

David B. Lellinger 原著  
中国科学院昆明植物研究所  
向建英 武素功 译  
马启盛 校

# 现代英中对照 蕨类植物分类学词汇

A Modern English — Chinese Glossary for  
Taxonomic Pteridology



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## 前 言 (1)

正确的交流是植物分类学(植物的描述,区分及其命名)的精髓。所有的分类学工作都应该使用准确的术语,并对那些鉴别性的特征加以强调。描述应该能让读者对所描述的植物有一个思想上的概念。通过频度,量度的修饰,可进一步增强术语的精确性,尤其是当所描述的性状或特征在大小、形状或存在与否有着变化的时候。

本书的目的就是对术语依据在描述蕨类植物时的应用进行归类并提供一系列精确的定义。虽然本书针对的是通用的形态学术语,然而一些关于解剖学、细胞学、分布、生态学、进化以及命名的术语也包括在内,因为通常它们也用于蕨类分类中。植物系统学(即植物生物学研究中进化研究的那一部分)专用的名词不包括在内。

英语术语在根据它们的用途分成的各个部分中以字母顺序排列,如内容目录中所见。西班牙语、法语和葡萄牙语的术语在英语之后,少数情况下它们不是按照字母顺序出现的。备选词放在括号里。为方便比较,对每个术语进行了编号,并以不同的语言进行了定义。书中特别指出了那些多数情况下或完全用于特定蕨类类群的名词,以及那些在蕨类中用途不同于其他分类群的名词。

为严格应用术语,考虑到相关术语(Cf.)和反义词(Ant.)是有帮助的。根据需要,相关的形容词(Adj.)、名词(Subs.)、复数

(Pl.) 以及指小词(Dim.) 都一一列了出来。为提供信息的需要, 书中包含了同义词(Syn.)。在定义和索引中它们以斜体的形式出现。

书中英文部分未注明词性。

蕨类和显花植物具有很不相同的结构以及生长方式, 并各自发展出了专门的词汇。虽然如此, 在两个类群中很多词语都是相同的, 部分原因是中世纪和文艺复兴时期的植物学家并不能了解它们之间的区别, 或者哲理性地寻求缩小它们的区别(如: 蕨类种子)。另一重要的情形是, 两个类群各自具有完全或部分不同的术语(如: 孢子和花粉粒, 根状茎——蕨类中大型叶着生的结构和茎——拟蕨类中小型叶着生的结构)。还有另外的情形, 是通用的词汇在两个类群中各自产生了独立而完全不同的含义(如: 柄——蕨类中用于孢子囊的柄, 分枝毛的柄或是盾状鳞片的柄, 而在显花植物中用于花柄)。为了明晰和精确的目的, 蕨类和显花植物术语学的区别应该受到重视而不是被否认。作者认为, 部门应该反对近年来一些编辑和编辑在科学写作中为了统一和简化的原因, 对显花植物和蕨类术语的混杂使用产生的不准确和不精致的现象(如: leaf, petiole, blade, pinna, pinnule)。

为保护植物分类学的拉丁文背景, 以及一直以来撰写拉丁诊断语和描述的需要, 拉丁来源的语言(尤其是在西半球)的广泛应用, 作者尽可能采用拉丁起源的词汇(如 *carinate castaneous*), 而不是其他语言起源的词汇(如: *keeled maroon*)。

由于优先使用英语, 大部分情况下作者使用前缀“ex-”来表示一个性状的缺乏(如: *exalate exindusiate*), 无论它代表的是一种进化丧失或仅仅是一种缺乏。后者使用“non”来表示(如: *nonalate*

nonindusiate)应该更具准确性,但是更多时候,并不可能辨别实际的情况。在法语中,更为常用的是“non-”而不是“ex-”。

大多数情况下,作者避免创造新的术语或是新的定义。少数情况下,在某种语言或更多的语言中则需要使用。英语的新词包括 069 lanceate (以区别于 lanceolate), 076 oblanceate (以区别于 oblanceolate), 287 teneral (由 W. H. Wagner, Jr 创造), 462 aspidote, 593 costulet (costule 的一个分枝) 以及 652, pinnulet (pinnule 的一个分枝), 642 hemiphyll (异型叶的 *Selaginella* 小型叶侧边的一部分), 788 patellate (最近由 Robert Johns 先生发现的一种孢子纹饰类型) 以及 905 abscissent (区别于与宿存相关的那些词)。其他语言的新词列于相关的前言部分中。极特殊的情况下,翻译者更倾向于指出在法语、西班牙语或葡萄牙语中并没有相对应的术语而不是创造一个新词。那些仅在已有术语加上前缀或后缀形成的词语不被认为是新词语。

一些拉丁语和希腊语(直接来源于拉丁或希腊的词语)被沿用于四种语言的术语中,包括 745 bulla, 746 cavus, 757 murus, 762 stela, 它们都与孢子纹饰相关。没有其他的拉丁语或是希腊语被引用于英语中;而那些被引用于其他语言中的词汇则列于相关语言的前言中。

书中并未包括古老或废弃的术语或用法。所有术语的定义都是作者认为现在被使用,或是最好被使用的。所列出的参考文献中提供了许多的定义。作者删除了术语表中那些难以定义或是不可能进行定义的术语。一些原本意义不明确的术语被限定得更狭义并加入了另一术语以避免模棱两可的现象(如: scaly 对应于 *lepidote* 和 *squamose*, *pubescent* 对应于 *pilose* 或 *hirsute*)。蕨类中

其他的在不同上下文中具有不同含义的术语(以及那些在术语表中不同部分中都包括了的同一含义的术语),在目录中都有多重的条目以便检索。

最让人头疼、模棱两可的词语中包括“上面的”和“下面的”,它们分别用来表示“背面的”和“腹面的”、“近中的”和“远中的”、以及“近轴的”和“远轴的”。即使是“背面的”和“腹面的”,都具有容易混淆的用法,从而它们的使用应该受到限定,也不应该替代“近轴的”和“远轴的”使用。以一特定的属界定脉序和囊群状态的词(如: *allantodioid*, *meniscioid*),在它们的应用或是含义上是不准确的,除了同义重复外不可能对其下定义而最好避免使用。

关于颜色,作者仅采用了一些来源于拉丁文的,最为常用的术语,其他的大多都在 Stearn<sup>①</sup>(1966, pp. 236 ~ 259)中已有定义。但是因为很多都不明确,除了拉丁诊断语和描述外,可能都应该被现代相应的同义词所代替。

在进化关系和命名的部分,仅包括了最重要的术语。关于其他的谱系分支的术语读者可参考 Wiley 等(1991年)的著作。命名学的术语可参考 Mc Vaugh 等(1968年)的著作。

非常感谢 Prof. Cristina H. Rolleri, Dr. Christian Feuillet, 以及 Prof. Paulo G. Windisch 将本书翻译为他们各自的语言,并提出了很多有用的意见,增加了定义的清晰度;还有 Prof. Warren H. Wagner, Jr., Prof. A. Murray Evans, Dr. George R. Proctor, M. en C. Mónica Palacios Rios 以及 Pteridologia 的副主编阅读了原稿并提出了意见;我在 Smithsonian 的研究植物学的同事们,特别是 Dr. Pe-

① 译者注:原书为“Stern”,可能为印刷错误。

dro Acevedo R. , Dr. Gene Rosenberg, 以及 Mr. Gregory McKee, 对一些术语进行了富有成果的讨论; 还要感谢 Smithsonian Institution Press 允许发表出自 A Field Manual of the Ferns and fern-allies of the United States and Canada 中的图例(经修改); 还感谢 Ms. Mary Monsma 和 Ms. Alice Tangerini 准备和修改了图例。

## 前 言 (2)

几个世纪以来,分类学研究的发展创造了非常丰富的词汇。该工作的意义与其阐明性是成正比的。它所包含的信息是否可以准确地被理解?为了这个目的,使用一整套广为接受的、经过准确定义的术语是至关重要的。尤其是现在的科学家们面临着各种新的机会,需要以电子传导的方式,快速地进行世界性交流,使用精确的术语不像今天这么重要。

获悉我的书《A Modern Multilingual Glossary for Taxonomic Pteridology》即将翻译出版,我非常高兴。让中国和亚洲其他地方广大而活跃的蕨类植物学家组成的团体也可以使用本书中的术语和定义,他们的研究将可以被全世界的蕨类植物学家更好地理解 and 接受,同时蕨类植物学家之间联系的纽带也将由此得到加强。

衷心感谢武素功教授和他的同事为本书的翻译和出版所付出的辛勤和努力,以及 Victor Ma 博士进行了校稿,指正了我的一些错误,并担当了我和武素功教授之间的联络员。

David B. Lellinger, 2005 年 1 月

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**FIGURE**  
**外形**  
**(1A)**  
**SYMMETRY**  
**对称性**

**001 asymmetric**: having a different outline on each side of a central axis. *Ant.* **symmetric**.

不对称的:在一中轴的两侧有不同的外形。反义词:对称的。

**002 bilateral**: symmetrical on opposite sides of an axis. *Cf.* **unilateral**.

两侧的:在一轴的两侧对称的。参考词汇:单侧的。

**003 conform**: similar in shape and size to others, commonly applied to an apical pinna in comparison with the lateral pinnae of a lamina. *Ant.* **difform**.

相似的:形状和大小相似的,通常用于叶片顶端羽片与侧生羽片的比较。反义词:不相似的。

**004 difform**: different in shape and/or size from others, commonly applied to an apical pinna in comparison with the lateral pinnae of a lamina. *Ant.* **conform**.

不相似的:形状和/或大小不相似的,通常用于叶片顶端羽片与侧生羽片的比较。反义词:相似的。

**005 elongate**: longer than wide, from slightly to greatly so. *Cf.* **isodiametric**.

长形的:长度不同程度地大于宽度的。参考词汇:等直径的。

**006 equilateral**: equal on both sides of an axis. *Ant.* **inequilateral**.

两侧相等的:在一轴的两侧相等的。反义词:两侧不等的。

**007 inequilateral**: not equal on both sides of an axis. *Ant.* **equilateral**.

两侧不等的:在一轴的两侧不相等的。反义词:两侧相等的。

**008 isodiametric**: approximately equal in length and width. *Cf.* **elongate**.

等径的:长和宽大致相等的。参考词汇:长形的。

**009 jugate**: paired, commonly applied to the numbers of lateral pinna or pinnule pairs.

成对的:通常应用于侧生羽片或小羽片的对数。

**010 oblique**: unequal-sided, applied to the base or apex of a lamina, pinna or pinnule.

斜生的:两边不等的,用于叶片,羽片或小羽片的基础或顶端的描述。

**011 symmetric**: having a similar outline on both sides of a central axis. *Ant.* **asymmetric**.

对称的:在一中轴的两边有相似的外形的。反义词:不对称的。

**012 unilateral**: missing from or different on one side of an axis compared to the other side. *Cf.* **bilateral**.

单侧的:与轴的一侧相比,另一侧不存在或不相同的。参考词汇:两侧的。

(1B)  
GENERAL FORM  
一般形态

- 013 apex:** the distal, terminal portion of a structure. *Pl. apices.*  
*Adj. apical. Syn. tip. Ant. base.*  
顶端:一个结构的远端或末端的部分。形容词:顶端的。同义词:末梢。反义词:基部。
- 014 appendage:** a subsidiary, usually projecting or pendent part.  
附生物:一辅生的,通常突出或悬垂的部分。
- 015 axis:** the central line or structure along with parts or organs are arranged. *Pl. axes.*  
轴:各个部分或器官所沿着分布的中线或结构。
- 016 base:** the proximal portion of a structure, that part nearest the point of attachment. *Adj. basal. Ant. apex. Cf. fundus, sinus.*  
基部:一个结构的近基部分,这个部分最接近它的附着点。形容词:基部的。反义词:顶端。参考词汇:基底,弯缺。
- 017 fundus:** the base or bottom of a hollow structure, such as an involucre. *Cf. base, sinus.*  
基底:一个中空结构(如囊苞)的基部或底部。参考词汇:基部,弯缺。
- 018 protuberance:** a structure that bulges or swells out.  
突起:一个凸出或隆起的结构。
- 019 sinus:** the space between structures, such as adjacent lobes or segments. *Cf. base, fundus.*  
弯缺:结构之间,例如相邻裂片间的空隙。参考词汇:基部,基底。

(1C)

**SOLID FORMS**

立体形态

(1C1)

**INDETERMINATE FORMS**

非限定性形态

**020 capillary:** fine and slender, like a human hair.

毛发状的:细长纤弱,似头发的。

**021 filiform:** thread-like. *Cf. funiform, restiform.*

丝状的:呈线状的。参考词汇:绳状的,细绳状的。

**022 flagelliform:** whip-shaped, and so tapered to the apex.

鞭状的:形状像鞭子,向顶端渐细的。

**023 funiform:** rope-like and rather thick. *Cf. filiform,*

**restiform.**

绳状的:似绳索且较粗的。参考词汇:丝状的,细绳状的。

**024 moniliform:** like a string of closely-set, round beads.

念珠状的:形状如一串紧密相连的圆形珠子的。

**025 restiform:** cord-like and rather thin. *Cf. filiform, funiform.*

细绳状的:绳索状且较细的。参考词汇:丝状的,绳状的。

(1C2)

**DETERMINATE FORMS**

限定性形态

**026 acerose:** needle-shaped, as the microphylls of some *Huperzia*

species.

针状的:形状如针的,如 *Huperzia* (石杉属) 一些种小型叶的形状。

**027 annular:** having the shape of a ring.

环状的:呈环形的。

**028 bulbous:** swollen, but not spherical. Cf. **globular.**

鳞茎状的:膨大,但不呈球形的。参考词汇:球状的。

**029 conical:** cone-shaped, with the base of the cone basal. Cf. **obconical.**

圆锥形的:呈圆锥体并具有与圆锥体一样的基部的。参考词汇:倒圆锥形的。

**030 cylindrical:** having the shape of a cylinder, as the strobili of some *Lycopodium* species.

圆柱形的:形状呈圆柱体的,如 *Lycopodium* (石松属) 一些种的孢子叶球。

**031 cymbiform (navicular):** having the shape of a canoe or narrow boat, as the microphylls of some *Huperzia* species.

舟状的(船形的):具有独木舟或窄船的形状,如 *Huperzia* (石杉属) 一些种小型叶的形状。

**032 ellipsoid:** a solid structure that is elliptical in longitudinal section.

椭圆形:一具有椭圆形纵切面的立体结构。

**033 fabaeform:** bean-shaped, said of spores. Cf. **reniform.**

豆形的:形状似豆的,指孢子的形状。参考词汇:肾形的。

**034 globular:** nearly spherical. Cf. **bulbous.** Syn. *globose.*

球状的:近球形的。参考词汇:鳞茎状的。同义词:球形的。

**035 infundibular:** funnel-shaped; obconic with the apex collapsed inward, applied to the paraphyses of certain Vittariaceae.

漏斗状的:形如漏斗的,呈倒圆锥形并具有向内陷的顶端,用于描述 Vittariaceae(书带蕨科)特定类群的隔丝。

**036 lenticular:** having the shape of a biconvex lens.

双凸透镜形的:具有两面凸起的透镜形状的。

**037 obconical:** cone-shaped, with the apex of the cone basal. *Cf.* conical.

倒圆锥形的:似圆锥体并具有与圆锥体基部形状的顶端。参考词汇:圆锥形的。

**038 obovoid:** a solid structure that is ovate in longitudinal section, with the narrower end basal. *Cf.* ovoid.

倒卵球形的:一纵切面呈卵形的立体结构,基部末端变狭。参考词汇:卵球形的。

**039 ovoid:** a solid structure that is ovate in longitudinal outline, with the wider end basal. *Cf.* obovoid.

卵球形的:一在纵向的外形为卵形的立体结构,基部末端变宽。参考词汇:倒卵球形的。

**040 pyriform:** approximately pear-shaped, as the sporangia of certain species of Schizaeaceae.

梨形的:形状与梨相似的,如 Schizaeaceae(莎草蕨科)一些种的孢子囊的形状。

**041 reniform:** kidney-shaped; crescent-shaped with rounded ends, applied to certain indusia and spores. *Cf.* fabaeform.

肾形的:形状与肾相似的,具有圆形末端的新月形,用于特定囊群盖和孢子形态的描述。参考词汇:豆形的。

**042 spherical:** having the shape of a sphere.

球形的:具有球体形状的。

**043 tetrahedral:** having the shape of a pyramid with a triangular base, applied to spores.

四面体形的:具有三角形基部的金字塔的形状,用于描述孢子形态。

### (1C3)

#### ROLLING OR FOLDING OF SOLID FORMS

#### 立体形态的翻卷和折叠

**044 conduplicate:** having approximately equal lateral halves folded together abaxially.

对折的:近相等的两半在远轴面折叠在一起的。

**045 involute:** having the lateral margins rolled adaxially, thus exposing the abaxial surface and covering the adaxial surface.

*Ant.* **revolute.**

内卷的:侧边的边缘向近轴面卷起,从而使远轴面外露并覆盖近轴面的。反义词:外卷的。

**046 revolute:** having the lateral margins rolled abaxially, thus exposing the adaxial surface and covering the abaxial surface.

*Ant.* **involute.**

外卷的:侧边的边缘向远轴面卷起,从而使近轴面外露并覆盖远轴面的。反义词:内卷的。

(1C4)

SECTIONS OF SOLID FORMS

立体形态的切面

**047 angular:** having a sharp edge formed by the meeting of two surfaces.

具角的、具棱的:由两个面相遇形成尖的边。

**048 angulose:** prominently angular.

角状的:明显具角的。

**049 complanate:** flattened, usually in a horizontal plane, such as that of a lamina.

平坦的:平的,通常在一水平的平面上,如叶片。

**050 compressed:** flattened, usually in a vertical plane, such as that of a stipe or stem.

扁平的:平的,通常在一垂直面上,如叶柄或茎的垂直面。

**051 concave:** curved inwardly. Cf. **convex.**

内陷的:向内弯的。参考词汇:凸起的。

**052 convex:** curved outwardly. Cf. **concave.**

凸起的:向外弯的。参考词汇:内陷的。

**053 terete:** circular in cross-section, said especially of cylindrical bodies like axes.

圆筒形的:横切面呈圆形的,尤指轴这样的圆柱体形。

**054 tetragonal:** quadrilateral in transverse section, with four angles and four sides, as the strobili of some species of *Selaginella* subg. *Selaginella*.

四面体形的:横切面为四边形,具有四个角和四个侧面的立体结构,如 *Selaginella* subg. *Selaginella* (卷柏属卷柏亚属)一些种的孢子叶球。



**055 trigonal:** triangular in transverse section, with three angles and three convex or concave sides. Cf. **089 triangular, triquete.**

三角状的:横切面呈三角形的,具有三个角和三个内陷或外凸侧面的立体结构。参考词汇:**089** 三角形,三棱形的。

**056 triquete:** triangular in transverse section, with three angles and three plane sides. Cf. **089 triangular, trigonal.**

三棱形的:横切面呈三角形的,具有三个角和三个平边的立体结构。参考词汇:**089** 三角形的,三角状的。

(1D)

PLANE FORMS

平面形态

(1D1)

COMPLETE FORMS

整体形态

**057 acicular:** needle-shaped (Fig. 1)

针状的:形状如针的(图1)。

**058 cordiform:** heart-shaped.

心形的:似心的形状的。

**059 cuneiform:** narrowly obtriangular, with the distal corners rounded.

楔形的:远端角呈圆形的窄倒三角形的。

**060 deltate:** broadly triangular with an obtuse apex (Fig. 1)

三角形的:尖端钝的阔三角形的(图1)。

**061 dimidiate:** halved diagonally, with usually one half rudimentary or partially absent, as the pinnules of certain *Adiantum*

and *Lindsaea* species (Fig. 1)

对开的:沿对顶线分为两半的,通常其中的一半退化或部分缺乏的,如 *Adiantum*(铁线蕨属)和 *Lindsaea*(鳞始蕨属)一些种小羽片的形状(图1)。

**062 elliptic:** having the outline of an elongate circle (Fig. 1).

椭圆形的:具有长圆的外形的(图1)。

**063 falcate:** sickle-or scythe-shaped; asymmetrically curved and tapered (Fig. 1).

镰状的(钩状的):镰刀形或镰形的,不对称地弯曲并向顶端渐细的形状(图1)。

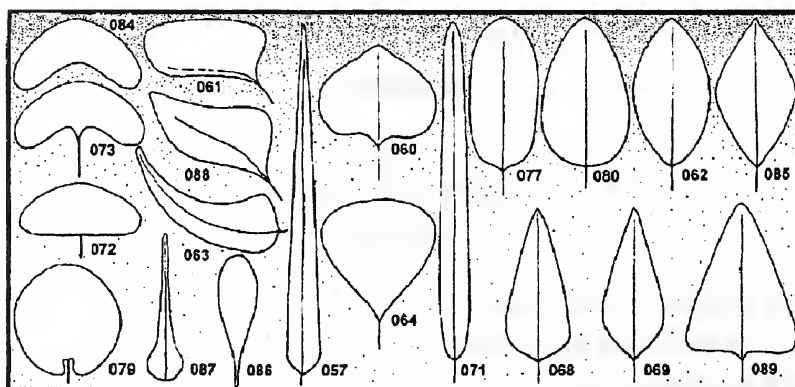


Fig. 1. COMPLETE FORMS

图 1. 整体形态

**064 flabellate:** fan-shaped, like a lamina of *Schizaea elegans* (Fig. 1).

扇形的:形状像扇子的,如 *Schizaea elegans*(美丽莎草蕨)叶片的形状(图1)。

**065 fusiform:** spindle-shaped; much longer than wide and gradually

tapered from the middle to the ends.

纺锤形的:形状像纺锤的,长度远大于宽度并由中间向两端逐渐变细的形状。

**066 hippocampiform**: seahorse-shaped; shallowly crescent-shaped with rounded ends. *Cf.* **hippocrepiform, reniform.**

海马形的:形状像海马一样的,两端钝圆的略呈新月形的形状。参考词汇:马蹄形的,肾形的。

**067 hippocrepiform**: horseshoe-shaped; deeply crescent-shaped with rounded ends. *Cf.* **hippocampiform, reniform.**

马蹄形的:形如马掌的,末端呈钝圆的深新月形的形状。参考词汇:海马形的,肾形的。

**068 lanceate**: spear-shaped, with a long, tapering apex and a nearly truncate base, therefore widest close to or at the base (Fig. 1). *Cf.* **lanceolate.**

似披针形的:梭镖状的,具有一长而渐尖的顶端及一近乎截的基部。从而基部或近基部最宽的(图1)。参考词汇:披针形的。

**069 lanceolate**: lance-shaped, with a long, tapering apex and a short-tapering base, therefore widest well above the base (Fig. 1). *Cf.* **lanceate.**

披针形的:矛形的,具有一长而渐尖的顶端及一短渐尖的基部,从而最宽的部分在基部以上的(图1)。参考词汇:似披针形的。

**070 ligulate**: strap-shaped; parallel-sided with a more or less round apex. *Cf.* **spathulate.**

舌形的:带状的;两边平行而顶端多少呈圆形的形状。参考词汇:匙形的。

**071 linear:** long, narrow, and of uniform or nearly uniform width (Fig. 1).

线形的:长而窄,且宽度一致或近一致的形状(图1)。

**072 lunate:** shaped like a half-moon (Fig. 1). Cf. **lunulate**.

半月形的:形状像半月的(图1)。参考词汇:小半月形的。

**073 lunulate:** shaped like a crescent or quarter-moon (Fig. 1). Cf. **lunate**.

小半月形的:形状像新月或上弦月的(图1)。参考词汇:半月形的。

**074 obdeltate:** broadly triangular with an obtuse base and a round, truncate or very obtuse apex.

倒三角形的:具有一钝的基部及一圆形,平截或极钝顶端的阔三角形。

**075 oblanceate:** gradually tapered toward the base with a nearly truncate apex.

似倒披针形的:顶端近平截而向基部渐尖的形状。

**076 oblanceolate:** gradually tapered toward the base with an obtuse or rounded apex.

倒披针形的:向基部渐尖,顶端钝形或钝圆形的形状。

**077 oblong:** longer than wide with the long sides parallel or nearly so and the ends abrupt, rather than gradually tapered (Fig. 1). Cf. **quadrangular**.

长圆形的(长方形的):长度大于宽度,且长的边平行或近似平行,末端截断而非渐狭的形状(图1)。参考词汇:四边形的。

**078 obovate:** the inverse of ovate; ovate with the narrow end toward the base and a round to obtuse apex.

倒卵形的:首末倒置的卵形,向基部末端狭缩,而顶部呈圆形

至钝圆形的。

**079 orbiculate:** round in outline (Fig. 1). *Syn. circular.*

球形的:外形轮廓为圆形的(图1)。同义词:圆形的。

**080 ovate:** having the outline of a longitudinal section of a hen's egg; similar to elliptical except broadest toward the base, rather than at the middle (Fig. 1).

卵形的:外形似鸡蛋的纵切面;与椭圆形相似但是其最宽的部分近基部而不在中部(图1)。

**081 pentagonal:** 5-angled, and so 5-sided, as the lamina outline in some species of *Adiantopsis* and *Hemionitis*. *Cf. quadrangular, triangular.*

五角形的(五边形的):具有五个角,从而具有五条边的形状,如 *Adiantopsis* 和 *Hemionitis* (泽泻蕨属) 一些种叶片的外形。参考词汇:四角形的,三角形的。

**082 polygonal:** having several straight sides at an angle to each other.

多角形的(多边形的):具有数条互成角度的边的形状。

**083 quadrangular:** 4-angled, and so 4-sided. *Cf. oblong, pentagonal, triangular.*

四角形的:具有四个角,从而具有四条边的形状。参考词汇:长圆形的,五角形的,三角形的。

**084 reniform:** kidney-shaped; shallowly crescent-shaped with rounded ends (Fig. 1). *Cf. hippo-crepiform.*

肾形的:形状如肾的,末端圆的浅新月形的(图1)。参考词汇:马蹄形的。

**085 rhombiform:** having the form of a parallelogram, often somewhat to much longer than wide (Fig. 1).

菱形的(斜方形的):具有平行四边形的形状,通常长度多少大

于宽度的(图1)。

**086 spatulate:** spatula-shaped; narrow at the base and gradually wider distally to a rounded apex (Fig. 1). Cf. **ligulate**.

匙形的:形如小铲的,基部较窄,向圆形顶端渐变宽,顶端圆形(图1)。参考词汇:舌状的。

**087 subulate:** awl-shaped; very narrow and tapered from an expanded base to the apex (Fig. 1).

钻状的:形如锥(钻)子的;由一扩大的基部向顶端狭而尖的(图1)。

**088 trapeziform:** having the outline of a trapezium, with four unequal sides, none of them parallel (Fig. 1).

不规则四边形的(梯形的):具有不规则四边形外形的,四条边不等而且互不平行(图1)。

**089 triangular:** 3-angled, and so 3-sided, as the laminae of certain *Adiantum* and *Lindsaea* species (Fig. 1). Cf. **pentagonal, quadrangular, 056 triquete**.

三角形:具有三个角,从而具有三条边的,如 *Adiantum*(铁线蕨属)和 *Lindsaea*(鳞始蕨属)一些种叶片的外形(图1)。参考词汇:五角形的,四角形的,056 三棱形的。

## (1D2)

### PARTIAL FORMS

#### 局部形态

**090 arcuate:** having the form of an arch or arc.

弧形的:具有弓或弧的形状的。

**091 auriculiform:** having the shape of a low lobe or auricle.

耳状的:具有一浅的裂片或耳廓形状的。

**092 blunt:** somewhat rounded, but neither cut off sharply nor pointed.

钝圆的:多少呈圆形,但既不是急截形的,也不具尖头的。

**093 gibbous:** bearing a low, smoothly rounded, acroscopic basal lobe, as the segments of certain Grammitidaceae.

浅囊状的:具有浅而平滑圆形的,向上的基部浅裂的,如 Grammitidaceae(禾叶蕨科)某些种的裂片。

**094 sigmoid:** shaped like the letter S.

S形的:形如字母S的。

### (1D3)

#### BASE FORMS

#### 基部形态

**095 abrupt:** suddenly narrowed or cut off. *Ant.* **decreascent.** *Cf.* **truncate.**

急缩的:突然变窄或截断的。反义词:渐缩的。参考词汇:平截的。

**096 acuminate:** forming an angle of less than  $30^\circ$  with the sides somewhat concave (Fig. 2). *Cf.* **acute, attenuate, obtuse.**

渐尖的:边多少向内凹,形成小于 $30^\circ$ 角的(图2)。参考词汇:急尖的,渐狭的,钝的。

**097 acute:** forming an angle of  $30^\circ \sim 90^\circ$  with the two sides straight or slightly convex (Fig. 2). *Cf.* **acuminate, attenuate, obtuse.**

急尖的:两边平直或略为凸出,形成 $30^\circ \sim 90^\circ$ 角的(图2)。参考词汇:渐尖的,渐狭的,钝的。

**098 attenuate:** forming an angle of less than  $15^\circ$ , narrowly tapering (Fig. 2). *Cf.* **acuminate, acute, obtuse.**

渐狭的:窄而渐尖,形成小于 $15^\circ$ 角的(图2)。参考词汇:渐尖的,急尖的,钝的。

**099 auriculate:** bearing a rounded or sometimes elongate lobe or ear, usually at the base of a lamina, pinna, or pinnule (Fig. 2) *Subs. auricle. Ant. exauriculate.*

耳状的:具有一圆形的或有时伸长的裂片或耳的,通常在一叶片,羽片或小羽片的基础(图2)。名词:耳。反义词:无耳的。

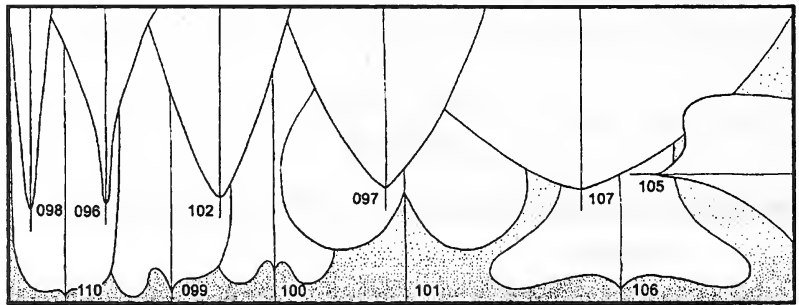


Fig. 2. BASE FORMS  
图 2. 基部的形态

**100 biauriculate:** bearing two auricles, as the axillary microphylls of some *Selaginella* species or the rhizome scales of certain Polypodiaceae (Fig. 2). *Cf. uniauriculate.*

具双耳的:具有两个耳状突起的,如 *Selaginella* (卷柏属) 一些种的腋生小型叶或 Polypodiaceae (水龙骨科) 一些类群根状茎鳞片所具有的(图2)。参考词汇:具单耳的。

**101 cordate:** bearing a pair of broadly rounded, sometimes overlapping lobes (Fig. 2). *Cf. hastate, sagittate.*

心形的:具有一对阔圆形,有时重叠的裂片的(图2)。参考词汇:戟形的,箭头状的。

**102 cuneate:** wedge-shaped; forming an angle of  $30^\circ \sim 45^\circ$  with the two sides straight (Fig. 2).



楔形的:两边平直,形成 $30^{\circ}$ ~ $45^{\circ}$ 角的如楔的形状(图2)。

- 103 decrescent:** gradually narrower to the base. *Syn.* *gradual*, *tapered*. *Ant.* **abrupt**. *Cf.* **115 angustate**.

渐缩的:向基部逐渐变窄的。同义词:逐渐的,渐窄的。反义词:急缩的。参考词汇:115 渐狭的。

- 104 exauriculate:** lacking an auricle or auricles. *Ant.* **auriculate**.

无耳的:缺乏耳或耳状的结构。反义词:耳状的。

- 105 excavate:** having the basiscopic base cut away, usually in a smooth curve (Fig. 2).

凹空的:基部下侧缺乏而通常呈一平滑的弧线(图2)。

- 106 hastate:** having the shape of an arrowhead, with laterally directed basal lobes (Fig. 2). *Dim.* **hastulate**. *Cf.* **cordate**, **sagittate**.

戟形的:具有箭头一样的形状,基部裂片分别朝向两侧的(图2)。指小词:小戟形的。参考词汇:心形的,箭头形的。

- 107 obtuse:** forming an angle of  $90^{\circ}$  or more with the two sides straight or slightly convex, (Fig. 2). *Cf.* **acuminate**, **acute**, **attenuate**.

钝的:两边平直或略为凸出,形成等于或大于 $90^{\circ}$ 角的形状(图2)。参考词汇:渐尖的,急尖的,渐狭的。

- 108 round:** semicircular in outline, rather than angular, at the base.

圆形的:基部轮廓呈半圆形而不具棱角的。

- 109 sagittate:** having the shape of an arrowhead with basiscopically directed basal lobes. *Cf.* **cordate**, **hastate**.

箭头形的:具有箭头的形状,并且基部裂片向下指的。参考词汇:心形的,戟形的。

- 110 truncate:** appearing as if cut off perpendicular to the axis (Fig. 2). *Cf.* **abrupt**.

平截的:看似沿垂直于轴的方向被截断(图2)。参考词汇:急缩的。

111 **uniauriculate**: bearing one auricle. Cf. **biauriculate**.

具单耳的:具有一耳的。参考词汇:具双耳的。

(1D4)

APEX FORMS

顶端形态

112 **abrupt**: suddenly narrowed or cut off. Cf. **truncate**.

急缩的:突然变狭或截断的。参考词汇:平截的。

113 **acuminate**: forming an angle of less than  $30^\circ$  with the sides somewhat concave (Fig. 3). Cf. **acute**, **attenuate**, **obtuse**.

渐尖的:两边多少向内凹,形成小于 $30^\circ$ 角的(图3)。参考词汇:急尖的,渐狭的,钝的。

114 **acute**: forming an angle of  $30^\circ \sim 90^\circ$  with the two sides straight or slightly convex (Fig. 3). Cf. **acuminate**, **attenuate**, **obtuse**.

急尖的:两边平直或略向外凸,形成 $30^\circ \sim 90^\circ$ 角的(图3)。参考词汇:渐尖的,渐狭的,钝的。

115 **angustate**: gradually narrower to the apex. Syn. *gradual*, *tapered*. Cf. 103 **decrecent**.

渐狭的:向顶端逐渐变狭窄的。同义词:渐渐的,渐窄的。参考词汇:103 渐缩的。

116 **apiculate**: abruptly terminating in a small, triangular apex (Fig. 3). Cf. **cuspidate**, **mucronate**.

具细尖的:在顶端突然以一小三角状的尖端终止的(图3)。参考词汇:具骤尖头的,具短尖的。

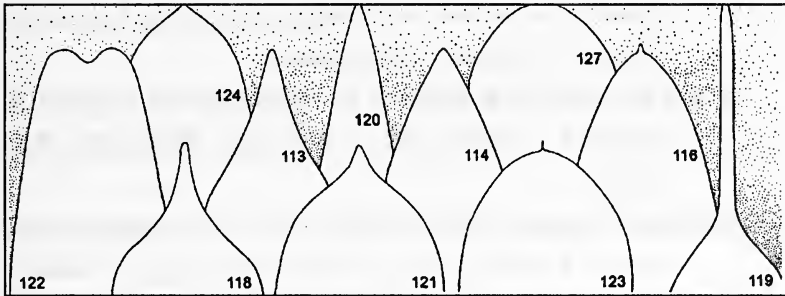


Fig. 3. APEX FORMS  
图 3. 尖端的形态

**117 aristate:** bearing a long, stiff, bristle-like apical prolongation of a midrib beyond the margin, as the median microphylls of some species of *Selaginella* subg. *Stachygynandrum*, Subs. *arista*. Subs. Pl. *aristae*. Cf. *mucronate*.

具芒的: 主脉尖端具有一长而硬, 超出叶缘的刚毛状延长部分, 如 *Selaginella* (卷柏属) *Stachygynandrum* 亚属中一些种的中部小型叶。名词: 芒。参考词汇: 具短尖的。

**118 attenuate:** forming an angle of less than  $15^\circ$ , narrowly tapering (Fig. 3). Cf. *acuminate*, *acute*, *obtuse*.

渐狭的: 渐变狭而形成一个小于  $15^\circ$  的角的(图 3)。参考词汇: 渐尖的, 急尖的, 钝的。

**119 caudate:** bearing a narrow, elongate, tail-like appendage or apex (Fig. 3).

尾状的: 具有狭而伸长的, 尾状的附属物或顶端(图 3)。

**120 cuneate:** wedge-shaped; forming an angle of  $30^\circ \sim 45^\circ$  with the two sides straight (Fig. 3).

楔状的: 两边平直, 形成  $30^\circ \sim 45^\circ$  角的楔形的(图 3)。

**121 cuspidate:** bearing a short, sharp, narrowly triangular point ter-

minating an obtuse to truncate apex ( Fig. 3 ). *Subs. cusp.* *Cf. apiculate, mucronate.*

具骤尖的:钝圆至平截的顶端具有一短而尖的,狭三角形的尖端(图3)。名词:尖头。参考词汇:具细尖的,具短尖的。

**122 emarginate:** having a broad, shallow sinus at the nearly truncate apex of a segment, lobe, or tooth ( Fig. 3 ). *Cf. retuse.*

顶端微凹的:在裂片或齿近平截的顶端具有一宽而浅的凹缺(图3)。参考词汇:微凹的。

**123 mucronate:** bearing a short, stiff, bristle-like apical prolongation of a midrib, costa, or costule ( Fig. 3 ). *Subs. mucro.* *Dim. mucronulate.* *Cf. apiculate, aristate, cuspidate.*

具短尖的:在主脉,中肋或小肋的顶端具有一短而硬,刚毛状的延长部分(图3)。名词:短尖头。指小词:具小短尖的。参考词汇:具细尖的,具芒的,具骤尖的。

**124 obtuse:** forming an angle of  $90^\circ$  or more with the two sides straight or slightly convex ( Fig. 3 ). *Cf. acuminate, acute, attenuate.*

钝的:两边平直或略为凸起,形成等于或大于 $90^\circ$ 角的(图3)。参考词汇:渐尖的,急尖的,渐狭的。

**125 premorse:** coarsely and irregularly erose or lacerate, appearing as if chewed.

啮蚀状的:似被啃食过一般,呈粗糙而不规则地啮蚀或撕裂状的。

**126 retuse:** having a narrow, V-shaped sinus at the obtuse apex of a segment, lobe, or tooth. *Cf. emarginate.*

微凹的:在裂片或齿的钝圆的顶端具有的一窄的V形弯缺。参考词汇:顶端微凹的。

**127 round**: circular in outline, rather than angular at the apex (Fig. 3).

圆形的:顶端的轮廓圆形,不具棱角的(图3)。

**128 truncate**: appearing as if cut off perpendicular to the axis *Cf.* **abrupt**.

平截的:看似由垂直于轴的方向被切断的。参考词汇:急缩的。

## ORDER AND DIVISION 排列次序和分裂状况

### (2A)

### ORDER

### 排列次序

**129 accessory:** supplementary, applied especially to axes or lamina divisions that are in an atypical position, as the sessile branches subtending larger portions of the lamina in some *Dicranopteris* species and the sessile segments on the axes of some *Pteridium* species.

