H 18-68-64 (Hayden & Hayden 2000)⁶

- Uw 21368: *Neoscortechinia nicobarica* (Hook.f.) Pax & K. Hoffm.: Indonesia — NNG 2716 (Hayden & Hayden 2000)
- Uw 21369: *Neotrewia cumingii* (Müll. Arg.) Pax & K. Hoffm.: Indonesia — RTIw Ind. 14942 (Hayden & Hayden 2000)
- Uw 21371: *Podadenia javanica* J.J. Sm.: Indonesia, Java — Koorders 2741B (Hayden & Hayden 2000)
- Uw 21372: *Ptychopyxis costata* Miq.: Indonesia — RTIw Ind. 13210 (Hayden & Hayden 2000)
- Uw 21373: *Trewia nudiflora* L.: Indonesia — RTIw 13337 (Hayden & Hayden 2000)
- Uw 21374: *Trigonopleura malayana* Hook.f.: Indonesia — RTIw Ind. E 1031 (Hayden & Hayden 2000)
- Uw 21376: *Dicoelia beccariana* Benth.: Indonesia — RTIw 11024 (Mennega 1987; Hayden & Hayden 2000)
- Uw 21377: *Cleistanthus laevis* Hook.f.: Indonesia — RTIw Ind. 18003 (Mennega 1987) [Phyllanthaceae]
- Uw 21397: *Agrostistachys borneensis* Becc.: Malaya — RTIw 5725 (Hayden & Hayden 2000)
- Uw 21398: *Dimorphocalyx malayanus* Hook.f.: Malaysia — KEPw 1075**
- Uw 21399: *Phyllanthus emblica* L.: Malaysia — KEPw 370 (Mennega 1987) [Phyllanthaceae]
- Uw 21401: *Trigonopleura malayana* Hook.f.: Malaya — RTIw 1788 (Hayden & Hayden 2000)
- Uw 21409: *Aporosa symplocoides* (Hook.f.) Gage: Malaysia — KEPw 9551 (Mennega 1987) [Phyllanthaceae]³
- Uw 21410: *Ashtonina praeterita* Airy Shaw: Malaysia — Whitmore, KEPw 12240 (Mennega 1987) [Phyllanthaceae]
- Uw 21411: *Austrobuxus nitidus* Miq.: Malaysia — KEPw 3602 (Hayden 1994) [Picrodendraceae]
- Uw 21414: *Cheilosa malayana* (Hook.f.) Corner ex Airy Shaw: Malaysia — KEPw 8520 (Hayden & Hayden 2000)
- Uw 21421: *Ptychopyxis costata* Miq.: Malaysia — KEPw 5428 (Hayden & Hayden 2000)
- Uw 21422: *Wetria insignis* (Steud.) Airy Shaw: Malaysia — KEPw 13679 (Hayden & Hayden 2000)
- Uw 21727: *Spathiostemon javensis* Blume: Indonesia — BW New Guinea 593 (Hayden & Hayden 2000)
- Uw 21728: *Neoboutonia macrocalyx* Pax: tropical Africa — KIT-T.P. 1234-6**
- Uw 21734: *Cleidion javanicum* Blume: Philippines — For. Prod. Res. Inst. 633 (Hayden & Hayden 2000)
- Uw 21735: *Celaenodendron mexicanum* Standl.: Mexico — Ortega 35 (Hayden 1994) [Picrodendraceae]⁷
- Uw 21737: *Jatropha curcas* L.: Trinidad — Broadway 22128**
- Uw 22013: *Euphorbia ingens* E.Mey.: S. Africa — PFPw 2269 (Mennega in prep.)

- Uw 22170: *Borneodendron aenigmaticum* Airy Shaw: Malaysia, Sandakan — For. Serv. SAN 21605**
- Uw 22171: *Cavacoa quintasii* (Pax & K. Hoffm.) J. Léonard: Angola — Dechamps 208**
- Uw 22172: *Chaetocarpus castanocarpus* (Roxb.) Thwaites: Malaysia, Sandakan — For. Dept. SAN 61.374 (Hayden & Hayden 2000)
- Uw 22174: *Dichostemma glaucescens* Pierre: Dem. Rep. Congo (Zaire) — Dechamps 109 (Mennega in prep.)
- Uw 22175: *Euphorbia calycina* N.E.Br.: Angola — Dechamps 1296 (Mennega in prep.)
- Uw 22176: *Grossera macrantha* Pax: Dem. Rep. Congo (Zaire) — Dechamps 237**
- Uw 22178: *Klaineanthus gaboniae* Pierre ex Prain: Dem. Rep. Congo (Zaire) — Dechamps 59**
- Uw 22179: *Lachnostylis hirta* (L.f.) Müll. Arg.: S. Africa — Tw 27713 (Mennega 1987) [Phyllanthaceae]
- Uw 22180: *Manniophyton fulvum* Müll. Arg.: Dem. Rep. Congo (Zaire): — Tw 24023**
- Uw 22181: *Mareya micrantha* (Benth.) Müll. Arg.: Ivory Coast — P. Bamps 2361 (Mennega in Breteler et al. 1997; Hayden & Hayden 2000)
- Uw 22182: *Necepsia afzelii* Prain: Liberia — Cooper 263 (Hayden & Hayden 2000)
- Uw 22184: *Plagiostyles africana* (Müll. Arg.) Prain: Dem. Rep. Congo (Zaire) — Dechamps 63 (Mennega in prep.)
- Uw 22247: *Pera arborea* Mutis: Colombia — For. Dept. Un. Col. 63 (Hayden & Hayden 2000)
- Uw 22562: *Mabea occidentalis* Benth.: Venezuela — De Bruyn 1230 (Mennega in prep.)
- Uw 22782: *Mabea piriri* Aubl.: Suriname — Lindeman & Heyde 159 (Mennega in prep.)
- Uw 23105: *Voatamalo eugenioides* Capuron ex Bosser: Madagascar — Serv. For. 5327R4 (Hayden 1994) [Picrodendraceae]
- Uw 23392: *Spirostachys africana* Sond.: Angola — Dechamps s.n. (Mennega in prep.)
- Uw 23409: *Shirakiopsis elliptica* (Hochst.) Esser: Angola — Tw 28170 (Mennega in prep.)
- Uw 23807: *Anomalocalyx uleanus* (Pax) Ducke: Brazil — INPA X 307**
- Uw 24049: *Chaetocarpus coriaceus* Thwaites: Sri Lanka — For. Dept. 212 B (Hayden & Hayden 2000)
- Uw 24065: *Aleurites moluccana* (L.) Willd.: Sri Lanka — For. Dept. 210**
- Uw 24368: *Baloghia inophylla* (G. Forst.) P.S. Green: New Caledonia — FPAw 23218**
- Uw 24370: *Cephalomappa paludicola* Airy Shaw: Malaysia, Sarawak — FPAw 30238 (Hayden & Hayden 2000)
- Uw 24371: *Codiaeum variegatum* (L.) Blume: Indonesia — NG New Guinea 85**
- Uw 24372: *Croton argyratus* Blume: Indonesia, Sumatra — FPAw 24771**
- Uw 24373: *Croton triacros* F. Muell.: Australia (Queensland) — FPAw 12708**

- Uw 24475: *Ricinodendron heudelotii* (Baill.) Pierre ex Heckel subsp. *africanum* (Müll. Arg.) J. Léonard: Angola — J. Agr. Ultr. Lisboa s.n.**
- Uw 24542: *Croton gratissimus* Burch.: Angola — Dechamps 1237**
- Uw 24543: *Euphorbia tirucalli* L.: Angola — Dechamps 1212 (Mennega in prep.)
- Uw 24544: *Hymenocardia acida* Tul.: Angola — Dechamps 1468 (Mennega 1987) [Phyllanthaceae]
- Uw 24545: *Manihot esculenta* Crantz: Angola — Dechamps 1103**
- Uw 25113: *Phyllanthus valleanus* Croizat: Columbia — Cuatrecasas 15868 (Mennega 1987) [Phyllanthaceae]
- Uw 25354: *Croton funckianus* Müll. Arg.: Colombia — Cuatrecasas 14525**
- Uw 25445: *Sapium laurifolium* (A. Rich.) Griseb.: Colombia — Cuatrecasas 15944 (Mennega in prep.)
- Uw 25667: *Alchornea grandis* Benth.: Colombia — Van Rooden, Ter Welle & Topper 695 (Hayden & Hayden 2000)
- Uw 25715: *Ditta myricoides* Griseb.: Cuba — Vales 260**
- Uw 25934: *Margaritaria discoidea* (Baill.) G.L. Webster: Togo — Kersting 29 (Mennega 1987) [Phyllanthaceae]
- Uw 25939: *Conceveiba martiana* Baill.: Peru — Tessmann 4353 (Hayden & Hayden 2000)
- Uw 25942: *Clutia kilimandscharica* Engl.: Tanzania — Volkens 620 (Hayden 2000)
- Uw 25945: *Hippomane mancinella* L.: Guadeloupe — Karsten 495 (Mennega in prep.)
- Uw 25946: *Euphorbia poissoni* Pax: Togo — Kersting 414 (Mennega in prep.)
- Uw 25947: *Synadenium* sp.: E. Africa — Scheffler 6 (Mennega in prep.)
- Uw 25948: *Cyrtogonone argentea* (Pax) Prain: Cameroun — Mildbread 21**
- Uw 26188: *Acalypha cincta* Müll. Arg.: Mexico — Van Rooden 748 (Hayden & Hayden 2000)
- Uw 26296: *Actephila excelsa* (Dalzell) Müll. Arg.: Indonesia, Andaman Isl. — N. Bhargawa et al. 6336 (Mennega 1987) [Phyllanthaceae]
- Uw 26535: *Sagotia racemosa* Baill. subsp. *brachysepala* Baill.: Suriname — Lindeman, Görts-van Rijn et al. 657**
- Uw 27338: *Phyllanthus vacciniifolius* (Müll. Arg.) Müll. Arg.: Guyana — Maas et al. 5724 (Mennega 1987) [Phyllanthaceae]
- Uw 27361: *Senefelderopsis croizatii* Steyerl.: Guyana — Maas et al. 5828 Mennega in prep.)
- Uw 27505: *Mabea pulcherrima* Müll. Arg.: Suriname — Lindeman, De Rooy et al. 919 (Mennega in prep.)
- Uw 27702: *Macaranga aleuritoides* F. Muell.: Bougainville — Schodde & Craven 4067 (Hayden & Hayden 2000)
- Uw 27806: *Amanoa caribaea* Krug & Urb.: Guadeloupe — CTFT 28162 (Mennega 1987; Hayden et al. 1993) [Phyllanthaceae]
- Uw 27903: *Sapium macrocarpum* Müll. Arg.: Costa Rica — s.n. (Mennega in prep.)
- Uw 28074: *Macaranga fimbriata* S. Moore: Indonesia — BW New Guinea 528 (Hayden & Hayden 2000)
- Uw 28378: *Macaranga polyadenia* Pax & K. Hoffm.: Indonesia — BW New Guinea 1487 (Hayden & Hayden 2000)

- Uw 28929: *Macaranga fragrans* L.M.Perry: Indonesia — BW New Guinea 4225 (Hayden & Hayden 2000)
- Uw 29104: *Excoecaria myrioneura* Airy Shaw (actually not belonging in *Excoecaria*, position unknown — Esser et al. 1997): Indonesia — BW New Guinea 10507 (Mennega in prep.)
- Uw 29583: *Anthostema aubryanum* Boiss.: Gabon — CTFT 15658 (Mennega in prep.)
- Uw 29592: *Securinega capuronii* Leandri: Madagascar — CTFw 13773 (Mennega 1987) [Phyllanthaceae]
- Uw 29658: *Chamaesyce articulata* (Dennst.) Britton: Guadeloupe — Rollet 1098 (Mennega in prep.)
- Uw 30196: *Acalypha samydifolia* Poepp. & Endl.: Guyana — Stoffers, Görts-van Rijn et al. 475 (Hayden & Hayden 2000)
- Uw 30856: *Manihot carthaginensis* (Jacq.) Müll.Arg. subsp. *glaziovii* (Müll.Arg.) Allem: Angola — Dechamps et al. 1525**
- Uw 30860: *Astrocasia neurocarpa* (Müll.Arg.) I.M.Johnst. ex Standl.: Cuba — Webster 13121 (Mennega 1987) [Phyllanthaceae]
- Uw 31047: *Hieronyma [Hyeronima] macrocarpa* Müll.Arg.: Colombia — Cuatrecasas 19162 (Mennega 1987) [Phyllanthaceae]¹
- Uw 31049: *Hieronyma [Hyeronima] jamaicensis* Urb.: Jamaica — Maxon 9142 (Mennega 1987) [Phyllanthaceae]¹
- Uw 31182: *Austrobuxus* sp.: Australia — Hyland 6918 (Hayden 1994) [Picrodendraceae]
- Uw 31183: *Tetracoccus fasciculatus* (S.Watson) Croizat var. *hallii* (Brandege) Dressler: USA, California — Webster et al. 7460 (Hayden 1994) [Picrodendraceae]
- Uw 31184: *Tetracoccus dioicus* Parry: USA, California — Webster et al. 7478 (Hayden 1994) [Picrodendraceae]
- Uw 31188: *Alchorneopsis floribunda* (Benth.) Müll.Arg.: Trinidad — Webster et al. 9772 (Hayden & Hayden 2000)
- Uw 31189: *Phyllanthus juglandifolius* Willd. subsp. *cornifolius* (Kunth) G.L.Webster: Trinidad — Webster et al. 9905 (Mennega 1987) [Phyllanthaceae]
- Uw 31193: *Antidesma pulvinatum* Hillebr.: Hawaii Isl. — Webster 13858 (Mennega 1987) [Phyllanthaceae]
- Uw 31194: *Flueggea neowawraea* W.J.Hayden: Hawaii — Webster et al. 13889 (Mennega 1987) [Phyllanthaceae]
- Uw 31196: *Macaranga aleuritoides* F.Muell.: Indonesia — Webster et al. 15050 (Hayden & Hayden 2000)
- Uw 31197: *Jatropha platyphylla* Müll.Arg.: Mexico — Webster 15630**
- Uw 31199: *Mallotus polyadenus* F.Muell.: Australia — Webster et al. 18875 (Hayden & Hayden 2000)
- Uw 31201: *Petalostigma* cf. *pubescens* Domin: Australia — Webster et al. 18879 (Hayden 1994) [Picrodendraceae]
- Uw 31202: *Alchornea ilicifolia* (J.Sm.) Müll.Arg.: Australia — Webster et al. 18896 (Hayden & Hayden 2000)

- Uw 31203: *Fontainea picrosperma* C.T.White: Australia — Webster et al. 18910**
- Uw 31308: *Suregada glomerulata* (Blume) Baill.: Indonesia — Van Balgooy & Van Setten 5663**
- Uw 31309: *Strophoblachia fimbriicalyx* Boerl.: Indonesia — Van Balgooy & Van Setten 5687**
- Uw 31310: *Reutealis trisperma* (Blanco) Airy Shaw: Indonesia — Van Balgooy & Van Setten 5690**
- Uw 31312: *Antidesma montanum* Blume: Indonesia, Sumatra — Van Balgooy & Van Setten 5688 (Mennega 1987) [Phyllanthaceae]
- Uw 31314: *Omphalea queenslandiae* F.M.Bailey: Indonesia — Van Balgooy & Van Setten 5285 (Hayden & Hayden 2000)
- Uw 31770: *Moultonianthus leembruggianus* (Boerl. & Koord.) Steenis: Indonesia — Van Balgooy & Van Setten 5429 (Hayden & Hayden 2000)
- Uw 31786: *Macaranga conifera* (Zoll.) Müll. Arg.: Indonesia — Van Balgooy & Van Setten 5543 (Hayden & Hayden 2000)
- Uw 31829: *Blumeodendron kurzii* (Hook. f.) J.J.Sm.: Indonesia — Van Balgooy & Van Setten 5475 (Hayden & Hayden 2000)
- Uw 31870: *Neoscortechinia forbesii* Hook. f. ex S.Moore: Indonesia — Van Balgooy & Van Setten 5633 (Hayden & Hayden 2000)
- Uw 31933: *Neoshirakia japonica* (Siebold & Zucc.) Esser: Korea — FRI-Seoul 440 (Tw 42390) (Mennega in prep.)
- Uw 31985: *Pera bumelifolia* Griseb.: Cuba — Acuña 133 (Hayden & Hayden 2000)
- Uw 31986: *Adelia ricinella* L.: Cuba — Acuña 139 (Hayden & Hayden 2000)
- Uw 32178: *Phyllanthus adiantoides* Klotzsch: Guyana — Jansen-Jacobs et al. 999 (Mennega 1987) [Phyllanthaceae]
- Uw 32504: *Discocarpus essequeboensis* Klotzsch: Guyana — Maas et al. 7395 (Mennega 1987; Hayden, S.M. & W.J. Hayden 1996) [Phyllanthaceae]
- Uw 32713: *Macaranga roxburghii* Wight: India — Bhat 5013 (Hayden & Hayden 2000)
- Uw 32720: *Dendrothrix yutajensis* (Jabl.) Esser: Venezuela — Maguire et al. 42212 (Mennega in prep.)
- Uw 32721: *Sapium pallidum* (Müll. Arg.) Huber: Brazil — Capucho 328 (Mennega in prep.)
- Uw 32722: *Triadica cochinchinensis* Lour.: China — For.Res.Inst.58 (Mennega in prep.)
- Uw 32724: *Sclerocroton cornutus* (Pax) Kruijt & Roebers: Congo — Dechamps 261 (Mennega in prep.)
- Uw 32726: *Falconeria insignis* Royle: India — Tw 45179 (Mennega in prep.)
- Uw 32727: *Sapium laurifolium* (A. Rich.) Griseb.: Cuba — Inst.Invest.For. 132 (Mennega in prep.)
- Uw 32730: *Sapium glandulosum* (L.) Morong: Uruguay — L.Lebac TW 20489 (Mennega in prep.)
- Uw 32731: *Sapium stylare* Müll. Arg.: Venezuela — Aristeguita 4235 (Mennega in prep.)
- Uw 32733: *Sclerocroton schmitzii* (J.Léonard) Kruijt & Roebers: Dem. Rep. Congo (Zaire) — Malaisse 10542 (Mennega in prep.)

- Uw 32734: *Balakata luzonica* (Vidal) Esser: Philippines — Bureau of Forestry 17601 (Mennega in prep.)
- Uw 33123: *Balakata baccata* (Roxb.) Esser: Indonesia — WIBw 3790 (Mennega in prep.)
- Uw 33124: *Neoguillauminia cleopatra* (Baill.) Croizat: New Caledonia — WIBw 3650 (Mennega in prep.)
- Uw 33127: *Euphorbia oncoclada* Drake: Madagascar — WIBw 3489 (Mennega in prep.)
- Uw 33734: *Homalanthus fastuosus* (Linden) Fern.-Vill.: Philippines — Jacobs 7195 (Mennega in prep.)
- Uw 33747: *Homalanthus fastuosus* (Linden) Fern.-Vill.: Philippines — Jacobs 7280 (Mennega in prep.)
- Uw 34037: *Rhodothyrus macrophyllus* (Ducke) Esser: Guyana — Jansen-Jacobs et al. 2509 (Mennega in prep.)
- Uw 34214: *Alchornea cordifolia* Müll. Arg.: Liberia — H. Jansen 1690 (Hayden & Hayden 2000)
- Uw 34245: *Conceveiba leptostachys* Breteler: Africa — Breteler & Jongkind 10525 (Breteler & Mennega 1994; Hayden & Hayden 2000)
- Uw 34246: *Conceveiba macrostachys* Breteler: Africa — Breteler & Jongkind 10426 (Breteler & Mennega 1994; Hayden & Hayden 2000)
- Uw 34712: *Stillingia aquatica* Chapm.: USA, South Carolina — S.W. Leonard 2652 (Mennega in prep.)
- Uw 34880: *Triadica sebifera* (L.) Small: Georgia — LEw s.n. (Mennega in prep.)
- Uw 34883: *Chamaesyce halemanui* (Sherff) Croizat & O. Deg.: Hawaiian Isl., Kauai — Carlquist & Parrat 1796 (Mennega in prep.)
- Uw 34885: *Colliguaja brasiliensis* Klotzsch ex Baill.: Argentine — LEw 4489 (Mennega in prep.)
- Uw 35080: *Mareyopsis oligogyna* Breteler: Gabon — Breteler et al. 13301 (Mennega in Breteler et al. 1997)
- Uw 36055: *Rhodothyrus macrophyllus* (Ducke) Esser: Colombia — MSS 1079 (Mennega in prep.)
- Uw 36303: *Stillingia lineata* (Lam.) Müll. Arg. subsp. *pacifica* (Müll. Arg.) Steenis: Hawaiian Isl., Fyi — E.H. Bryan, jr. (357)102 (Mennega in prep.)
- Uw 36881: *Stachyandra* sp.: Madagascar — CTFw 13786 (Hayden 1994) [Picrodendraceae]
- Uw 36882: *Mischodon zeylanicus* Thwaites: Sri Lanka — Jayasuriya 2434 (Hayden 1994) [Picrodendraceae]
- Uw 36884: *Parodiodendron marginivillosum* (Speg.) Hunz.: Argentine — Vervoort & Cuzzo 7610C (Hayden 1994) [Picrodendraceae]
- Uw 36885: *Whyanbeelia terrae-reginae* Airy Shaw & B. Hyland: Australia — Hyland 7945 (Hayden 1994) [Picrodendraceae]
- Uw 36886: *Choriceras tricornis* (Benth.) Airy Shaw: Australia — Pullen 7135 (Hayden 1994) [Picrodendraceae]
- Uw 36887: *Stachyandra viticifolia* (Airy Shaw) Radcl.-Sm.: Madagascar — CTFw 9069 = Capuron 1914-R-4 (Hayden 1994) [Picrodendraceae]

- Uw 36889: *Melanolepis multiglandulosa* (Reinw. ex Blume) Rehb. f. & Zoll.: Indonesia — Rahmat si Toroes 3645 (Hayden & Hayden 2000, as 'Boeea')⁵
- Uw 36890: *Leucocroton wrightii* Griseb.: Cuba — Matthews & Crosby s.n. (Hayden & Hayden 2000)
- Uw 36891: *Galearia phlebocarpa* (R.Br.) Miq.: Indonesia — 'Boeea' 1407 (Hayden & Hayden 2000) [Pandaceae]⁵
- Uw 36892: *Galearia filiformis* (Blume) Pax: Indonesia — 'Boeea' 7927 (Hayden & Hayden 2000) [Pandaceae]⁵
- Uw 36893: *Baccaurea bracteata* Müll.Arg.: Indonesia — Rahmat si Toroes 5448 (Hayden & Hayden 2000, as *Coccoceras* sp., as 'Boeea') [Phyllanthaceae]⁵
- Uw 36894: *Botryophora geniculata* (Miq.) Beumée ex Airy Shaw: Indonesia — Rahmat si Toroes 5494 (Hayden & Hayden 2000, as 'Boeea')⁵
- Uw 36895: *Botryophora geniculata* (Miq.) Beumée ex Airy Shaw: Indonesia — 'Boeea' 6767 (Hayden & Hayden 2000)⁵

- 1) The spelling *Hieronyma* has been conserved (Radcliffe-Smith 1994).
- 2) Also regarded as synonymous with *Gymnanthes* (e.g. Webster 1994b).
- 3) Also spelled *Aporusa*. See note by Airy Shaw (1966: p. 380).
- 4) Note by P.C. van Welzen: "All material from Thailand identified as *F. leucopyrus* is referable to *F. virosa* (Roxb. ex Willd.) Voigt. Possibly *F. leucopyrus* is a synonym, but I have not seen material from India." (Van Welzen, pers. comm.).
- 5) There has been confusion about the collector citations Rahmat si Boeea and Rahmat si Toroes, which actually belong to one and the same person. In fact the name 'Rahmat si Toroes' is not correct and the right name should be Rahmat si Boeea, or just 'Boeea'. See also the note in the Cyclopaedia of Collectors in Flora Malesiana (Van Steenis-Kruseman 1950: p. 425–426).
- 6) For a discussion about the spelling, see Airy Shaw (1960).
- 7) Recently also included in *Piranhea* (= *P. mexicana* (Standl.) Radcl.-Sm.).

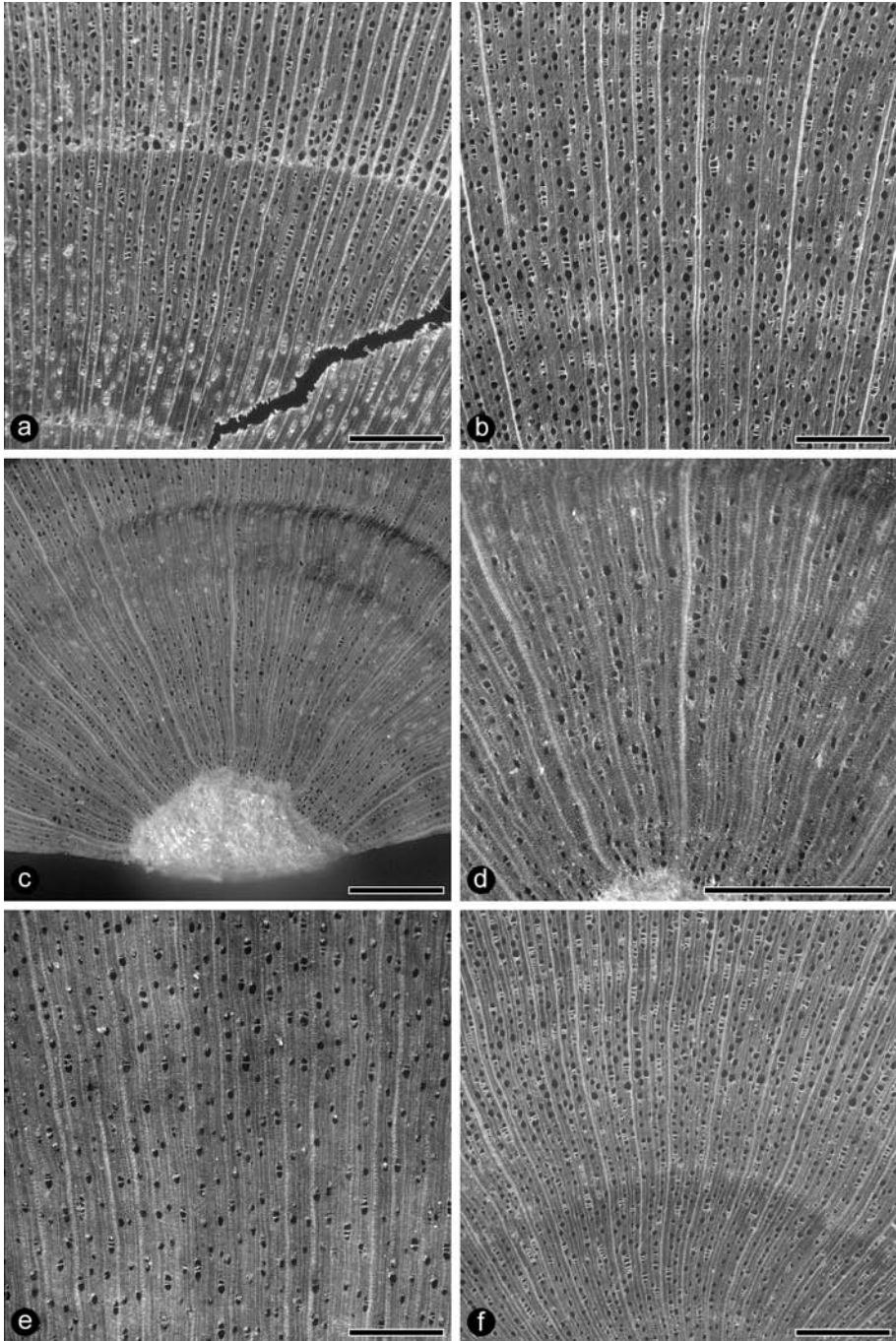


Fig. 1. a: *Acalypha cincta* (Uw 26188). – b: *A. diversifolia* (Uw 12355). – c, d: *A. gracilis* (Uw 13139). – e: *A. macrostachya* (Uw 19652). – f: *A. samydifolia* (Uw 30196). – Bar = 1 mm.

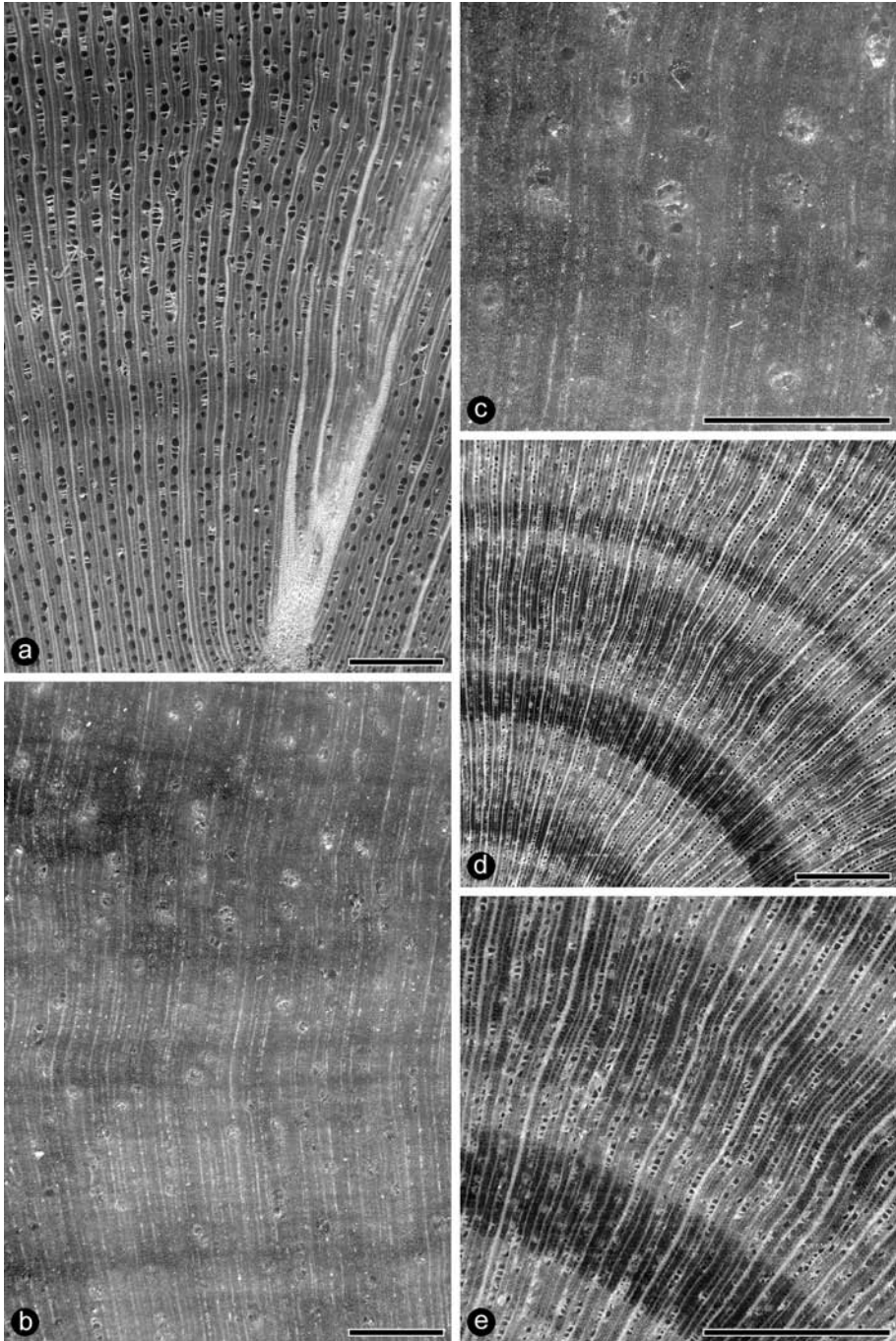


Fig. 2. a: *Acalypha stachyura* (Uw 21085). – b, c: *Acidoton urens* (Uw 8321). – d, e: *Actephila excelsa* (Uw 26296). – Bar = 1 mm.

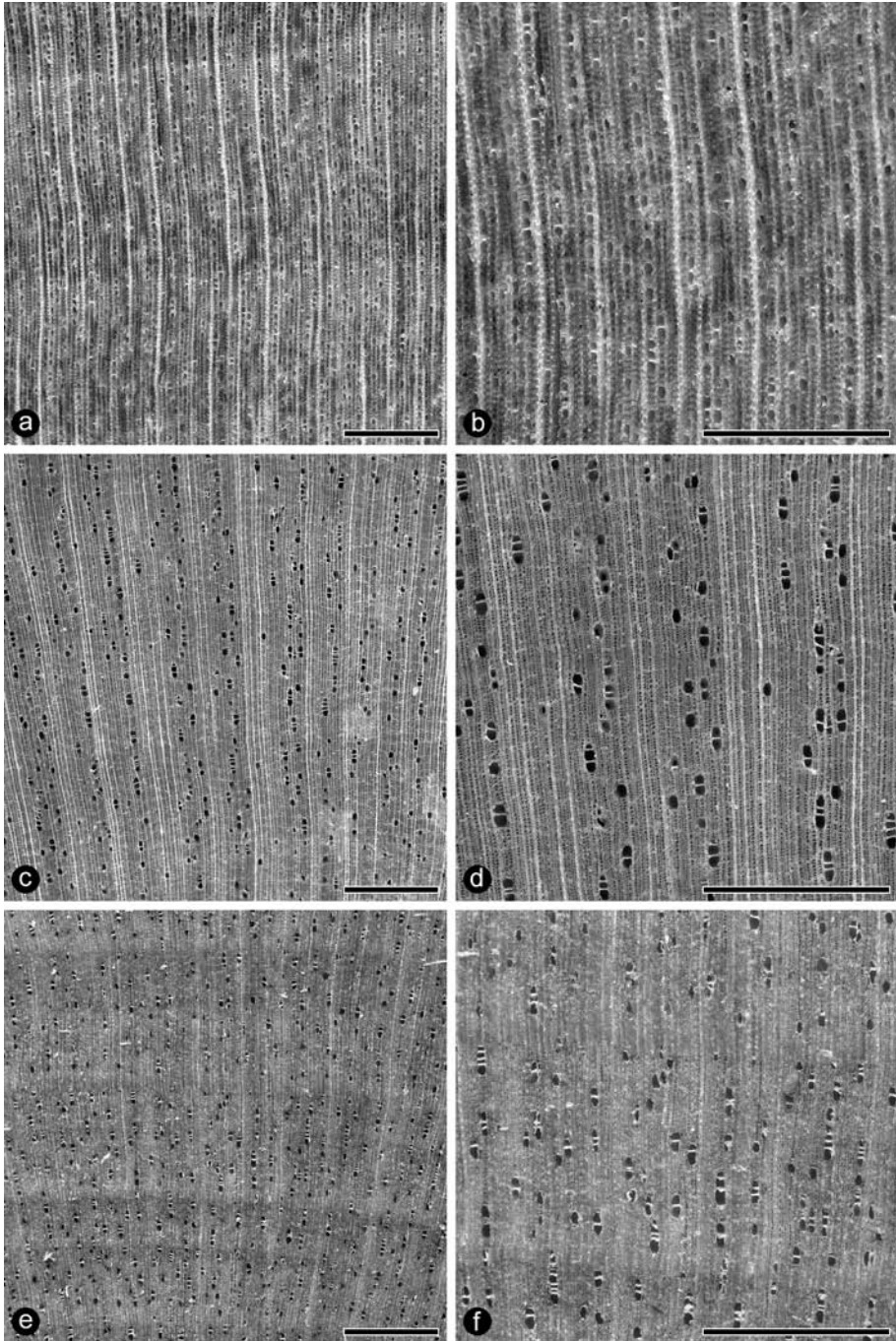


Fig. 3. a, b: *Actephila excelsa* var. *javanica* (Uw 10947). – c, d: *Actinostemon amazonicus* (Uw 19044). – e, f: *A. concolor* (Uw 6956). – Bar = 1 mm.

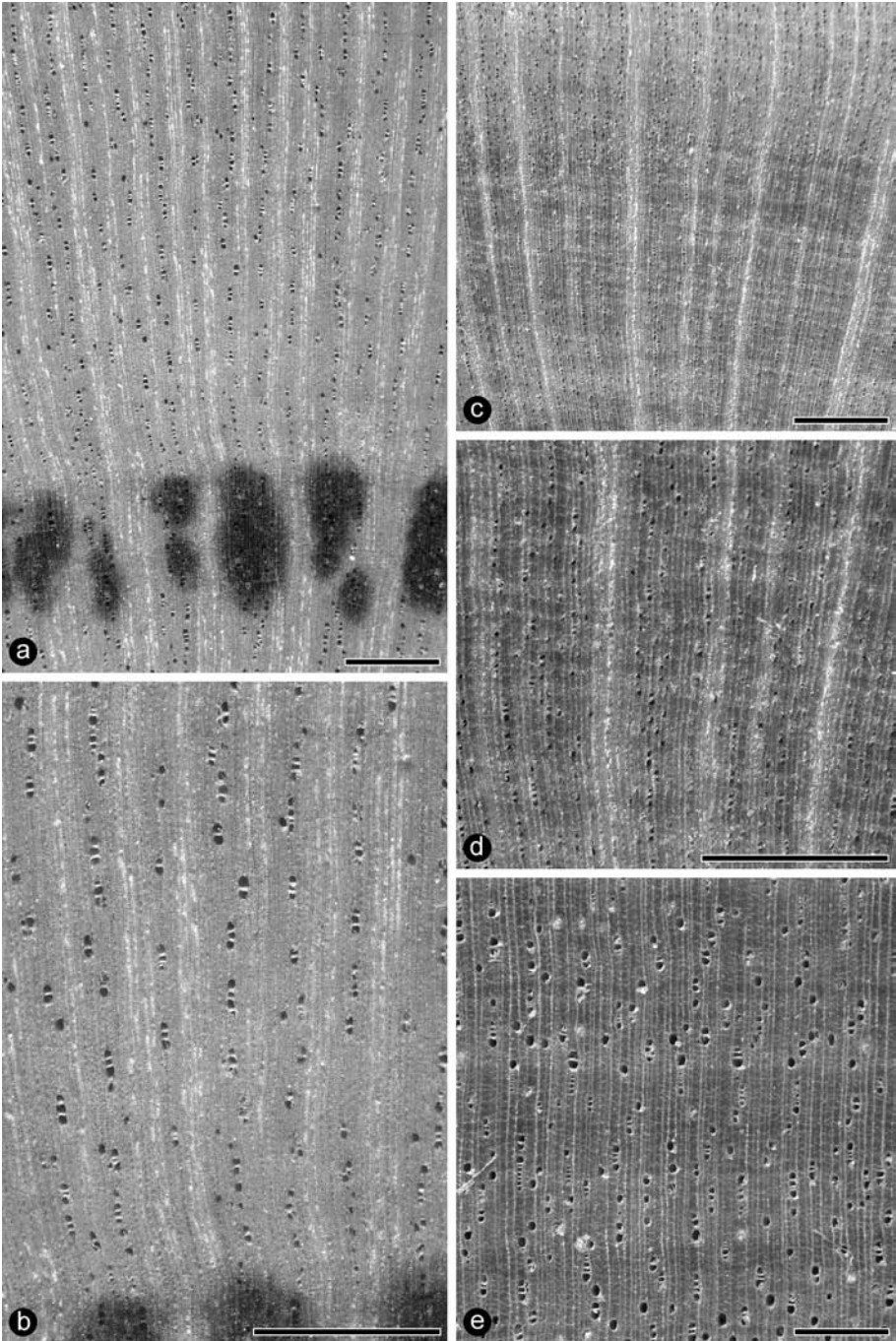


Fig. 4. a, b: *Actinostemon lundianus* (Uw 20024). – c, d: *A. schomburgkii* (Uw 10631). – e: *Adelia ricinella* (Uw 31986). – Bar = 1 mm.

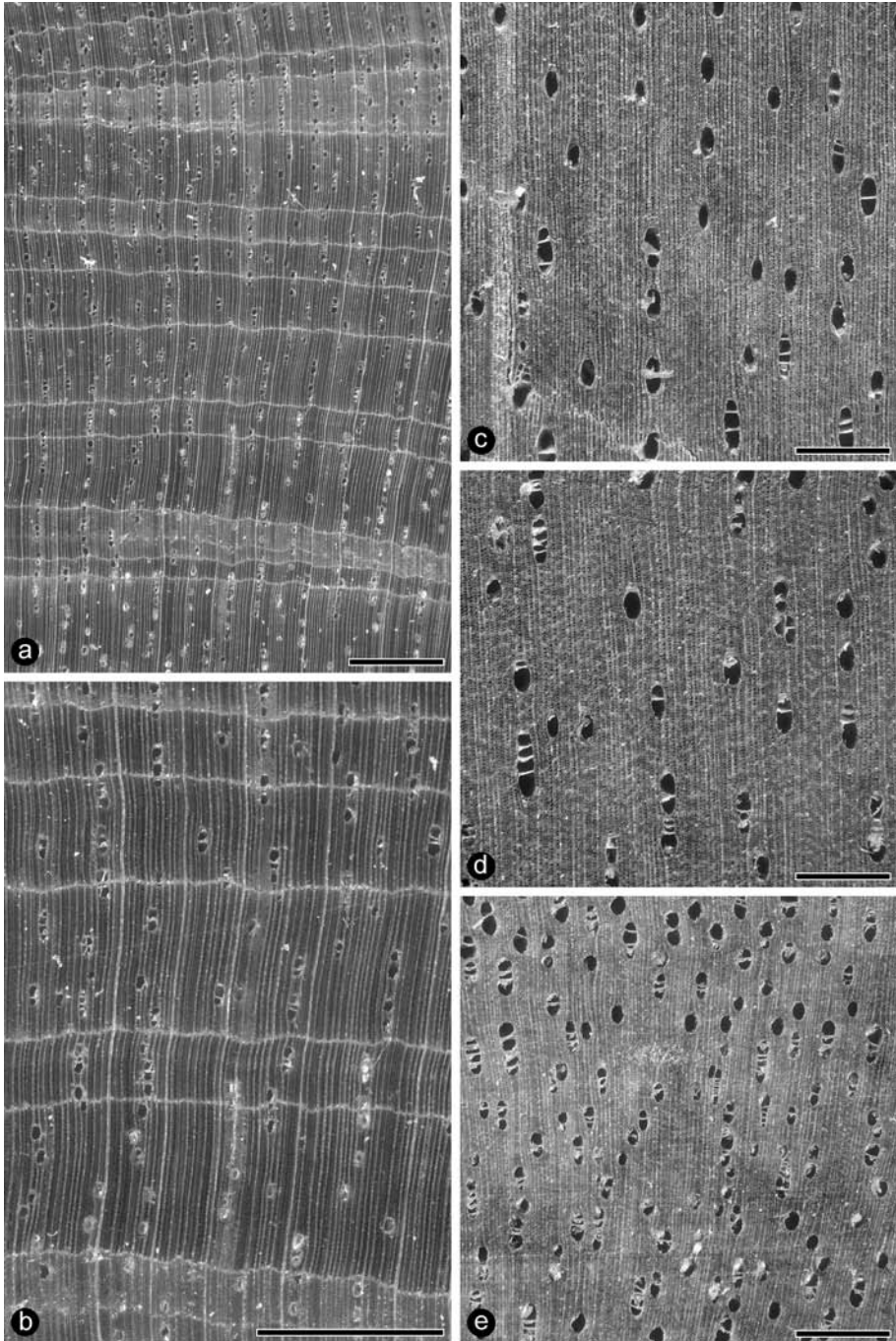


Fig. 5. a, b: *Agrostistachys borneensis* (Uw 21397). – c: *Alchornea brachygyne* (Uw 8035). – d: *A. cordata* (Uw 20676). – e: *A. cordifolia* (Uw 34214). – Bar = 1 mm.

