

中国鳞毛蕨属泡鳞亚属的分类研究*

陆树刚

(894). 65

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A taxonomical study on the genus *Dryopteris* subgenus *Erythrovariae* from China

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Abstract In this paper, a taxonomical revision on the genus *Dryopteris* subgen. *Erythrovariae* (H. Ito) Fraser-Jenkins from China is made. A new, revised system is proposed. 34 species and 2 varieties are recognized and placed in 3 sections and 2 series. Of which, section *Industatae* S. G. Lu and series *Championianae* Ching ex S. G. Lu are described as new. A key to the sections, series and species is given. Each is provided with literature citations, synonymies and distributions.

Key words *Dryopteris* subgen. *Erythrovariae*; taxonomical revision; China

鳞毛蕨属

Dryopteris Adans.

泡鳞亚属

Subgenus *Erythrovariae* (H. Ito) Fraser-Jenkins in Bull. Br. Mus. Nat. Hist. Bot. 14 (3): 195. 1986.

Type: *Dryopteris erythrosora* (D. Eaton) Kuntze.

This subgenus more or less covered with bullate scales on the underside of costae and costules, or at least lanceolate scales with saccate base. It contains about 45 species, distributed mainly in Asia. China and Japan is its centre of distribution, a few species extending to New Guinea, Indo-China and E. Himalays. 34 species and 2 varieties are recognized in China.

Key to sections, series and species

1. Lamina lanceolate or ovate-lanceolate, usually pinnate to bipinnate; lowest basiscopic pinnule on the lowest pinna not markedly longer than those above; pinnule apex rounded, not caudate.
2. Upper parts of stipes bearing many small scales; scales on the base of stipes lanceolate, brown or light brown (Sect. 1. *Erythrovariae* H. Ito).

1998-05-13 收稿

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* 国家自然科学基金重大项目 (项目编号 393918001)

3. Scales on the rachis sparsely, linear-lanceolate, thick, entire (Ser. 1. **Erythrovariae**).
4. Lamina pinnate, pinna serrate or pinnatifid at margin.
5. Lamina pinnate, pinna serrate at margin, shallowly cordate at base 1. **D. decipiens** (Hook.) O. Kuntze
5. Lamina pinnate, pinna pinnatifid at margin, cordate at base 2. **D. decipiens** var. **diplazioides** (Christ) Ching
4. Lamina bipinnate, pinnule with stalks at base.
6. Pinnule triangular-ovate, serrate or pinnatifida at margin, obtuse at apex.
7. Pinnule serrate at margin; sori near to costa 3. **D. fuscipes** C. Chr.
7. Pinnule pinnatifida at margin; sori close to margin 4. **D. ryo-itoana** Kurata
6. Pinnule lanceolate, pinnately lobed or pinnately parted at margin, acuminate at apex.
8. Pinnule pinnately lobed; bullate scales densely on the costa and rachis; indusia reddish-brown on the centre 5. **D. erythrosora** (Eaton) O. Kuntze
8. Pinnule pinnately parted; bullate scales sparsely on the costa and rachis; indusia light reddish on the centre 6. **D. hondoensis** Koidz.
3. Scales on the rachis densely, ovate-lanceolate or linear-lanceolate scales exist simultaneously, thin, toothed or entire (Ser. 2. **Championianae** Ching ex S. G. Lu).
9. Scales on the rachis ovate, toothed at margin.
10. Lamina bipinnate, pinnule entire or serrate at margin; scales on the rachis dark brown 7. **D. lepidorachis** C. Chr.
10. Lamina tripinnate or bipinnate, pinnules lobed; scales on the rachis brown 8. **D. tsoongii** Ching
9. Scales on the rachis lanceolate or linear-lanceolate, entire or toothed at margin.
11. Upper parts of stipes and rachis bearing only scattered scales 9. **D. kinkiensis** Koidz.
11. Upper parts of stipes and rachis densely covered with scales.
12. Pinnae sessile, hardly adnate at base; scales on the rachis usually entire.
13. Lamina tripinnate or bipinnate, pinnules pinnatifid 10. **D. simasakii** (H. Ito) Kurata
13. Lamina bipinnate, pinnules pinnately lobed; scales much more densely 11. **D. simasakii** var. **paleacea** (H. Ito) Kurata
12. Pinnae with distinct stalks; scales on the rachis toothed at margin 12. **D. championii** (Benth.) C. Chr.
2. Upper parts of stipes glabrous; scales on the base of stipes linear-lanceolate, black or blackish-brown (Sect. 2. **Indusiatae** S. G. Lu).
14. Sori exindusiate; pinnae opposite, hardly sessile; lowest basiscopic pinnule on the lowest pinna not shortened 13. **D. gymnosora** (Makino) C. Chr.
14. Sori indusiate.
15. Pinnae sessile or subsessile; lateral pinnae horizontally patent from rachis.
16. Basal pinnule on lower pinnae shortened and parallel to the rachis, overlapping the rachis 14. **D. indusiata** (Makino) Yamamoto

