

12 对以上,相距 2.3—3 厘米,互生,具短柄,基部的短,长 4—7 厘米,宽 1.9—2.2 厘米,向上部渐长,顶部的长达 15 厘米,宽 2.7—3.2 厘米,披针形,顶部长尖或近尾状,基部稍不等,闊楔形或圆形,叶片上部的羽片的基部小羽片很短,卵形或椭圆状卵形,长 3.5—4.2 厘米,顶生小羽片分离,有小羽柄,长 1.5 毫米,与下面隣近的小羽片同形,叶缘全部具密的钝锯齿,在尾头具三角形的小牙齿。叶脉密,上面不明显,下面较明显,脉间距离不到 1 毫米,一般为分叉,近水平开展,直行,达于每一锯齿顶端;倒行假脉明显,长超过孢子囊羣。叶坚纸质或几为革质,绿色,下面光滑。叶轴光滑,干后为褐色,上面具纵沟,向顶端无翅。孢子囊羣线形,长 1—2.2 毫米,生于距边缘约 1 毫米处,由 16—20 个孢子囊组成。

特产于云南南部(西双版纳)。生密林下沟中,海拔约 1000 米。

5. 同形观音座莲

Angiopteris consimilis Ching, sp. nov.

植物高 1 米以上。叶为二回羽状;羽片互生,倒卵状长圆形,长约 48—64 厘米,上部宽约 20 厘米,下部变狭,宽约 8 厘米,奇数羽状,羽柄长约 3 厘米;小羽片 8—13 对,互生,在羽片下部的相距 2.3—3 厘米,在上部的距离为 3.5—4 厘米,斜展,具短柄,基部的长约 6 厘米,中部的长约 10.5 厘米,顶部的长达 15.5 厘米,宽 1.8—3.4 厘米,向顶端渐尖,或通常为近尾状渐尖,基部几不等,上侧为楔形,下侧为圆形,顶生小羽片分离,具长 2—3 厘米的小羽柄,和其下面的小羽片同形,叶缘全部具有规则的钝锯齿。叶脉两面明显,脉间距离约 1 毫米或不到 1 毫米,一般均分叉,近水平开展,顶部稍向上弯而达于锯齿的顶端,倒行假脉较短,不超过孢子囊羣。叶为革质,上面绿色,无毛,下面淡绿色,沿中肋疏被棕色长鳞片。叶轴光滑,干时呈褐色,向顶端无翅。孢子囊羣多为线形,有时长圆形,长 1—2.2 毫米,彼此不密接,距叶缘约 1 毫米,在下部小羽片上沿全部叶缘分布,在中部以上的小羽片上的常仅在中部或有时沿叶缘为不规则间断分布,由 16—22 个孢子囊组成。

特产于云南(河口,闊坪坝)。生林下,海拔 150 米。

6. 长尾观音座莲(中国植物分类学报,第八卷)

Angiopteris caudipinna Ching in Acta Phytotax. Sinica VIII (1959) 127, t. 16, f. 2.

叶为二回羽状。羽片长圆状倒披针形,长 40—50 厘米,上部宽 15—18 厘米,中部以上最宽,下部渐狭,柄长 5—6 厘米;小羽片约 11—12 对,相距 2.5—3.5 厘米,稍

petiolulatis (petiolulo 2—3 mm longo, tumido), marginibus grosse et remote serratis, dentibus sat magnis, deltoideis, acutis, subobliquis, ad apicem majoribus; venulis subrecto-patentibus, furcatis, laxis, ad partem superiorem incurvatis et in dentes ingredientibus, apice non incrassatis, utrinque distinctis, striis recurrentibus obsoletis, brevissimis; textura folii firmiter herbacea, glabra, in sicco virescenti; soris oblongis, a se magis distantibus, saepe lineas interruptas aut irregulares in parte inferiore pinnularum secus marginem occupantibus, ca. 1.4—2 mm e margine remotis, sporangiis 7—16.

