

ICONES FILICUM SINICARUM

BY

REN-CHANG CHING

FASCICLE 5

中國蕨類植物圖譜

第五卷

中國科學院植物研究所秦仁昌編著

科學出版社

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ACADEMIA SINICA

第五卷

FASCICLE 5, PLATES 201-250



95063

科學出版社

PUBLISHED BY

ACADEMIA SINICA, PEKING, CHINA

JUNE, 1958

內 容 提 要

中國蕨類植物圖譜第五卷是我國蕨類植物學家秦仁昌教授所著的,是我國的一種國際性的學術刊物。本卷是他在1937年以前出版了的四卷以後的第一次續刊,格式大小仍照以前各卷,內容有大圖版五十幅,代表着五十種主要特產於我國的蕨類植物,每版除精確的自然大原圖附有放大的主要形態器官解剖圖外,還有用中英文描述的形態特徵,產地,地理分佈和主要文獻等記載,為國內外科學機構,大學生物系,各級師範,農,林,牧,醫藥等學校在教學及科學研究工作的重要參考圖書。

中國蕨類植物圖譜

第五卷

編著者 秦 仁 昌
出版者 科 學 出 版 社
北京朝陽門大街117號
北京市書刊出版業營業許可證出字第061號
印刷者 中國科學院印刷廠
總經售 新 華 書 店

1958年6月第一版 書號:1075 字數:100,000
1958年6月第一次印刷 開本:787×1092 1/9
(89) 0001—1,155 印數:11,519 詳圖:50

定價:(10) 元
4.60

第二百零一圖

崖薑蕨(水龍骨科)

PSEUDODRYNARIA CORONANS (Wallich) Ching

高大的附生植物，根狀莖為粗大匍匐狀，厚肉質，密生蓬鬆深銹色的長鱗片，為鑽狀長線形，邊緣有睫毛，另有毛茸的線狀根混生於鱗片間，彎曲的根狀莖盤結成為大塊的墊狀物，由此生出一囊無柄，堅硬而略張開的革質葉，形成一個圓而中空的高冠，形體極似鳥巢蕨 (*Neottopteris nidus* (L.) J. Sm.)；葉一型，長 80—120 厘米或過之，中部寬 20—30 厘米，長圓狀倒披針形，向頂端漸尖，向下漸變狹，至 2/3 處又逐漸擴張成為膨大圓心臟形的基部，寬約 15—25 厘米，有寬缺刻或淺裂的邊緣，基部以上葉體為深羽裂，再向上幾乎深裂到葉軸；裂片多數，被圓缺刻分開，中部的裂片長達 15—22 厘米，寬 2—3.5 厘米，向上斜出，披針形，基部較寬，向頂端漸尖，全緣，有加厚的葉緣，下部裂片較中部為短，分裂較淺，為急尖頭或圓頭，為闊圓形的缺刻分開；葉為硬革質，兩面光滑無毛，乾後硬而有光澤，裂片往往由深褐色光亮的葉軸以關節脫落；葉脈粗而很明顯，一回側脈斜出，開展，突出，通直，相隔 4—5 毫米，向外達於加厚的葉緣，二回側脈與一回側脈直角相交，成一回網眼，再分割一次成三個長方形小網眼，內有棍棒狀頂端的分叉小脈；子囊羣位於小葉脈交接處，限生於葉體上半部，其下半部為不育，4—6 個生於一回側脈之間，但並不位於正中央，而是略靠近下脈，每一個網眼裏有一個子囊羣，在中肋與葉緣間排成一長列，亞圓球形或長圓形，分開，但成熟後常多少匯合成一條連貫的囊羣線，孢子二面形，腎狀長圓形，光滑透明。

分佈：雲南，廣東，廣西，海南，台灣，香港，越南，緬甸，馬納甲。

本種主要產於亞洲大陸熱帶及亞熱帶的雨林或季雨林中，在華南地區相當普遍，向北分佈到貴州南部，南達南太平洋的馬納甲。植株高大，挺拔，附生於樹幹或溪邊岩石上，為極美麗的觀賞植物，適於溫室栽培，其粗大肉質根狀莖可供藥用。

圖註：1. 本種全形（自然大）。 2. 能育裂片的一部分，表示葉脈及子囊羣（放大 4 倍）。 3. 同上，放大。 4. 根狀莖上的鱗片（放大 10 倍）。 5—6. 孢子囊及孢子（放大 100 倍）。

PLATE 201

PSEUDODRYNARIA CORONANS (Wallich) Ching

POLYPODIACEÆ

PSEUDODRYNARIA CORONANS (Wallich) Ching in Sunyatsenia **5**: 357. 1940; **6**: 10. 1941; Copel. Gen. Fil. 201. 1947.

Polypodium coronans Wall. List n. 288. 1828 (nom. nud.); Hook. Exotic Ferns t. 95. 1857; Mett. Farngatt. Polyp. 121 n. 242 t. 3, f. 40, 41. 1857; Benth. Fl. Hongk. 459. 1861; Christ. Farnkr. d. Erde 117. 1898; Diels in Engl. u. Prante. Nat. Pflanzenfam. **1**: iv. 319. 1899; C. Chr. Ind. Fil. 518. 1905; Merr. Enum. Hainan Pl. in Lingnan Sci. Journ. **5**: 17. 1927; Wu, Wong et Pong, Polyp. Yaoshan. in Bull. Dept. Biol. Sunyatsan Univ. No. **3**: 304 t. 141. 1932.

