

Mertensia linearis Frisch in Bull. Herb. Boiss. ser. 2, I (1901) 1092.

植株高达3—5米,蔓延生长。根状茎横走,粗约3毫米,深棕色,被锈毛。叶远生;柄长约60厘米,粗约6毫米,深棕色,幼时基部被棕色毛,后变光滑;叶轴5—8回两叉分枝,一回叶轴长13—16厘米,粗约3.4毫米,二回以上的羽轴较短,末回叶轴长3.5—6厘米,粗约1毫米,上面具1纵沟;各回腋芽卵形,密被锈色毛,苞片卵形,边缘具三角形裂片,叶轴第一回分叉处无侧生托叶状羽片,其余各回分叉处两侧均有一对托叶状羽片,斜向下,下部的长12—18厘米,宽3.2—4厘米,上部的变小,末回的长只3厘米,披针形或宽披针形;末回羽片形似托叶状的羽片,长5.5—15厘米,宽2.5—4厘米,篦齿状深裂几达羽轴;裂片平展,15—40对,披针形或线状披针形,通常长10—19毫米,宽2—3毫米,顶端钝,微凹,基部下侧的数对极小,三角形,长4—6毫米,全绿,中脉下面凸起,侧脉上面相当明显,下面不太明显,斜展每组有,小脉3条。叶坚纸质,上面绿色,下面灰白色,无毛。孢子囊群圆形,细小,一列,着生于基部下侧小脉的弯弓处,由5—7个孢子囊组成。

产我国热带:广东南部(高安、鼎湖山)、海南岛、云南东南部(河口)。生于疏林下,或成密不可入的纯群,生火烧迹地上。本种广泛分布于南洋群岛、锡兰、泰国、越南、印度南部。

4. 乔芒萁

Dicranopteris gigantea Ching, sp. nov.

植株高3—4米。柄长约1—2米,近圆柱形,粗约5毫米,光滑,深棕色;叶轴2—3回二叉分枝,一回羽轴长13.5—14.5厘米,粗约3毫米,二回羽轴长5.5—8厘米,粗约2毫米,三回羽轴长约5.5厘米,粗约2毫米,由一回分叉处的腋芽生出的叶轴一回分叉,长约20厘米,宽约4.5毫米;生于二回分叉处的腋芽卵形,长约2毫米,密被暗锈毛,苞片卵状长圆形,长6—10毫米,顶端钝,全缘或下部具少数粗牙齿;各回分叉处两侧均有一对托叶状羽片,下斜,长17—25厘米,宽6—7厘米,长圆形,先端尾状,一回羽状,具30—42对线状裂片;末回羽片长35—41厘米,宽9—11厘米,披针形,基部下侧稍变狭,先端尾状(尾长约4厘米,下部宽7毫米,具大圆牙齿,中部宽5毫米,浅波状,上部全缘),篦齿状深裂几达羽轴;裂片平展,52—60对,线形,长3—5.3厘米,宽4—4.5毫米,顶端圆,二浅裂或微凹,基部稍汇合,有狭长的圆缺刻,全缘,具软骨质的狭边,干后稍内卷。中脉下面凸起,侧脉两面均不太明显,斜展,羽状分枝,每组4—5条,小脉并行,直达叶缘。叶为坚纸质,上面绿色,下面灰绿色或蓝绿色,无毛。孢子囊群圆形,一列,位于中脉和叶缘之间而稍近中脉,着生于每组的基部下侧(和下

侧)小脉的弯弓处,由5—8个孢子囊组成。

特产于云南东南部(河口,八条)。生林中,海拔120米。少见。

5. 芒萁(中国主要植物图说,蕨类植物门) 图版 IX, 6—9

Dicranopteris dichotoma (Thunb.) Bernh. in Schrad. Journ. I (1806) 38; H. Ito, Fil. Jap. Illustr. (1944) t. 483——*Polypodium dichotomum* Thunb. Fl. Jap. (1784) 338, t. 37——*Mertensia dichotoma* Willd. Vet. Ak. Nga Handl. (1804) 167——*Gleichenia dichotoma* Hook. Sp. Fil. I (1844) 12; Benth. Fl. Hongk. (1861) 442; Bedd. Ferns S. Ind. (1863) t. 74; Dunn & Tutch. Fl. Kwangt. & Hongk. in Kew Bull. Add. Ser. X (1912) 334——*Gleichenia lanigera* Don Prod. Fl. Nepal. (1825) 17——*Gleichenia linearis* Clarke in Trans. Linn. Soc. II, Bot. I (1880) 428, quoad plant. Ind.; Bedd. Handb. Ferns Brit. Ind. (1883) 4; Ogata, Ic. Fil. Jap. IV (1913) 180; Tard.-Blot et C. Chr. in Fl. Indo-Chine VII, ii (1939) 49, pro parte; DeVol, Ferns East. Centr. China in Notes Bot. Chin. Mus. Heude No. 7 (1945) 54; 傅书遐,中国主要植物图说(蕨类植物门)(1957) 31 页, 36 图。