附属的:辅助性的,尤其用于反常规位置上轴或叶的分裂,如 *Dicranopteris*(芒萁属)的一些种叶片大的羽裂下面无柄的分支,以及 *Pteridium*(蕨属)一些种轴上无柄的裂片。

**130 antepenultimate:** the third to last or the third smallest order or division. Cf. **penultimate, ultimate.**

倒数第三的:在次序上倒数第三或分裂程度或排列上第三小的。参考词汇:倒数第二的,最末的。

**131 penultimate:** the second to last or second smallest order or division. Cf. **ante-penultimate, ultimate.**

倒数第二的:在次序或分裂程度上倒数第二或第二小的。参考词汇:倒数第三的,最末的。

**132 primary:** the first or principal order, applied especially to the veins or axes in a branching system, such as the first later-

al branches from the rachis in Gleicheniaceae. *Cf.* **quaternary, quinary, secondary, tertiary.**

初次的:第一或是首要的顺序,尤其用于分支系统中叶脉或轴的描述,如 Gleicheniaceae(里白科)叶轴的第一次侧向分枝。参考词汇:第四次的,第五次的,第二次的,第三次的。

**133 quaternary:** the next order after tertiary, applied especially to the veins or axes in a branching system. *Cf.* **primary, quinary, secondary, tertiary.**

第四次的:第三次的下一次顺序,尤其应用于分枝系统中叶脉或轴的描述。参考词汇:初次的,第五次的,第二次的,第三次的。

**134 quinary:** the next order after quaternary, applied especially to the veins or axes in a branching system. *Cf.* **primary, quaternary, secondary, tertiary.**

第五次的:第四次的下一次顺序,尤其应用于分枝系统中叶脉或轴的描述。参考词汇:初次的,第四次的,第二次的,第三次的。

**135 secondary:** the next order after primary, applied especially to the veins or axes in a branching system. *Cf.* **primary, quaternary, quinary, tertiary.**

第二次的:第一次的下一次顺序,尤其应用于分枝系统中叶脉或轴的描述。参考词汇:初次的,第四次的,第五次的,第三次的。

**136 tertiary:** the next order after secondary, applied especially to the veins or axes in a branching system. *Cf.* **primary, quaternary, quinary, secondary.**

第三次的:第二次的下一次顺序,尤其应用于分枝系统中叶脉

或轴的描述。参考词汇:初次的,第四次的,第五次的,第二次的。

**137 ultimate**: the last or smallest order or division. *Cf.* **antepenultimate, penultimate.**

末回的:最后的或是最小的次序或分枝。参考词汇:倒数第三的,倒数第二的。

## (2B)

### BRANCHING PATTERNS

#### 分枝方式

**138 bifurcate**: divided once into two equal or subequal branches.

*Syn.* *forked.* *Cf.* **twice-bifurcate.**

二叉的:一次分为两个相等或近相等的分枝。同义词:分叉的。参考词汇:二次二叉的。

**139 dichotomous**: a pattern of branching in which the divisions are equal in size, shape, and position, found in the species of *Psilotum*. *Subs.* **dichotomy.**

二歧叉状分枝的:各分枝在大小,形状和位置上都相等的分枝方式,见于 *Psilotum* (松叶蕨属) 的种类。名词:二歧式,二叉分枝式。

**140 monopodial**: a pattern of branching in which a single dominant branch bears lateral branches, forming a true axis with smaller lateral branches, found in the erect species of *Lycopodiella*. *Subs.* **monopodium.** *Cf.* **sympodial.**

单轴的:一种分枝方式,在一个显著的单一分枝上产生侧枝,形成具有相对小的侧生分枝的真轴。见于 *Lycopodiella* (小石松属) 的直立种类。名词:单轴。参考词汇:合轴的。



**141 pseudodichotomous**: falsely dichotomous, as the branching of the fronds of Gleicheniaceae, which bear a latent bud or a dormant bud in each apparent dichotomy. *Subs. pseudodichotomy.*

假二歧分枝的:非真正二歧分枝的,如 Gleicheniaceae (里白科)叶的分枝,在每一看似二歧分枝上具有一潜伏芽或休眠芽的。名词:假二歧式。

**142 sympodial**: a pattern of branching in which a series of markedly unequally forking, superposed branches forms an apparent dominant axis with smaller lateral branches. *Subs. sympodium. Cf. monopodial.*

合轴的:具有一系列明显不相等的分叉,分枝迭生,形成了看似一明显的主轴上有一些小的侧生分枝的分枝方式。名词:合轴。参考词汇:单轴的。

**143 twice-bifurcate**: divided twice into four equal or subequal branches. *Cf. bifurcate.*

二次二叉的:经过两次分叉后形成四个相等或近相等的分枝。参考词汇:二叉的。

## (2C)

### DIMORPHISM OF FRONDS AND THEIR PARTS

#### 叶的二型性及其组成部分

**144 dimorphic**: having two shapes or sizes, commonly applied to fertile versus sterile laminae or portions of laminae. *Cf. hemidimorphic, monomorphic, polymorphic.*

二型的:具有两种形状或大小的,通常指具有能育叶和不育叶,或叶具有能育部分和不育部分的情况。参考词汇:

半二型的, 单型的, 多型的。

**145 hemidimorphic:** partially dimorphic, either longitudinally or laterally, commonly applied to laminae. *Cf.* **dimorphic, monomorphic, polymorphic.**

半二型的: 从长轴方向或从侧向呈部分二型的, 通常用于叶片描述。参考词汇: 二型的, 单型的, 多型的。

**146 monomorphic:** having one shape, commonly applied to fertile versus sterile laminae or portions of laminae. *Cf.* **dimorphic, hemidimorphic, polymorphic.**

单型的: 具有一种形状, 通常用于能育叶片对比不育叶片或叶片的能育部分对比其不育部分。参考词汇: 二型的, 半二型的, 多型的。

**147 polymorphic:** having several forms. *Cf.* **dimorphic, hemidimorphic, monomorphic.**

多型的: 具有几种形态的。参考词汇: 二型的, 半二型的, 单型的。

## (2D)

### ARCHITECTURE OF FRONDS AND THEIR PARTS

#### 叶结构及其组成部分

**148 digitate:** having four or more divisions all radiating narrowly from a single point, somewhat like the fingers of a hand (Fig. 4). *Cf.* **palmate, ternate.**

指状的: 具有四个或更多个分枝, 有些像手指头一样, 从一点狭地辐射状发出的(图4)。参考词汇: 掌状的, 三出的。

**149 flabellate:** fan-like; with equal venation throughout and without a prominent central axis.

扇形的:像扇子一样,全部具有相同的脉型,并无一明显中轴的叶形。

**150 geminate:** borne in pairs. *Syn. paired.*

双生的:成对生长的。同义词:成对的。

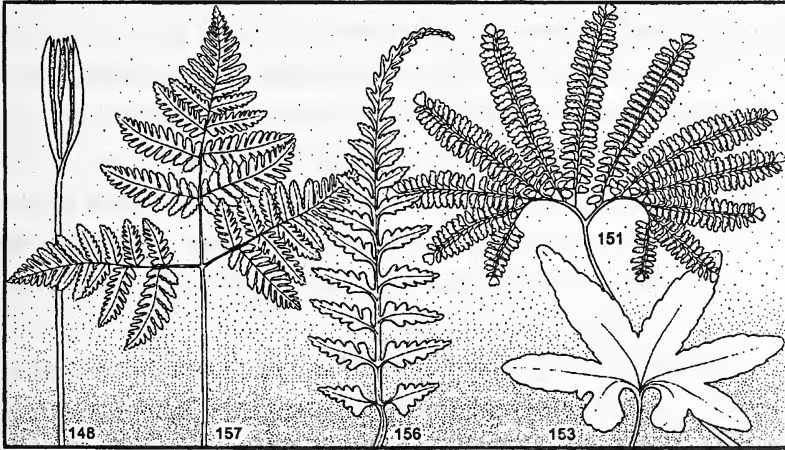


Fig. 4. ARCHITECTURE OF FRONDS AND THEIR PARTS

图 4. 叶片的结构和各部分

**151 helicoid:** branching repeatedly only on the basiscopic side of the principal axis, and so appearing to have a dichotomously branched rachis, found in a few species of *Adiantum* (Fig. 4). *Cf. 241 spiralled.*

螺旋状的:仅在主轴的下侧重复分枝,从而看似具有一二歧分枝的叶轴,见于 *Adiantum*(铁线蕨属)的一些种(图4)。

参考词汇:241 螺旋形的。

**152 imparipinnate:** pinnate and terminated by a single pinna similar to the lateral ones. *Ant. paripinnate. Syn. odd-pinnate.*

奇数羽状的:羽状,其顶生羽片单一并与侧生羽片相似的。反

义词:偶数羽状的。同义词:奇数羽状的。

**153 palmate**: having four or more divisions radiating widely from a single point (Fig. 4). Cf. **digitate**, **ternate**.

掌状的:具有四个或更多个分枝,较宽疏地从一点呈辐射状发出的(图4)。参考词汇:指状的,三出的。

**154 paripinnate**: pinnate and terminated by a pair of pinnae similar to the lateral ones. Ant. **imparipinnate**. Syn. *even-pinnate*.

偶数羽状的:羽状,其顶生羽片成双并与侧生羽片相似的。反义词:奇数羽状的。同义词:偶数羽状的。

**155 pedate**: having the basal basiscopic portions of the basal pinnae more developed and divided, sometimes repeatedly so, than the other portions of the laminae, as in certain *Doryopteris* and *Pteris* species.

鸟足状的:基部羽片的基部下侧部分较叶片的其他部分更为发育,更为分裂,有时如此反复,见于 *Doryopteris* (黑心蕨属) 和 *Pteris* (凤尾蕨属) 的一些种。

**156 pinnate**: having two or more divisions on each side of a central axis that are not borne from a single point (Fig. 4).

羽状的:在一中轴的两边,具有并不由同一点发出的两个或更多分裂的叶分裂方式(图4)。

**157 ternate**: having three equal or subequal parts borne from a single point at about right angles or nearly so to each other (Fig. 4). Cf. **digitate**, **palmate**.

三出的:具有三个相等或近相等的部分,大约或几乎互成直角地从一点长出的叶形(图4)。参考词汇:指状的,掌状的。

**158 tripartite**: divided into three parts.

三深裂的,三分的:分为三个部分的。

## (2E)

## DIVISION OF THE LAMINA

## 叶片的分裂方式

- 159 bipinnate (2-pinnate)**: divided into pinnae bearing pinnules (Fig. 5). *Cf.* **pinnate, quadripinnate, tripinnate.**  
 二回羽状的: 分裂为具有小羽片的羽片(图5)。参考词汇: 羽状的, 四回羽状的, 三回羽状的。
- 160 bipinnate-pinnatifid**: bipinnate with the pinnules pinnatifid.  
 二回羽状-羽状半裂的: 小羽片呈羽状半裂的二回羽状。
- 161 bipinnate-pinnatisect**: bipinnate with the pinnules pinnatisect.  
 二回羽状-羽状全裂的: 小羽片呈羽状全裂的二回羽状。
- 162 bipinnatifid**: pinnatifid with pinnatifid lobes (Fig. 5).  
 二回羽状半裂的: 裂片羽状半裂的羽状半裂(图5)。
- 163 compound**: composed of two or more similar parts, in laminae, pinnate or more divided. *Cf.* **decompound, simple.**  
 复合的: 由两个或更多的相似部分组成, 叶片指羽状或更分裂的。参考词汇: 多回分裂的, 单一的。
- 164 decompound**: several times divided, in laminae, those that are 3-pinnate or more divided. *Cf.* **compound, simple.**  
 多回分裂的: 经数次分裂的。叶片指那些三回羽状或更多次分裂的。参考词汇: 复合的, 单一的。
- 165 lobate**: having shallow sinuses that extend no more than half way from the lobe apex to the axis of the structure that bears the lobes (Fig. 5). *Subs.* **lobe.** *Syn.* **lobed.** *Cf.* **pinnate, pinnatifid, pinnatisect.**  
 浅裂的: 裂片具有不长于由其顶端到裂片所着生轴长度的1/2的浅凹缺(图5)。名词: 裂片。同义词: 浅裂的。参考

词汇:羽状的,羽状分裂的,羽状全裂的。

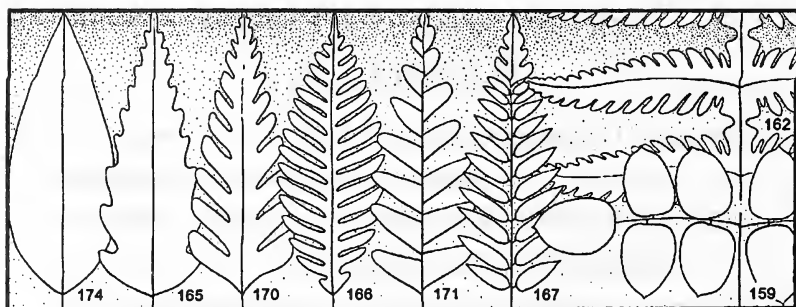


Fig. 5. DIVISION OF THE LAMINA

图 5. 叶片的分裂

**166 pectinate**: comb-like; pinnatisect with narrow, linear segments (Fig. 5).

梳状的:具有狭窄的线形裂片,如梳子一样的羽状全裂的(图5)。

**167 pinnate**: divided into entire to lobed pinnae that are contracted at the base (Fig. 5). Cf. **bipinnate**, **lobate**, **pinnatifid**, **pinnatisect**, **quadripinnate**, **tripinnate**.

羽状的:分裂为全缘至具裂的,基部狭缩的羽片。参考词汇:二回羽状的,浅裂的,羽状半裂的,羽状全裂的,四回羽状的,三回羽状的。

**168 pinnate-pinnatifid**: divided into pinnae with the pinnae pinnatifid.

羽状-羽状半裂的:分裂为羽片且羽片羽状半裂。

**169 pinnate-pinnatisect**: divided into pinnae with the pinnae pinnatisect.

羽状-羽状全裂的:分裂为羽片且羽片羽状全裂。

**170 pinnatifid**: incised nearly all the way to the axis, with the segments not contracted at their base (Fig. 5). Cf. **lobate**,

**pinnate, pinnatisect.**

羽状半裂的:羽裂几乎至轴,裂片的基本部并不狭缩的(图5)。

参考词汇:浅裂的,羽状的,羽状全裂的。

- 171 pinnatisect:** incised all the way to the axis, with the segments not contracted at their base (Fig. 5). *Cf.* **lobate, pinnate, pinnatifid.**

羽状全裂的:羽裂直达羽轴,裂片的基本部并不狭缩的(图5)。

参考词汇:浅裂的,羽状的,羽状分裂的。

- 172 quadripinnate (4-pinnate):** divided into pinnae bearing pinnules with the pinnules themselves bipinnate. *Cf.* **bipinnate, pinnate, tripinnate.**

四回羽状的:叶片分裂为具有小羽片的羽片,小羽片自身是二回羽状的。参考词汇:二回羽状的,羽状的,三回羽状的。

- 173 quadripinnatisect:** quadripinnate with the ultimate pinnules pinnatisect.

四回羽状全裂的:四回羽状且其末回小羽片羽状全裂的。

- 174 simple:** not divided, compound, or branched; in laminae, without segments or pinnae (subdivisions which are costulate or narrowed at the base); in pinnae, without pinnules (Fig. 5). *Cf.* **compound, decomposed.**

单一的:不分裂,不复合,也不分枝;指叶片无裂片或羽片(具有小肋或基部变狭的进一步分裂);对羽片则指无小羽片的(图5)。参考词汇:复合的,多回分裂的。

- 175 tripinnate (3-pinnate):** divided into pinnae bearing pinnules with the pinnules themselves pinnate. *Cf.* **bipinnate, pinnate, quadripinnate.**

三回羽状的(3-羽裂):叶分裂为具有小羽片的羽片,小羽片

也是羽裂的。参考词汇:二回羽状的,羽状的,四回羽状的。

**176 tripinnate-pinnatifid**: tripinnate with the secondary pinnules pinnatifid.

三回羽状-羽状半裂的:三回羽状,且二回小羽片羽状半裂的。

**177 tripinnate-pinnatisect**: tripinnate with the secondary pinnules pinnatisect.

三回羽状-羽状全裂的:三回羽状,二回小羽片羽状全裂的。

## (2F)

### INCISION OF THE LAMINA OR OTHER STRUCTURES

#### 叶片或其他结构的缺刻

**178 bifid**: cut into two narrow teeth, but not nearly to the base. *Cf. bipartite, quadrifid, quadripartite.*

二裂的:分开成两个窄齿,但不至近基部。参考词汇:二深裂的,四裂的,四深裂的。

**179 bifurcate**: divided into equal or subequal branches. *Syn. forked.*  
二叉的:分为相等或近相等的分枝。同义词:分叉的。

**180 bipartite**: divided into two similar parts nearly to the base. *Cf. bifid, quadrifid, quadripartite.*

二深裂的:近基部即分为相似的两部分的。参考词汇:二裂的,四裂的,四深裂的。

**181 dissected**: deeply divided into many parts.

多裂的:深裂为多个部分的。



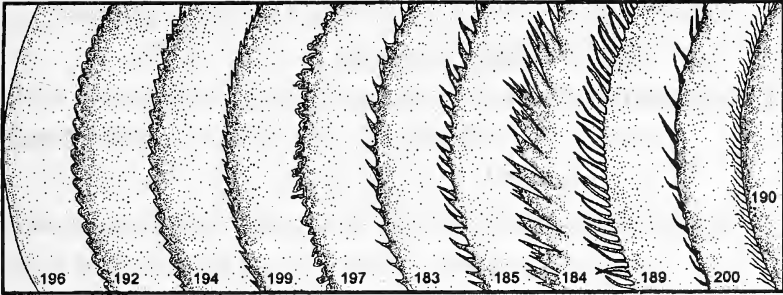


Fig. 6. INCISION AND MARGIN OF THE LAMINA OR  
OTHER STRUCTURES

图 6. 叶或其他结构的缺刻和边缘类型

**182 fissile:** readily tending to split or to be split, such as the laminae or pinnae of some *Trichomanes* species.

易裂的: 易于倾向分裂或被分裂的, 如 *Trichomanes* (瓶蕨属) 一些种的叶片或羽片。

**183 incised:** deeply, regularly, and sharply cut (Fig. 6). *Cf.* **lacerate, laciniate.**

锐裂的: 深而有规则地, 锐利地切入(图 6)。参考词汇: 撕裂的, 条裂的。

**184 lacerate:** deeply and irregularly cut, appearing almost torn (Fig. 6). *Cf.* **incised, laciniate.**

撕裂的: 深而不规则地切入, 看似被撕开的(图 6)。参考词汇: 锐裂的, 条裂的。

**185 laciniate:** cut into narrow lobes, commonly applied to laminae or pinnae (Fig. 6). *Cf.* **incised, lacerate.**

条裂的: 分裂为狭窄的裂片, 通常指叶片或羽片(图 6)。参考词汇: 锐裂的, 撕裂的。

**186 quadrifid:** divided into four parts, but not nearly to the base. *Cf.* **bifid, bipartite, quadripartite.**

四裂的:分裂为四个部分,但并不裂至近基部。参考词汇:二裂的,二深裂的,四深裂的。

**187 quadripartite:** divided into four similar parts to or nearly to the base, such as the fronds of *Marsilea*. Cf. **bifid, bipartite, quadrifid.**

四深裂的:至基部或近基部分为四个相似的部分的,如 *Marsilea* (萍属) 的叶片。参考词汇:二裂的,二深裂的,四裂的。

## (2G)

### MARGIN OF THE LAMINA OR OTHER STRUCTURES

#### 叶片或其他结构的边缘

**188 biserrate:** having large saw teeth on the margin directed toward the apex and smaller, similar teeth on the large ones.

重锯齿的:叶片边缘具有朝向顶端的大锯齿,并且在大锯齿上又具有相似的小锯齿。

**189 ciliate:** bearing flexible, thin, usually straight hairs, as the microphyll margins of many *Selaginella* species (Fig. 6). Dim. **ciliolate.** Ant. **eciliate.** Cf. **cinnate, setose.**

具缘毛的:具有柔软而细的,通常挺直的毛,如 *Selaginella* (卷柏属) 许多种小型叶的边缘(图6)。指小词:具小睫毛的。反义词:无缘毛的。参考词汇:具卷毛的,具刚毛的。

**190 cinnate:** bearing soft, somewhat curly hairs, such as the rhizome scales of certain species of *Sticherus* and *Oleandra* (Fig. 6). Cf. **ciliate, setose.**

具卷毛的: 具有柔软, 多少卷曲的毛的, 如 *Sticherus* (假芒萁属) 和 *Oleandra* (条蕨属) 某些种根状茎的鳞片 (图 6)。

参考词汇: 具缘毛的, 具刚毛的。

**191 contorted:** distorted; irregularly twisted.

扭曲的: 变形的, 不规则地扭曲的。

**192 crenate:** having rounded teeth; shallowly scalloped in a single plane (Fig. 6). *Dim.* crenulate. *Cf.* dentate, serrate.

具圆锯齿的: 具有圆形的齿, 并在单一平面上呈浅扇状 (图 6)。指小词: 具小圆锯齿的。参考词汇: 具齿的, 具锯齿的。

**193 crispate:** irregularly curled. *Cf.* entire, repand, sinuate, undulate.

具皱边的: 不规则卷曲的。参考词汇: 全缘的, 残波状的, 深波状的, 波状的。

**194 dentate:** having usually broad teeth that are directed outward from the margin, not acroscopically (Fig. 6). *Dim.* denticulate. *Cf.* crenate, entire, serrate, toothed.

具齿的: 通常具有宽阔的, 从边缘朝向外方而不朝向上方 (图 6) 的齿。指小词: 有细齿的。参考词汇: 具圆锯齿的, 全缘的, 具锯齿的, 有齿的。

**195 eciliate:** lacking cilia. *Ant.* ciliate.

无缘毛的: 缺乏缘毛的。反义词: 具缘毛的。

**196 entire:** having an even or smooth margin (not toothed or lobed) and with or without marginal hairs or cilia (Fig. 6). *Cf.* crispate, repand, sinuate, undulate.

全缘的: 具有一平滑的边缘 (无齿或裂), 有或无缘毛或纤毛 (图 6)。参考词汇: 具皱边的, 残波状的, 深波状的, 波状的。

**197 erose**: irregularly cut away and appearing eroded, applied to the margins of scales and of indusia (Fig. 6).

啮蚀状的:指鳞片或囊群盖的边缘,不规则地切去,似乎是被侵蚀过的(图6)。

**198 repand**: irregularly wavy. Cf. **crispate**, **entire**, **sinuate**, **undulate**.

残波状的:呈不规则波浪形的。参考词汇:具皱边的,全缘的,深波状的,波状的。

**199 serrate**: having usually broad teeth on the margin directed acropically (Fig. 6). *Dim.* **serrulate**. Cf. **crenate**, **dentate**.

具锯齿的:边缘通常具有宽阔的、朝向上方的齿(图6)。指小词:具细锯齿的。参考词汇:具圆锯齿的,具齿的。

**200 setose**: bearing stiff, thin, straight hairs, as on the laminae and stipes of certain species of Grammitidaceae (Fig. 6). *Dim.* **setulose**. Cf. **ciliate**, **cincinnate**.

具刚毛的:具有硬的,纤细平直的毛,如 Grammitidaceae(禾叶蕨科)一些种的叶和叶柄上所具有的(图6)。指小词:具细刚毛的。参考词汇:具纤毛的,具卷曲毛的。

**201 sinuate**: distinctly wavy. Cf. **crispate**, **entire**, **repand**, **undulate**.

深波状的:明显呈波浪形的。参考词汇:具皱边的,全缘的,残波状的,波状的。

**202 toothed**: having narrowly triangular projections from the margin of a structure, such as the involucre of *Hymenophyllum* sect. *Ptychophyllum* Cf. **dentate**.

具齿的:在一组织的边缘具有窄三角形的突起,如在 *Hymenophyllum* (膜蕨属) *Ptychophyllum* 组的囊苞。参考词汇:

具齿的。

**203 uncinat**e: having hook-like projections. *Cf.* **416 hamate**.

钩状的: 具有钩形突起的。参考词汇: **416 具钩的**。

**204 undulate**: wavy and not straight in profile. *Cf.* **crispate**, **entire**, **repand**, **sinuate**.

波状的: 波浪形的, 在外观上不平直的。参考词汇: 具皱边的, 全缘的, 残波状的, 深波状的。

## POSITION

### 位置

#### (3A)

### SERIES

#### 排列

**205 biseriate**: disposed in two rows. *Cf.* **multiseriate, uniseriate.**

二列的:排成两行的。参考词汇:多列的,单列的。

**206 multiseriate**: disposed in more than two rows; in scales, formed entirely or in part of more than two multicellular files (rows) of cells. *Cf.* **biseriate, uniseriate.**

多列的:排成两行以上的,在鳞片指完全或部分由二列以上的多细胞列组成的。参考词汇:二列的,单列的。

**207 seriate**: disposed in series or rows, applied to a group of similar structures so arranged. *Subs.* **series.**

成列的:指一组相似的结构排成列或行的。名词:列。

**208 uniseriate**: disposed in one row. *Cf.* **biseriate, multiseriate.**

单列的:排成一行的。参考词汇:二列的,多列的。

#### (3B)

### PROXIMITY TO OTHER STRUCTURES

#### 与其他结构的接近度

**209 adjacent**: next to each other, but not overlapping or touching.

相邻的:相互邻近,但不重叠也不接触的。

**210 approximate**: closely spaced, and so nearly touching. *Cf.* **contiguous, distant, imbricate.**

紧靠的:间隔极近,几乎接触的。参考词汇:毗邻的,远生的,覆瓦状的。

- 211 coalescent:** fusing; marked uniting of originally separate structures during their subsequent development, such as the stipe bases on the tubers of *Microgramma* subg. *Solanopteris*. Cf. **confluent, connivent, discrete.**

接合的:融合的;原本分离的结构在它们后来的发育过程中明显地结合在一起,如 *Microgramma* 属 *Solanopteris* 亚属球根上的叶柄基部。参考词汇:汇合的,靠合的,分离的。

- 212 compact:** pressed together or closely joined, in rhizomes, those with short internodes and closely spaced stipes.

密接的:挤在一起或紧密相连的,在根状茎指那些具有短的节间,叶柄密切相邻的类型。

- 213 condensed:** having the parts crowded together to a greater degree than is typical.

紧缩的:与典型的类型相比,各部分更大程度地密集在一起的。

- 214 confluent:** converging; growing near to and eventually touching, commonly applied to sori. Cf. **coalescent, connivent, discrete.**

汇合的:聚集在一起的,随着生长渐渐靠近且最终触及的,通常用于孢子囊群。参考词汇:接合的,靠合的,分离的。

- 215 congested:** crowded; accumulated into a point or region.

拥挤的:密集的,堆积于一点或一个区域的。

- 216 connivent:** coming together, but not joined, commonly applied to veins from two or more vein groups that approach one another. Cf. **coalescent, confluent, discrete.**

靠合的:聚集在一起但并不相连的,通常应用于彼此接近的两

个或更多叶脉组的叶脉。参考词汇:接合的,汇合的,分离的。

**217 contiguous:** having the parts touching. *Cf.* **approximate, distant, imbricate.**

邻接的:各部分相接触的。参考词汇:紧靠的,远生的,覆瓦状的。

**218 discrete:** separate. *Cf.* **coalescent, confluent, connivent.**

分离的:分开的。参考词汇:接合的,汇合的,靠合的。

**219 distant:** having similar parts that are well separated and not overlapping or touching, applied to stipes, pinnae, pinnules, or segments. *Syn.* *remote.* *Cf.* **approximate, contiguous, imbricate.**

远生的:相似的几个部分完全分离,不重叠也不接触的,用于叶柄,羽片,小羽片或裂片。同义词:远离的。参考词汇:紧靠的,邻接的,覆瓦状的。

**220 imbricate:** overlapping, commonly applied to similar structures like pinnae, pinnules, or microphylls. *Cf.* **approximate, contiguous, distant.**

覆瓦状的:重叠的,通常用于像羽片,小羽片或小型叶这样的类似结构。参考词汇:紧靠的,邻接的,远生的。

**221 intricate:** entangled, commonly applied to hairs.

缠绕的:纠缠在一起的,通常应用于毛被。

**222 solitary:** single, and so not near another similar structure.

单生的:单一的,从而并不靠近另一个相似的结构。

**223 subtended:** extended under; growing close to but at a slightly more proximal position on an axis.

衬托的:在同一轴上延伸于下面,长得靠近,但位于略更近轴的位置。



## (3C)

## DISPERSION OF SIMILAR STRUCTURES

## 相似结构的分布

224 **aggregated**: clustered.

聚集的: 密集的。

225 **diffuse**: distributed rather evenly and distantly. *Syn. scattered.*

分散的: 分布比较均匀且远离的。同义词: 散布的。

226 **fasciculate**: in a closely set cluster, as if from a single point, commonly applied to hairs or stipes.

簇生的: 紧密成簇, 好像出自一点的, 通常指毛或叶柄。

## (3D)

## DIVERGENCE OF SIMILAR STRUCTURES

## 相似结构的分叉

227 **divaricate**: widely divergent; inclined markedly away from each other. *Cf. divergent, spreading.*

极叉开的: 分叉宽阔, 倾向于彼此明显分离的。参考词汇: 分叉的, 散开的。

228 **divergent**: inclined somewhat away from each other. *Cf. divaricate, spreading.*

略叉开的: 倾向于彼此稍微分离的。参考词汇: 极叉开的, 散开的。

229 **radial**: radiating from a central point.

辐射状的: 由一中心点辐射开的。

230 **spreading**: diverging ever more strongly in different directions, and so greatly separated distally one from another, as the labia of the involucre of *Trichomanes crispum*. *Syn.*

*flared*. Cf. **divaricate**, **divergent**.

散开的:最大程度地向不同的方向分叉,从而远端彼此远离的,如 *Trichomanes crispum* (皱波瓶蕨) 囊苞的下唇瓣。  
同义词:张开的。参考词汇:极叉开的,略叉开的。

### (3E)

## POSITION OF APPENDAGES RELATIVE TO A SURFACE

### 附属物相对于着生表面的位置

**231 appressed**: tightly pressed against a surface. Cf. **ascending**, **patent**, **reflexed**.

紧贴的:紧密地贴生于一个表面上。参考词汇:上升的,伸展的,反折的。

**232 ascending**: obliquely directed away from a surface and toward the apex of the structure on which it is borne. Cf. **appressed**, **patent**, **reflexed**.

上升的:从它所着生结构的一个表朝轴向顶端斜向离开。参考词汇:紧贴的,伸展的,反折的。

**233 patent**: directed strongly away from the surface of the structure on which it is borne. Cf. **appressed**, **ascending**, **reflexed**.

伸展的:强烈地指向离开其所着生结构的表面。参考词汇:紧贴的,上升的,反折的。

**234 reflexed**: obliquely directed away from a surface and toward the base of the structure on which it is borne. *Syn.* *deflexed*. Cf. **appressed**, **ascending**, **patent**.

反折的:从它所着生结构的一个表面朝向基部斜向离开。同义词:向下弯曲的。参考词汇:紧贴的,上升的,伸展的。

## (3F)

ARRANGEMENT OF LATERAL STRUCTURES  
ALONG AN AXIS

## 侧生结构沿轴的排列

**235 alternate:** having one structure, in ferns usually a pinna, inserted at a single point along an axis. *Cf.* **opposite, verticillate.**

互生的: 一个结构, 在蕨类通常是指一羽片沿轴在单一点上着生的。参考词汇: 对生的, 轮生的。

**236 decussate:** disposed in four ranks in two planes that lie at right angles to each other. *Cf.* **distichous, polystichous, secund.**

交互对生的: 在两个面上互成直角地排成四列的。参考词汇: 二列的, 多列的, 单边的。

**237 distichous:** disposed in two ranks in a single plane, one on each side of an axis. *Cf.* **decussate, polystichous, secund.**

二列的: 在一个面上位于轴的两边排成二列的。参考词汇: 交互对生的, 多列的, 单边的。

**238 opposite:** having two structures, in ferns usually pinnae, inserted opposite each other at a single point along an axis. *Cf.* **alternate, verticillate.**

对生的: 两个结构, 在蕨类通常是羽片, 沿轴在同一点上相对着生。参考词汇: 互生的, 轮生的。

**239 polystichous:** disposed in several (usually more than three) spiralled ranks along and around an axis. *Cf.* **decussate, distichous, secund.**

多列的: 沿着叶轴环绕排列成数个(通常三个以上)螺旋形的

行列。参考词汇:交互对生的,二列的,单边的。

- 240 secund:** disposed in one rank in a single plane on one side of an axis. *Cf.* **decussate, distichous, polystichous.**

单边的,偏向(一边)的:在轴的一边,于一个面上排成一列的。

参考词汇:交互对生的,二列的,多列的。

- 241 spiralled:** disposed in a spiral or helix along and around a longitudinal axis. *Syn.* *twisted.* *Cf.* **151 helicoid.**

螺旋形的:沿着纵轴环绕排成螺旋形或螺旋线形。同义词:扭曲的。参考词汇:151 螺旋状的。

- 242 verticillate:** having three or more similar structures inserted at a single point along an axis. *Subs.* **verticil.** *Syn.* *whorled.* *Cf.* **alternate, opposite.**

轮生的:三个或三个以上相似的结构沿着轴的同一点着生。名词:轮。同义词:轮状的。参考词汇:互生的,对生的。

### (3G)

## POSITION RELATIVE TO AN APEX, AXIS, OR MARGIN

### 相对于顶端、轴或边缘的位置

- 243 abaxial:** the side of a lateral structure that faces away from the axis on which the structure is borne. *Ant.* **adaxial.** *Cf.* **ventral.**

背轴的,远轴的:侧生的结构背向该结构所着生轴的一面。反义词:向轴的,近轴的。参考词汇:腹面的。

- 244 acroscopic:** facing or directed toward the apex of the axis on which the structure is borne. *Ant.* **basisopic.** *Cf.* **distal.**

向顶的:面向或朝向该结构所着生轴的顶端。反义词:向基

的。参考词汇:末端的。

- 245 adaxial**: the side of a lateral structure that faces toward the axis on which the structure is borne. *Ant.* **abaxial**. *Cf.* **dorsal**.

向轴的,近轴的:侧生的结构面向该结构所着生轴的一面。反义词:背轴的,远轴的。参考词汇:背面的。

- 246 antorse**: directed sharply toward the apex, commonly applied to hairs and cilia. *Ant.* **retorse**.

向上的,向前的:朝向顶端,通常用于毛和缘毛。反义词:向下的,向后弯的。

- 247 apical**: at or pertaining to the apex or tip, especially of complex structures or organs like roots, rhizomes, or fronds. *Subs.* **apex**. *Subs. Pl.* **apices**. *Ant.* **basal**. *Cf.* **lateral**, **terminal**.

顶端的:位于或属于顶端或末梢的,尤指像根,根状茎或叶片这样复杂的结构或器官。名词:顶端。反义词:基部的。参考词汇:侧生的,顶生的。

- 248 basal**: at the base or pertaining to the base. *Subs.* **base**. *Ant.* **apical**.

基部的:位于基部或属于基部的。名词:基部。反义词:顶端的。

- 249 basiscopic**: facing or directed toward the base of the axis on which the structure is borne. *Ant.* **acroscopic**. *Cf.* **proximal**.

向基的:面向或是指向该结构所着生的轴基部。反义词:向顶的。参考词汇:近基的,近轴的。

- 250 distal**: toward or near the apex. *Cf.* **acroscopic**, **medial**, **proximal**.

末端的:朝向或是近顶端的。参考词汇:向顶的,中间的,近

基的。

**251 dorsal**: the upper side of a horizontal axis, such as a creeping rhizome, or of a plane non-vascular structure, such as a gametophyte. *Ant.* **ventral**. *Cf.* **adaxial**.

背面的:一水平轴的上边,如匍匐的根状茎,或是一平面的无维管结构的上面,如配子体。反义词:腹面的。参考词汇:向轴的,近轴的。

**252 excurrent**: running or pointing toward the margin or outward or away from the point of origin, usually applied to veinlets. *Cf.* **recurrent**.

延伸的:延伸或指向边缘或外方,或远离起始点的,通常应用于小脉。参考词汇:倒行的。

**253 extrorse**: facing or opening toward the margin (away from a central axis) or apex (acroscopically), usually applied to indusia. *Ant.* **introrse**.

向外的:面向或是开口朝向边缘(背向中轴)或者是(向上地)朝向顶端的,通常用于囊群盖。反义词:向内的。

**254 incurved**: curved acroscopically or adaxially toward an apex or axis. *Ant.* **recurved**.

内弯的:向上或向轴,朝着顶端或轴的方向弯曲的。反义词:外弯的,下弯的。

**255 introrse**: facing or opening away from the margin (toward a central axis) or apex (basiscopically), usually applied to indusia. *Ant.* **extrorse**.