Phymatodes coronans Presl, Tent. Pterid. 198. 1836 (nom. nud.).

Drynaria coronans J. Sm. in Hook. Journ. Bot. **4**: 61. 1841 (nom. nud.).

Aglaomorpha coronans Copel. in Univ. Calif. Publ. Bot. **16**: 117. 1929.

Polypodium conjugatum Bak. in Hook. & Bak. Syn. Fil. 366. 1868 (non Poir. 1804); Dunn & Tutchet, Fl. Kwangt. and Hongk. 352. 1912.

Drynaria conjugata Bedd. Ferns Brit. Ind. Correction, 1870.

Drynaria Esquirolii C. Chr. in Bull. Acad. G  ogr. Bot. Mans **13**: 139. 1913.

A large and strong epiphyte. *Rhizome* creeping, thick, fleshy, stout, and interwoven, covered by dense, shaggy, dark ferruginous, long linear-subulate scales with ciliate margin and intermixed with wiry and hairy roots, holding tortuous branches of the rhizome together and thus forming a large cushion-like mass, from which arises, in a perfect circle, a tall crown of sessile stiffly coriaceous fronds after the manner of *Neottopteris Nidus* (L.) J. Sm. *Fronds* monomorphous, 80-120 cm or even longer, 20-30 cm broad at the middle, oblong-oblanccolate, acuminate, gradually narrowed downwards to about 2/3 way down, thence again expanding gradually towards the dilated broad, rounded and cordate base, 15-25 cm across with broadly sinuate or shallowly lobed margin, above which the whole leaves are deeply pinnatifid and further up almost down to the rachis with numerous *segments*, of which the middle ones 15-22 cm long, 2-3.5 cm broad, oblique, separated by round sinuses, lanceolate from the broadened base, gradually acuminate with entire thickened margin throughout, the lower ones gradually shortened, cut down less and less deep with acute or rounded apex and separated by round broad sinuses; *texture* stiffly coriaceous, glabrous, glossy and firm when dried and all segments become detached from the strong, brown and shining rachis; *venation* distinct and conspicuous beneath, the *primary veins* in the segments patent, oblique, quite straight, prominent, reaching the thickened margin, the *secondary veins* transverse with the primary veins and form the *primary areolae*, which are 4-angled and are again divided at right angles and their areolae are occupied by the ultimate divaricate veinlets with clavate apex; *sori* compital, confined to the upper half of the frond, its lower half being sterile, 4-6 between the primary veins, not exactly medial (but nearer to the lower vein), one in each primary areole forming a single row between the costa and margin, subglobose or oblong, and upon maturity often more or less confluent in a continuous line; *spores* bilateral, reniform-oblong, smooth, hyaline.

In China numerous specimens have been collected from the south and southwestern Provinces including Yunnan, Kwangsi, Kweichow, Kwangtung, Hainan, Taiwan and also Hongkong. Also common in Northern India (subtropical regions), Burma, Thailand, Indo-China and Malacca.

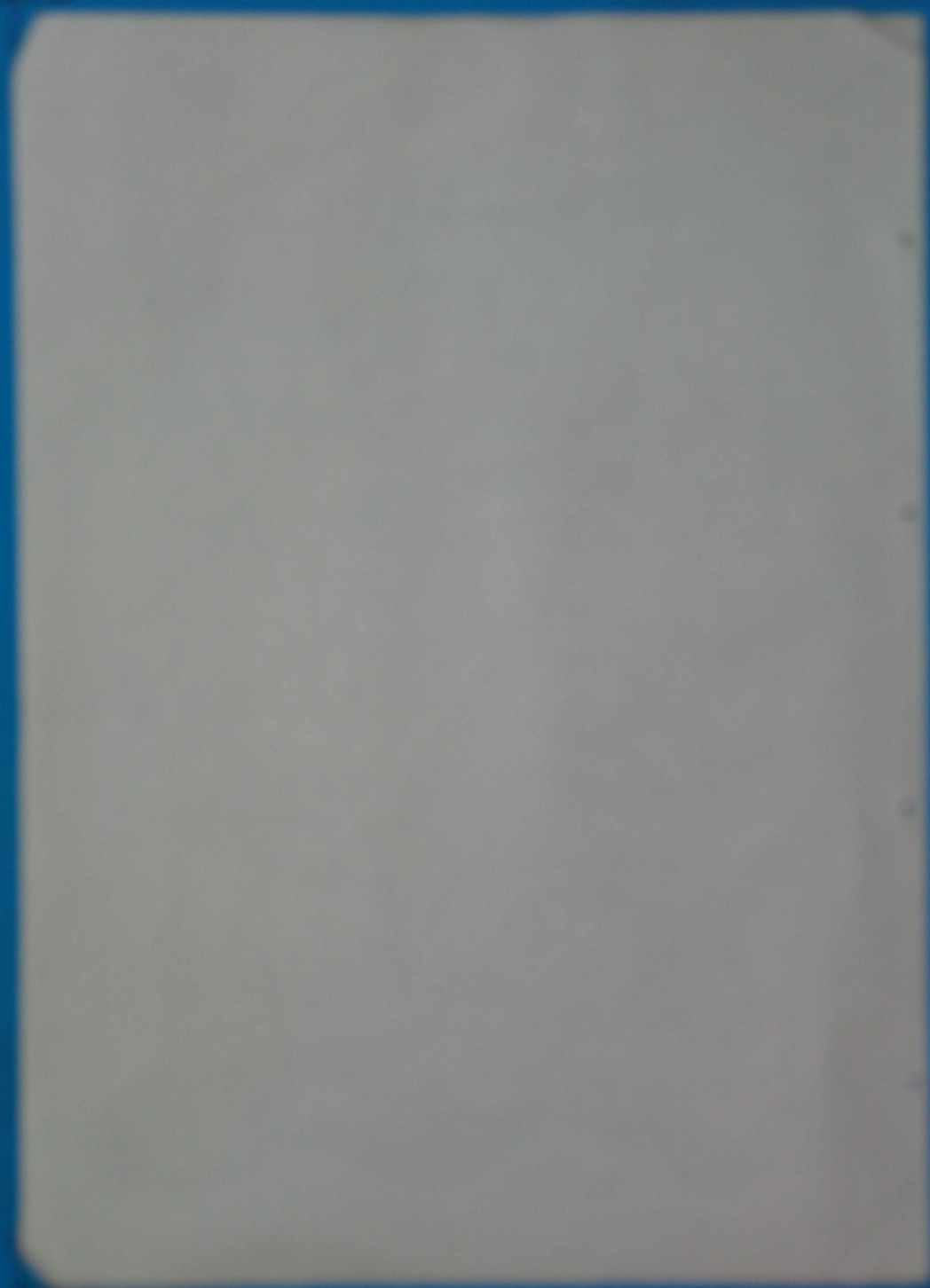
The present fern is the sole species of the genus *Pseudodrynaria* Ching and a majestic and beautiful epiphyte, endemic in the subtropics of the Asiatic mainland extending southwards to Malacca. It inhabits monsoon forests, epiphytic on tree trunks or large rocks by stream side. Highly recommended for greenhouse culture and conservatories.