Yunnan austr., Se-song-ban-nan, Yunnan Complex Expedition No. 5900.

3. **Angiopteris garbongensis** Ching, sp. nov.

Planta ultra 1 m vel ad 2 m alta, stipite, rachide ca. 1 cm crassa, brunnescente straminea, glabra; lamina ampla, bipinnata; pinnis oblongis, 47—50 cm longis, 18 cm medio latis, basin versus parum angustatis, ca. 12 cm latis, petiolo 2.8 cm longo supra geniculum 3 mm crasso, glabro, canescenti-stramineo suffultis; pinnulis ca. 17-jugis, 2 cm inter se remotis, breviter petiolulatis, inferioribus patentibus, alternis, 5—6 cm longis, sequentibus majoribus, parum obliquis et oppositis, mediis 9 cm longis, supremis ad 10—11 cm longis, ca. 2—2.3 cm latis, lanceolatis, ad apicem in cuspidem 1.5 cm longam 4 mm basi latam, serratam contractis, basi subinaequaliter rotundatis, antice truncatis, postice rotundatis, marginibus ubique crenato-dentatis; venulis subpatentibus, furcatis aut rarius simplicibus, utrinque prominulis, ad marginem parum curvatis, striis recurrentibus brevibus, pellucidis, non ultra soros progredientibus; textura firmiter herbacea, in sicco utraque virescenti, supra glabra, infra ad costas nonnullis venulas paleis rufis parvis sparse conspersa; soris linearibus, 1.5—2 mm longis, contiguis, 1—1.2 mm e margine remotis, sporangiis plerumque 16—20.

Yunnan orient., Si-chou Hsien, Gar-bon, alt. 1000 m, leg. C. W. Wang No. 86041. XII, 27, 1939, under dense woods.

4. **Angiopteris nuda** Ching, sp. nov.

Planta ad 2 m alta, stipite 2 cm diametro, fusco-brunneo, glabro; lamina ampla, bipinnata; pinnis oblongis, ca. 50 cm longis, 20 cm latis vel supra medium latoribus, petiolo 1.5—3 cm longo, supra geniculum nigrescentem 5—6 mm crasso, brunnescente stramineo, glabro suffultis; pinnulis ultra 12-jugis, 2.5—3 cm inter se remotis, breviter (1 mm) petiolulatis, lanceolatis, basalibus abbreviatis, 4—7 cm longis, 1.9—2.2 cm latis, sequentibus sensim majoribus, supremis 15—16 cm longis, 2.7—3.2 cm latis, basi subaequalibus, antice obliquis, postice rotundatis, ad apicem versus in cuspidem 1—1.4 cm longam, 4 mm basi latam contractis, marginibus ubique serratis, dentibus deltoideis, acutis, obliquis; venulis subrecte patentibus, plerisque furcatis, non elevatis, sed utrinque notatis, mesophyllo concoloribus, apice leviter curvatis vel subrectis et in dentes intrantibus; striis recurrentibus luce penetrante distinctis, ultra soros progredientibus; textura folii firmiter chartacea, in sicco supra obscure viridi, infra virescente, glaberrima, parte apicale rachillae exaltata; soris approximatis non contiguis, linearibus, ca. 2 mm longis, sporangiis 16—20 compositis, 1 mm a margine remotis, e basi usque ad cuspidem extensis.

Yunnan austr., Yunnan Complex Expedition Nos. 3972, 7933 (typus).

5. **Angiopteris consimilis** Ching, sp. nov.