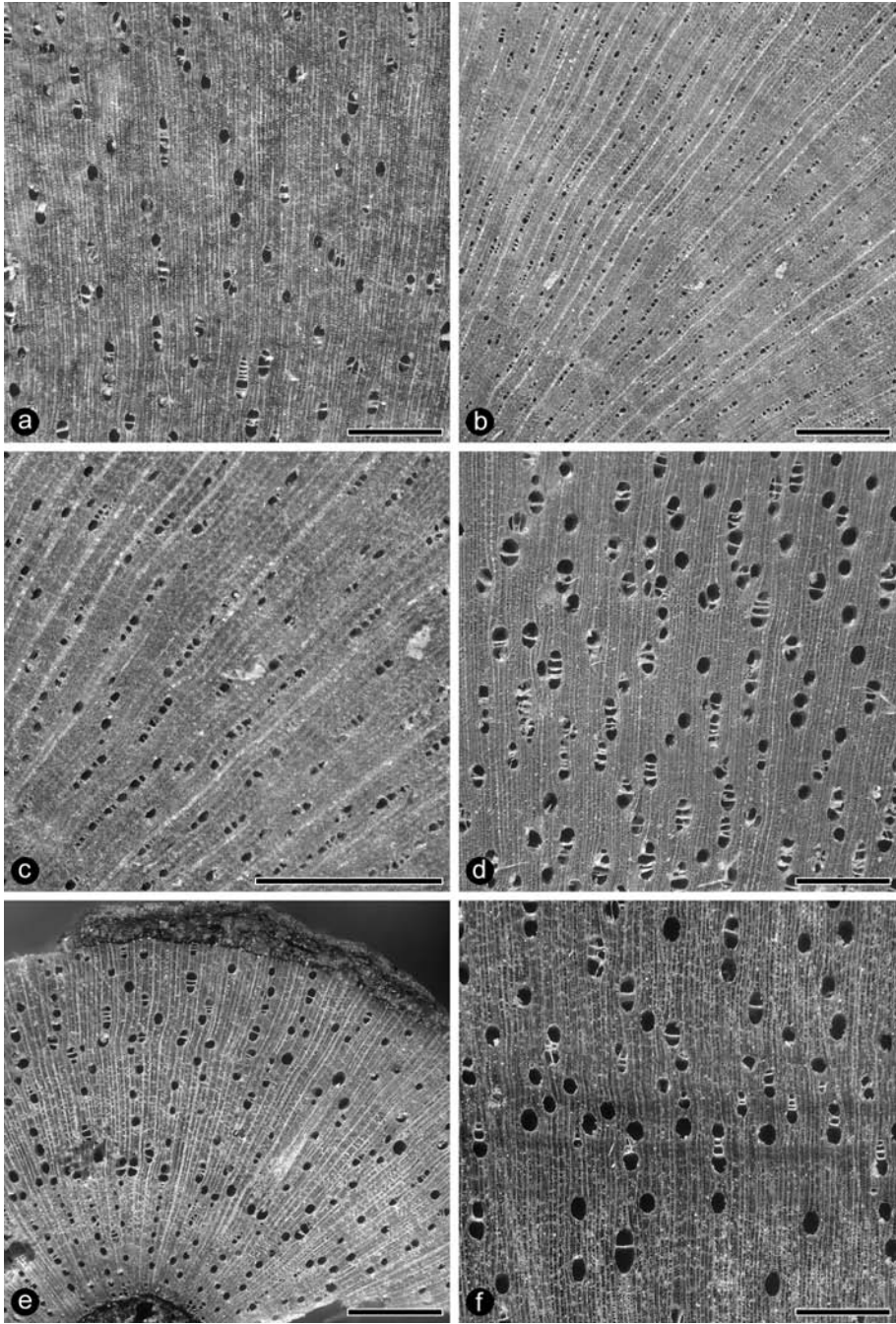


Fig. 6. a: *Alchornea grandis* (Uw 25667). – b, c: *A. ilicifolia* (Uw 31202). – d: *A. iricurana* (Uw 13083). – e: *A. schomburgkii* (Uw s.n. [Wessels Boer 1000]). – f: *A. triplinervia* var. *laevigata* (Uw 1425). – Bar = 1 mm.

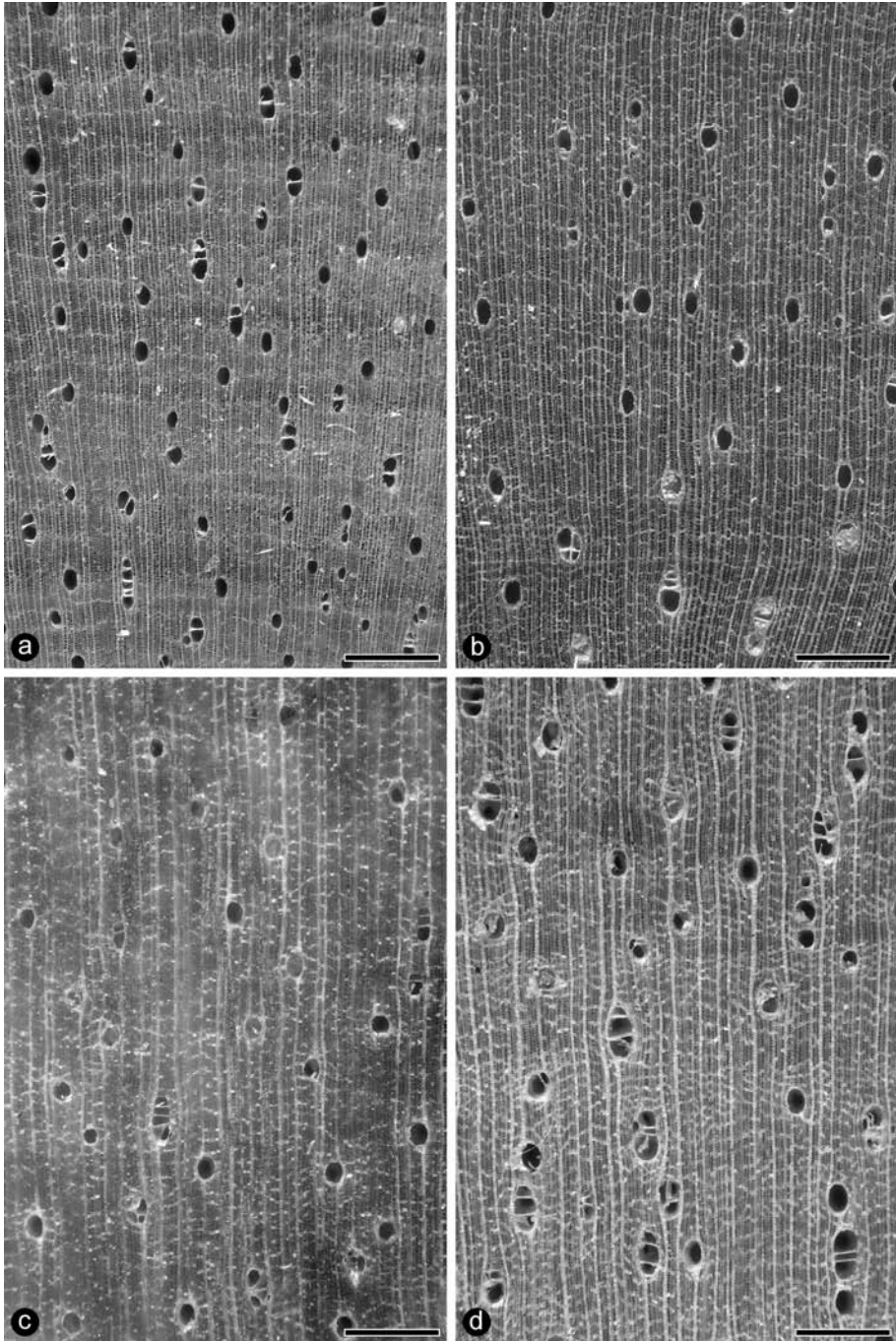


Fig. 7. a: *Alchorneopsis floribunda* (Uw 31188). – b: *A. trimera* (Uw 1443). – c: *Aleurites moluccana* (Uw 18261). – d: *A. moluccana* (Uw 24065). – Bar = 1 mm.

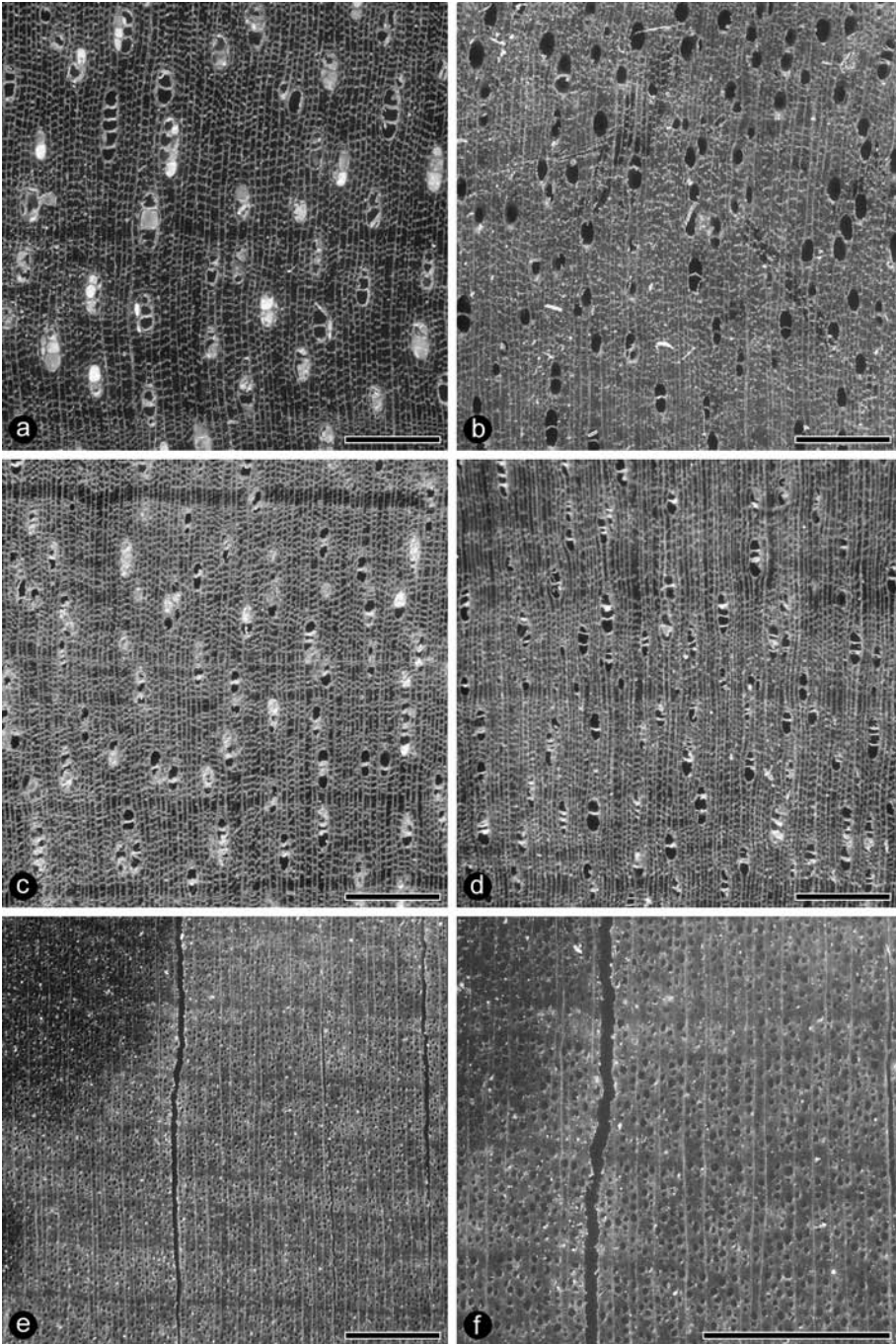


Fig. 8. a: *Amanoa caribaea* (Uw 27806). – b: *A. guianensis* (Uw 28). – c: *A. guianensis* (Uw 7670). – d: *A. oblongifolia* (Uw 8105). – e, f: *Androstachys johnsonii* (Uw 10909). – Bar = 1 mm.

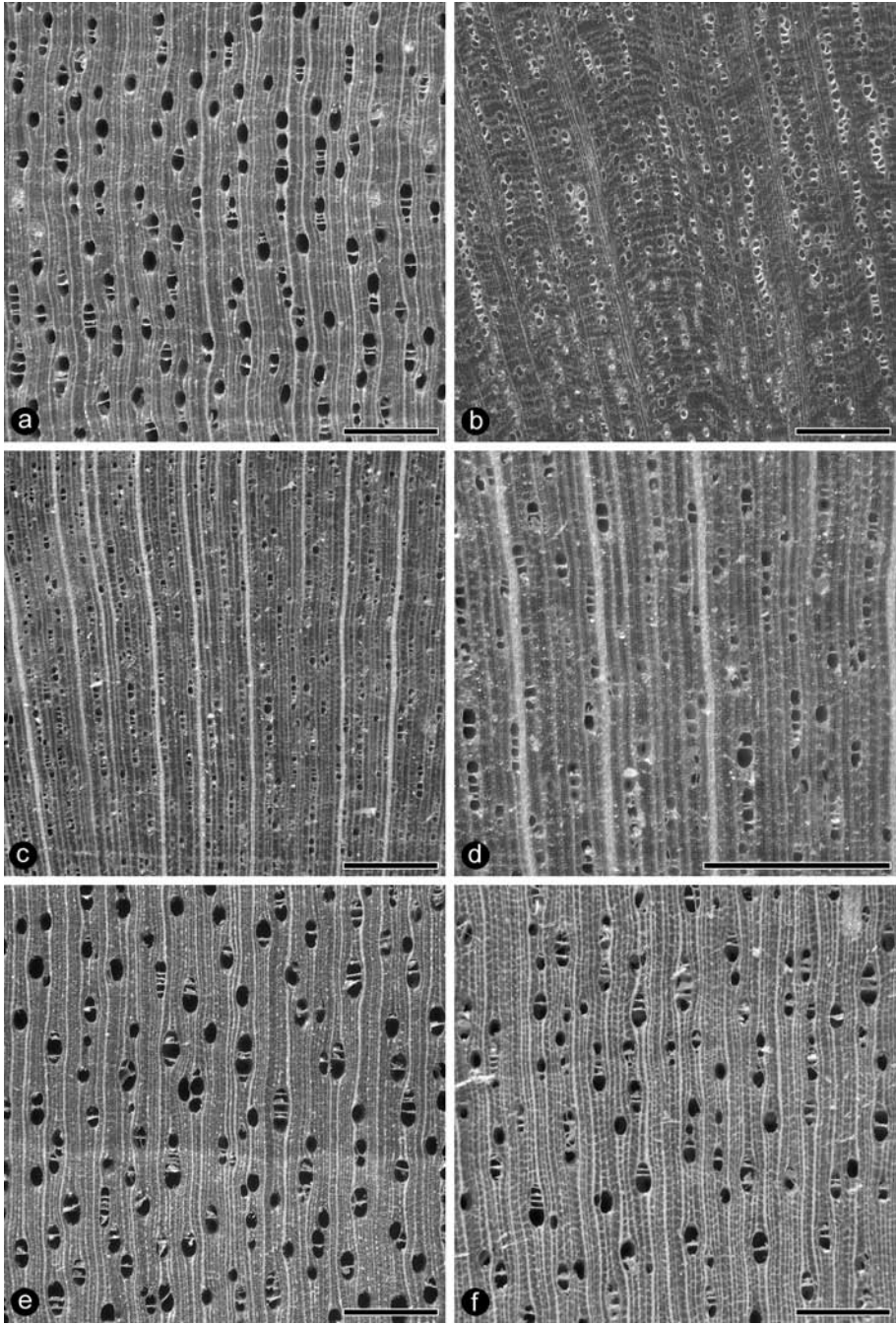


Fig. 9. a: *Anomalocalyx uleanus* (Uw 23807). – b: *Anthostema aubryanum* (Uw 29583). – c: *Antidesma ghesaembilla* (Uw 18048). – d: *A. membranaceum* (Uw 15897). – e, f: *A. montanum* (Uw 31312). – Bar = 1 mm.

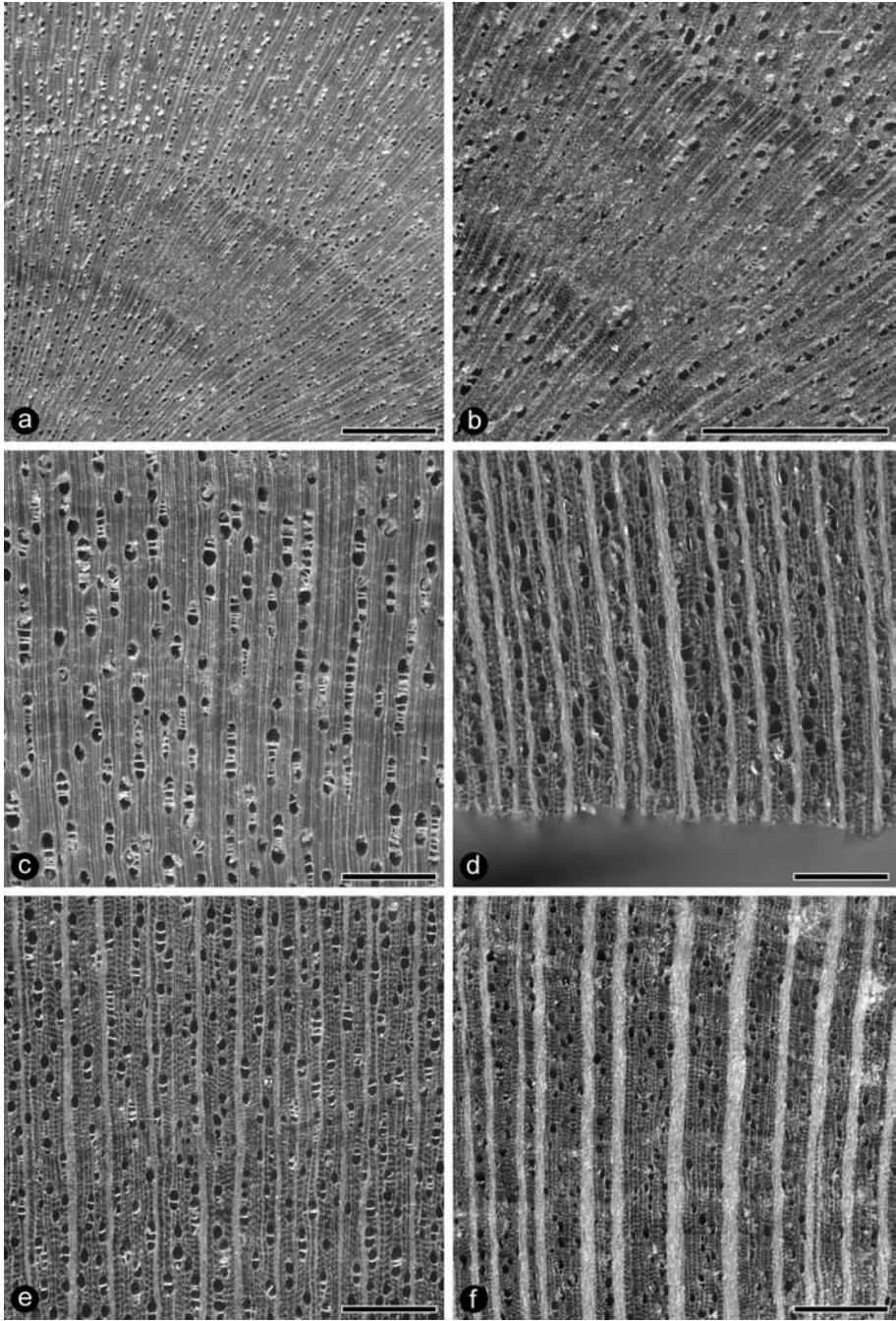


Fig. 10. a, b: *Antidesma pulvinatum* (Uw 31193). – c: *Aparisthium cordatum* (Uw 294). – d: *Aporosa arborea* (Uw 10897). – e: *A. octandra* var. *malesiana* (Uw 10898). – f: *A. sympliocoides* (Uw 21409). – Bar = 1 mm.

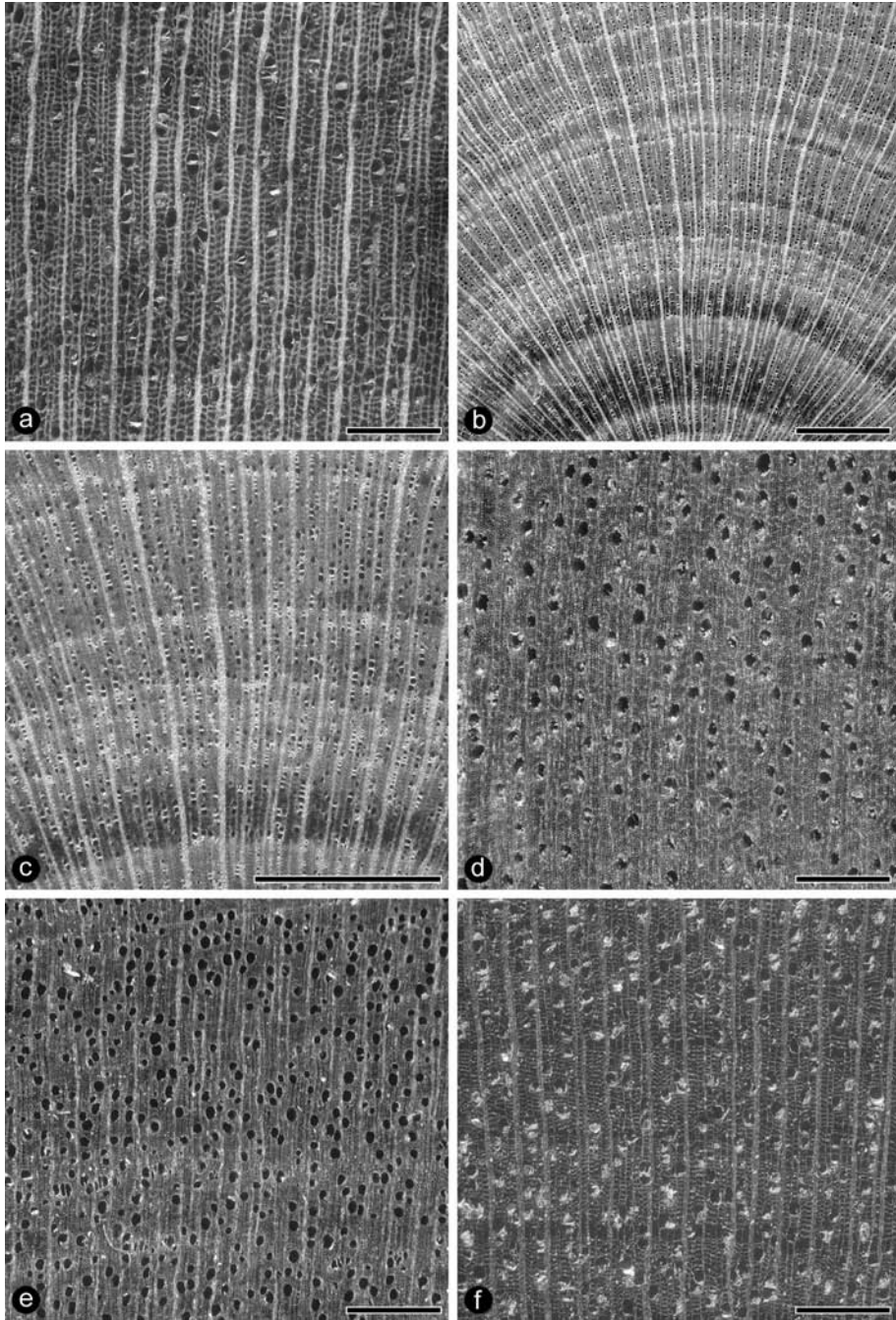


Fig. 11. a: *Ashtonia praeterita* (Uw 21410). – b, c: *Astrocasia neurocarpa* (Uw 30860). – d: *Austrobuxus nitidus* (Uw 21411). – e: *A. sp.* (Uw 31182). – f: *Baccaurea bracteata* (Uw 14608). – Bar = 1 mm.

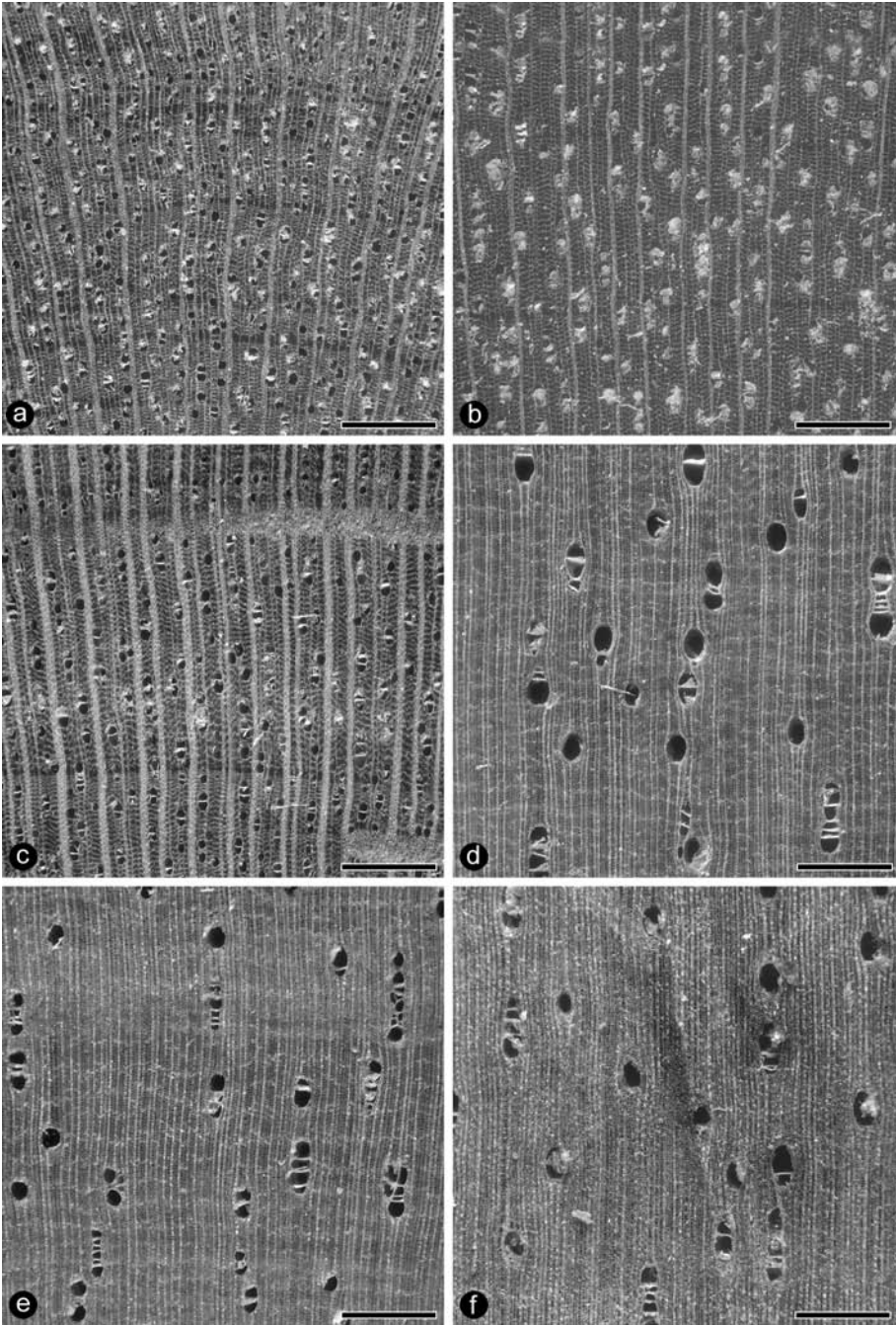


Fig. 12. a: *Baccaurea bracteata* (Uw 36893). – b: *B. philippinensis* (Uw 14613). – c: *B. ramiflora* (Uw 14614). – d: *Balakata baccata* (Uw 33123). – e: *B. luzonica* (Uw 10702). – f: *B. luzonica* (Uw 32734). – Bar = 1 mm.

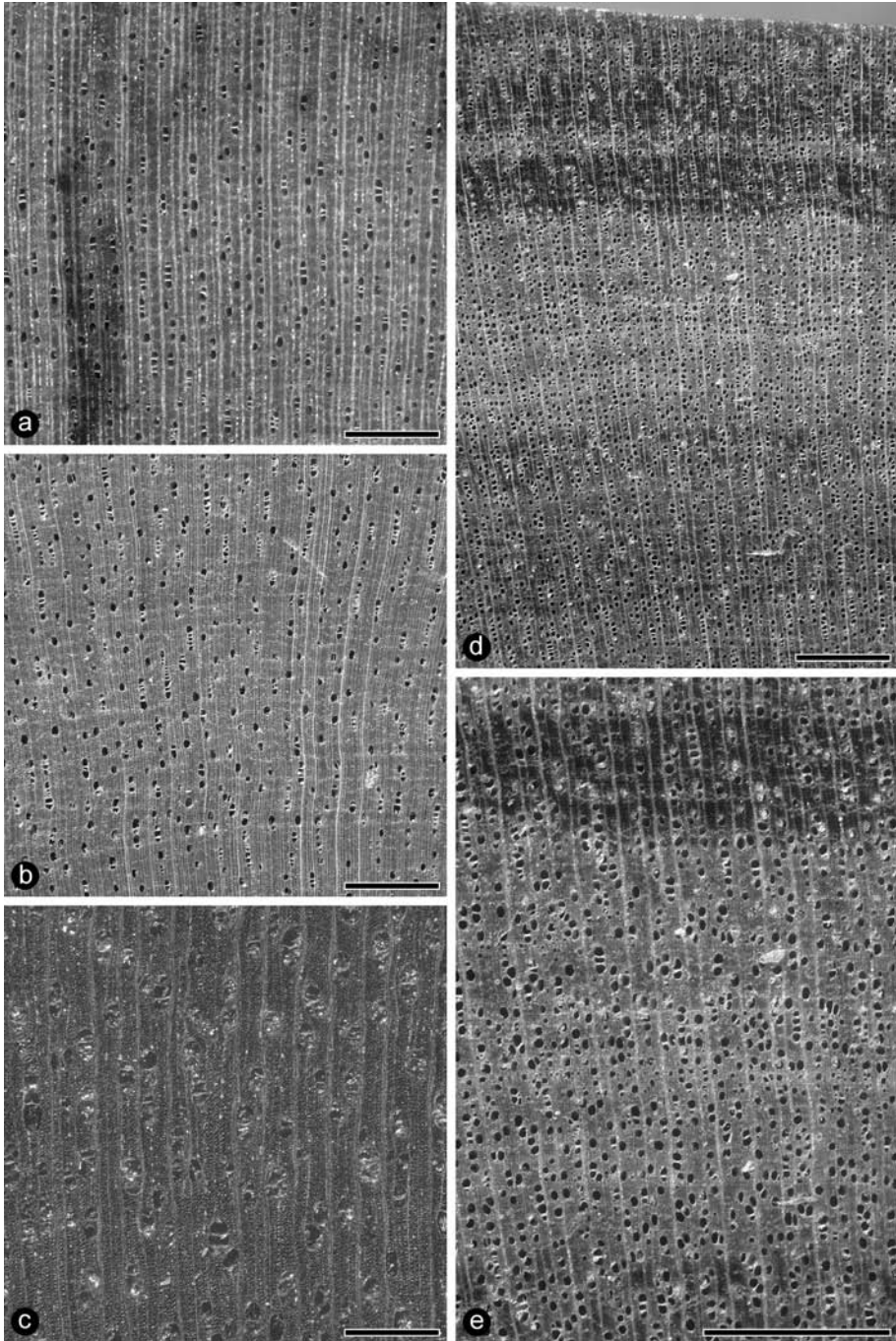


Fig. 13. a: *Baloghia inophylla* (Uw 24368) – b: *Bernardia tamanduana* (Uw 7477). – c: *Bischofia javanica* (Uw 21365). – d, e: *Blotia ankaranae* (Uw 11091). – Bar = 1 mm.

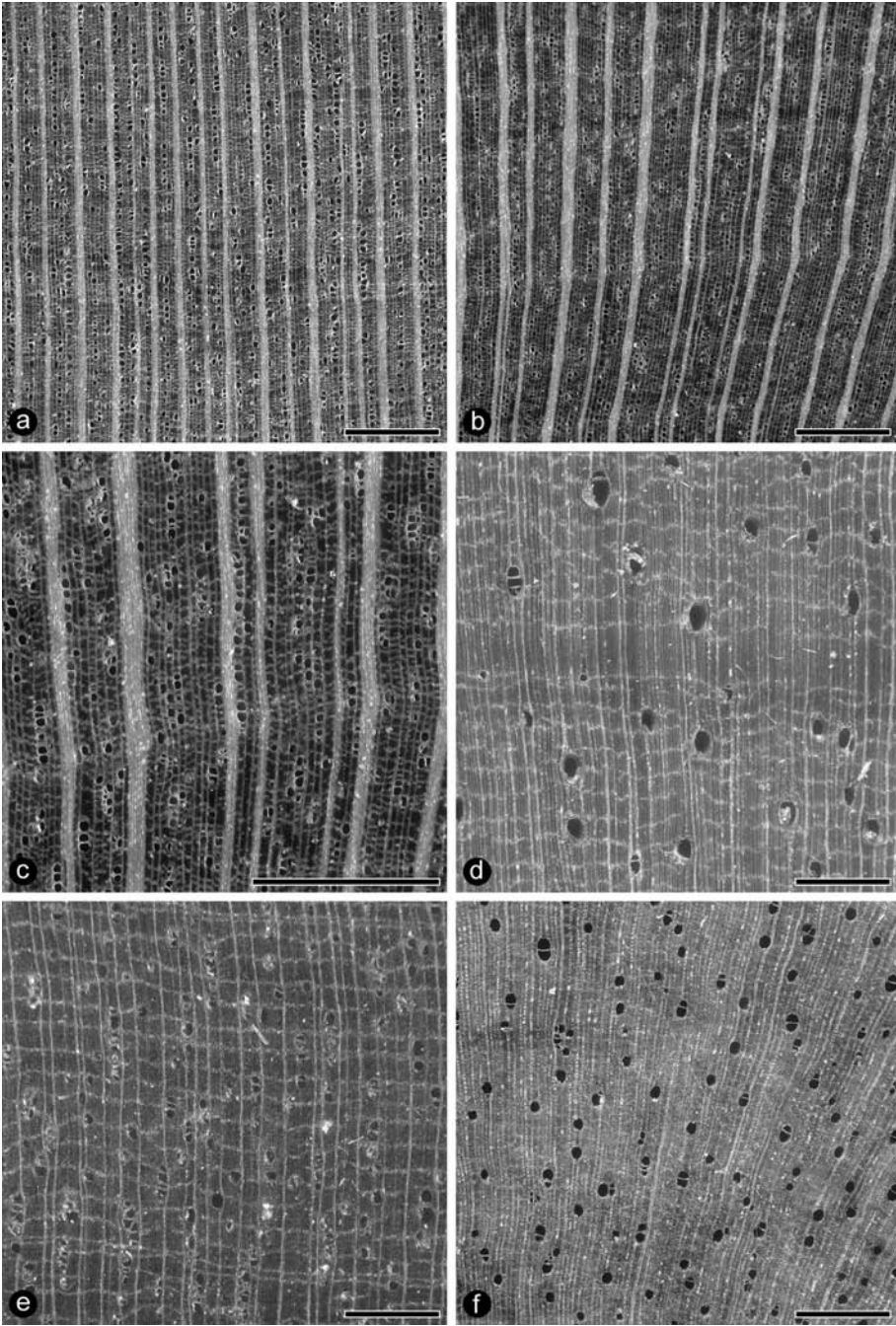


Fig. 14. a: *Blotia oblongifolia* (Uw 11090). – b, c: *B. oblongifolia* (Uw 11092). – d: *Blumeodendron kurzii* (Uw 31829). – e: *Borneodendron aenigmaticum* (Uw 22170). – f: *Botryophora geniculata* (Uw 36894). – Bar = 1 mm.

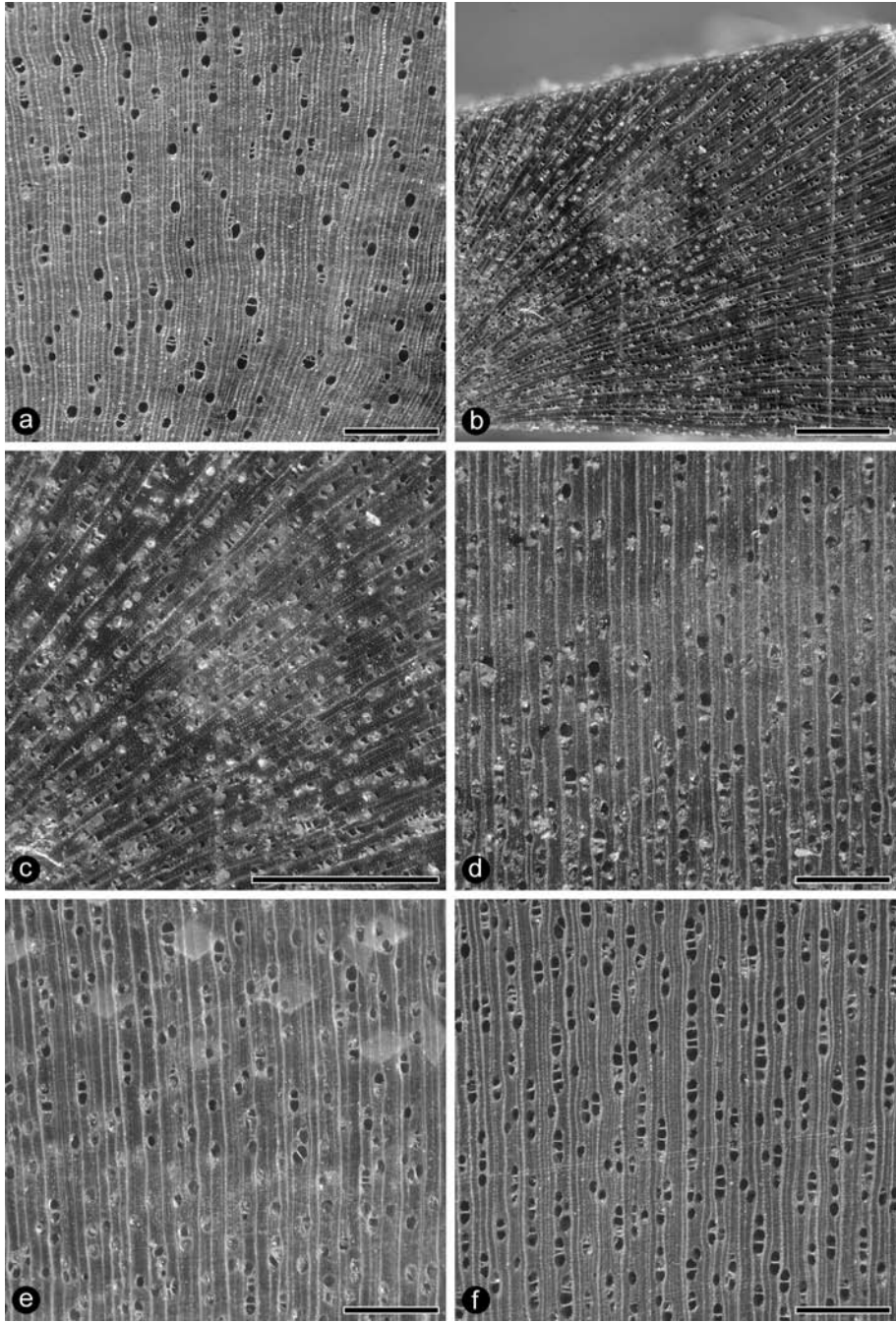


Fig. 15. a: *Botryophora geniculata* (Uw 36895). – b, c: *Breynia cernua* (Uw 14616). – d: *Bridelia penangiana* (Uw 10893). – e: *B. ripicola* (Uw 18770). – f: *B. tomentosa* (Uw 10899). – Bar = 1 mm.

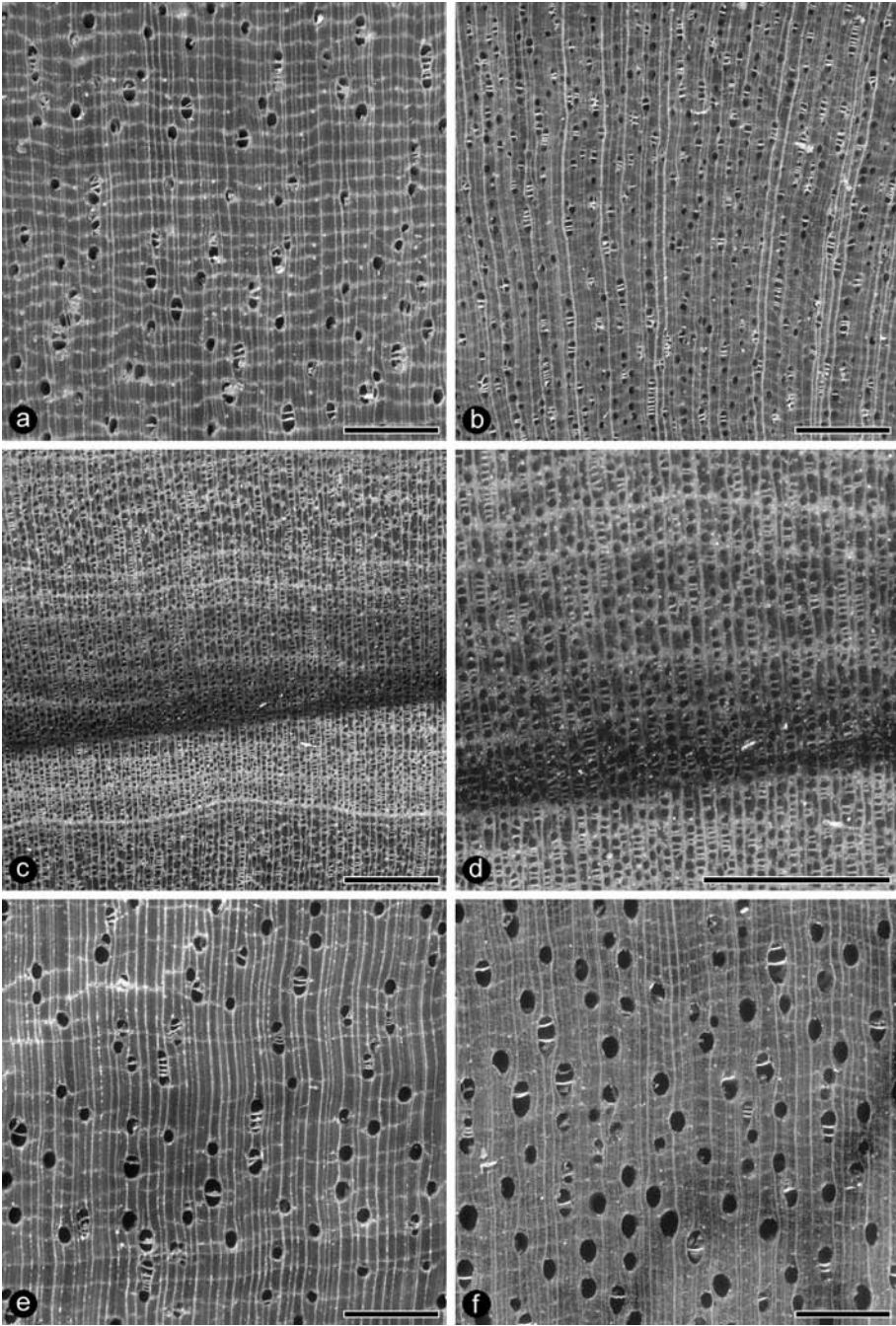


Fig. 16. a: *Caryodendron orinocense* (Uw 20026). – b: *Cavacoa quintasii* (Uw 22171). – c, d: *Celaenodendron mexicanum* (Uw 21735). – e: *Cephalomappa paludicola* (Uw 24370). – f: *Chaetocarpus castanocarpus* (Uw 22172). – Bar = 1 mm.

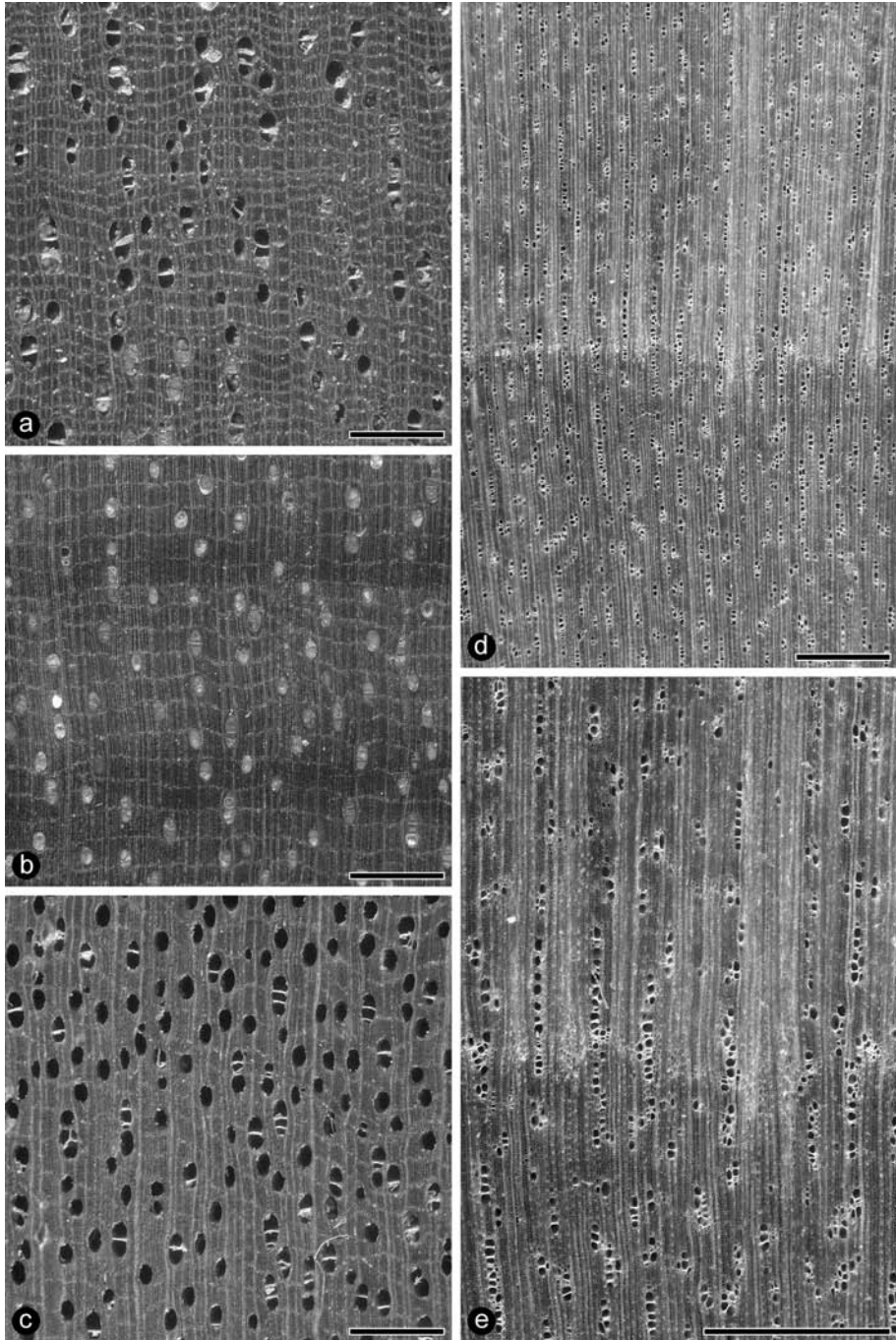


Fig. 17. a: *Chaetocarpus coriaceus* (Uw 24049). – b: *C. schomburgkianus* (Uw 153a). – c: *C. schomburgkianus* (Uw 12292). – d, e: *Chamaesyce articulata* (Uw 29658). – Bar = 1 mm.