Plate 201. 1. Habit sketch (natural size). 2. Portion of fertile segment, showing venation and sori ($\times 4$). 3. The same, enlarged. 4. Scale from the rhizome ($\times 10$). 5-6. Sporangium with spores ($\times 100$).



第 201 图 扇蕨属

Plate 201. *PSEUDODRYNARIA CORONANS* (Wallich) Ching



第二百零二圖

福建觀音座蓮(觀音座蓮科)

ANGIOPTERIS FOKIENSIS Hieronymus

高大植物，達1米以上；葉柄長約50厘米，直徑2厘米以上，葉體寬廣，為寬卵形，長與闊各60厘米以上，羽片5—7對，長50—60厘米，寬14—18厘米，有小葉柄，(長約3—4厘米)奇數羽狀；小羽片多數，頗開展，具短柄，為寬達小羽片之半的缺刻分開，長7—9厘米，寬1—1.5厘米，披針形，漸尖頭，基部亞截形或圓形，頂部向上微彎，下部小羽片較短，近基部的小羽片長僅3厘米或過之，頂端小羽片一個分離，有小葉柄，和下面的小羽片同形；葉軸向頂部有狹翅，葉緣具有規則的淺三角形鋸齒；葉為草質，綠色，兩面光滑無毛；葉脈開展，分叉或罕有單脈，明顯，無倒行小脈；子囊羣為邊內生，與葉緣相隔一短距離，長圓形，由8—10個或少有較多的孢子囊組成，宿存，無夾毛。

分佈：福建，廣東，廣西，貴州及香港，生林下溪溝邊，甚為普通。

圖註：1. 葉柄的一部(自然大)。 2. 羽片(自然大)。 3. 小羽片的一部，表示葉脈及子囊羣(放大4倍)。 4. 子囊羣的縱切面，表示子囊羣托(放大20倍)。 5. 子囊羣橫切面(放大20倍)。 6. 孢子(放大100倍)。

PLATE 202

ANGIOPTERIS FOKIENSIS Hieronymus

ANGIOPTERIDACEÆ

ANGIOPTERIS FOKIENSIS Hieronymus in Hedwigia **61**: 275. 1919; C. Chr. Ind. Fil. Suppl. III. 25. 1933.