向内的:面向或开口背向边缘(朝向中轴)或是背离顶点(向基部)的,通常用于囊群盖。反义词:向外的。

**256 lateral**: on or near the side. *Cf.* **apical**, **terminal**.

侧生的:在侧面或是近侧边的。参考词汇:顶端的,顶生的。

**257 medial**: in the middle, midway between the base and apex. *Cf.*  
**distal, proximal.**

中间的: 在中间, 在基部和顶点之间的中部。参考词汇: 末端的, 近基的。

**258 oblique**: slanting; at an angle to an axis or other structure.

斜的: 倾斜的, 相对于轴或某一结构具有角度的。

**259 proximal**: toward or near the base. *Cf.* **basiscopic, distal, medial.**

近基的: 向基部或是接近基部的。参考词汇: 向基的, 末端的, 中间的。

**260 recurrent**: running or pointing toward the midrib or point of origin, usually applied to veins. *Cf.* **excurrent.**

倒行的: 延伸或指向中肋或起始点的, 通常用于叶脉。参考词汇: 延伸的。

**261 recurved**: curved basiscopically or abaxially toward a base or axis. *Ant.* **incurved.**

外弯的, 下弯的: 向下或远轴地向基部或轴弯曲的。反义词: 内弯的。

**262 retroflexed**: bent sharply basiscopically from the base, applied to pinnae or pinnules. *Syn.* **refracted.**

反折的: 从基部急剧地向下侧弯曲的, 用于羽片或小羽片。同义词: 屈折的。

**263 retrorse**: directed sharply toward the base, applied especially hairs and cilia. *Ant.* **antrorse.**

向下的, 向后弯的: 急剧地指向基部的, 尤用于毛和纤毛。反义词: 向上的, 向前的。

**264 suprabasal**: just above the base, usually applied to pinnae or pinnules.

基部下侧的:恰好位于基部之下的,通常用于羽片和小羽片。

**265 terminal**: at or pertaining to the apex or tip, commonly applied to simple structures like hairs, scales, or paraphyses. *Cf.* **apical, lateral.**

顶生的:位于或属于顶点或尖端的,通常用于如毛,鳞片或隔丝这样的简单结构。参考词汇:顶端的,侧生的。

**266 transverse**: perpendicular to the axis in position.

横的:在位置上垂直于轴的。

**267 ventral**: the lower side of a horizontal axis, such as a creeping rhizome, or of a plane non-vascular structure, such as a gametophyte. *Ant.* **dorsal.** *Cf.* **abaxial.**

腹面的:一水平轴的下边,如匍匐根状茎或一平面的无维管结构,如配子体的下面。反义词:背面的。参考词汇:远轴的。

### (3H)

## POSITION BETWEEN AN AXIS AND A MARGIN

### 轴和边缘之间的位置

**268 costal**: along the costa, costule, or midrib. *Cf.* **inframedial, intramarginal, marginal, medial, supramedial.**

中肋的:沿着中肋,小肋或主脉的。参考词汇:中部内的,边缘内的,边缘的,中间的,中部外的。

**269 inframedial**: proximal to the middle, applied to sori that are a little closer to the costa or costule than to the margin. *Cf.* **costal, intramarginal, marginal, medial, supramedial.**

中部内的:近中部的,用于指离中肋或小肋比离边缘要近一些的孢子囊群。参考词汇:中肋的,边缘内的,边缘的,中间的,中部外的。



**270 intramarginal**: near the margin, often applied to sori. *Cf.* **costal, inframedial, marginal, medial, supramedial.**

边缘内的: 近边缘的, 通常用于孢子囊群。参考词汇: 中肋的, 中部内的, 边缘的, 中间的, 中部外的。

**271 marginal**: pertaining to the margin, in sori, borne on the margin, rather than on the surface. *Ant.* **superficial.** *Cf.* **costal, inframedial, intramarginal, medial, supramedial.**

边缘的: 位于边缘的, 对于孢子囊群而言指生于边缘而不是在表面上。反义词: 表面的。参考词汇: 中肋的, 中部内的, 边缘内的, 中间的, 中部外的。

**272 medial**: in the middle, in sori, borne midway between the costa or costule and the margin. *Cf.* **costal, inframedial, intramarginal, marginal, supramedial.**

中间的: 在中间的, 指孢子囊群指生于中肋或小肋与边缘的中间的。参考词汇: 中肋的, 中部内的, 边缘内的, 边缘的, 中部外的。

**273 superficial**: on the surface of the lamina, rather than on the margin, applied especially to sorus position. *Ant.* **marginal.**

表面的: 生于叶片的表面而不是边缘的, 尤其用于孢子囊群的位置。反义词: 边缘的。

**274 supramedial**: distal to the middle, applied to sori that are a little farther from the costa or costule than the margin. *Cf.* **costal, inframedial, intramarginal, marginal, medial.**

中部外的: 中部远端的, 指孢子囊群的着生位置距中肋或小肋比距边缘要远的。参考词汇: 中肋的, 中部内的, 边缘内的, 边缘的, 中间的。

## (31)

POSITION OF SORI AND VEINS RELATIVE  
TO THE LAMINA SURFACE

孢子囊群和叶脉相对于叶表面的位置

**275 complanate:** at the same level as the surface. *Cf.* **immersed, impressed, prominulous, superficial.** *Syn. flush.*

平面的:与着生表面在同一平面上的。参考词汇:内陷的,略下陷的,突出的,表面的。同义词:平齐的。

**276 immersed:** within lamina tissue, and so not readily seen upon cursory examination. *Cf.* **complanate, impressed, prominulous, superficial.**

内陷的:在叶组织内,从而由粗略的检查不容易看到的。参考词汇:平面的,略下陷的,突出的,表面的。

**277 impressed:** at a level below the surface of lamina tissue, but not completely immersed in it, thus readily seen upon cursory examination. *Cf.* **complanate, immersed, prominulous, superficial.**

略下陷的:在叶组织表面之下,但是并不完全陷入其中,从而由粗略的检查可以看到。参考词汇:平面的,内陷的,突出的,表面的。

**278 prominulous:** slightly raised above the lamina tissue, and so readily seen upon cursory examination, applied to midribs, costae and veins. *Cf.* **complanate, immersed, impressed, superficial.**

突出的:略微高于叶组织,从而易于在粗略的检查中观察到的,用于主脉,中肋和叶脉。参考词汇:平面的,内陷的,略下陷的,表面的。

**279 superficial**: on the surface, commonly applied to sori. *Cf.* **complanate, immersed, impressed, prominulous.**

表面的: 位于表面上的, 通常指孢子囊群。参考词汇: 平面的, 内陷的, 略下陷的, 突出的。

## GROWTH

生长

(4A)

## DEVELOPMENT

发育

(4A1)

## MATURATION THROUGH TIME

成熟的时间历程

**280 adult**: having the most fully developed morphology. *Ant.* **juvenile**.

成长的:具有充分发育的形态的。反义词:幼态的。

**281 heteroblastic**: exhibiting a continuum of small to large and often differently shaped fronds formed successively by juvenile to mature plants. *Cf.* **juvenile**.

异态的:植株由幼小到成熟的过程中,连续形成一系列从小到大并通常具有不同形态的叶片的。参考词汇:幼态的。

**282 immature**: young; still capable of growth and/or maturation. *Cf.* **mature**, **senescent**.

不成熟的:幼嫩的,仍能继续生长和/或成熟的。参考词汇:成熟的,衰老的。

**283 juvenile**: lacking the most fully developed morphology; in ferns, juveniles may be precociously fertile. *Ant.* **adult**. *Cf.* **heteroblastic**.

幼态的:缺乏充分发育的形态学特征的,在蕨类,幼态可指早熟能育的。反义词:成长的。参考词汇:异态的。

**284 mature**: incapable of further growth or maturation (especially in determinate structures). *Cf.* **immature**, **senescent**.

成熟的:不能再继续生长或成熟(尤其是有限生长的结构)。

参考词汇:不成熟的,衰老的。

**285 neotenic**: retaining juvenile characteristics throughout the life span.

幼态持续的:在整个生活史过程中都保持幼态特征的。

**286 senescent**: grown old. *Cf.* **immature**, **mature**.

衰老的:长老了。参考词汇:不成熟的,成熟的。

**287 teneral**: in the maturation of fronds, the stage following full expansion, prior to maturation and hardening of the laminar tissues and formation of sporangia.

幼嫩的:在叶的成熟阶段,叶完全展开以后,在叶片组织成熟和硬化、孢子囊形成之前的阶段。

#### (4A2)

### MATURATION THROUGH SPACE

#### 成熟的空间历程

**288 acropetal**: maturing in succession from the base of a structure towards its apex. *Ant.* **basipetal**.

向顶的:一个结构由基部向顶端逐渐成熟的过程。反义词:向基的。

**289 basipetal**: maturing in succession from the apex of a structure towards its base. *Ant.* **acropetal**.

向基的:一个结构由顶端向基部逐渐成熟的过程。反义词:向顶的。

**290 determinate**: genetically limited in growth, and so usually regular in size or shape. *Ant.* **indeterminate**.

有限的:生长受遗传限制,从而通常在形态或大小上是固定的。  
反义词:无限的。

- 291 indeterminate:** genetically unlimited in growth, and so usually irregular in size or shape, in ferns, often applied to the rachis or other axes, as in *Lygodium* and *Salpichlaena*. *Ant. determinate.*

无限的:在遗传上生长不受限制的,从而通常在形态和大小上是不固定的。在蕨类,通常用于叶轴或其他轴,如 *Lygodium* (海金沙属) 和 *Salpichlaena*。反义词:有限的。

### (4A3)

## CONTINUITY OF DEVELOPMENT

### 发育的连贯性

- 292 complete:** fully developed over its usual length or area. *Ant. incomplete.*

完全的:充分发育超过其通常的长度或面积的。反义词:不完全的。

- 293 continuous:** not interrupted or broken. *Ant. interrupted.*

连续的:不被中断的。反义词:中断的。

- 294 incomplete:** not fully developed over the usual length or area. *Ant. complete.*

不完全的:未能充分发育超过其通常的长度或面积的。反义词:完全的。

- 295 interrupted:** not continuous; broken by intervening incisions, breaks in venation, or other causes, such as a linear sori, by incisions in the lamina margin. *Ant. continuous.*

中断的:不连续的,即由于缺刻的介入,脉序终止;或是其他原

因,如叶缘缺刻的出现而使孢子囊群的线形排列中断。  
反义词:连续的。

## (4A4)

## UNDERDEVELOPMENT

## 未充分发育

**296 abortive:** developed incompletely or distorted, and so not well formed, applied especially to reproductive structures like sporangia and spores.

败育的:未充分发育或发育异常,从而未能较好成型的,尤其用于像孢子囊和孢子这样的繁殖结构。

**297 contracted:** narrowed or shortened, often applied to subdimorphic fertile laminae or pinnae. *Ant.* **303 expanded.**

收缩的:变窄或是缩短的,通常用于近二形的能育叶或羽片。  
反义词:303 扩大的。

**298 depauperate:** dwarfed in development due to poor growing conditions.

发育不全的:由于生长条件不良而发育矮小的。

**299 obsolete:** reduced in size or length nearly to the point of elimination, applied especially to stipes. *Cf.* **rudimentary, vestigial.**

退化的:大小或长度减少至几乎消失的,尤指叶柄。参考词汇:未完全发育的,残留的。

**300 reduced:** simplified or smaller than usual. *Syn.* *abbreviated.* *Ant.* **305 produced.**

简化的,减小的:与正常的相比变得简单化或是变小了的。同义词:缩短的。反义词:305 伸长的。

**301 rudimentary:** slightly or partially developed. *Cf.* **obsolete.**

未完全发育的:略微或是部分发育的。参考词汇:退化的。

**302 vestigial**: occurring in reduced form, compared with a more developed form in related or ancestral species. *Cf.* **obsolete**.

遗迹的:存在于退化类型,与相关种或祖先种中较发育的类型相比,形态简化的。参考词汇:退化的。

### (4A5)

### OVERDEVELOPMENT

#### 过度发育

**303 expanded**: increased in area or size. *Ant.* **297 contracted**.

扩大的:面积或体积增加的。反义词:**297** 收缩的。

**304 exerted**: projecting beyond another structure, applied especially to the filiform receptacle of many *Trichomanes* species.

伸出的:突出于另一结构的,尤其用于 *Trichomanes* (瓶蕨属) 许多种的丝状囊托。

**305 produced**: more greatly developed than is usual, applied especially to auricles or other parts of laminae or other plane structures. *Ant.* **300 reduced**. *Cf.* **prolonged**.

伸长的:与正常的相比更为发育的,尤其用于叶耳或叶片其他部分,或其他平面结构。反义词:**300** 简化的,减小的。参考词汇:延长的。

**306 prolonged**: more greatly extended than is usual, applied especially to axes. *Cf.* **produced**.

延长的:与正常的相比极为伸长的,尤其用于轴。参考词汇:伸长的。



## (4B)

## ATTACHMENT

## 着生

**307 adnate**: attached, usually laterally, to an unlike structure, such as a pinnule to the costa. *Cf.* **connate, free.**

贴生的:通常由侧面附着到一个不一样的结构上的,如小羽片着生于中肋上。参考词汇:合生的,离生的。

**308 basifixed**: attached at the base; commonly applied to lanceate or lanceolate scales. *Cf.* **dorsifixed, peltate.**

基着的:于基部附着的,通常用于似披针形或披针形鳞片。参考词汇:背着的,盾状的。

**309 clasping**: embracing or surrounding the axis.

抱茎的:包围或是围绕着轴的。

**310 connate**: joined, usually laterally, to a similar structure, as one pinna to another. *Cf.* **adnate, free.**

合生的:通常由侧面连接到一个相似的结构上的,如一个羽片连接到另一个羽片上。参考词汇:贴生的,离生的。

**311 decurrent**: extending basiscopically on and adnate to an axis. *Cf.* **surcurrent, sursumcurrent.**

下延的:向下侧延伸并贴生于轴上的。参考词汇:上延的,上下延的。

**312 dorsifixed**: attached by the back (not by the base), such as the elongate rhizome scales of some species of *Campyloneurum*. *Cf.* **basifixed, peltate.**

背着的:由背面(非基部)连接的,如 *Campyloneurum* (弯脉蕨属)一些种伸长的根状茎鳞片。参考词汇:基着的,盾状的。

**313 exstipitate**: lacking a stipe. *Ant.* **stipitate**.

无柄的: 缺乏叶柄的。反义词: 具柄的。

**314 free**: not joined or attached to a similar or different structure. *Cf.*  
**adnate, connate**.

离生的: 不连接或不附着到一个相似或不同的结构上的。参  
考词汇: 贴生的, 合生的。

**315 pedicellate**: having a pedicel, applied to sporangia. *Ant.* **sessile**.

具柄的: 指孢子囊具有一柄的。反义词: 无柄的。

**316 peltate**: attached by a central pedicel, applied to certain indusia  
and scales. *Cf.* **basifixed, dorsifixed**.

盾状的: 由一中央的柄附着的, 见于某些囊群盖和鳞片。参考  
词汇: 基着的, 背着的。

**317 petiolulate**: having a free basal portion, applied to pinnae and  
pinnules. *Syn.* *stalked*. *Ant.* **sessile**. *Cf.* **stipitate**.

具小叶柄的: 具有一单独的基部部分的, 用于羽片和小羽片。  
同义词: 具柄的。反义词: 无柄的。参考词汇: 具柄的。

**318 sessile**: lacking a free, basal portion of a stipe, costa or costule;  
also applied to organs and structures that lack a pedicel or  
foot. *Ant.* **pedicellate, petiolulate**.

无柄的: 叶柄, 中肋或是小肋缺乏一单独的基部部分的, 也可  
指器官或组织缺乏柄或足的。反义词: 具柄的, 具小叶  
柄的。

**319 stipitate**: having a stipe. *Ant.* **exstipitate**. *Cf.* **petiolulate**.

有柄的: 具有叶柄的。反义词: 无柄的。参考词汇: 具小叶  
柄的。

**320 surcurrent**: extending acropically on and adnate to an axis.  
*Cf.* **decurrent, sursumcurrent**.

上延的: 向上延伸并贴生于轴的。参考词汇: 下延的, 上下

延的。

- 321 sursumcurrent**; extending both acroscopically and basiscopically on and adnate to an axis. *Cf.* **decurrent, surcurrent.**  
 上下延的:同时向上,向下延伸并贴生于轴的。参考词汇:下延的,上延的。

#### (4C)

### PERSISTENCE

#### 持续性

- 322 caducous**; early deciduous, even prior to the maturation of the structure on which it is borne. *Syn.* *fugacious.* *Cf.* **deciduous, persistent.**  
 早落的:较早脱落的,甚至在其所着生的结构成熟以前即脱落的。同义词:短暂的。参考词汇:脱落的,宿存的。
- 323 deciduous**; detaching usually between maturity and senescence. *Cf.* **caducous, 905 abscissent, persistent.**  
 脱落的:在成熟后,衰老以前脱离的。参考词汇:早落的,905脱落的,宿存的。
- 324 marcescent**; remaining attached long past maturity, but in a withered state. *Cf.* **persistent.**  
 凋萎的:在成熟后很长时间以枯萎状态附着的。参考词汇:宿存的。
- 325 persistent**; remaining attached long past maturity in good condition. *Cf.* **caducous, deciduous, marcescent.**  
 宿存的:在成熟后很长时间仍以好的状态附着的。参考词汇:早落的,脱落的,凋萎的。

## SUBSTANCE

### 组成物质

#### (5A)

### FRAGILITY

#### 脆性

326 **brittle**: breaking or shattering when bent.

脆的: 在弯曲时可折断或破碎的。

327 **delicate**: fragile; easily broken. *Ant.* **robust**.

纤弱的: 脆弱的, 易于折断或是弄坏的。反义词: 粗壮的。

328 **firm**: resistant to bending or breaking; between stiff and flexible in elasticity.

结实的: 可抗折或抗破坏, 且弹性居于坚硬和柔韧之间的。

329 **flaccid**: limp or flabby.

柔弱的: 柔软的或是松软的。

330 **flexible**: easily bent or twisted by hand.

柔韧的: 用手易于弯曲或是扭曲的。

331 **lax**: so weak as to be scarcely self-supporting.

疏松的: 很柔弱以致于几乎不能支撑自身的。

332 **robust**: thick and not easily broken. *Syn.* *stout.* *Ant.* **delicate**.

粗壮的: 粗且不易被折断的。同义词: 结实的。反义词: 纤弱的。

333 **stiff**: rigid and unbending; not flexible or brittle.

硬的: 质地硬而挺直的; 不易弯曲或脆断的。

## (5B)

## THICKNESS AND TEXTURE

## 厚度和质地

- 334 **carnose**: having the texture of flesh, succulent and firm.  
肉质的: 具有肉一样的质地, 多汁而结实的。
- 335 **cartilaginous**: thick and slightly flexible.  
软骨质的: 厚而略具柔韧性的。
- 336 **chartaceous**: having the texture of thick and rigid writing paper.  
*Cf.* **coriaceous, membranaceous, papyraceous, spongiouse.**  
坚纸质的: 具有厚而硬的书写纸的质地的。参考词汇: 革质的, 膜质的, 纸质的, 海绵质的。
- 337 **coriaceous**: leathery in texture and thick. *Cf.* **chartaceous, membranaceous, spongiouse.**  
革质的: 厚而质地似皮革的。参考词汇: 坚纸质的, 膜质的, 海绵质的。
- 338 **herbaceous**: rather thin and soft in texture.  
草质的: 质地较薄而软的。
- 339 **hyaline**: very thin, translucent, and colorless. *Cf.* **scariosus.**  
透明的: 非常薄, 半透明且无色的。参考词汇: 干膜质的。
- 340 **indurated**: becoming hard and thick.  
硬化的: 变得坚硬而厚的。
- 341 **membranaceous**: thin and very flexible. *Cf.* **chartaceous, coriaceous, papyraceous, spongiouse.**  
膜质的: 薄而很柔韧的。参考词汇: 坚纸质的, 革质的, 纸质的, 海绵质的。
- 342 **papyraceous**: having the texture and thickness of rather thin pa-

per. *Cf.* **chartaceous, coriaceous, membranaceous, spongiöse.**

纸质的:具有较薄的纸的质地和厚度的。参考词汇:坚纸质的,革质的,膜质的,海绵质的。

**343 scarios:** very thin and appearing dry. *Cf.* **hyaline.**

干膜质的:极薄而显得干燥的。参考词汇:透明的。

**344 sclerotic:** hard or stony.

硬化的:坚硬或硬如石的。

**345 shrivelled:** curled and wrinkled because of tissue collapse and the loss of moisture, often in age.

皱缩的:由于组织萎陷和失去水分,从而引起卷曲和皱缩的。

**346 spongiöse:** spongy in texture and thick. *Cf.* **chartaceous, coriaceous, membranaceous, papyraceous.**

海绵质的:质地和厚度呈海绵状的。参考词汇:坚纸质的,革质的,膜质的,纸质的。

## (5C)

### TRANSPARENCY

#### 透明度

**347 occluded:** filled with material or colored in such a way as to be opaque.

不透光的:充满物质或是着色的,从而不透明的。

**348 opaque:** not capable of transmitting light. *Cf.* **translucent, transparent.**

不透明的:不能让光线透过的。参考词汇:半透明的,透明的。

**349 translucent:** sufficiently clear to pass light, but not an image.

*Syn.* **diaphanous.** *Cf.* **opaque, transparent.**

半透明的:足以透过光线,但是不能透过图像的。同义词:近

透明的。参考词汇:不透明的,透明的。

**350 transparent**; sufficiently clear to pass an image. *Syn.* *diaphanous.* *Cf.* **opaque, translucent.**

透明的:足以清晰地透过图像的。同义词:近透明的。参考词汇:不透明的,半透明的。

## (5D)

### VISIBILITY

#### 可见度

**351 obscure**; not easily seen. *Ant.* **obvious.**

模糊的:不易看清的。反义词:明显的。

**352 obvious**; easily seen. *Ant.* **obscure.**

明显的:易于看清的。反义词:模糊的。

**353 occult**; hidden, especially applied to structures such as veins within lamina tissue.

隐蔽的:隐藏的,尤其用于像叶组织内叶脉这样的结构。

**354 prominent**; noticeable because of contrasting color and/or raised position with respect to surrounding tissue.

显眼的:由于具有鲜明对比的颜色和/或是高于周围组织的位置而显而易见的。

## SURFACE

### 表面

#### (6A)

### COLOR AND PATTERN

#### 颜色和样式

- 355 atrocastaneous**: dark brown tinged with red; dark chestnut-colored.  
深栗色的: 略带红色的深褐色, 即深的栗子颜色的。
- 356 atropurpureous**: purplish-black.  
紫黑色的: 带有紫色的黑色的。
- 357 bicolorous**: having two colors, usually applied to rhizome and occasionally other scales. *Ant.* **concolorous**.  
二色的: 具有两种颜色的, 通常用于根状茎的鳞片, 偶见于其他的鳞片。反义词: 同色的。
- 358 castaneous**: medium brown tinged with red; chestnut-colored.  
栗色的: 略带红色的中等程度的棕色, 与栗子一样的颜色的。
- 359 chlorophyllous**: green because it contains chlorophyll.  
叶绿色的: 由于具有叶绿素而呈绿色的。
- 360 cinnamomeous**: reddish-and yellowish-brown; cinnamon-colored.  
肉桂色的: 红褐色或黄褐色的, 肉桂一样的颜色的。
- 361 concolorous**: uniform in color. *Ant.* **bicolorous**.  
同色的: 颜色一致的。反义词: 二色的。
- 362 ebeneous**: black; the color of carbon or of ebony wood.  
漆黑的: 黑色的, 像碳或是乌木一样的颜色的。



- 363 ferrugineous**: rust-colored.  
铁锈色的:锈一样的颜色的。
- 364 maculate**: blotched or spotted.  
具斑点的:有块状或点状斑点的。
- 365 olivaceous**: grayish yellow-green.  
橄榄色的:略带灰色的黄绿色的。
- 366 stramineous**: the color of old straw.  
禾秆色的:具有老禾秆一般的颜色的。
- 367 virgate**: streaked; marked with irregular lines of color.  
具条纹的:条纹为具有不规则的颜色线条的。
- 368 vittate**: striped; marked with regular lines of color.  
具直纹的:条纹为具有规则的颜色线条的。

## (6B)

## APPEARANCE OR COATING

## 外观或外被

- 369 farinose**: having a white, yellow, or other colors, usually thick, powdery-appearing exudate of glands, especially in the Adiantaceae. *Subs. farina. Syn. ceraceous. Cf. glaucous, pruinose.*  
被粉的:通常指具有白色,黄色或其他颜色的厚厚的粉状腺体分泌物的,尤其见于 Adiantaceae(铁线蕨科)<sup>①</sup>。名词:粉状物。同义词:蜡状的。参考词汇:具白霜的,具粉霜的。
- 370 glaucous**: having the surface very thinly covered and not obscured by a bluish or whitish, wax-like coating, such as the lami-

① 译者注:在中国蕨科(Sinopteridaceae)中尤为明显。

nae of some *Phlebodium* species. Cf. **farinose**, **pruinose**.

具白霜的:在表面极薄地覆盖了略带蓝色或白色的蜡状层而表面不至于模糊的,如 *Phlebodium* (粗脉蕨属) 一些种的叶片。参考词汇:被粉的,具粉霜的。

**371 iridescent**: reflecting several rainbow-like colors, such as the rhizome scales of some *Asplenium*, *Grammitis*, and *Vittaria* species.

彩虹色的:反射出数种像彩虹一样的颜色的,如 *Asplenium* (铁角蕨属), *Grammitis* (禾叶蕨属) 以及 *Vittaria* (书带蕨属) 一些种根状茎上的鳞片。

**372 lustrous**: reflecting light well because of a smooth surface. Syn. *glossy*, *nitid*, *shiny*. Ant. **matte**.

有光泽的:由于具有光滑的表面而可较好地反射光线的。同义词:光亮的,发亮的,发光的。反义词:无光泽的。

**373 matte**: not reflecting light well. Syn. *dull*. Ant. **lustrous**.

无光泽的:不能较好地反射光线的。同义词:暗淡无光的。反义词:有光泽的。

**374 mucilaginous**: covered with a sticky and gelatinous exudate of hairs or glands found on some fern plants, especially when young, or containing within the tissues such a substance, as in some Cyatheaceae and Marattiaceae. Subs. **mucilage**.

粘性的:在一些蕨类,植株尤其是其年幼时表面覆盖有一层粘性的,胶状的毛被或腺体分泌物,或是在组织内具有这样的物质的,如 Cyatheaceae (桫欏科) 和 Marattiaceae (观音座莲科) 的一些类群。名词:粘液。

**375 pruinose**: having the surface obscured by a rather thick, bluish or

whitish, wax-like coating, such as the rhizomes of some *Campyloneurum* species. Cf. **farinose**, **glaucous**.

具粉霜的:表面被一层很厚的,带蓝色或是白色的蜡状的表皮覆盖物,从而模糊了表面的,如在 *Campyloneurum*(弯脉蕨属)一些种的根状茎。参考词汇:被粉的,具白霜的。

**376 vernicose**: having a coating like shiny varnish. Cf. **viscid**.

具光泽的:具有一层似光亮漆的覆盖物的。参考词汇:粘性的。

**377 viscid**: covered with a sticky secretion, such as the laminae of *Cheilanthes kaulfussii*. Syn. *glutinous*, *resinous*. Cf. **vernicose**.

粘性的:覆盖有一层粘性分泌物的,如 *Cheilanthes kaulfussii* 的叶片。同义词:粘性的,具脂的。参考词汇:具光泽的。

## (6C)

### SURFACE FORMS

#### 表面形态

**378 aculeate**: having narrowly conical, sharp-pointed projections, as the stipe bases of certain Cyatheaceae. Subs. **aculeus**. Syn. *prickly*. Ant. **inermous**. Cf. **muricate**, **tuberculate**.

具皮刺的:具有窄圆锥形,急尖的突起的,如 Cyatheaceae(桫欏科)一些种的叶柄基部。名词:皮刺。同义词:有皮刺的。反义词:无刺的。参考词汇:多(短)刺的,具小瘤的。

**379 carinate**: having a low ridge between the costa and the sinus, said especially of certain species of *Thelypteris* subg. *Steiropteris*. Syn. *keeled*.

具龙骨状突起的:在中肋和弯缺之间具有一个浅脊的,尤见于 *Thelypteris* (沼泽蕨属) *Steiropteris* 亚属的一些种。同义词:具龙骨突的。

**380 corrugate:** having wrinkles in regular rows, as in the transverse bands on the rachises of certain *Blechnum* species.

皱褶的:具有规则排列成行的皱褶的,如在 *Blechnum* (乌毛蕨属) 一些种叶轴的横切带上。

**381 fluted:** having minute, longitudinal grooves. Cf. **striate**.

具凹槽的:具有小的,纵长的沟槽。参考词汇:具条纹的。

**382 inermous:** lacking narrowly conical, sharp-pointed projections. Ant. **aculeate**.

无刺的:不具有窄圆锥形,急尖的突起的,反义词:具皮刺的。

**383 laevigate:** smooth; lacking irregularities in the surface. Syn. *smooth*. Cf. **planate**;

平滑的:表面光滑,不具有不规则的。同义词:光滑的。参考词汇:平面的。

**384 muricate:** having very low, rather sharp protuberances, as the stipe bases of certain Cyatheaceae. Cf. **aculeate, tuberculate**.

多(短)刺的:具有低而较尖的突出物的,如在 Cyatheaceae (桫欏科) 一些种的叶柄基部。参考词汇:具皮刺的,具小瘤的。

**385 notched:** having small, transverse gaps, said especially of the ridges on the stems of certain *Equisetum* species.

具缺刻的:具有小的,横向的裂口的,尤指在 *Equisetum* (木贼属) 一些种的茎的脊状隆起上。

**386 papillate:** bearing minute, low, round protuberances. Subs. **papilla**. Subs. Pl. **papillae**.

- 具乳突的:具有小而短的圆形突出物的。名词:乳突。
- 387 planate**: flat; level. *Syn. plane. Cf. laevigate.*  
平面的:平的,水平的。同义词:平面的。参考词汇:平滑的。
- 388 rugose**: having wrinkles. *Dim. rugulose.*  
具皱的:具有皱褶的。指小词:微皱的。
- 389 scabrous**: rough to the touch. *Syn. asperous.*  
粗糙的:手感粗糙的。同义词:粗糙的。
- 390 striate**: marked with fine, longitudinal ridges. *Cf. fluted.*  
具条纹的:具有纵向的纤细脊的。参考词汇:具凹槽的。
- 391 tuberculate**: having short, rounded protuberances, as the stipe bases of certain Cyatheaceae. *Cf. aculeate, muricate.*  
具小瘤的:具有短的圆形突出物的,如在 Cyatheaceae (桫欏科)一些种的叶柄基部。参考词汇:具皮刺的,多(短)刺的

(6D)  
INDUMENT

毛被

(6D1)  
ABSENCE OF INDUMENT

缺乏毛被

392 **eglandular**: not glandular.

无腺体的:不具有腺体的。

393 **glabrescent**: becoming glabrous in age.

渐无毛的:随着老化而渐渐变得光滑的。

394 **glabrous**: lacking any indument (glands, hairs, or scales).

光滑的:无任何毛被(腺体,毛或鳞片)的。

(6D2)  
GENERAL TYPES

常见类型

395 **bristle**: a stiff, paucicellular, usually straight, terete, and dark-colored epidermal outgrowth one cell wide distally and often a few cells wide at the base. *Adj.* **bristly**. *Cf.* **microscale, proscale, scale, squamule**.

刚毛:由少数细胞组成的坚硬,通常直立,圆柱状的,深色的表皮突出物,基部通常有数个细胞宽,末端一个细胞宽。  
形容词:刚毛状的。参考词汇:微鳞片,原鳞片,鳞片,小鳞片。

396 **gland**: a unicellular or paucicellular and one cell wide, filiform,

clavate, capitate, or globular epidermal structure containing or secreting resinous or wax-like, often highly colored substances. *Adj.* **glandular**. *Cf.* **hair, paraphysis, trichomidium**.

**腺体**:由单细胞或少数细胞组成的,只有一个细胞宽的丝状,棒状,头状或球状的表皮结构,含有或能分泌树脂或蜡样的,通常具强烈色彩的物质。形容词:具腺体的。参考词汇:毛,隔丝,退化毛。

**397 hair**: a unicellular, paucicellular, or multicellular, linear or rarely branched epidermal outgrowth composed of a single elongate cell or of one or more separate files of cells one to several cells long. *Adj.* **hairy**. *Cf.* **gland, paraphysis, trichomidium**.

**毛**:单细胞,少量细胞或多细胞组成的,线形或极少分枝的表皮突出物,由一伸长的单细胞或由一至多个的,有一至数个细胞长的细胞纵列组成。形容词:有毛的。参考词汇:腺体,隔丝,退化毛。

**398 indument**: the totality of hairs, glands, and scales on a structure. *Cf.* **trichome**.

**毛物**:一个结构上的毛,腺体及鳞片的总称。参考词汇:毛状体。

**399 microscale**: a pluricellular, largely or entirely uniseriate scale that resembles a hair, found especially on the laminae of certain Dryopteridaceae and on the axes and/or laminae of certain species of *Cheilanthes*. *Cf.* **bristle, proscale, scale, squamule**.

**微鳞片**:一个多细胞的,大部分或全部是单列的,似毛的鳞片,尤见于 Dryopteridaceae (鳞毛蕨科)一些种的叶片及

*Cheilanthes* (真碎米蕨属) 一些种的轴和/或叶片上。  
参考词汇: 刚毛, 原鳞片, 鳞片, 小鳞片。

**400 paraphysis:** a minute, unicellular or multicellular (resembling a simple hair), usually elongate and often glandular structure borne on the soral receptacle, on the sporangium capsule or pedicel, or among the gametangia. *Pl. paraphyses. Adj. paraphysate. Cf. gland, hair, sporangium, trichomidium.*

隔丝: 一个生于囊群托, 孢子囊柄或孢子囊柄上, 或配子囊间的小的单细胞或多细胞 (像一简单毛), 通常延伸并具腺体的结构。形容词: 有隔丝的。参考词汇: 腺体, 毛, 异孢子囊, 退化毛。

**401 proscale:** a paucicellular, flattened epidermal outgrowth often with irregular lobes or hair-like branches, found in the Marattiales. *Cf. bristle, microscale, scale, squamule.*

原鳞片: 由少数细胞组成的, 通常具有不规则裂片或毛状分枝的扁平的表皮突出物, 见于 Marattiales (观音座莲目)。参考词汇: 刚毛, 微鳞片, 鳞片, 小鳞片。

**402 scale:** a multicellular, usually plane, lanceate or lanceolate to circular, basifixed, dorsifixed, or peltately attached epidermal outgrowth a few to typically many cells wide at least at the base, but sometimes one cell wide distally or at the apex. *Adj. scaly. Cf. bristle, microscale, proscale, squamule.*

鳞片: 一多细胞, 通常平坦的, 披针形或似披针形至圆形, 基着, 背着或盾状着生的表皮突出物, 至少在其基部有几个或通常有多个细胞宽, 有时在顶点或末端仅为单个细胞宽。形容词: 具鳞片的。参考词汇: 刚毛, 微鳞片,



原鳞片,小鳞片。

- 403 sporangiaster:** an abortive, modified sporangium that presumably serves, like a paraphysis, to protect developing sporangia *Cf.* **paraphysis.**

异孢子囊:一个败育的,变形的孢子囊,可能具隔丝一样保护发育中的孢子囊的作用。参考词汇:隔丝。

- 404 squamule:** a minute, reduced, paucicellular scale, found especially on the axes and/or laminae of certain Cyatheaceae. *Cf.* **bristle, microscale, proscale, scale.**

小鳞片:一个小的,退化的,由少量细胞组成的鳞片,尤见于 Cyatheaceae(桫欏科)一些类群的轴和/或叶片上。参考词汇:刚毛,微鳞片,原鳞片,鳞片。

- 405 trichome:** a general term for any hair-like indument. *Cf.* **indument.**

毛状体:一个通用于毛样的毛被的术语。参考词汇:毛被。

- 406 trichomidium:** a minute, reduced hair, found especially on the axes and/or laminae of certain Cyatheaceae and *Elaphoglossum* species. *Pl.* **trichomidia.** *Cf.* **gland, hair, paraphysis.**

退化毛:一微小的,退化的毛,尤见于 Cyatheaceae (桫欏科)和 *Elaphoglossum*(舌蕨属)一些种的轴和/或叶片上。参考词汇:腺体,毛,隔丝。

### (6D3)

#### HAIR AND GLAND TYPES

##### 毛和腺体的类型

- 407 acicular:** short and sharp-pointed, such as the hairs found in the adaxial sulcus of many species of Thelypteridaceae (Fig. 7).

针状的:短而急尖的,如 Thelypteridaceae (金星蕨科) 许多种近轴沟槽内的毛(图7)。

**408 bacilliform**:shaped like a bacillus; rod-shaped.

杆状:形如杆菌的,杆形的。

**409 bicellular**:formed of two cells. Cf. **multicellular**, **paucicellular**, **unicellular**.

两细胞的:由两个细胞组成的。参考词汇:多细胞的,少细胞的,单细胞的。

**410 capitate**:terminated by a bulbous to spherical swollen area (in unicellular glands) or cell (in multicellular glands) (Fig.7).

头状的:末端为一鳞茎状至球形的膨大区域(指单细胞腺体)或膨大的细胞(指多细胞腺体)(图7)。

**411 catenate**:like a chain composed of links; in hairs, with adjacent cells collapsed at right angles to each other and often the end walls of the cells thickened or dark-colored, as on some *Ctenitis* fronds (Fig.7). Syn. *ctenitoid*, *jointed*.

链状的:像一个由环状物组成的链;在毛被,指相邻细胞以合适的角度彼此套缩并且这些细胞的端壁通常加厚或呈深色,如 *Ctenitis* (肋毛蕨属) 一些种叶上的毛(图7)。同义词:像肋毛蕨的,有关节的。

**412 ciliform**:having the form of a cilium, a flexible, thin, often straight marginal hair (Fig.7). Subs. **cilium**. Subs. Pl. *cilia*. Cf. **setiform**.

纤毛状:具有纤毛的形状的,一种柔软的,细而通常直的边缘毛(图7)。名词:纤毛。参考词汇:刚毛状的。

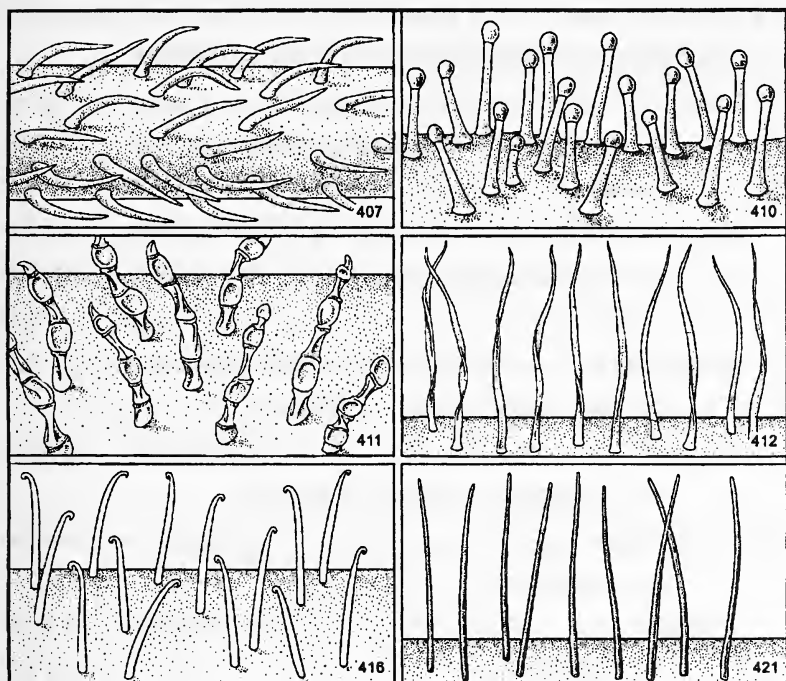


Fig. 7. HAIR AND GLAND TYPES

图 7. 毛和腺体的类型

**413 clavate:** club-shaped; round at the apex, widest just below the apex, and tapering gradually to the base.

棒状的: 棍棒形的; 顶端圆, 且顶端之下即为最宽的部分, 向基部逐渐变窄。

**414 contorted-tuberculate:** minute, contorted, and bearing many, short, irregular, protuberances, found on the abaxial laminae of certain species of *Pteridium*.