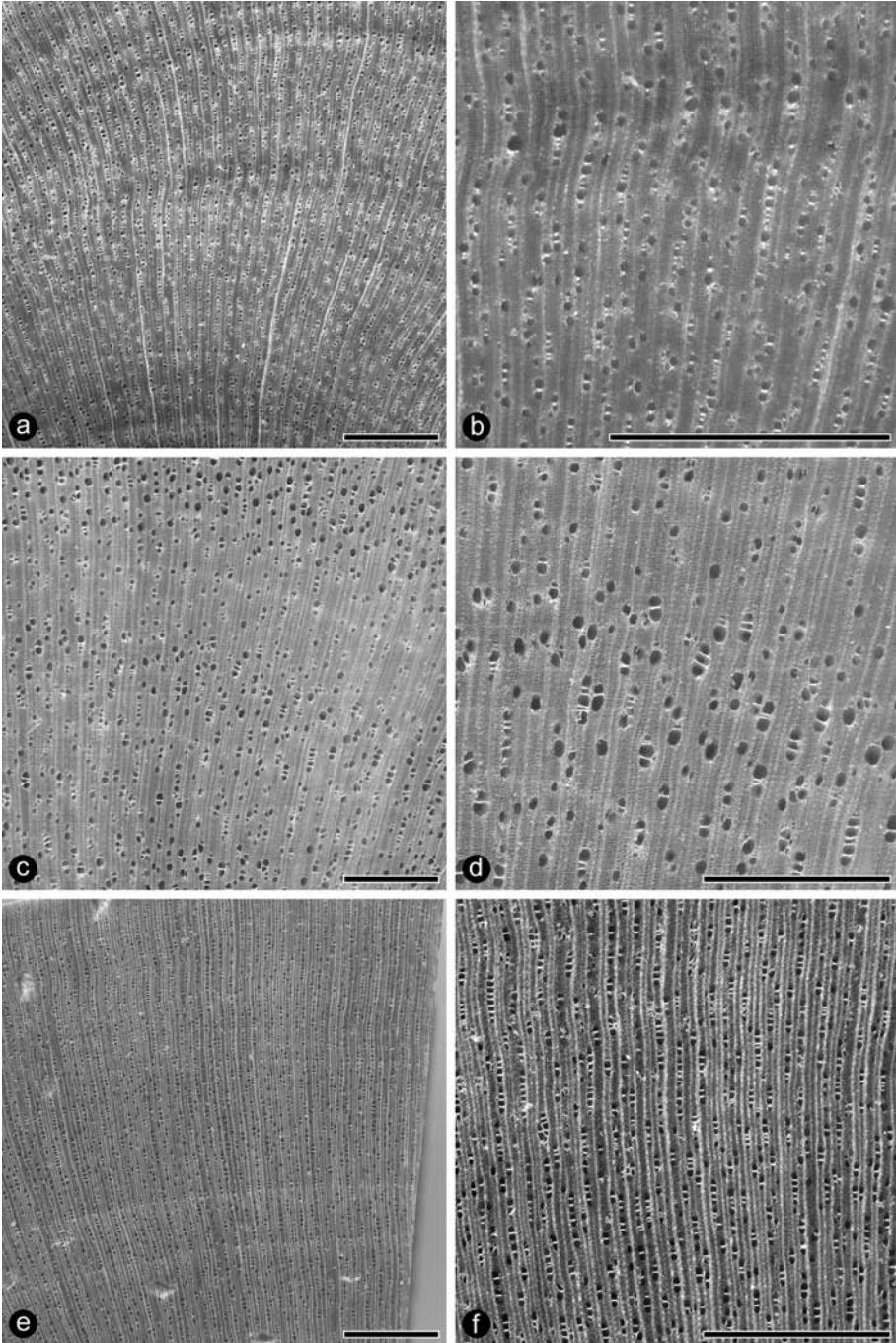


Fig. 18. a, b: *Chamaesyce celastroides* (Uw 18597). – c, d.: *C. halemanui* (Uw 34883). – e, f: *Chascotheca neopeltandra* (Uw 18707). – Bar = 1 mm.

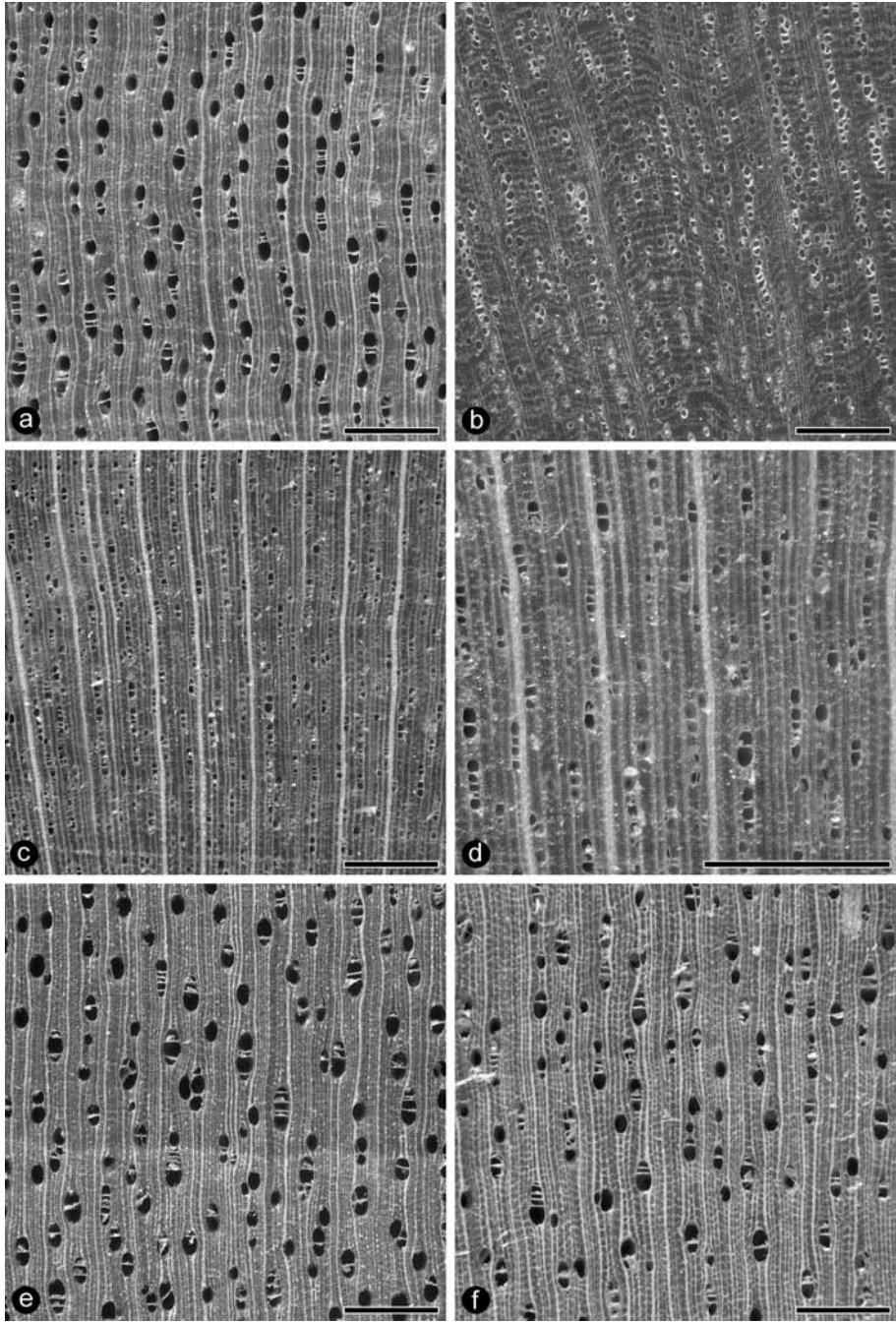


Fig. 19. a: *Cheilosa malayana* (Uw 21414) – b: *Choriceras tricorne* (Uw 36886). c, d: *Claoxylon sandwicense* (Uw 18559). – e: *Cleidion javanicum* (Uw 10792). – f: *C. javanicum* (Uw 21734). – Bar = 1 mm.

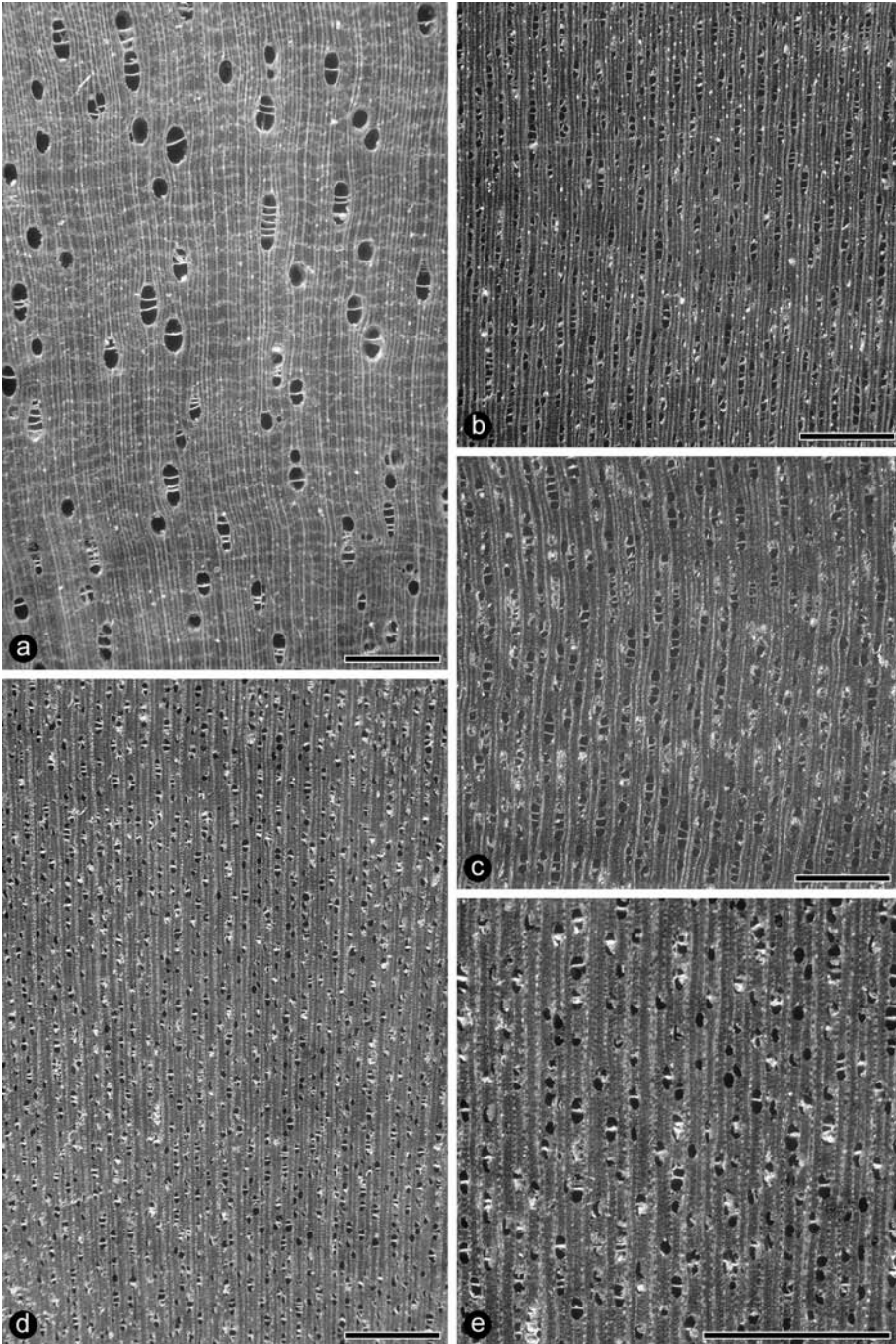


Fig. 20. a: *Cleidion praealtum* (Uw 7660). – b: *Cleistanthus collinus* (Uw 11053). – c: *C. collinus* (Uw 14619). – d, e: *C. laevis* (Uw 21377). – Bar = 1 mm.

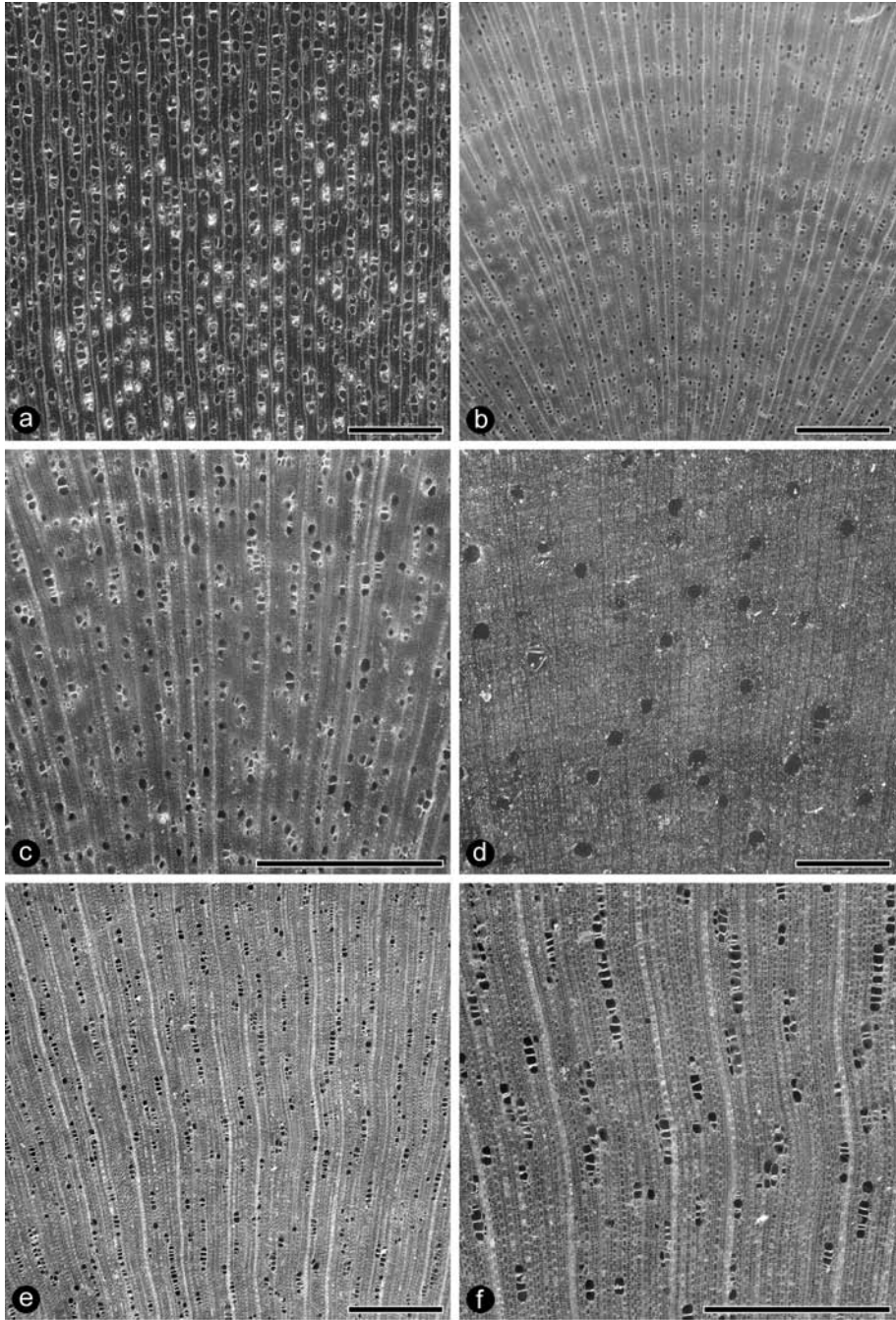


Fig. 21. a: *Cleistanthus papuanus* (Uw 10907). – b, c: *Clutia kilimandscharica* (Uw 25942). – d: *Cnidoscolus multilobus* (Uw 15965). – e, f: *Codiaeum variegatum* (Uw 24371). – Bar = 1 mm.

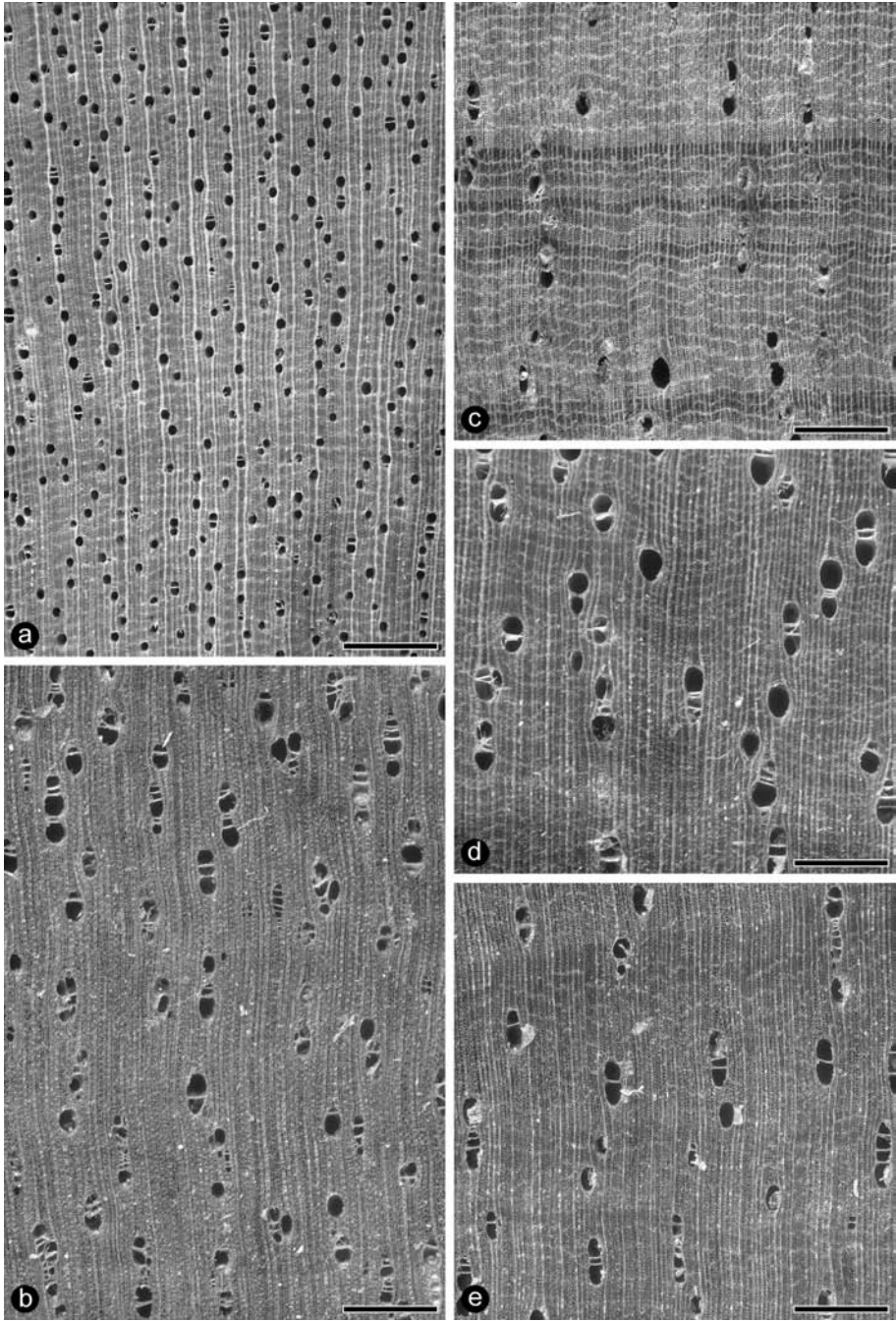


Fig. 22. a: *Koilodepas* [*Coelodepas*] *bantamensis* (Uw 21367). – b: *Colliguaja brasiliensis* (Uw 34885). – c: *Conceveiba guianensis* (Uw 60). – d: *C. hostmannii* (Uw 2197). – e: *C. krukoffii* (Uw 16190). – Bar = 1 mm.

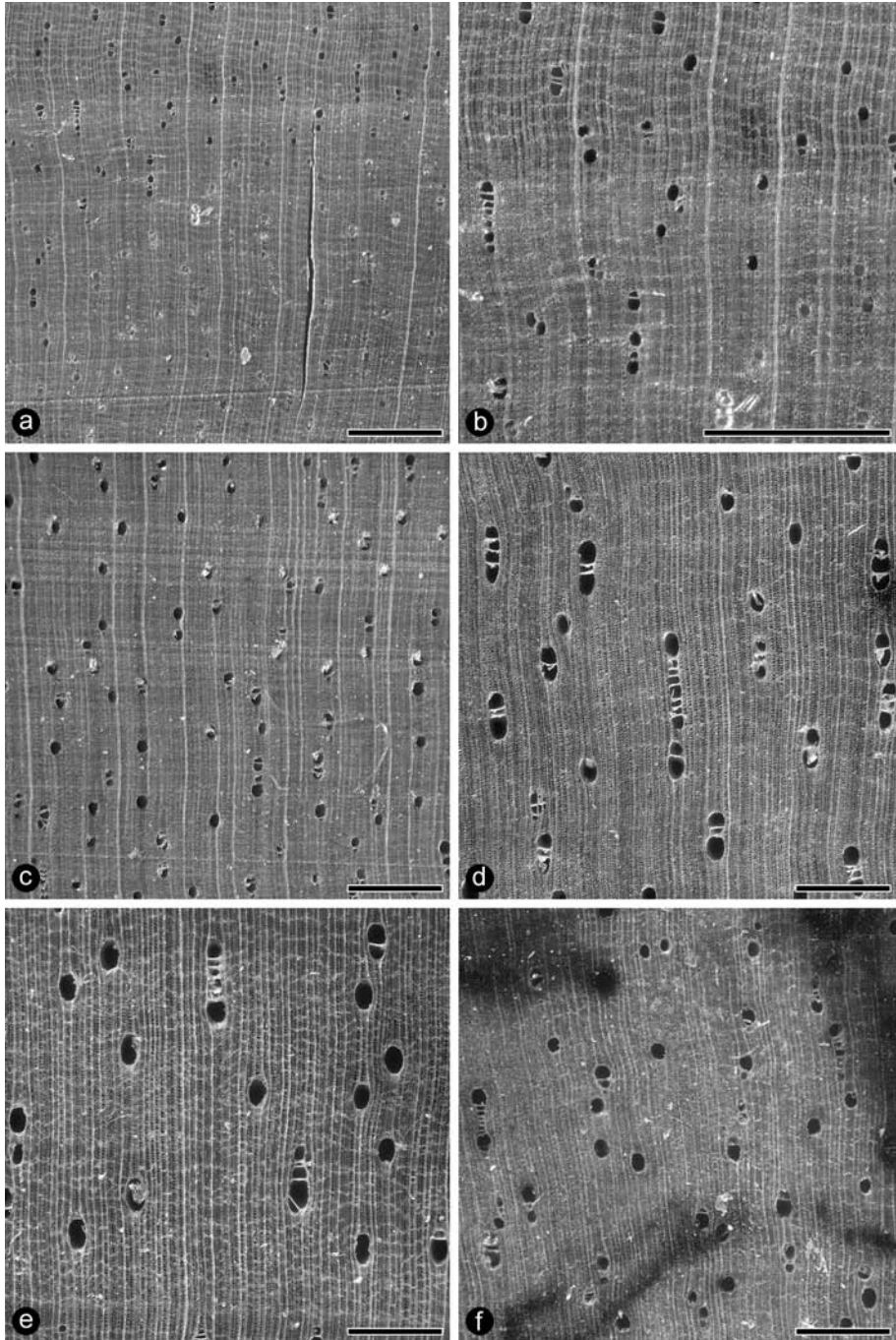


Fig. 23. a, b: *Conceveiba leptostachys* (Uw 34245). – c: *C. macrostachys* (Uw 34246). – d: *C. martiana* (Uw 7935). – e: *C. martiana* (Uw 25939). – f: *C. simulata* (Uw 7756). – Bar = 1 mm.

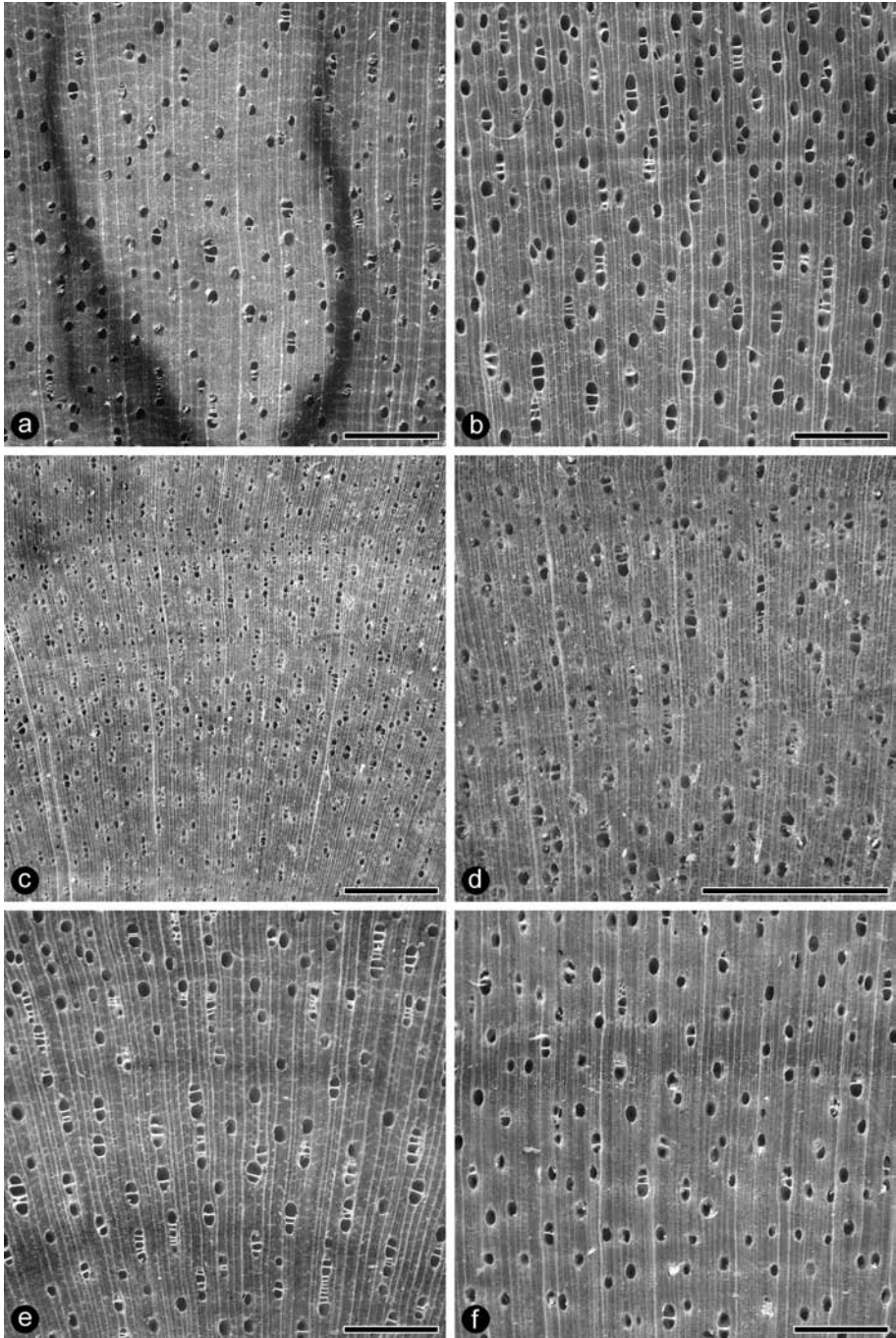


Fig. 24. a: *Croton argyratus* (Uw 24372). – b: *C. billbergianus* (Uw 7071). – c, d: *C. ceanothifolius* (Uw 14349). – e: *C. compressus* (Uw 13995). – f: *C. croizatii* (Uw 12206). – Bar = 1 mm.

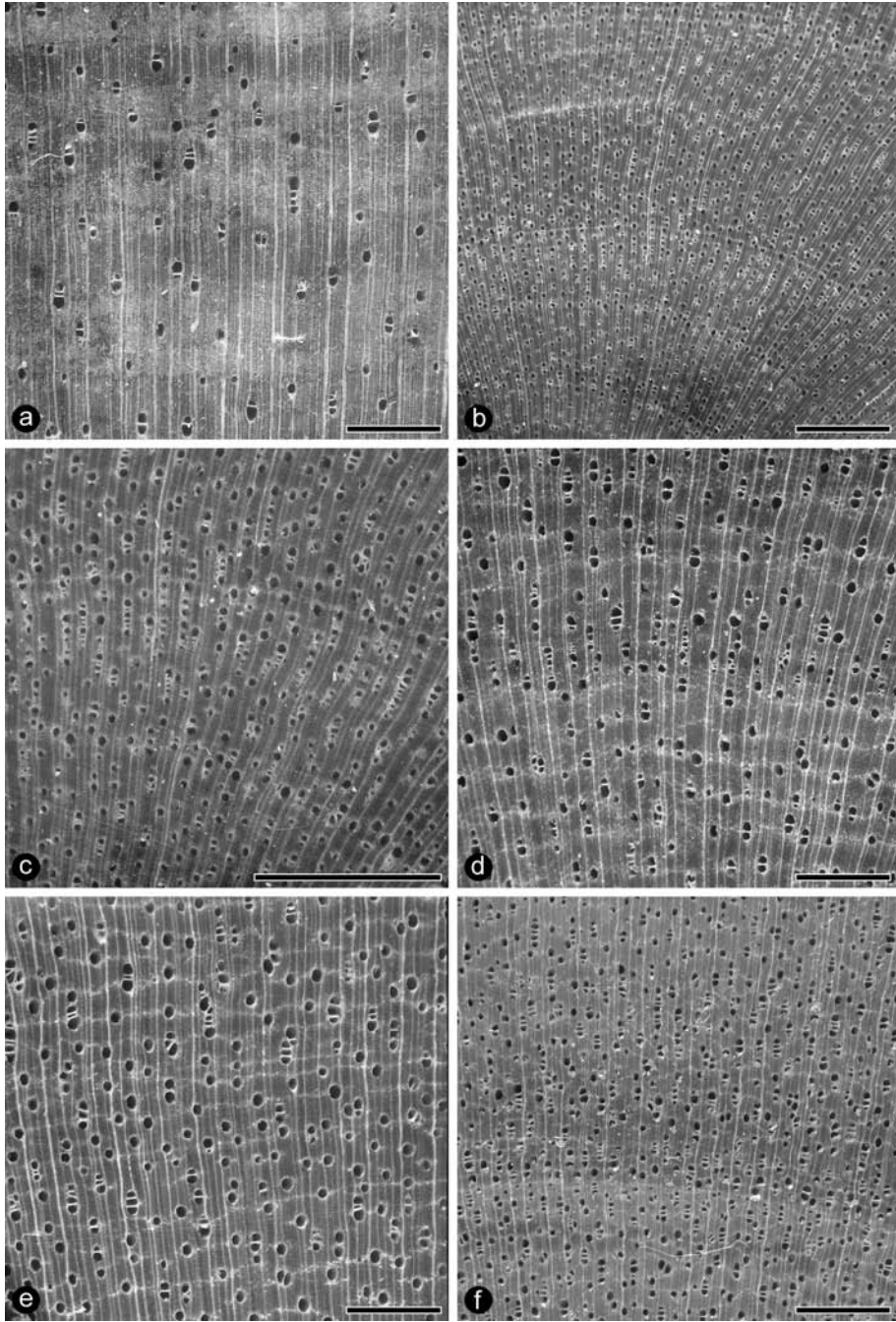


Fig. 25. a: *Croton cuneatus* (Uw 16232). – b, c: *C. flavens* var. *balsamifer* (Uw 15386). – d: *C. funkianus* (Uw 25354). – e: *C. gossypifolius* (Uw 11009). – f: *C. gratissimus* (Uw 24542). – Bar = 1 mm.

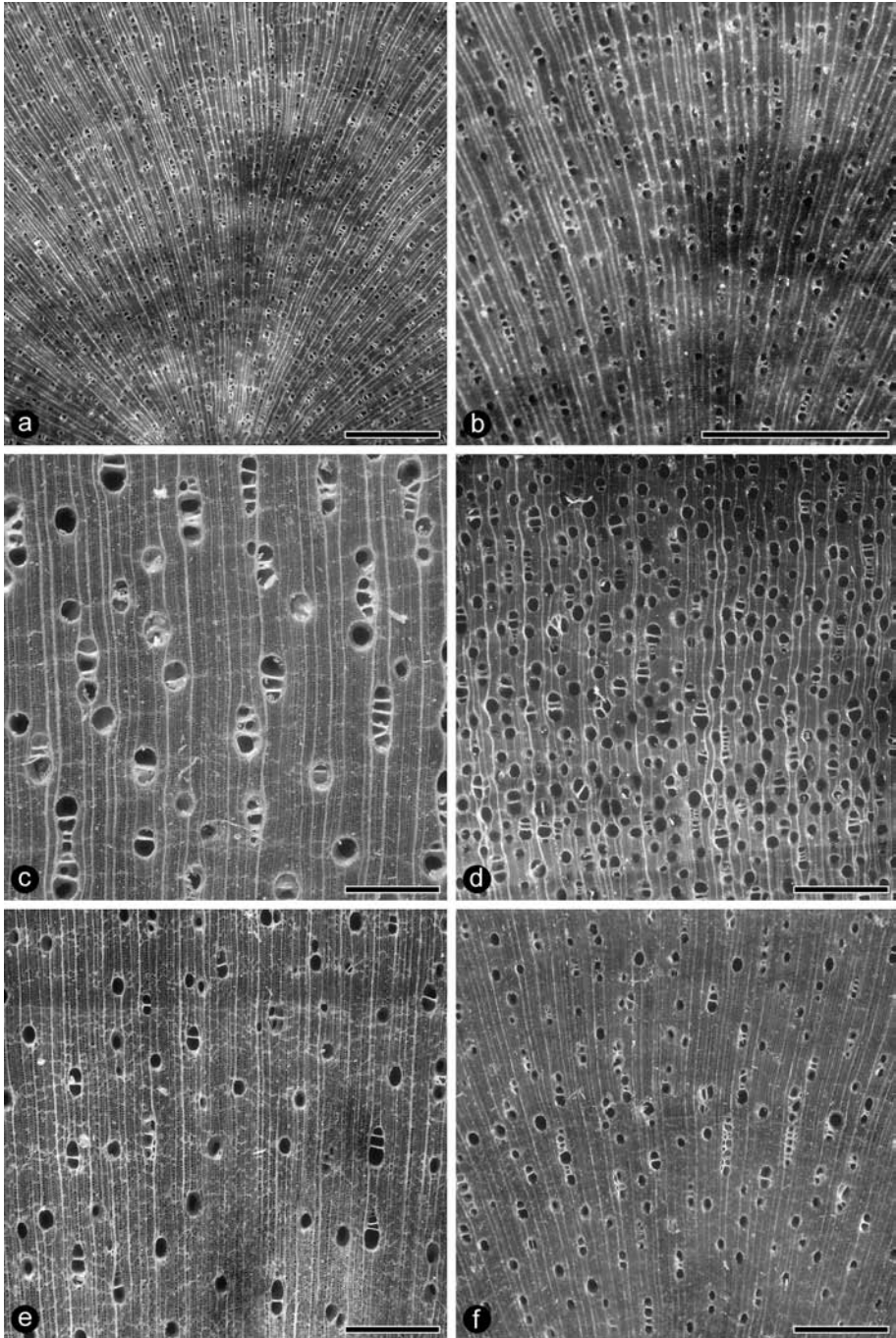


Fig. 26. a, b: *Croton linearis* (Uw 20279). – c: *C. matourensis* (Uw 631). – d: *C. mubango* (Uw 15616). – e: *C. palanostigma* (Uw 16204). – f: *C. tafelbergicus* (Uw 2478). – Bar = 1 mm.

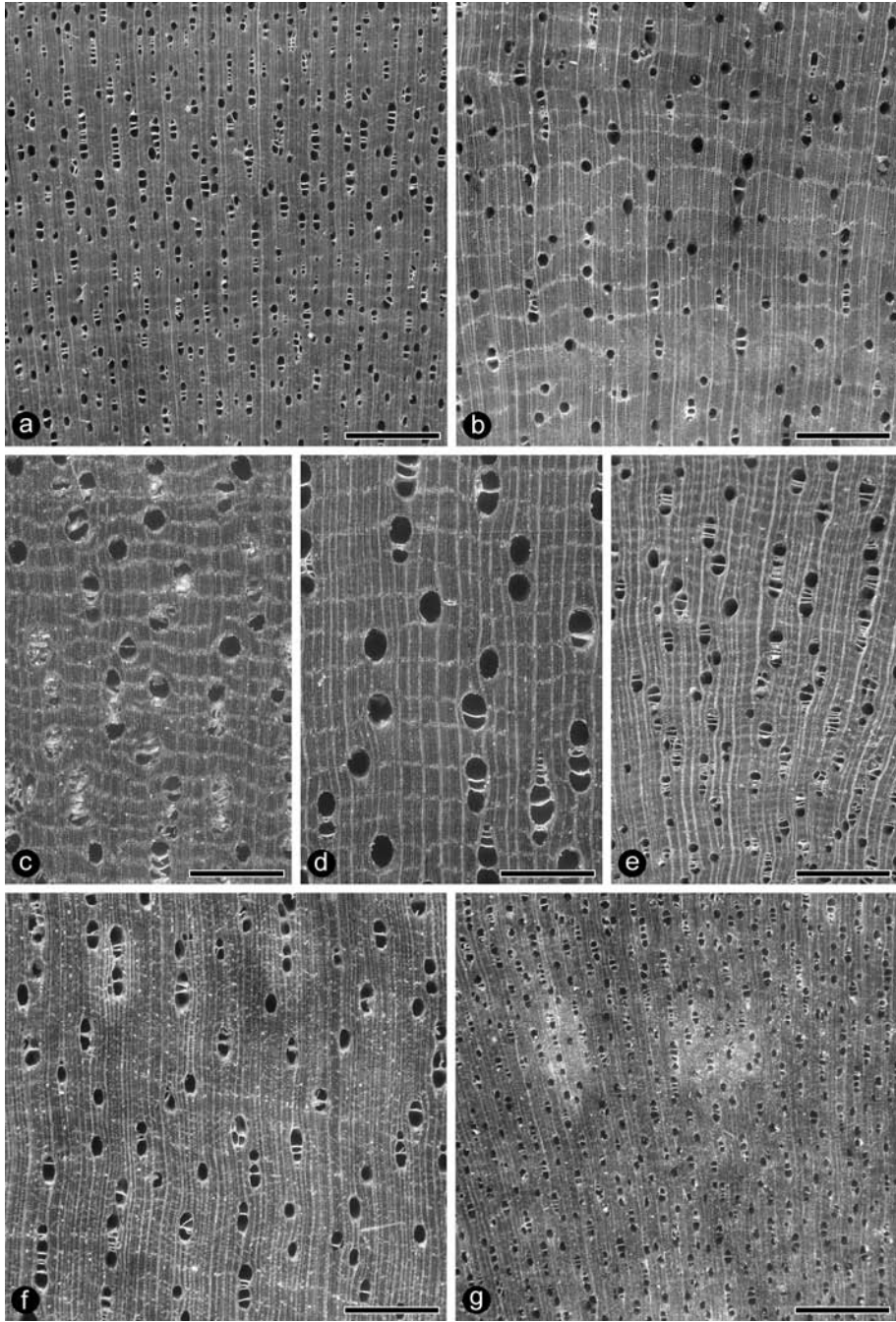


Fig. 27. a: *Croton triacros* (Uw 24373). – b: *C. urucuranus* (Uw 14331). – c: *Cunuria spruceana* (Uw 2481). – d: *C. spruceana* (Uw 8234). – e: *C. spruceana* (Uw 21083). – f: *Cyrtogonone argentea* (Uw 25948). – g: *Dendrothrix yutajensis* (Uw 32720). – Bar = 1 mm.

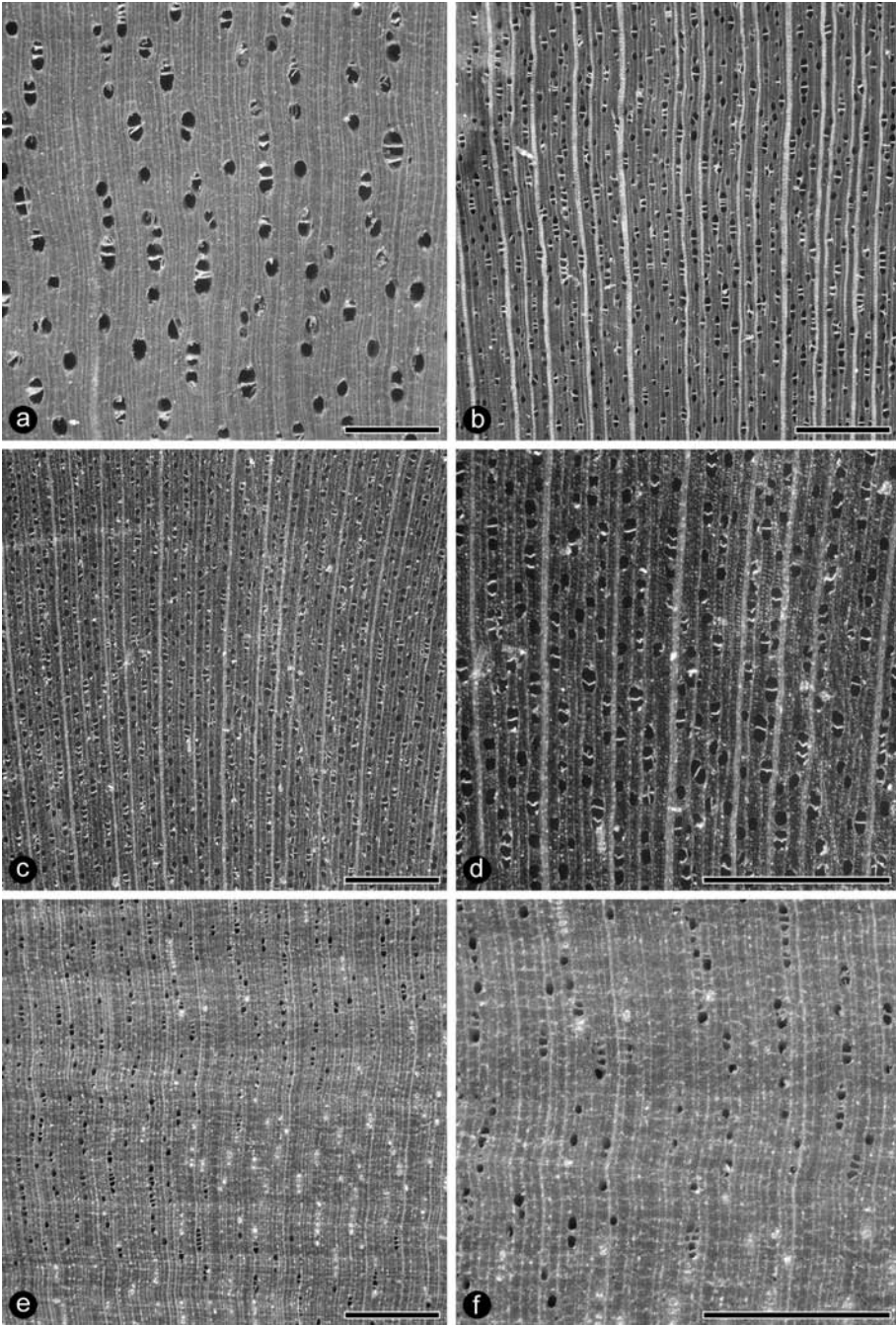


Fig. 28. a: *Dichostemma glaucescens* (Uw 22174). – b: *Dicoelia beccariana* (Uw 21376). – c, d: *Didymocistus chrysadenius* (Uw 7787). – e, f: *Dimorphocalyx malayana* (Uw 21398). – Bar = 1 mm.

