

两面光滑。孢子囊羣綫形,密接,长 1.8 毫米,有孢子囊 20—28 个,距平伏不育的边緣 1.4 毫米处着生,上部或先端不育。

产于云南东南部(河口,冷水沟)。海拔 280 米。西双版纳也有。

42. 圓齿观音座蓮

Angiopteris crenata Ching, sp. nov.

植株高大。叶柄未見;羽片长圓披針形,基部几不变狭,长至少 85 厘米,寬 20 厘米,羽柄长 4 厘米,褐色,羽軸頂端无翅;小羽片 29 对,相距 2.5—3 厘米,基部对生,上部近互生,柄长 2 厘米,基部小羽片几不縮短,下向,上部小羽片长 10 厘米,寬 1.5 厘米,披針形,几开展,基部圓形,先端漸尖,略呈尾头,边緣有圓齿牙,高不及寬,全部为灰白色的軟骨質。叶脉开展,单一或分叉,上面不明显,下面明显,頂端膨大,并进入軟骨質的齿牙,不具倒行假脉。叶厚紙質,上面黑綠色,下面綠色,两面均光滑。孢子囊羣綫形,长 2.2 毫米,紧接,有孢子囊 24—30 个,距平伏不育的边緣 1 毫米处着生,小羽片的先端不育。

产于云南东南部(河口,曼樟)。海拔 150 米。

43. 粗齿观音座蓮

Angiopteris grosso-dentata Ching, sp. nov.

植株高大。叶柄未見;羽片长圓披針形,基部不变狭,或稍变狭,长 70 厘米,寬 16—20 厘米,羽柄长 2.5 厘米,褐色,羽軸向頂端无翅;小羽片 24 对,相距 2—3 厘米,对生或近于对生,柄短,基部的长 9 厘米,下向,上部的长 11 厘米,寬 1.4 厘米,斜向上,披針形,先端漸尖,基部圓形,边緣有粗圓齿牙,高过于寬,中部为灰白色軟骨質。叶脉开展,单一或分叉,在叶上面不明显,下面可見,頂端膨大,深入齿牙内,沒有倒行假脉。叶厚紙質,上面黑綠色,下面淡綠色,两面均光滑,或下面中脉及細脉上有棕色綫形鱗片疏生。孢子囊羣綫形,长 2 毫米,密接,有孢子囊 18—20 个,距平伏不育的边緣 1 毫米处着生,先端不育。

产于云南东南部(河口)。生河边密林下,海拔 150 米。

44. 小叶观音座蓮

Angiopteris parvifolia Ching et Fu, sp. nov.

叶柄长約 40 厘米,粗約 7 毫米,干后为淡禾稈色,光滑。叶片长 50 厘米,寬約 40 厘米,闊卵形,二回羽状;羽片 8—10 对,互生,斜出,闊披針形,有柄(柄长約 1 厘米),向羽軸頂端有狭翅,基部的較短,长 20 厘米,寬 6 厘米,第二第三对最长,达 28 厘米,寬 8 厘米,相距 5 厘米,向上部漸短,頂部的长 14 厘米,寬 4 厘米,相距約 4 厘米;小

Stipite incompleto, sordide brunneo, glabro; lamina ca. 80 cm longa, 60 cm lata, bipinnata; pinnis 4-5-jugis, alternis, obliquis, elongato-oblongis, ad 47 cm longis, 10—12 cm latis (frondis sterilis majoribus), petiolo 2—3 cm longo, geniculo 1 cm longo tumido, nigrescente instructo suffultis, rachillis nigrescente brunneis, glabris, apicem versus exalatis; pinnulis 12-jugis, inferioribus 2.5 cm, superioribus 3.5 cm inter se remotis, oppositis vel suboppositis, obliquis, breviter petiolulatis (petiolulo ca. 2 mm longo), basin versus abbreviatis, infimis 5—6 cm longis, sequentibus gradatim majoribus, mediis 8 cm longis, supremis 11.5 cm longis, 3 cm latis, oblongis, basi aequaliter rotundatis, rectis, apice in cuspidem brevem 8—14 mm longam, 4 mm basi latam subito contractis, marginibus crenulatis vel subintegris, in sicco revolutis, venulis subpatentibus, densis, nigrescentibus, e basi furcatis, ad marginem leviter incurvatis, infra distinctis, supra vix notatis, spuriis recurrentibus nullis; textura firmiter chartacea, statu sicco fulvo-viridi, ad costas nervasque squamulis parvis rufis filiformibus subtus sparse vestita; sori lineari, contigui, 2—3 cm longi, sporangii 22—24, magis ab marginibus pinnularum recedente, e basi usque ad basin cuspidis adscendente.