扭曲具小瘤的: 小而扭曲的, 具有多数短小的不规则突起物, 见于 *Pteridium* (蕨属) 一些种的叶片远轴面。

**415 glanduliferous:** bearing glandular cells, but not itself a gland.

具小腺的:具有腺细胞但它自身并不是一个腺体的。

**416 hamate:** having a small hook at the apex, usually applied to hairs, especially in Thelypteridaceae (Fig. 7). Cf. **203 uncinata.**

具钩的:在顶端具有一个小钩的,通常用于毛的描述,尤见于 Thelypteridaceae(金星蕨科)(图7)。参考词汇:203 钩状的。

**417 multicellular:** formed of many cells. Syn. *pluricellular*. Cf. **bi-cellular, paucicellular, unicellular.**

多细胞的:由多个细胞组成的。同义词:多细胞的。参考词汇:两细胞的,少细胞的,单细胞的。

**418 paucicellular:** formed of a few cells. Cf. **bicellular, multicellular, unicellular.**

少细胞的:由几个细胞组成的。参考词汇:两细胞的,多细胞的,单细胞的。

**419 punctate:** marked with small, round, dark-colored, glands or bearing sunken, translucent, light-colored glands visible by transmitted light. Subs. **puncta.** Subs. Pl. **punctae.**

具凹点的:分布有小而圆的,深色的腺体或具有下陷的,半透明,淡色的由透射光可见的腺体的。名词:点。

**420 septate:** provided with or divided by septae, in hairs, having thickened and obvious transverse walls between the cells. Subs. **septum.** Subs. Pl. **septa.** Ant. **aseptate.**

具隔膜的:具有隔膜或被隔膜分开的,对于毛,指在细胞间具有厚而明显的横壁的。名词:隔膜。反义词:无隔膜的。

**421 setiform**: having the form of a seta, a stiff, usually straight, terete, and often dark-colored hair, found especially on the stipes and laminae of some Grammitidaceae (Fig. 7).

*Subs. seta. Subs. Pl. setae. Cf. ciliform.*

刚毛状的: 具有刚毛的形状的, 坚硬, 通常挺直, 圆柱形并且常为深色的毛, 尤见于 Grammitidaceae (禾叶蕨科) 一些种的叶柄和叶片上 (图 7)。名词: 刚毛。参考词汇: 纤毛状的。

**422 unicellular**: formed of a single cell. *Cf. bicellular, multicellular, paucicellular.*

单细胞的: 由单个细胞组成的。参考词汇: 两细胞的, 多细胞的, 少细胞的。

#### (6D4)

### BRANCHED HAIR TYPES

#### 分枝毛的类型

**423 basally bifurcate**: forked at the base into two equal or subequal rays (Fig. 8). *Cf. basally stellate, basally twice-bifurcate, basally twice-stellate.*

基部二叉的: 在基部即分为相等或近相等的两枝 (图 8)。参考词汇: 基部星状的, 基部二次二叉的, 基部二次星状的。

**424 basally stellate**: branched at the base into three or more usually equal rays (Fig. 8). *Cf. basally bifurcate, basally twice-bifurcate, basally twice-stellate.*

基部星状的: 在基部即分为三个或更多通常相等的分枝 (图 8)。参考词汇: 基部二叉的, 基部二次二叉的, 基部二次星状的。

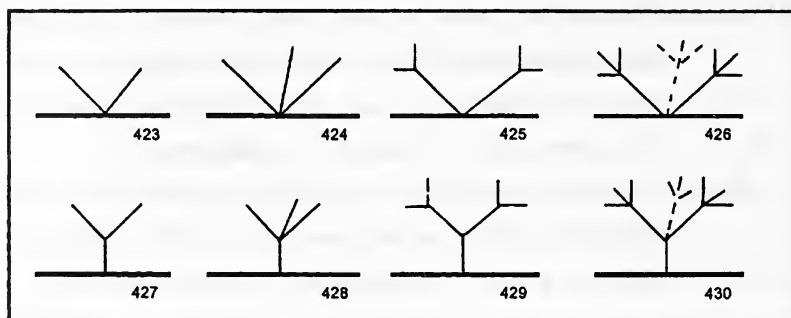


Fig. 8. BRANCHED HAIR TYPES

图 8. 分枝毛的类型

**425 basally twice-bifurcate:** forked at the base into two arms, with each arm forked into two equal or subequal rays (Fig. 8).

*Cf.* **basally bifurcate, basally stellate, basally twice-stellate.**

基部二次二叉的: 由基部分为二枝, 每一分枝再分叉为相等或近相等的二枝的(图 8)。参考词汇: 基部二叉的, 基部星状的, 基部二次星状的。

**426 basally twice-stellate:** forked or branched at the base into two or more arms, with each arm branched into three or more usually equal rays (Fig. 8). *Cf.* **basally bifurcate, basally furcate, basally twice-bifurcate.**

基部二次星状的: 由基部分叉或分为两个或更多分枝的, 每一分枝进一步再分为三个或更多相等的分枝的(图 8)。参考词汇: 基部二叉的, 基部分叉的, 基部二次二叉的。

**427 bifurcate:** forked above the base (from the apex of the pedicel) into two equal or subequal rays, such as the hairs found on the stipes and laminae in the Hymenophyllaceae (Fig. 8). *Syn. furcate. Cf. stellate, twice-bifurcate, twice-*

**stellate.**

二叉的:在基部以上(自柄的顶端)分叉为相等或近相等的二枝,如 Hymenophyllaceae (膜蕨科) 叶柄和叶片上的毛(图 8)。同义词:分叉的。参考词汇:星状的,二次二叉的,二次星状的。

- 428 stellate:** branched above the base (from the apex of the pedicel) into three or more usually equal rays, characteristic of the hairs on the rhizome scales and often the laminae in *Thelypteris* Subs. *Goniopteris* (Fig. 8). Cf. **bifurcate, twice-bifurcate, twice-stellate.**

星状的:在基部以上(自柄的顶端)分叉为三个或更多通常相等的分枝,为 *Thelypteris* (金星蕨属) *Goniopteris* 亚属根状茎鳞片上和常见于叶片上毛的特征(图 8)。参考词汇:二叉的,二次二叉的,二次星状的。

- 429 twice-bifurcate:** forked above the base (from the apex of the pedicel) into two arms, with each arm forked into two equal or subequal rays, such as the hairs sometimes found on the stipes and laminae of the Hymenophyllaceae (Fig. 8). Cf. **bifurcate, stellate, twice-stellate.**

二次二叉的:在基部以上(自柄的顶端)分为二叉,每一分枝再分为两个相等或近相等的分枝的,如 Hymenophyllaceae (膜蕨科) 一些种叶柄和叶片上的毛(图 8)。参考词汇:二叉的,星状的,二次星状的。

- 430 twice-stellate:** forked or branched above the base (at the apex of the pedicel) into two or more arms, with each arm branched into three or more usually equal rays, such as

the hairs found especially on the stipes and laminae of the Hymenophyllaceae ( Fig. 8 ). Cf. **bifurcate**, **stellate**, **twice-bifurcate**.

二次星状的:由基部以上(在柄的顶端)分叉或分为两个或更多分枝的,每一分枝再分为三个或更多通常相等分枝的,如尤见于 Hymenophyllaceae(膜蕨科)的叶柄和叶片上的毛(图8)。参考词汇:二叉的,星状的,二次二叉的。

## (6D5)

## HAIRS AND BRISTLES IN MASS

## 毛和刚毛的集群

431 **arachnose**: bearing a scanty tangle of thin hairs like cobwebs.

*Syn. araneose, arachnoid.*

蛛网状的:细毛稀疏纠结成蜘蛛网状。同义词:具蛛丝状毛的,蛛丝状的。

432 **hirsute**: bearing straight, erect, decidedly stiff and relatively coarse hairs ( Fig. 9 ). *Dim. hirsutulous. Dim. Syn. hirtellous.*

*tellous.*

具硬毛的:被直立,明显硬而相对粗糙的毛的(图9)。指小词:具细硬毛的。指小同义词:具微硬毛的。

433 **hispid**: bearing stiff bristles. *Dim. hispidulous.*

具刚毛的:被坚硬刚毛的。指小词:具短毛的。

434 **lanate (lanose)**: woolly; densely covered with long, matted, curved to curly, soft hairs ( Fig. 9 ). *Dim. lanuginose.*



绵状毛的:似羊毛的;密被长而缠结的,弯曲至卷曲软毛的(图9)。指小词:具疏绵状毛的。

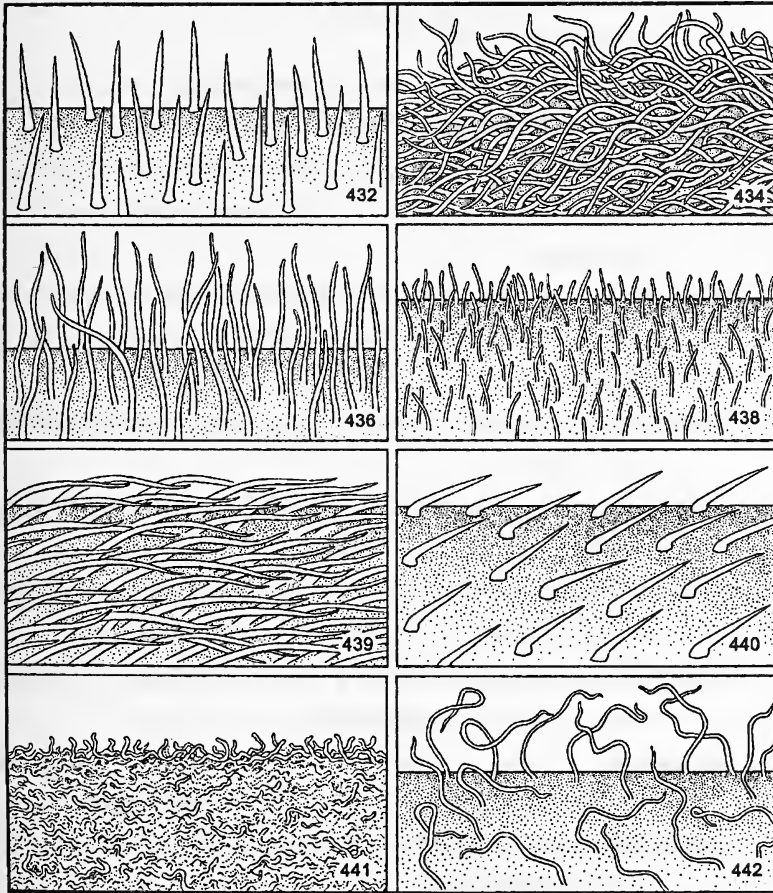


Fig. 9. HAIRS AND BRISTLES IN MASS

图9. 簇生的毛和刚毛

435 matted: forming a thick tangle of intertwined hairs. *Subs. mat.*

缠结的:形成厚厚的、缠结的毛的。名词:缠结。

**436 pilose:** bearing long, soft, rather straight but flexible hairs (Fig. 9). *Dim. pilosulous.*

具疏柔毛的: 具有长而软, 较直但是柔韧毛的(图9)。指小词: 具小疏柔毛的。

**437 puberulous:** sparingly pubescent. *Cf. pubescent.*

被微柔毛的: 具有稀疏的短柔毛的。参考词汇: 被短柔毛的。

**438 pubescent (pubigerous):** downy; bearing simple or branched, short, erect, soft hairs (Fig. 9). *Dim. puberulent. Cf. puberulous.*

被短柔毛的: 被短绒毛的, 具有简单的或分枝的, 短而直立的软毛的(图9)。指小词: 被微柔毛的。参考词汇: 被微柔毛的。

**439 sericeous:** silky; bearing appressed, long, fine, usually straight hairs (Fig. 9).

被绢毛的: 丝状的, 具有紧贴, 长而细的, 通常直立的毛的(图9)。

**440 strigose:** bearing short, usually fully appressed, straight, coarse and sharp-pointed hairs (Fig. 9). *Dim. strigulose.*

被糙伏毛的: 具有短而通常完全平伏而直, 粗糙而急尖的毛的(图9)。指小词: 被微伏毛的。

**441 tomentose:** densely covered with short, matted, curved or branched, soft hairs (Fig. 9). *Dim. tomentulose.*

被绒毛的: 密被短而缠结的, 弯曲或分枝的软毛的(图9)。指小词: 被微绒毛的。

**442 villous:** bearing long, weak, fine, irregularly curled hairs (Fig. 9). *Dim. villosulous.*

具长柔毛的: 具有细长而柔弱的不规则卷曲毛的(图9)。指小词: 被微长柔毛的。

## (6D6)

## SCALE TYPES

## 鳞片类型

**443 acaroid:** small, irregular, paucicellular, elongate scales bearing prominent, lateral, coarse, pointed setae from a highly reduced body, found in some *Alsophila* species (Fig. 10).

*Cf. arachnidoid.*

蠕状的:小而不规则的,由少量细胞组成的细长的鳞片,鳞片上着生有明显的、结构高度简化的侧生粗糙尖刚毛的,见于 *Alsophila*(桫欏属)的一些种(图10)。参考词汇:蛛丝状的。

**444 amorphous:** fragile, lax, rather evanescent scales adherent to the stipes and rachises of certain *Blechnum* species.

无定形的:易破碎的,松散的,极易脱落,见于 *Blechnum*(乌毛蕨属)一些种附着在叶柄和叶轴上的鳞片。

**445 arachnidoid:** small (0.3 ~ 0.5 mm in diam. ), blackish, indurated, paucicellular, stellate scale bearing a few elongate, narrow processes from a relatively small central point, found on the laminae of certain *Elaphoglossum* species (Fig. 10). *Cf. acaroid.*

蛛丝状的:带黑色的,硬化的,含少数细胞的星形的小(直径为0.3~0.5毫米)鳞片,其上有一些由一相对小的中心点发出的细长突起。见于 *Elaphoglossum*(舌蕨属)一些种的叶片(图10)。参考词汇:蠕状的。

**446 bicolorous:** having a central stripe or region that is decidedly different in color from the borders of the scale. *Ant. concolorous.*

二色的:有一中心条带或区域与鳞片边缘在颜色上明显不同的。反义词:同色的。

**447 bullate:** having an expanded base swollen like a blister, typical of some laminar scales in *Ctenitis* and *Cyathea* (Fig. 10).

具泡状隆起的:基部扩展膨大如水泡的,特见于 *Ctenitis* (肋毛蕨属) 和 *Cyathea* (桫椤属) 一些叶片上的鳞片(图 10)。

**448 campanulate:** bell-shaped, especially applied to some proto-scales of certain *Danaea* species. Cf. **peltate**, **pseudopeltate**.

钟状的:形状如钟的,尤指 *Danaea* (多孔蕨属) 一些种的原始鳞片。参考词汇:盾状的,假盾状的。

**449 clathrate:** lattice-like; having thick lateral (adjacent) cell walls and thin surficial walls, especially applied to rhizome scales of *Asplenium*, *Ctenitis*, and some Polypodiaceae (Fig. 10).

筛孔状的:网格状的,具有厚的侧生(邻接)细胞壁和薄的表面细胞壁的,尤见于 *Asplenium* (铁角蕨属) 和 *Ctenitis* (肋毛蕨属) 及 Polypodiaceae (水龙骨科) 一些种的根状茎鳞片(图 10)。

**450 comose:** bearing a tuft of hairs like a plume, as the surface of the rhizome scales of some Polypodiaceae.

具丛毛的:具有一簇像羽毛一样的毛,如 Polypodiaceae (水龙骨科) 一些种根状茎鳞片的表面。

**451 concolorous:** being completely or nearly uniform in color. *Ant. bicolorous*.

同色的:具有完全或几乎一致的颜色。反义词:二色的。

**452 conform:** having all cells of the body similar in shape and orienta-

tion, as the rhizome scales of *Sphaeropteris*. Cf. **marginate**.

同形的:主体的所有细胞在形态和排列方向上都是一致的,如 *Sphaeropteris* (白桫欏属) 根状茎上的鳞片。参考词汇:有边的。

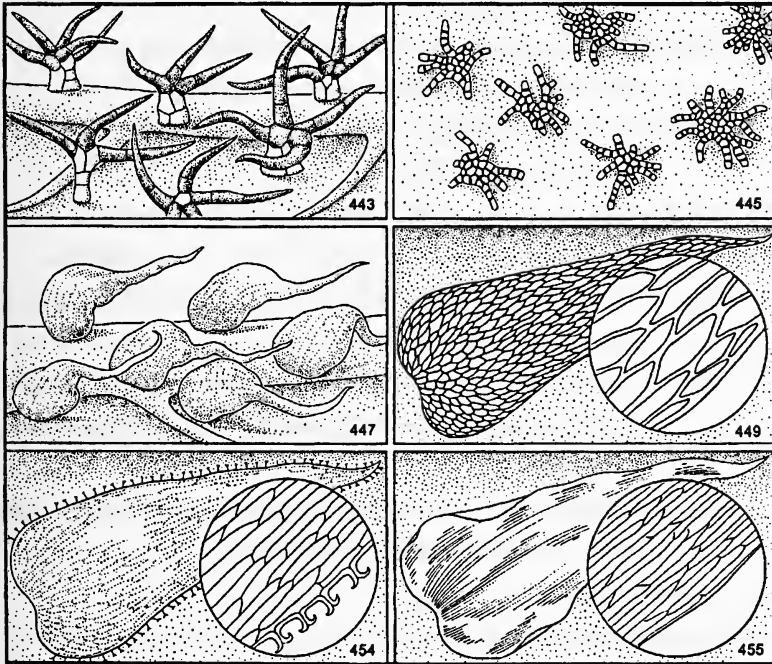


Fig. 10. SCALE TYPES

图 10. 鳞片类型

**453 contorted**: irregularly twisted, distorted.

扭曲的:不规则弯曲的,扭歪的。

**454 denticulate**: bearing small teeth formed by prolongations of one or two cells of the scale margin, as in some *Diplazium* species; also said of clathrate scales in which the endwalls of

the marginal cells are thickened and so appear to be teeth, as in the Aspleniaceae (Fig. 10).

具小齿的:在鳞片的边缘具有由一个或两个细胞延长形成的小齿的,如 *Diplazium* (双盖蕨属) 一些种;也指筛孔状鳞片边缘细胞的端壁加厚呈齿状的,如 Aspleniaceae (铁角蕨科)(图 10)。

**455 fibrillose:** appearing to be composed of fibers, as the rhizome scales of many Dryopteridaceae (Fig. 10).

纤维状的:似由纤维组成的,如 Dryopteridaceae (鳞毛蕨科) 许多种根状茎上的鳞片(图 10)。

**456 marginate:** having the central cells of the body different in shape and orientation from the marginal ones. Cf. **conform**.

有边的:主体的中部细胞在形态和排列方向上与边缘细胞不同的。参考词汇:同形的。

**457 peltate:** approximately circular and attached by a central pedicel, as the laminar scales of *Pleopeltis*. Cf. **campanulate**, **pseudopeltate**.

盾状的:近圆形并以一中央柄着生的,如 *Pleopeltis* 属叶片上的鳞片。参考词汇:钟状的,假盾状的。

**458 plumose:** feather-like.

羽毛状的:像羽毛一样的。

**459 pseudopeltate:** basifixed with large, overlapping auricles, and so appearing to be peltate, as in the rhizome scales of some Polypodiaceae. Cf. **campanulate**, **peltate**.

假盾状的:基着并具有大而重叠的耳,从而看似盾状的,如 Polypodiaceae (水龙骨科) 一些种的根状茎鳞片。参考词汇:钟状的,盾状的。

**460 retiform:** netted in appearance, said of worn rhizome scales with

elongate lumina that have become net-like in age, as in certain *Diplazium* species.

网状的:外表网结的,指根状茎上的鳞片由于衰败,细胞内腔伸长而变成网状的,见于 *Diplazium* (双盖蕨属)的一些种。

**461 stellate:** star-shaped; in scales, bearing several broad to narrow teeth from a relatively large central point.

星状的:形状像星星的,用于鳞片指由一相对大的中心点发出数个或宽或窄的齿。

### (6D7)

### SCALES IN MASS

#### 鳞片总体

**462 aspidote:** bearing peltate scales. Cf. **furfuraceous, paleaceous, squamous.**

具盾状鳞片的:被盾状鳞片的。参考词汇:糠秕状的,稗状的,有鳞片的。

**463 furfuraceous:** bearing thin, minute, occasionally amorphous scales sometimes mixed with hairs, often in a mat. Syn. *lepidote, scurfy.* Cf. **aspidote, paleaceous, squamous.**

糠秕状的:具有薄而小,偶尔为不定型的鳞片,有时与毛混生,常成簇。同义词:具鳞片的,糠秕状的。参考词汇:具盾状鳞片的,稗状的,有鳞片的。

**464 paleaceous:** bearing thin, flexible, basifixed or dorsifixed scales. Subs. **palea.** Subs. Pl. **paleae.** Cf. **aspidote, furfuraceous, squamous.**

稗状的:具有薄而柔软的,基着或背着的鳞片的。名词:稗。参考词汇:具盾状鳞片的,糠秕状的,有鳞片的。

**465 squamose**: bearing thick, stiff, basifixed or dorsifixed scales.

*Subs.* squama. *Subs. Pl.* squamae. *Dim.* squamulose.

*Cf.* aspidote, furfuraceous, paleaceous.

有鳞片的:具有厚而坚硬的,基着或背着的鳞片的。名词:鳞片。指小词:具小鳞片的。参考词汇:具盾状鳞片的,糠秕状的,稗状的。

### (6D8)

## STRUCTURES

### 结构

**466 arm**: a non-ultimate branch of a stellate hair. *Cf.* pedicel, ray.

臂:星状毛的非最终的分枝。参考词汇:柄,(星状毛)分枝。

**467 border**: the marginal and submarginal parts of a structure, especially of bicolorous scales. *Cf.* central band, margin.

边沿:一个结构的边缘和近边缘的部分,尤用于二色的鳞片。参考词汇:中心带,边缘。

**468 central band**: the differently colored and often thickened central cells of bicolorous scales. *Cf.* border.

中心带:二色鳞片的颜色不同且常加厚的中心细胞。参考词汇:边沿。

**469 lumen**: the central cavity of a cell, especially applied to the cells of clathrate rhizome scales. *Pl.* lumina.

内腔:细胞中央的腔,尤用于根状茎网状鳞片的细胞。

**470 margin**: the edge of a flat structure like a scale. *Cf.* border.

边缘:像鳞片这样的平面结构的边。参考词汇:边沿。

**471 pedicel**: the basal cell or cells of a stellate hair or of a campanulate or peltate scale. *Syn.* stalk. *Cf.* arm, ray.

柄:星状毛或钟状,或盾状鳞片的基部细胞。同义词:柄。参



考词汇: 臂, 分枝。

**472 ray:** an ultimate branch of a stellate hair, stellately dissected scale, or proscale. *Cf.* **arm, pedicel.**

分支: 星状毛或星状分裂的鳞片或原鳞片的最终分枝。参考词汇: 臂, 柄。

## GAMETOPHYTES

### 配子体

(7A)

### GENERAL

#### 一般结构

**473 bud:** in pteridophytes, a non-deciduous, unspecialized, multicellular, often irregular mass of tissue produced by a gametophyte that grows and forms an apogamous sporophyte. *Cf.*

**605 bulbil, gemma.**

芽: 在蕨类指由配子体产生的通常不规则的一团不脱落的, 非特化的多细胞组织, 这团组织由一个配子体产生并生长形成一无融合的孢子体。参考词汇: **605 鳞芽, 胞芽。**

**474 gametophyte:** an inconspicuous, non-vascular plant that bears gametangia and gametes. In homosporous pteridophytes, they are surficial, thin, chlorophyllous, and filamentous, ribbon-like, or heart-shaped, or somewhat stellate or are subterranean, massive, achlorophyllous, and globular, cylindrical, or branched. In heterosporous pteridophytes, they are much reduced structures borne (and partially developing) within spore walls. *Syn. prothallus. Cf. 504 sporophyte.*

配子体: 一不显著的无维管束, 产生配子囊和配子的植株。在同型孢子蕨类, 它们具有地面生, 薄, 具叶绿体, 呈丝状, 带状或心形, 或多少呈星状的特点, 或为地下生, 团状, 无叶绿体, 呈球形, 圆柱形或分枝的。在异型孢子

蕨类, 它们的结构较为简化, 产生(并部分发育)于孢子壁内。同义词: 原叶体。参考词汇: 504 孢子体。

- 475 gemma:** a markedly absciscent, structurally specialized, paucicellular, asexual propagule found on some gametophytes that detaches and forms a new gametophyte. *Pl. gemmae.* *Adj. gemmiferous.* *Cf. bud.*

胞芽: 一些配子体上产生的一个显然可脱离的, 结构特化的, 由少数细胞组成的无性繁殖体, 分开后形成一个新的配子体。形容词: 具胞芽的。参考词汇: 芽。

- 476 megagametophyte:** in heterosporous pteridophytes, a female gametophyte borne within a megasporangium and bearing one or more archegonia. *Cf. microgametophyte.*

大配子体: 在异型孢子蕨类的雌配子体, 生于大孢子囊内并具有一至多个颈卵器。参考词汇: 小配子体。

- 477 microgametophyte:** in heterosporous pteridophytes, a male gametophyte borne within a microsporangium and bearing one or more antheridia. *Cf. megagametophyte.*

小配子体: 在异型孢子蕨类的雄配子体, 生于小孢子囊内, 并具有一至多个精子器。参考词汇: 大配子体。

- 478 rhizoid:** an elongate, non-vascularized, uni- or paucicellular structure that serves to anchor the gametophyte and to absorb water and nutrients from the substrate. *Cf. 525 root hair.*

假根: 一个伸长, 无维管化的, 由单细胞或少数细胞组成的结构, 使配子体固着于基质并从中吸收水分和养分。参考词汇: 525 根毛。

(7B)  
TYPES  
类型

- 479 **ameristic**: lacking a well defined meristem, a characteristic of the male gametophytes of some ferns. *Ant.* **meristic**.  
无分生组织的: 缺乏一界限明显的分生组织, 为一些蕨类雄性配子体的特征。反义词: 具分生组织的。
- 480 **bisexual**: having gametangia of two sexes. *Syn.* *hermaphroditic. monoecious. Subs. Syn. hermaphrodite. Ant.* **unisexual**.  
两性的: 雌雄配子囊都具有的。同义词: 雌雄同株的, 雌雄同体的。名词同义词: 雌雄同株, 两性同体。反义词: 单性的。
- 481 **cordate**: heart-shaped, with an apical notch.  
心形的: 具有一顶端凹缺的心脏形的。
- 482 **fertile**: producing gametes and/or gametangia. *Ant.* **sterile**.  
能育的: 可产生配子和/或配子囊的。反义词: 不育的。
- 483 **filamentous**: composed of or resembling thread-like structures, such as the gametophytes of *Trichomanes*. *Ant.* **thalloid**.  
丝状的: 与线状的结构相似或由线状的结构组成的, 如 *Trichomanes* (瓶蕨属) 的配子体。反义词: 似叶状体的。
- 484 **meristic**: having a well defined meristem, a characteristic of most fern gametophytes. *Ant.* **ameristic**.  
具分生组织的: 具有一界限明显的分生组织的, 为绝大多数蕨类配子体所具有的特征。反义词: 无分生组织的。
- 485 **spathulate**: elongate, ribbon-shaped, but narrower near the base.  
匙形的: 伸长的, 带形的, 近基部变窄。

**486 sterile**: lacking gametes and/or gametangia. *Ant. fertile.*

不育的: 缺乏配子和/或配子囊的。反义词: 能育的。

**487 thalloid**: composed of a flat tissue, and multicellular in two or three dimensions, said of most gametophytes. *Ant. filamentous.*

似叶状体的: 由一扁平组织组成, 在二维或三维的尺度上是多细胞组成的, 指绝大多数的配子体。反义词: 丝状的。

**488 unisexual**: bearing gametangia of one sex. *Syn. dioecious. Ant. bisexual.*

单性的: 具有一种性别的配子囊。同义词: 雌雄异株的。反义词: 两性的。

## (7C)

### GAMETANGIA AND GAMETES

#### 配子囊和配子

**489 antheridium**: the male sex organ of pteridophytes borne on the gametophyte and producing spermatozoids. *Pl. antheridia. Cf. archegonium.*

精子器: 蕨类配子体上产生游动精子的雄性性器官。参考词汇: 颈卵器。

**490 archegonium**: the female sex organ of pteridophytes borne on the gametophyte and producing ova. *Pl. archegonia. Cf. antheridium.*

颈卵器: 蕨类配子体上产生卵细胞的雌性性器官。参考词汇: 精子器。

**491 gametangium**: a structure in which gametes are formed; in ferns, archegonia (female) and antheridia (male). *Pl. gametangia.*

**配子囊**:产生配子的结构;在蕨类为颈卵器(雌性)和精子器(雄性)。

**492 gamete**: a sex cell, in pteridophytes, spermatozoids (male) and ova (female).

**配子**:性细胞,在蕨类为游动精子(雄性)和卵细胞(雌性)。

**493 ovum**: a non-motile, relatively large, female sex cell (gamete), produced in the archegonium. *Pl. ova. Syn. egg. Cf. spermatozoid.*

**卵细胞**:为一不活动的,相对大的雌性性细胞(配子),产生于颈卵器内。同义词:卵,蛋。参考词汇:游动精子。

**494 spermatozoid**: a motile, relatively small, male sex cell (gamete) produced in the antheridium. *Syn. antherozoid, sperm. Cf. ovum.*

**游动精子**:一可运动的,相对小的雄性性细胞(配子),产生于精子器内。同义词:游动精子,精子。参考词汇:卵细胞。

# SPOROPHYTES

## 孢子体

(8A)

### GENERAL

#### 一般结构

**495 axis:** a general term for stipe, rachis, midrib, costa, costule, etc. *Pl. axes.*

轴: 一个常用于叶柄, 叶轴, 主脉, 中肋和小肋等结构的术语。

**496 dromy:** in pinnate or more dissected laminae, the direction of basal axes or veins with respect to the second larger order of axes, such as the direction (acroscopic or basiscopic) of a basal pinnule with respect to a rachis.

脉向: 在羽状叶片或更为分裂的叶片, 其基部的轴或叶脉相对于次一级轴的顺序的方向, 如基生小羽片相对于叶轴的方向(向上的或向下的)。

**497 frond (megaphyll):** the photosynthetic organ of ferns, usually consisting of a stipe and lamina, characterized by its often large size, usually highly branched vascular system, and diffuse, prolonged meristematic activity from an apical cell terminating each axis; usually associated with a dictyostele. *Cf. microphyll.*

叶(大型叶): 蕨类的光合器官, 通常由叶柄和叶片组成, 特征为通常较大, 以及通常具有高度分枝的维管系统, 具有源于每一轴顶端细胞的分散的, 延长的分生组织活性; 通常与网状中柱相关。参考词汇: 小型叶。

**498 habit:** the general aspect of a plant, like arborescent, erect, or pendent.

习性: 植物通常的外貌, 如乔木状的, 直立的或是下垂的。

**499 lamina:** the expanded portion of a frond, usually consisting of a rachis or midrib, other axes or lateral veins, and expanded lamina tissue. *Pl. laminae.*

叶片: 叶扩展的部分, 通常由叶轴或主脉, 其他的轴或侧脉, 以及扩展的叶组织组成。

**500 microphyll:** the photosynthetic organ of the fern-allies, always lacking a stipe, characterized by its usually minute size and unbranched vascular system (a single vein); usually associated with a protostele or siphonostele. *Cf. frond (megaphyll).*

小型叶: 拟蕨类的光合器官, 无叶柄, 特征为通常小, 维管系统不分枝(叶脉单一); 通常与原生中柱或管状中柱相关。  
参考词汇: 叶(大型叶)。

**501 pseudolamina:** a false lamina formed by the lateral expansion of a stipe, found especially in *Ophioglossum* and some species of *Schizaea*.

假叶: 由一叶柄向侧边扩展而形成的一假叶, 尤见于 *Ophioglossum*(瓶尔小草属) 和 *Schizaea*(莎草蕨属) 的一些种。

**502 rhizome:** in ferns, a usually short (compared to the fronds), scaly or hairy (rarely glandular or glabrous) anchorage structure that bears roots and fronds, often growing mostly or entirely within the substrate. *Cf. stem.*

根状茎: 在蕨类为通常短的(与叶相比), 被鳞片或毛(极少具



有腺体或光滑无毛), 长有根和叶的固着结构, 通常大部分或完全着生于基质里。参考词汇: 茎。

**503 root:** an elongate, vascularized structure that serves to anchor the sporophyte plant and to absorb water and nutrients from the substrate. *Adj.* **rooted.**

根: 一伸长的维管化的结构, 作用为将孢子体植物固着于基质并从中吸收水分和养分。形容词: 有根的。

**504 sporophyte:** in pteridophytes, the conspicuous plant that produces spores. *Cf.* **474 gametophyte.**

孢子体: 蕨类中产生孢子的显著植株。参考词汇: **474** 配子体。

**505 stem:** in fern-allies, a usually long (compared to the microphylls), glabrous (rarely hairy) anchorage structure that bears roots and microphylls and lies mostly outside the substrate. *Cf.* **rhizome.**

茎: 在拟蕨类中指通常长的(与小型叶比较), 无毛(极少被毛)的, 着生有根和小型叶, 大部分位于基质外的固着结构。参考词汇: 根状茎。

**506 venation:** the totality of veins of a frond, especially their pattern. 脉序: 叶片上所有的叶脉, 尤其是其排列式样的总称。

**507 vernation:** the manner in which the apices of laminae and their subdivisions uncoil or unfold during development to protect their apical meristems.

幼叶卷叠式: 叶片及其组成部分的顶端在发育过程中展开或显现, 以保护它们的顶分生组织的方式。

**508 zygote:** a cell formed by the union of a spermatozoid and an ovum, and so the first cell (generally diploid, except in

polyploids) of the sporophyte.

合子:由游动精子和卵细胞结合而形成的孢子体的第一个细胞(通常为二倍体,多倍体除外)。

## (8B)

### HABIT

#### 习性

**509 arborescent**: having the habit of a tree, with an obvious caudex, found especially in many species of Cyatheaceae.

乔木状的:具有树的习性的,有明显的茎,尤见于 Cyatheaceae (桫欏科)的许多种。

**510 caespitose**: growing in tufts.

丛生的:成簇生长的。

**511 calathiform**: having the aspect of a narrow-bottomed vase, with a cluster of fronds arising from a short, erect rhizome, as in some species of *Dryopteris*. Cf. **nidiform**.

杯形的:叶簇生于短的直立根状茎上,具有底部窄的花瓶一样的外观,如 *Dryopteris* (鳞毛蕨属)的一些种。参考词汇:巢形的。

**512 erect**: vertical or upright.

直立的:垂直或竖直向上的。

**513 nidiform**: forming a humus-collecting nest (generally of modified fronds), as in the species of *Drynaria* and *Platynerium*.

Cf. **calathiform**.

巢形的:形成一个聚集腐殖质的巢(通常为变态叶)的,如在 *Drynaria* (槲蕨属)和 *Platynerium* (鹿角蕨属)的一些种。参考词汇:杯形的。

**514 pendent:** hanging down, such as plants of many epiphytic *Huperzia* species.

悬垂的: 向下悬垂的, 如 *Huperzia* (石杉属) 的许多附生种。

**515 recumbent:** reclining loosely on other vegetation, such as plants of *Odontosoria* and some species of *Eriosorus*. Cf. **scandent**.

横卧的: 松散地斜靠在其他的植物上的, 如 *Odontosoria* 的植株以及 *Eriosorus* 一些种的植株。参考词汇: 攀缘的。

**516 rosulate:** having a circular, radiating cluster of fronds borne horizontally at ground level from a largely subterranean rhizome, as in *Trachypteris*. Subs. **rosette**.

莲座状的: 具有一圆形的辐射状叶簇, 是由大部分地下生的根状茎发出, 水平地在地表面生长的, 如 *Trachypteris*。名词: 莲座。

**517 scandent:** climbing closely on other vegetation, such as plants of *Polybotrya*. Cf. **recumbent**.

攀缘的: 紧密地攀爬于其他的植物上, 如 *Polybotrya* 的植株。参考词汇: 横卧的。

**518 strict:** stiffly erect.

笔直的: 挺直向上的。

## (8C)

### ROOTS

#### 根

**519 acropetal root:** In *Isoetes*, an individual root produced non-simultaneously with other roots by the corm. Cf. **synchronous root**.

向顶根: 在 *Isoetes* (水韭属) 的植物中, 有一条单独的根, 不与

其他由球茎长出的根同时产生。参考词汇:同步根。

**520 adventitious root:** a root arising in an abnormal position, from callus or as a result of dedifferentiation, usually as a result of injury.

不定根:在一非正常位置产生的根,从愈伤组织产生或是脱分化的结果,通常由于受到伤害产生。

**521 cauline root:** a root emanating from a rhizome or stem, a common condition in the Pteridophyta.

茎生根:由根状茎或茎上发出的根,为蕨类中常见的情况。

**522 mycotrophic root:** a root sheltering fungal hyphae within it.

菌根营养根:内部着生真菌菌丝的根。

**523 proliferous root:** a long, trailing root producing rhizomes with fronds at intervals, as in certain epiphytic *Asplenium* and Polypodiaceae species.

多育根:一长形蔓延的根,距一定的间隔即产生具叶的根状茎,见于附生的 *Asplenium* (铁角蕨属) 和 Polypodiaceae (水龙骨科) 的一些种。

**524 rhizophore:** a specialized, aerial root of *Selaginella* that arises in the axils of stems and branches repeatedly when in contact with the substrate; it may occasionally differentiate into a stem, rather than a root.

根托:*Selaginella* (卷柏属) 的特化气生根,在茎腋产生并在与基质接触的地方重复分枝;它偶尔可分化为茎而不是根。

**525 root hair:** a generally elongate, unicellular, non-vascular outgrowth of a cell of the epidermis of roots that serves to absorb water and nutrients from the substrate. Cf. **478 rhizoid**.

**根毛:**根表皮的一个细胞通常伸长的,单细胞的、无维管的长出物,用以从基质中吸收水分和养分。参考词汇:478 假根。

**526 synchronous root:** In *Isoëtes*, one of several roots produced in a line simultaneously by the corm. Cf. **acropetal root**.

**同步根:**在 *Isoëtes* (水韭属),由球茎成一行同时产生的几条根之一。参考词汇:向顶根。

(8D)

**RHIZOMES AND OTHER STEMS**

**根状茎和其他的茎**

(8D1)

**TYPES**

**类型**

**527 caudex:** an erect, trunk-like rhizome found in arborescent and subarborescent ferns, such as *Cyathea* and some species of *Diplazium*. Pl. **caudices**.

**茎:**一直立的,树干状的根状茎,见于乔木状或半乔木状蕨类,如 *Cyathea* (桫欏属) 的种和 *Diplazium* (双盖蕨属) 的一些种。

**528 corm:** a solid, short, more or less globular stem exhibiting some secondary growth, in pteridophytes found only in the Isoëtaceae.