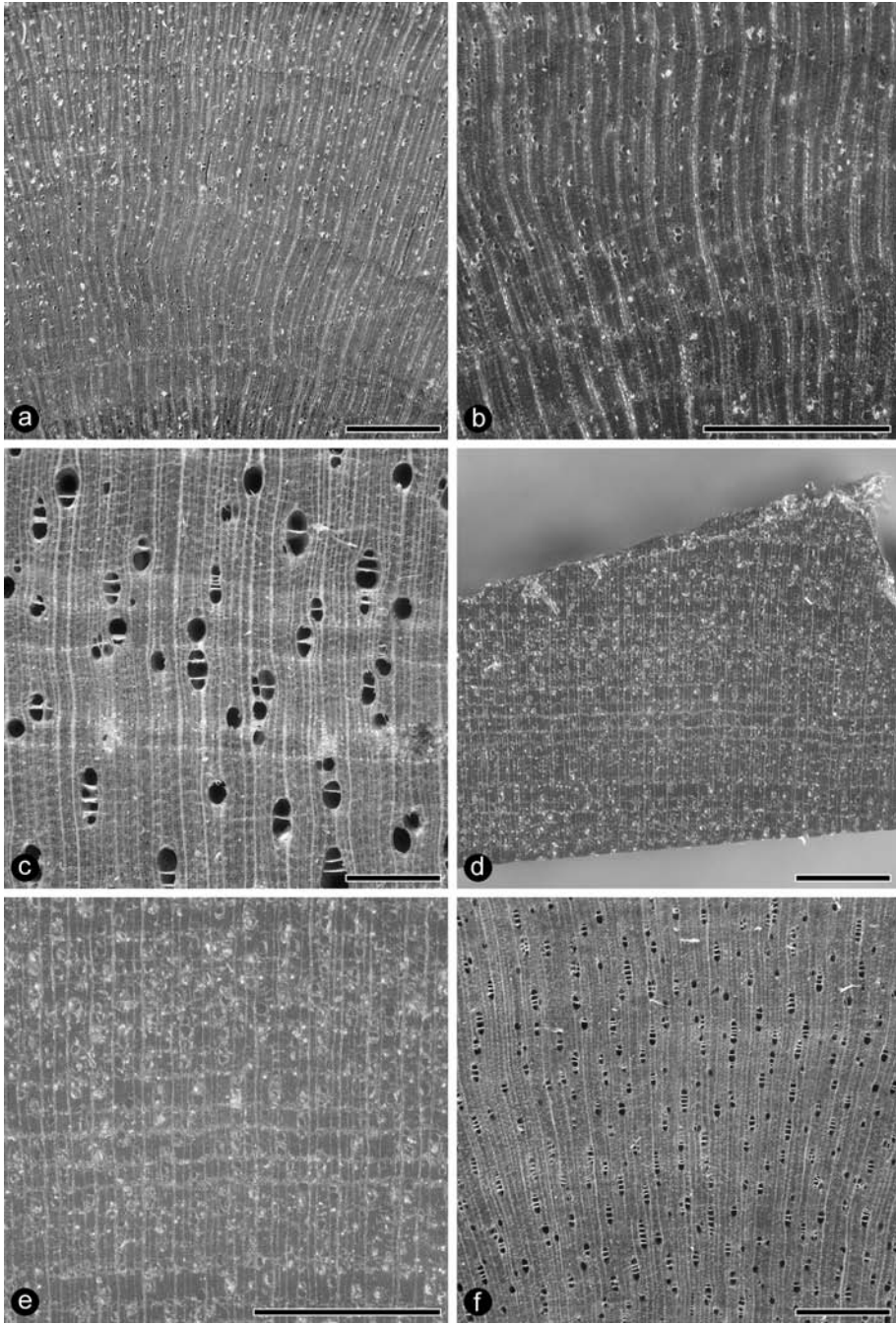


Fig. 29. a, b: *Discocarpus essequiboensis* (Uw 32504). – c: *Discoglypemma caloneura* (Uw 9318). – d, e: *Dissiliaria baloghioides* (Uw 14625). – f: *Ditta myricoides* (Uw 25715). – Bar = 1 mm.

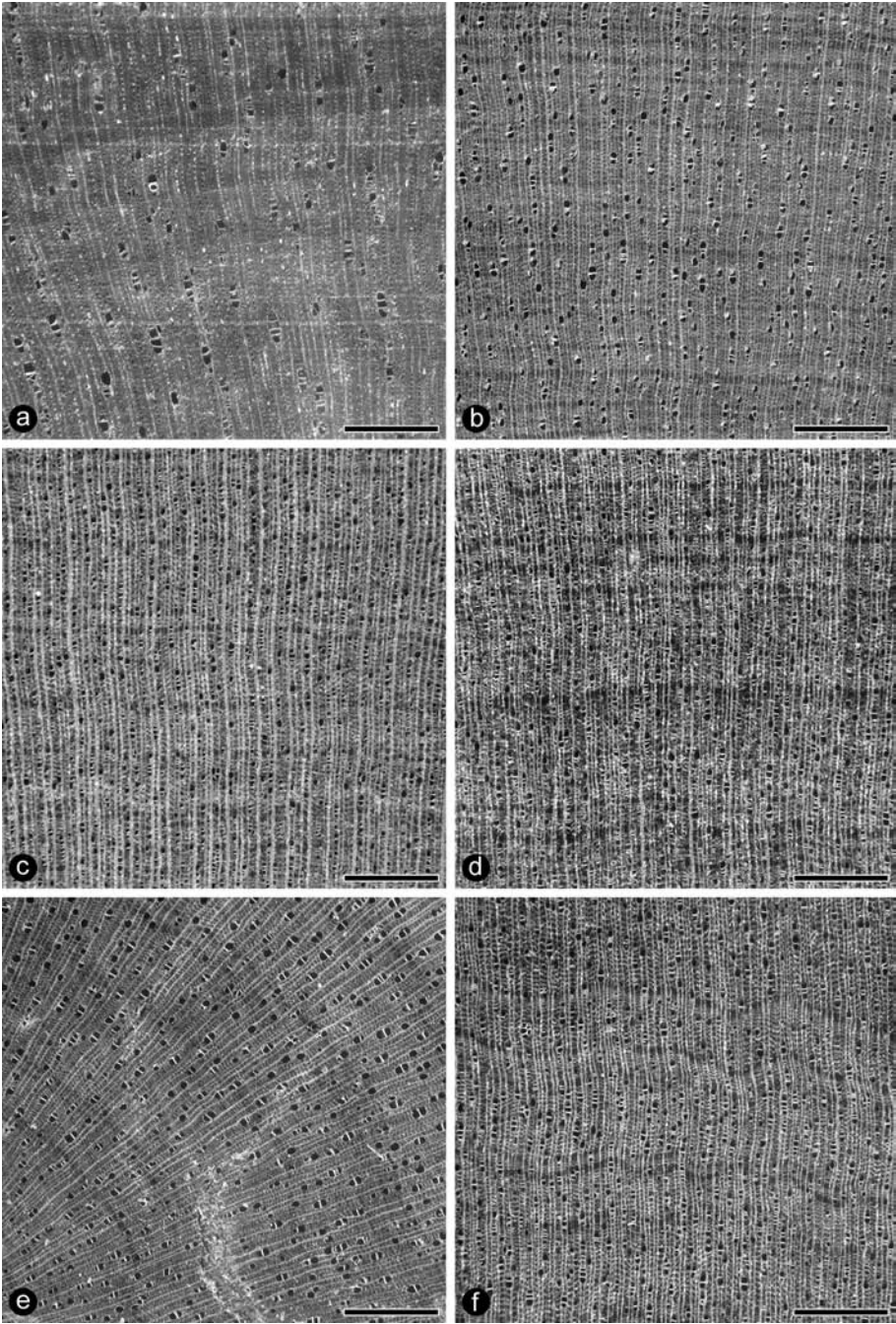


Fig. 30. a: *Dodecastigma integrifolium* (Uw 873). – b: *Drypetes amazonica* (Uw 7558). – c: *D. crocea* (Uw 10449). – d: *D. diversifolia* (Uw 6263). – e: *D. floribunda* (Uw 9288). – f: *D. globosa* (Uw 10900). – Bar = 1 mm.

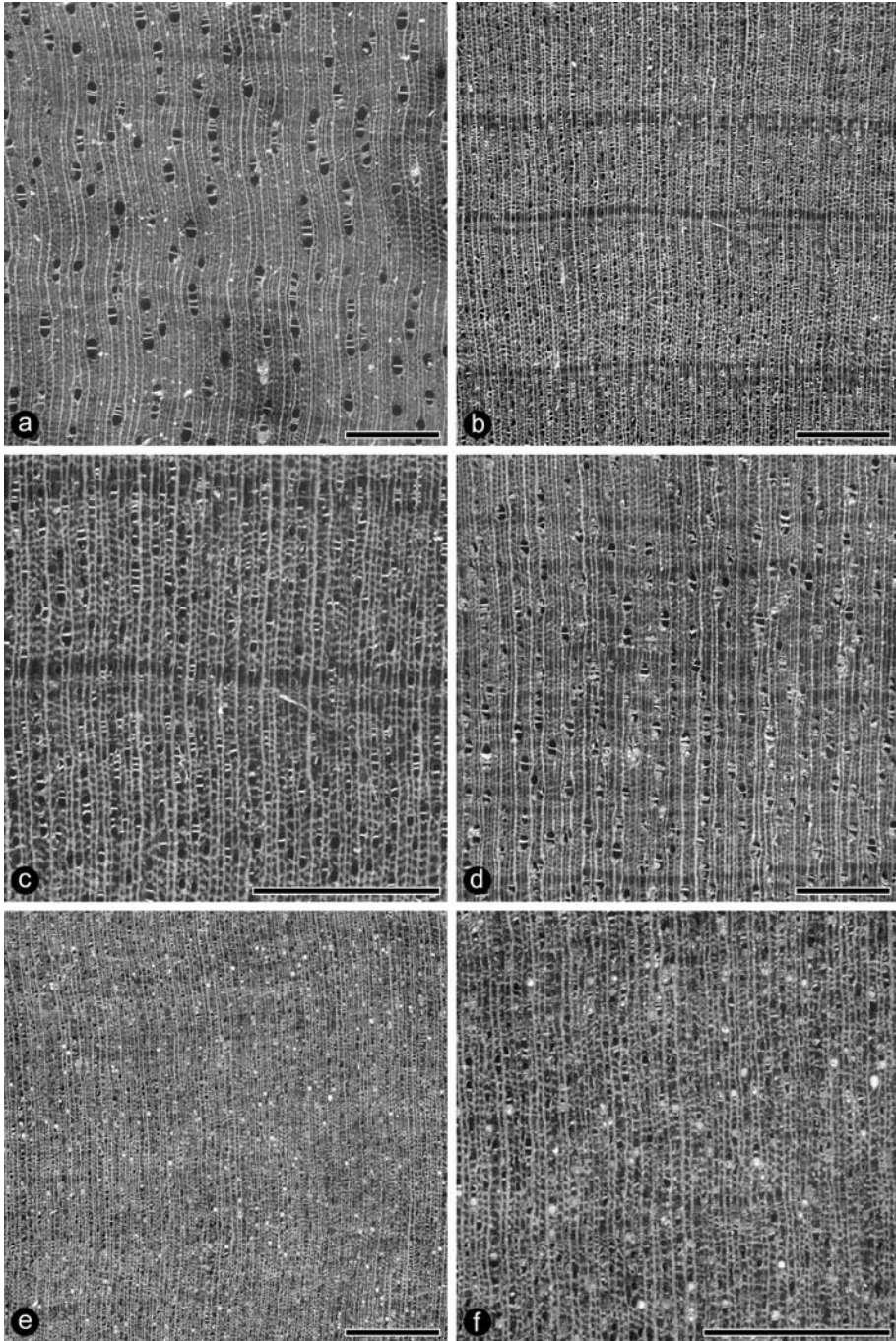


Fig. 31. a: *Drypetes longifolia* (Uw 10901). – b, c: *D. ovalis* (Uw 11366). – d: *D. principium* (Uw 10912). – e, f: *D. sepiaria* (Uw 14631). – Bar = 1 mm.

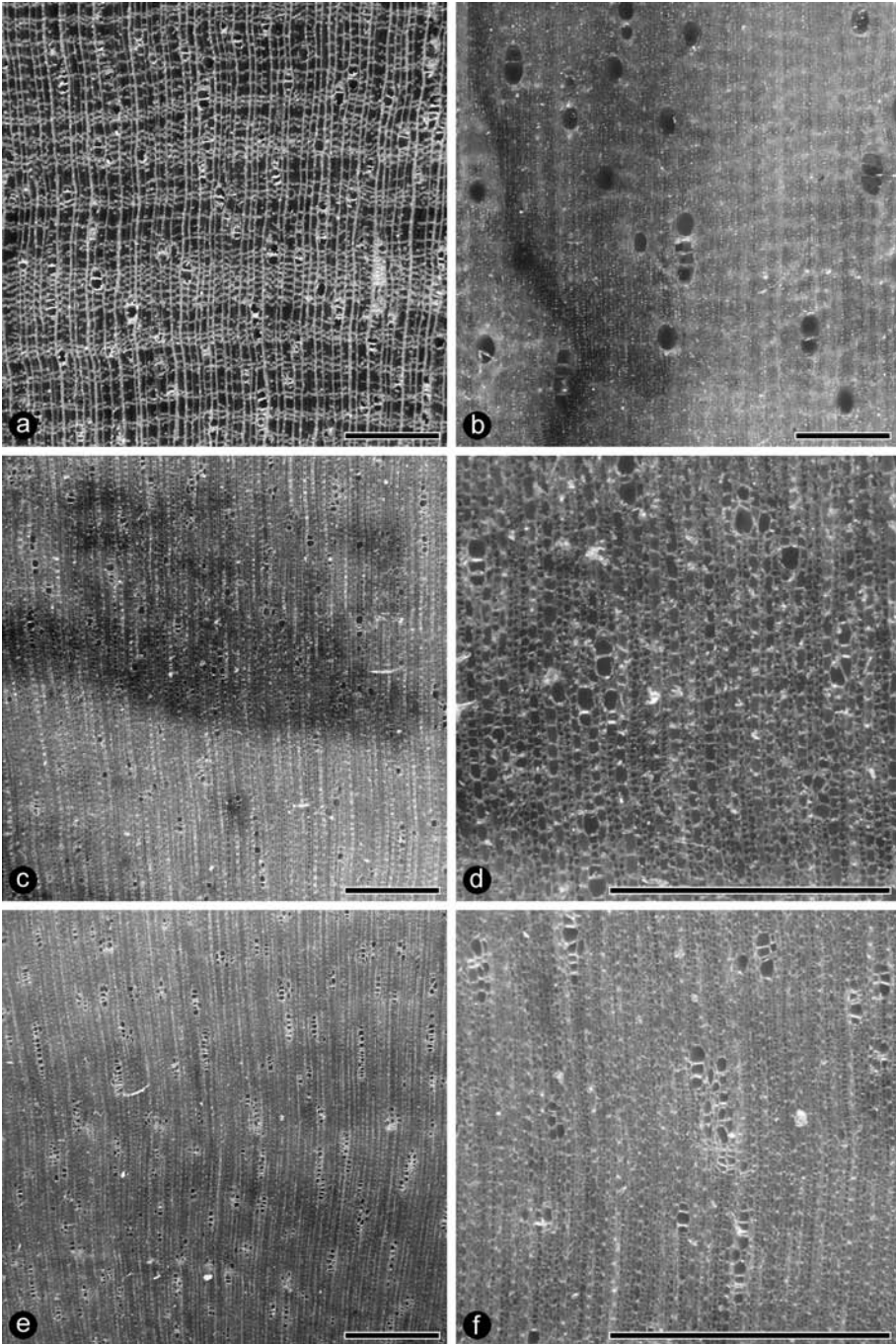


Fig. 32. a: *Drypetes variabilis* (Uw 1097). – b: *Endospermum moluccanum* (Uw 18114). – c,d: *Euphorbia calycina* (Uw 22175). – e, f: *E. dendroides* (Uw 9235). – Bar = 1 mm.

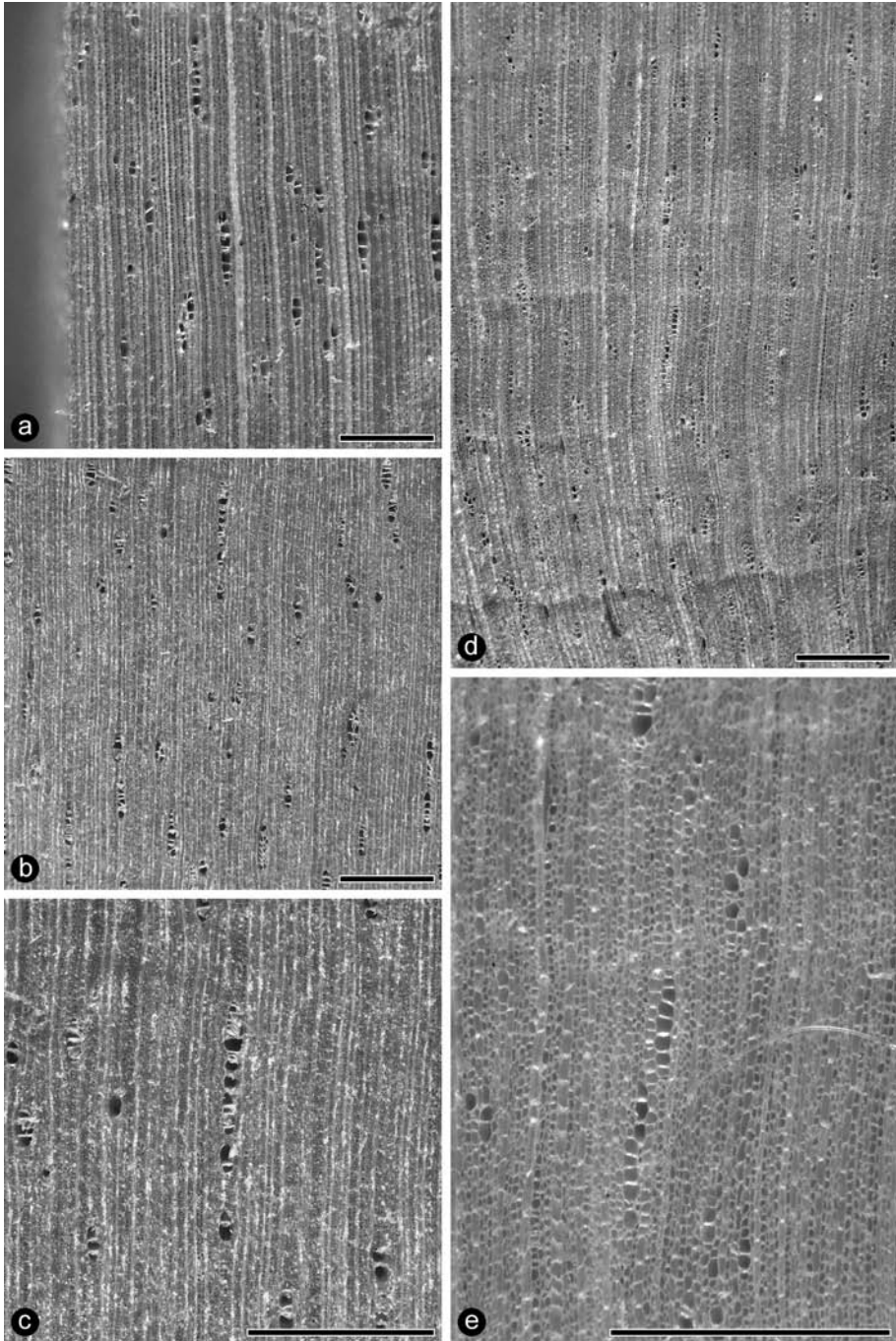


Fig. 33. a: *Euphorbia ingens* (Uw 22013). – b, c: *E. onoclada* (Uw 33127). – d, e: *E. poissoni* (Uw 25946). – Bar = 1 mm.

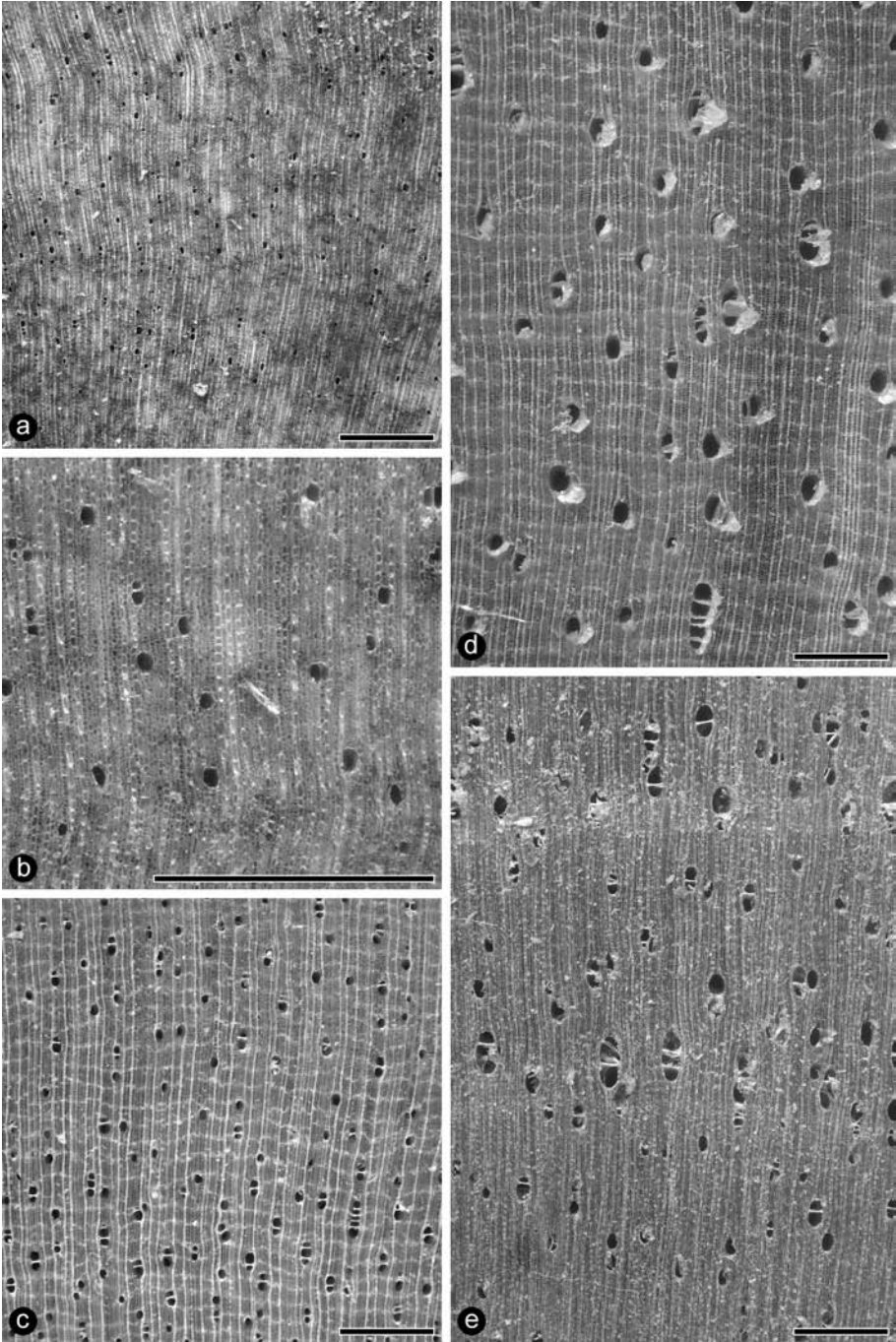


Fig. 34. a, b: *Euphorbia tirucalli* (Uw 24543). – c: *Excoecaria agallocha* (Uw 10704). – d: *E. myrioneura* (Uw 29104). – e: *Falconeria insignis* (Uw 32726). – Bar = 1 mm.

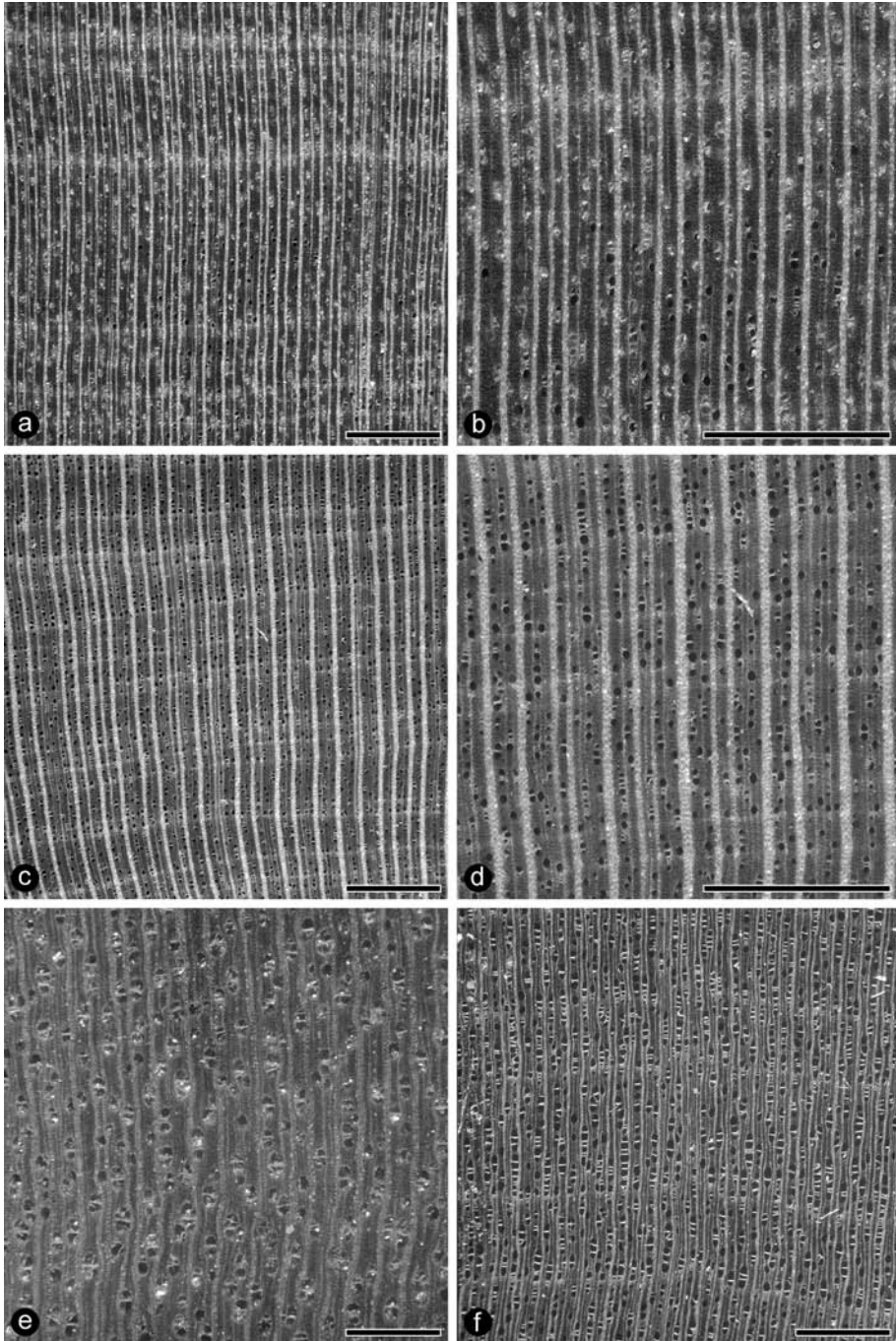


Fig. 35. a, b: *Flueggea acidoton* (Uw 18718). – c, d: *F. acidoton* (Uw 18723). – e: *F. flexuosa* (Uw 18727). – f: *F. leucopyrus* (Uw 11054). – Bar = 1 mm.

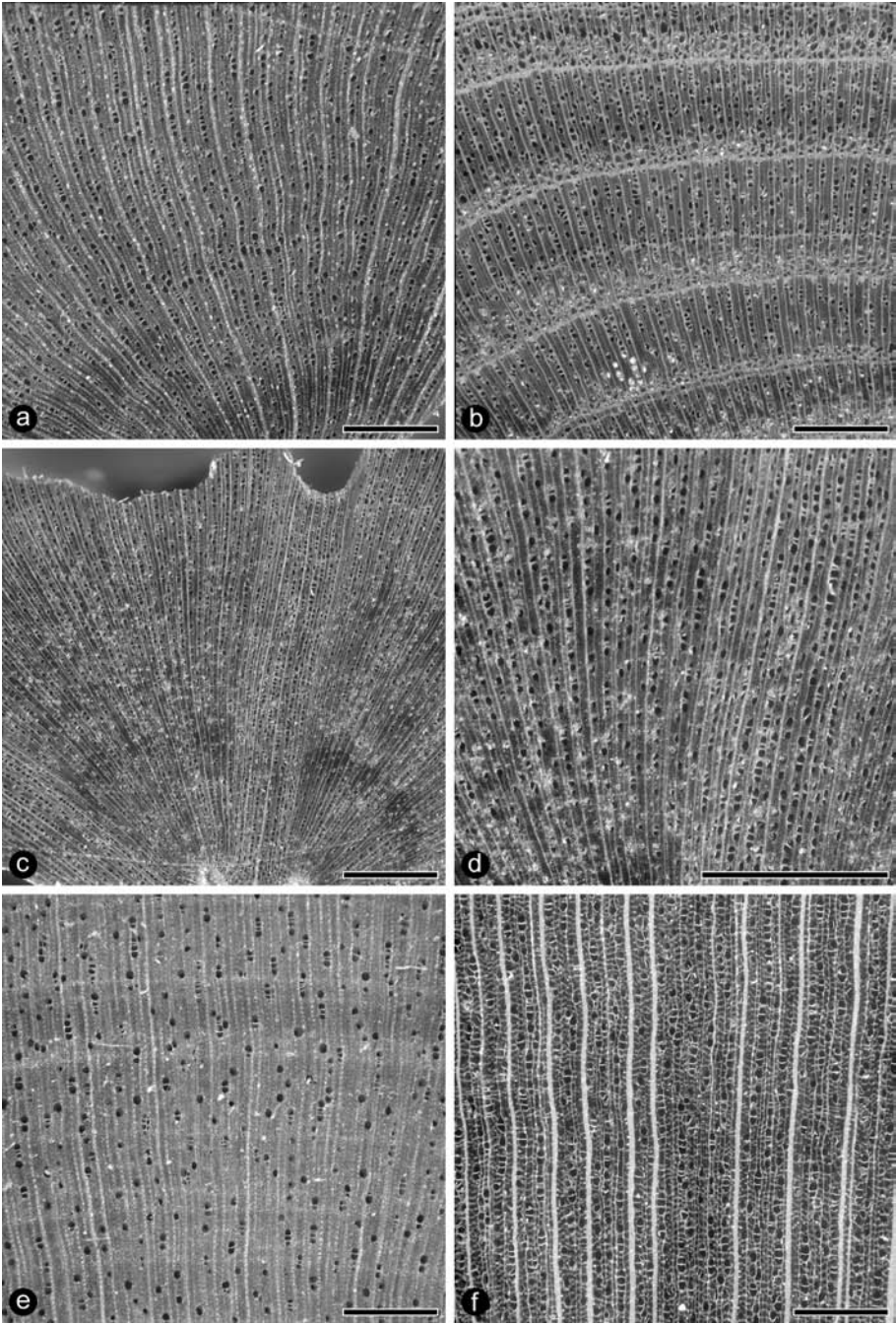


Fig. 36. a: *Flueggea neowawraea* (Uw 31194). – b: *F. suffruticosa* (UNw 410). – c, d: *F. virosa* subsp. *virosa* (Uw 14651). – e: *Fontainea picrosperma* (Uw 31203). – f: *Galearia celebica* (Uw 10895). – Bar = 1 mm.

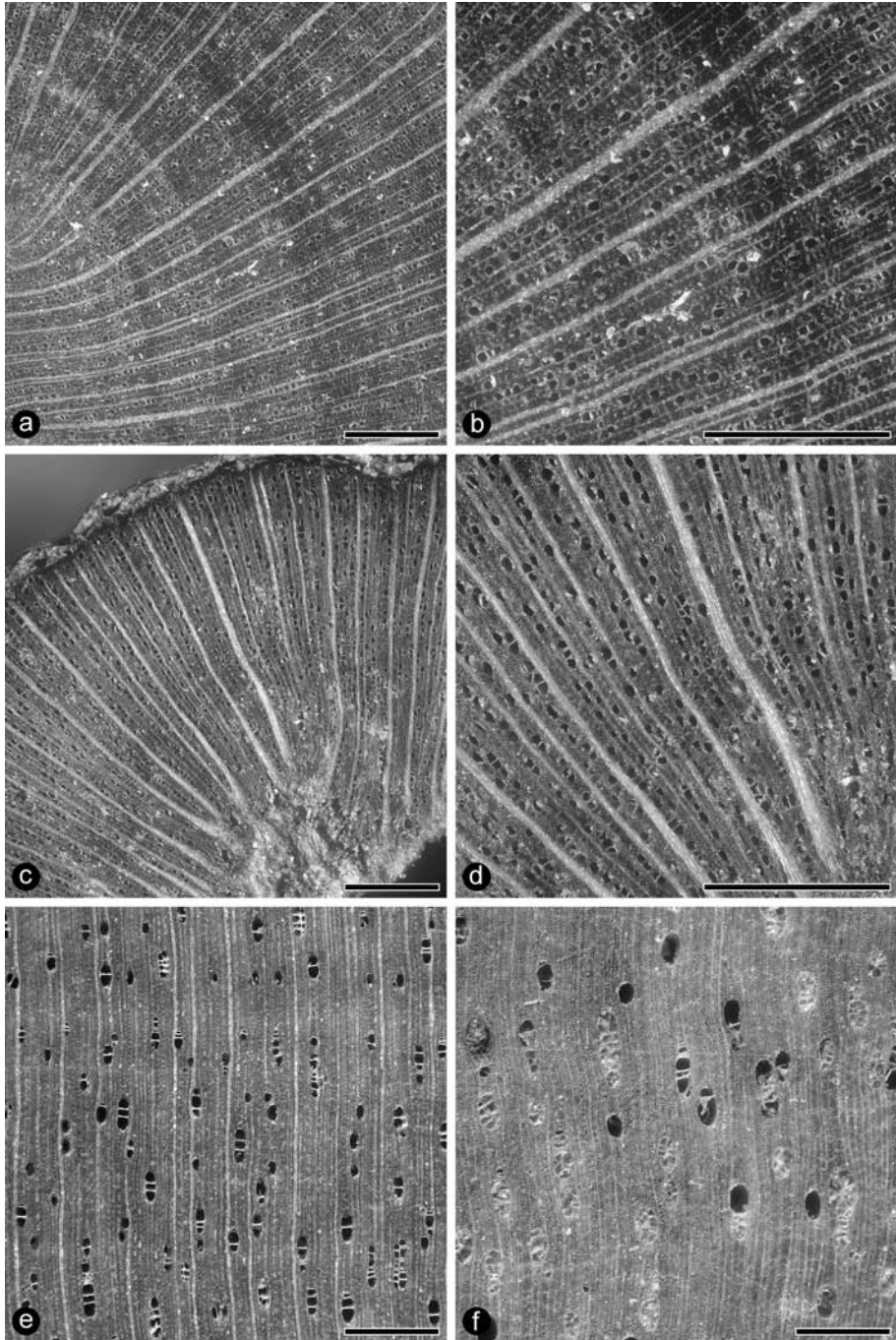


Fig. 37. a, b: *Galearia filiformis* (Uw 36892). – c, d: *G. phlebocarpa* (Uw 36891). – e: *Garcia nutans* (Uw 14807). – f: *Gavarretia terminalis* (Uw 16073). – Bar = 1 mm.

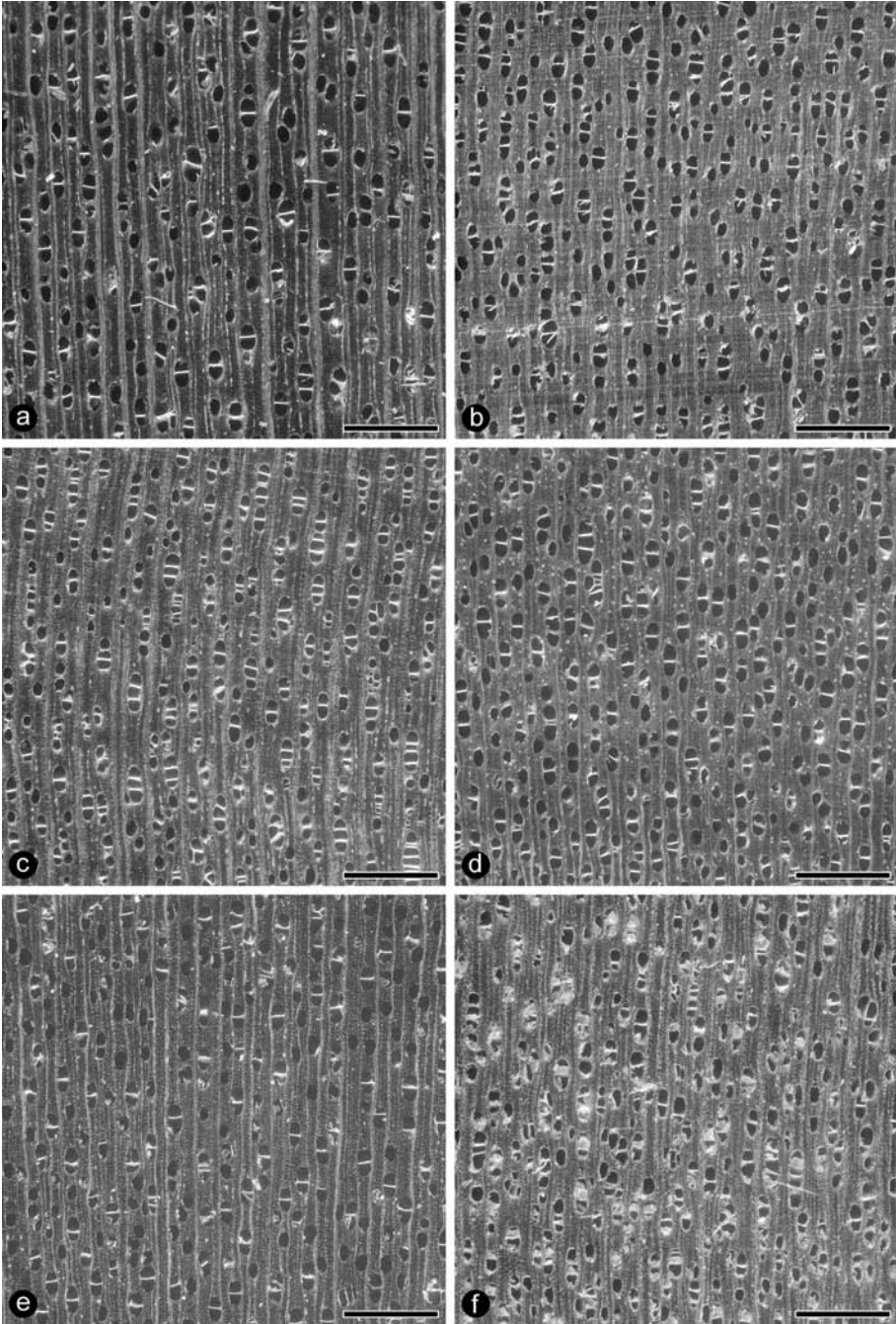


Fig. 38. a: *Glochidion borneense* (Uw 10896). – b: *G. capitatum* (Uw 10902). – c: *G. ferdinandi* (Uw 21328). – d: *G. obscurum* (Uw 10906). – e: *G. philippicum* (Uw 10903). – f: *G. philippicum* (Uw 15288). – Bar = 1 mm.

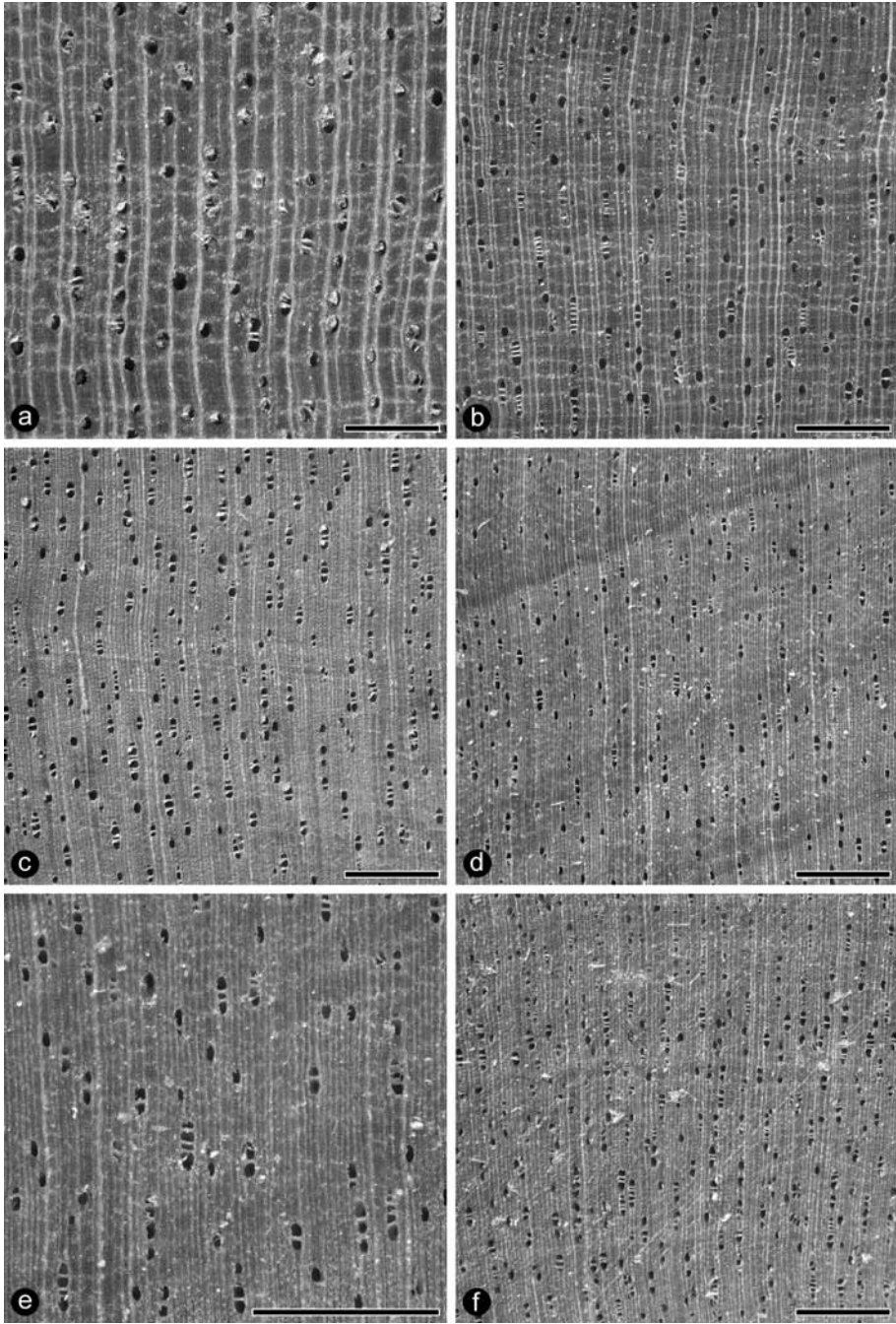


Fig. 39. a: *Glycydendron amazonicum* (Uw 7781). – b: *Grossera macrantha* (Uw 22176). – c: *Gymnanthes klotzschiana* var. *klotzschiana* (Uw 13234). – d, e: *G. klotzschiana* var. *klotzschiana* (Uw 14072). – f: *G. klotzschiana* var. *trichoneura* (Uw 12965). – Bar = 1 mm.