Yunnan austr.-orient., Pingpien Hsien, Shi-ban-shiung, Hsia-me-tsui, alt. 800 m, leg. *Chu et Li*, by stream side under thickets.

41. **Angiopteris hokouensis** Ching, sp. nov.

Planta ad 2 m alta, stipite 2 cm vel ultra crasso, nigrescente, glabro; lamina ampla, bipinnata; pinnis oblongo-oblancoelatis ad 60 cm longis, parte superiore ca. 20 cm latis, basin versus gradatim angustatis, petiolo 6 cm longo, nigrescente, glabro, 3—4 mm crasso suffultis; pinnulis ca. 11-jugis, basalibus abbreviatis, 6—8 cm longis, 2 cm latis, oblongis, breviter caudatis, patentibus vel subdeflexis, ca. 2.5 cm inter se remotis, sequentibus majoribus, supremis ad 13 cm longis, 3 cm medio latis, oblongo-oblancoelatis, basi rotundatis, ad apicem in cuspidem brevem contractis, margine ubique acute serratis; venulis subpatentibus, plerisque furcatis, infra prominulis, supra notatis, ad apicem intus marginem curvatis et parum incrassatis, striis recurrentibus nullis; textura folii firmiter herbacea, supra obscure et infra pallide viridi, utraque pagine glabra; sori linearibus, 2—3 mm longis, contiguis, 1.8 mm e margine remotis, sporangii 20—28.

Yunnan austr.-orient., Hokou, Lan-shiu-kou, leg. *Tsai Ke-hwa* No. 469, V, 8, 1953.

42. **Angiopteris crenata** Ching, sp. nov.

Planta verisimiliter ad 2 m alta, stipite deest; lamina ampla, bipinnata; pinnis alternis, 85 cm vel ultra longis, 20 cm latis, elongato-oblongis, basin versus vix vel parum angustatis, petiolo 4 cm longo, ad 4 mm crasso, fuscente-brunneo, glabro suffultis, rachillis crassis, exalatis; pinnulis ca. 29-jugis, inferioribus oppositis, infimis deflexis, sequentibus patentibus, superioribus alternis, obliquis, 2.5—3 cm inter se remotis, breviter petiolulatis (petiolulo ca. 2 mm longo), mediis 10 cm longis, 1.5 cm latis, lineari-lanceolatis, basi rotundatis, ad apicem versus potius in cuspidem brevem, 5—12 mm longam, 3 mm latam subito contractis, marginibus ubique regulariter grosse crenatis, dentibus obtusis, cartilagineis; venulis patentibus, simplicibus vel furcatis, apice fere rectis vel leviter curvatis, magis incrassatis et in dentes ingredientibus, striis recurrentibus nullis; textura folii firmiter chartacea, utrinque glabra, in sicco supra obscure et infra brunnescente viridi; sori linearibus, contiguis, e basibus pinnularum usque ad cuspidem protensis, ca. 1 mm e margine plano cartilagineoque

remotis, sporangiis 24—30, sed in soris apicalibus 5—8.

Yunnan austr.-orient., Hokou, Man-chang, leg. *Kiang Shing* No. 149.

43. **Angiopteris grosso-dentata** Ching, sp. nov.

