

的相似,有时稍为镰刀形,頂端的数对又变短,长 3.6—4.5 厘米,寬 1—1.2 厘米,頂端为短漸尖,基部稍不等,近截形或为闊楔形,几无柄。叶緣全部具有規則的細鋸齒。叶脉上面可見,下面明显,相距不到 1 毫米,一般为分叉,近水平斜展,頂部向上弯弓,而达于鋸齒端,沒有倒行假脉,或只有痕跡。叶为草質,上面綠色,下面淡綠色,沿中肋疏生棕色鱗片;叶軸干后淡褐色,具鱗状突起,羽軸背面有很多小刺头突起,腹面具縱沟,下部粗約 4 毫米,干后淡褐色,上部变細,向頂端有狭翅。孢子囊羣长圓形,有时橢圓形,长 1.5—2 毫米,距叶緣約 1.5 毫米,由 12—16 个孢子囊組成。

特产于广东(信宜县,天目山)。生谷中林下。

55. 三元观音座蓮

Angiopteris shanyuanensis Ching, sp. nov.

植株高大,高約 1.5 米。叶片寬过 120 厘米,闊卵形,二回羽状;羽片长 66 厘米,中部寬 20 厘米,两端稍狭,寬約 16 厘米,羽軸淡禾桿色,光滑,羽柄长 2—3 厘米,向頂端有翅;小羽片 28 对,相距 2.5 厘米,有闊的間隔,通体对生或近对生,水平开展,向頂部斜向上,中部的較长,10 厘米,寬 1.5 厘米,披針形,漸尖头,基部的长 6—8 厘米,向頂部漸短,頂端的长約 5 厘米,均有短柄,基部为斜截楔形,兩側几对称,邊緣基部向上有粗大尖鋸齒,上面为灰白色的軟骨質組織。叶草質,干后为淡綠色,下面灰綠色,光滑无鱗片。叶脉开展,分叉或单一,两面明显,下面尤显,頂端膨大呈紡錘形,沒有倒行假脉。孢子囊羣为长圓形,由 10—12 个孢子囊組成,彼此接近,外側有一条平伏的不育狭边。

产于福建(三元县,莘口岭)。特有种,生林中溪边。

56. 尖牙观音座蓮

Angiopteris acuta Ching, sp. nov.

植株高大,高約 2 米以上。叶为二回羽状;羽片互生,长圓形,长 48—62 厘米,中部最寬,約 21 厘米,向两端稍变狭,羽柄长 4.5—9.3 厘米;小羽片 15—20 对,互生,相距 2—3 厘米,中部以下的平展,上部的向上斜,长 11—14.5 厘米,寬 2—2.3 厘米,基部的有时較短,达 9 厘米,披針形,在中部以上变狭,向頂端为极长漸尖,基部圓形,或上側斜截,下側圓形,頂生小羽片具长約 1.4 厘米的柄,与下面的小羽片同形,叶緣全部具尖銳的鋸齒,尤其在上部叶緣的鋸齒和向漸尖頂部的鋸齒尤尖。叶脉上面可見,下面明显,相距 1—1.2 毫米,一般为分叉或单一,頂端稍向上弯而达于鋸齒端,无倒行假脉。叶为草質,上面綠色,下面沿中肋疏被棕色鱗片;叶軸光滑,干后淡綠而帶棕色;羽軸光滑,下部粗 2.5 毫米,腹部具縱沟,中部以上向頂端有狭翅。孢子囊羣长

brunneo-stramineo, glabro sed sparse asperulo suffultis, rachillis tenuibus, ca. 2 mm crassis, utroque latere marginatis, ad apicem anguste alatis; pinnulis ca. 20-jugis, patentibus, oppositis, vel inferioribus subalternis ca. 1.5 cm inter se remotis, lanceolatis, acuminatis, ad apicem subfalcato-incurvatis, omnibus similibus, 9 cm longis, 1.3 cm latis, infimis brevioribus (5 cm longis), basi subrotundatis, breviter petiolulatis, margine crenulato-dentatis; venulis subpatentibus, furcatis, raro simplicibus, supra notatis, infra distinctis et quam parenchymate obscurioribus, ad apicem paulo curvatis, striis recurrentibus nullis; textura folii herbacea, in sicco supra obscure et infra pallide viridi, glabra; soris oblongis, approximatis, 0.5 mm e margine remotis, sporangiis 8—10.