**球茎:**蕨类中仅见于 Isoëtaceae (水韭科) 的一实心,短而多少呈球形的具一定次生生长的茎。

**529 epipetiolar rhizome:** a rhizome that emanates from a bud above the base of the stipe, as in certain Dennstaedtiaceae.

叶柄上根状茎: 一由叶柄基部之上的芽发出的根状茎, 如 *Dennstaedtiaceae* (碗蕨科) 的一些种。

**530 long-repent rhizome (long-creeping rhizome):** a rhizome that grows horizontally for at least a few cm and that usually has distant stipes. *Cf.* **short-repent (short-creeping).**

长横走根状茎 (长匍匐根状茎): 水平生长至少数厘米的根状茎, 通常具有远生的叶柄。参考词汇: 短横走的 (短匍匐的)。

**531 multicapital rhizome:** a rhizome that is many headed; a cluster of short, ascending rhizome branches.

多头根状茎: 具有多个顶端的根状茎; 一簇短而上升的根状茎分枝。

**532 sarmentum:** a very thin, recumbent or prostrate root- or stem-like structure that lacks small, leaf-like appendages but forms new plants along its length or at its tip, as in *Nephrolepis*. *Pl.* **sarmenta.** *Cf.* **stolon.**

长匐茎: 一极细的, 斜靠或是匍匐的根状或茎状的, 无小的叶状附属物的结构, 沿其体长或在其顶端可形成新的植株。如 *Nephrolepis* (肾蕨属)。参考词汇: 匍匐茎。

**533 short-repent rhizome (short-creeping rhizome):** a rhizome that grows horizontally a few centimeters at most and that usually has approximate stipe bases. *Cf.* **long-repent rhizome (long-creeping rhizome).**

短横走根状茎 (短匍匐根状茎): 水平生长至多为数厘米, 且通常叶柄基部近生的根状茎。参考词汇: 长横走根状茎 (长匍匐根状茎)。

**534 stolon:** a very thin, recumbent or prostrate root- or stem-like structure that bears small, leaf-like appendages and forms new

plants along its length or at its tip, as in *Selaginella*. *Syn. sobol.* Cf. **sarmentum**.

**匍匐茎**:一极细的,斜靠或匍匐的具有小的叶状附属物的根状或茎状结构,沿其体长或在其顶端可生成新的植株,如 *Selaginella*(卷柏属)。同义词:根出条。参考词汇:长匍茎。

**535 tuber**: an often scaly, globular to somewhat elongate storage body usually borne on the rhizome or on stolons and sarmenta of a few species of pteridophytes in genera such as *Lycopodiella*, *Selaginella*, *Microgramma*, and *Nephrolepis*.

**块茎**:一个通常被鳞片的,球形至多少长形的储存器官,通常生于蕨类 *Lycopodiella*(小石松属), *Selaginella*(卷柏属), *Microgramma*(豆囊蕨属)和 *Nephrolepis*(肾蕨属)一些种的根状茎或匍匐茎和长匍茎上。

## (8D2)

### EXTERNAL FEATURES

#### 外部特征

**536 articulation**: an obvious, thickened, discolored, weakened, or constricted area at the nodes of *Equisetum* stems or proximal to the nodes of some *Selaginella* stems that may serve to fragment the plant and promote its dispersal. *Adj. articulate.* *Syn. joint.* Cf. **599 abscission layer**.

**关节**:在 *Equisetum*(木贼属)的茎节上或某些 *Selaginella*(卷柏属)接近茎节处具有的一个明显,加厚,异色,变弱或狭窄的区域,可使植株断裂,从而促进其散布的作用。形容词:具关节的。同义词:关节。参考词汇:599 离层。

**537 branch**: a subordinate division from a main stem; in *Equisetum*,

one of few to many small stems forming whorls at intervals along the larger, main stem. *Adj.* **branched.** *Dim.* **branchlet.**

分枝:由主茎上发生的次级分枝,在 *Equisetum* (木贼属),少数至多个小的茎沿着较大的主茎相隔一定的距离形成轮环。形容词:分枝的。指小词:小枝。

**538 cicatrix:** the mark left by the dehiscence of one part from another, especially the stipe base from the caudex in the Cyatheaceae. *Pl.* **cicatrices.** *Syn.* **scar.**

离痕:一个部分从另一个部分脱落时留下的痕迹,尤指 Cyatheaceae (桫欏科) 的叶柄基部从茎上脱落时留下的痕迹。同义词:瘢痕。

**539 fossa:** In *Isoëtes*, a circumbasal or lateral groove on the corm.

凹窝:*Isoëtes* (水韭属) 球茎上环基的或侧生的沟。

**540 internode:** the portion of a stem between two nodes, especially in the stems of *Equisetum*.

节间:茎上两个节之间的部分,尤指 *Equisetum* (木贼属) 的茎。

**541 node:** the point on a stem where leaves and branches are borne, especially in *Equisetum*, or the point on a rhizome where one or more fronds are borne.

节:茎上叶和分枝的着生点,尤见于 *Equisetum* (木贼属),或是根状茎上叶的着生点。

**542 scale:** in ferns, a multicellular, usually plane, lanceate or lanceolate to circular, basifixed, dorsifixed, or peltately attached outgrowth a few to typically many cells wide at least at the base, but sometimes one cell wide distally or at the apex. ; in *Isoëtes*, one of many neotenic, sclerified leaf primordia that surround and protect the corm apex during



dormancy.

**鳞片**:在蕨类指一多细胞,通常平的,披针形或似披针形至圆形,基着,背着或是盾状着生的突出物,至少在基部为少数至典型的为多个细胞宽,有时在远轴端或顶端为一个细胞宽;在 *Isoetes* (水韭属),则指众多在休眠期包围和保护球茎顶端的幼态成熟的,硬化的叶原基之一。

**543 sheath**: a tubular structure composed of laterally connate leaves that closely and completely or partially surround a stem, as in *Equisetum*.

**鞘**:紧密地,完全或部分地围绕着茎着生的,由侧面合生的叶组成的管状结构,如 *Equisetum* (木贼属)。

**544 stipule**: in the Marattiaceae, each one of a pair of lateral, fleshy, starch-bearing, persistent, partially or entirely vascularized outgrowths of the rhizome that clasp the base of the stipe and that are capable of reproducing the plants vegetatively.

**托叶**:在 Marattiaceae (合囊蕨科),由根状茎产生的一对侧生,肉质,含淀粉,宿存的,部分或完全维管化的突出物,包围着叶柄基部并可进行营养繁殖。

### (8D3)

#### ABSOLUTE POSITION

#### 绝对位置

**545 ascending**: at an angle from within the substrate, usually a short rhizome that bears approximate stipe bases, usually on all sides. Cf. **erect**, **repent** (**creeping**).

**上升的**:由基质内长出并与基质成一定角度的,通常指在各个方向具有近生叶柄基部的短根状茎。参考词汇:直立

的,横走的(匍匐的)。

- 546 decumbent:** lying on the substrate and mostly rooted, except with the apex erect or ascending. *Cf.* **procumbent, prostrate, sarmentose.**

斜升的:平卧于基质之上且除了直立或上升的顶端,大部分都是生根的。参考词汇:平伏的,匍匐的,具长匍茎的。

- 547 erect:** vertical or upright from within the substrate, often producing a cluster of fronds in a basket- or vase-like arrangement, with approximate stipe bases on all sides. *Cf.* **ascending, repent (creeping).**

直立的:从基质内垂直或直立长出的,通常形成篮状或瓶状排列的一簇叶,其叶柄基部在各个方向近生。参考词汇:上升的,横走的(匍匐的)。

- 548 pendent:** hanging down, as the stems of certain epiphytic *Huperzia* species.

悬垂的:向下垂的,如 *Huperzia* (石杉属) 一些附生种的茎。

- 549 procumbent:** lying on the substrate, but not rooting. *Cf.* **decumbent, prostrate, sarmentose.**

平伏的:平卧于基质上但不生根的。参考词汇:斜升的,匍匐的,具长匍茎的。

- 550 prostrate:** lying on the substrate (a general term). *Cf.* **decumbent, procumbent, sarmentose.**

匍匐的:平卧于基质上的(一通用的术语)。参考词汇:斜升的,平伏的,具长匍茎的。

- 551 recumbent:** growing loosely over other vegetation, especially shrubs. *Syn.* **scrambling.** *Cf.* **scandent.**

斜靠的:松散地靠在其他植物上,尤其是灌木上生长的。同义词:杂乱蔓延的。参考词汇:攀缘的。

**552 repent (creeping)**: extending horizontally in or on the soil and rooting throughout, often producing a line of fronds. *Syn. reptant. Cf. ascending, erect.*

横走的(匍匐的):在土里或土表面上水平延伸并全部生根,通常产生一行叶的。同义词:匍匐生根的。参考词汇:上升的,直立的。

**553 sarmentose**: arching above the soil and rooting at intervals, as the rhizomes of certain *Lycopodiella* species. *Cf. decumbent, procumbent, prostrate.*

具长匍茎的:在土表之上拱起,并相隔一定距离生根的,如 *Lycopodiella*(小石松属)一些种的根状茎。参考词汇:斜升的,平伏的,匍匐的。

**554 scandent**: climbing closely on other vegetation, especially tree trunks, as the rhizomes of *Polybotrya*. *Cf. recumbent.*

攀缘的:攀缘于其他的植物尤其是树干上的,如 *Polybotrya* 的根状茎。参考词汇:斜靠的。

#### (8D4)

### POSITION RELATIVE TO THE SOIL OR WATER SURFACE

#### 相对于土壤表面或水面的位置

**555 aerial**: above ground. *Ant. subterranean. Cf. epigeous.*

气生的:在地面以上的。反义词:地下的。参考词汇:地面生的。

**556 emersed**: growing partly out of the water. *Cf. submersed.*

出水的:部分长出水面的。参考词汇:沉水的。

**557 epigeous**: growing above or on the surface of the ground, com-

monly applied to horizontal rhizomes. *Ant.* **hypogeous.**  
*Cf.* **aerial.**

地面生的: 生长于地上或地表的, 通常用于水平生长的根状茎。反义词: 地下生的。参考词汇: 气生的。

**558 hypogeous:** growing under the surface of the ground, usually said of horizontal rhizomes. *Ant.* **epigeous.** *Cf.* **subterranean.**

地下生的: 生于地表下的, 通常指水平生长的根状茎。反义词: 地面生的。参考词汇: 地下的。

**559 submersed:** growing entirely under the water. *Cf.* **emersed.**

沉水的: 完全生长于水面下的。参考词汇: 出水的。

**560 subterranean:** below ground. *Ant.* **aerial.** *Cf.* **hypogeous.**

地下的: 在地面以下的。反义词: 气生的。参考词汇: 地下生的。

## (8E)

### FRONDS AND MICROPHYLLS

#### 叶和小型叶

## (8E1)

### TYPES

#### 类型

**561 acrophyll:** a distal, adult frond of certain hemiepiphytic ferns with heterophyllous sterile fronds, especially *Teratophyllum*. *Cf.* **bathyphyll.**

顶生叶: 具有异型不育叶的一些半寄生蕨类远基的成长叶, 尤见于 *Teratophyllum*。参考词汇: 基生叶。

**562 bathyphyll:** a proximal, juvenile frond of certain hemiepiphytic ferns with heterophyllous fronds, especially *Teratophyllum*. Cf. **acrophyll**.

基生叶: 具有异型叶的一些半寄生蕨类, 近基的幼态叶, 尤见于 *Teratophyllum*。参考词汇: 顶生叶。

**563 megasporophyll:** a fertile microphyll bearing or subtending a megasporangium. Cf. **microsporophyll**.

大孢子叶: 着生或包着大孢子囊的能育小型叶。参考词汇: 小孢子叶。

**564 microsporophyll:** a fertile microphyll bearing or subtending a microsporangium. Cf. **megasporophyll**.

小孢子叶: 着生或包着小孢子囊的能育小型叶。参考词汇: 大孢子叶。

**565 nidophyll:** a sterile, rather round, nearly adherent, detritus-collecting frond of certain epiphytic ferns, especially *Platyce-rium*. Syn. *nest frond*.

巢状叶: 一些附生蕨类具有的圆形、不育的, 近靠合的可收集腐殖质的叶, 尤见于 *Platyce-rium* (鹿角蕨属)。同义词: 巢状叶。

**566 sporophyll:** in ferns, a frond bearing sporangia; in most fern-al-lies, a scale-like microphyll subtending a sporangium; in *Isoëtes*, an elongate microphyll bearing a sporangium with-in its base. Ant. **trophophyll**.

孢子叶: 蕨类着生孢子囊的叶, 在大多数的拟蕨类则为一鳞片状包围着孢子囊的小型叶; 在 *Isoëtes* (水韭属) 为基部内着生孢子囊的伸长的小型叶。反义词: 营养叶。

**567 trophophyll:** a vegetative, nutrient-producing frond or micro-

*phyll. Ant. sporophyll.*

营养叶:一无性的,制造养分的叶或小型叶。反义词:孢子叶。

(8E2)

## ATTRIBUTES

属性

**568 anisophyllous:** bearing fronds or microphylls of unequal size, but a single shape. *Subs. anisophylly. Cf. heterophyllous, isophyllous.*

不等叶的:具有大小不同但形状相同的叶或小型叶。名词:不等叶性,参考词汇:异型叶的,等叶的。

**569 aromatic:** having an aroma that is pungent and agreeable, such as the dried fronds of certain Grammitidaceae.

芳香的:具有强烈、宜人的香味的,如 Grammitidaceae(禾叶蕨科)一些种的干燥叶片。

**570 circinate:** having an apical spiral in a single plane with the axis and with the developing apex at the center of the spiral, the typical vernation of ferns. *Cf. convolute.*

拳卷的:顶生螺旋与轴在单一平面上,且其发育顶端在螺旋的中心,为蕨类特有的幼叶卷叠式。参考词汇:旋转的。

**571 convolute:** having two lateral spirals opposite each other, one from each edge of an axis (as seen in transverse section), without apices developing at their center, the typical vernation of *Ophioglossum*. *Cf. circinate.*

旋转的:具有两个侧生的,彼此相对的螺旋,二螺旋各自源于轴的一个边(如横切面所见),螺旋的中心无发育顶端,为 *Ophioglossum*(瓶尔小草属)特有的幼叶卷叠式。

参考词汇:拳卷的。

- 572 costate**: having a costa or midrib. *Ant.* **ecostate**.  
具中肋的:具有中肋或主脉的。反义词:无肋的。
- 573 costulate**: having a costule. *Ant.* **ecostulate**.  
具小肋的:具有小肋的。反义词:无小肋的。
- 574 ecostate**: lacking a costa or midrib. *Ant.* **costate**.  
无中肋的:缺乏中肋或是主脉的。反义词:具中肋的。
- 575 ecostulate**: lacking a costule. *Ant.* **costulate**.  
无小肋的:缺乏小肋的。反义词:具小肋的。
- 576 elaminate**: lacking expanded lamina tissue, sometimes by reduction entirely to axes, as in the fertile portions of *Anemia*, *Osmunda*, and *Polybotrya* fronds. *Ant.* **laminated**.  
无叶片的:缺乏扩展的叶片组织的,有时完全缩减至叶轴,如在 *Anemia*(密穗蕨属), *Osmunda*(紫萁属)以及 *Polybotrya* 叶的能育部分。反义词:具叶片的。
- 577 exstipitate**: lacking a stipe, and so having the rachis joined directly to the rhizome. *Syn.* *sessile*. *Ant.* **stipitate**.  
无叶柄的:缺乏叶柄,从而叶轴直接连接到根状茎上的。同义词:无柄的。反义词:具叶柄的。
- 578 fragrant**: having an aroma that is sweet and agreeable, such as the fresh fronds of *Dennstaedtia punctilobula*.  
芬芳的:具有甜蜜而宜人香味的,如 *Dennstaedtia punctilobula*(草香碗蕨)的新鲜叶片。
- 579 heterophyllous**: having fronds or microphylls of two or more different shapes. *Subs.* **heterophylly**. *Cf.* **anisophyllous**, **isophyllous**.  
异形叶的:具有两种或更多不同形状的叶或是小型叶的。名

词:异形叶性,参考词汇:不等叶的,等叶的。

**580 heterosporous**: producing spores of two sizes, each of which develops gametophytes having gametangia of a single sex.

*Subs. heterospory. Ant. homosporous.*

异形孢子的:产生两种大小的孢子,并各自发育成为具有单一性别配子囊的配子体。名词:孢子异型(异孢现象)。

反义词:同形孢子的。

**581 homosporous**: producing spores of a single size, which develop gametophytes that bear gametangia of one or two sexes.

*Subs. homospory. Syn. isosporous. Ant. heterosporous.*

同形孢子的:产生相同大小的孢子,并可进一步发育成为具有一种或两种性别的配子囊的配子体的。名词:孢子同形(同孢现象)。同义词:同形孢子的。反义词:异形孢子的。

**582 isophyllous**: having fronds or microphylls of a single size and shape. *Subs. isophylly. Cf. anisophyllous, heterophyllous.*

等叶的:具有相同大小和形状的叶或小型叶的。名词:等叶式。参考词汇:不等叶的,异形叶的。

**583 laminate**: having expanded lamina tissue. *Ant. elaminate.*

具叶片的:具伸展的叶片组织的。反义词:无叶片的。

**584 musky**: having an aroma like that of a skunk and disagreeable, such as the fresh fronds of *Macrothelypteris torresiana* and *Phanerophlebia macrosora*.

有麝香味的:具有臭鼬一样难闻的味道的,如 *Macrothelypteris torresiana* (普通针毛蕨)和 *Phanerophlebia macrosora* 的



新鲜叶片。

**585 odorous:** having an odor.

有气味的:具有某种气味的。

**586 petiolulate:** having a free, usually short portion of the costa or costule at the base of the pinna, pinnule, or pinnulet that attaches to the axis of the next higher order. *Syn. stalked.*

*Cf. 735 pedicellate.*

具小叶柄的:在羽片,小羽片或细羽片的基部具有一段中肋或小肋的通常短而游离的部分,连接在更高一级的轴上。同义词:具柄的。参考词汇:735 具孢子囊柄的。

**587 skeletonized:** having expanded lamina tissue reduced or absent, producing a markedly lacy appearance, characteristic of a few species of Hymenophyllaceae and the aphaebiae of some species of Cyatheaceae.

缩减的:伸展的叶片组织简化或缺乏,从而外形明显呈花边状的,为少数 Hymenophyllaceae(膜蕨科)种的特征以及 Cyatheaceae(桫椤科)一些无脉叶片种的特征。

**588 stipitate:** having a stipe. *Ant. exstipitate.*

具叶柄的:具有叶柄的。反义词:无叶柄的。

**589 urinous:** having the aroma of urine, such as some species of *Pteris*.

尿味的:具有尿一样的气味的,如 *Pteris*(凤尾蕨属)的一些种。

(8F)  
 AXES  
 轴  
 (8F1)  
 TYPES  
 类型

- 590 branch:** in the Gleicheniaceae, an axis subtending a bud, formed in pairs and further designated by its order (ultimate, penultimate, or antipenultimate) and whether it bears segments (pectinate, partially pectinate, or nude).  
 分枝:在 Gleicheniaceae(里白科),一轴包着一个芽,轴成对形成并且按其顺序(末回的,倒数第二的)以及轴是否具有裂片(篦齿状的,部分篦齿状的或裸露的)进一步进行区分。
- 591 costa:** the major axis of a pinna (Fig. 11). *Pl. costae. Syn. rachilla. Cf. costule, costulet.*  
 中肋:羽片的主轴(图 11)。同义词:小轴。参考词汇:小肋,细肋。
- 592 costule:** the major axis of a pinnule (Fig. 11). *Adj. costular. Syn. rachilla. Cf. costa, costulet.*  
 小肋:小羽片的主轴(图 11)。形容词:小肋的。同义词:小轴。参考词汇:中肋,细肋。
- 593 costulet:** the major axis of a pinnulet (Fig. 11). *Cf. costa, costule.*  
 细肋:小羽片的主轴(图 11)。参考词汇:中肋,小肋。
- 594 midrib:** the major axis of a simple, entire or lobed lamina (Fig.

11). *Cf. midvein, rachis.*

主脉:简单的,全缘或浅裂叶片的主轴(图 11)。参考词汇:中脉,叶轴。

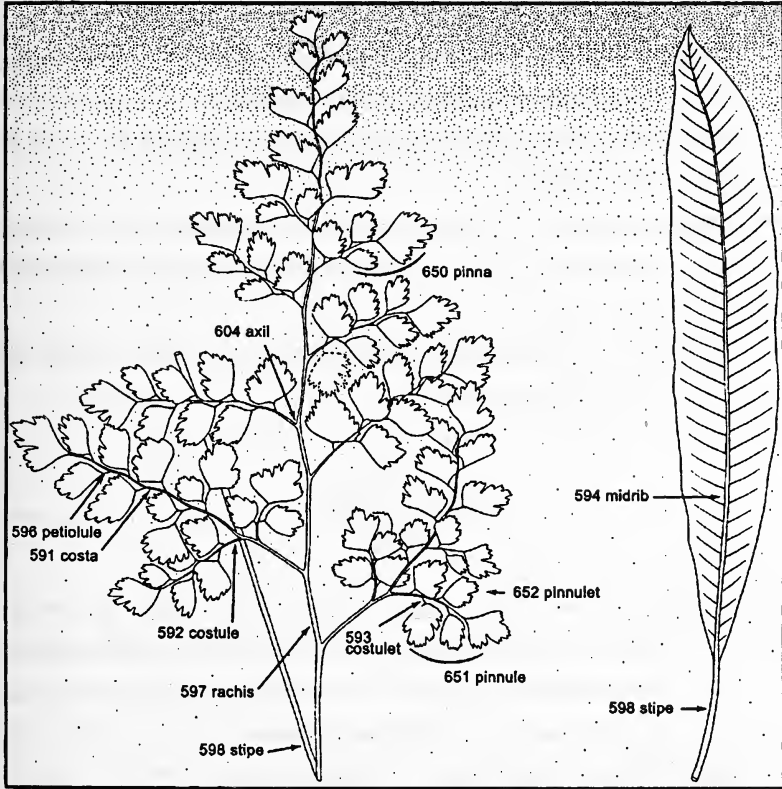


Fig. 11. TYPES OF AXES AND LAMINA STRUCTURES

图 11. 叶轴和叶结构的类型

**595 midvein:** the central axis of a segment, as in the Gleicheniaceae.

*Cf. midrib.*

中脉:裂片中央的轴,如 Gleicheniaceae(里白科)。参考词汇:主脉。

**596 petiolule:** the short, free, basal portion of a costa, costule, or costulet (Fig. 11). *Syn. stalk, stipicel. Cf. 726 pedicel.*

小叶柄:中肋,小肋,或是细肋的短的,游离的基部部分(图 11)。同义词:柄,小柄。参考词汇:726 孢子囊柄。

**597 rachis:** the principal, central axis of a pinnatifid or more compound lamina (Fig. 11). *Cf. midrib.*

叶轴:羽状分裂叶或更为复出叶首要的中心轴(图 11)。参考词汇:主脉。

**598 stipe:** the structure of a frond that connects the base of the lamina to the point of its attachment to the rhizome (Fig. 11). *Syn. petiole.*

叶柄:将叶片基部连接到根状茎叶片着生点上的叶结构(图 11)。同义词:叶柄。

## (8F2)

### STRUCTURES

#### 结构

**599 abscission layer:** a thin region of thin-walled cells, the senescence and death of which cause the breaking away of pinnae from rachises or pinnules from costae, possibly in response to desiccation. *Cf. 536 articulation.*

离层:薄壁细胞(组成)的一个薄的区域,其老化和死亡使羽片从羽轴或小羽片从中肋上脱落,可能是对脱水干燥的反应。参考词汇:536 关节。

**600 aerophore:** an often evanescent spot, swelling, or finger-like projection of thin-walled cells found along the stipe or in the pinna or pinnule axils of some ferns, especially Thelypteridaceae, that apparently aids gas exchange with the atmos-

phere. Cf. 643 hydathode.

**气囊体**: 一个常隐失的点, 指一些蕨类尤其是 Thelypteridaceae (金星蕨科) 薄壁细胞的膨大或指形突起, 沿着叶柄或是在羽片或小羽片的腋内存在, 似乎有助于与大气的交换。参考词汇: 643 排水器。

**601 ala**: a wing; a usually long, narrow membrane laterally bordering a stipe, rachis, or costa. Pl. **alae**. Adj. **alate**.

**翅**: 指叶柄, 叶轴或是中肋侧边沿的通常长而窄的膜质的翼。形容词: 有翅的。

**602 aplebia**: a highly divided, skeletonized, anomalous, pinna-like structure on the stipe of certain ferns, especially in *Alsophila*. Pl. **aplebiae**.

**无脉叶片**: 一生于叶柄上的, 高度分裂的, 简缩的, 异常的, 似羽片的结构, 见于一些蕨类尤其是 *Alsophila* (桫欏属)。

**603 awn**: in ferns, a small, slightly flattened, bristle-like appendage on the adaxial side of a rachis or costa, found especially in certain *Pteris* species.

**芒**: 蕨类中在叶轴或中肋的近轴面着生的一小而略为扁平的, 刚毛状的附属物, 尤见于 *Pteris* (凤尾蕨属) 的一些种。

**604 axil**: the acroscopic region formed by the point of insertion of a minor axis on a major one, especially of a pinna on a rachis (Fig. 11). Adj. **axillary**.

**腋**: 小轴在一大轴上的着生点, 尤指由一羽片在叶轴上的着生点形成的上侧区域(图 11)。形容词: 腋生的。

**605 bulbil**: a small, usually persistent, more or less globular, usually hairy or scaly, asexual propagule borne on a rachis or costa or occasionally a lamina margin that is capable of form-

ing a plantlet before, during, or after frond senescence, or after separation from the frond, as in certain *Asplenium*, *Diplazium*, and *Tectaria* species. Adj. **bulbiferous**. Cf. **473 bud, gemma**. Syn. *bulblet*.

**鳞芽**:小而通常宿存的,多少呈球形,常被毛或鳞片的无性繁殖体,生于叶轴或中肋,偶有生于叶缘的,它在叶衰老前,衰老时或衰老后,或在脱离叶片以后可形成小植株,如 *Asplenium* (铁角蕨属), *Diplazium* (双盖蕨属) 以及 *Tectaria* (三叉蕨属) 的一些种。形容词:具鳞芽的。参考词汇:473 芽,胞芽。同义词:小鳞茎。

**606 carina**: a sharp, longitudinal ridge, as on the abaxial side of the midrib in some species of *Campyloneurum*, Adj. **carinate**. sin. Syn: **keel**.

**龙骨状突起**:长轴方向的尖脊,如见于 *Campyloneurum* (弯脉蕨属) 一些种的主脉远轴面。形容词:具龙骨状突起的。同义词:龙骨(突)。

**607 crozier**: the young, unexpanded, circinate apex of a fern frond. Syn. *fiddlehead*.

**拳卷叶芽**:幼嫩的,未展开的拳卷状的蕨类叶片顶端。同义词:拳卷叶芽。

**608 dormant bud**: in the Gleicheniaceae, a bud borne at the apex of an axis that is flanked by two branches; it does not break dormancy and so terminates its axis. Cf. **latent bud**.

**休眠芽**:在 Gleicheniaceae (里白科) 生于轴顶的芽,有两个分枝位于其侧;它不打破休眠而为轴的终端。参考词汇:潜伏芽。

**609 gemma**: a markedly absciscent, structurally specialized, often glabrous, asexual propagule found on some sporophytes

that detaches and forms a plantlet after dispersal, as in certain terrestrial and epiphytic *Huperzia* species. *Pl. gemmae*. *Adj. gemmiferous*. *Cf. bulbil*.

胞芽:一明显具脱落性的,结构特化,通常为球形的无性繁殖体,在脱落,散布后形成一小植株,见于一些蕨类的孢子体,如 *Huperzia* (石杉属) 的一些陆生和附生种。形容词:具胞芽的,参考词汇:鳞芽。

**610 latent bud**: in the Gleicheniaceae, a bud borne at the apex of an axis that is flanked by two branches; eventually it may break dormancy and elongate, most commonly extending the rachis of the frond. *Cf. dormant bud*.

潜伏芽: Gleicheniaceae (里白科) 生于轴顶的芽,有两个分枝位于芽的侧面;最终它可打破休眠而伸长,通常使叶片的叶轴伸长。参考词汇:休眠芽。

**611 nectary**: in ferns, a tissue, often a small patch or protuberance in the axil of a pinna, that is attractive and nourishing to ants that protect the plant, such as is found in *Pteridium*.

蜜腺: 蕨类的一个组织,通常为羽片腋内的一小块或突起,可吸引保护植物的蚂蚁并为其提供营养,如 *Pteridium* (凤尾蕨属) 中发现的。

**612 node**: a discolored, swollen, or articulate area on the stem, as in *Selaginella* subg. *Stachygynandrum*; a low swelling of the stipe, especially in *Danaea*; or the attachment points of the sheaths along the stems in *Equisetum*. *Adj. nodose*.

节: 如在 *Selaginella* (卷柏属) 的 *Stachygynandrum* 亚属植物茎上一变色的,膨大或具关节的区域;或尤见于 *Danaea* (多孔蕨属) 的叶柄上一低的隆起;或 *Equisetum* (木贼属) 茎上叶鞘的着生点。形容词: 结节状的,有节的。

**613 phyllopodium:** in ferns with articulate stipes, that portion of the stipe proximal to the articulation that remains attached to the rhizome. Phyllopodia are especially prominent in *Elaphoglossum* and *Oleandra*, but are low and knob-like in *Adiantum*.

叶足: 在叶柄具有关节的蕨类, 叶柄邻近关节并保持与根状茎连接的部分。叶足在 *Elaphoglossum* (舌蕨属) 和 *Oleandra* (条蕨属) 较为突出, 而在 *Adiantum* (铁线蕨属) 则为低的节状。

**614 plantlet:** a small plant produced by the development of a bulbil or gemma.

小植株: 由鳞芽或胞芽发育而来的小植株。

**615 pulvinus:** in the Marattiales, a swollen, node-like region at the base of a stipe or costa that loses or gains turgidity under different conditions of hydration and consequently causes fronds or pinnae to collapse or regain their normal position.

叶枕: Marattiales (观音座莲目) 位于叶柄或中肋基部一膨大, 节状的区域, 其在不同的含水状况下失去或获得膨胀度, 从而使叶或羽片萎蔫或重获正常的姿态。

**616 spine:** a hard, elongate, sharp-pointed projection, found especially in certain species of Cyatheaceae, Dennstaedtiaceae, and Marattiaceae. **Corticinate spines** arise from the cortex; **squaminate spines** are the thickened, central portion of an elongate scale, at maturity with the thin marginal portion worn away. *Adj.* **spiny.** *Adj. Dim.* **spinulose.** *Subs. Dim.* **spinule.**

刺: 硬而伸长, 急尖的突起物, 尤见于 Cyatheaceae (桫欏科),



Dennstaedtiaceae(碗蕨科)和 Marattiaceae(合囊蕨科)的一些种。皮刺是产生于皮层的刺;鳞刺是一伸长鳞片加厚的中央部分,成熟时鳞片薄的边缘部分萎缩。形容词:具刺的。形容词指小词:具细刺的。名词指小词:细刺,微刺。

**617 stipule:** in the Ophioglossaceae, merely the remnants of the older stipe base that originally enclosed and protected the younger, less developed fronds.

托叶:在 Ophioglossaceae(瓶尔小草科),仅指老叶柄基部的残存物,起初包裹和保护着年幼不甚发育的叶片。

**618 sulcus:** a longitudinal groove, especially on the adaxial side of a stipe, rachis, or costa. *Pl. sulci. Adj. sulcate.*

沟槽:一纵向沟槽,尤见于叶柄,叶轴或是中肋的近轴面。形容词:具沟的。

**619 trophopod:** the enlarged, persistent, basal portion of a stipe that functions as a storage organ, especially through the cold months, found in some ferns of temperate regions.

营养足:扩大,宿存的叶柄基部,有作为尤其是度过寒冷季节的贮存器官的功能,见于一些温带地区的蕨类。

### (8F3)

#### ATTRIBUTES

#### 属性

**620 alate:** bearing an ala. *Subs. ala. Subs. Pl. alae. Ant. exalate.*  
有翅的:具有翅。名词:翅。反义词:无翅的。

**621 articulate:** having an articulation. *Ant. exarticulate.*  
具关节的:有一关节。反义词:无关节的。

**622 bisulcate:** having two longitudinal grooves, especially on the ad-

axial side of the stipe, rachis, or costa. *Cf.* **sulcate**, **trisulcate**.

具二沟的:具有两个纵向的凹槽,尤其在叶柄,叶轴或中肋的近轴面。参考词汇:具沟的,具三沟的。

**623 bulbiferous**: bearing one or more bulbils. *Subs.* **bulbil**. *Syn.* *viviparous*. *Cf.* **gemmiferous**.

具鳞芽的:具有一个或更多的鳞芽的。名词:鳞芽。同义词:胎生的。参考词汇:具胞芽的。

**624 canaliculate**: channeled; bearing a small groove, especially on the adaxial side of a costule or costulet. *Cf.* **sulcate**.

具沟的:具有一个小的凹槽的,尤指在小肋或细肋的近轴面。参考词汇:具沟的。

**625 carinate**: bearing a carina. *Subs.* **carina**. *Syn.* *keeled*.

具龙骨状突起的:具有隆突的。名词:龙骨突。同义词:具龙骨状突起的。

**626 exalate**: lacking an ala. *Ant.* **alate**.

无翅的:缺乏翅的结构。反义词:有翅的。

**627 exarticulate**: lacking an articulation. *Ant.* **articulate**.

无关节的:缺乏关节的。反义词:具关节的。

**628 flexuous**: curved or bent slightly in alternate directions; gently zig-zag. *Cf.* **fractiflex**.

曲折的:以交替的方向弯曲或是略微弯曲的,轻微之字形的。参考词汇:之字形的。

**629 fractiflex**: bent strongly in alternate directions; decidedly zig-zag. *Cf.* **flexuous**.

之字形的:以交替的方向强烈地弯曲的;明显呈之字形的。参考词汇:曲折的。

**630 gemmiferous**: bearing one or more gemmae. *Subs.* **gemma**.

*Subs. Pl. gemmae. Cf. bulbiferous.*

具胞芽的:具有一个或更多的胞芽的。名词:胞芽。参考词汇:具鳞芽的。

**631 geniculate:** bent abruptly, as the lamina to the stipe in some species of Grammitidaceae.

膝状弯曲的:突然弯曲的,如 Grammitidaceae(禾叶蕨科)一些种叶片至叶柄。

**632 nodose:** in ferns, bearing one or more nodes. *Subs. node.*

具节的:在蕨类,指具有一个至多个节的。名词:节。

**633 nude:** naked, bare; in the Gleicheniaceae, applied to axes that lack segments.

裸的:裸露的,赤裸的,在 Gleicheniaceae(里白科)指缺乏裂片的轴。

**634 percurrent:** extending to the apex of a simple lamina or simple pinna, applied to midribs and costae.

及顶的:指主脉或是中肋延伸到一单叶或单羽片的顶端的。

**635 radican:** rooting or able to do so, especially applied to prolonged, free rachises bearing a terminal bulbil or plantlet, as in some *Asplenium* species. *Cf. 673 proliferous.*

生根的:生根或能生根的,尤指伸长的,顶生鳞芽或小植株的游离叶轴,如在 *Asplenium*(铁角蕨属)的一些种。参考词汇:673 多育的。

**636 sulcate:** having one or more longitudinal grooves, especially on the adaxial side of a stipe, rachis, or costa. *Subs. sulcus. Pl. sulci. Cf. bisulcate, canaliculate, trisulcate.*

具沟的:具有一个或更多的纵向凹槽,尤指在叶柄,叶轴或中肋的近轴面。名词:沟,槽。参考词汇:具二沟的,具沟的,三沟的。

**637 trisulcate**: having three longitudinal grooves, especially on the adaxial side of the stipe, rachis, or costa. Cf. **bisulcate**, **sulcate**.

三沟的:具有三个纵向的凹槽,尤指在叶柄,叶轴或中肋的近轴面。参考词汇:具二沟的,具沟的。

(8G)

LAMINAE

叶片

(8G1)

STRUCTURES

结构

**638 auricle**: a usually low lobe at the base of a frond, pinna, or pinule. Adj. **auriculate**.

叶耳:在叶片,羽片或小羽片基部的通常浅的裂片。形容词:耳状的。

**639 carina**: a thickened or elevated ridge or line of tissue, particularly that found adaxially between the sinuses and the costae on pinnae of some species of *Thelypteris* subg. *Steiropteris*. Adj. **carinate**. Syn. *keel*.

隆突:组织加厚的或隆起的脊或线,尤见于 *Thelypteris* (金星蕨属) *Steiropteris* 亚属的一些种羽片近轴面的凹缺与中肋之间。形容词:具隆突的。同义词:龙骨(突)。

**640 coenindusium**: a laterally elongate indusium or pseudoindusium protecting a coenosorus. Cf. **indusium**, **pseudoindusium**.

汇生囊群盖:一侧边延长的,保护汇生囊群的囊群盖或假囊群

盖。参考词汇:囊群盖,假囊群盖。

**641 crista**: the apex of an abnormally elaborated, multifurcate frond, pinna, or pinnule. *Pl. cristae. Syn. crest.*

鸡冠状突起:一异常复杂的,多分叉的叶、羽片或小羽片的顶端。同义词:冠饰。

**642 hemiphyll**: in heterophyllous *Selaginella* species, the portion of a microphyll between the midrib and the acroscopic (**acroscopic hemiphyll**) or basiscopic (**basiscopic hemiphyll**) lateral margin. *Syn. half-leaf.*

半叶:在 *Selaginella*(卷柏属)的异型叶种类,小型叶主脉与上侧之间的部分(上侧半叶)或主脉与下侧之间的部分(下侧半叶)。同义词:半叶。

**643 hydathode**: a commonly elevated and dark or sometimes pale area of the epidermis on the adaxial surface of the lamina that coincides with the endings of the veins and exudes water and salts. *Adj. hydathodous. Cf. 600 aerophore, lime dot.*

排水器:在叶片表皮的近轴面的一个通常突起的,深色或有时浅色的区域,同时也是叶脉的末端,具渗出水分和盐分的功能。形容词:具排水器的。参考词汇:600 气囊体,钙点。

**644 hydropote**: an elongate group of discolored epidermal cells found between the veins in the submerged laminae of certain *Marsilea* species. *Pl. hydropotes.*

吸水细胞:在 *Marsilea*(萍属)一些种中沉水叶的叶脉之间有一伸长的,异色的表皮细胞群。

**645 indusium**: a usually thin, often scale-like, extrorse or rarely introrse epidermal membrane, or a structure subtending the

sorus, that partially or fully protects the young sporangia.