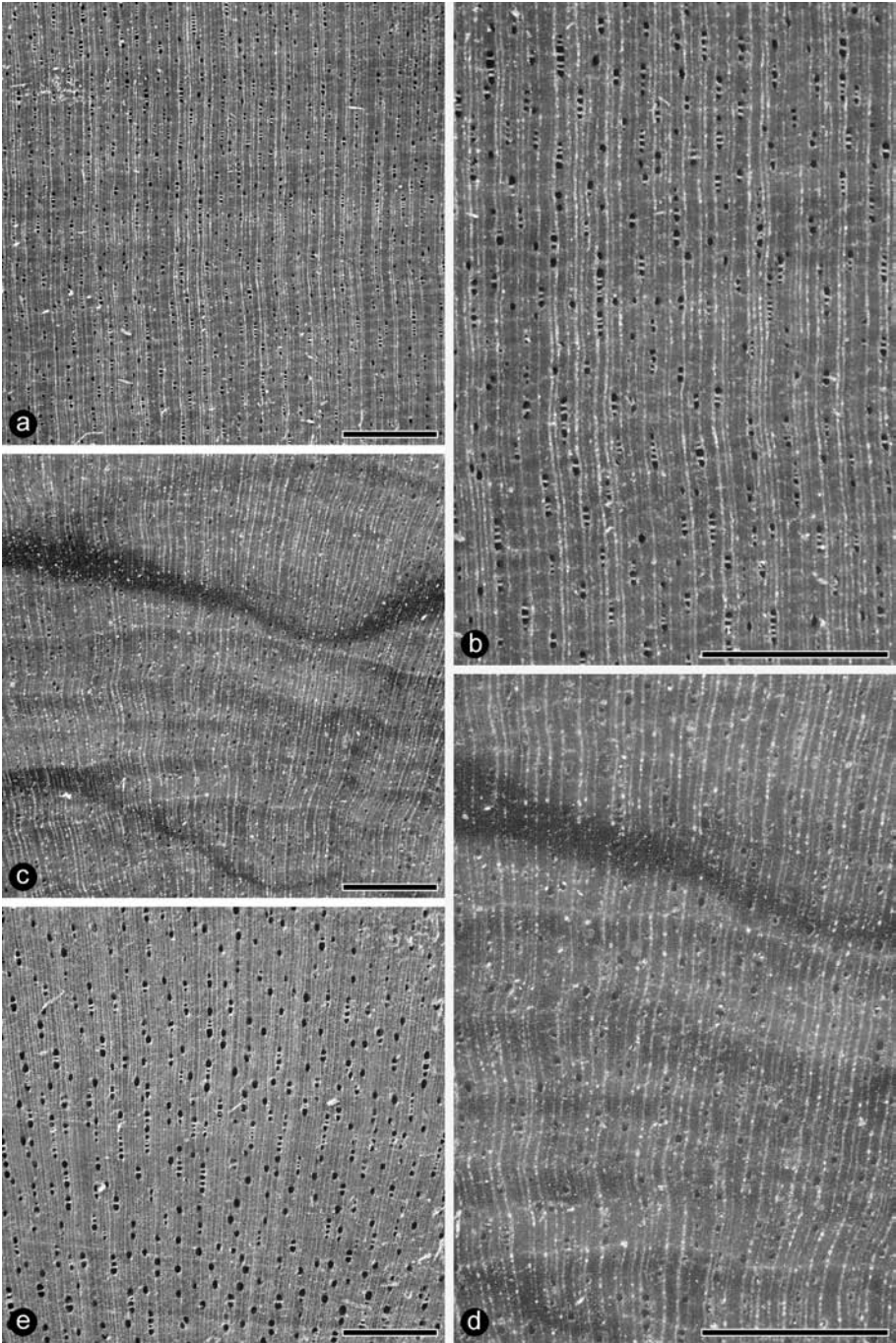


Fig. 40. a, b: *Gymnanthes lucida* (Uw 6309). – c, d: *G. lucida* (Uw 10204). – e: *G. schottiana* (Uw 14355). – Bar = 1 mm.

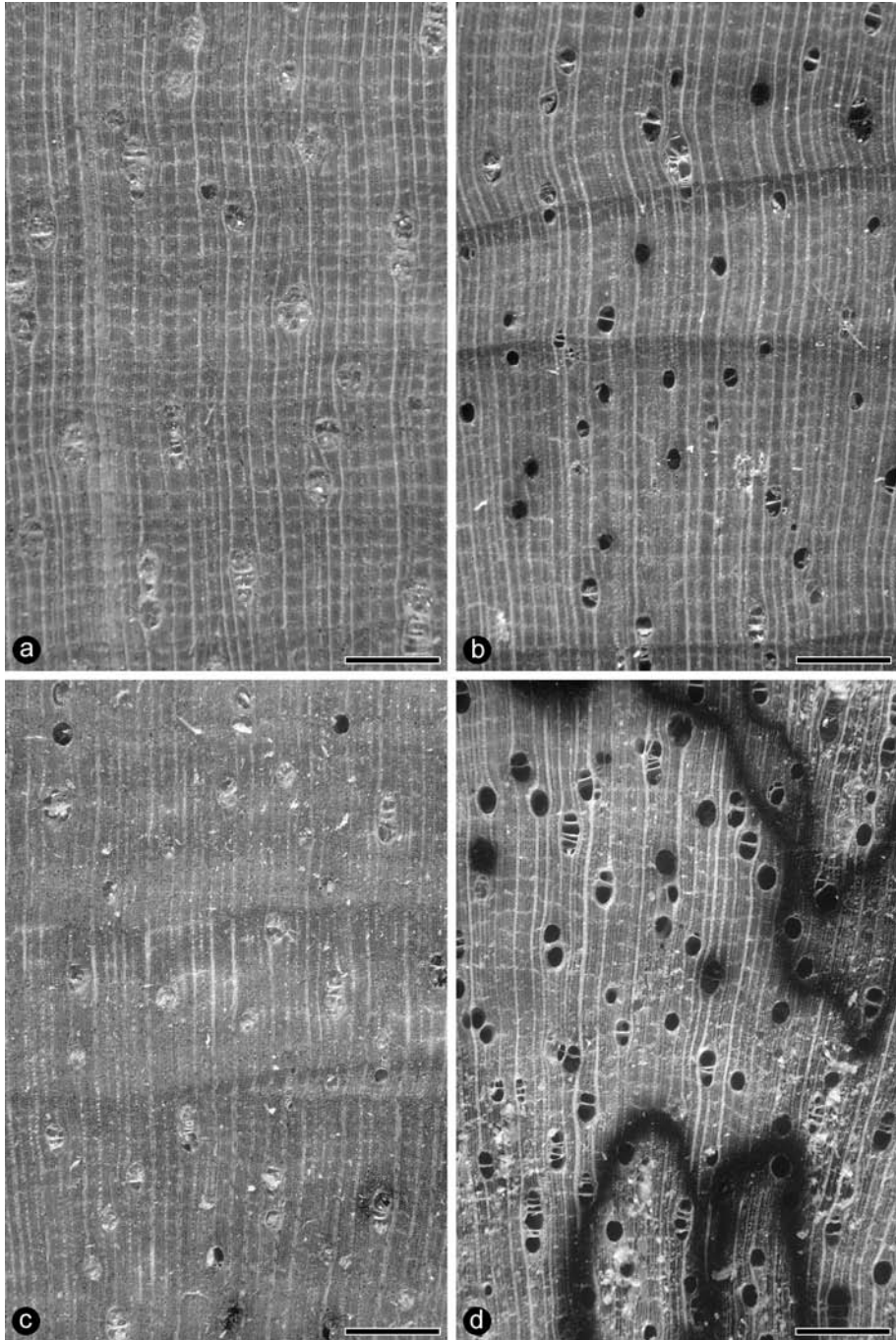


Fig. 41. a: *Hevea guianensis* (Uw 155). – b: *H. pauciflora* var. *coriacea* (Uw 869). – c: *H. pauciflora* var. *coriacea* (Uw 2720). – d: *H. spruceana* (Uw 7541). – Bar = 1 mm.

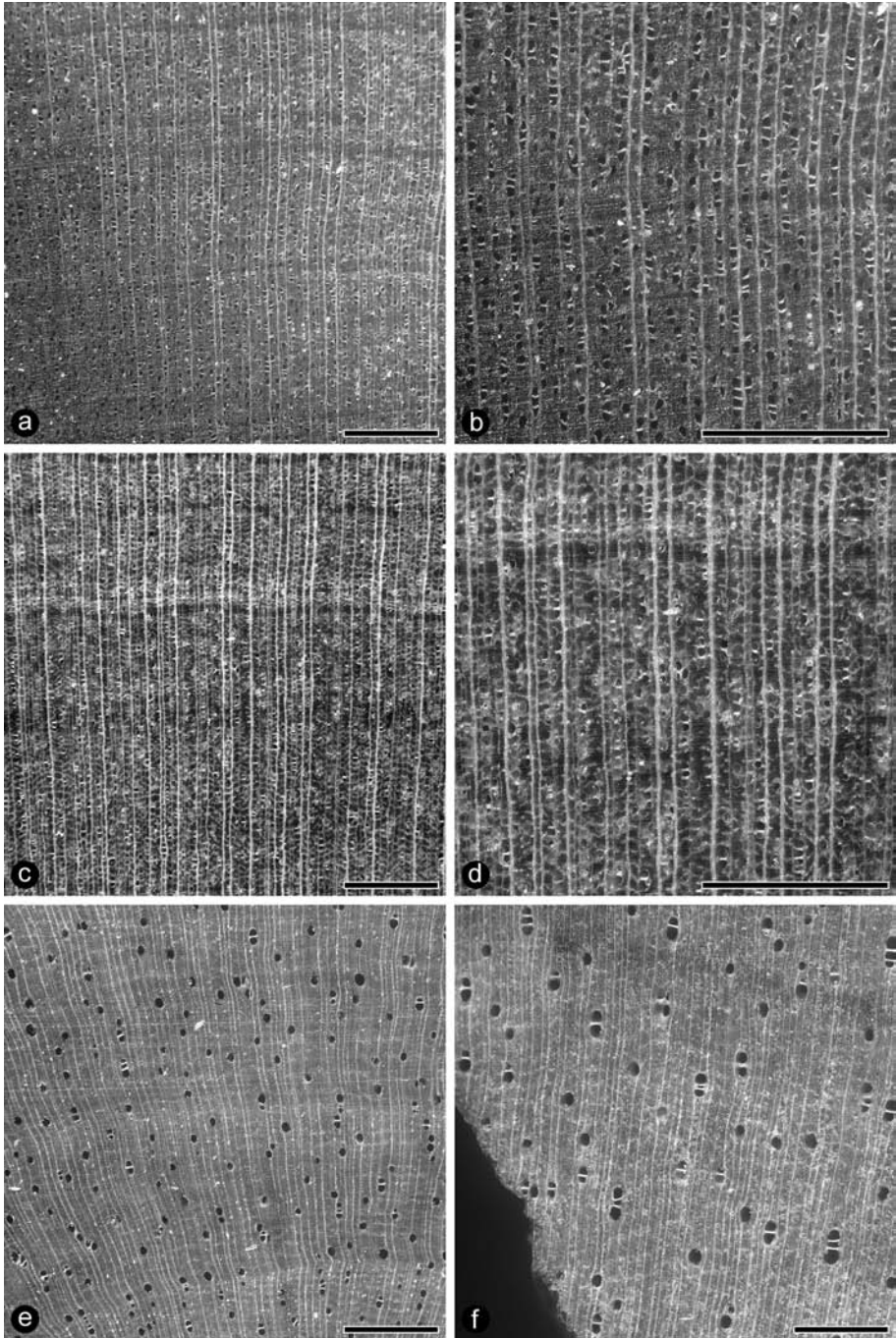


Fig. 42. a, b: *Heywoodia lucens* (Uw 10952). – c, d: *H. lucens* (Uw 10953). – e: *Hippomane mancinella* (Uw 6195). – f: *H. mancinella* (Uw 25945). – Bar = 1 mm.

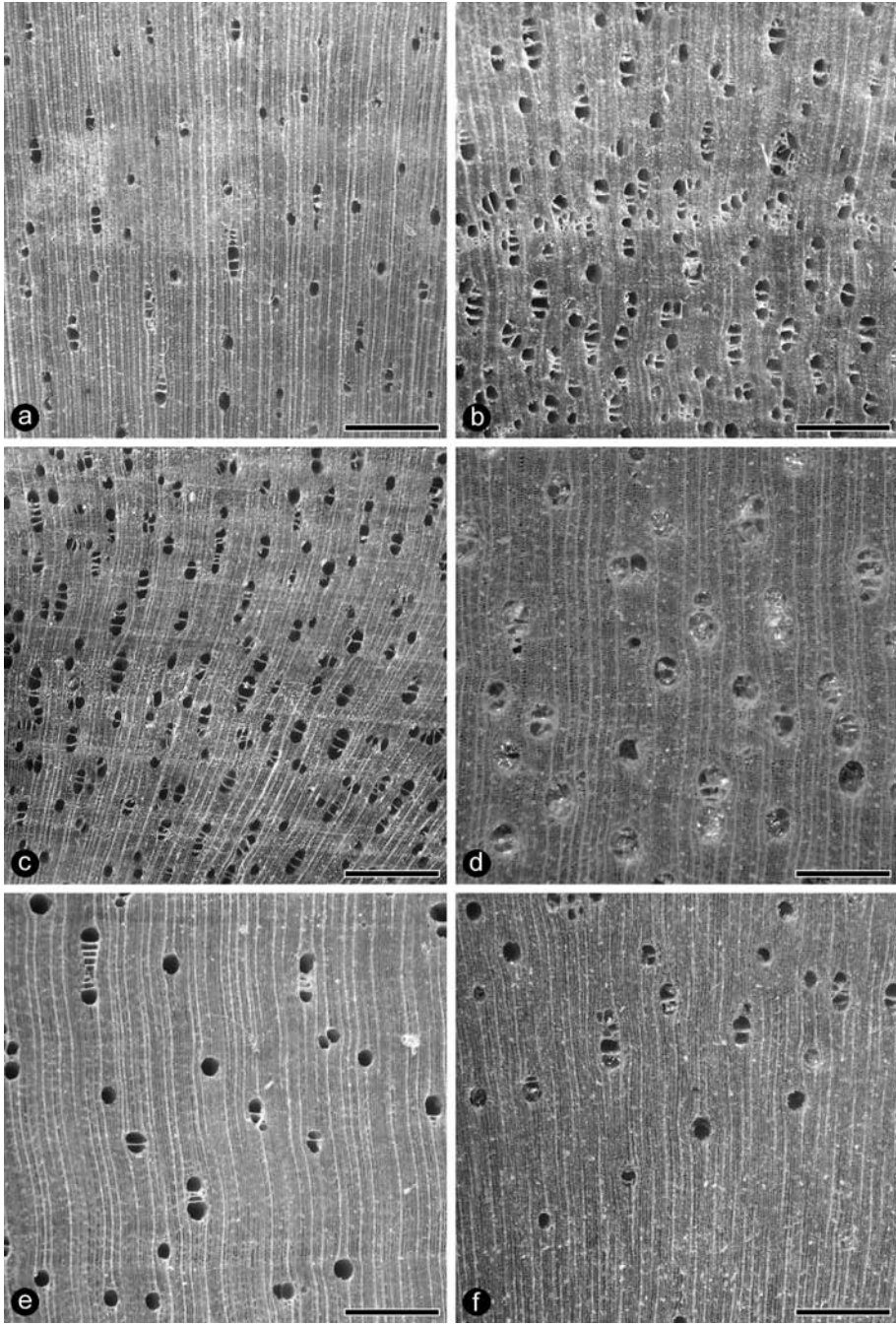


Fig. 43. a: *Homalanthus arfakiensis* (Uw 18326). – b: *H. fastuosus* (Uw 33734). – c: *H. fastuosus* (Uw 33747). – d: *Hura crepitans* (Uw 52). – e: *H. crepitans* (Uw 19177). – f: *H. polyandra* (Uw 10373). – Bar = 1 mm.

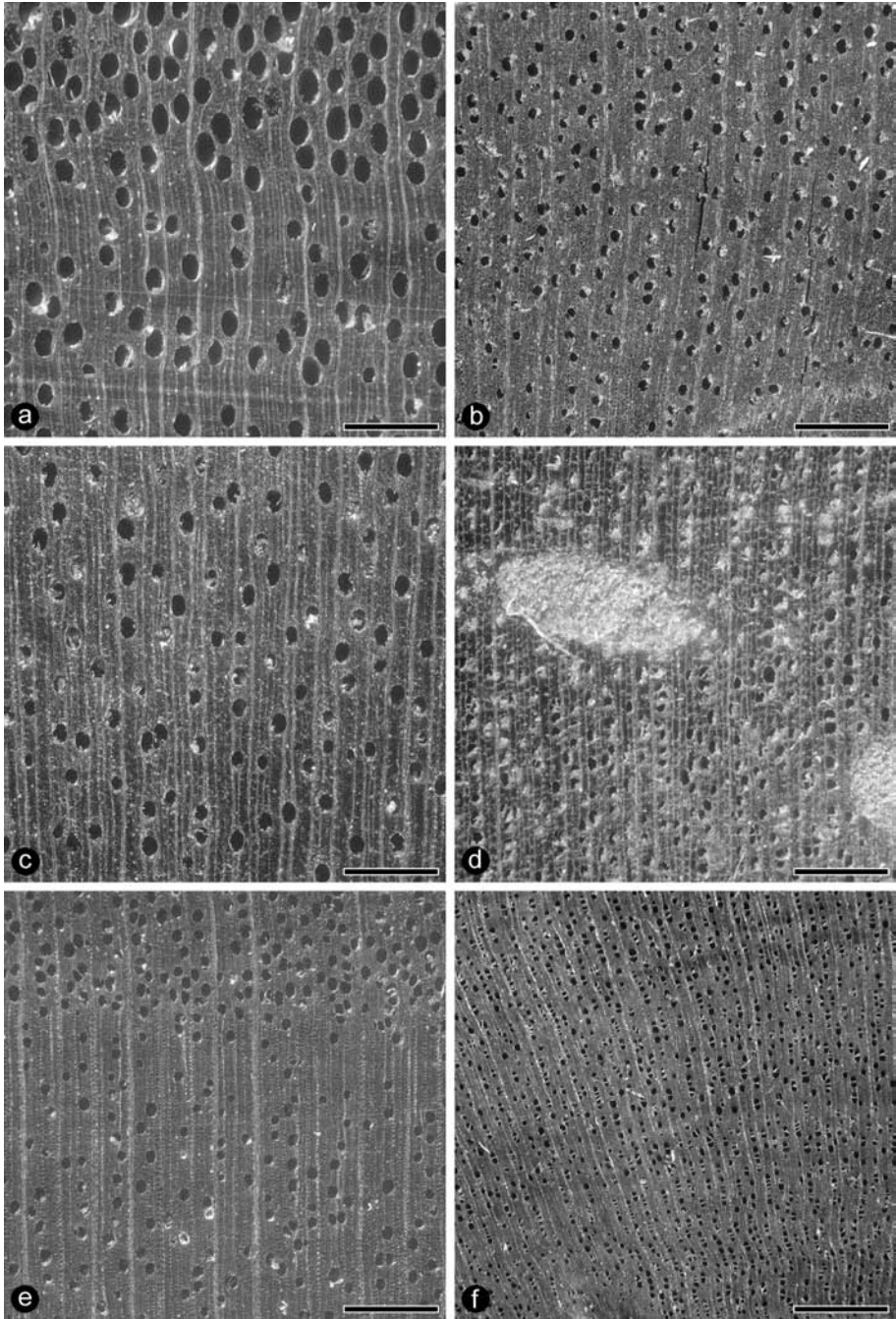


Fig. 44. a: *Hieronyma* [*Hyeronima*] *alchorneoides* var. *alchorneoides* (Uw 16261). – b: *H. jamaicensis* (Uw 31049). – c: *H. laxiflora* (Uw 102). – d: *H. macrocarpa* (Uw 31047). – e: *H. oblonga* (Uw 16259). – f: *Hymenocardia acida* (Uw 24544). – Bar = 1 mm.

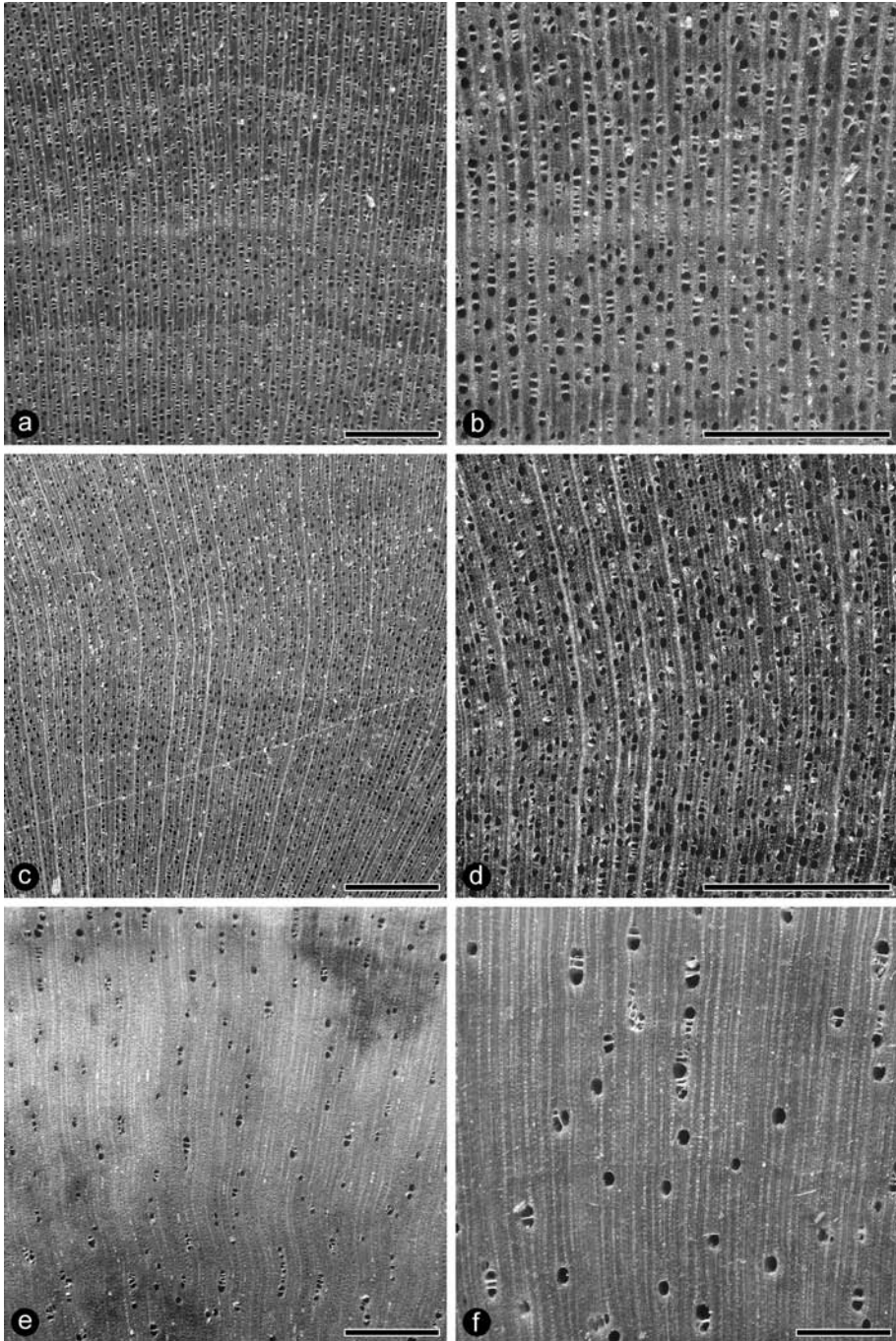


Fig. 45. a, b: *Hymenocardia ulmoides* (Uw 15880). – c, d: *Jablonskia congesta* (Uw 18724). – e: *Jatropha curcas* (Uw 21178). – f: *J. curcas* (Uw 21737). – Bar = 1 mm.

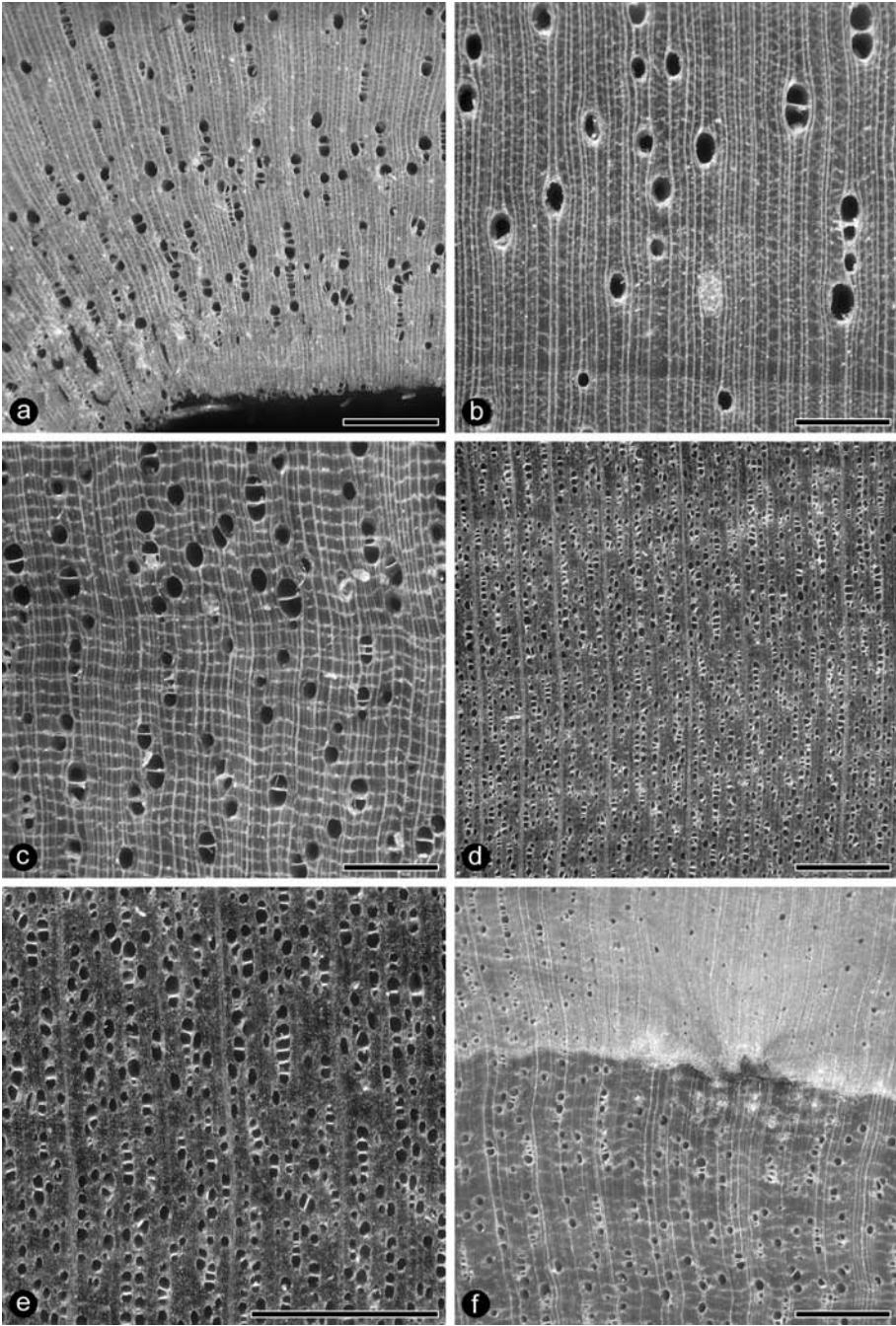


Fig. 46. a: *Jatropha platyphylla* (Uw 31197). – b: *Joannesia heveoides* (Uw 19247). – c: *Klaineanthus gaboniae* (Uw 22178). – d, e: *Lachnostylis hirta* (Uw 22179). – f: *Leucocroton wrightii* (Uw 36890). – Bar = 1 mm.

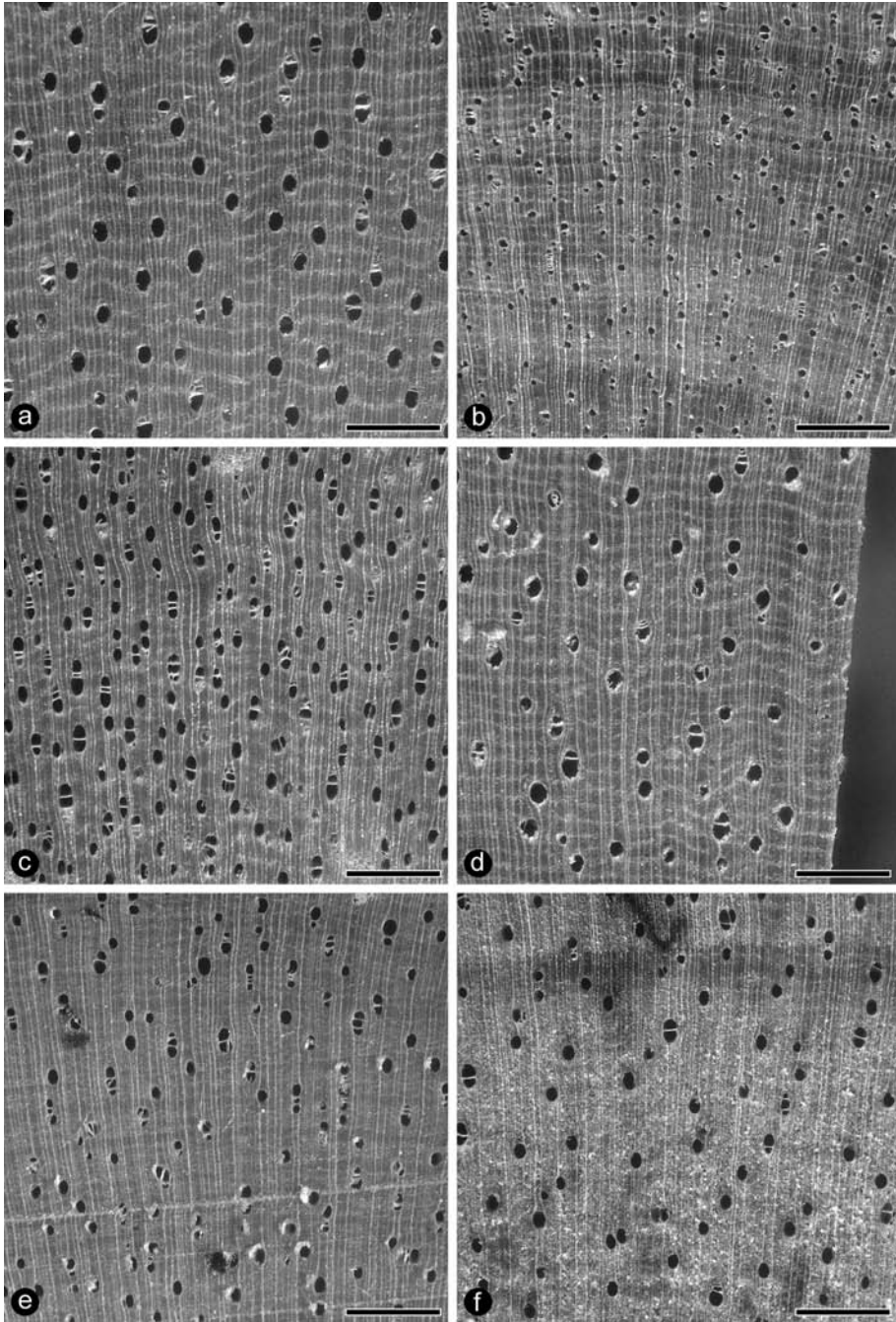


Fig. 47. a: *Mabea angularis* (Uw 19380). – b: *M. klugei* (Uw 8205). – c: *M. montana* subsp. *montana* (Uw 14815). – d: *M. nitida* (Uw 19055). – e: *M. occidentalis* (U 22562). – *M. paniculata* (Uw 19286a). – Bar = 1 mm.

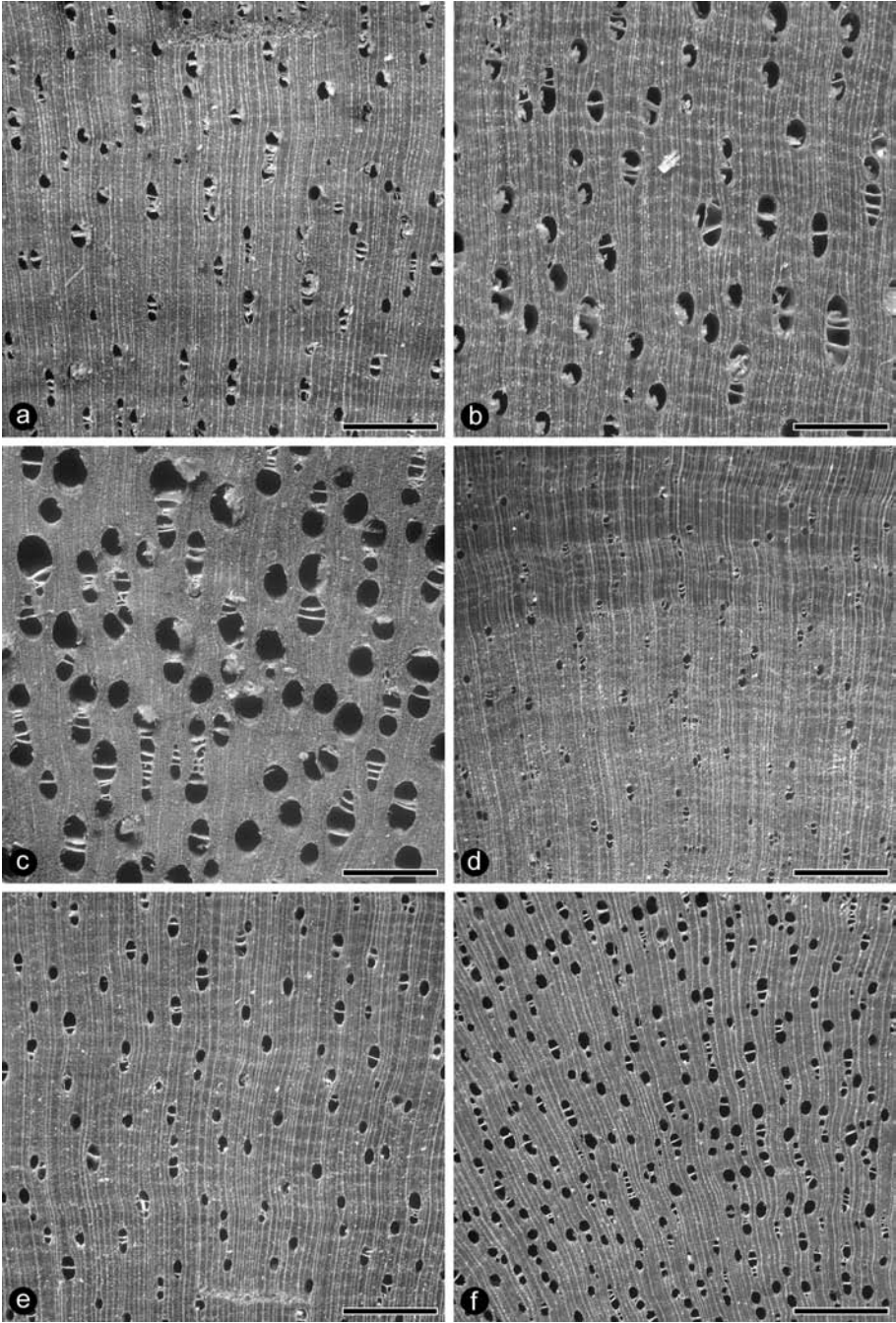


Fig. 48. a: *Mabea piriri* (Uw 7518). – b: *M. piriri* (Uw 22782). – c: *M. pulcherrima* (Uw 27505). – d: *M. speciosa* subsp. *guianensis* (Uw 8613). – e: *M. speciosa* subsp. *speciosa* (Uw 1965). – f: *M. taquari* (Uw 2960). – Bar = 1 mm.

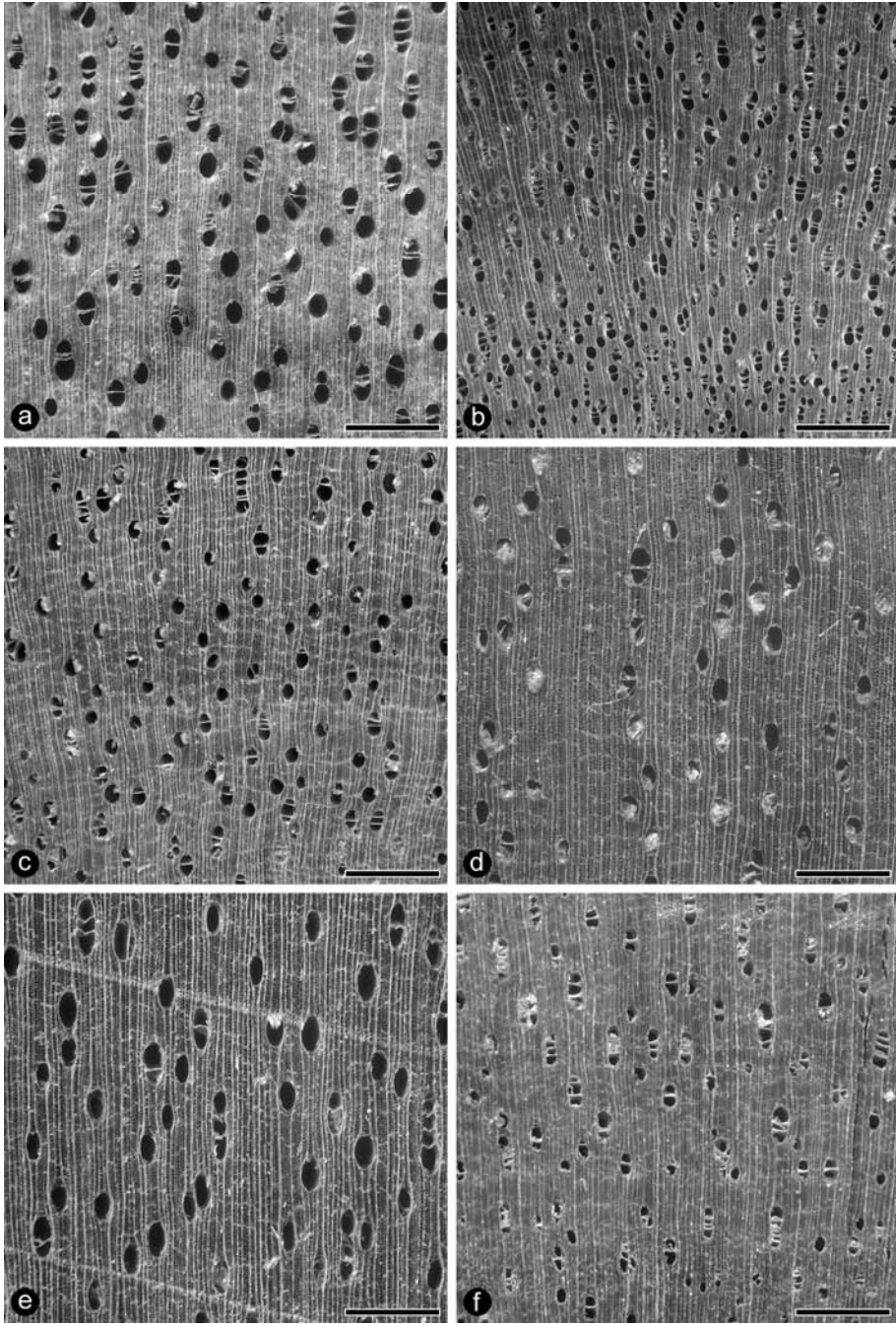


Fig. 49. a: *Macaranga aleuritoides* (Uw 27702). – b: *M. aleuritoides* (Uw 31196). – c: *M. conifera* (Uw 31786). – d: *M. fimbriata* (Uw 28074). – e: *M. fragrans* (Uw 28929). – f: *M. kilimandscharica* (Uw 15924). – Bar = 1 mm.

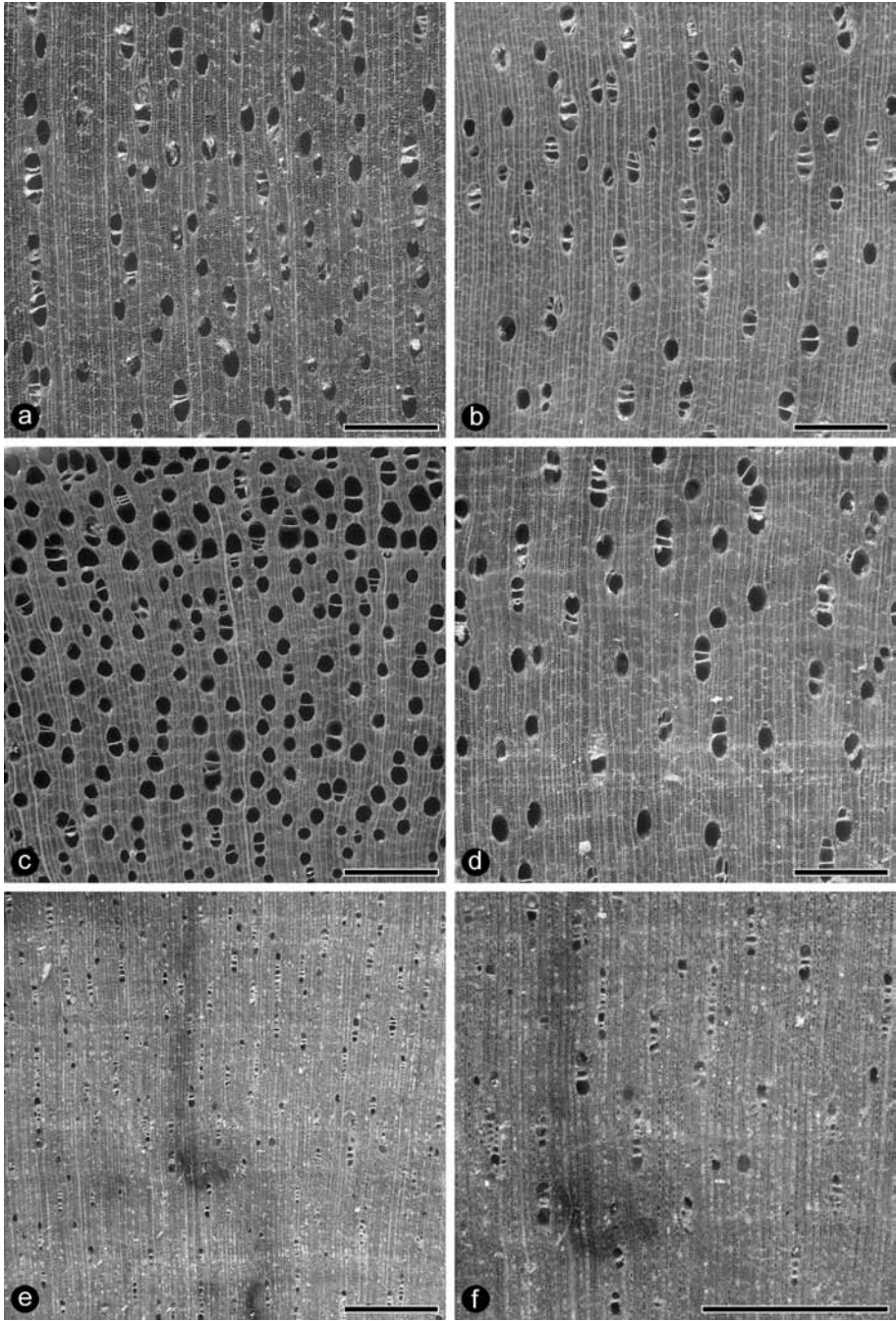


Fig. 50. a: *Macaranga polyadenia* (Uw 28378). – b: *M. roxburghii* (Uw 32713). – c: *M. schweinfurthii* (Uw 9269). – d: *M. spinosa* (Uw 6580). – e, f: *Mallotus claoxyloides* (Uw 21322). – Bar = 1 mm.