植株通常高45—90—(120)厘米。根状茎横走,粗约2毫米,密被暗锈色长毛。叶远生,柄长24—56厘米,粗1.5—2毫米,棕禾秆色,光滑,基部以上无毛;叶轴一至二(三)回二叉分枝,一回羽轴长约9厘米,被暗锈色毛,渐变光滑,有时顶芽萌发,生出的一回羽轴,长6.5—17.5厘米,二回羽轴长3—5厘米;腋芽小,卵形,密被锈黄色毛;芽苞长5—7毫米,卵形,边缘具不规则裂片或粗牙齿,偶为全缘;各回分叉处两侧均各有一对托叶状的羽片,平展,宽披针形,等大或不等,生于一回分叉处的长9.5—16.5厘米,宽3.5—5.2厘米,生于二回分叉处的较小,长4.4—11.5厘米,宽1.6—3.6厘米;未回羽片长16—23.5厘米,宽约4—5.5厘米,披针形或宽披针形,向顶端变狭,尾状,基部上侧变狭,篦齿状深裂几达羽轴;裂片平展,35—50对,线状披针形,长1.5—2.9厘米,宽3—4毫米,顶钝,常微凹,羽片基部上侧的数对极短,三角形或三角状长圆形,长4—10毫米,各裂片基部汇合,有尖狭的缺刻,全缘,具软骨质的狭边。侧脉两面隆起,明显,斜展,每组有3—4—(5)条并行小脉,直达叶缘。叶为纸质,上面黄绿色

图版 IX 1—5. 光里白 *Hicriopteris laevissima* (Christ) Ching, 1. 羽片的一部分,表示小羽片的形体×1; 2. 两枚裂片,表示叶脉及孢子囊群的着生位置×3; 3. 一个孢子囊群,表示孢子囊的排列情况×50; 4. 根状茎上的鳞片×16; 5. 根状茎的横切面×4。6—9. 芒萁 *Dicranopteris dichotoma* (Thunb.) Bernh., 6. 植株全形×1/2; 7. 一枚羽片,表示叶脉及孢子囊群的着生位置×5; 8—9. 叶柄基部的毛(放大)。

Scandente ad 1 m altum, stipite breve, tenui, ca. 2 mm crasso, pallide stramineo, praeter bases strigosos ut rachi glabra, inferne tereti, superne plano et utroque latere angustissime marginato; internodiis 9—11 cm longis, stramineis, subnitentibus; pinnis unijugis, e apicibus tomentellis ramorum brevium oriundis, horizontaliter divaricatis, infimis 20 cm longis et basi latis, deltoideis, acuminatis, petiolo 2 cm longo, stramineo, inferne tereti, superne ut rachillis anguste marginato et sparse hirsuto suffultis, bipinnatis infra partem superiorem pinnatifidum cum impari; pinnulis primariis 4-5-jugis, alternis, rectis, petiolulatis, ad rachillam flexuosam articulatis, jugis infimis maximis 10—12 cm longis, 6—7 cm latis, ovato-deltoideis, pinnatis, petiolulo 1.5 cm longo cum rachillis secundariis infra tereto supra anguste alato et breviter hirsuto praeditis; pinnulis ultimis in pinnulis secundariis acroscopicis maximis, 3-5-jugis, alternis, basiscopicis minoribus, 1-3-jugis, omnibus petiolulatis, basi ad rachillam etiam articulatis sed cum nervo mediano cohaerentibus, 5—6 cm longis, 1.5—2 cm basi latis, cordatis vel oblique subcordatis, hastatis, pauci-lobatis, superioribus conformibus sed minoribus, pinnulis secundariis supremis tertiis pinnularum infimorum similibus, sed minoribus, approximatis et brevi-petiolulatis (petiolulo 1—2 mm longo, alato), pinnula terminali maxima, libera, ad 9 cm longa, 2—2.5 cm basi lata, lanceolata, apice obtusa, marginibus pinnularum sterilius acute dentatis; nervis 2-3-furcatis, obliquis, utrinque prominulis in dentibus intransitibus; textura folii firmuliter herbacea, colore in sicco utrinque obscure viridi, paginis praeter costulas nervasque praesertim superne modice setosas glaberrima; pinnulis ultimis omnibus soriferis; soris linearibus, 3 mm longis, patentibus, densis, e basi pinnularum secus marginem usque ad apicem extensis, infra glabris, supra persparse griseo-hirsutis.

Yunnan occid., Shiwe-li, on the Burmese border, on exposed grassy hillside, alt. 1000 m, R. C. Ching, XII, 1952.

Dicranopteris Bernh.

2. **Dicranopteris taiwanensis** Ching et Chiu, sp. nov.

Species gregis *D. amplae* Ching, statura minor, gemma axillari segmentis foliosis destituta, soris utroque costae latere uniseriatis diversa. Pinnis 16—27 cm longis, 6.5 cm latis, acuminatis, basin versus praesertim latere acroscopice angustatis; segmentis 25-40-jugis, e basi latissima lanceolatis, 3—3.6 cm longis, basi 8 mm latis, saepe irregulariter inaequilongis, apice obtusis saepissime retusis; soris paucis, medialibus inter marginem et cosatam uniseriatis, superficialibus.