16. Basal pinnule on lower pinnae not shortened and not parallel to the rachis.
17. Lamina bipinnate; serrates with long aristate on top; stipes usually purple 15. *D. tenuicula* Matthew et Christ
17. Lamina tripinnate; pinnules pinnatisect, serrates without long aristate on top; stipes stramineous 16. *D. submarginata* Rosenst.
15. Pinnae with distinct stalks; lower lateral pinnae ascending, not at right angles to rachis.
18. Pinnae pinnatisect, pinnules adnate to pinna rachis 17. *D. guangxiensis* S. G. Lu
18. Pinnules with stalks or subsessile, not adnate to pinna rachis.
19. Pinnules oblong, rounded at base, rounded or truncate at apex, usually entire at margin.
20. Scales on stipe and rachis black; pinnules rounded at apex with spiny serrate; sori near to costa 18. *D. tenuipes* (Rosenst.) Serizawa
20. Scales on upper parts of stipes and rachis brown, pinnules rounded or truncate at apex, without spiny serrate; sori medial.
21. Lamina broadly deltoid, basal pinnae much more longer than those above; pinnules usually rounded at apex 19. *D. subtriangularis* (Hope) C. Chr.
21. Lamina ovate-lanceolate; pinnules usually truncate at apex 20. *D. assamensis* (Hope) C. Chr. et Ching
19. Pinnules deltoid-ovate, broadest at base, acuminate or obtuse at apex, pinnatifid to pinnatisect at margin.
22. Pinnules cordate at base with 2~3 mm long stalks.
23. Scales on rachis and pinna rachis black; sori slightly near to margin 21. *D. integriloba* C. Chr.
23. Scales on rachis and pinna rachis brown; sori slightly near to costa 22. *D. tahmingensis* Ching
22. Pinnules rounded or cuneate at base, sessile or subsessile.
24. Scales on base of stipes black; lowest posterior pinnules on the lowest pinnae much longer than those above, pinnatifid to pinnatisect 23. *D. labordei* (Christ) C. Chr.
24. Scales on base of stipes dark brown; lowest posterior pinnules on the lowest pinnae slightly longer than those above, pinnatifid to pinnatifid 24. *D. pseudosparsa* Ching
1. Lamina pentagonal-ovate, usually tripinnate; lowest basiscopic pinnule on the lowest pinna markedly longer than those above; pinnule apex caudate and acutely pointed (Sect. 3. *Variae* Fraser-Jenkins).
25. Basal pinnae with 3~4 cm long stalks.
26. Sori indusiate.
27. Scales on stipe, rachis and pinna rachis black; indusia entire at margin 25. *D. sordidipes* Tagawa
27. Scales on stipe, rachis and pinna rachis brown; indusia with ciliate at margin

- 26. *D. xungwuensis* Shing et J. F. Cheng
26. Sori exindusiate 27. *D. dehuaensis* Ching et Shing
25. Basal pinnae with about 1 cm long stalks.
28. Lamina pentagonous, as long as broad, tripinnate, ultimate pinnules pinnatifid.
29. Scales on stipes light brown; pinnae and pinnules with distinct stalks
..... 28. *D. amurensis* Christ
29. Scales on stipes black; pinnae and pinnules sessile 29. *D. formosana* (Christ) C. Chr.
28. Lamina deltoid-oblong or ovate, much longer than broad, bipinnate or tripinnate, ultimate pinnules entire or pinnatifid.
30. Ultimate pinnules or segments ovate; stipes densely clothed with brown, linear-lanceolate scales at base 30. *D. yongdeensis* W. M. Chu ex S. G. Lu
30. Ultimate pinnules or segments lanceolate; stipes densely covered with black, dark brown or bicolor scales at base.
31. Scales on the top of rhizome and on the base of stipes completely black
..... 31. *D. pacifica* (Nakai) Tagawa
31. Scales on the top of rhizome and on the base of stipes dark brown or bicolor.
32. Scales on stipes brown, hair-like at apex.
33. Lamina bipinnate, caudate-acuminate at apex; sori larger, usually in one row on either side of pinna rachis 32. *D. immixta* Ching
33. Lamina bipinnate to tripinnate, acute at apex; sori smaller, scattered on either side of pinna rachis 33. *D. varia* (L.) O. Kuntze
32. Scales on stipes bicolor, black on centre, brown towards margins.
34. Scales on stipes and rachis deflexed 34. *D. saxifraga* H. Ito
34. Scales on stipes and rachis not deflexed.
35. Rachis and pinna rachis densely covered with bullate scales
..... 35. *D. setosa* (Thunb.) Akasawa
35. Rachis and pinna rachis sparsely clothed with bullate scales
..... 36. *D. sacrosancta* Koidz