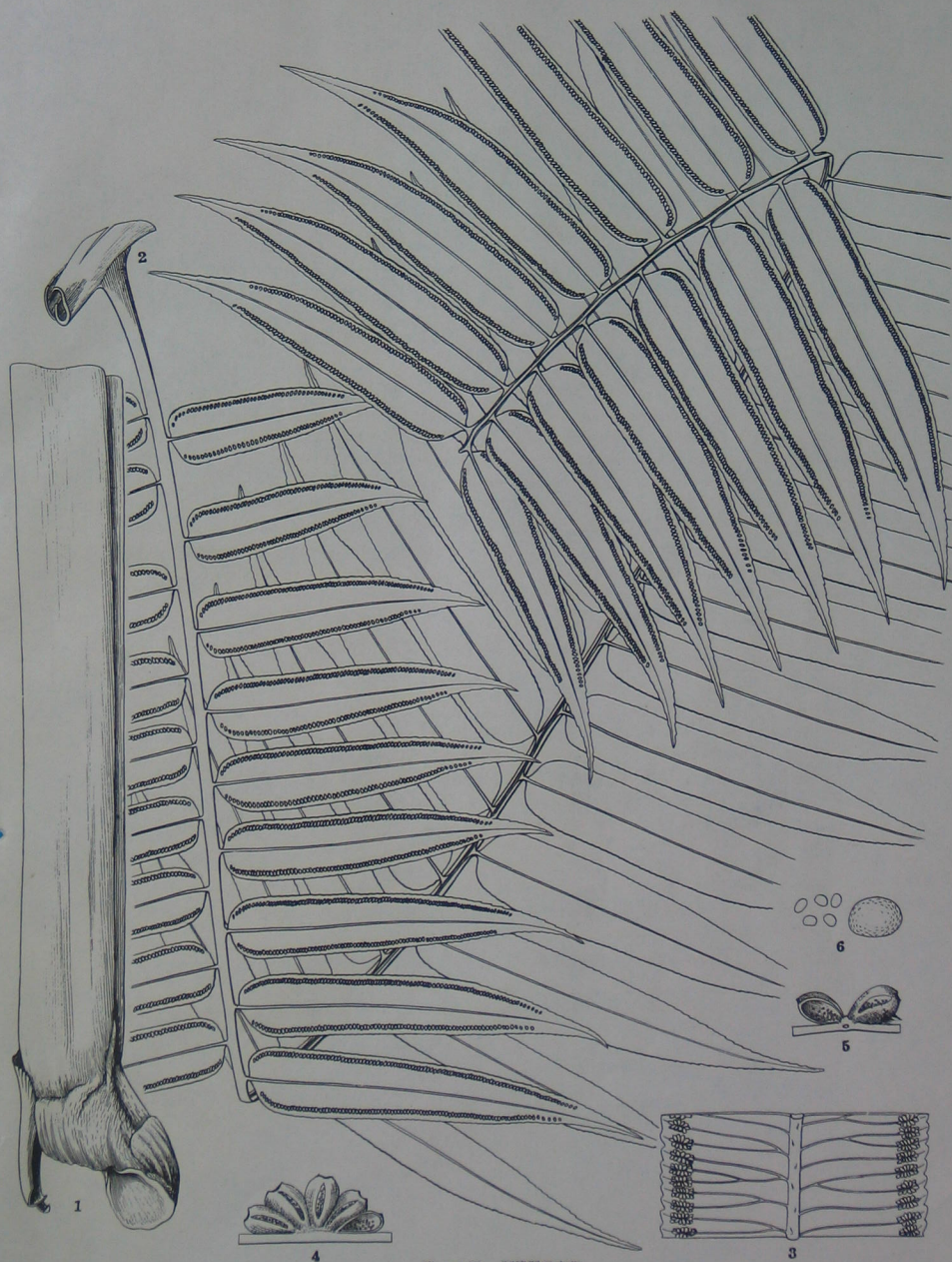
Angiopteris evecta Benth. Fl. Hongk. 440. 1861 (non Hoffm. 1796).

Tall plants, over a meter high. *Stipe* over 2 cm thick, about 50 cm high, lamina ample, broadly ovate, over 60 cm each way, bearing 5-7 *pinnæ* 50-60 cm long, 14-18 cm broad, petiolate (petiole about 3-4 cm long), imparipinnate; *pinnules* numerous, very patent, subsessile, separated by sinuses half as broad as the pinnules, which are 7-9 cm long, 1-1.5 cm broad, lanceolate, acuminate, slightly up-curved towards apex, base subtruncate or rounded, gradually shortened downwards with the lowest pinnules about 3 cm long or longer, the terminal pinnule free, petiolulate, similar to those below, rachis narrowly winged towards apex, margin regularly serrate with low deltoid teeth; *texture* herbaceous, green, both sides glabrous; *veins* patent, forked or rarely simple, distinct beneath, spurious recurrent veinlets none; *sori* intramarginal, leaving a narrow sterile margin, oblong, consisting of 8-10 sporangia or rarely more, not paraphysate.

Fokien: Foochow, *De Grijis* 20 ex herb. *Hance* (type); C. B. *Rickett*; S. T. *Dunn* 3769; Yenping, H. H. *Chung* 2826, 3592 (1925). Kwangtung: Lok Chong Hsien, Kau Fung, W. T. *Tsang* 20833; N. K. *Chun* 42667; *ibid.*, Tai Tung, N. K. *Chun* 42873; Lung Tau Shan, Iu Village, To & *Tsang* 12114; Yai Hsien, Youngling Shan, S. K. *Lau* 6247; Wa-tsa Hsien, Tou Ngok Shan, W. T. *Tsang* 23226; Sunyi Hsien, Foun Dar Lee, C. *Wang* 32180; Y. K. *Wang* 30952; Ku Koong Hsien, Lung Tau Shan, Y. K. *Wang* 31674; Oon-yuan Hsien, Wan Shi Shan, S. K. *Lau* 958; Po-lo Hsien, Lo-fou Shan, T. M. *Tsui* 75; Kwei-yang Hsien, Lin Fa Shan, W. T. *Tsang* 25704; Shek Mang, Tai Shan, C. L. *Tso* 23361, alt. 450 m.; Wan-tong Shan, H. Y. *Liang* 60495; Sin-to Hsien, Po Yin Shan, W. T. *Tsang* 23094; Tapu Hsien, Tung Koo Shan, W. T. *Tsang* 21647; Wang Hang Hsien, Tai Mu Shan, S. P. *Ko* 51242; Jao-ping, Tai-ping, N. K. *Chun* 42667; Ing-tak Hsien, *Hsui Hsiang-hou* 8175; Young-ling Shan, S. K. *Lau* 6247. Kwangsi: Kwei-ping Hsien, Univ. Kwangsi Herb. No. 121, 40230; Sanhoa, Yao Ren Shan, R. C. *Ching* 6255, alt. 400 m.; Lu-chien Hsien, Mung Tung Kou, R. C. *Ching* 5501, alt. 350 m. in densely shaded ravine; Lin Yin Hsien, R. C. *Ching* 7288, alt. 900 m.; Hu Hsien, *Chen Lang-Hsiang* 500195; Lo-hsiang, Yao Shan, S. S. *Sin* 187A; C. *Wang* 40633. Kweichow: Shan-ho Hsien, S. C. *Hou* 1701; River of Ta-thay, *Esquirol* 2706; Ly-po, *Cavalerie*; Tse-hen, *Esquirol* 2653, 2766.