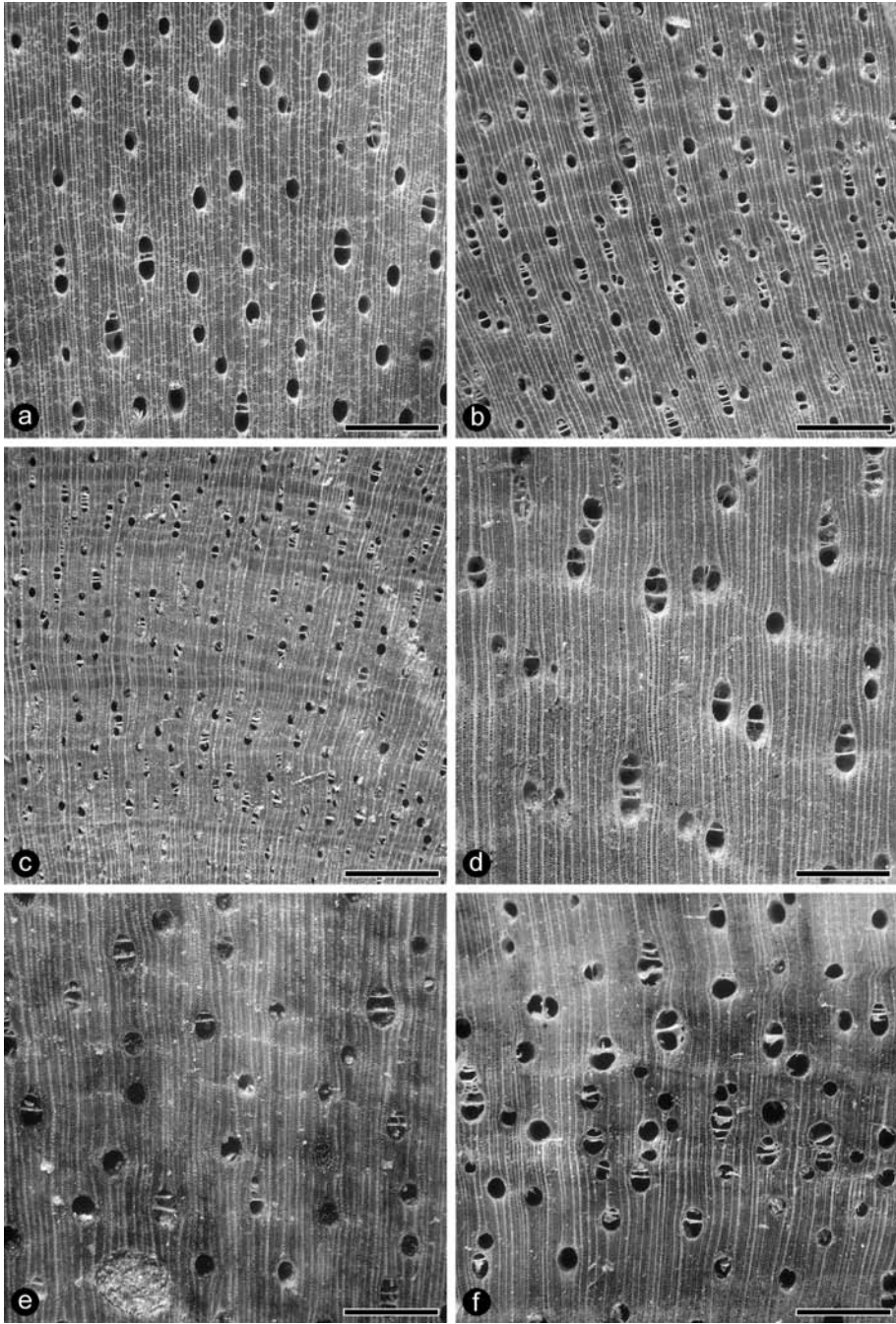


Fig. 51. a: *Mallotus confusus* (Uw 10783). – b: *M. mollissimus* (Uw 10758). – c: *M. polyadenus* (Uw 31199). – d: *Manihot carthaginensis* subsp. *glaziovii* (Uw 30856). – e: *M. esculenta* (Uw 24545). – f: *M. grahamii* (Uw 14045). – Bar = 1 mm.

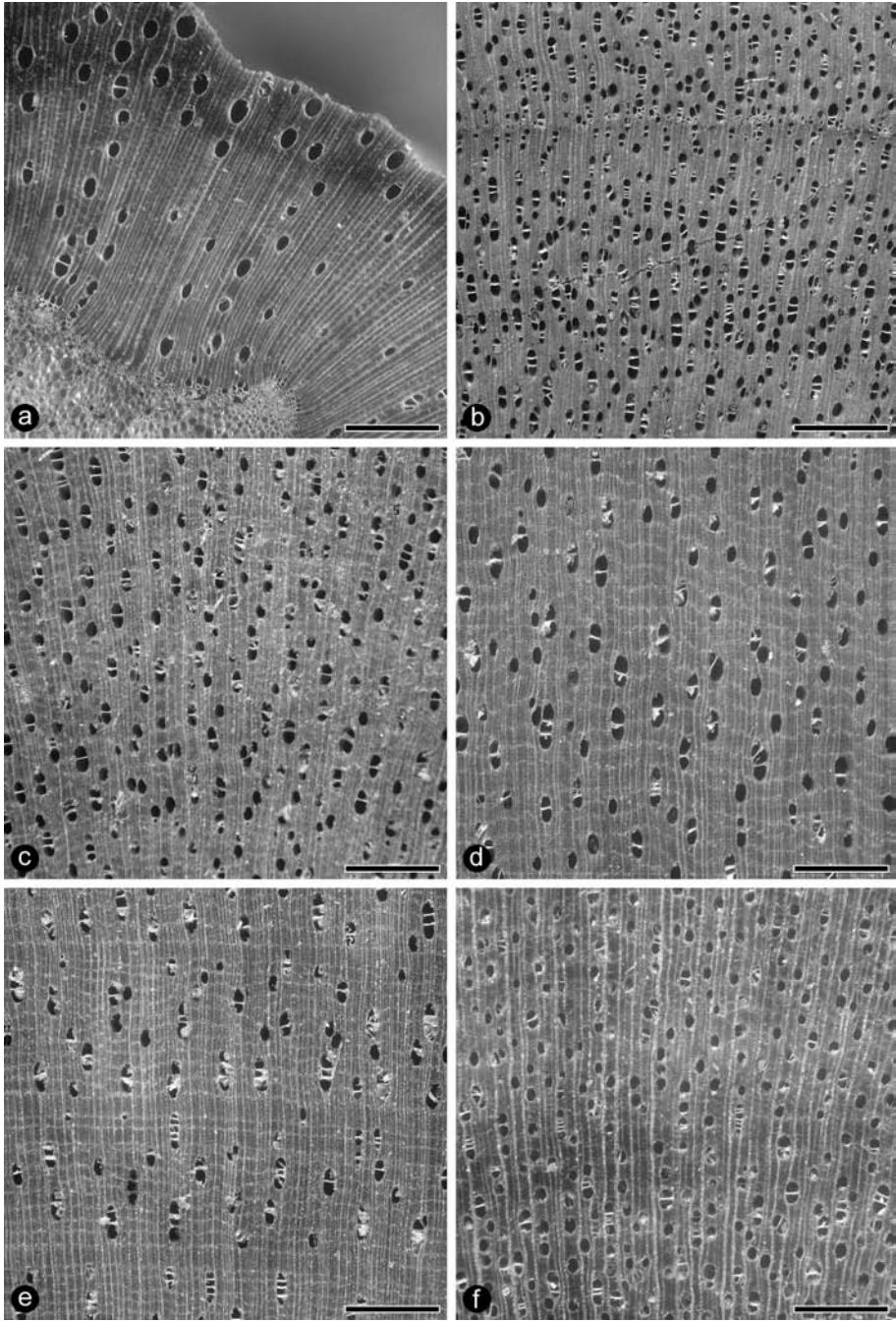


Fig. 52. a: *Manniophyton fulvum* (Uw 22180). – b: *Maprounea africana* (Uw 15818). – c: *M. brasiliensis* (Uw 16610). – d: *M. guianensis* (Uw 872). – e: *M. guianensis* (Uw 11187). – f: *Mareya micrantha* (Uw 22181). – Bar = 1 mm.

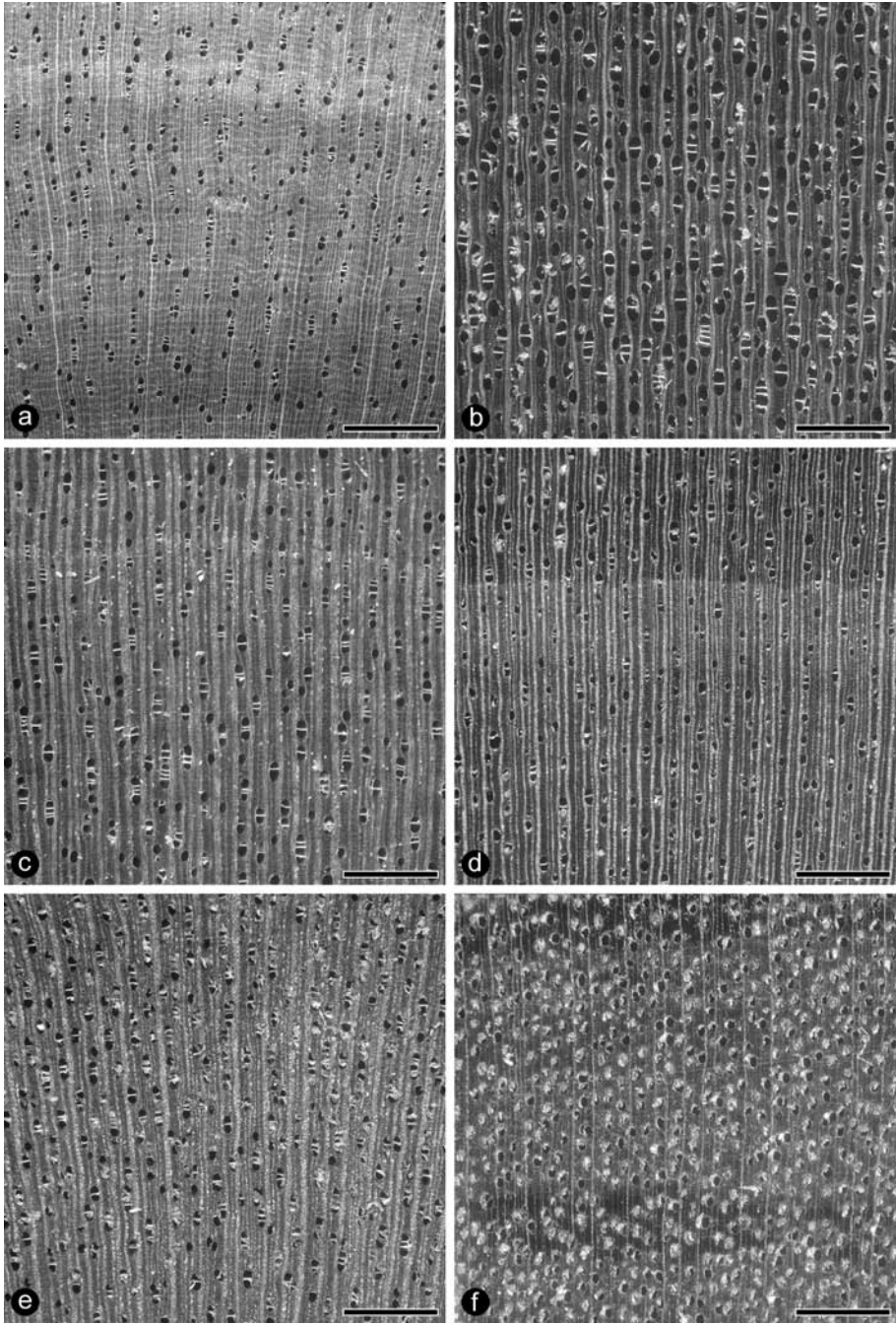


Fig. 53. a: *Mareyopsis oligogyne* (Uw 35080). – b: *Margaritaria discoidea* (Uw 10910). – c: *M. discoidea* (Uw 25934). – d: *M. nobilis* (Uw 7466). – e: *M. nobilis* (Uw 8376). – f: *Martretia quadricornis* (Uw 15478). – Bar = 1 mm.

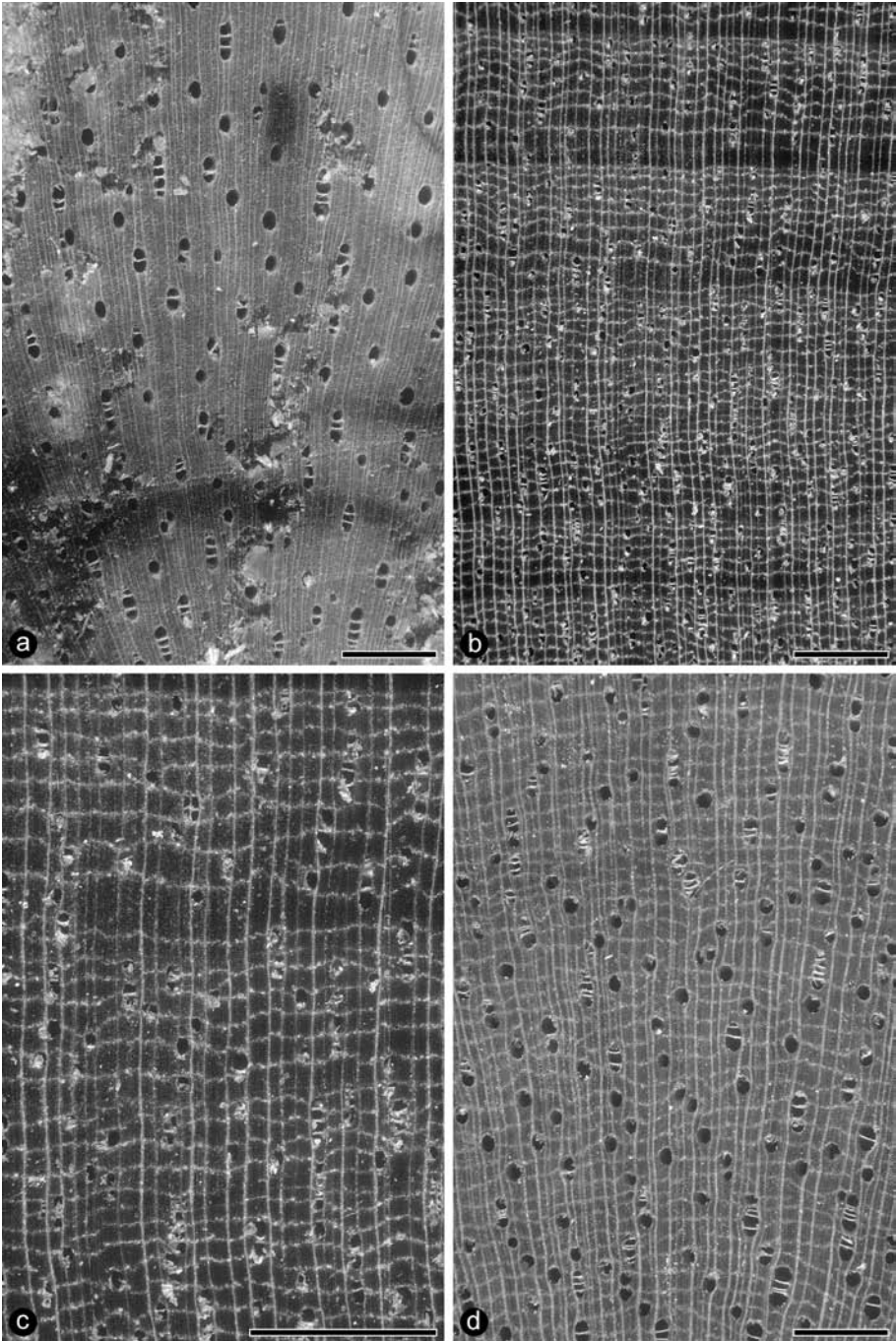


Fig. 54. a: *Melanolepis multiglandulosa* (Uw 36889). – b, c: *Micrandra elata* (Uw 1838). – d: *M. siphonoides* (Uw 9121). – Bar = 1 mm.

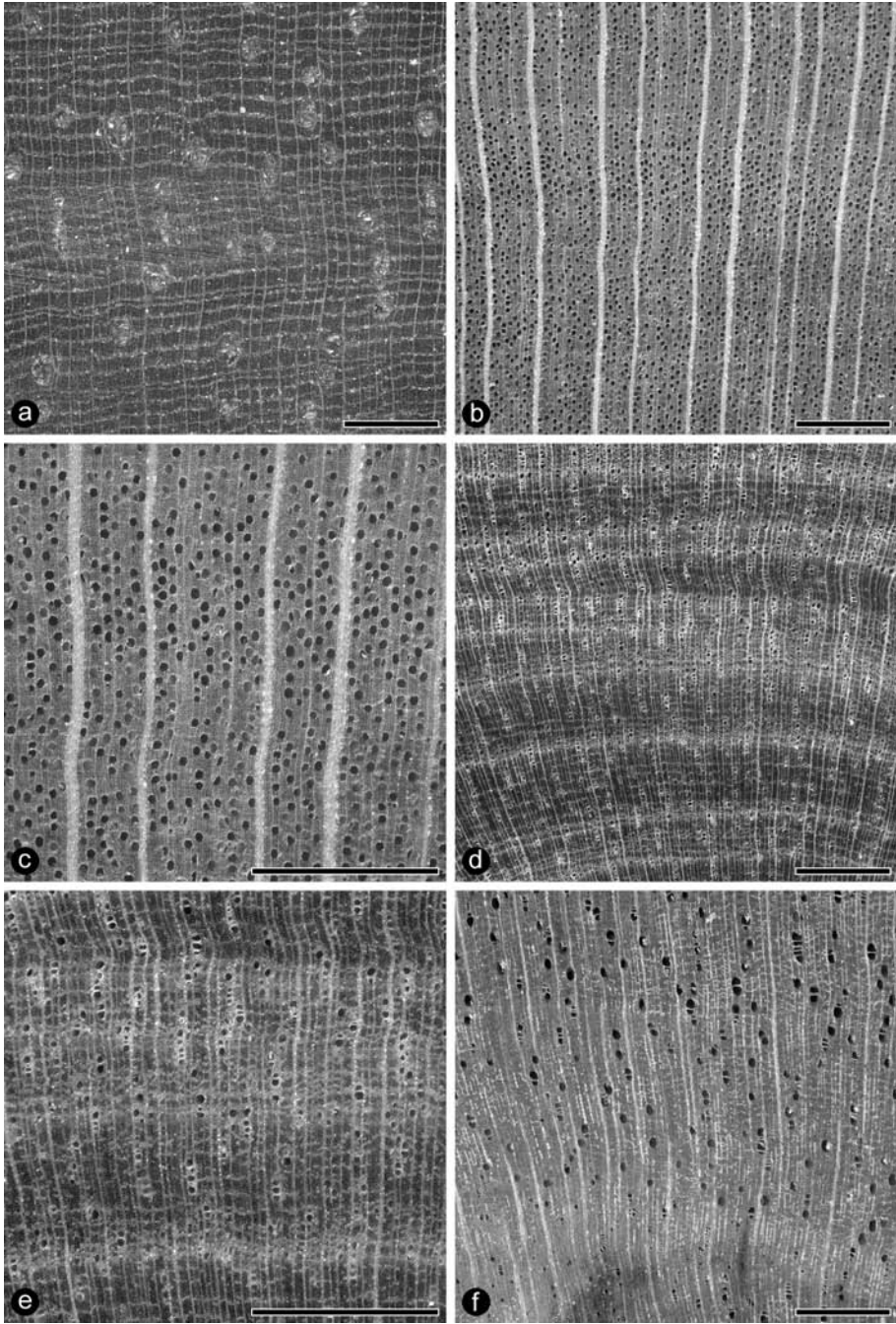


Fig. 55. a: *Micrandropsis scleroxylon* (Uw 20753). b, c: *Microdesmis puberula* (Uw 15480). – d, e: *Mischodon zeylanicus* (Uw 36882). – f: *Moultonianthus leembruggianus* (Uw 31770). – Bar = 1 mm.

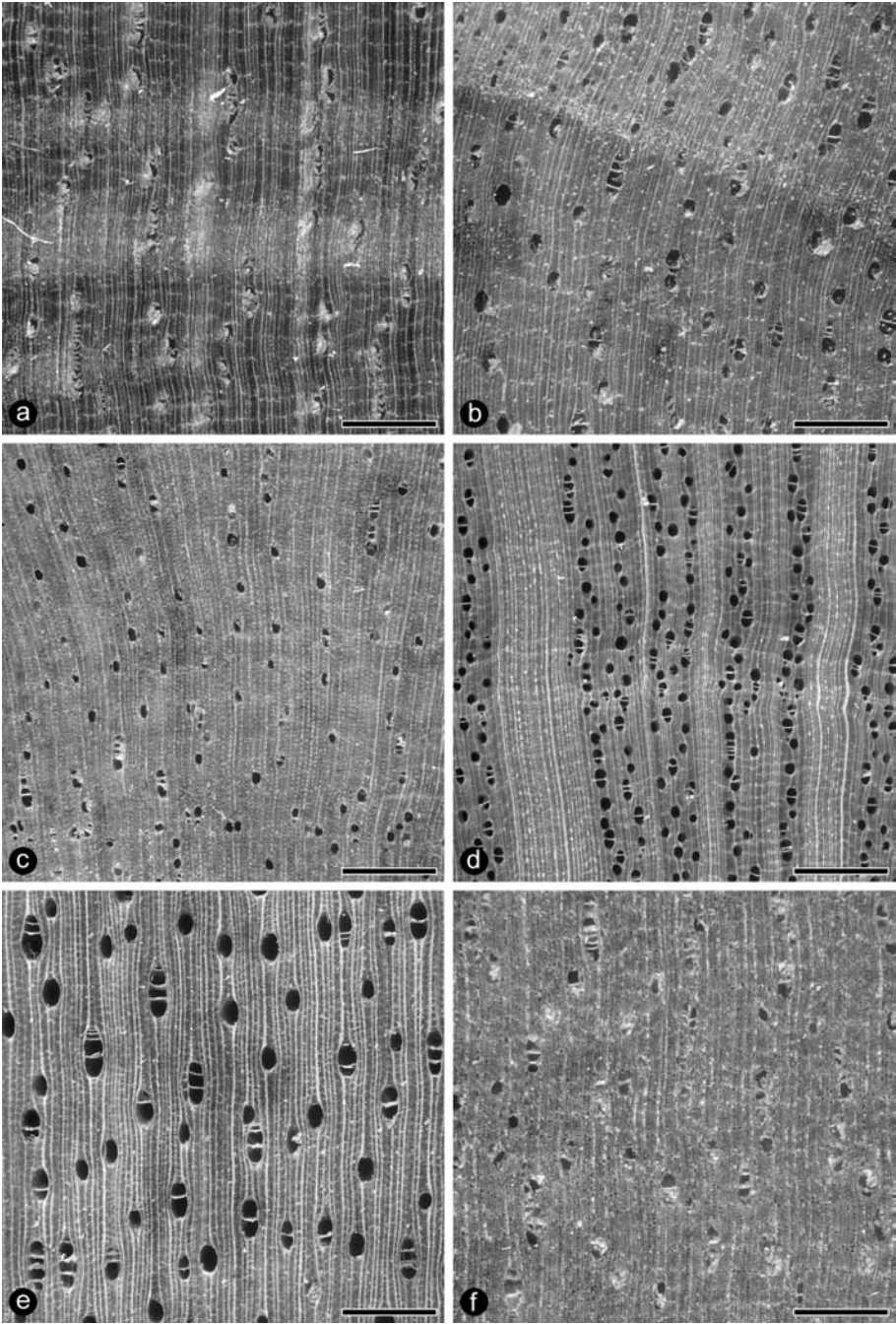


Fig. 56. c: *Nealchornea stipitata* (Uw 7661). – a: *N. yapurensis* (Uw 16162). – b: *N. yapurensis* (Uw 19869). – d: *Necepsia afzelii* (Uw 22182). – e: *Neoboutonia macrocalyx* (Uw 21728). – f: *Neoguillauminia cleopatra* (Uw 33124). – Bar = 1 mm.

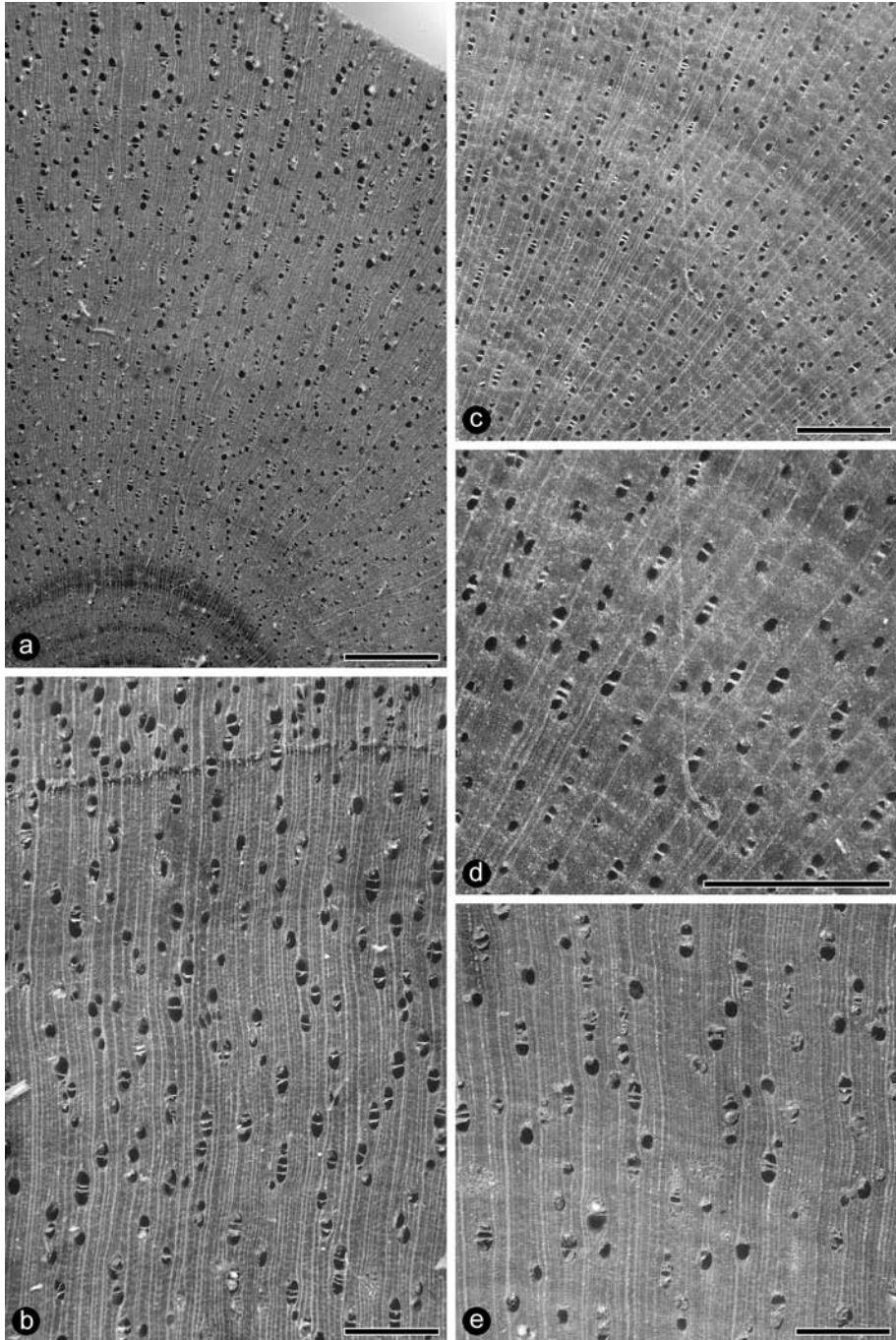


Fig. 57. a: *Neoscortechinia forbesii* (Uw 31870). – b: *N. nicobarica* (Uw 21368). – c, d: *Neoshirakia japonica* (Uw 31933) – e: *Neotrewia cumingii* (Uw 21369). – Bar = 1 mm.

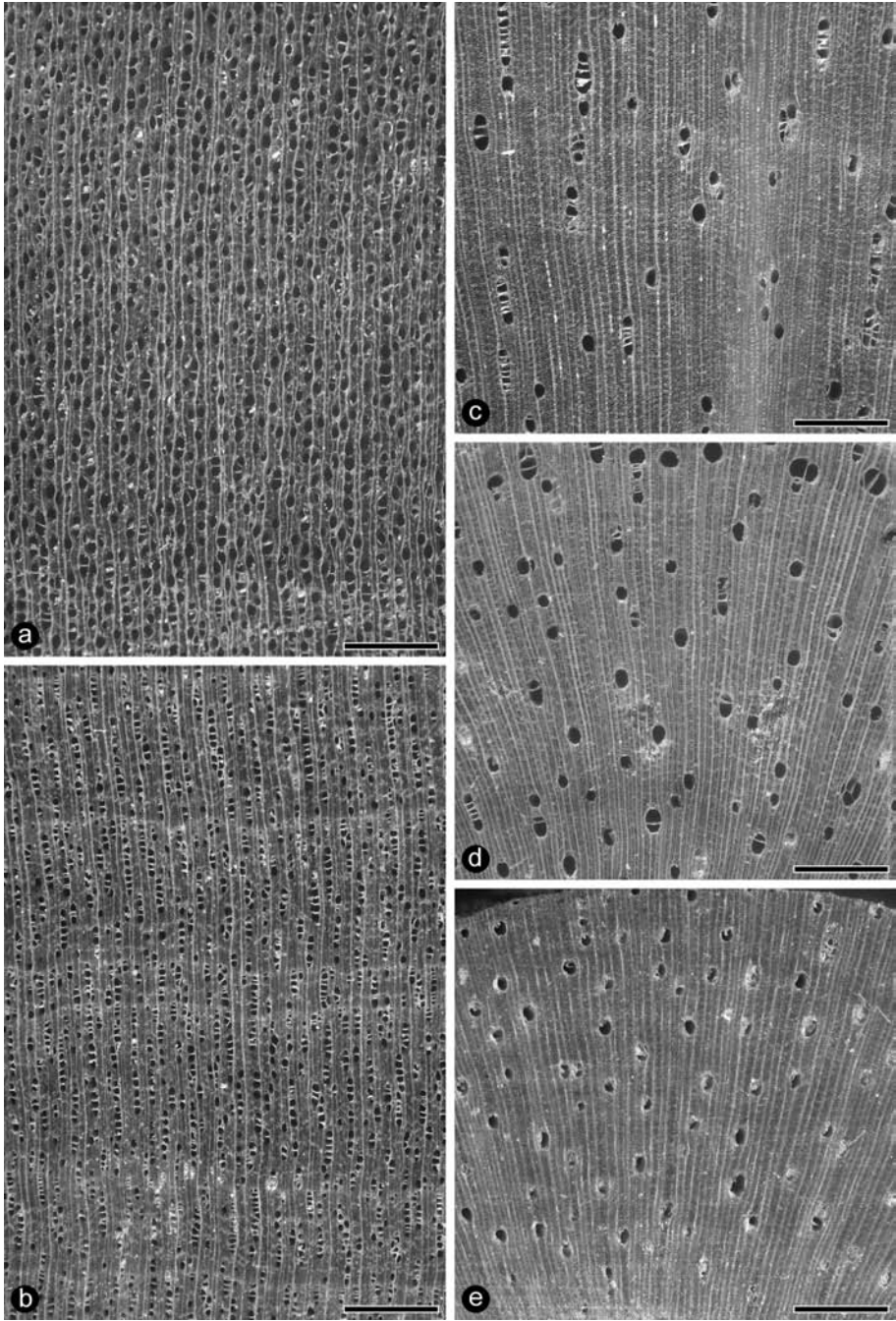


Fig. 58. a: *Oldfieldia africana* (Uw 14636). – b: *Oldfieldia dactylophylla* (Uw 10951). – c: *Omphalea diandra* (Uw 8349). – d: *O. diandra* (Uw 13834). – e: *O. queenslandiae* (Uw 31314). – Bar = 1 mm.

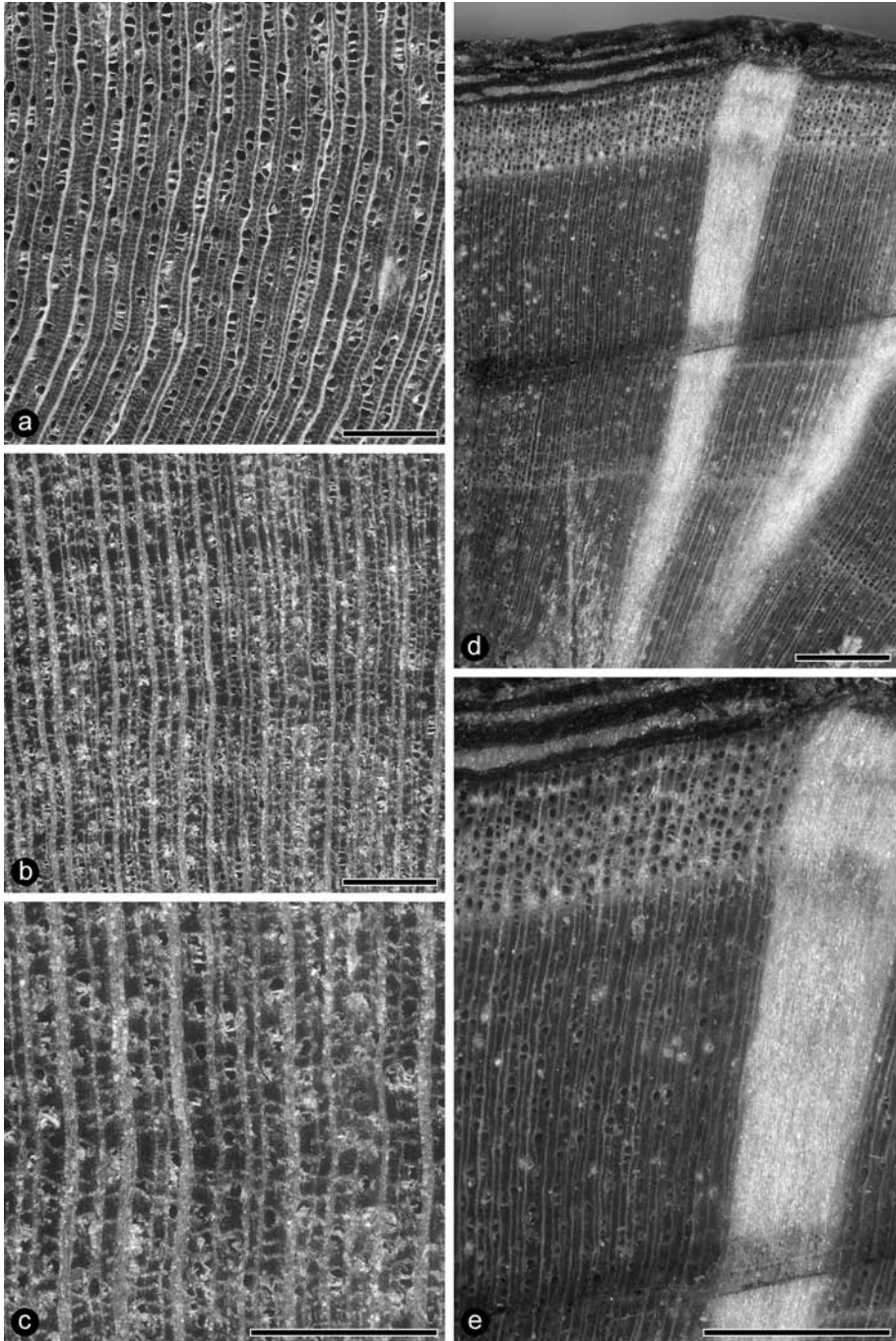


Fig. 59. a: *Panda oleosa* (Uw 18529). – b, c: *Paradrypeles subintegrifolia* (Uw 20164). – d, e: *Paradiodendron marginivillosum* (Uw 36884). – Bar = 1 mm.

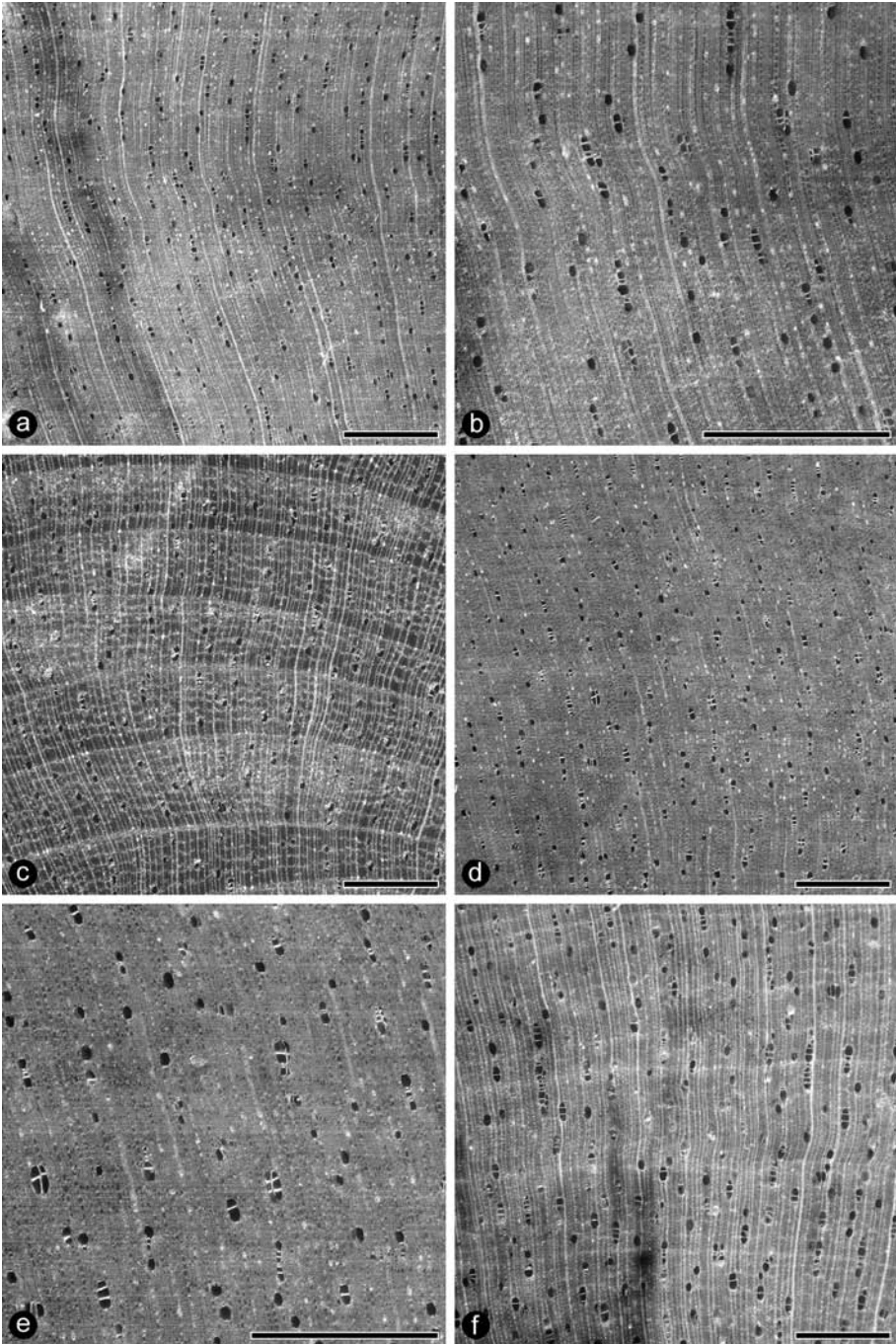


Fig. 60. a, b: *Pausandra hirsuta* (Uw 7469). – c: *P. martinii* (Uw 1973). – d, e: *P. martinii* (Uw 16852). – f: *P. morisiana* (Uw 6990). – Bar = 1 mm.

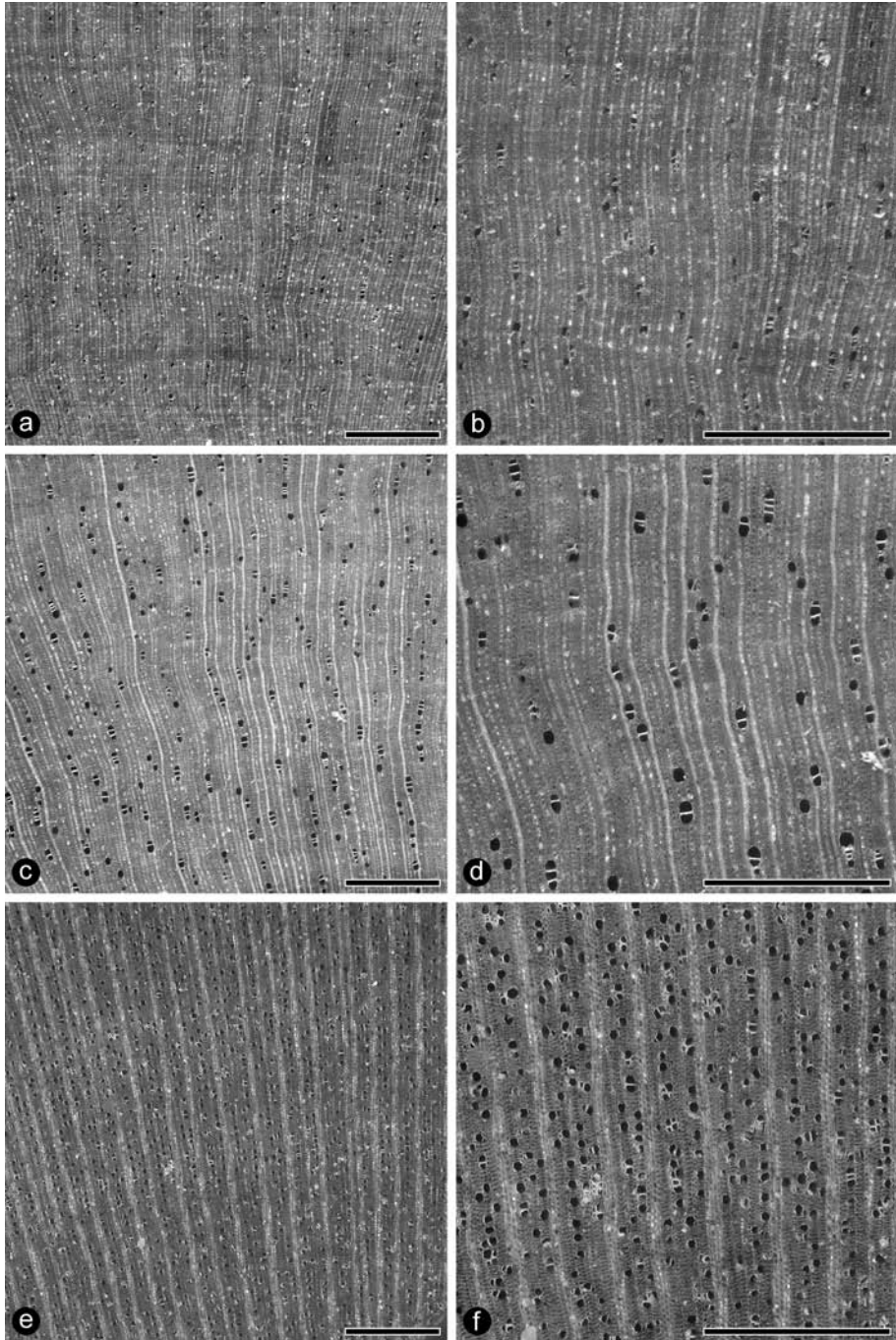


Fig. 61. a, b: *Pausandra trianae* (Uw 7483). – c, d: *P. trianae* (Uw 19974). – e, f: *Pentabrachion reticulatum* (Uw 14605). – Bar = 1 mm.

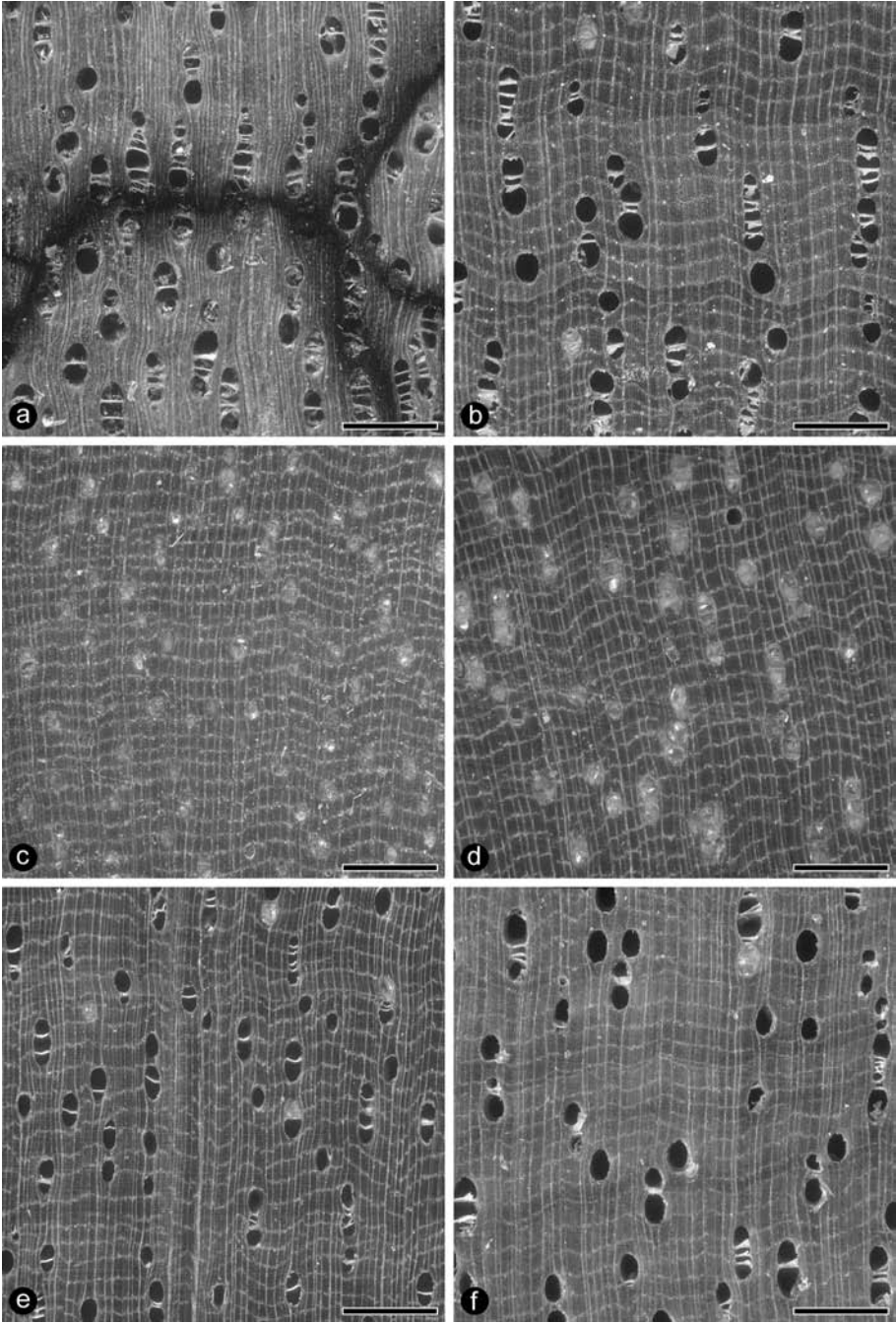


Fig. 62. a: *Pera arborea* (Uw 22247). – b: *P. bicolor* (Uw 82). – c: *P. bumeliifolia* (Uw 31985). – d: *P. cinerea* (Uw 19416). – e: *P. coccinea* (Uw 8190). – f: *P. decipiens* (Uw 8034). – Bar = 1 mm.