*Pl. Indusia. Cf. coenoindusium, pseudoindusium.*

**囊群盖**:一通常薄,常呈鳞片形的,向外或极少向内的表皮膜,或为包被孢子囊群的一个结构,部分或完全地保护着幼态的孢子囊。参考词汇:汇生囊群盖,假囊群盖。

**646 lamella**: a thin plate of tissue, especially that found on the abaxial surface of the veins in certain species of *Hymenophyllum*.

**薄层片**:一薄片组织,尤见于 *Hymenophyllum*(膜蕨属)一些种叶脉组织的远轴面。

**647 lime dot**: a white, crusty exudate from the hydathodes of certain ferns. *Cf. hydathode.*

**钙点**:某些蕨类植物由排水器渗出的白色的,壳状的渗出物。参考词汇:排水器。

**648 lobe**: a portion of a lamina, pinna, pinnule, or segment that is fully connate and with a shallow sinus on either side that extends no more than half way from the lobe apex to the axis that bears the lobe. *Adj. lobate. Dim. lobule. Dim. Adj. lobulate. Cf. 655 segment.*

**裂片**:完全合生的叶片,羽片,小羽片或是裂片的一部分,在两边具一浅的凹缺,且凹缺的深度小于裂片的顶端到裂片所着生轴长度的一半。形容词:浅裂的。指小词:小裂片。指小形容词:具小裂片的。参考词汇:655 裂片。

**649 margin**: an edge of a flat structure like a lamina.

**边缘**:像叶片这样的扁平结构的边缘。

**650 pinna**: a petiolulate or sessile, primary division of a compound lamina that is at least narrowed at the base (Fig. 11). *Cf. pinnule, pinnulet.*

**羽片**:一具有小叶柄或无柄的,复叶的初次分裂物,至少在基

部变狭(图 11)。参考词汇:小羽片,细羽片。

**651 pinnule:** a petiolulate or sessile division of a pinna that is at least narrowed at the base (Fig. 11). Cf. **pinna**, **pinnulet**.

小羽片:羽片具有小叶柄或是无柄裂片,至少在基部变狭(图 11)。参考词汇:羽片,细羽片。

**652 pinnulet:** a petiolulate or sessile division of a pinnule that is at least narrowed at the base (Fig. 11). Cf. **pinna**, **pinnule**.

细羽片:小羽片具有小叶柄或是无柄裂片,至少在基部变狭(图 11)。参考词汇:羽片,小羽片。

**653 pseudoindusium:** an introrse, reflexed or revolute, often modified lamina margin that protects young sporangia, especially in the Adiantaceae. Syn. *false indusium*. Cf. **coenoindusium**, **indusium**.

假囊群盖:一向内的,下弯或外卷的,通常为变形的叶边缘,保护幼态孢子囊,尤见于 Adiantaceae(铁线蕨科)。同义词:假囊群盖。参考词汇:汇生囊群盖,囊群盖。

**654 pseudostipule:** in the Gleicheniaceae, a small, foliaceous, stipule-like structure subtending and protecting a dormant bud.

假托叶:在 Gleicheniaceae(里白科)植物一个小的,叶状的,托叶形的包裹和保护着休眠芽的结构。

**655 segment:** a portion of a lamina, pinna, or pinnule that is fully adnate and with a deep sinus on each side that extends more than half way from the segment apex to the axis that bears the segment. Cf. **648 lobe**.

裂片:完全贴生的叶片,羽片或是小羽片的一部分,在其每一边都具一深的凹缺,且凹缺的深度大于裂片的顶端到

裂片所着生轴的长度的一半。参考词汇:648 裂片。

**656 sorus:** a cluster of sporangia having a distinct shape. Maturation of the sporangia may be **simple** (simultaneous), **gradate** (sequential), or **mixed** (a combination of the two foregoing types). *Pl. sori. Adj. soral.*

孢子囊群:具有特定形状的一群孢子囊。孢子囊的成熟可为简单型(同时发生的),级度型(连续的),或是混合型(前两种类型的结合)。形容词:孢子囊群的。

**657 sporangium:** the spore-producing structure of pteridophyta. *Pl. sporangia.*

孢子囊:蕨类产生孢子的结构。

**658 spore:** a unicellular, commonly spherical, tetrahedral, or reniform, often elaborately ornamented reproductive structure produced within the sporangium that germinates to form a gametophyte.

孢子:一单细胞的,常为球形,四面体形或是肾形的,通常具有精细纹饰的繁殖结构,产生于孢子囊内,萌发形成一配子体。

**659 sporophore:** in pteridophytes, the fertile portions of a hemidimorphic frond, as in the Ophioglossaceae and *Anemia*. *Cf. 810 sporangiophore, 662 trophophore.*

孢子柄:蕨类中半二型性叶的能育部分,如 **Ophioglossaceae** (瓶尔小草科)和 *Anemia* (密穗蕨属)。参考词汇:810 孢子囊柄,662 营养柄。

**660 stoma:** a minute, epidermal pore bordered by a pair of relatively large and conspicuous (under the microscope) guard cells and often a usually uniform array of subsidiary cells that differ from the adjacent epidermal cells. *Pl. stomata.*



*Syn. stomate.*

气孔: 一个小的表皮孔, 两边具有一对相对大而明显的保卫细胞(在显微镜下), 并通常具有与相邻的表皮细胞所不同的整齐排列的副卫细胞。同义词: 气孔。

**661 subula:** in *Isoëtes*, the distal, exalate portion of the microphyll.

钻尖: *Isoëtes* (水韭属) 小型叶远端无翅的部分。

**662 trophophore:** the sterile portion of a hemidimorphic frond, as in the Ophioglossaceae and *Anemia*. Cf. **sporophore**.

营养柄: 近二型性叶的不育部分, 如在 Ophioglossaceae (瓶尔小草科) 和 *Anemia* (密穗蕨属)。参考词汇: 孢子柄。

## (8G2)

### ATTRIBUTES

#### 属性

**663 auriculate:** having one or more auricles. *Subs. auricle. Ant. exauriculate.*

具耳的: 具有一个或多个耳的。名词: 耳。反义词: 无耳的。

**664 carinate:** having a carina. *Subs. carina. Syn. keeled.*

具龙骨状突起的: 具有龙骨状突起的。名词: 龙骨状突起。同义词: 具龙骨突起的。

**665 exauriculate:** lacking an auricle. *Ant. auriculate.*

无耳的: 缺乏耳的。反义词: 具耳的。

**666 exhydathodous:** lacking hydathodes. *Ant. hydathodous.*

无排水器的: 缺乏排水器的。反义词: 具排水器的。

**667 exindusiate:** lacking an indusium. *Ant. indusiate.*

无囊群盖的: 缺乏囊群盖的。反义词: 具囊群盖的。

**668 fertile:** producing sporangia and presumably viable spores. *Ant. sterile.*

能育的: 产生孢子囊并(可)产生具活性孢子的。反义词: 不

育的。

**669 geniculate**: having the lamina at an angle to the stipe, as in certain species of epiphytic Grammitidaceae.

膝状弯曲的:叶与叶柄呈一定的角度的,如附生的 Grammitidaceae(禾叶蕨科)中的一些种。

**670 hydathodous**: having hydathodes. *Subs. hydathode. Ant. exhydathodous.*

具排水器的:具有排水器的。名词:排水器。反义词:无排水器的。

**671 indusiate**: having indusia. *Subs. indusium. Subs. Pl. indusia. Ant. exindusiate.*

具囊群盖的:有囊群盖的。名词:囊群盖。反义词:无囊群盖的。

**672 lamellate**: having lamellae. *Subs. lamella.*

薄层状的:具有薄层的。名词:薄层片。

**673 proliferous**: forming bulbils or plantlets on the laminae, the latter commonly in the axils of distal pinnae, as in *Tectaria*, or occasionally along the lamina margin, as in *Asplenium*. *Cf. 635 radicant.*

多育的:在叶片上形成鳞芽或是小植株的,后者通常着生于远端羽片腋内,如 *Tectaria*(三叉蕨属),或偶有沿着叶片边缘着生的,如 *Asplenium*(铁角蕨属)。参考词汇:**635** 生根的。

**674 soriferous**: bearing sori. *Subs. sorus. Subs. Pl. sori.*

具孢子囊群的:着生有孢子囊群的。名词:孢子囊群。

**675 spinulose**: bearing epidermal projections in the form of short, spine-like teeth along the lamina margin, as the pinnules of most species of *Polystichum*. *Subs. spinule.*

具小刺的:沿着叶片的边缘具有短的,刺状齿的表皮突起,如  
*Polystichum*(耳蕨属)大多数种的小羽片。名词:小刺。

676 **sterile**: lacking sporangia or presumably viable spores. *Ant.* **fertile**.

不育的:缺乏孢子囊或可能缺乏活性的孢子的。反义词:能育的。

## (8H)

### VENATION

#### 脉序

## (8H1)

### DROMY

#### 脉向

677 **anadromous**: with the basal pinnule and/or vein group of the pinna directed toward the frond apex. *Cf.* **catadromous**, **isodromous**.

上行的,上先出的:羽片的基生小羽片和/或叶脉群朝向叶片顶端的。参考词汇:下行的,同行的。

678 **catadromous**: with the basal pinnule and/or vein group of the pinna directed toward the frond base. *Cf.* **anadromous**, **isodromous**.

下行的,下先出的:羽片的基生小羽片和/或叶脉群朝向叶片基部的。参考词汇:上行的,同行的。

679 **heterodromous**: with the basal portions of the lamina differing in dromy from the apical portions.

异行的:叶片的基部部分的脉走向与顶部部分不同。

680 **isodromous**: with the basal pinnules and/or vein groups of the pinnae strictly opposite. *Cf.* **anadromous**, **catadro-**

**mous.**

同行的:羽片的基生小羽片和/或叶脉群为严格对生的。参考词汇:上行的,下行的。

**681 poecilodromous:** with the dromy fluctuating throughout the lamina, found especially in *Pteridium*.

异行的:在叶片上,脉向不定的,尤见于 *Pteridium* (蕨属)。

**682 pseudoanadromous:** catadromous, but with one or more basal basicopic divisions suppressed, and so appearing to be anadromous, as in some species of Dicksoniaceae and Lophosoriaceae.

假上行的:下行的,但有一至多个基部下侧的分裂被抑制,从而看似上行的,见于 Dicksoniaceae (蚌壳蕨科) 和 Lophosoriaceae 的一些种。

(8H2)

## PATTERN

脉型

**683 anastomosing:** joining together to form networks and enclose areolae. *Ant. free.*

网结的:连接在一起形成网络,并形成网眼的。反义词:离生的。

**684 areolate:** having areas enclosed by a mesh or network of anastomosing veins. *Subs. areola. Subs. Pl. areolae.*

具网眼的:具有被网脉形成的网络包围的区域。名词:网眼。

**685 biarcuate:** having two costal areolae between adjacent lateral veins. *Cf. polyarcuate, uniarcuate.*

双弧曲形的:在相邻的侧脉间有两个中肋形成的网眼。参考词汇:多弧曲形的,单弧曲形的。

**686 bireticulate:** having two orders of reticulate veins, thus minor are-

olae within major ones, as in the pseudolaminae of *Ophioglossum*.

二次网状的:具有两个级别的网状脉,从而小的网眼在大的网眼内,如 *Ophioglossum* (瓶尔小草属)的假叶。

**687 commissural:** joined or seamed; in ferns, a commissural vein joins parallel, otherwise free veins along the lamina margin and often underlies a continuous, marginal coenosorus. *Subs. commissure.*

连合的:接合的或缝合的;在蕨类,连合的叶脉沿叶片的边缘联合平行脉或是分离脉,下面通常着生有连续的、边缘生的汇生囊群。名词:连合。

**688 compital:** at the intersection of several veins, applied to sori.

脉叉处生的:位于数条叶脉交叉点的,用于孢子囊群。

**689 dichotomous:** branching in which the branches at each fork are free and equal, often seen in flabellate laminae such as certain *Schizaea* and *Trichomanes* species. *Cf. pseudodichotomous.*

二叉的:位于每一分叉的分枝都是分离且相等的分枝系统,常见于如 *Schizaea* (莎草蕨属)和 *Trichomanes* (瓶蕨属)一些种的扇形叶。参考词汇:假二叉。

**690 free:** not anastomosing or otherwise joined. *Ant. anastomosing.*

分离的:不网结也不连接的。反义词:网结的。

**691 included:** contained within, as a terminal veinlet within an areola.

内藏的:包含在里面的,如网眼内的末端小脉。

**692 pinnate:** branching in which a major free vein gives rise to minor, lateral, free veins. *Cf. pseudodichotomous.*

羽状的:由一分离的主脉产生小的侧生分离脉的分枝方式。

参考词汇:假二叉的。

**693 polyarcuate**: having three or more costal areolae between adjacent lateral veins. Cf. **biarcuate**, **uniarcuate**.

多弓弧曲形的:在相邻的侧脉之间具有三个或更多的与中肋形成的网眼。参考词汇:双弧曲形的,单弧曲形的。

**694 primary**: the highest or principal order of veins, especially those arising from the midrib when they are markedly different in position and character from the other orders of veins, as in *Niphidium* and *Thelypteris* subg. *Meniscium*. Cf. **secondary**, **tertiary**.

一级的:最高级的或是最主要的脉序,尤其指那些由中脉产生的叶脉,在位置和特征上都与其他脉序不同,如见于 *Niphidium* 和 *Thelypteris* (沼泽蕨属) 的 *Meniscium* 亚属。参考词汇:二级的,三级的。

**695 pseudodichotomous**: branching in which the branches at each fork are free and unequal. Cf. **dichotomous**, **pinnate**.

假二叉的:每一分叉的分枝都是分离但不相等的分叉方式。参考词汇:二叉的,羽状的。

**696 reticulate**: having a branching pattern in the form of a mesh-like or lattice-like network. Subs. **reticulum**. Subs. Pl. **reticula**.

网状的:具有网状或格子状网络的分枝样式。名词:网状组织。

**697 secondary**: the order of veins or vein-groups that arise from the primary order of veins, especially the transverse veins linking adjacent primary veins of a simple lamina, as in *Niphidium* and *Thelypteris* subg. *Meniscium*. Cf. **primary**, **tertiary**, **transverse**.

二级的:由一级脉序上产生的脉序或叶脉群,尤其是单叶上连接毗邻一级脉的那些横向脉,如 *Niphidium* 属和 *Thelypyris* (沼泽蕨属) *Meniscium* 亚属。参考词汇:一级的,三级的,横向的。

**698 tertiary:** the order of veins or minor branches that arise from secondary veins, as in *Campyloneurum* and *Niphidium*. Cf. **primary, secondary.**

三级的:由二级叶脉上产生的脉序或是由二级叶脉上产生的小的分枝,如在 *Campyloneurum* (弯脉蕨属) 和 *Niphidium*。参考词汇:一级的,二级的。

**699 transverse:** running perpendicularly between a pair of veins of a higher order, applied to veins and venuloids. Syn. *cross-vein*. Cf. **secondary.**

横向的:在一对较高一级叶脉间垂直走向的,用于叶脉和假小脉。同义词:横脉。参考词汇:二级的。

**700 uniarculate:** having a single costal areola between adjacent lateral veins. Cf. **biarculate, polyarculate.**

单弧曲形的:在相邻的侧脉之间具有单一的与中肋形成的网眼的。参考词汇:双弧曲形的,多弧曲形的。

## (81)

### SORI

#### 孢子囊群

**701 acrostichoid sorus:** producing sporangia apparently or actually scattered on the surface of the fertile lamina, usually densely so, as in *Elaphoglossum* or *Acrostichum*.

卤蕨型孢子囊群:所产生的孢子囊在外观上或实际上散生于能育叶的表面,通常较密,如见于 *Elaphoglossum* (舌蕨

属) 或 *Acrostichum* ( 卤蕨属 )。

**702 coenosorus:** a compound sorus composed of several contiguous sori fused end-to-end, as in *Cryptogramma* and *Blechnum*.  
*Pl. coenosori. Cf. synangium.*

汇生囊群: 由几个连续的孢子囊群边缘融合形成的复合囊群, 如在 *Cryptogramma* ( 珠蕨属 ) 和 *Blechnum* ( 乌毛蕨属 )。参考词汇: 聚合囊。

**703 epitactic sorus:** in Hymenophyllaceae, bearing involucre on the apical veins of the catadromous fronds, pinnae, or pinnules. *Ant. paratactic sorus.*

顶生囊群: Hymenophyllaceae ( 膜蕨科 ) 内, 在下先出的叶片, 羽片或小羽片的叶脉顶端着生囊苞。反义词: 并列囊群。

**704 paratactic sorus:** in Hymenophyllaceae, bearing involucre on the lateral veins of the anadromous pinnae or pinnules. *Ant. epitactic sorus.*

侧生囊群: Hymenophyllaceae ( 膜蕨科 ) 内, 在上先出的羽片或小羽片的侧脉上着生有囊苞的。反义词: 顶生囊群。

**705 synangium:** a group of sporangia partially to entirely fused laterally, as in *Psilotum* and some Marattiales. *Pl. synangia. Cf. coenosorus.*

聚合囊: 一群部分或完全地在侧面融合的孢子囊, 如在 *Psilotum* ( 松叶蕨属 ) 和 Marattiales ( 观音座莲目 ) 的一些类群。参考词汇: 汇生囊群。



(8J)  
**INDUSIA**  
 囊群盖

(8J1)  
**TYPES**  
 类型

**706 bilabiate:** two-lipped, usually applied to the involucre of *Hymenophyllum* and some species of *Trichomanes*.

二唇形的: 具有二唇, 通常用于 *Hymenophyllum* (膜蕨属) 及 *Trichomanes* (瓶蕨属) 一些种的囊苞。

**707 cyatheoid:** having the form of a deep, firm cup completely surrounding the sorus, typical of certain Cyatheaceae.

杯形的: 具有深而坚实的杯子的形态, 并完全围绕着孢子囊, 为 Cyatheaceae (桫欏科) 一些种的特征。

**708 hemitelioid:** having the form of a shallow, saucer or fan, usually firm and fully or partially surrounding the sorus, typical of certain Cyatheaceae.

半杯形的: 具有浅的碟状或扇状的形态, 通常坚实并完全或部分围绕着孢子囊的, 为 Cyatheaceae (桫欏科) 一些种的特征。

**709 peltate:** round or nearly so and attached by a central pedicel, as in *Polystichum*.

盾状的: 圆形或近圆形, 由一中央柄着生的, 如 *Polystichum* (耳蕨属)。

**710 sphaeropteroid:** having the form of a sphere, fragile, completely

or nearly completely enclosing the sorus, found in certain Cyatheaceae.

球形的:球形,易破碎的,完全或几乎完全包裹孢子囊群,见于 Cyatheaceae(桫欏科)一些种。

**711 umbonate:** bearing a short, round projection, found at the apex of some peltate or sphaeropteroid indusia. *Subs. umbo.*

具凸结的:具有一个短圆形突起,见于一些盾状或球形囊群盖的顶端。名词:突起。

**712 urceolate:** having the form of an urn, constricted near the apex and tapered near the base, commonly applied to the involucre of certain *Trichomanes* species.

坛状的:具有坛子一样的形状,近顶端狭缩,近基部逐渐变细的,通常指 *Trichomanes*(瓶蕨属)一些种的囊苞。

**713 vaulted:** arching well above and over the sporangia, found in a few species of *Asplenium* and *Dryopteris*.

拱状的:呈拱形覆盖在孢子囊上方的,见于 *Asplenium*(铁角蕨属)和 *Dryopteris*(鳞毛蕨属)的少数种。

## (8J2)

### STRUCTURES

#### 结构

**714 involucre:** the tubular or bilabiate indusium found in the Hymenophyllaceae and some Dicksoniaceae and Dennstaedtiaceae, in which the abaxial and adaxial portions are identical or nearly so.

囊苞:管状或是二唇形的囊群盖,远轴和近轴的部分都是相同或几乎相同的。见于 Hymenophyllaceae(膜蕨科)和部

分 Dicksoniaceae (蚌壳蕨科), Dennstaedtiaceae (碗蕨科) 的种类。

**715 labium:** a lip; the apical portion of certain *Trichomanes* involucre. *Pl. labia. Syn. lip.*

唇:指 *Trichomanes* (瓶蕨属) 一些种囊苞的顶部,为一唇形。  
同义词:唇。

**716 valve:** an involucre lobe, especially in *Hymenophyllum* and some Dicksoniaceae and Dennstaedtiaceae.

瓣:囊苞的一个裂片,尤见于 *Hymenophyllum* (膜蕨属) 以及 Dicksoniaceae (蚌壳蕨科) 和 Dennstaedtiaceae (碗蕨科) 的部分种类。

## (8K)

### SPORANGIA

#### 孢子囊

## (8K1)

### TYPES

#### 类型

**717 eusporangium:** in the Ophioglossales, Marattiales, and the majority of fern-allies, a thick-walled, thick-pedicelled sporangium with a variously layered wall bearing thousands of spores and always formed from several epidermal initials.  
*Adj. eusporangiate. Cf. leptosporangium.*

厚壁孢子囊:在 Ophioglossales (瓶尔小草目) 和 Marattiales (观音座莲目) 以及拟蕨类的绝大部分类群具有厚壁,厚柄的孢子囊,具有多层壁和上千的孢子,并总是来源于几

个表皮原始细胞。形容词:厚囊蕨的。参考词汇:薄壁孢子囊。

**718 leptosporangium**: in the Osmundales, Schizaeales, and all higher ferns, a thin-walled, thin-pedicelled sporangium bearing usually 64 spores (128 ~ 512 in the Osmundaceae and 256 in the Schizaeaceae) and formed usually from a single epidermal initial cell. *Adj.* leptosporangiate. *Cf.* eusporangium.

薄壁孢子囊: 在 Osmundales (紫萁目) 和 Schizaeales (莎草蕨目) 以及所有的高等蕨类具有的薄壁, 薄柄的孢子囊, 它通常有 64 个孢子 [Osmundaceae (紫萁科) 128 ~ 512, Schizaeaceae (莎草蕨科) 256 个孢子], 通常由一个表皮原始细胞形成。形容词: 薄囊蕨的。参考词汇: 厚壁孢子囊。

**719 megasporangium**: in heterosporous pteridophytes, a sporangium bearing megaspores. *Pl.* megasporangia. *Cf.* microsporangium.

大孢子囊: 异型孢子蕨类产生大孢子的孢子囊。参考词汇: 小孢子囊。

**720 microsporangium**: in heterosporous pteridophytes, a sporangium bearing microspores. *Pl.* microsporangia. *Cf.* megasporangium.

小孢子囊: 异型孢子蕨类产生小孢子的孢子囊。参考词汇: 大孢子囊。

**721 sporangiaster**: an abortive, modified, non-spore-bearing sporangium that presumably serves, like a paraphysis, to protect developing sporangia.

异孢子囊:一个败育的,变态的,不产生孢子的孢子囊,可能像隔丝,用以保护发育中的孢子囊。

## (8K2)

## STRUCTURES

## 结构

**722 annulus**: a row or patch of partially or entirely thick-walled cells of the capsule of the leptosporangium that contracts or breaks and permits the capsule to open and to discharge its spores. *Pl. annuli. Adj. annular. Cf. arcus, stomium.*

环带:在薄壁孢子囊的囊蒴上有一行或一小区域的细胞,细胞壁部分或完全地加厚,这些细胞的收缩或破裂可使孢子囊蒴得以打开,释放出孢子。形容词:环状的。参考词汇:弓形带,裂口。

**723 arcus**: the row of thick-walled, contractile cells of the annulus in the higher leptosporangiate ferns. *Syn. bow. Cf. annulus, stomium.*

弓形带:高等薄囊蕨类中,环带成行的厚壁、可收缩的细胞。  
同义词:弓状物。参考词汇:环带,裂口。

**724 capsule**: the subspherical, ovoid, or slightly angular part of a

sporangium that contains the spores. *Cf.* **pedicel**.

孢子囊蒴:孢子囊的近球形,卵圆形,或是略微具棱角的,容纳孢子的部分。参考词汇:孢子囊柄。

**725 locule**: in *Psilotum* and certain Marattiales, a chamber of a divided synangium.

小室:在 *Psilotum*(松叶蕨属)及 Marattiales(观音座莲目)的一些种,分裂的聚孢囊的一个室。

**726 pedicel**: the stalk of a sporangium. *Cf.* **capsule**, **596 petiolule**.

孢子囊柄:孢子囊的柄。参考词汇:孢子囊蒴,596 小叶柄。

**727 pore**: a small aperture, especially an opening in the synangium of certain Marattiales through which spores escape.

孔:一个小的缝隙,尤其是指 Marattiales(观音座莲目)一些种聚孢囊散发孢子的开口。

**728 stomium**: the area of thin-walled cells of the annulus that split during dehiscence. *Cf.* **annulus**, **arcus**.

裂口:环带开裂时裂开的薄壁细胞区。参考词汇:环带,弓形带。

**729 trabecula**: in *Isoetes*, an internal, partial or complete, thin wall within the sporangium. *Pl.* **trabeculae**.

横条:*Isoetes*(水韭属)孢子囊内,内生的,部分或完整的薄壁。

**730 valve**: each half of a sporangium that is divided into halves, as in the Lycopodiaceae and Osmundaceae.

孢子囊瓣:分为两半的孢子囊的其中一半,如见于 Lycopodiaceae(石松科)和 Osmundaceae(紫萁科)。

## (8K3)

## ATTRIBUTES

## 属性

**731 annulate**: having an annulus. *Ant.* **exannulate**.

有环带的:生有一环带的。反义词:无环带的。

**732 dehiscent**: splitting open or capable of doing so. *Ant.* **indehiscent**.

开裂的:裂开的或是能裂开的。反义词:不裂的。

**733 exannulate**: lacking an annulus. *Ant.* **annulate**.

无环带的:没有环带的。反义词:有环带的。

**734 indehiscent**: not splitting open or capable of doing so. *Ant.* **dehiscent**.

不裂的:不裂开或是不能够裂开的。反义词:开裂的。

**735 pedicellate**: having a pedicel. *Cf.* **586 petiolulate**, **sessile**.

具孢子囊柄的:具有孢子囊柄的。参考词汇:**586** 具小叶柄的,无柄的。

**736 sessile**: lacking a pedicel. *Cf.* **pedicellate**.

无柄的:没有孢子囊柄的。参考词汇:具孢子囊柄的。

## (8L)

## SPORES

## 孢子

## (8L1)

## TYPES

## 类型

**737 abortive spore**: an irregular and usually malformed spore that does not germinate or germinates abnormally, often found

in hybrids.

**败育孢子:**不正常并通常畸形的孢子,不能萌发或萌发不正常,通常见于杂交种。

**738 alete spore:** a spherical spore lacking a laesura and containing more sets of chromosomes than normal spores, found regularly or occasionally in some apogamous ferns. *Cf.* **monolete spore, trilete spore.**

**无痕孢子:**一球形孢子,缺乏近极痕并比正常的孢子有更多组染色体,通常或偶见于一些无融合生殖的蕨类。参考词汇:单缝孢子,三缝孢子。

**739 megaspore:** a large spore of the heterosporous pteridophytes *Azolla*, *Isoetes*, *Marsilea*, *Pilularia*, *Regnellidium*, *Salvinia*, and *Selaginella* that produces a female gametophyte. *Cf.* **microspore.**

**大孢子:**异型孢子蕨类的大型孢子,形成雌配子体。见于 *Azolla* (满江红属), *Isoetes* (水韭属), *Marsilea* (苹属), *Pilularia*, *Regnellidium*, *Salvinia* (槐叶苹属)和 *Selaginella* (卷柏属)。参考词汇:小孢子。

**740 meiospore (reduced spore):** a spore that is produced by meiosis, and so bears half the number of chromosomes as the cells of the sporophyte. *Syn.* *haplospore.* *Ant.* **mitospore (unreduced spore).**

**减数孢子(减数孢子):**由减数分裂产生的孢子,从而染色体数目仅为孢子体细胞的一半。同义词:单倍体孢子。反义词:有丝分裂孢子(不减数的孢子)。

**741 microspore:** a small spore of the heterosporous pteridophytes *Azolla*, *Isoetes*, *Marsilea*, *Pilularia*, *Regnellidium*, *Salvinia*.



and *Selaginella* that produces a male gametophyte. Cf. **megaspore**.

**小孢子**:异型孢子蕨类的小型孢子,形成雄配子体。见 *Azolla* (满江红属), *Isoetes* (水韭属), *Marsilea* (苹属), *Pilularia*, *Regnellidium*, *Salvinia* (槐叶苹属)和 *Selaginella* (卷柏属)。参考词汇:大孢子。

**742 mitospore (unreduced spore)**: a spore that is produced by mitosis, and so bears the same number of chromosomes as the cells of the sporophyte that produced it. *Syn. diplospore*.  
**Ant. meiospore (reduced spore)**.

**有丝分裂孢子(未减数孢子)**:由有丝分裂产生的孢子,从而具有与产生该孢子的孢子体细胞相同数目的染色体。同义词:二倍孢子。反义词:减数孢子(减数的孢子)。

**743 monolete spore**: a bilaterally symmetrical spore having a linear, unbranched laesura. Cf. **alete spore, trilete spore**.

**单缝孢子**:一个两边对称的,具有一线形不分叉近极痕的孢子。参考词汇:无痕孢子,三缝孢子。

**744 trilete spore**: a radially symmetrical (spherical or tetrahedral) spore having a laesura with three radiating branches. Cf. **alete spore, monolete spore**.

**三缝孢子**:呈辐射对称(球形或四面体形),具有三个辐射分枝的近极痕的孢子。参考词汇:无痕孢子,单裂缝孢子。

(8L2)

STRUCTURES

结构

**745 bulla**: a low protuberance; a general kind of spore ornamentation.

*Pl. bullae. Cf. cavus, murus, stela.*

泡:一低的突起,为一种常见的孢子纹饰类型。参考词汇:穴,网脊,柱状突起。

**746 cavus**: a shallow indentation in the surface of a spore. *Pl. cavi.*

*Cf. bulla, murus, stela.*

穴:孢子表面浅的凹缺。参考词汇:泡,网脊,柱状突起。

**747 cingulum**: a solid, continuous, thickened portion of the exine at the equator of the spore that is usually wedge-shaped in cross-section. *Pl. cingula. Adj. cingulate. Syn. equatorial ridge.*

赤道环:孢子赤道面上一实心的,连续的,外壁的加厚部分,其横切面通常呈楔形。形容词:具带的。同义词:赤道脊。

**748 elater**: each one of four strap-shaped appendages found on *Equisetum* spores.

弹丝:见于 *Equisetum* (木贼属)孢子的四条带状附属物。

**749 endospore**: the inner, pectocellulose layer of the spore wall that lies between the cytoplasmic membrane that surrounds the contents of the spore and the exospore. *Syn. intine. Cf. 750 epispore, 752 exospore, paraexospore, perispore, pseudoendospore.*

内壁:包裹着孢子内含物的细胞质膜和外壁之间的内孢壁层,由果胶纤维素组成。同义词:内壁。参考词汇:750 外

壁, 752 外壁, 近外壁, 周壁, 假内壁。

**750 episporium**: an outer, sporopollenin layer of the spore wall that is external to the exospore in some heterosporous ferns and *Equisetum*. Cf. **endospore**, **752 exospore**, **paraexospore**, **perispore**, **pseudoendospore**.

外壁: 在一些异型孢子蕨类和 *Equisetum* (木贼属) 孢子外壁外的一孢粉质层。参考词汇: 内壁, 752 外壁, 假外壁, 周壁, 假内壁。

**751 equator**: the maximum circumference, sometimes raised or elaborated, that divides a trilete spore into two hemispheres, as *Isoetes* and *Pityrogramma*.

赤道: 孢子最大的圆周, 有时突起或扩展, 从而将三缝孢子分为两个半球, 如 *Isoetes* (水韭属) 和 *Pityrogramma* (粉叶蕨属)。

**752 exospore**: the middle, principal sporopollenin layer of the spore wall, external to the endospore and internal to the perispore. Syn. *exine*. Cf. **endospore**, **750 episporium**, **paraexospore**, **perispore**, **pseudoendospore**.

外壁: 孢壁中间的, 主要的孢粉质层, 位于孢子内壁之外, 周壁之内。同义词: 外壁。参考词汇: 内壁, 750 外壁, 近外壁, 周壁, 假内壁。

**753 fascia**: In *Isoetes*, the zone around the megaspore distal to the cingulum, which is readily observable only when it is ornamented differently from the remainder of the spore. Pl. **fasciae**.

横带: *Isoetes* (水韭属) 内, 在大孢子赤道环远端的环带, 只有当它具有与孢子其他部分不同的纹饰时才易于观察。

**754 laesura**: the simple, elongate or triradiate, thickened or unthick-

ened scar on the surface of pteridophyte spores. *Pl. laesurae*. *Syn. suture*.

四分体痕:在蕨类孢子表面的简单,长形或向三方辐射的加厚或不加厚的痕。同义词:缝线。

**755 macro-ornamentation:** perispore ornamentation that can be observed, no matter how imperfectly, with a light microscope. *Cf. micro-ornamentation*.

大纹饰:无论多粗略,在光镜下都可以观察到的周壁纹饰。参考词汇:小纹饰。

**756 micro-ornamentation:** perispore ornamentation that can be seen only with a scanning electron microscope. *Cf. macro-ornamentation*.

小纹饰:仅能在扫描电镜下观察到的周壁纹饰。参考词汇:大纹饰。

**757 murus:** an elongate, wall-like protuberance; a general kind of spore ornamentation. *Pl. muri*. *Cf. bulla, cavus, stela*.

网脊:一长形,壁状的突出物;孢子纹饰中常见的一种类型。参考词汇:泡,穴,柱状突起。

**758 paraexospore:** a sporopollenin wall layer situated between the exospore and the perispore in some heterosporous fern allies. *Cf. endospore, 750 epispore, 752 exospore, perispore, pseudoendospore*.

近外壁:一些异型孢子的拟蕨类在孢子外壁和周壁之间的一层孢粉质壁层。参考词汇:内壁,750 外壁,752 外壁,周壁,假内壁。

**759 perispore:** the often highly ornamented, outer, sporopollenin layer of the spore wall that is deposited on the exospore by the disintegrating tapetum during spore formation. *Syn.*

*perine*. Cf. **endospore**, **750 epispore**, **752 exospore**, **paraexospore**, **pseudoendospore**.

**周壁**:孢子形成过程中解体的绒毡层积存在孢子外壁上形成的一层外部的孢粉质层,常常高度纹饰化。同义词:周壁层。参考词汇:内壁,750 外壁,752 外壁,近外壁,假内壁。

**760 pseudoendospore**: a sporopollenin layer of the spore wall situated between the endospore and the exospore in certain ferns.

Cf. **endospore**, **750 epispore**, **752 exospore**, **paraexospore**, **perispore**.

**假内壁**:在一些蕨类的内壁和外壁之间的一层孢壁的孢粉质层。参考词汇:内壁,750 外壁,752 外壁,近外壁,周壁。

**761 sporoderm**: a collective term for all the layers of the spore external to the cytoplasmic membrane surrounding the spore contents, principally the endospore, the exospore, and the perispore, but sometimes also (or instead) the epispore, paraexospore, and pseudoendospore.

**孢壁**:孢子原生质膜外包围着孢子内含物的所有层的集合术语,通常包括内壁,外壁,周壁,但有时还包括(或)外壁,近外壁以及假内壁。

**762 stela**: a radially symmetrical, more or less rod-like protuberance, a general kind of spore ornamentation. Pl. **stelae**. Cf. **bullae**, **cavus**, **murus**.

**柱状突起**:一辐射对称,多少呈棒状的突起,为孢子纹饰中一种常见的类型。参考词汇:泡状隆起,穴,网脊。

**763 tapetum**: the nutritive tissue of the sporangium capsule external to the spores.

绒毡层:位于孢子外孢子囊蒴的营养组织。

**764 tetrad:** a group of four spores positioned as originally formed during sporogenesis.

四分体:排列方式为孢子发生起始时状态的一组四个孢子。

### (8L3)

### SURFACES

#### 表面

**765 aculeate:** bearing bullae that are no higher than wide, broadly attached, and with an acute apex (Fig. 12). Cf. **colliculate, gemmulate, patellate, pustulate.**

刺状的:具有高不大于宽,着生面宽、顶端尖的泡状突起(图12)。参考词汇:具丘状突起的,具胞芽状突起的,具碟状突起的,泡状突起的。

**766 -bacillate:** a modifying term indicating the presence of thin, elongate, rod-like structures borne on the surface of the macroornamentation (Fig. 15).