Also Hongkong: *Hance* (1856); *Forbes* 566.

Plate 202. 1. Portion of stipe (natural size). 2. Pinna (natural size). 3. Portion of pinnule, showing venation and sori ($\times 4$). 4. Longitudinal section of sori, showing receptacle ($\times 20$). 5. Cross section of sori ($\times 20$). 6. Spores ($\times 100$).



第 202 圖 福州觀音崖蕨

Plate 202. *ANGIOPTERIS FOKIENSIS* Hieronymus

第二百零三圖

二回原始觀音座蓮(觀音座蓮科)

ARCHANGIOPTERIS BIPINNATA Ching

葉柄長60—70厘米，直徑約4毫米，腹面有深溝，淡綠色，草質，下部略有緊貼的暗棕色披針形長尖頭的鱗片，基部以上約20—34厘米處有一個膨大的節，葉體三角狀卵圓形，長40—50厘米，中部寬約22厘米，基部為二回羽狀，向上為一回奇數羽狀；羽片10—12對，基部一對或二對羽片特大，長16—19厘米，寬6—7厘米，有2.5—3厘米長的小葉柄，羽裂為2—7對側生小羽片，寬披針形，漸尖頭，幾無柄，開展，並有粗齒牙，長2—3厘米，基部以上寬約1厘米，圓楔形，頂端小羽片大形，長7—10厘米，寬2.8厘米；上面的一回羽片有葉柄（長4—6毫米），線狀披針形，向頂端漸狹為漸尖頭，長12—17厘米，近中部寬2—2.8厘米，基部圓楔形；葉緣全部具有規則的粗齒牙；葉軸乾後壓扁，向上端兩邊有狹翅；頂生羽片與相鄰的同形；葉為草質，乾後仍為綠色，除葉軸、中肋下面及葉柄膨大處有一些棕色小鱗片外，全為光滑；葉脈上下兩面明顯，脈間距離2毫米，一般為單脈或分叉，幾乎成直角從中肋伸出，直行，達於葉緣的每一齒牙；子囊羣線形，生於上部一回羽片上的，長約5毫米，由近中肋向外伸展到距葉緣4毫米處，沿生單脈上或分叉脈上，由20—40個孢子囊組成，在孢子囊下面有許多密生分枝的夾毛，長等於或過於孢子囊；生於小羽片上的子囊羣較短，由10—12個孢子囊組成，從小中肋出發，幾達葉緣；孢子暗色，半透明，圓而有稜角，表面有粗疣狀突起。

產地：雲南東南部，馬關縣、金口（老君山），馮國權號碼13679，1947年11月7日，生雜木林下，少見，海拔1100—1300米。

本種為本屬中最特殊的一種，一般形態酷似觀音座蓮；在原始觀音座蓮屬中發現二回羽葉的種還是第一次，這是有很大意義的，因為由這一種的發現，在一定程度上改變了過去對屬的界說，打破了過去總是認為一回羽葉為本屬的特徵之一的傳統看法。

圖註：1. 本種全形（自然大）。 2. 一回羽葉的一部分，表示葉脈及子囊羣（放大4倍）。 3. 葉柄下部的鱗片（放大40倍）。 4. 兩個孢子囊着生於有夾毛的托上（放大40倍）。 5. 兩個分離的孢子囊，表示腹面的縱裂縫（放大10倍）。 6. 子囊羣下的夾毛（放大100倍）。 7. 孢子（放大100倍）。

ARCHANGIOPTERIS BIPINNATA Ching

ANGIOPTERIDACEÆ

ARCHANGIOPTERIS BIPINNATA Ching, sp. nov.