Kwangtung, Lung Tau Shan, Iu Village, *Lingnan* (*Tso and Tsang*) No. 12114, V, 26, 1924, in ravine.

54. **Angiopteris muralis** Ching, sp. nov.

Planta ad 2 m alta, stipite incompleto, in specimine 1.5 cm crasso, pallide brunneo, striis latis transversis magis horrido; lamina ampla, bipinnata; pinnis anguste oblongis, 68 cm longis, 13 cm medio latis, deorsum admodum decrescentibus, petiolo 2 cm longo, 4 mm crasso ut rachillis spinis brevibus rectis sat densius asperulo, ad apicem rachillae utroque latere alato; pinnulis ca. 37-jugis, alternis vel ad apicem oppositis, patentibus, contiguis, inferioribus abbreviatis, infimis 4—5 cm longis, 1.7 cm latis, oblongis, cuspidatis, sequentibus gradatim majoribus, mediis 6.5—7.5 cm longis, 1.6 cm latis, late lanceolatis, rectis vel interdum leviter subfalcatis, breviter acuminatis, basi subrotundatis, pinnulis supremis terminalique inferioribus minoribus, 4—5 cm longis, 1—1.2 cm latis, basi inaequali ad rachillam alatum adnatis, marginibus regulariter crenato-dentatis; venulis patentibus, plerisque furcatis rarius simplicibus, ad apicem vix curvatis, quam parenchymate obscurioribus, striis recurrentibus nullis vel obsoletissimis; textura herbacea, in sicco pallide viridi, ad costas inferne paleis parvis rufis filiformibus sparsis obtectis; soris contiguis, linearibus, 1.5—2 mm longis, lineas interruptas, irregulares secus marginem occupantibus, 1.5 mm e margine remotis, sporangiis 12—16.

Kwangtung, Wang Hang, Tai Mu Shan, leg. S. P. Kq No. 51242, in ravine, III, 28, 1931.

55. **Angiopteris shanyuanensis** Ching, sp. nov.

Planta verisimiliter ad 2 m alta, stipite incompleto, parte superiore ca. 1 cm diametro, fusco-brunneo, glabro, supra profunde sulcato; lamina ampla, ultra 1 m longa, deltoidea, bipinnata; pinnis lateralibus 6-7-jugis, alternis, basalibus maximis, ultra 60 cm longis, 22 cm medio latis, elongato-oblongis, basin versus vix angustatis, petiolo 3 cm longo, 3 mm crasso, stramineo, glabro suffultis; pinnulis ad 30-jugis, patentibus, oppositis, 2 cm inter se remotis, breviter petiolulatis, mediis 11 cm longis, 1.5 cm latis, e basi oblique cuneata lineari-lanceolatis, acuminatis, rectis vel interdum ad apicem parum subfalcato-incurvatis; pinnulis supremis terminalique gradatim minoribus, 3—5 cm longis, 1 cm latis, basi cuneatis, ad rachillam late alatum adnatis, pinnis superioribus parum minoribus, marginibus cartilagineo-incrasatis, ubique argute serratis, apice grosse serratis; costis rectis, utrinque elevatis, inferne pallide purpurascens; venulis subpatentibus, furcatis aut simplicibus, mesophyllo concoloribus, inferne prominulis, superne notatis, parte superiore parum curvatis, apice in dentes

intransibilibus et magis incrassatis, striis recurrentibus nullis; textura folii herbacea, utraque glabra, in sicco pallide viridi, vel supra atro-viridi; soris oblongis, approximatis, lineas interruptas occupantibus, 2 mm e margine remotis, sporangiis 8—10.