杆状的:一修饰词(后缀),用来表示在大纹饰表面上有薄的,长形的棒状结构(图15)。

**767 baculate:** bearing stelae that are at least  $1.5 \times$  longer than wide, cylindrical, and with usually an obtuse to round apex (Fig. 13). Cf. **clavate, echinate, saccate, tuberculate, verrucate.**

柱状突起的:具有长度至少为宽度1.5倍的圆柱形,并通常有钝形至圆形顶端的柱(图13)。参考词汇:棒状的,具刺的,囊状的,具瘤状突起的,具疣的。

**768 biscalpate:** having two surface types, such as the echinate-pustulate spores of *Drymoglossum piloselloides*.

二型纹饰的:具有两种表面类型的,如 *Drymoglossum piloseloides* (抱树莲) 棘状—泡状突起的孢子。

- 769 **bulliform**: bearing radially symmetrical, low protuberances (a general term; see **aculeate**, **colliculate**, **gemmae**, **pustulate**). *Subs. bulla. Subs. Pl. bullae. Cf. caviform, muriform, steliform.*

泡状的:具有辐射对称的,低的突起(一通用的术语;见刺状的,具丘状突起的,具胞芽状突起的,具泡状突起的)。名词:泡。参考词汇:穴形的,网脊状的,柱状的。

- 770 **caviform**: having indentations in the surface (a general term; see **foveate**, **foveolate**). *Subs. cavus. Subs. Pl. cavi. Cf. bulliform, muriform, steliform.*

穴形的:表面有凹缺的(一通用的术语;见具凹的,具小凹的)。名词:腔,穴,凹。参考词汇:泡状的,网脊状的,柱状的。

- 771 **clavate**: bearing stelae that are narrow, higher than wide, and widest at or near their obtuse apex (Fig. 13). *Cf. baculate, echinate, saccate, tuberculate, verrucate.*

棒状的:具有窄的,高度大于宽度,最宽处位于或靠近其钝形的顶端的柱形突起(图 13)。参考词汇:柱状突起的,具刺的,囊状的,具瘤状突起的,具疣的。

- 772 **colliculate**: bearing bullae that are contiguous, broadly attached, no higher than wide, and with an obtuse to round apex (Fig. 12). *Cf. aculeate, gemmae, patellate, pustulate.*

具丘状突起的:具有连续的,宽附着,高不大于宽且顶端钝形至圆形的泡(图 12)。参考词汇:刺状的,具胞芽状突起的,具碟状突起的,泡状突起的。

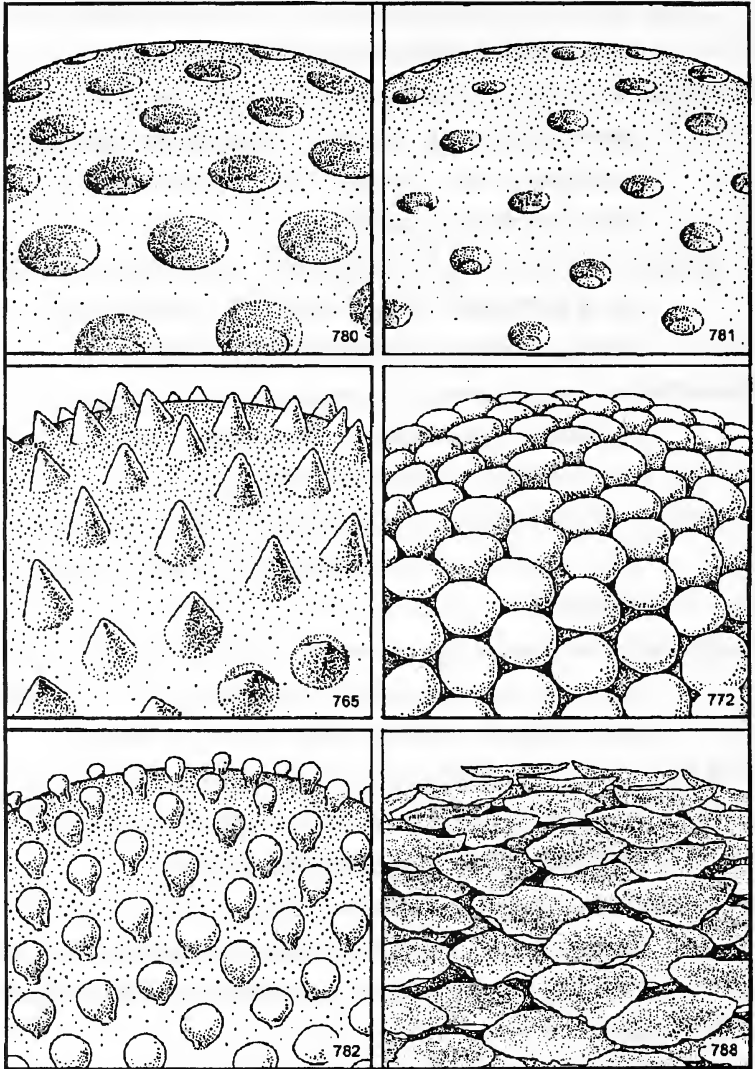


Fig. 12. SPORE SURFACES (MACRO-ORNAMENTATION-I)

图 12. 孢子表面形态(大纹饰-I)



**773 cristate**: bearing muri that are narrow, sharp-edged, non-anastomosing, and do not form areolae (Fig. 14). *Subs.* **crista**. *Subs. Pl.* **cristae**. *Cf.* **retate, reticulate, rugate**.

鸡冠状的: 具有窄的, 边缘锐利、不网结因而不形成网眼的网脊(图 14)。名词: 鸡冠状突起。参考词汇: 具网的, 网状的, 具皱的。

**774 echinate**: bearing stelae that are higher than wide, narrowly conical, widest near the base, and with an acute to attenuate apex (Fig. 13). *Dim.* **echinulate**. *Cf.* **baculate, clavate, saccate, tuberculate, verrucate**.

具刺的: 具有高度大于宽度、窄圆锥形, 近基部最宽、顶端急尖至渐尖的柱状突起(图 13)。指小词: 具小刺的。参考词汇: 柱状突起的, 棒状的, 囊状的, 具瘤状突起的, 具疣的。

**775 -fenestrate**: a modifying term indicating the presence of extensive perforations within the surface ornamentation that may reduce the ornamentation to a mesh-like network, as in *Asplenium* (Fig. 15). *Cf.* **-perforate**.

具网格的: 一修饰词语(后缀), 系指在表面纹饰里有大面积的穿孔, 从而使纹饰简化为网孔状网络。如 *Asplenium* (铁角蕨属)(图 15)。参考词汇: 穿孔的。

**776 -filamentose**: a modifying term indicating the presence of long filaments borne on the principal surface ornamentation, as in *Lecanopteris* (Fig. 15).

丝状的: 修饰词(后缀), 表示在主要表面纹饰上具有长丝, 如 *Lecanopteris* (图 15)。

**777 -fimbriate**: a modifying term indicating the presence of elaborated processes at the apex of projecting ornamentation, as the cristate-fimbriate spores of certain *Elaphoglossum* and *Oleandra*

*species* (Fig. 15).

流苏状的:修饰词(后缀),表示在突出纹饰的尖端有复杂的突起,如 *Elaphoglossum*(舌蕨属)和 *Oleandra*(条蕨属)一些种的流苏状—鸡冠状的孢子(图 15)。

**778 -foraminate:** a modifying term indicating the presence of a broad, low, raised margin bordering the cavi, as in certain species of *Sphaeropteris* (Fig. 15).

有孔的:修饰词(后缀),表示在穴的边缘有宽而低的凸边,如 *Sphaeropteris*(白桫椤属)的一些种(图 15)。

**779 fossulate:** bearing muri that are long, low, and parallel, with sulci between them that are narrower than the muri, as in the spores of *Anemia* (Fig. 14). Cf. **pleurate, rivulate.**

具沟的:具有长而低的平行网状脊,在脊间具有比脊要窄的槽,如 *Anemia*(密穗蕨属)的孢子(图 14)。参考词汇:具肋状纹饰的,具细肋纹饰的。

**780 foveate:** bearing cavi that are round or nearly so and separated by distances approximating their diameter (Fig. 12). Cf. **foveolate.**

具孔穴的:具有圆形或近圆形的穴,并以近等于孔穴直径的距离彼此分开(图 12)。参考词汇:具小孔穴的。

**781 foveolate:** bearing cavi that are round or nearly so and are separated by distances much greater than their diameter (Fig. 12). *Syn. pitted.* Cf. **foveate.**

具小孔穴的:具有圆形或近圆形的穴,以远大于孔穴直径的距离彼此分开(图 12)。同义词:具洼点的。参考词汇:具孔穴的。

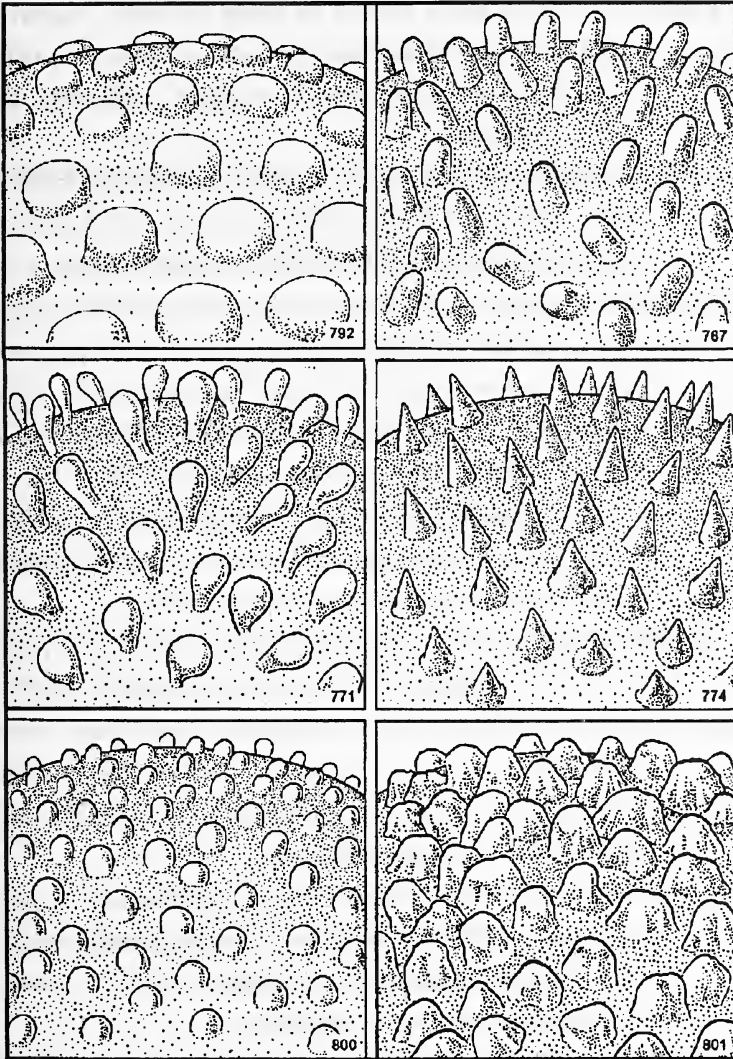


Fig. 13. SPORE SURFACES (MACRO-ORNAMENTATION-II)  
 图 13. 孢子表面形态(大纹饰-II)

**782 gemmulate**: bearing bullae that are no higher than wide, slightly to greatly contracted at the base, and with a round apex (Fig. 12). *Syn. papillate, saccate. Cf. aculeate, colliculate, patellate, pustulate.*

具胞芽状突起的: 具有高不大于宽, 基部或大或小收缩, 顶端圆的突起。同义词: 乳头状的, 囊状的(图 12)。参考词汇: 刺状的, 具丘状突起的, 具碟状突起的, 具泡状突起的。

**783 -granulate**: a modifying term indicating the presence of rather amorphous, minute, grain-like bodies deposited on the surface of the principal ornamentation, as in *Phanerosorus* (Fig. 15).

粒状的: 修饰词(后缀), 表示在主要纹饰的表面上具有颇为不定形的, 小的细粒状突起, 如见于 *Phanerosorus* (图 15)。

**784 -lacunate**: a modifying term indicating the presence of cavities within the surface ornamentation, as in the echinate-lacunate spores of certain *Cystopteris* species (Fig. 15).

有腔隙的: 修饰词(后缀), 表示在表面纹饰中有许多的腔, 如在 *Cystopteris* (冷蕨属) 一些种的具刺状腔隙的孢子(图 15)。

**785 laevigate**: smooth; bearing micro-ornamentation, but lacking macro-ornamentation (bullae, cavi, muri, or stelae). *Cf. psilate.*

光滑的: 平滑的, 具有小纹饰, 但缺乏大纹饰(泡, 孔穴, 网脊, 或柱状突起)的。参考词汇: 裸秃的。

**786 muriform**: bearing narrow, laterally elongate protuberances (a general term; see **cristate, fossulate, pleurate, retate, reticulate, rivulate, rugate**). *Subs. murus. Subs. Pl. muri. Cf. bulliform, caviform, steliform.*

网脊形的: 具有窄, 侧边伸长的突出物(一通用的术语, 见鸡冠状的, 具沟的, 具肋状纹饰的, 具网的, 网状的, 具细肋纹饰的, 具皱的)。名词: 网脊。参考词汇: 泡状的, 穴形的, 柱

状的。

**787 -papillate**: a modifying term indicating the presence of minute papillae on the macro-ornamentation, as in species of *Teratophyllum* (Fig. 15).

具乳突的:修饰词(后缀),表示在大纹饰上具有小的乳突,如见于 *Teratophyllum* 的种(图15)。

**788 patellate**: bearing bullae that are no higher than wide, greatly contracted at the base, and round to angular, plate-like, and often slightly concave (Fig. 12. ) Cf. **aculeate**, **colliculate**, **gemmulate**, **pustulate**.

具碟状突起的:具有高不大于宽,基部急剧收缩的圆形至具棱角,并通常略微凹入的盘状的泡状隆起。参考词汇:刺状的,具丘状突起的,具胞芽状突起的,泡状突起的。

**789 -perforate**: a modifying term indicating the presence of minor perforations within the surface ornamentation, as in *Arachniodes* (Fig. 15). Cf. **-fenestrate**.

穿孔的:修饰词(后缀),表示在表面纹饰之中有小的穿孔,如 *Arachniodes*(复叶耳蕨属)(图15)。参考词汇:一具网格的。

**790 pleurate**: bearing muri that are long, low, and parallel, and that have sulci between them that are as wide as the muri. Cf. **fossulate**, **rivulate**.

具肋状纹饰的:具有长而低的平行网脊,并在脊间具有与脊等宽的槽。参考词汇:具沟的,具细肋纹饰的。

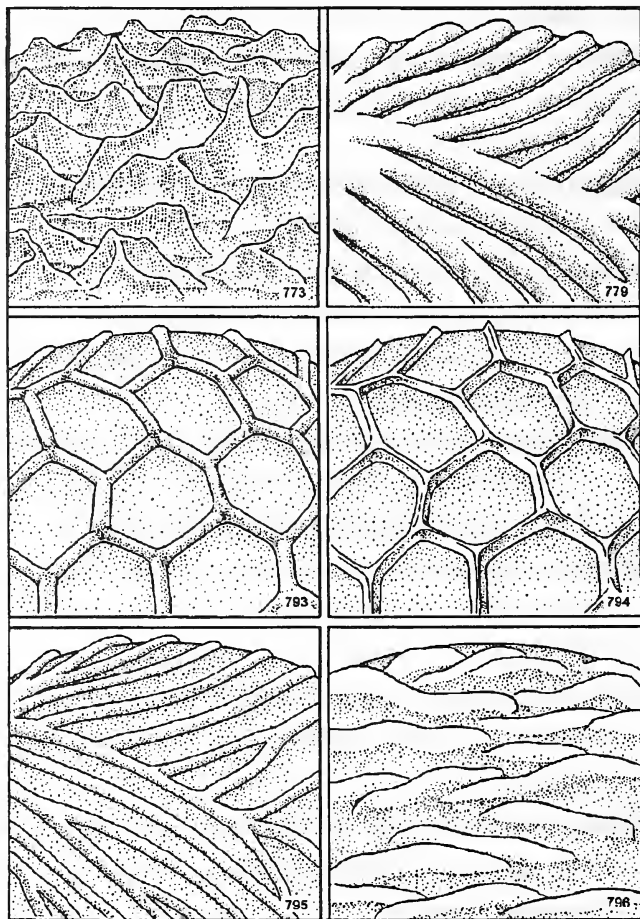


Fig. 14. SPORE SURFACES (MACRO-ORNAMENTATION-III)

图 14. 孢子表面(大纹饰-III)

**791 psilate**: bare; lacking macro-and micro-ornamentation. *Syn. plain.*  
*Cf. laevigate.*

裸秃的:光秃的,缺乏大小纹饰的。同义词:无纹饰的。参考词

汇:光滑的。

**792 pustulate**: bearing bullae that are distant, broadly attached, no higher than wide, and with an obtuse to round apex (Fig. 13). *Cf. aculeate, colliculate, gemmulate, patellate.*

具泡状突起的:具有彼此远离,宽附着的,高不大于宽,具有钝形至圆形顶端的泡状突起(图 13)。参考词汇:刺状的,具丘状突起的,具胞芽状突起的,具碟状突起的。

**793 retate**: bearing muri that are wide and rounded, freely anastomosing, and form short, broad areolae (Fig. 14). *Syn. rugulate. Cf. cristate, reticulate, rugate.*

具网的:具有宽而圆的自由网结的网脊,并形成短而宽的网孔(图 14)。同义词:具突起的。参考词汇:鸡冠状的,网状的,具皱的。

**794 reticulate**: bearing muri that are narrow, sharp-edged, freely anastomosing, and form short, broad areolae (Fig. 14). *Cf. cristate, retate, rugate.*

网状的:具有窄的,边缘锐利,自由网结的网脊,并形成短而宽的网孔(图 14)。参考词汇:鸡冠状的,具网的,具皱褶的。

**795 rivulate**: bearing muri that are long, low, and parallel, with the sulci between them wider than the muri, as in *Ceratopteris* (Fig. 14). *Syn. ribbed. Cf. fossulate, pleurate.*

具细肋纹的:具有长而低的平行网脊,在脊之间具有比脊宽的槽,如 *Ceratopteris*(水蕨属)(图 14)。同义词:具肋的。参考词汇:具沟的,具肋状纹饰的。

**796 rugate**: bearing muri that are wide, rounded, and non-anastomosing and that do not form areolae (Fig. 14). *Syn. wrinkled. Cf. cristate, retate, reticulate.*

具皱的:具有宽而圆的网脊,不网结从而也不形成网孔(图 14)。

同义词:具皱褶的。参考词汇:鸡冠状的,具网的,网状的。

- 797 **saccate**: bearing stelae that are higher than wide, bulbous, apparently deflated and collapsed, and widest at the middle. Cf. **baculate, clavate, echinate, tuberculate, verrucate.**

囊状的:具有高度大于宽度的明显萎缩而塌陷,中部最宽的柱状突起的。参考词汇:柱状突起的,棒状的,具刺的,具瘤状突起的,具疣的。

- 798 **-spinulose**: a modifying term indicating the presence of elongate, conical, spine-like processes from  $2 \sim 3 \times$  to  $6 \sim 7 \times$  longer than wide at the base, as in the exospores of echinate-spinulose spores of *Christensenia*.

具小刺的:修饰词(后缀),表示具有伸长,圆锥形,长度为基部宽度的2~3倍至6~7倍的刺状突起的,如 *Christensenia* (天星蕨属) 具小刺的孢子外壁。

- 799 **steliform**: bearing radially symmetrical, elongate protuberances (a general term; see **baculate, clavate, echinate, saccate, tuberculate, verrucate**). *Subs. stela. Subs. Pl. stelae.* Cf. **bulliform, caviform, muriform.**

柱状的:具有辐射对称的长形突起(一通用术语;见柱状突起的,棒状的,具刺的,囊状的,具瘤状突起的,具疣的)。名词:中柱。参考词汇:泡状的,穴状的,网脊状的。



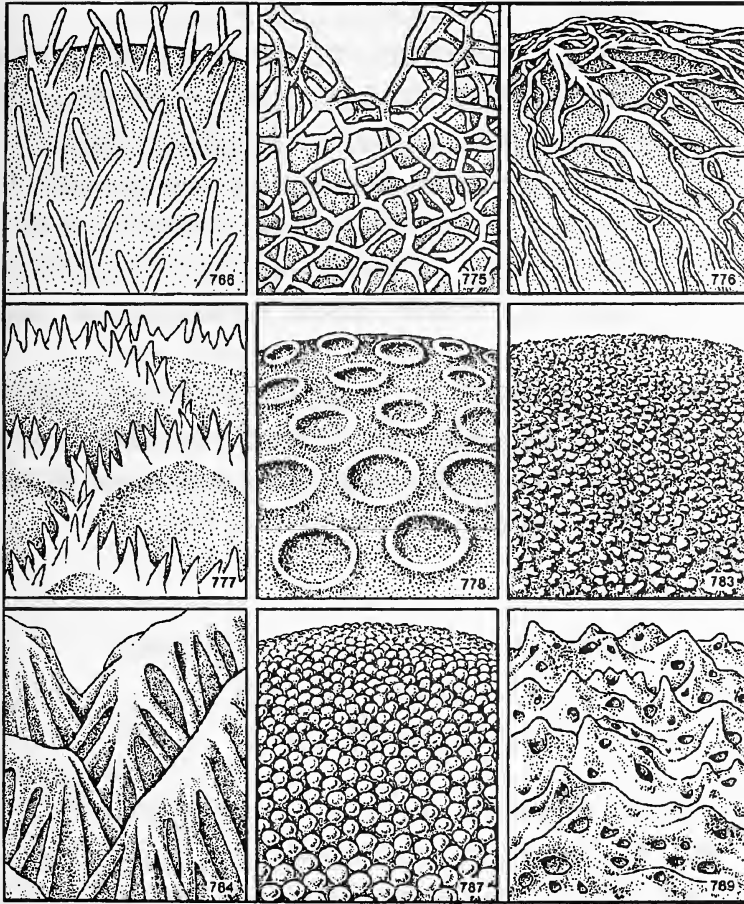


Fig. 15. SPORE SURFACES (MICRO-ORNAMENTATION)

图 15. 孢子表面(小纹饰)

**800 tuberculate**: bearing steliae that are more than  $1 \times$  and less than  $1.5 \times$  longer than wide, regular in form (knob-like), and have a rarely truncate or an obtuse to round apex (protuberance) (Fig. 13). Cf. *baculate*, *clavate*, *echinate*, *saccate*, *ver-*

**rucate.**

具瘤状突起的:具有长为宽的1~1.5倍的,形态规则(节状的)柱状突起,且突起的顶端为罕见的截形,钝形至圆形。参考词汇:具棒状纹饰的,棒状的,具刺的,囊状的,具疣的。

**801 verrucate:** bearing stelae that are more than  $1 \times$  and less than  $1.5 \times$  longer than wide, irregular in form (wart-like), and have a rarely truncate or an obtuse to round apex (Fig. 13). *Syn. papillose. Cf. baculate, clavate, echinate, saccate, tuberculate.*

具疣的:具有长为宽的1~1.5倍,形态不规则(疣样的),顶端为罕见的截形或为钝形至圆形的柱状突起的(图13)。同义词:乳头状的。参考词汇:具棒状的,棒状的,具刺的,囊状的,具瘤状突起的。

## (8M)

## REPRODUCTIVE STRUCTURES OF THE FERN ALLIES

### 拟蕨类的繁殖结构

**802 fenestra:** the opening or perforation in an incomplete velum.

膜孔:在一不完全膜上的开口或是穿孔。

**803 fovea:** in *Isoëtes*, the sporangium-containing cavity in the base of the microphylls.

小窝:*Isoëtes*(水韭属)小型叶的基部容纳孢子囊的腔。

**804 foveola:** in *Isoëtes*, the small pit in the adaxial surface of the microphyll that bears the ligule.

小孔穴:*Isoëtes*(水韭属)小叶近轴面生有叶舌的小凹窝。

**805 glossopodium:** In *Isoëtes*, the thickened base of the ligule that is

embedded in the microphylls.

舌足: 在 *Isoetes* (水韭属), 叶舌嵌入小型叶的加厚的基部。

**806 labium**; in *Isoetes*, a non-glandular, planate, sometimes large tissue apparently representing a modification of the proximal rim of the foveola that is sometimes mistaken for a ligule.

*Pl. labia. Syn. pseudoligule.*

唇: *Isoetes* (水韭属) 一个非腺体的扁平的, 有时较大的组织, 显然为小孔穴近轴边缘的饰变而有时被误认为叶舌。同义词: 假叶舌。

**807 ligule**: a small, tongue-like, often triangular appendage located near the microphyll base (just distal to the sporangium on the adaxial surface of the microsporophyll); it is persistent in *Isoetes*, but caducous in *Selaginella*. *Adj. ligulate.*

*Adj. Ant. eligulate.*

叶舌: 一小的舌状的, 通常呈三角形的附属物, 位于小型叶的近基部(小孢子叶的近轴面上, 在孢子囊的远端); 在 *Isoetes* (水韭属) 是宿存的, 而在 *Selaginella* (卷柏属) 是脱落的。形容词: 叶舌的。反义词: 无叶舌的。

**808 manubrium**; in *Equisetum*, the pedicel-like, basal portion of the sporangiophore.

柄状体: *Equisetum* (木贼属) 孢子囊柄基部柄状的部分。

**809 scutellum**; in *Equisetum*, the flattened, apical portion of the sporangiophore. *Syn. shield.*

小盾片: *Equisetum* (木贼属) 孢子囊柄平的顶端部分。同义词: 盾。

**810 sporangiophore**: A greatly transformed, peltate sporophyll bearing a ring of ca. six sporangia facing the axis of the strobilus of *Equisetum*. *Cf. 659 spore.*

孢子囊柄:*Equisetum*(木贼属)一个变形程度较大的,盾状的孢子叶,着生有一圈约6个面对着孢子囊穗轴的孢子囊。  
参考词汇:659 孢子。

**811 strobilus:** in fern-allies, a compact reproductive structure borne at the tips of branches or axes consisting of a central axis bearing closely spaced, spirally arranged sporophylls or sporangiophores. *Syn. cone.*

孢子囊穗:拟蕨类生于分枝或轴的顶端的紧密的繁殖结构,由一中轴上着生密集排列,呈螺旋状的孢子叶或孢子囊柄组成。同义词:球果。

**812 velum:** in some species of *Isoëtes*, the membrane covering part or all of the fovea.

缘膜:在 *Isoëtes*(水韭属)的一些种,部分或完全地覆盖着小窝的膜。

(8N)

REPRODUCTIVE STRUCTURES  
OF THE AQUATIC FERNS

水生蕨类的繁殖结构

**813 carpophore:** the pedicel bearing a sporocarp.

孢子果柄:着生孢子果的柄。

**814 glochidium:** in *Azolla*, a hair-like, minute, terminally barbed structure present on the massulae that aids in anchoring the massula to the megaspore. *Pl. glochidia.*

锚状毛:*Azolla*(满江红属)生于泡胶块上的一毛状,顶端具钩刺的细小的结构,可帮助将泡胶块定位于大孢子。

**815 massula:** in *Azolla*, a structure derived from the contents of the microsporocarp that contains the microspores and has glo-

chidia protruding from its surface. *Pl. massulae.*

泡胶块: *Azolla* (满江红属) 一产生于内含小孢子的小孢子果, 且表面突出有锚状毛的结构。

**816 megasporocarp:** a sporocarp that bears megasporangia.

大孢子果: 着生大孢子囊的孢子果。

**817 microsporocarp:** a sporocarp that bears microsporangia.

小孢子果: 着生小孢子囊的孢子果。

**818 peduncle:** in *Marsilea*, the pedicel of the rhizocarp.

孢子果梗: *Marsilea* (苹属) 着生根状茎孢子果的柄。

**819 raphe:** in *Marsilea*, the portion of the peduncle that is adnate to or projecting beyond the rhizocarp.

脊: *Marsilea* (苹属) 孢子果梗附着或突出于根生孢子果的部分。

**820 septum:** a partition or cross-wall in certain kinds of hairs or hair-like structures, especially in the glochidia of *Azolla*. *Pl. septa. Adj. septate. Adj. Ant. aseptate.*

隔膜: 在一些类型的毛或毛状结构中的隔膜或横向壁, 尤见于 *Azolla* (满江红属) 的锚状毛。形容词: 有隔膜的。形容词反义词: 无隔膜的。

**821 sorophore:** the gelatinous, sporangium-bearing ring produced by the sporocarp of *Marsileaceae* during germination.

孢子囊群托: *Marsileaceae* (苹科) 孢子果萌发时产生的胶质的, 着生有孢子囊的环状结构。

**822 sporocarp:** in *Marsilea*, the hard, short- to long-pedunculate, nut-like structure containing the sporangia, apparently a highly modified leaf or leaflet; in *Azolla* and *Salvinia*, a thin, short-pedicelled, globular structure containing the sporangia, apparently a modified indusium. *Syn. rhizo-*

*carp.*

孢子果:*Marsilea*(苹属)硬的,具短至长柄的,坚果状的容纳孢子囊的结构,看似一高度变态的叶或小叶;在 *Azolla* (满江红属)和 *Salvinia* (槐叶萍属)为一薄的,短柄,球形的容纳孢子囊的结构,看似一变态的囊群盖。

## ANATOMY

## 解剖学

## (9A)

## ORIENTATION OF SECTIONS

## 切面的取向

**823 midsagittal:** a section of a planate structure, such as a lamina, that is at a right angle to the planate surface of the structure and that passes along and through the principal axis.

*Cf. parasagittal, transverse.*

中矢面的: 与一个平面结构例如叶片的表面垂直并沿着其主轴穿过的切面。参考词汇: 侧矢面的, 横切面的。

**824 paradermal:** a section of a planate structure, such as a lamina, that is parallel to the planate surface of the structure.

平表皮的: 一个平面结构例如叶片的切面, 与该平面结构的表面相平行。

**825 parasagittal:** a section of a planate structure, such as a lamina, that is at a right angle to the planate surface of the structure and that is parallel to the principal axis. *Cf. midsagittal.*

侧矢面的: 一个平面结构例如叶片的切面, 与该结构的表面垂直并平行于主轴。参考词汇: 中矢面的。

**826 radial:** a section of an elongate structure, such as a rhizome or stipe, that is parallel to the principal axis of the structure and does pass through that axis. *Cf. tangential, transverse.*

径向面的:一个长形结构例如根状茎或叶柄的切面,与该结构的主轴平行并穿过主轴。参考词汇:切向面的,横切面。

**827 tangential:** a section of an elongate structure, such as a rhizome or stipe, that is parallel to the principal axis of the structure, but does not pass through that axis. *Cf.* **radial, transverse.**

切向面的:一个长形结构例如根状茎或叶柄的切面,与该结构的主轴平行,但并不穿过主轴。参考词汇:径向面的,横切面。

**828 transverse:** a section of an elongate structure, such as a rhizome or stipe, or a planate structure, such as a lamina, that is at a right angle to the principal axis of the structure. *Cf.* **radial, midsagittal, tangential.**

横切面:一个长形结构例如根状茎或叶柄的切面,或是一平面结构例如叶片的切面,与该结构的主轴垂直。参考词汇:径向面的,中矢面的,切向面的。

## (9B)

### CELL AND TISSUE TYPES

#### 细胞和组织的类型

**829 aerenchyma:** parenchyma containing large intercellular spaces, found especially in aerophores. *Adj.* **aerenchymatous.**

通气组织:具有大的细胞间隙的薄壁组织,尤见于气囊体。形容词:通气组织的。

**830 cortex:** in rhizomes and other axes, the typically parenchymatous tissue between the stele or steles and the epidermis.



皮层:在根状茎和其他的轴,位于中柱之间或中柱和表皮之间的典型的薄壁组织。

**831 epidermis:** the outermost layer of cells of the plant that lacks intercellular spaces, contains stomates, and serves to protect the plant, to selectively exchange gases, and to retard water loss by producing a wax-like cuticular layer or by being impregnated with a wax-like substance.

表皮:植物最外面的,缺乏胞间间隙的细胞层,具有气孔,且起到保护植物,有选择地交换气体的作用,由于产生蜡质角质层或含有蜡质的物质而起到阻止水分流失的作用。

**832 idioblast:** a specialized cell, manifestly different from and scattered among the typical cells of a tissue. *Cf. spicular cell.*

异细胞:一特化的细胞,明显地不同于组织内典型的细胞并散布于其中。参考词汇:骨针细胞。

**833 meristem:** a self-perpetuating, commonly tetrahedral cell or a region of cells that are thin-walled and mitotically dividing and that produce cells which will develop and differentiate into various tissues and structures.

分生组织:一个自我繁衍,通常为四面体形的细胞或是一个由细胞群组成的区域,这些细胞具薄壁,进行有丝分裂而产生可发育和分化为不同组织和结构的细胞。

**834 mesophyll:** the parenchymatous interior portion of the lamina.

叶肉:叶片内部薄壁组织的部分。

**835 parenchyma:** a tissue formed of specialized, thin-walled, living cells with intercellular spaces, found in various places in plant bodies. *Adj. parenchymatous.*

**薄壁组织:**由特化的,具有胞间间隙的活的薄壁细胞构成的组织,见于植物体的各部。形容词:薄壁组织的。

**836 phloem:**the vascular tissue specialized for transporting photosynthetic products through the plant. *Cf.* **xylem.**

**韧皮部:**在植物体内运输光合作用产物的特化的维管组织。  
参考词汇:木质部。

**837 pith:**the parenchymatous tissue at the center of a complex stele.  
**髓:**在复合中柱中央的薄壁组织。

**838 sclerenchyma:**a tissue of very thick-walled cells specialized for support that are dead at maturity, usually associated with vascular tissue in axes or laminae. *Adj.* **sclerenchymatous.**

**厚壁组织:**一由极为厚壁的细胞组成的特有支撑作用的组织,在成熟时死亡,通常与叶轴或叶片中的维管组织相关联。形容词:厚壁组织的。

**839 spicular cell:**a needle-like, rather thick-walled, idioblast in the epidermis of the lamina, especially in *Adiantum* and the Vittariaceae. *Cf.* **idioblast.**

**骨针细胞:**叶片表皮内一针状的,颇为厚壁的异细胞,尤见于 *Adiantum* (铁线蕨属)和 Vittariaceae (书带蕨科)。参考词汇:异细胞。

**840 stele:**the vascular and associated tissues of a rhizome or other type of stem. *Cf.* **847 vascular bundle.**

**中柱:**根状茎或其他类型茎的维管及相关的组织。参考词汇:  
**847 维管束。**

**841 tracheid:**an elongate, water-conducting cell having closed ends that is characteristic of the xylem of almost all pteridophytes.

**管胞:**一长形的, 输导水分的细胞, 细胞两端封闭, 几乎为所有蕨类植物木质部的典型特征。

**842 vessel:** a series of elongate, water-conducting cells with perforated end walls found principally in the xylem of the rhizomes or roots of a few pteridophytes, such as *Selaginella*, *Marsilea*, and *Pteridium*.

**导管:**一系列长形的, 输导水分的细胞, 具有穿孔的端壁, 主要见于少数蕨类的根状茎或根的木质部, 如 *Selaginella* (卷柏属), *Marsilea* (萍属) 和 *Pteridium* (蕨属)。

**843 xylem:** the vascular tissue specialized for the transport of water and minerals throughout the plant. Cf. **phloem**.

**木质部:**植物体内特化为运输水分和矿物质的维管组织。参考词汇: 韧皮部。

## (9C)

### VASCULARIZATION

#### 维管化

## (9C1)

### STRUCTURES

#### 结构

**844 diplodesmic venation:** a secondary system of veins extending directly under the sporangia and abaxial to the normal veins of the lamina, common on ferns with large or acrostichoid sori, such as *Pleopeltis*, *Christiopteris*, and *Platyserium*.

**双维管束脉序:**一个二级的叶脉系统, 直接延伸至孢子囊下面及至叶片正常叶脉的远轴面, 常见于具有大的孢子囊

或卤蕨型孢子囊的蕨类,如 *Pleopeltis*, *Christiopteris* (戟蕨属)和 *Platyserium* (鹿角蕨属)。

**845 nerve:** in pteridophytes, a simple or unbranched vein, often a terminal or ultimate vein. Cf. **848 vein, veinlet, venuloid.**

[叶]脉:蕨类单一或不分枝的脉,通常为一终端脉或末级脉。  
参考词汇:**848 脉,小脉,假脉。**

**846 receptacle:** the point or region of the lamina tissue, often thickened and amply supplied by one or more veins, that produces sporangia and sometimes paraphyses and/or sporangiasters.

囊托:叶片组织一个通常加厚的点或区域,有一至多条脉与之相通,产生孢子囊以及有时产生隔丝和/或异孢子囊。

**847 vascular bundle:** an elongate strand of conducting cells (xylem tracheids and phloem sieve cells) that serve to conduct water, mineral nutrients, and photosynthetic products. Cf. **840 stele, vein.**

维管束:一长束的输导细胞(木质部的管胞和韧皮部的筛胞)束,用于输导水分,矿物质和光合产物。参考词汇:**840 中柱,脉。**

**848 vein:** a strand of vascular tissue, especially one in the lamina. Cf. **845 nerve, vascular bundle, veinlet, venuloid.**

脉:一束维管组织,尤其指叶片的。参考词汇:**845 [叶]脉,维管束,小脉,假脉。**

**849 veinlet:** a small vein, usually a subdivision or branch of a vein. Cf. **845 nerve, 848 vein, venuloid.**

小脉:细脉,通常为叶脉的分枝或是再分枝。参考词汇:**845 [叶]脉,848 脉,假脉。**

**850 venuloid:** an elongate series of thickened cells appearing to be a

vein, but not connected to true veins and not functioning as a vein, found in the laminae of certain Selaginellaceae, Marattiaceae, Adiantaceae, and Hymenophyllaceae. *Syn. false vein. Cf. nerve, vein, veinlet.*

**假脉:**一长列的加厚细胞,看似脉,但与真正的脉并无联系,也不具有脉的功能,见于 Selaginellaceae(卷柏科), Marattiaceae(合囊蕨科), Adiantaceae(铁线蕨科)以及 Hymenophyllaceae(膜蕨科)一些类群的叶片。同义词:假脉(*false vein*)。参考词汇:[叶]脉,脉,细脉。

## (9C2)

### STELE TYPES

#### 中柱类型

**851 actinostele:** a radially arranged, lobed protostele (as seen in cross-section) associated with microphylls, commonly found in the Lycopodiaceae.

**星状中柱:**放射状排列的,浅裂的原生中柱(如横切面所见)。与小型叶相关,通常见于 Lycopodiaceae(石松科)。

**852 dictyostele:** a siphonostele with more than one parenchymatic gap at a single level (as seen in cross-section), associated with megaphylls, typical of many advanced ferns. *Cf. solenostele.*

**网状中柱:**在一个平面上具有多个薄壁组织间隙的管状中柱(如横切面所见),与大型叶相关,为许多进化蕨类所特有。参考词汇:疏隙[管状]中柱。

**853 meristele:** each of the vascular bundles into which a dictyostele appears to be divided as seen in cross-section because of

its overlapping parenchymatic gaps.

分体中柱:由于薄壁组织间隙互相交迭而使网状中柱里的每一维管束在横切面上看似分离的。

**854 plectostele:** a vascular cylinder with the vascular tissue appearing to be more or less parallel plates (as seen in cross-section), associated with microphylls, found in many Lycopodiaceae.

编织中柱:一维管柱的维管组织或多或少呈现出平行的片状面(如在横切面上所见),与小型叶相关,见于 Lycopodiaceae(石松科)许多种。

**855 protostele:** a simple vascular cylinder that lacks a pith of parenchyma in the center and is without parenchymatic gaps (as seen in cross-section), associated with microphylls, typical of the fern-allies, or with megaphylls of primitive ferns such as *Gleichenia*, *Lygodium* and of some reduced ferns, such as the Hymenophyllaceae. Cf. **siphonostele**.

原生中柱:中央无薄壁组织的髓,也无薄壁组织间隙(如在横切面所见)的简单维管柱。与小型叶相关,为拟蕨类的特征,或见于原始蕨类如 *Gleichenia*(里白属), *Lygodium*(海金沙属)以及一些退化蕨类如 Hymenophyllaceae(膜蕨科)的大型叶。参考词汇:管状中柱。

**856 siphonostele:** a vascular cylinder that has a pith of parenchyma in the center (as seen in cross section) and phloem only on the outside of the vascular cylinder (ectophloic siphonostele) or, more commonly in pteridophytes, on the outside and inside of the vascular cylinder (amphiphloic siphonostele), associated with megaphylls. Cf. **protostele**.