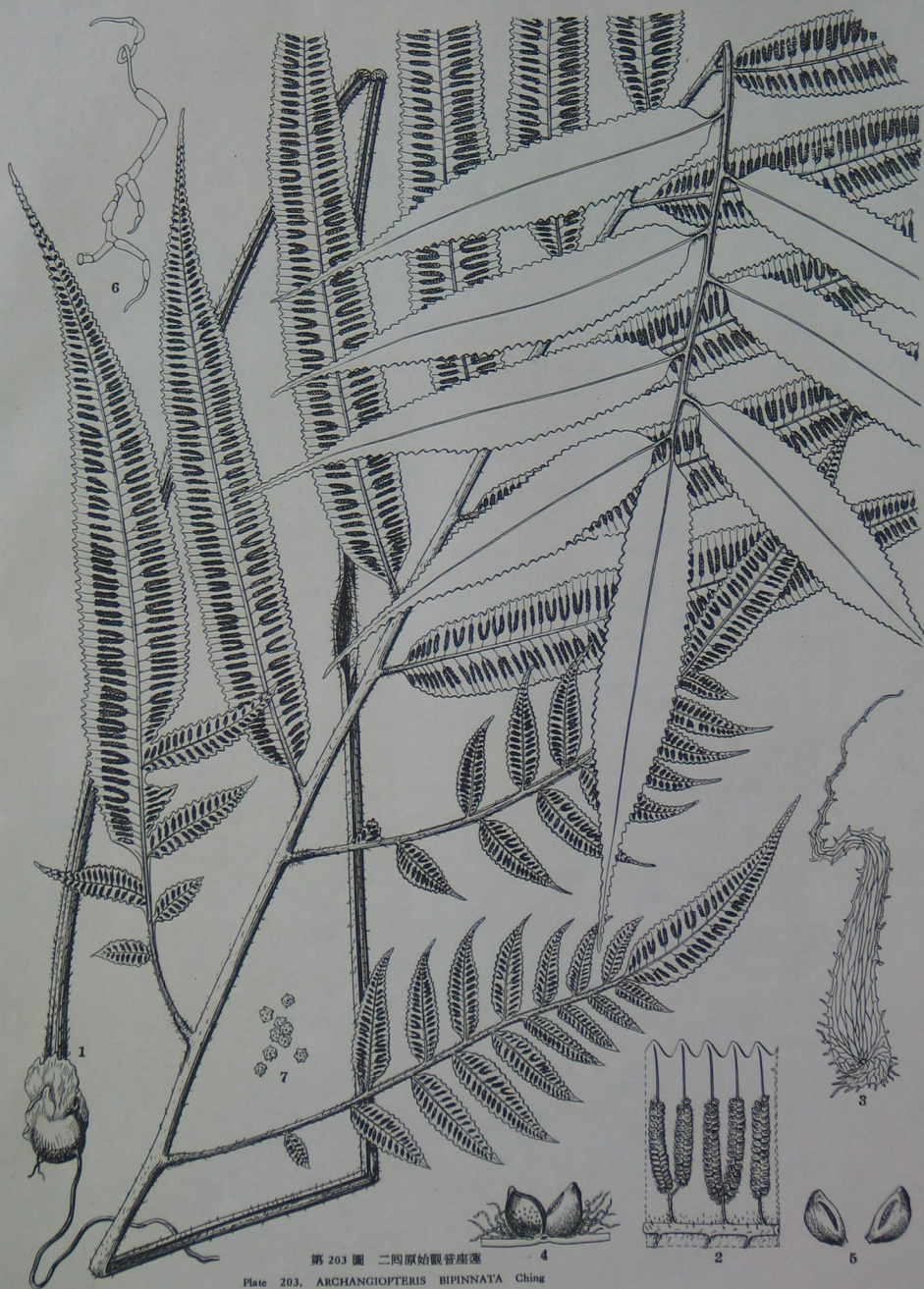
Species distinctissima ab omnibus affinis adhuc cognitis differt parte basali frondis bipinnata superiore simpliciter pinnata, pinnulis pinnarum inferiorum 3-8 jugis, parvis ad 3 cm longis ultra 7 mm medio latis, fere sessilibus, pinnis lateralibus terminalique conformibus lineari-lanceolatis ad 15 cm longis 2.5 cm latis longe acuminatis, marginibus pinnarum etiam pinnularum e basi usque ad apicem grosse dentatis, soris brevibus vix ultra 5 mm longis e sporangiis 20-40 vel in lamina pinnularum tantum 10-20 compositis.

Stipe 60-70 cm long, about 4 mm across, deeply grooved above, pale green, herbaceous, sparsely clothed in the lower part in dark brown lanceolate long-acuminate appressed scales and provided with one nodose swelling at about 20-34 cm above the base; lamina deltoid-ovate, 40-50 cm long, about 22 cm broad at the middle, bipinnate at base, simply impari-pinnate upwards; *pinnæ* 10-12 pairs, of which the basal 3-4 pairs much the largest, about 5 cm apart, oblique, alternate, petiolate, the basal pair or two pairs 16-19 cm long, 6-7 cm broad, on petioles 2.5-3 cm long, pinnate with 2-7 pairs of small, broadly lanceolate, acuminate, patent, coarsely dentate and subsessile lateral *pinnules* which are 2-3 cm long, about 1 cm broad above the round-cuneate base, terminal pinnule large, 7-10 cm long, to 2.8 cm broad; the upper simple pinnæ on petioles 4-6 mm long, linear-lanceolate, gradually long-acuminate, 17-12 cm long, 2-2.8 cm broad near the middle, base round-cuneate, margin from base up to apex regularly and prominently dentate; rachis compressed when dry, narrowly winged on each side towards the apex, terminal pinna similar to the lateral ones immediately below; *texture* herbaceous, green, when dry glabrous except for a few small brown scales on the rachis and costa beneath, also on the inflated petiole; *veins* distinct on both sides, about 2 mm apart, generally simple or forked from above the base, diverging almost at a right angle to the costa and running straight towards the margin into each tooth; *sori* linear, straight, those on the upper simple pinnæ to about 5 mm long, extending from near the costa to about 4 mm within the leaf-margin, simple or forked along the forked veins, consisting of about 20-40 sporangia with dense brown branched paraphyses underneath and as long as the sporangia, those on the pinnules of the lower pinnæ shorter, of about 10-12 sporangia, starting from the costule but fall short of the leaf-margin; *spores* pale, hyaline, round but angular with verrucose surface.