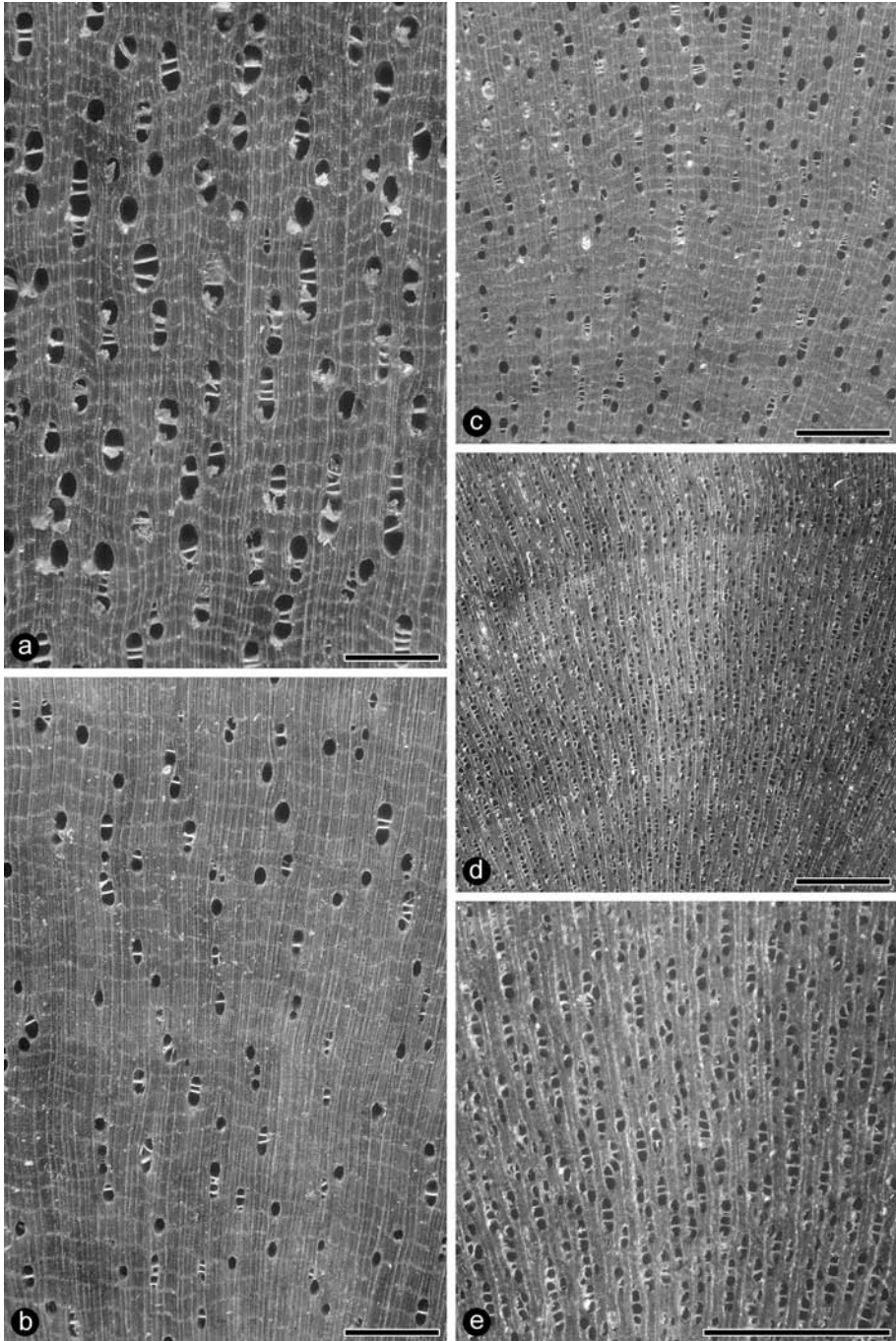


Fig. 63. a: *Pera glabrata* (Uw 17587). – b: *P. glabrata* (Uw 19159). – c: *P. obovata* (Uw 6955). – d, e: *Petalostigma* cf. *pubescens* (Uw 31201). – Bar = 1 mm.

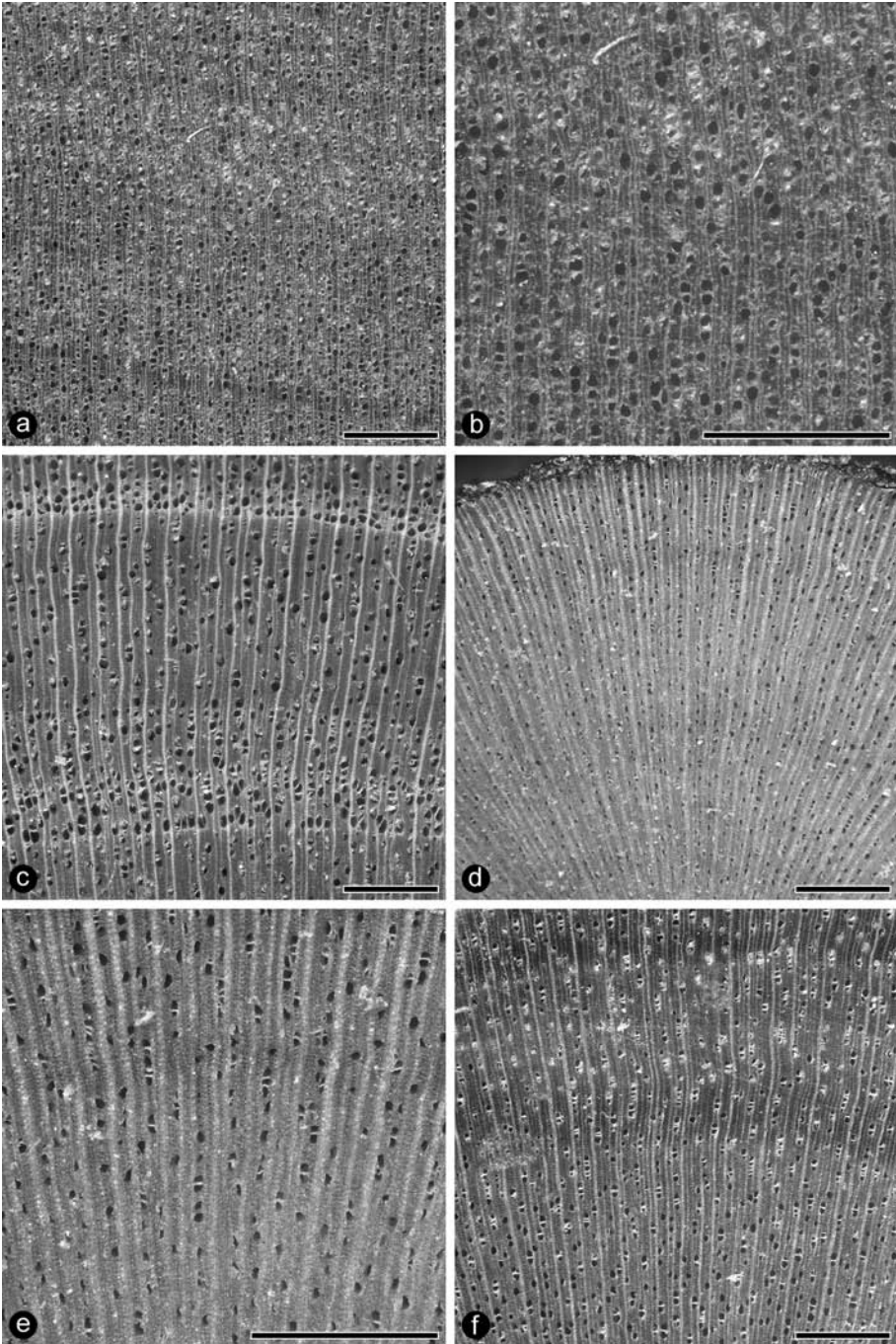


Fig. 64. a, b: *Petalostigma quadriloculare* (Uw 10948). – c: *Phyllanthus acuminatus* (Uw 11853). – d, e: *P. adiantoides* (Uw 32178). – f: *P. attenuatus* (Uw 6655). – Bar = 1 mm.

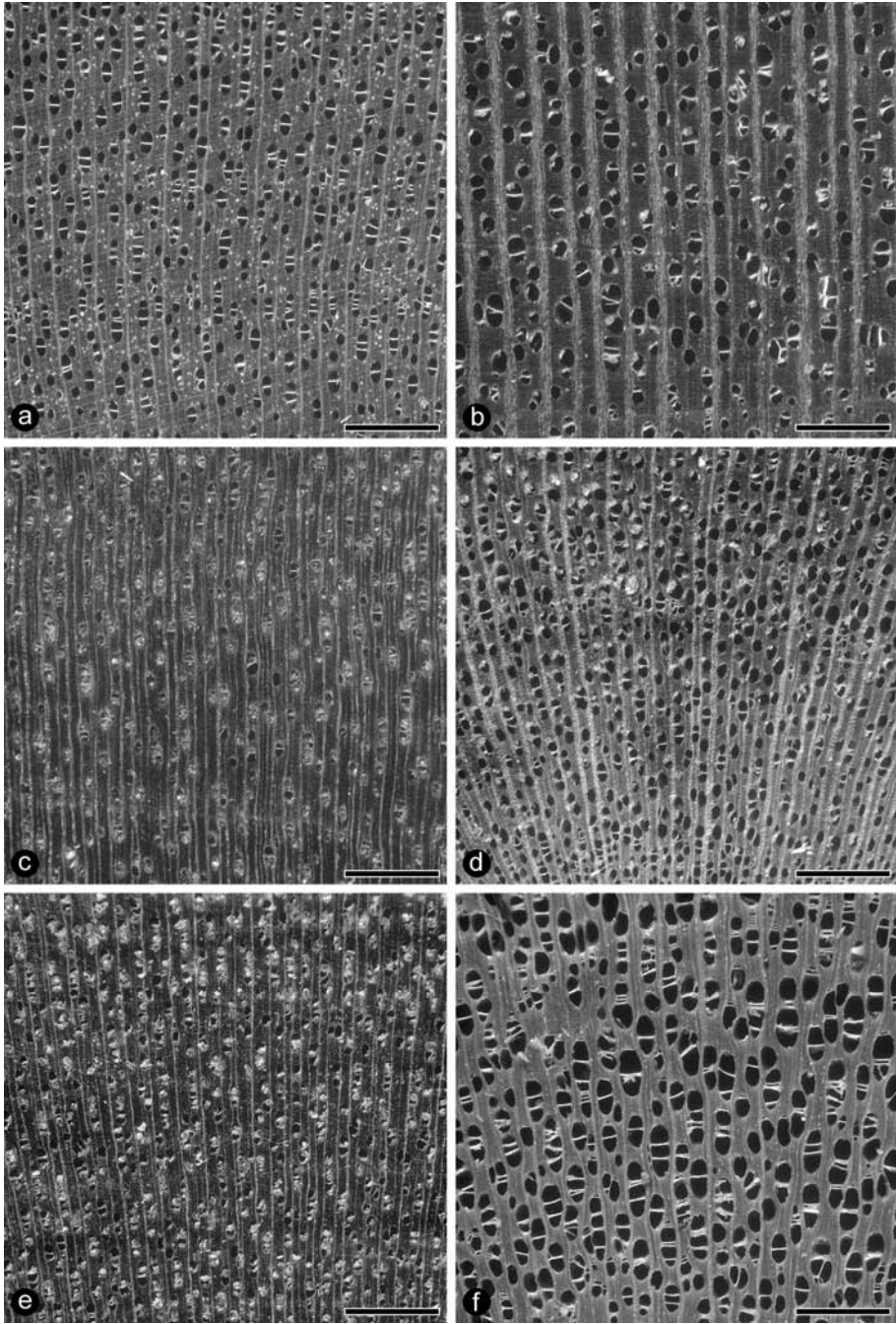


Fig. 65. a: *Phyllanthus cladotrichus* (Uw 19852a). – b: *P. emblica* (Uw 21399). – c: *P. indicus* (Uw 10905). – d: *P. juglandifolius* subsp. *cornifolius* (Uw 31189). – e: *P. madeirensis* (Uw 8204). – f: *P. muellerianus* (Uw 9437). – Bar = 1 mm.

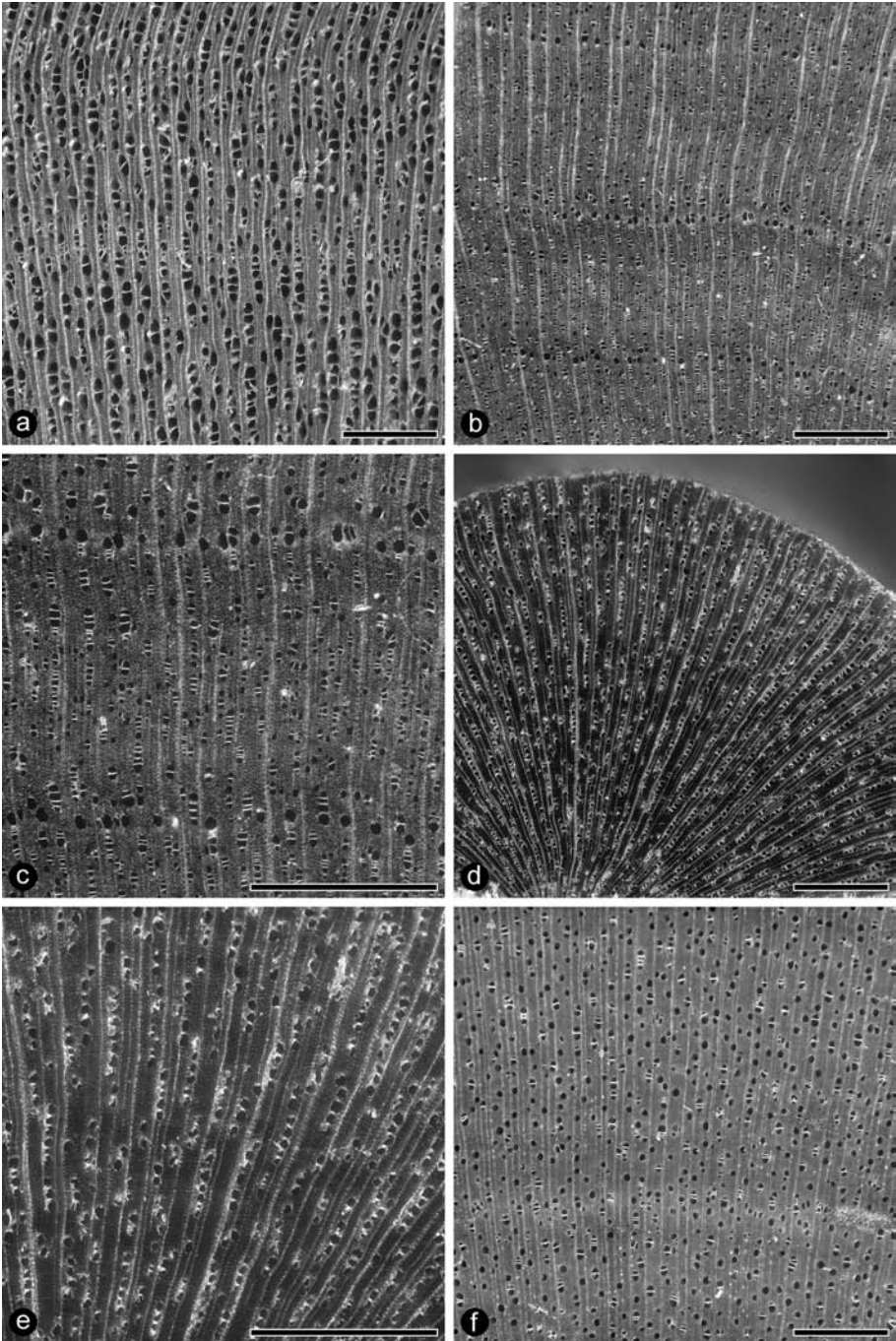


Fig. 66. a: *Phyllanthus salviifolius* (Uw 10999). – b, c: *P. sellowianus* (Uw 14074). – d, e: *P. vacciniifolius* (Uw 27338). – f: *P. valleanus* (Uw 25113). – Bar = 1 mm.

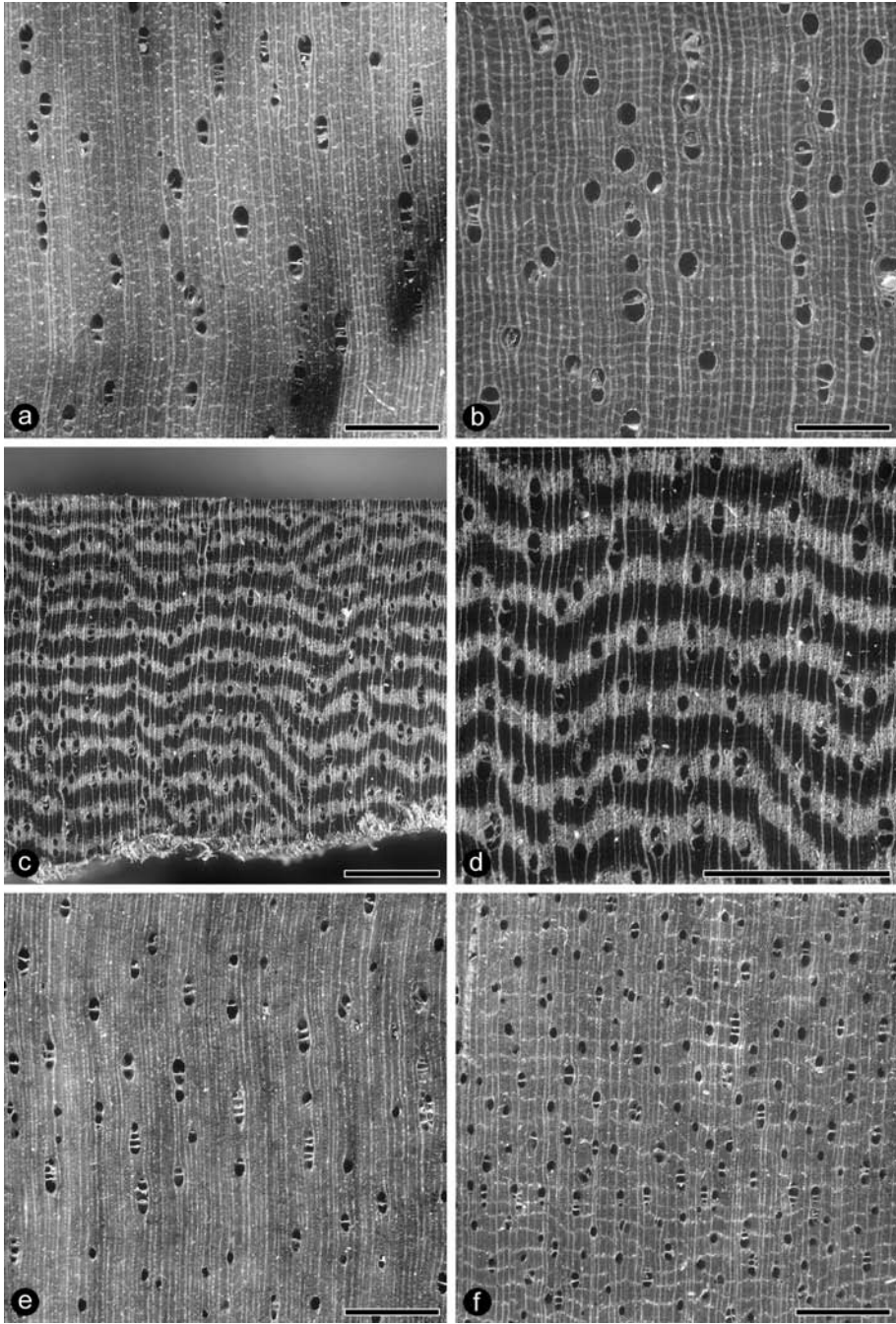


Fig. 67. a: *Pimelodendron amboinicum* (Uw 18197). – b: *P. papuanum* (Uw 18125). – c, d: *Piranhea trifoliata* (Uw 7524). – e: *Plagiostyles africana* (Uw 22184). – f: *Pleradenophora longicuspis* (Uw 18022). – Bar = 1 mm.

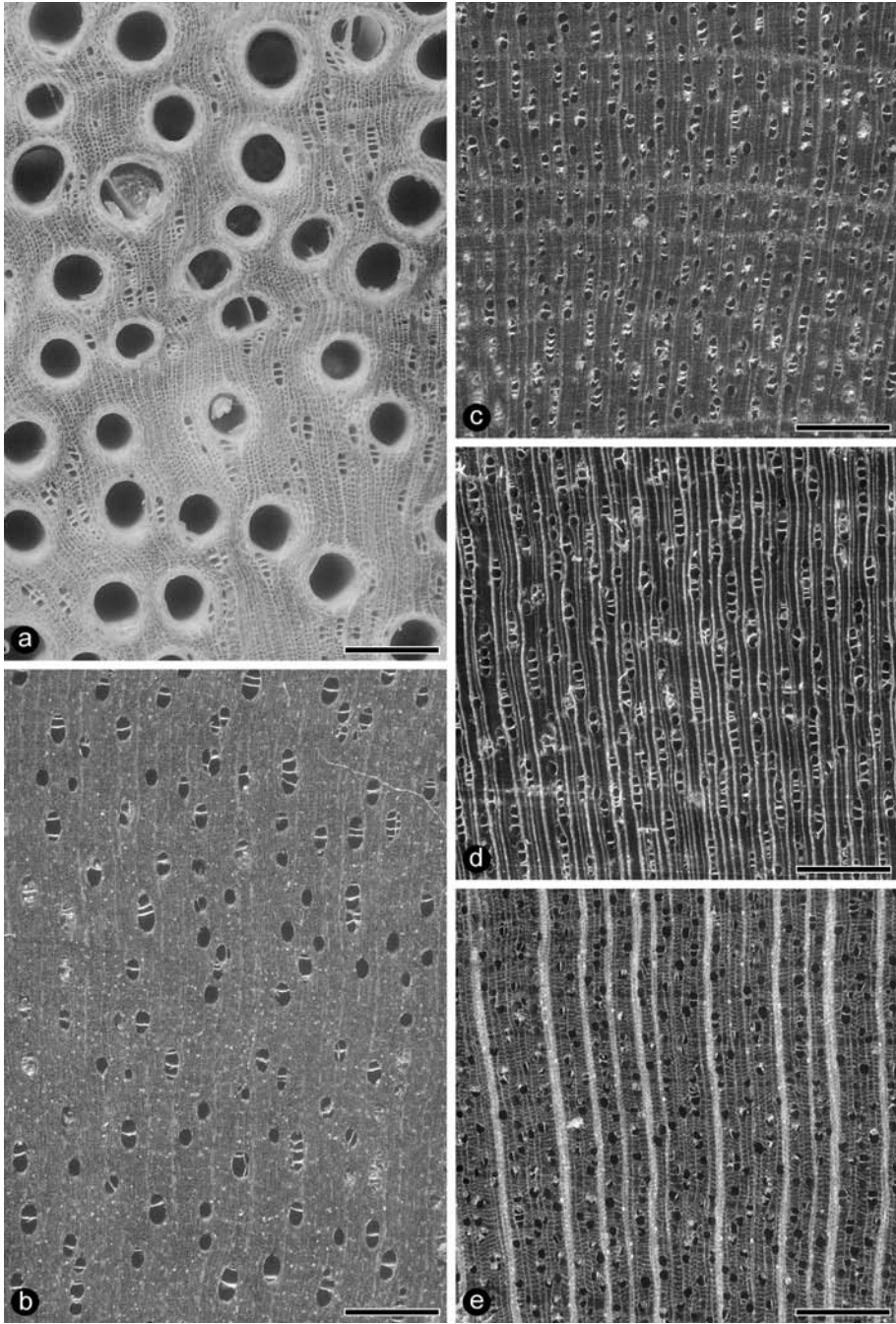


Fig. 68. a: *Plukenetia polyadenia* (Uw 11789). – b: *Podadenia javanica* (Uw 21371). – c: *Pogonophora schomburgkiana* (Uw 296). – d: *P. schomburgkiana* (Uw 9671). – e: *Protomegarbaria stapfiana* (Uw 14639). – Bar = 1 mm.

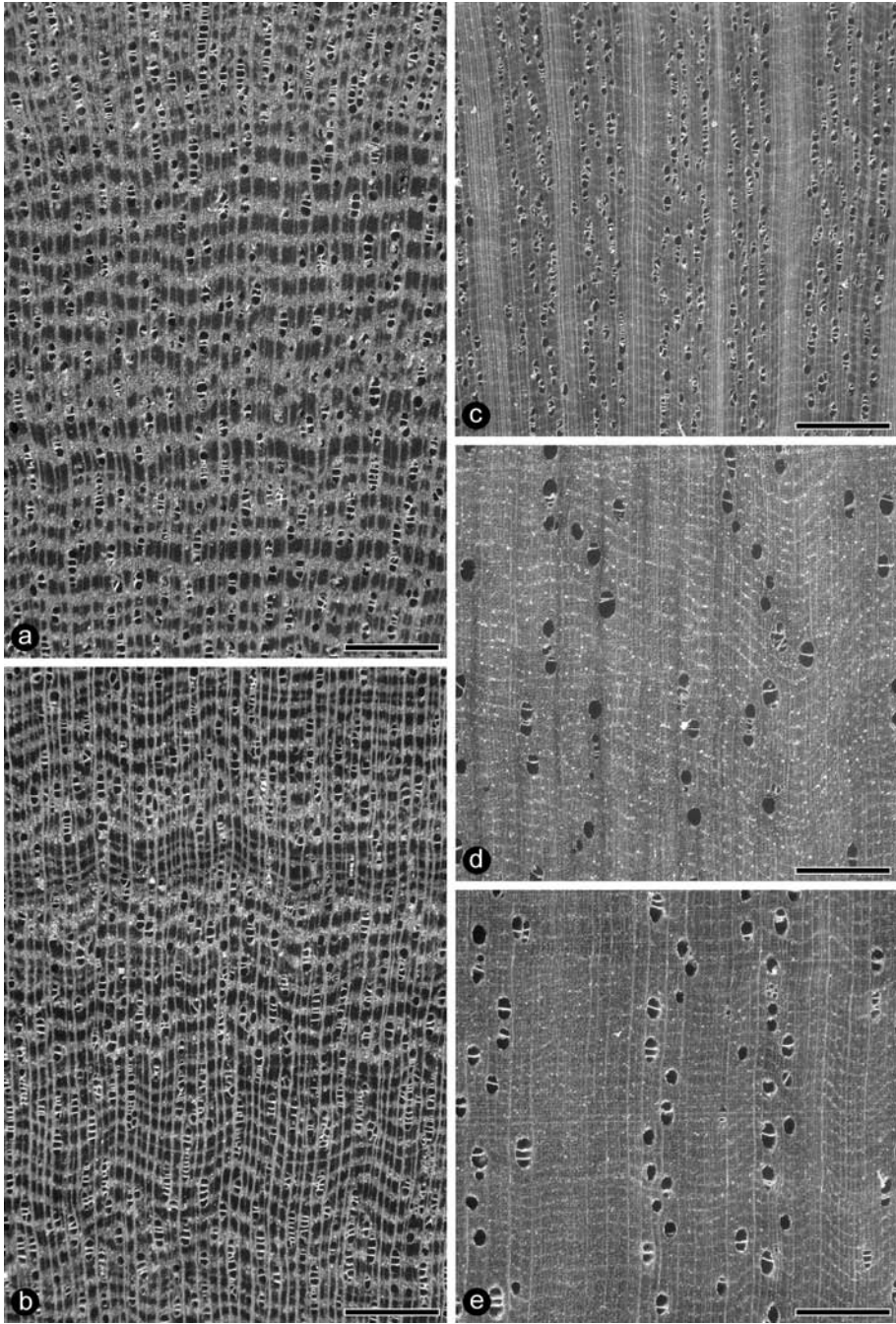


Fig. 69. a: *Pseudolachnostylis glauca* (Uw 15645). – b: *P. maprouneifolia* (Uw 11057). – c: *Pseudosenefeldera inclinata* (Uw 14652). – d: *Ptychopyxis costata* (Uw 21372). – e: *P. costata* (Uw 21421). – Bar = 1 mm.

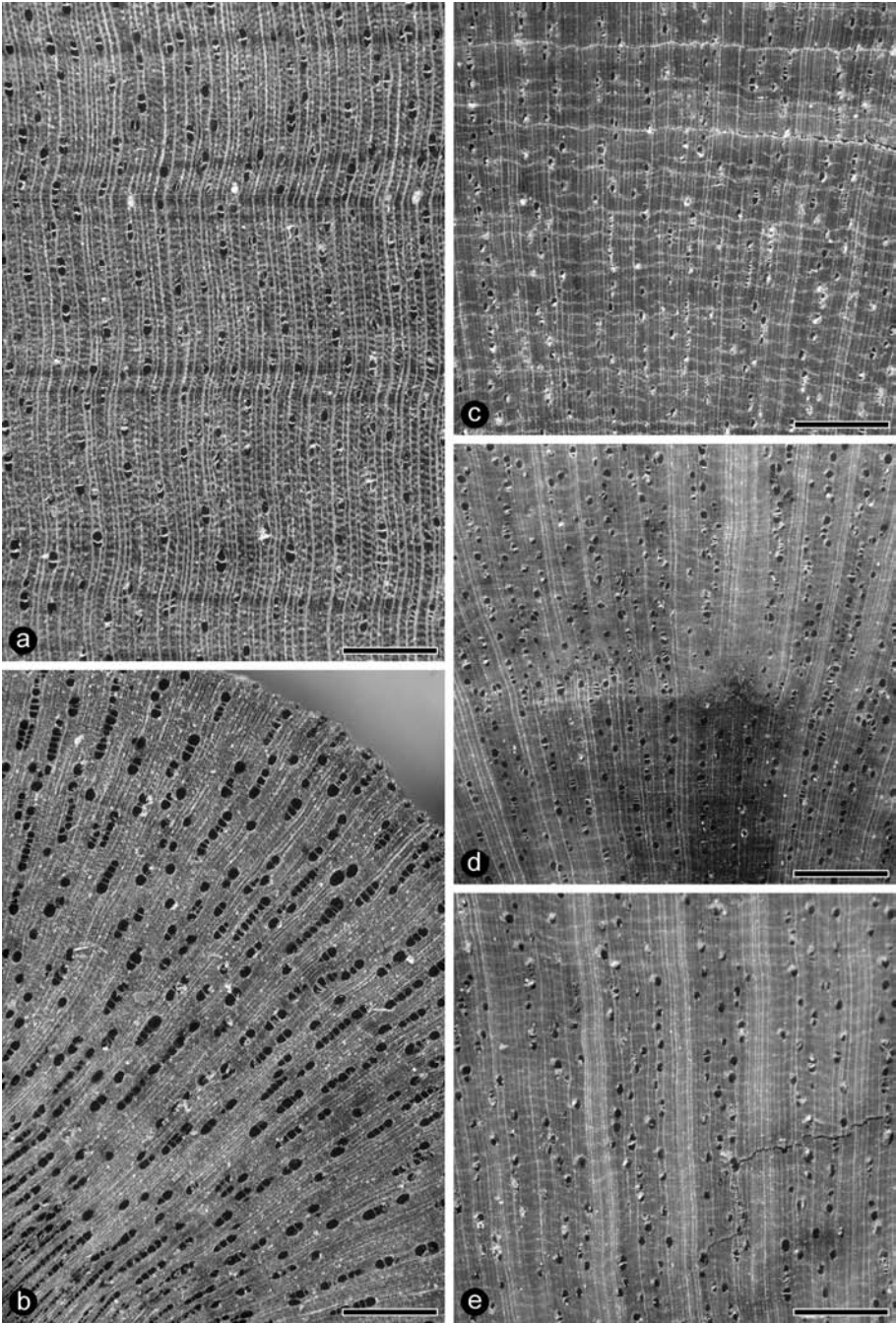


Fig. 70. a: *Putranjiva roxburghii* (Uw 10908). – b: *Reutealis trisperma* (Uw 31310). – c: *Rhodothyrsus macrophyllus* (Uw 8208). – d: *R. macrophyllus* (Uw 34037). – e: *R. macrophyllus* (Uw 36055). – Bar = 1 mm.

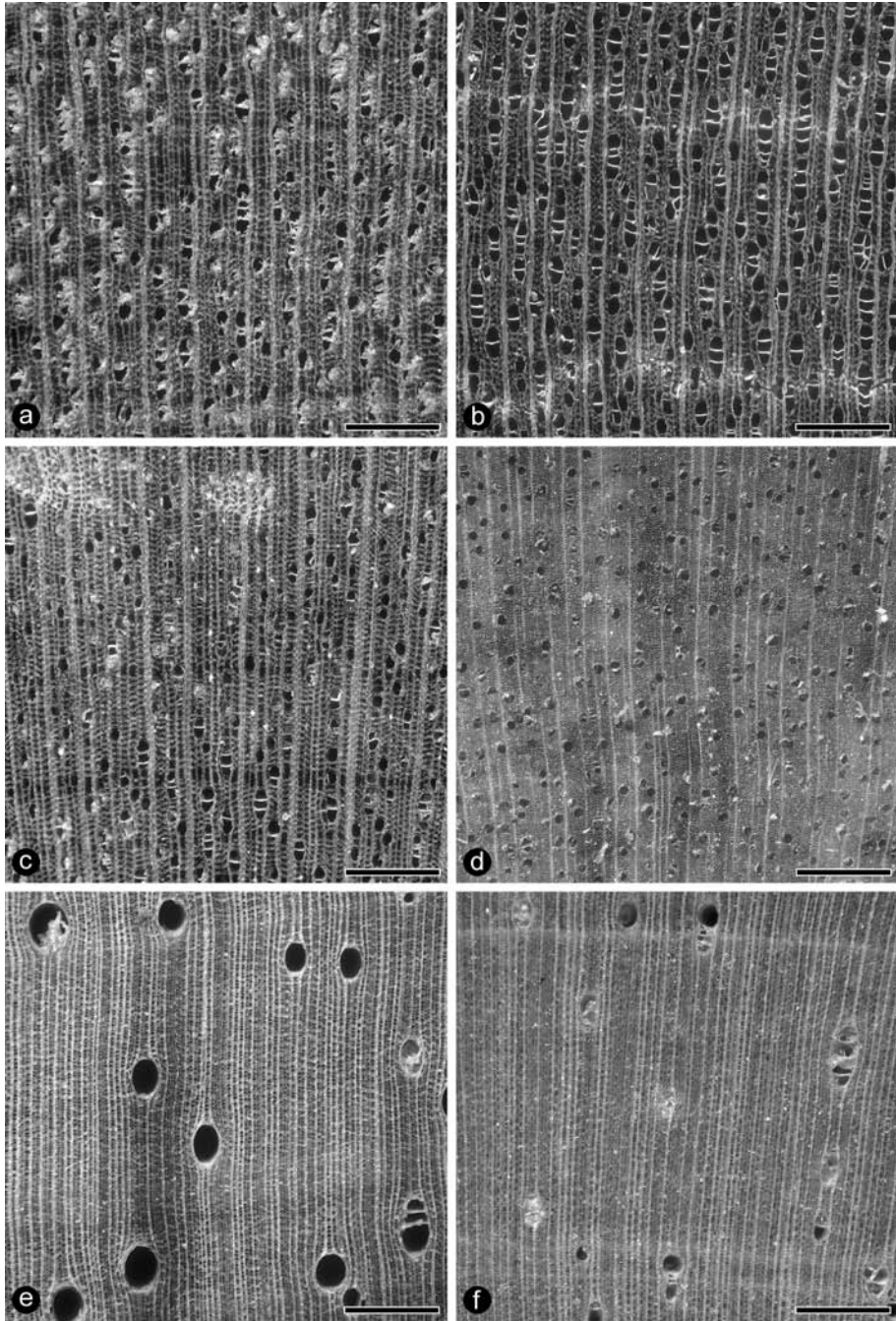


Fig. 71. a: *Richeria racemosa* (Uw 8045). – b: *R. racemosa* (Uw 8259). – c: *R. submembranacea* (Uw 14643). – d: *Ricinodendron gracilius* (Uw 15653). – e: *R. heudelotii* subsp. *africanum* (Uw 24475). – f: *R. rautaneni* (Uw 10292). – Bar = 1 mm.

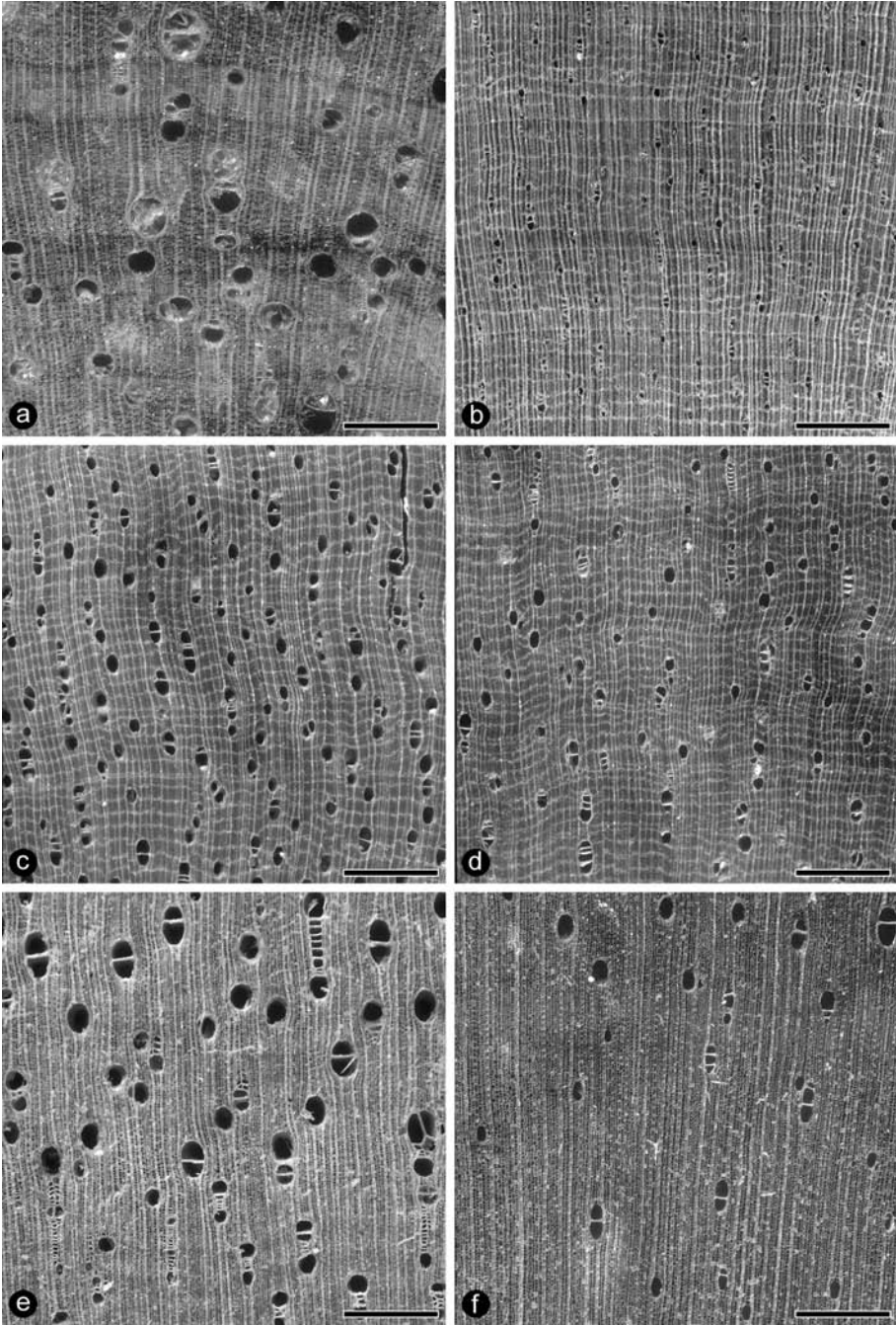


Fig. 72. a: *Ricinodendron schliebenii* (Uw 15869). – b: *Sagotia racemosa* subsp. *racemosa* (Uw 311). – c: *S. racemosa* subsp. *brachysepala* (Uw 26535). – d: *Sandwithia guyanensis* (Uw 878). – e: *Sapium glandulosum* (Uw 730). – f: *S. glandulosum* (Uw 7520). – Bar = 1 mm.

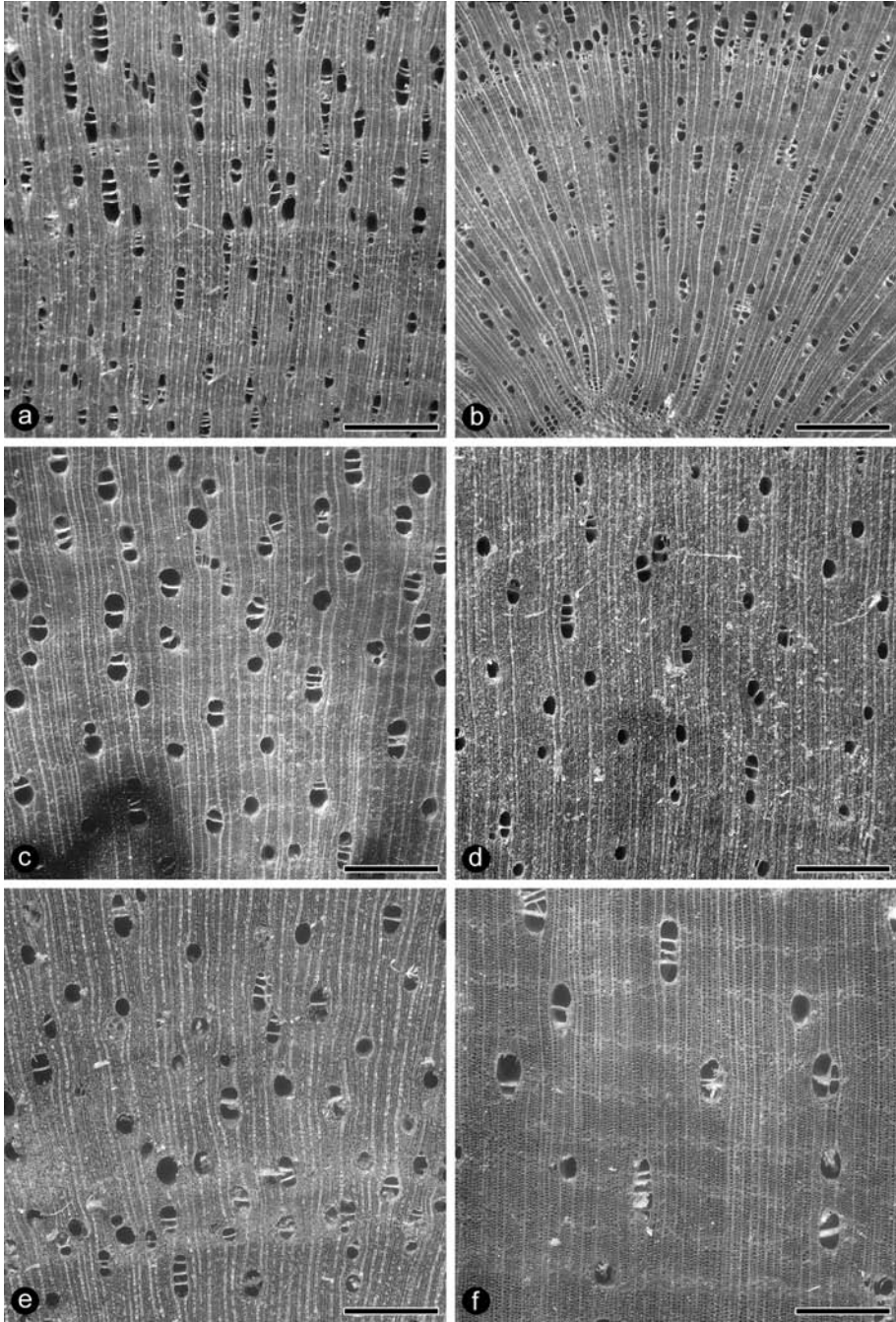


Fig. 73. a: *Sapium glandulosum* (Uw 32730). – b: *S. haematospermum* (Uw 14181). – c: *S. laurifolium* (Uw 25445). – d: *S. laurifolium* (Uw 32727). – e: *S. macrocarpum* (Uw 27903). – f: *S. marmieri* (Uw 16161). – Bar = 1 mm.