Planta verisimiliter ad 2 m alta, stipite deest; lamina ampla, bipinnata; pinnis oblongo-lanceolatis ad basin non vel vix angustatis, ca. 70 cm longis, 16—20 cm latis, petiolo 2.5 cm longo, supra genticulum nigricantem ca. 5 mm crasso, fusco-brunneo, glabro suffultis, rachillis 4 mm crassis supra non marginatis, ad apicem nec alatis; pinnis ca. 24-jugis, 2—3 cm inter se remotis, oppositis vel sursum suboppositis, breviter petiolulatis, basalibus 9 cm longis, patentibus, vel subdeflexis, supremis ad 11 cm longis, 1.4 cm latis, lanceolatis, obliquis, apice acuminatis, grosse serratis, basi subrotundatis, margine plano profunde dentatis, dentibus, oblongis, ca. 1 mm longis, obtusiusculis, patentibus, vel ad apicem pinnularum acutis, omnibus cartilagineo-incrassatis; venulis subpatentibus, furcatis aut raro simplicibus, mesophyllo concoloratis, ad apicem fere rectis, magis incrassatis et in dentes intrantibus, supra notatis, infra prominulis, striis recurrentibus nullis; textura foliis firmiter chartacea, in sicco superne obscure et inferne pallide viridi, utraque praeter costas inferne persparse paleaceas glabra; soris linearibus, ca. 2 mm longis, contiguis, e basi usque ad apicem pinnularum protensis, 1 mm e margine remotis, sporangiis 18—20.

Yunnan austr.-orient., Hokou, No. D2 ex herb. Department of Biology, Yunnan University, under forest along stream side, alt. 150 m.

44. **Angiopteris parvifolia** Ching et Fu, sp. nov.

Planta ad 90 cm alta, stipite 40 cm longo, basi 7 mm crasso, pallide stramineo, glabro; lamina 50 cm longa, 40 cm lata, ovato-oblonga, bipinnata; pinnis 7-8-jugis, alternis, obliquis, lanceolatis, ad 25 cm longis, 7—8 cm latis, jugis basalibus paulo brevioribus, breviter (1—1.6 cm) petiolatis, basin versus vix angustatis; rachillis gracilibus, 1.5 mm crassis, pallide stramineis, primum paleis rufis, filiformibus deciduis sat dense obtectis; pinnulis ad 20-jugis, alternis, ca. 1.5 cm inter se remotis, 3.5—4 cm longis, 7—9 mm latis, fere omnibus similibus, lanceolatis, acuminatis, basi cuneatis, sessilibus, margine minute serrulatis, apice acute serratis, e sicco revolutis; venulis obliquis, densis, mesophyllo concoloribus, furcatis aut simplicibus, apice fere rectis, supra obscuris, infra distinctis, striis recurrentibus nullis; textura herbacea, supra glabra, viridi, infra farinaceo-olivacea, ubique praesertim ad costas paleis rufis, parvis, filiformibus sat dense obtectis; soris parvis ca. 0.7 mm longis, approximatis, ca. 0.8 mm e margine remotis, sporangiis 6—8, statu juvenili subcoalescentibus.

Yunnan occid., without locality, local collector, s. n.

45. **Angiopteris latipinnula** Ching, sp. nov.

Planta ca. 2 m alta, stipite ultra 2 cm diametro, sordide brunneo, glabro; lamina ampla, bipinnata; pinnis alternis, oblongis, 57 cm longis, 27 cm latis, petiolo ad 12 cm longo, 2.5 mm crasso, supra profunde sulcato, glabro suffultis; pinnulis ca. 10-jugis, 3—5 cm inter se remotis, oppositis vel sursum suboppositis, longe petiolulatis (petiolulo ca. 3 mm longo), omnibus conformibus, 11—14 cm longis, 2.5—3 cm latis, late lanceolatis, basi oblique subrotundatis, apice caudato-acuminatis; falcato-incurvatis, marginibus serratis, dentibus deltoideis, acutis, plus minusve cartilagineo-incrassatis; venulis patentibus, plerisque furcatis, utrinque prominulis, ad apicem versus paulo curvatis, supra soros incrassatis,