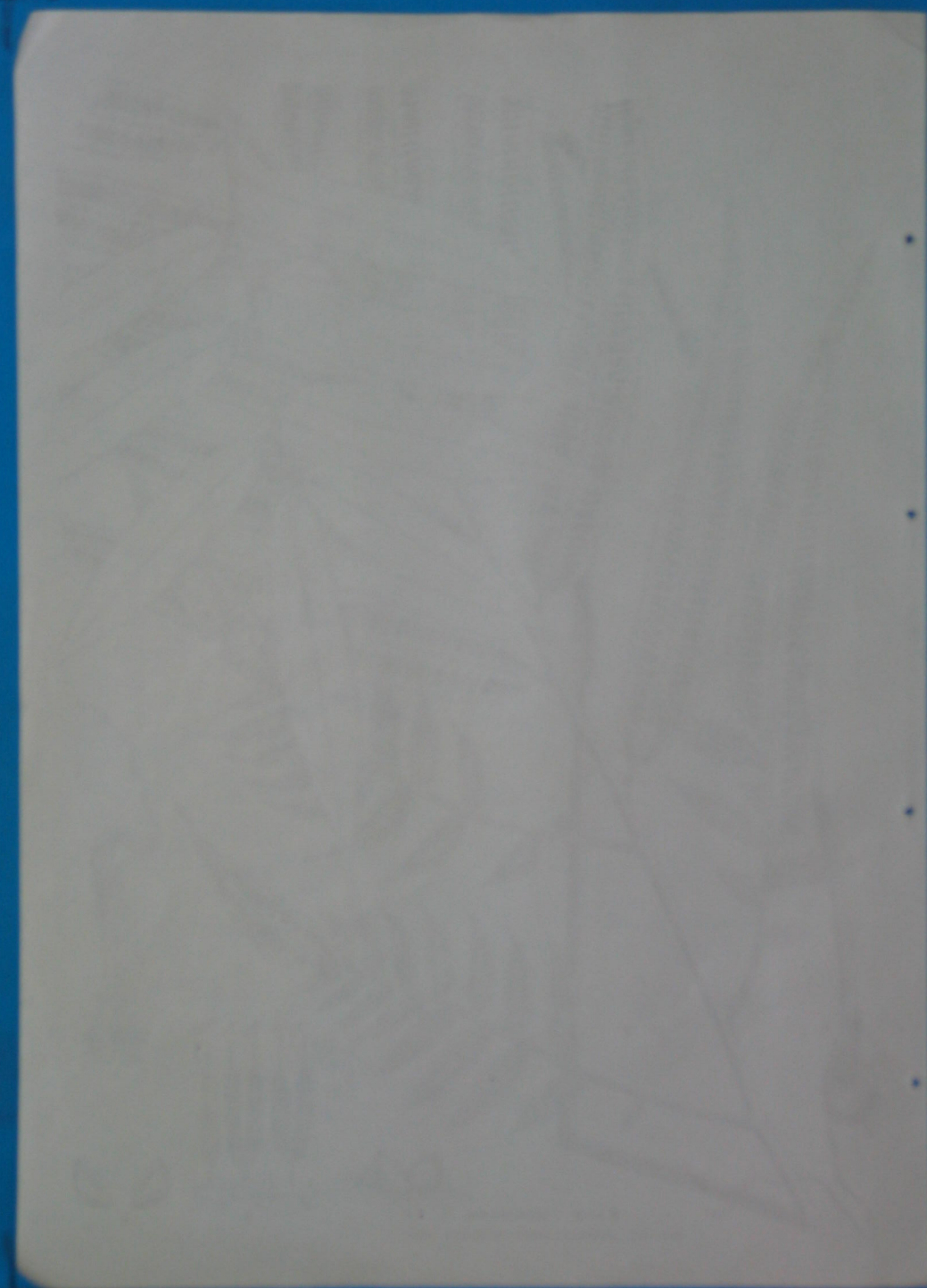
Southeastern Yunnan: Mar-kuan Hsien, Ching-kou (Lao Ching Shan), K. M. Feng 13679, November 7, 1947, in mixed forest, rare, alt. 1100-1300 m.

One of the most distinct species in the genus, resembling *Marrattia* in general habit. The discovery of a bipinnate-leaved species in the genus *Archangiopteris* is very important in that it goes to change to a certain extent our previous generic concept as to the degree of pinnation, which is simply pinnate in all previously known species.

Plate 203. 1. Habit sketch (natural size). 2. Portion of simple pinna, showing venation and sori ($\times 4$). 3. Scale from the lower part of stipe ($\times 40$). 4. Two sporangia attached to the receptacle with paraphyses ($\times 40$). 5. Two sporangia detached, showing longitudinal slit on the ventral side ($\times 10$). 6. Paraphyses detached from the sori ($\times 100$). 7. Spores ($\times 100$).