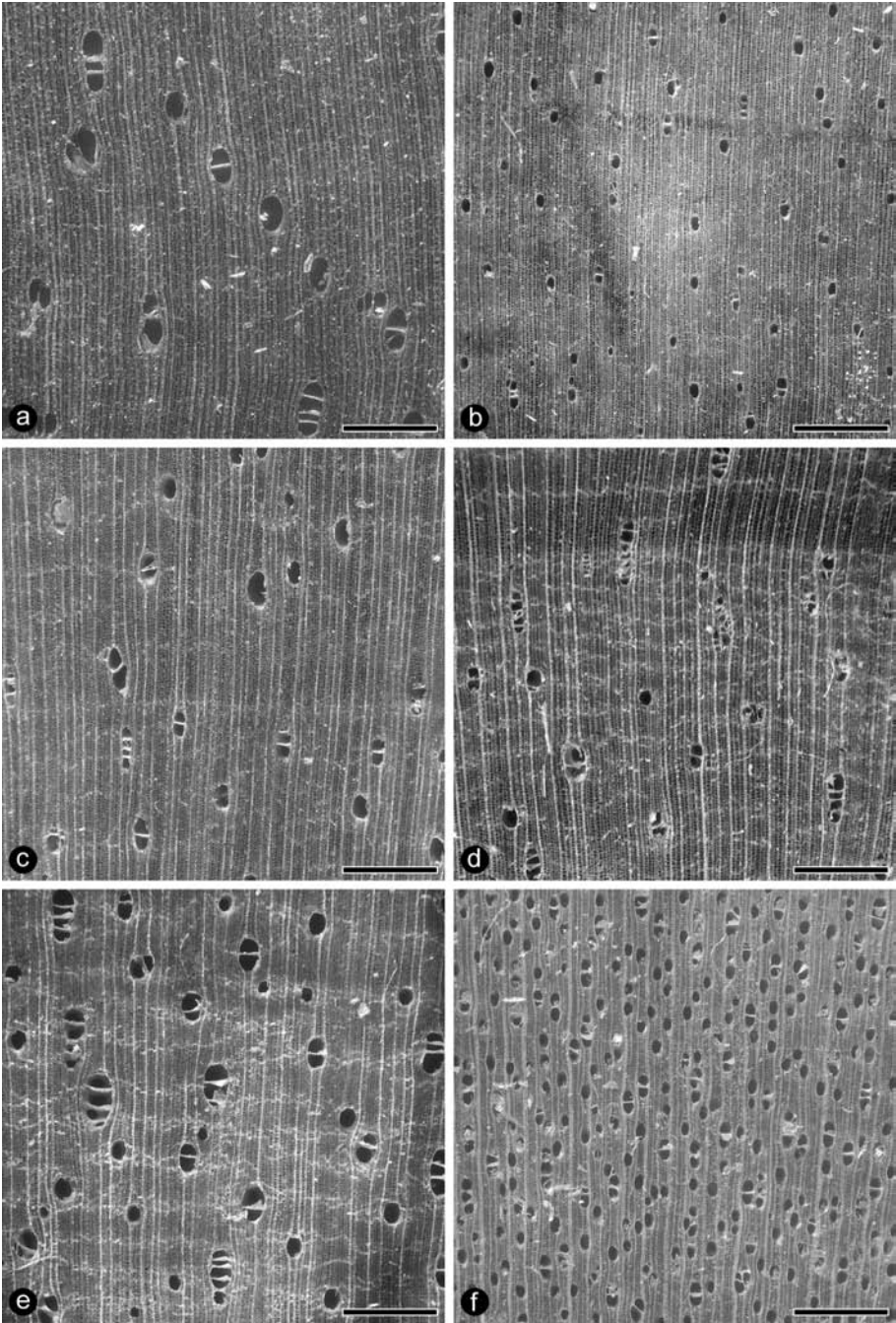


Fig. 74. a: *Sapium obovatum* (Uw 7632). – b: *S. pallidum* (Uw 32721). – c: *S. paucinervium* (Uw 879). – d: *S. paucinervium* (Uw 4088). – e: *S. stylare* (Uw 32731). – f: *Sauropus rhamnoides* (Uw 14646). – Bar = 1 mm.

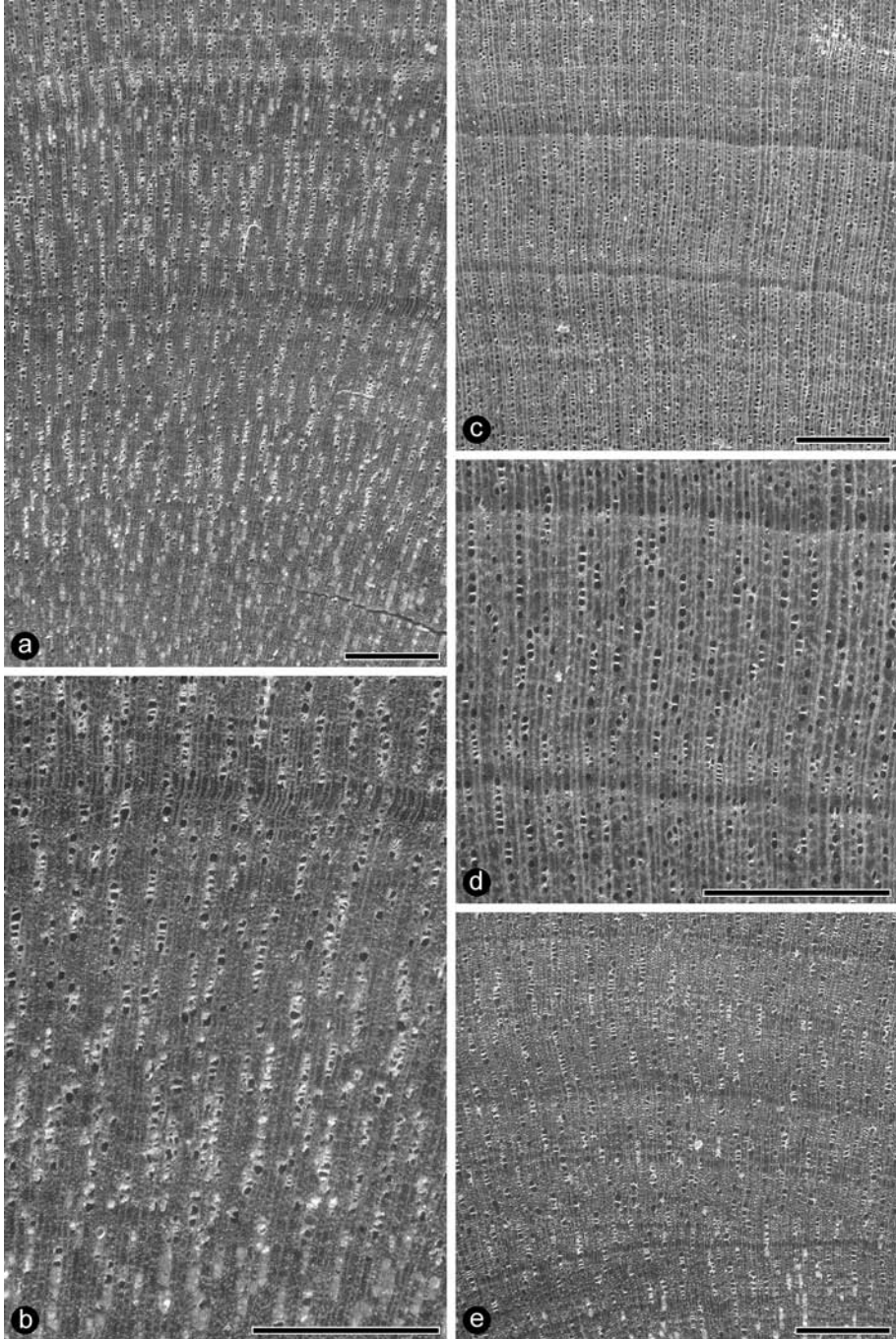


Fig. 75. a, b: *Savia bahamensis* (Uw 20272). – c, d: *S. dictyocarpa* (Uw 14579). – e: *S. laurifolia* (Uw 18712). – Bar = 1 mm.

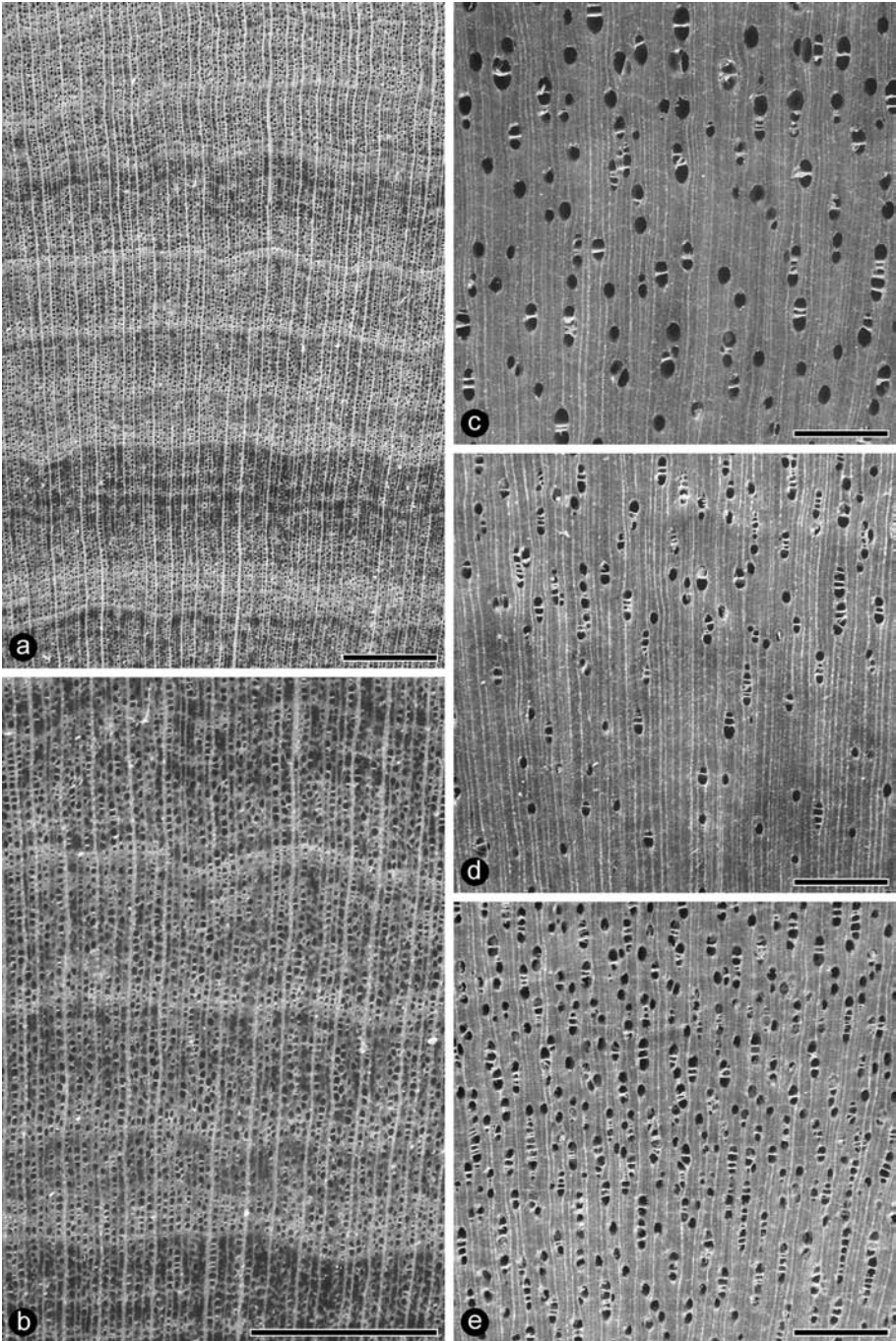


Fig. 76. a, b: *Savia sessiliflora* (Uw 18708). – c: *Sclerocroton cornutus* (Uw 32724). – d: *S. integerrimus* (Uw 15617). – e: *S. schmitzii* (Uw 32733). – Bar = 1 mm.

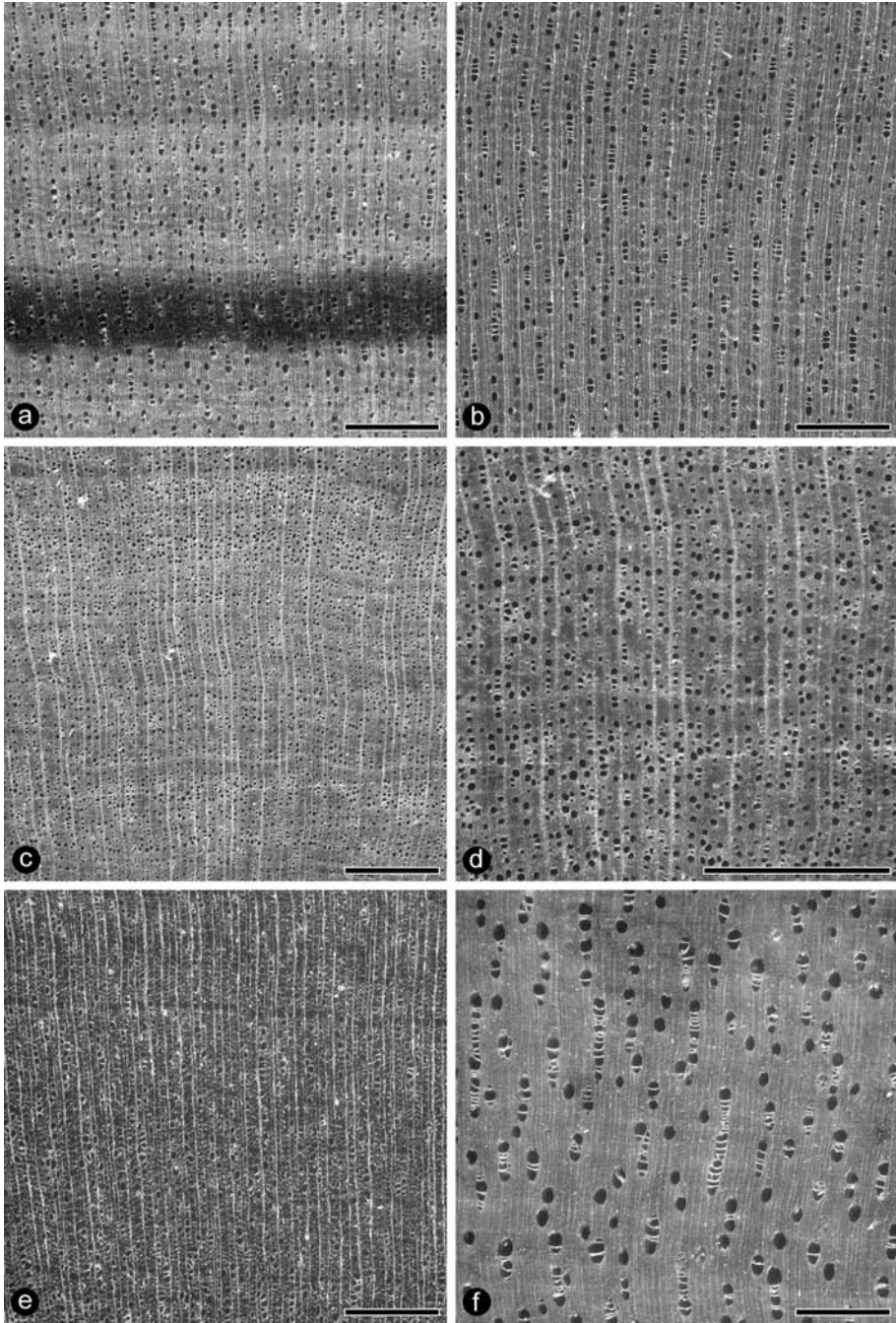


Fig. 77. a. *Sebastiania argutidens* (Uw 6343). – b: *S. brasiliensis* (Uw 13355). – c, d: *Securinega capuronii* (Uw 29592). – e: *S. durissima* (Uw 11055). – f: *Senefelderopsis croizatii* (Uw 27361). – Bar = 1 mm.

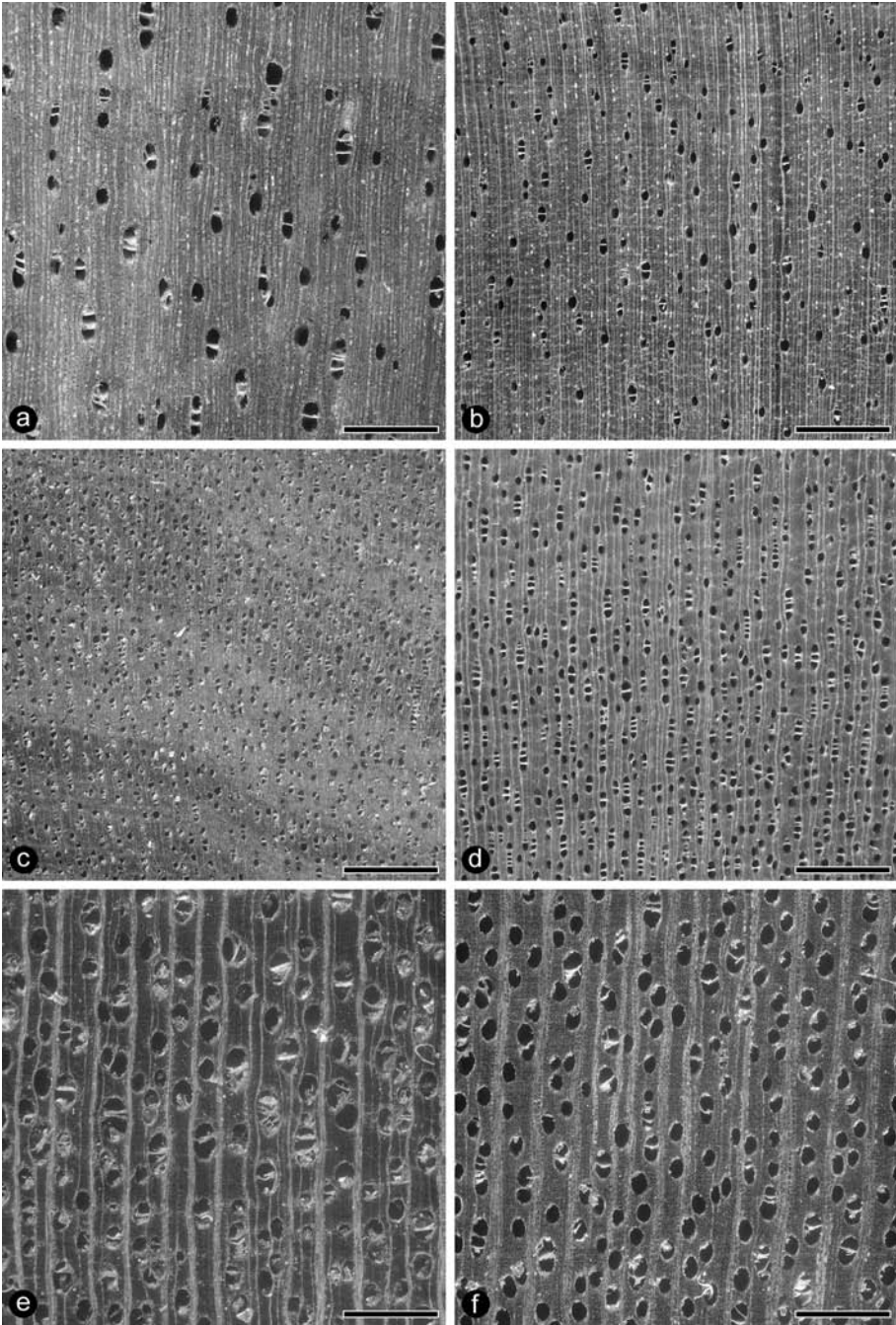


Fig. 78. a: *Shirakiopsis elliptica* (Uw 23409) – b: *Spathiostemon javensis* (Uw 21727). – c: *Spirostachys africana* (Uw 15667). – d: *S. africana* (Uw 23392). – e: *Spondianthus preussii* (Uw 14654). – f: *S. ugandensis* (Uw 14655). – Bar = 1 mm.

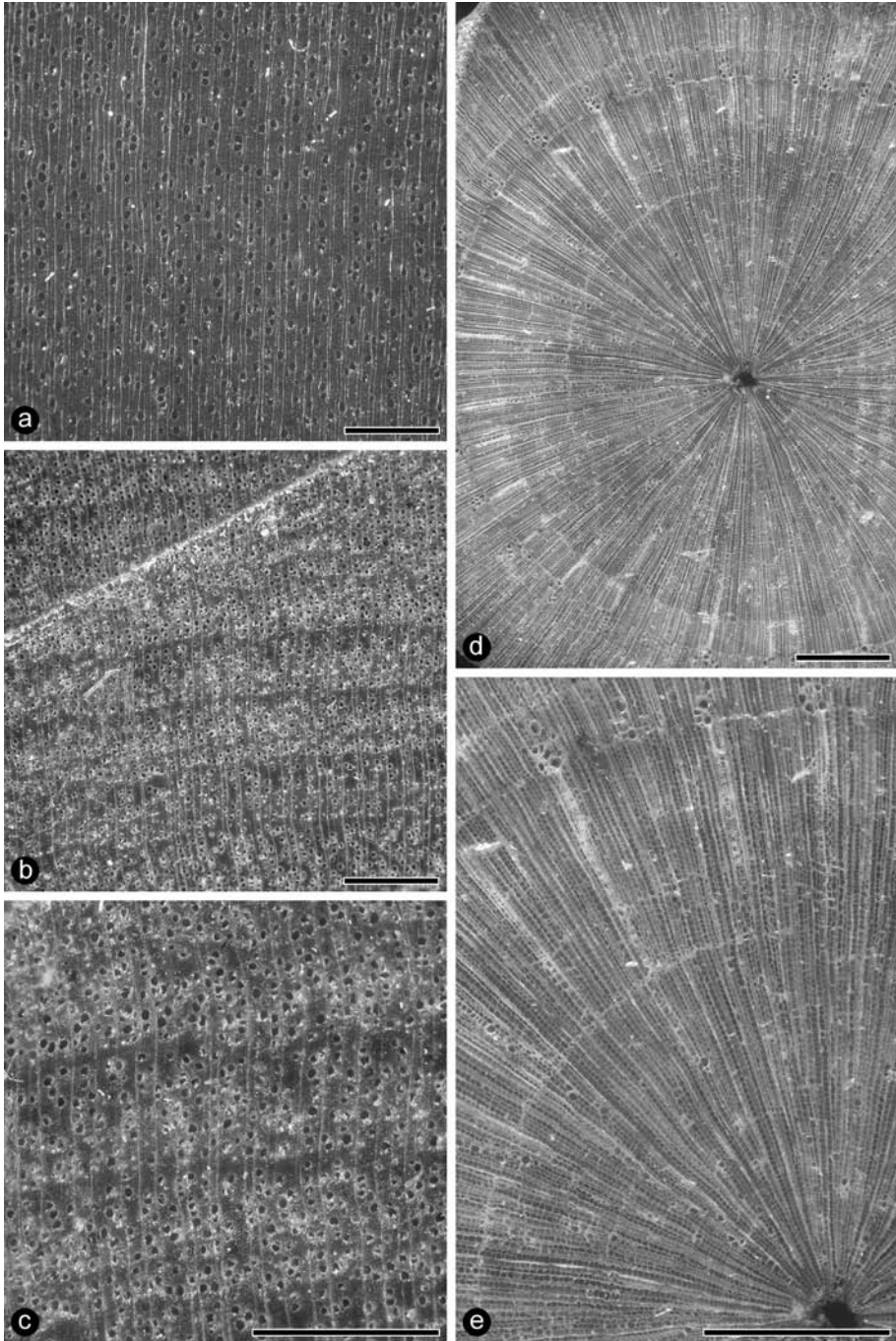


Fig. 79. a: *Stachyandra viticifolia* (Uw 36887). – b, c: *S. spec.* (Uw 36881). – d, e: *Stillingia aquatica* (Uw 34712). – Bar = 1 mm.

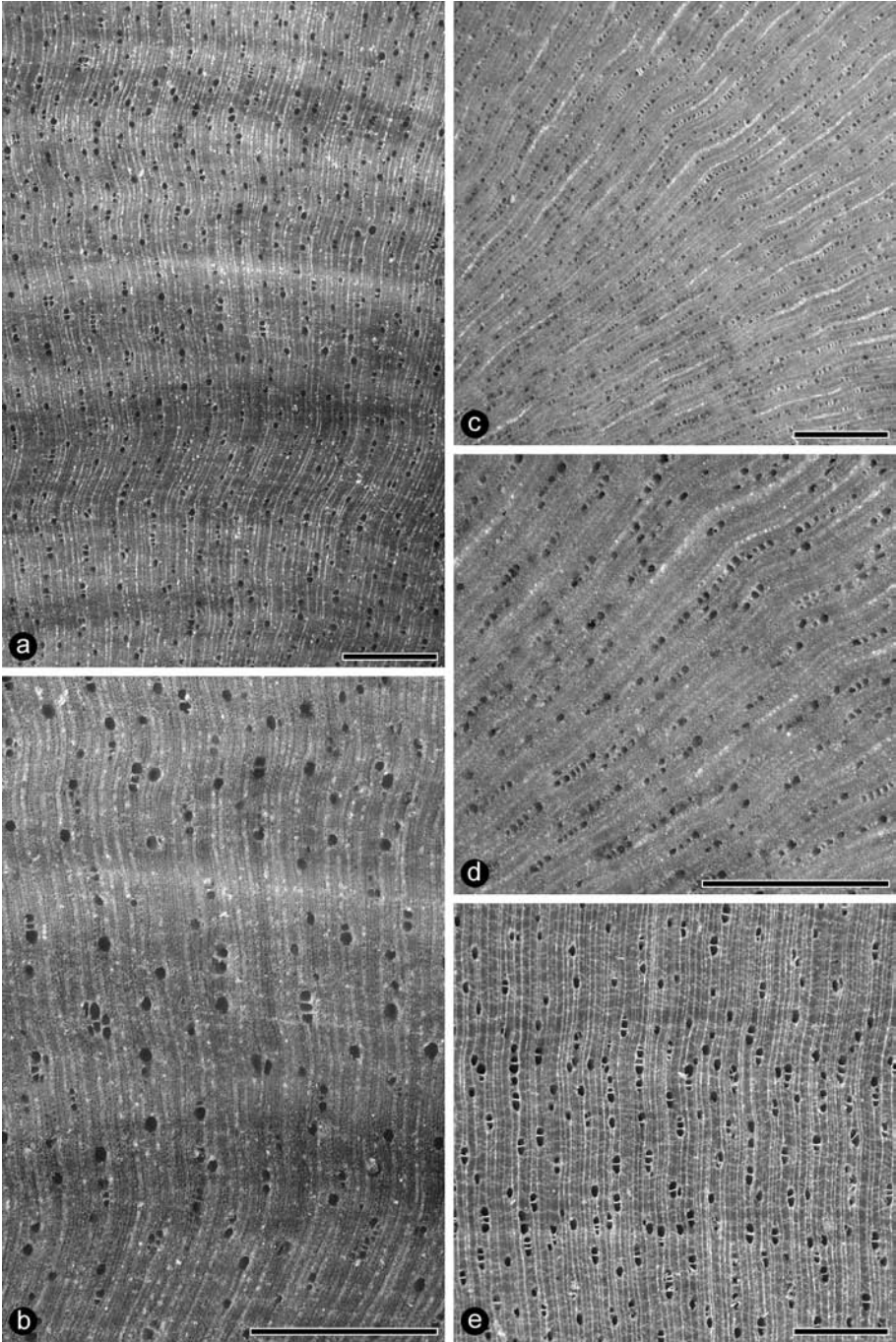


Fig. 80. a, b: *Stillingia lineata* subsp. *pacifica* (Uw 36303). – c, d: *Strophioblachia fimbricalyx* (Uw 31309). – e: *Suregada glomerulata* (Uw 31308). – Bar = 1 mm.

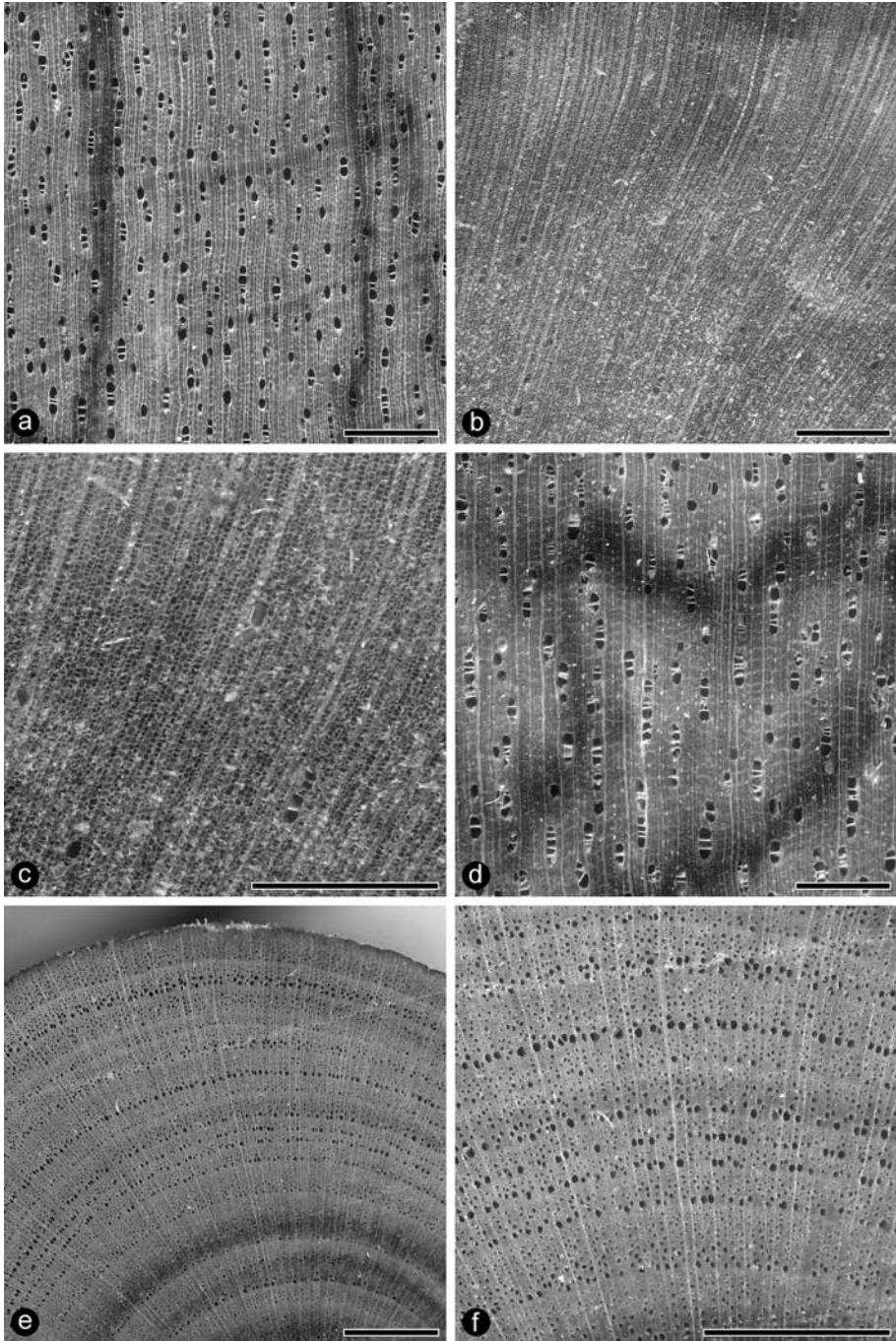


Fig. 81. a: *Suregada multiflora* (Uw 18047). – b, c: *Synadenium* sp. (Uw 25947). – d: *Syndyophyllum excelsum* (Uw 18257). – e, f: *Tetracoccus dioicus* (Uw 31184). – Bar = 1 mm.

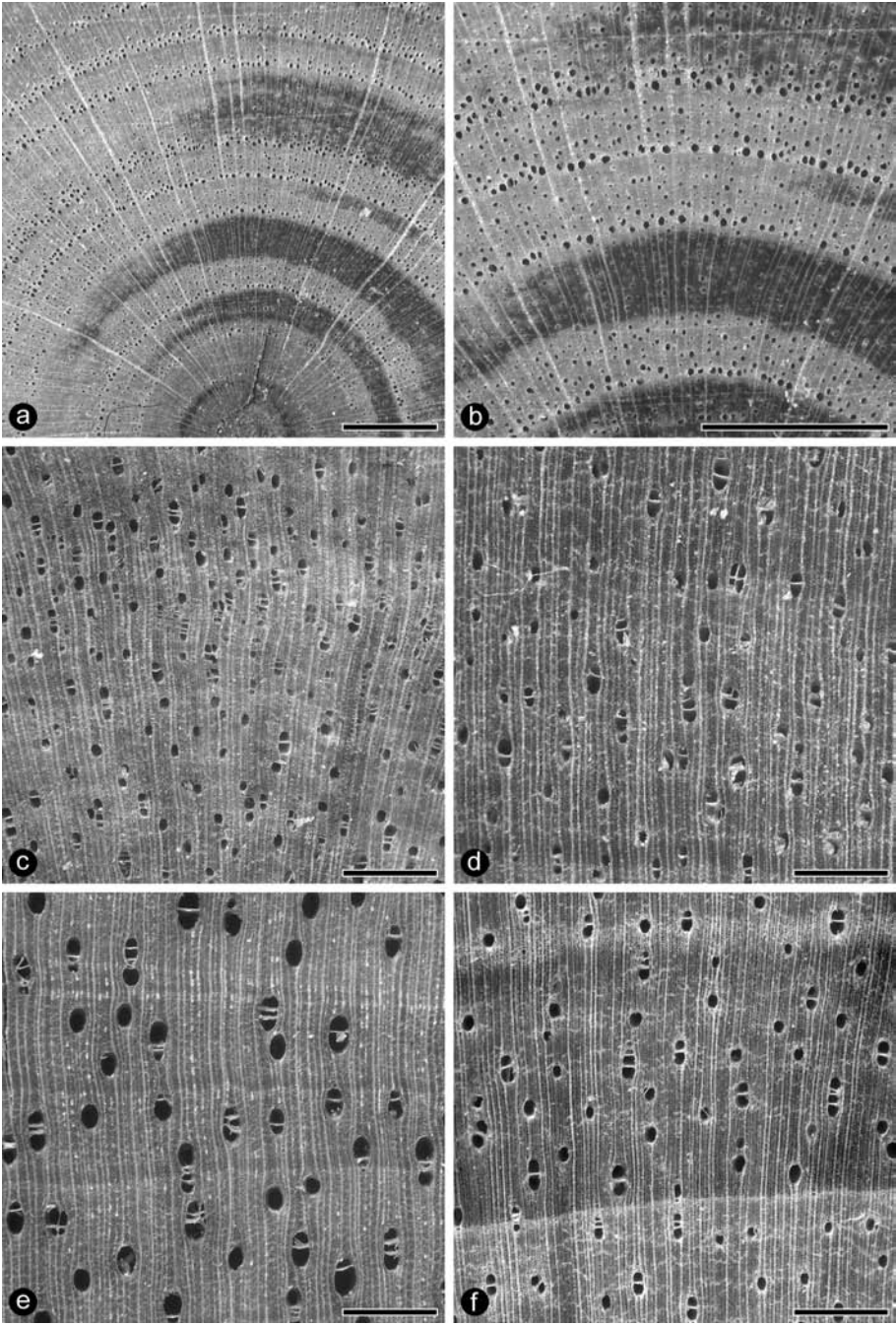


Fig. 82. a, b: *Tetracoccus fasciculatus* var. *hallii* (Uw 31183). – c: *Tetrochidium rubrivenium* (Uw 6374). – d: *T. rubrivenium* (Uw 14302). – e: *Trewia nudiflora* (Uw 21373). – f: *Triadica cochinchinensis* (Uw 32722). – Bar = 1 mm.

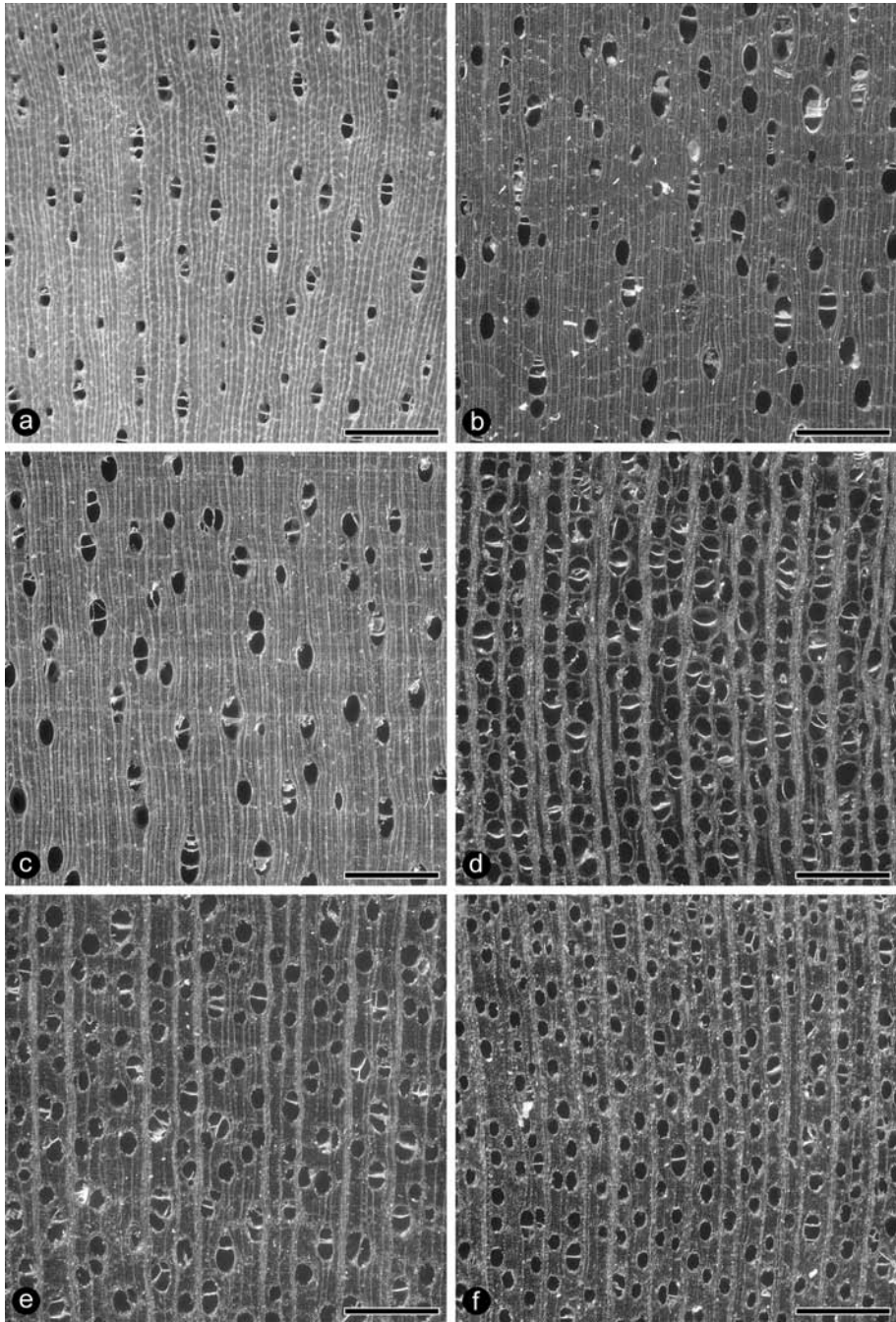


Fig. 83. a: *Triadica sebifera* (Uw 34880). – b: *Trigonopleura malayana* (Uw 21374). – c: *T. malayana* (Uw 21401). – d: *Uapaca guineensis* (Uw 6559). – e: *U. kirkiana* (Uw 10915). – f: *U. togoensis* (Uw 10913). – Bar = 1 mm.

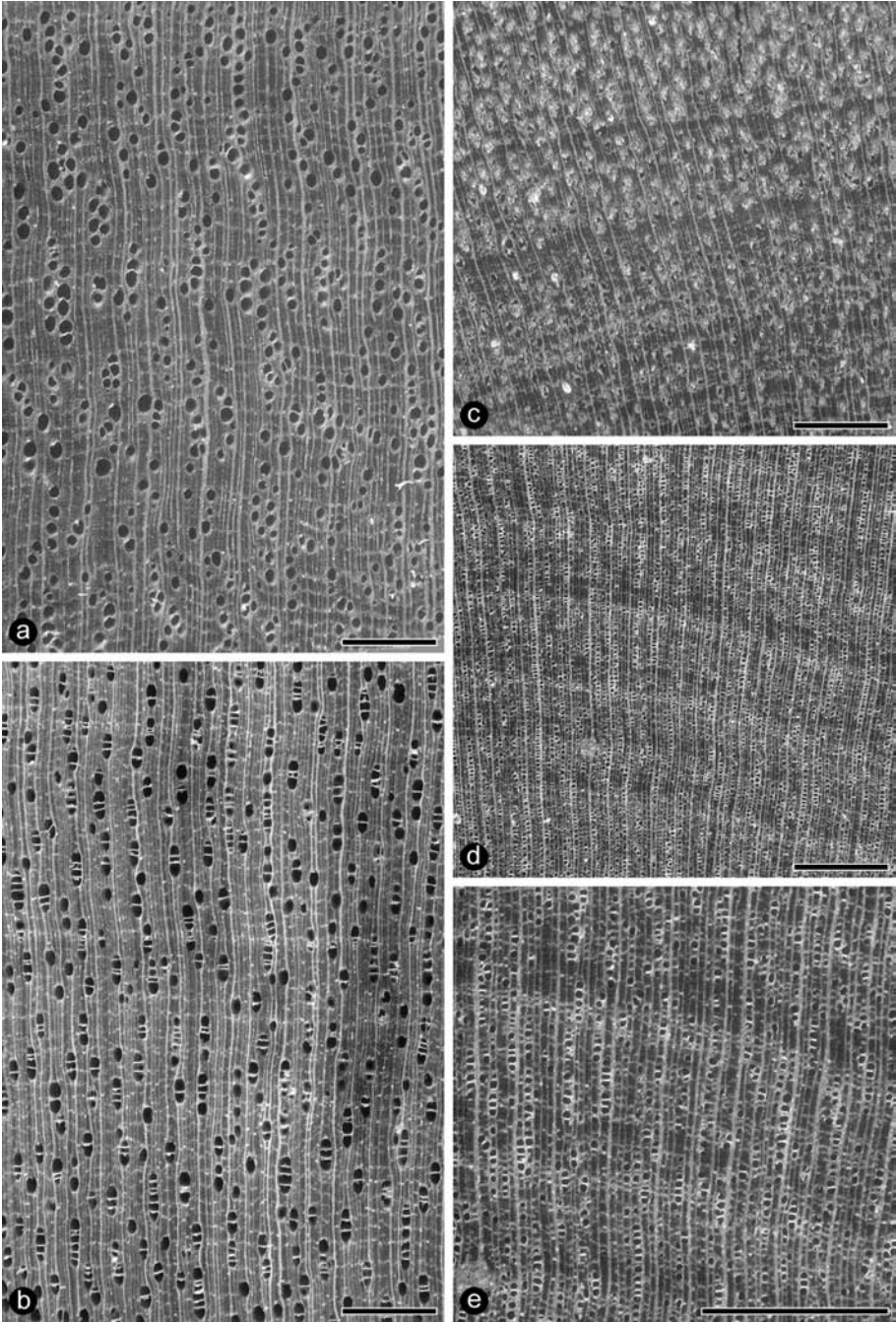


Fig. 84. a: *Voatamalo eugenioides* (Uw 23105). – b: *Wetria trewioides* (Uw 21422). – c: *Whyanbeelia terrae-reginae* (Uw 36885). – d, e: *Wielandia elegans* var. *perrieri* (Uw 15483). – Bar = 1 mm.