Fukien austr.-occid., Shan-yuan Hsien, Sin-kou-ling, leg. *Ling Ying* No. 227, IV, 27, 1931.

56. **Angiopteris acuta** Ching, sp. nov.

Planta ad 2 m vel ultra alta, stipite ca. 2 cm basi crasso, pallide stramineo, subglabro; lamina ampla, bipinnata; pinnis alternis, 48—62 cm longis, 22 cm medio latis, oblongis, deorsum parum angustatis, petiolo 4.5—9 cm longo, pallide stramineo, glabro et geniculo ad 1 cm longo, nigrescente admodum tumido praedito suffultis; rachillis ca. 2.4 mm crassis, pallide stramineis, ad apicem versus anguste alatis; pinnulis 15—20 jugis, alternis, 2—3 cm inter se remotis, inferioribus patentibus, superioribus obliquis, distincte petiolulatis, jugis infimis brevioribus, mediis longissimis, 11—14.5 cm longis, 2—2.3 cm basi latis, rectis vel interdum parte superiore paulo falcato-incurvatis, e basi latissima rotundataque late lanceolatis, sursum sensim longissime acuminatis, marginibus ubique creberrime et acute serratis, parte apicali lineari dentibus grossis acutis instructis, pinnula terminali lateralibus conformi; venulis patentibus, laxis, plerisque furcatis, ad apicem versus introrsim curvatis, parenchymate concoloribus, infra distinctis, supra notatis in dentes ingredientibus, striis recurrentibus nullis; textura herbacea, statu sicco utrinque obscure viridi, glabra; soris oblongis, ca. 1.3 mm longis, non contiguis, a basi usque ad partem tertiam apicalem pinnularum protensis, ca. 0.5 mm e margine remotis, sporangiis 8—10.

Yunnan austr., leg. *H. T. Tsai* No. 56485.

57. **Angiopteris tenera** Ching, sp. nov.

Planta ad 1 m alta, stipite in specimine 40 cm longo, stramineo, basi 6 mm crasso, supra profunde sulcato, per totam longitudinem paleis brunneis anguste lanceolatis, acuminatis adpresse consperso; lamina deltoidea, ca. 60 cm longa, 50 cm lata, bipinnata; pinnis praeter terminalem similem 6-jugis, obliquis, fere aequalibus, 30—40 cm longis, 10 cm medio latis, 6 cm inter se remotis, alternis, petiolo ca. 2 cm longo, supra geniculum tumidum olivaceo-viridem densius paleacem 1.5 mm crasso, stramineo suffultis, rachillis gracilibus, stramineis, utroque latere marginatis, ad apicem anguste alatis, paleis iis stipitum perspersis; pinnulis in pinna infima ad 40-jugis, oppositis vel subalternis, patentibus, breviter petiolatis, basin versus decrescentibus, infimis 1.5 cm longis, 8 mm latis, ovato-oblongis, breviter acuminatis, sequentibus gradatim majoribus, mediis 4 cm longis, 8 mm latis, supremis 7 cm longis, 1.3 cm medio latis (pinna terminali parum majore), longe acuminatis, basi subrotundatis vel subaequalibus (antice breviter obliquis, postice rotundatis), basin versus parum angustatis, marginibus ubique acute serratis, dentibus deltoideis, obliquis, acutis; venulis simplicibus aut supra basin aut supra medium furcatis, patentibus, utrinque prominulis, intus marginem antrorsim curvatis in dentes intransibilibus, striis recurrentibus nullis; textura folii tenuiter herbacea, in sicco pallide viridi, ad costas inferne paleis parvis rufis lineari-lanceolatis sparsis adpresse vestita; soris rotundatis, a se distantibus, 1.2 e apice serraturarum remotis, lineas interruptas e basi pinnularum usque ad dimidium longitudinis occupantibus, sporangiis 5—6.

Fukien austr.-occid., leg. *Ho Ching* No. 2139.