管状中柱:中央具有薄壁组织的髓(如横切面所见),韧皮部仅

存在于维管柱外部(外韧管状中柱)的维管柱,或在蕨类中更为常见的是韧皮部位于维管柱内外(双韧管状中柱),与大型叶相关。参考词汇:原生中柱。

**857 solenostele:** a siphonostele with only one parenchymatic gap at a single level ( as seen in cross section ), generally associated with megaphylls. *Cf.* **dictyostele.**

疏隙[管状]中柱:在单一平面上仅具有一个薄壁组织间隙(如横切面所见)的管状中柱,通常见于大型叶。参考词汇:网状中柱。

## (9D)

### EQUISETUM STEM CANALS

#### 木贼属茎的管沟

**858 carinal:** canals occurring in or near a carina, caused by rupture of the protoxylem during stem elongation. *Cf.* **central, val-lecular.**

隆线的:管沟发生于隆线处或近隆线处,由茎延伸时原生木质部裂开形成。参考词汇:中央的,线沟的。

**859 central:** the canal occurring at the center of an axis, caused by rupture of the primary pith during stem elongation. *Cf.* **carinal, val-lecular.**

中央的:管沟发生于轴的中心处,由茎延伸时初生髓裂开形成。参考词汇:隆线的,线沟的。

**860 vallecular:** canals occurring near a sulcus, caused by rupture of the cortex during stem elongation. *Cf.* **carinal, central.**

线沟的:管沟发生于近槽处,由茎延伸时皮层裂开而形成。参考词汇:隆线的,中央的。

## CYTOLOGY

### 细胞学

#### ( 10A )

### PROCESSES

#### 过程

**861 apogamy:** the formation of a sporophyte from a gametophyte by direct, asexual development, rather than by fertilization of gametes. *Adj.* **apogamous.**

无配子生殖:由配子体形成孢子体的过程是直接以无性发育的方式,而不是由配子受精的方式形成的。形容词:无配子生殖的。

**862 apospory:** the formation of a gametophyte from a sporophyte by direct, asexual development, rather than by germination of a spore, a laboratory phenomenon rarely found in nature. *Adj.* **aposporous.**

无孢子生殖:从孢子体形成配子体的过程是直接由无性发育的方式,而不是由孢子萌发的方式形成的,是一种在自然状态罕见的实验室现象。形容词:无孢子生殖的。

**863 introgression:** the formation of a wide range of intermediate plants by hybridization and backcrossing among parents and progeny, very rare in pteridophytes.

渐渗现象:由亲本和后代间的杂交和回交形成一系列的中间类型植株的现象,在蕨类非常罕见。

**864 meiosis:** cell division, usually leading to the formation of spores, in which the number of chromosomes in the daughter cells



is half that of the parent cell. *Cf.* **mitosis**. *Syn.* *reduction division*.

**减数分裂**:通常导致孢子形成的细胞分裂,所形成的子代细胞的染色体数目为亲本细胞的一半。参考词汇:有丝分裂。同义词:减数分裂。

**865 mitosis**:cell division in which the number of chromosomes in the daughter cells is the same as that of the parent cell. *Cf.* **meiosis**.

**有丝分裂**:细胞分裂所形成子细胞的染色体数目与亲本细胞相同。参考词汇:减数分裂。

**866 sport**:a mutant, genetically fixed although sometimes rather unstable, occurring randomly, usually in cultivated plants.

**突变**:突变体,虽然有时很不稳定,随机发生,遗传上是固定的。通常见于栽培植物。

## ( 10B )

## CHROMOSOMES

### 染色体

**867 bivalent**:two homologous chromosomes, usually one contributed by each parent, that remain united in the first division of meiosis of a diploid. *Cf.* **quadrivalent**, **trivalent**, **univalent**.

**二价体**:两个同源染色体,通常来源于各自的亲本,在二倍体第一次减数分裂时保持联合。参考词汇:四价体,三价体,单价体。

**868 chromosome**:one of a definite number of bodies bearing hereditary information (DNA) that divide and are usually equally partitioned into daughter cells during cell division.

**染色体**:指具有确定数目的携带遗传信息(DNA)的载体中的

一个,在细胞分裂时分裂,通常等分进入子细胞。

**869 genome:** a set of chromosomes, or the totality of sets, found in the cells of an organism.

染色体组:在有机体细胞内的一套或所有套染色体。

**870 quadrivalent:** four homologous chromosomes, usually two contributed by each parent, that remain united in the first division of meiosis of a polyploid. *Cf.* **bivalent, trivalent, univalent.**

四价体:四个同源染色体,通常每两个来源于各自的亲本,在多倍体的第一次减数分裂中保持联合。参考词汇:二价体,三价体,单价体。

**871 trivalent:** three homologous chromosomes that remain united in the first division of meiosis of a polyploid. *Cf.* **bivalent, quadrivalent, univalent.**

三价体:在多倍体第一次减数分裂中保持联合的三个同源染色体。参考词汇:二价体,四价体,单价体。

**872 univalent:** an unpaired chromosome. *Cf.* **bivalent, quadrivalent, trivalent.**

单价体:一个未配对的染色体。参考词汇:二价体,四价体,三价体。

## ( 10C )

## PLOIDY

### 倍性

**873 allopolyploid:** a polyploid whose chromosomes were contributed by two or more species. *Syn.* *amphiploid.* *Cf.* **autopolyploid.**

**异源多倍体**:染色体来源于两个或更多个种的多倍体。同义词:双倍体。参考词汇:同源多倍体。

**874 autoallopolyploid**: an allopolyploid whose chromosomes have doubled.

**同源异源多倍体**:染色体数目加倍形成的异源多倍体。

**875 autopolyploid**: a polyploid whose chromosomes were contributed by only one species. *Cf.* **allopolyploid**.

**同源多倍体**:染色体来源于一个种的多倍体。参考词汇:异源多倍体。

**876 decaploid**: a plant that has ten sets of chromosomes.

**十倍体**:具有十套染色体的植物。

**877 diploid**: a plant that has two sets of chromosomes.

**二倍体**:具有两套染色体的植物。

**878 dodecaploid**: a plant that has twelve sets of chromosomes.

**十二倍体**:具有十二套染色体的植物。

**879 haploid**: a plant that has one set of chromosomes.

**单倍体**:具有一套染色体的植物。

**880 hexaploid**: a plant that has six sets of chromosomes.

**六倍体**:具有六套染色体的植物。

**881 neopolyploid**: a species or infraspecific taxon of recent origin exhibiting a chromosome number that is an exact multiple of a current base number in its genus; usually an allopolyploid derived from two or more extant species. *Cf.* **palaeopolyploid**.

**新多倍体**:新近起源的种或是种下分类群,其染色体数目恰好为其所在属现有染色体基数的倍数;通常为来源于两个或更多现存种的异源多倍体。参考词汇:古多倍体。

**882 octoploid**: a plant that has eight sets of chromosomes.

**八倍体**:具有八套染色体的植物。

**883 paleopolyploid**: a genus or higher taxon of ancient origin exhibiting a chromosome number that is an exact or near multiple of an ancient, ancestral base number, always derived from an ancient neopolyploid lineage. *Cf.* **neopolyploid**.

**古多倍体**:古老起源的属或是更高的分类群,其染色体数目恰好是或接近于古老祖先染色体基数的倍数,总是来源于一古代的新多倍体谱系。参考词汇:**新多倍体**。

**884 pentaploid**: a plant that has five sets of chromosomes.

**五倍体**:具有五套染色体的植物。

**885 polyploid**: a plant that has more than two sets of chromosomes in cells of the sporophyte or more than one set in cells of the gametophyte.

**多倍体**:在孢子体细胞内具有两套以上染色体或在配子体细胞内具有一套以上染色体的植物。

**886 tetraploid**: a plant that has four sets of chromosomes.

**四倍体**:具有四套染色体的植物。

**887 triploid**: a plant that has three sets of chromosomes.

**三倍体**:具有三套染色体的植物。

## ECOLOGY AND DISTRIBUTION

### 生态及分布

#### ( 11A )

#### HABITAT

#### 生境

**888 acidophilous:** growing or prospering in a low pH substrate, such as bog soils or soils derived from sandstone, quartzite, or granite. *Cf.* **calcicolous.**

嗜酸性的:可在低 pH 值的基质如沼泽土壤或来源于沙岩,石英岩或花岗岩的土壤中生长或是生长茂盛的。参考词汇:钙生的。

**889 amphibious:** growing on dry land or in water, often applied to plants of seasonally inundated areas. *Cf.* **aquatic, terrestrial.**

两栖的:可在陆地或水里生长的,通常指生长于季节性淹没地区的植物。参考词汇:水生的,陆生的。

**890 aquatic:** growing in water, rooted or not. *Cf.* **amphibious, terrestrial.**

水生的:生长于水中,具根或无根。参考词汇:两栖的,陆生的。

**891 calcicolous:** growing or prospering in a high pH substrate, such as soils derived from limestone or dolomite. *Cf.* **acidophilous.**

钙生的:可在高 pH 值的基质如来源于石灰岩或白云岩的土壤中生长或是生长茂盛的。参考词汇:嗜酸性的。

**892 endophytic:** growing within the tissue of a plant, such as cyanobacteria of the genus *Anabaena* within *Azolla*. *Subs.* **en-**

**dophyte.**

内生的:生长于植物组织内的,如生长于 *Azolla* (满江红属) 内的 *Anabaena* (鱼腥藻属) 的蓝细菌。名词:内生。

- 893 epiphytic:** growing on another plant, usually the trunk or branches of a shrub or tree. *Subs. epiphyte. Cf. hemiepiphytic.*

附生的:生长在另一植物上,通常在灌木和乔木的主干或分枝上。名词:附生。参考词汇:半附生的。

- 894 gypsophilous:** growing in soil containing or derived from gypsum. 喜石膏的:生长于含有或源于石膏的土壤。

- 895 halophytic:** growing in salty water or in the spray therefrom, or in salty soil. *Subs. halophyte.*

含盐基质生的:可在含盐的水里或含盐的水所溅到的地方,或在含盐土壤里生长的。名词:盐生植物。

- 896 hemiepiphytic:** in pteridophytes, having a long-creeping rhizome or indeterminate rachis so that the plant remains rooted in the ground and climbs tree trunks, as in some species of *Selaginella*, *Trichomanes*, and *Salpichlaena*. *Subs. hemiepiphyte. Cf. epiphytic.*

半附生的:蕨类中具有长匍匐根状茎或无限主轴,从而植物体植根于土壤而攀缘于树干,如 *Selaginella* (卷柏属), *Trichomanes* (瓶蕨属) 以及 *Salpichlaena* 的一些种。名词:半附生。参考词汇:附生的。

- 897 limnophytic:** growing in quiet water, rooted or not. *Subs. limnophyte. Cf. rheophyte.*

沼生的:生长于静水中,具根或无根的。名词:沼生植物。参考词汇:流水植物。

- 898 lithophytic (epipetric):** growing on rocks. *Subs. lithophyte. Syn. saxicolous.*

石生的(岩生的):生长于岩石上。名词:石生植物。同义词:岩生的。

**899 mesophytic**: growing in moderately moist places. *Subs. mesophyte.*

中生的:生长于湿度中等的地方。名词:中生植物。

**900 myrmecophilous**: inhabited or capable of being inhabited by ants, usually in modified rhizomes that provide food or shelter, as in *Lecanopteris*.

适蚁的:已经或可以被蚂蚁居住的,通常在变态根状茎里,能为蚂蚁提供食物和避所,如 *Lecanopteris* 属。

**901 rheophytic**: growing in running water. *Subs. rheophyte. Cf. limnophytic.*

流水生的:生于流水中。名词:流水植物。参考词汇:沼生的。

**902 serpentinophilous**: growing in soil containing or derived from serpentine.

适蛇纹岩的:生长于含有蛇纹岩或源于蛇纹岩的土壤。

**903 terrestrial**: growing in soil. *Cf. aquatic, amphibious.*

陆生的:生长于土壤内。参考词汇:水生的,两栖的。

**904 xerophytic**: growing in dry places. *Subs. xerophyte.*

旱生的:生长于干旱地方。名词:旱生植物。

## (11B)

### LONGEVITY

#### 寿命

**905 abscissent**: having fronds or parts of fronds that dry and fall from the rhizome or axis during the seasons unfavorable to growth, applied to most temperate and cold-climate ferns and of some tropical species that grow in seasonally dry regions. *Syn. deciduous. Cf. 323 deciduous.*

脱落的:在不适宜生长的季节,叶片或叶片的一部分从根状茎或轴上干枯和脱落,指大多数温带和寒带的蕨类,以及一些季节性干旱区域生长的热带种类。同义词:323 落叶的。参考词汇:323 脱落的。

- 906 annual**: completing its life cycle in and living for only one year.  
 一年生的: 在一年内完成生命周期并仅存活一年的。
- 907 biennial**: completing its life cycle in and living for only two years.  
 二年生的: 在两年内完成生命周期并仅存活两年的。
- 908 evanescent**: completing its growth cycle in a short period of time, as certain *Isoetes* species in vernal pools and *Ophioglossum* species in seasonally wet meadows.  
 短命的: 在短期内就完成其生长周期的, 如 *Isoetes* (水韭属) 一些生长于春季池塘的种类, 以及生长于季节性湿草甸的 *Ophioglossum* (瓶尔小草属) 种类。
- 909 evergreen**: having aerial parts that remain alive and green through the winter and into or through the following warm season, applied to temperate and cold-climate pteridophytes, such as *Lycopodium digitatum* and *Polystichum lonchitis*. Also applied to tropical pteridophytes that retain their fronds during a dry season. Cf. **summer-green**, **winter-green**.  
 常绿的: 地上部分在整个冬季以及随后的温暖季节保持存活和绿色, 用于温带和寒带的蕨类, 如 *Lycopodium digitatum* (指状石松) 和 *Polystichum lonchitis* (矛状耳蕨)。也指在旱季仍能保留叶片的热带蕨类。参考词汇: 夏绿的, 冬绿的。
- 910 perennial**: completing its life cycle in one to several years and living for several to many years.  
 多年生的: 在一至多年内完成其生命周期, 并存活数年至多年的。
- 911 summer-green**: having fronds that remain green only through the warm season, applied to temperate and cold-climate pteridophytes, such as *Dennstaedtia punctilobula* and *Thelypteris noveboracensis*. Cf. **evergreen**, **winter-green**.  
 夏绿的: 叶片仅在温暖季节保持绿色的, 见于温带和寒带的蕨类, 如 *Dennstaedtia punctilobula* (草香碗蕨) 和 *Thelypteris*



*noveboracensis*。参考词汇:常绿的,冬绿的。

**912 winter-green**: having fronds that remain green during the winter (often by lying on the ground) and die near the beginning of the following warm season, applied to temperate and cold-climate pteridophytes, such as *Dryopteris marginalis* and *Polystichum acrostichoides*. Cf. **evergreen**, **summer-green**.

冬绿的:叶片在冬季仍能保持绿色(通常以伏地的方式)并在随后的暖季来临时死亡,见于温带和寒带的蕨类,如 *Dryopteris marginalis*(边缘鳞毛蕨)和 *Polystichum acrostichoides*(圣诞耳蕨)。参考词汇:常绿的,夏绿的。

### (11C)

## DISTRIBUTION

### 分布

### (11C1)

## GLOBAL DISTRIBUTION

### 全球性分布

**913 allopatric**: populations that are strongly separated. *Ant.* **sympatric**.

异域的:居群之间完全隔离的。反义词:同域的。

**914 continental**: distributed more or less throughout a single continent.

大陆(特有)的:分布于单一大陆范围内的。

**915 cosmopolitan**: growing in diverse regions more or less all over the earth.

泛陆的:不同程度地生长遍布于全球各个不同地区的。

**916 disjunct**: separated geographically, especially a population of restricted area (outlier) lying outside a main range (metropolis).

间断的:在地理上分离的,尤其指一个分布范围局限的居群(外居群)存在于一个主要分布区(主居地)之外的。

**917 endemic:** having a restricted distribution compared with a larger area, such as being confined to a single locality, country, or region.

特有的:与较大区域相比,分布范围有限的,如仅局限于单一的地点,国家或地区。

**918 local:** having a very restricted distribution, up to a few square kilometers.

局域的:具有非常局限的分布区,至多达数平方公里。

**919 provincial:** distributed in a single phytogeographical province (a subcontinental area consisting of two or more phytogeographic regions).

省的:分布于单一的植物地理省(一包含有两个或更多的植物地理区域的次大陆地区)。

**920 regional:** distributed in a single phytogeographical region.

地区的:分布于单一的植物地理区域。

**921 relictual:** continuing to live in a limited area after becoming extirpated from a wider area during an earlier period.

子遗的:早期由较广的分布范围内灭绝后继续存活于一个有限的地区内。

**922 sympatric:** populations that entirely overlap, or the overlapping portions of populations that partially overlap. *Ant.* **allopatric.**

同域的:(分布区)完全重叠的居群,或是不完全重叠居群的重叠部分。反义词:异域的。

**923 syntopic:** related species that grow together in the same habitat and so are able to cross-fertilize, such as some species of *Diphasiastrum*, *Botrychium*, and *Dryopteris*.

邻近亲缘的:在同一生境内生长在一起有亲缘关系,因而杂交可育的种,如 *Diphasiastrum*(扁枝石松属), *Botrychium*(阴地蕨属)和 *Dryopteris*(鳞毛蕨属)的一些种。

(11C2)

LATITUDINAL DISTRIBUTION

纬度性分布

**924 austral:** growing in the southern hemisphere, in regions with a cool to cold summer and a cold winter (ca.  $58^{\circ} \sim 72^{\circ}$ S. Lat.)

南方的: 生长于南半球的, 有凉爽至寒冷的夏天以及寒冷冬天的地区(约为南纬  $58^{\circ} \sim 72^{\circ}$ )。

**925 boreal:** growing in the northern hemisphere, in regions with a cool to cold summer and a cold winter (ca.  $58^{\circ} \sim 72^{\circ}$ N. Lat.)

北方的: 生长于北半球的, 有凉爽至寒冷的夏天, 以及寒冷冬天的地区(约为北纬  $58^{\circ} \sim 72^{\circ}$ )。

**926 neo-**: a prefix indicating new, in this case the New World (the Americas).

新: 一表示“新”的前缀, 这里指新世界(美洲)。

**927 paleo-**: a prefix indicating old, in this case the Old World (Africa, Eurasia, and the Pacific Islands).

古: 一表示“古老”的前缀, 这里指旧世界(非洲, 欧亚大陆以及太平洋岛屿)。

**928 pan-**: a prefix indicating everywhere, in this case both the New and the Old World.

泛: 一表示“到处”的前缀, 这里指新旧世界都包括在内的。

**929 subtropical:** growing north or south of the tropics in regions with a hot summer and a warm to cool winter (ca.  $23^{\circ}30' \sim 34^{\circ}$ N or S Lat.).

亚热带的: 生长于热带的南边或北边, 有炎热的夏天和温暖至凉爽的冬天的区域(约为北纬或南纬  $23^{\circ}30' \sim 34^{\circ}$ )。

**930 temperate:** growing in regions (or climates) with a warm summer

and cold winter (ca.  $34^{\circ}$  ~  $58^{\circ}$ N or S Lat. ).

温带的:生长于有温暖夏天和寒冷冬天的区域(或是气候条件)(约北纬或南纬  $34^{\circ}$  ~  $58^{\circ}$ )。

**931 tropical:** growing in regions with a hot summer and a warm to hot winter (ca.  $0^{\circ}$  ~  $23^{\circ}30'$ N or S Lat. ).

热带的:生长于有炎热的夏天和温暖至炎热冬天的区域(约北纬或南纬  $0^{\circ}$  ~  $23^{\circ}30'$ )。

### (11D)

## ESTABLISHMENT OF EXOTIC TAXA

### 外来类群的定居

**932 accidental:** an out-of-range occurrence that likely will not persist, such as a tropical species in a subtropical region.

偶见的:出现于分布区之外,很可能不会持续存在的,如热带种在亚热带出现。

**933 adventive:** partially naturalized from an accidental introduction. *Cf.* **escaped, introduced, naturalized.**

外来的:偶然引入,并在一定程度上归化的。参考词汇:逸生的,引入的,归化的。

**934 escaped:** partially naturalized after a deliberate introduction. *Cf.* **adventive, introduced, naturalized.**

逸生的:人为引入后一定程度上归化了的。参考词汇:外来的,引入的,归化的。

**935 exotic:** not native (indigenous). *Cf.* **native (indigenous).**

外来的:非本地的(本土的)。参考词汇:本地的(本土的)

**936 introduced:** imported accidentally or intentionally from another place or country. *Cf.* **adventive, escaped, naturalized.**

引入的:偶然或有意地由异地或国外引进的。参考词汇:外来的,

逸生的,归化的。

**937 invasive**: naturalized and capable of spreading rapidly, even to the detriment of native species or vegetation, such as certain species of *Blechnum*, *Cyathea*, *Lygodium*, and *Thelypteris*.

入侵的:归化并能迅速扩散,甚至损害到本土物种或植被,如 *Blechnum*(乌毛蕨属), *Cyathea*(桫椤属), *Lygodium*(海金沙属)以及 *Thelypteris*(金星蕨属)的一些种。

**938 native (indigenous)**: growing naturally, not as a result of introduction. *Syn. autochthonous. Cf. exotic.*

本地的(本土的):自然生长而不是人为引入的。同义词:土著的。  
参考词汇:外来的。

**939 naturalized**: originally introduced, but now reproducing and spreading like a native species. *Cf. adventive, escaped, introduced.*

归化的:最初为引入的,但是现在和本土种一样繁殖和扩散的。  
参考词汇:外来的,逸生的,引入的。

## EVOLUTIONARY RELATIONSHIPS

### 进化关系

#### (12A)

#### GENERAL

#### 一般概念

**940 analogous**: similar in appearance, but different in origin. *Cf.* **homologous**.

同功的:外表看来相似但是起源不同的。参考词汇:同源的。

**941 character**: a feature of an organism. *Syn.* *characteristic*, *character state*.

性状:有机体的一个特征。同义词:特性,性状状态。

**942 cladistic**: a classification based on evolutionary relationships, as discerned by studying sequences of shared, homologous characters as they change along evolutionary lines (transformation series). The results of a cladistic analysis are displayed in a tree-like cladogram. *Cf.* **phenetic**.

分支分类的:一个以进化关系为基础的分类,通过研究共有的同源特征的序列沿着进化路线(转化系列)发生的变化来进行区分。分支分析的结果以树状分支图显示。参考词汇:表型分类的。

**943 homologous**: similar in appearance because of descent from a common ancestor. *Cf.* **analogous**.

同源的:由于世系来自同一祖先而外形相似的。参考词汇:同功的。

**944 phenetic**: a classification based on similarities and differences of characters, without regard to the evolutionary steps (charac-

ter changes) that produced those similarities and differences. The results of a phenetic analysis are often displayed in a tree-like phenogram. *Cf.* **cladistic**.

**表型分类的:**一个以性状的相似点和不同点为基础,不考虑产生这些相同点和不同点的进化步骤(性状变化)的分类。表型分析的结果通常以一树状表征图来表示。参考词汇:分支分类的。

**945 polarized:** classified or ordered on the basis of presumed evolutionary relationship, applied to characters. Polarization of characters makes it possible to produce a "rooted" evolutionary tree (cladogram). *Ant.* **unpolarized**.

**极化的:**在推测的进化关系的基础上进行分类或排序,用于性状。性状的极化使“具根的”进化树(分支图)的产生成为可能。反义词:未极化的。

**946 transformation series:** a series or a group of homologous characters, whether ordered, polarized, or not.

**转化系列:**一系列或是一组同源性状,可以是有序的,极化的,或是无序的,未极化的。

**947 unpolarized:** not classified or ordered on the basis of presumed evolutionary relationship, said of characters. *Ant.* **polarized**.

**未极化的:**不以推测的进化关系为基础进行分类或排序,指性状。反义词:极化的。

## (12B)

### EVOLUTIONARY ADVANCEMENT

#### 进化进程

**948 apomorphic (derived):** the changed character as it exists in taxa descended from their ancestor. *Subs.* **apomorphy**. *Syn.* *ad-*

*vanced. Cf. autapomorphic, plesiomorphic, synapomorphic.*

衍征的(衍生的):祖先种的后代中出现的发生了变化的性状。名词:衍征。同义词:进化的。参考词汇:独有衍征的,祖征的,共有衍征的。

**949 autapomorphic:** an apomorphic character that is unique in a single descendant (and its descendants). *Subs. autapomorphy. Cf. apomorphic, synapomorphic.*

独有衍征的:—衍生特征仅为某单一的后代(及其延续的后代)所独有的。名词:独有衍征。参考词汇:衍征的,共有衍征的。

**950 homoplasic:** a character that occurs in different evolutionary lines as a result of parallel or convergent evolution. *Subs. homoplasy.*

异源同型的:—一个发生于不同进化线的性状,为平行进化或趋同进化的结果。名词:异源同型(非同源相似)。

**951 plesiomorphic (ancestral):** the character as it exists or existed in the ancestral taxon of a group. *Subs. plesiomorphy. Syn. primitive. Cf. apomorphic.*

祖征的(祖先的):存在或曾经存在于某一群体的祖先分类群的性状。名词:祖征。同义词:原始的。参考词汇:衍征的。

**952 synapomorphic:** an apomorphic character that is shared by two or more taxa. *Subs. synapomorphy. Cf. apomorphic, autapomorphic.*

共有衍征的:两个或更多的分类群所共同具有的衍征。名词:共有衍征。参考词汇:衍征的,独有衍征的。



## (12C)

## GROUPS OF ORGANISMS OR TAXA

## 有机体或分类群的群体

**953 artificial:** a non-natural group. *Cf.* **monophyletic.**

人为的:—非自然的类群。参考词汇:单系的。

**954 clade:** a natural, monophyletic group. *Cf.* **grade.**

进化枝:—一个自然的,单系的类群。参考词汇:等级。

**955 grade:** an artificial, paraphyletic or polyphyletic group, typically a group whose members have a particular character or show a certain degree of evolutionary specialization. *Cf.* **clade.**

等级:—一个人造的,并系或多系的类群,典型地是类群的成员共有某一特殊性状,或显示出一定程度的演化特化。参考词汇:进化枝。

**956 ingroup:** a group, or representatives of it, being studied by cladistic methods. *Cf.* **outgroup, sister group.**

内类群:进行分支分类方法研究中的一个类群或是类群的代表。参考词汇:外类群,姐妹群。

**957 monophyletic (natural):** a group that shares (and includes) a common ancestor and all of its descendants. *Cf.* **artificial, paraphyletic, polyphyletic.**

单系的(自然的):共有(并包括)一个共同祖先及其所有后代的一群植物。参考词汇:人为的,并系的,多元的。

**958 outgroup:** a group evolutionarily outside the ingroup, but studied for comparison purposes and for polarizing characters. *Cf.* **ingroup, sister group.**

外类群:在进化上处于内类群之外的类群,在研究中用于比较的目的和极化性状。参考词汇:内类群,姐妹群。

**959 paraphyletic**: an artificial group that excludes some of the descendants of its common ancestor. *Cf.* **monophyletic, polyphyletic.**

并系的:有共同祖先,不包括某些后代的一个人为的类群。参考词汇:单系的,多系的。

**960 polyphyletic**: an artificial group that excludes a common ancestor. *Cf.* **monophyletic, paraphyletic.**

多系的:一个人人为的类群,不包括共同祖先。参考词汇:单系的,并系的。

**961 sister group**: the outgroup that is most closely related to the ingroup. *Cf.* **ingroup, outgroup.**

姐妹群:与内类群关系最近的外类群。参考词汇:内类群,外类群。

## NOMENCLATURE

### 命名法

#### (13A)

## DELINEATION OF TAXA

### 分类群的描述

**962 circumscription:** a statement of the taxa contained within a higher taxon, such as the species within a genus or the genera within a family.

界定:对包含于高一等级分类群内那些分类群的描述,如对一个属内种,或是对一个科内属的表述。

**963 description:** a lengthy statement (in Latin for new taxa) of the characters of a taxon that permit a reader to develop a mental image of the taxon. *Cf.* **diagnosis.**

特征描述:对一个分类群的特征进行细致描述(对新分类群用拉丁文),以使读者能对此分类群产生一思维图像。参考词汇:特征集要。

**964 diagnosis:** a brief statement (in Latin for new taxa) emphasizing the distinctive characters of a taxon that distinguish it from related taxa. *Cf.* **description.**

特征集要:对一个分类群着重其独特的特征进行简短的描述(对新的类群用拉丁文),以将此类群区别于相关类群。参考词汇:特征描述。

**965 name:** A word denoting a taxon of the rank of genus or above. *Cf.* **981 epithet, 982 formula.**

名称:一个表示属或属以上等级的分类单位的词。参考词汇:981 加词,982 公式。

**966 protologue:** all the elements associated with a name at its original publication; the description or diagnosis, illustration (s), synonymy and references, specimens cited, and other notes and comments.

原描述:一个名称原始发表时与之相关的所有组成部分:特征描述或是特征集要,插图,异名和文献,引证的标本,以及其他的注释和评论。

**967 taxon:** a taxonomic group (at any taxonomic level). *Pl. taxa.*

分类单位,分类群:(在任一分类水平上)一个分类群。

### (13B)

## RANKS OF TAXA

### 分类等级

**968 class:** a subdivision of a division; the Polypodiophyta, for instance, includes the Psilopsida (psilophytes), Lycopsida (lycopods, club-mosses, and quillworts), and Equisetopsida (horsetails) - collectively known as the **fern-allies** - and the Polypodiopsida (**ferns**).

纲:门下的次级划分;例如蕨类植物门下包括 Psilopsida(松叶蕨纲),Lycopsida(石松纲,包括石松类,水韭类)以及 Equisetopsida(木贼纲)——它们总称为拟蕨类,以及 Polypodiopsida(蕨纲)(蕨类)。

**969 division:** a major category of plants, such as the Polypodiophyta (**Pteridophytes**).

门:一个主要的植物分类阶元,如蕨类植物门。

**970 family:** the principal rank of taxa between order and genus; the totality of genera that are more closely related to one another than they are to any other genera of other families.

科:目和属之间主要的分类群等级;科内包含的所有属间的相互关系要比这些属与其他科任何属的关系更近。

**971 form**: a rank of taxa subordinate to the species and used for minor variants, such as different color forms, that are scattered throughout the geographic range of the species; commonly the lowest category in the hierarchy of infraspecific taxa.

变型:—从属于种的分类等级,用于小的变异体,如不同颜色类型散布于种的地理分布范围内;通常为种下分类阶层系统中最低的分类阶元。

**972 genus**: a rank of taxa intermediate between family and species; the totality of species that are more closely related to one another than they are to any other species of other genera.

属:一个介于科和种之间的分类等级;属内所有种间的相互关系要比这些种与其他属任何种的关系更近。

**973 notho-**: a prefix indicating a taxon formed by hybridization, such as a nothospecies. Cf. **ortho-**.

杂交,假:—前缀,表示由杂交形成的分类群,如杂交种。参考词汇:正(直)。

**974 order**: a rank of taxa above family and below subdivision; the totality of families that are more closely related to one another than they are to any other families of other orders. Sometimes a single, markedly distinct family also constitutes an order.

目:科以上,亚门以下的一个分类群等级,目内所有科间的相互关系较这些科与其他目任何科的关系更近。有时单一的具显著独特性的科也可组成一个目。

**975 ortho-**: a prefix indicating a taxon formed by divergent evolution, not by hybridization. Cf. **notho-**.

正(直):前缀,表示一分类群是由趋异演化,而不是杂交的途径形

成的。参考词汇:杂交,假。

**976 species**: a rank of taxa grouping individuals that typically have a distinct cytology, genetic composition, morphology, and range; the lowest basic category in the hierarchy.

[物]种:一分类群等级,典型地具有特定的细胞学,遗传成分,形态学以及分布范围,为分类阶层系统中最低的基本阶元。

**977 subspecies**: a rank of taxa subordinate to species and used for major variants in morphology (such as “incipient species”) that have a discrete range different from that of the species and any other subspecies; commonly the highest category in the hierarchy of infraspecific taxa.

亚种:一个从属于种的分类群等级,用于形态学上主要的变异体(如“端始种”),亚种所具有隔离分布区不同于种和其他亚种的分布区,通常为种下分类阶层系统中的最高阶元。

**978 variety**: a rank of taxa subordinate to species and used for variants in morphology that have a distinct range commonly different from that of the species and from other varieties of the species.

变种:一个从属于种的分类群等级,用于形态学上的变异体,变种所具有的特殊分布区通常不同于种和种内其他变种的分布区。

## (13C)

### CATEGORIES OF NAMES

#### 名称的种类

**979 basionym**: a valid name whose epithet is transferred when making a new combination.

基名:一有效的名称,当形成一新组合时,名称的加词就被转移。

**980 combination**: a name consisting of a generic name and one or two

epithets below that level, one at the species level sometimes followed by one below the species level.

组合:由一个属名和一至两个属下等级的加词组成的名称,一个种的名称有时接着一个种下加词。

**981 epithet:** a typically descriptive or commemorative word, usually an adjective but sometimes a noun in apposition, that is combined with the name of a genus to form the name of a taxon, or with the name of a species to form the name of an infraspecific taxon. *Cf.* **formula**, **965 name**.

加词:一特有的描述性或是纪念性的词,通常为形容词,但有时为同位的名词,与属名一起形成一个分类群的名称,或和种名一起构成一种下分类群的名称。参考词汇:公式,965 名称。

**982 formula:** a name for a hybrid taxon formed by the names of its parents connected by a multiplication sign. *Cf.* **epithet**, **965 name**.

公式:一用于杂种分类群的名称,以一乘号连接其亲本的名称构成。参考词汇:加词,965 名称。

**983 homonym:** a name identical to another name, but based on a different type.

同名:一个名称与另一个名称相同,但却基于不同的模式。

**984 synonym:** one of two or more names for the same taxon; if based on the same type, they are considered to be nomenclatural synonyms, if based on different types, they are considered to be taxonomic synonyms.

异名:同一个分类群有两个或更多的名称。若基于相同的模式,则被认为是命名异名,若基于不同的模式,则被认为是分类学异名。

(13D)  
CATEGORIES OF TYPES  
模式的种类

**985 holotype ( type )**: the one specimen or other element of the protologue ( usually an illustration ) used ( and usually cited ) by the author to prepare the diagnosis or description.

**主模式(模式)**:作者用来写特征集要或是特征描述所用(并通常引证的)标本或是原描述的其他组成部分(通常为了一幅图)。

**986 iso-**: in nomenclature, a prefix indicating a duplicate, such as isolecotype, isoparatype, isosyntype, or isotype.

**等**:在命名中,一个用来表示复份的前缀,如等后选模式,等副模式,等合模式或等模式。

**987 isotype**: a duplicate of the holotype.

**等模式**:主模式的一个复份。

**988 lectotype**: a specimen chosen by a later author to serve like a holotype from among the syntypes used and cited by the original author.

**后选模式**:由后来的作者从原作者所采用和引证的合模式中选出来的,作为主模式的一份标本。

**989 neotype**: a specimen chosen by a later author to replace the holotype, lectotype, or syntypes when these and all their duplicates are missing or destroyed.

**新模式**:当主模式,后选模式或合模式及它们所有的复份都被丢失或破坏时,由后来的作者挑选出来代替它们的一份标本。

**990 paratype**: a specimen other than the holotype or isotype(s) cited in the protologue. *Sin. cotype.*



**副模式:**在原描述中所引用的,除主模式或等模式以外的一个标本。同义词:同举模式。

**991 syntype:** any one of two or more specimens used and cited by the author to prepare the diagnosis or description, when no holotype was designated. One of the syntypes may be chosen lectotype by a later author, but the “rejected” syntypes do not become paratypes, they remain syntypes. *Sin. cotype.*

**合模式:**在没有指定主模式时,作者在准备特征集要或特征描述中所采用和引证的两个或更多标本中的任何一个。这些合模式之中的任一个可被后来的作者选作后选模式,但是“拒选”的合模式并不变成副模式,它们仍旧是合模式。同义词:同举模式。

**992 typotype:** an informal term for a specimen that is the basis of a drawing that is itself a type.

**绘图模式:**一个非正式的术语,指绘图所依据的标本,而图本身即为一模式。

## (13E)

### STATUS OF NAMES

#### 名称的地位 ( 状况 )

**993 correct:** the legitimate name that must, under the Code, be adopted for a taxon with a particular rank, position, and circumscription. *Ant. incorrect. Cf. legitimate, valid.*

**正确的:**合法的名称,在法规的指导下,此名称被接受必须是一个具有特定的分类等级,位置和范围的分类单位。反义词:不正确的。参考词汇:合法的,有效的。

**994 illegitimate:** a validly published name that is contrary to one or more articles of the Code, and so must be rejected. *Ant. legitimate.*

不合法的:一个有效发表的名称,但却违反了法规中的一个或多个条文,从而必须舍弃的。反义词:合法的。

**995 incorrect:** a name that is not correct. *Ant.* **correct.**

不正确的:一个不正确的名称。反义词:正确的。

**996 invalid:** a name that is not valid. *Ant.* **valid.**

无效的:一个无效的名称。反义词:有效的。

**997 legitimate:** a validly published name, and one that is not contrary to any article of the Code. *Ant.* **illegitimate.** *Cf.* **correct, valid.**

合法的:一个有效发表的,并且不违反法规中任何条文的名称。反义词:不合法的。参考词汇:正确的,有效的。

**998 valid:** a name that is published in accordance with the articles of the Code governing publication; basically one that is effectively published, in the correct form for its rank, with a description or diagnosis or reference to a previously published description or diagnosis, and states a type. *Ant.* **invalid.** *Cf.* **correct, legitimate.**

有效的:一个名称按照法规条文指导的出版物被发表;首要的是它是有效发表的,它有其等级的正确形式,有一描述或特征集要,或与提及一先前发表了的描述或特征集要,并陈述一模式。反义词:无效的。参考词汇:正确的,合法的。

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## 译 后 记

2003年,我们得到美国 Smithsonian 研究所 David B. Lellinger 博士编著并由美国蕨类植物学会出版的《现代多语种蕨类植物分类学词汇》(A Modern Multilingual Glossary for Taxonomic Pteridology, 2002)。当时即决定翻译。目的是:一来通过翻译可加深我们对蕨类分类术语的理解,是很好的再学习过程,二来也想为国内蕨类植物分类研究在术语的统一方面贡献微薄之力。

原书包含英语、西班牙语、法语、葡萄牙语四个语种的词汇和以相对应语种对词汇的解释。经与美国蕨类植物学会和原编著者联系,就该书能否翻译为中文在中国出版征询意见,他们同意翻译出版,但只同意译英语部分,书名也改为现在的书名,英文为《A Modern English-Chinese Glossary for Taxonomic Pteridology》。译毕之后,承蒙美国田纳西大学马启盛博士在百忙中认真细致地校改,既减少了错误也使译文增色。David B. Lellinger 博士还为本书的出版写来序言。在此我们向美国蕨类植物学会, David B. Lellinger 博士、马启盛博士致衷心的谢意。

我们在翻译时曾参考了《蕨类植物名词及名称》(邢公侠编,秦仁昌校,科学出版社,1982),《植物学拉丁文》(W. T. 斯特恩著,秦仁昌译,俞德浚,胡昌序校,科学出版社,1984年)。译者水平有限,欠妥之处还望读者指正。



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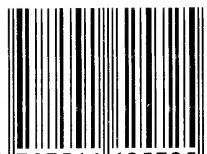
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A Modern English — Chinese Glossary for  
Taxonomic Pteridology

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