Planta ultra 1 m alta, stipite 2 cm crasso, fuscente-brunneo, glabro; lamina ampla, bipinnata; pinnis alternis, 48—60 cm longis, parte superiore 20 cm latis, oblongo-obovatis, deorsum sensim angustatis, parte basali ca. 8 cm latis; pinnulis ca. 13-jugis, alternis, 2.5—3 cm inter se remotis, obliquis, brevissime petiolulatis, basalibus ca. 6 cm longis, sequentibus sensim majoribus, supremis maximis, ad 16 cm longis, 3 cm latis vel latoribus, lanceolatis, basi subaequaliter cuneato-rotundatis, apicem versus in cuspidem 5—12 mm longam. 3 mm latam subito acuminatis, marginibus ubique regulariter serratis, dentibus deltoideis, obliquis, acutis; venulis subrecte patentibus, plerisque furcatis, intus marginem antrorsim curvatis, in dentes intrantibus, utrinque distinctis, striis recurrentibus obsoletis, vix ultra soros progredientibus; textura folii herbacea, in sicco brunneo-viridi, utraque glaba, ad costas subtus paleis parvis filiformibus, rufis perspersis onusta; soris linearibus, ca. 2 mm longis, non contiguis, a se distantibus, lineas regulares continuas vel saepe interruptas occupantibus, sporangiis 16—22.

Yunnan austr.-orient., Hokou, Yiang-ping-pa, leg. *Chow Tsang-yi* No. 20, V, 1953.

8. **Angiopteris parvipinnula** Ching, sp. nov.

Planta ad 2 vel 3 m alta, stipite incompleto, 3 cm crasso, laete stramineo, glabro; lamina ampla, bipinnata; pinnis oblongis, ad 60 cm longis, ca. 15 cm latis, alternis, petiolo 2—2.8 cm longo, 4—5 mm crasso, stramineo, glabro suffultis; pinnulis ca. 30-jugis, 2—2.3 cm inter se remotis, alternis, brevissime petiolulatis vel sessilibus, 7—10 cm longis, 8—12 mm latis, lineari-lanceolatis, acuminatis, basi subinaequaliter rotundatis, omnibus similibus, marginibus subintegris vel obscure serrulatis, apice serratis, e sicco leviter revolutis; venulis patentibus, furcatis aut simplicibus, ad marginem parum curvatis, utrinque prominulis, striis recurrentibus ultra soros usque ad medium semifaciarum pinnularum progredientibus; textura folii herbacea, statu sicco obscure viridi, supra glabra, infra ad costas paleis rufis filiformibus parce vestita; soris linearibus, ca. 1.5 mm longis, a se magis distantibus, 0.8 mm e margine remotis, sporangiis plerumque 20.

Yunnan austr.-orient., Hokou, Man-Chang, leg. *Tsai Ke-hwa* No. 513, IV, 24, 1933, in ravine under forest.

10. **Angiopteris kwangsiensis** Ching, sp. nov.

Planta ad 2 m alta, stipite incompleto, parte superiore ca. 1.5 cm crasso, brunnescente nigricante, glabro; lamina ampla, bipinnata; pinnis alternis, obliquis, oblongis, ca. 65 cm longis, 17 cm medio latis, basi parum angustatis, petiolo ad 15 cm longo, 3.5 mm crasso, brunnescente stramineo, glabro suffultis; pinnulis ca. 16-jugis, 3 cm inter se remotis, breviter petiolulatis, inferioribus parum abbreviatis, patentibus, oppositis, sequentibus suboppositis, parum majoribus, mediis 9—11 cm longis, 1.5—1.8 cm basi latis, lanceolatis, apice acuminatis, rectis vel paulo curvatis, basi latiore subrotundatis, terminali aequali, marginibus integris vel inconspicue serrulatis, apex serratis; venulis patentibus, furcatis, parte superiore intra marginem leviter curvatis, quam mesophyllo obscurioribus, striis recurrentibus subpellucidis, ultra soros progredientibus; textura folii herbacea, supra obscure et infra pallide viridi, utraque glabra; soris linearibus, 1.5 mm longis, contiguis, 1 mm e margine remotis, sporangiis 10—16.

Kwangsi: Mung Tung Kou, 24 km. north of Luchen, leg. *R. C. Ching* 5501, under