Taiwan, without locality, leg. *Tsu Young-chiang*.

4. **Dicranopteris gigantea** Ching, sp. nov.

Planta 2—3 m alta, erecta, stipite ultra 1.5 m longo, ca. 5 mm medio crasso, brunneo, nitido, nudo, inferne tereti, superne plano-convexo, ad apicem bis vel saepe ter dichotome furcato, axibus subrecto-patulis, omnibus ad basin latere inferiore pinnulis duabus divaricatis, ca. 20 cm longis, 7 cm latis sessilibus instructis, internodio I. ord. 14 cm, II. ord. 10 cm, III. ord. 5 cm longo, gemma parva, pilis rufo-castaneis vel atro-brunneis densissime villosa et uno segmento vix ultra 1 cm longo, ligulato-lineari curvatum oblecta; pinnis duabus ultimis sub angulo 45° subrecto-patulis, 35—41 cm longis, 9—11 cm latis, late lineari-

lanceolatis, pectinato-pinnatifidis, apice in caudam linearem 4—5 cm longam 4 mm basi latam subito contractis; pinnulis 52-60-jugis, linearibus, ad 5.4 cm longis, 4 mm latis, suboppositis, saepe irregulariter inaequilongis, recte patentibus, basi dilatatis, inferioribus acroscopicis diminutis, basiscopis non abbreviatis, apice obtuso profunde bifidis, spatio angustato basi rotundata interjectis, margine integris, angustissime recurvato-cartilagineis; costa 1.5 mm crassa, straminea, nuda, inferne tereti, superne applanato-convexa; costulis segmentorum subpurpurascenti-stramineis, infra elevatis, supra latius sulcatis; nervis obscuris vel parum prominulis, subobliquis, bis furcatis, venulis tenuibus, densis, parallelis; textura folii firmiter chartacea, utrinque glaberrima, superne olivaceo-viridi, inferne glaucino-viridescente; soris parvis, in flexura venulae anteriorae utriusque costulae submedialibus, sporangiis 5—8, stellatim ordinatis nudisque.

Yunnan austr.-orient., Hokou, Pa-tia, leg. *Tsai Ke-hwa* No. 553, alt. 120 m, IV, 28, 1953, in thickets, by the edge of forest.

Hicriopteris Presl

2. Hicriopteris tamdaoensis Ching et Chiu, sp. nov.

Species gregis *D. bloiianae* (C. Chr.) Ching, differt dimensione multo majore, pinnulis lateralibus ad 24 cm longis, 3.5 cm latis, segmentis ultimis 2 cm vel ultra longis, basalibus haud abbreviatis.

Tonkin, Tamdao (prope Prov. Yunnanae), No. 594 ex Herb. de l'Ecole Supérieure d'Agriculture et Sylviculture (Hanoi).

4. Hicriopteris rufa Ching, sp. nov.

Planta ad ca. 50 cm alta, stipite 30 cm longo, 3.5 mm crasso, tereti, nigrescente brunneo ut rachi nudo et densius asperulo; pinnis in specimine 2-jugis, internodio 17 cm longo, brunneo-stramineo, primum paleis 4 mm longis, e basi rotundata peltata lanceolatis, nigris, nitidis, densissime ciliatis, cillis rufo-ferrugineis patentibus instructo, demum nudesciente et densius asperescente; pinnis duabus superioribus divaricatis, 32 cm longis, medio 17 cm latis, apice acuminatis, basi acroscopica angustatis, sessilibus, bipinnatifidis; pinnulis ca. 30-jugis, alternis vel inferioribus suboppositis, contiguis, recto-patentibus, 9 cm longis, 10—12 mm latis (inferioribus acroscopicis 4—5 cm longis), linearilanceolatis, acuminatis, rectis vel superioribus saepe falcato-incurvatis, basi truncatis, non angustatis, sessilibusque; segmentis ultimis 30-35-jugis, approximatis, inferioribus oppositis, superioribus alternis, 5—6 mm longis, ca. 2 mm latis, ligulato-lanceolatis, obtusis, patentibus, basi confluentibus, margine integris, valde revolutisque; nervis ca. 10-jugis, patentibus, paulo supra basin furcatis, utrinque prominentibus, pagina supra praeter costas primum griseo-stellato-tomentosas demum denudatas glaberrima, infra cum rachillis costisque tomento crasso rufo-ferrugineo, pilis stellatis formato omnino oblecta, rachillis cum parte basali costae praeterea paleis rufis, lanceolatis, acuminatis, dense ciliatis, patentibus, adpresse dense vestitis, aetate subnudis; costa pinnularum infra elevata, supra late sulcata; textura folii coriacea, facie superne olivaceo-viridi, inferne glaucescente viridescenti, inter pilos perfecte occulta; soris parvis, medialibus, sporangiis 3—4 inter tomentos rufo-ferrugineas perfecte absconditis.

Yunnan austr.-orient., Ping-pien Hsien, Ta-wei Shan, summit, alt. 2800 m, in thickets,