第 203 圖 二回原始觀音座蓮 4
 Plate 203. ARCHANGIOPTERIS BIPINNATA Ching



第二百零四圖

河口原始觀音座蓮(觀音座蓮科)

ARCHANGIOPTERIS HOKOUENSIS Ching

根狀莖粗大，肉質，亞直立，直徑3—4厘米。下面具纖維狀，厚肉質的黑色不分枝的粗根，葉簇生，柄長達50厘米，厚達5毫米，肉質，綠色，有4—5個膨大具溝槽而乾後為黑色的節狀膨大，各節間的距離大致相等，另外被有一些卵狀披針形而基部為圓心臟形的深棕色鱗片，邊緣有長鋸齒；葉體為寬卵形，長達30厘米，寬約38厘米，一回奇數羽狀，頂端小羽片較大，長22—20厘米，寬7—9厘米，側生小羽片2—3對，同形，對生或亞對生，間距約5—6厘米，長15—20厘米，中部寬5—7厘米，闊橢圓披針形，有小柄，長約1.5厘米，膨大，淡黑色，略具鱗片，頂部為短尾狀漸尖頭，並有粗鋸齒，向基部漸狹，成楔形，邊緣有波狀淺齒或波狀齒牙；葉為紙質，上面深綠，下面淡綠，並有相當多的節狀細毛覆蓋；葉脈細長，頗開展，明顯，大都分叉，間為單一，近葉邊向上彎弓，並伸入鋸齒；子囊羣線形，長3—3.5厘米，或較長，彼此頗接近，由160—240個子囊成二列組成，不育邊緣和中肋兩側寬達5毫米，夾毛線形，稠密，節狀分枝，由10—15個細胞組成，長過於子囊；孢子短圓形，透明，具密集的刺狀突起。

產地：雲南東南部，河口，南溪鎮，朱維明號碼1726，1955年7月，生於潮濕濃蔭的林下溝中，海拔150米，普通。

本種為一個獨特的種，其葉柄在基部以上具有4—5個節狀膨大，小葉很寬，橢圓披針形，邊緣有波狀鈍鋸齒，下面密生節狀毛；子囊羣極長，並具很長的密毛茸狀的夾毛，幾乎完全覆蓋着初生的子囊羣。

圖註：1. 本種全形（自然大）。 2. 羽片的一部分，表示葉脈，鋸齒，子囊羣和下面的節狀毛（放大3倍）。 3. 葉柄下部的鱗片（放大40倍）。 4. 兩個着生於托上的子囊和夾毛（放大20倍）。 5. 兩根夾毛（放大60倍）。 6. 孢子（放大100倍），另一個（放大400倍）。

PLATE 204

ARCHANGIOPTERIS HOKOUENSIS Ching

ANGIOPTERIDACEÆ

ARCHANGIOPTERIS HOKOUENSIS Ching, sp. nov.

Rhizomate crasso, suberecto, 3-4 cm diametro, radicante, radicibus incrassatis, teretibus, nigrescentibus, simplicibus e facie inferiore rhizomatis abundanter oriundis oblecto; *frondibus* fasciculatis, stipite ad 50 mm longo, 5 mm crasso, carnosus-herbaceo, virescenti, per totam longitudinem nodis 4-5 tumidis geniculatis in sicco nigris inter se plus minus fere aequaliter remotis instructo, paleis ovato-lanceolatis basi cordatis atrobrunneis copiose onusto praeditis, lamina ambitu late ovata, ad 30 cm longa, 38 cm lata, impari-pinnata cum pinna terminali majore, 22-20 cm longa, 7-9 cm lata; *pinnis* lateralibus 2-3 jugatis, omnibus conformibus, oppositis vel. subalternis, ca. 5-6 cm inter se separatis, 15-20 cm longis, 5-7 cm medio latis, late elliptico-lanceolatis, petiolatis (petiolo ca. 1.5 cm longo, tumido, nigricante et paleacco), apice breviter caudato-acuminatis et grosse serratis, basin versus gradatim cuneatis, marginibus grosse arcuato-serratis aut crenodentatis; *textura* chartacea, folia supra atro-viridi, subtus pallidiora, et pilis minutis articulatis modeste conspersa; *venis* lateralibus subrecto-patentibus, conspicuis, plerisque furcatis, rarius simplicibus, prope marginem antrorsim curvatis et fere in dentes protensis; sori linearibus, 3-3.5 cm longis, vel longioribus, subcontiguus, e 160-240 sporangiis 2-seriatim compositis, parte sterili secus marginem costamque ca. 5 mm lata, paraphysibus filiformibus ramosis, articulatis, 10-15-cellularibus, magis quam sporangiis longioribus, densissime oblectis; *sporis* rotundo-oblongis, minutissime denseque echinatis, hyalinis.

Southeastern Yunnan: Hokou, Nan-chi, *Chu Ve-ming* 1726, July 1955, in densely wooded humid ravine, alt. 150 m., common.

A remarkable species, differing from all other known species of the genus in having 4 or 5 nodose swellings above the base of the fleshy stipe, the unusually broad elliptico-lanceolate serrate pinnae densely glandular hairy on the under surface, the very long sori which extend from near the costa outwards to a short distance from the margin, and particularly in the very long dense branched shaggy paraphysate hairs almost completely covering the young developing sori.

Plate 204. 1. Habit sketch (natural size). 2. Portion of pinna, showing venation, serrature and sori, also hairy under surface ($\times 3$). 3. Scale from the lower part of stipe ($\times 40$). 4. Two sporangia attached to the receptacle with paraphyses ($\times 20$). 5. Two paraphyses removed from the sori ($\times 60$). 6. Spores ($\times 100$) with one enlarged ($\times 400$).