组 1. 红盖鳞毛蕨组

Sect. 1. *Erythrovariae* H. Ito in Bot. Mag. Tokyo 50: 32. 1936; Fraser-Jenkins in Bull. Br. Mus. Nat. Hist. Bot. 14: (3); 196. 1986.

Type: *Dryopteris erythrosora* (Eaton) Kuntze.

This section contains 2 series.

系 1. 红盖鳞毛蕨系

Ser. 1. *Erythrovariae*

Type: *Dryopteris erythrosora* (Eaton) Kuntze.

This series contains 5 species and 1 variety in China.

1. 迷人鳞毛蕨

Dryopteris decipiens (Hook.) O. Kuntze in Rev. Gen. Pl. 2: 812. 1891; C. Chr., Ind. Fil. 1906; Suppl. 3. 84. 1934; Ching in Bull. Fan Mem. Inst. Biol. Bot. 8: 475. 1938; Wu, Wang et Pong in Bull. Dept. Biol. Sun Yatsen Univ. 3: 24. pl. 3. 1932; Nakaike, New Fl. Jap. Pterid. 407. t. 407. 1992; Fl. Fujian. 1: 197. 1982; Fl. Anhui. 1: 146. f. 140. 1985; Fl. Zhejiang. 1: 408. t. 1-255. 1993; Fl. Jiangxi. 1: 278. f. 282. 1993. ———*Nephrodium decipiens* Hook., Sp. Fil. 4: 86. f. 243. 1862. ———*Aspidium decipiens* (Hook.) Luers. in Engl. Bot Jahrb. 4: 360. 1883.

Sichuan, Guizhou, Guangxi, Guangdong, Fujian, Jiangxi, Anhui, Zhejiang and Hunan; Japan. Type from Fujian.

2. 深裂鳞毛蕨

Dryopteris decipiens var. *diplozioides* (Christ) Ching in Bull. Fan Mem. Inst. Biol. Bot. 8: 476. 1938, Nakaike, New Fl. Jap. Pterid. 408. f. 408. 1992; Fl. Jiangxi 1: 279. 1993. ———*Polystichum diplozioides* Christ in Bull. Acad. Geogr. Bot. 1902: 260. 1902; C. Chr., Ind. Fil. 581. 1906. ———*Dryopteris fuscipes* var. *diplozioides* (Christ) Ching, Fl. Jiangsu 1: 66. 1977; Fl. Anhui 1: 149. 1985; Fl. Zhejiang 1: 252. 1993. ———*Dryopteris integripinna* Ching in Wuyi Sci. Journ. 1 (1): 8. 1981. ———*Dryopteris decipiens* var. *subbipinnata* Ching in Wuyi Sci. Journ. 1 (1): 8. 1981. ———*Dryopteris cordipinna* Ching et Shing in Fl. Fujian 1: 197. 1982. ———*Dryopteris metafuscipes* Ching et C. F. Zhang in Bull. Bot. Res. 3 (3): 19. f. 15. 1983; Fl. Zhej. 1: 251. 1993. ———*Dryopteris retroso-paleacea* Ching et C. F. Zhang in Bull. Bot. Res. 3 (3): 20. 1983; Fl. Zhej. 1: 254. 1993. ———*Dryopteris mimetica* Ching et C. F. Zhang in Bull. Bot. Res. 3 (3): 21. f. 16. 1983; Fl. Zhej. 1: 249. f. 1-250. 1993.

Sichuan, Guizhou, Jiangxi, Fujian, Anhui, Jiangsu and Zhejiang; Japan. Type from Guizhou.

3. 黑足鳞毛蕨

Dryopteris fuscipes C. Chr., Ind. Fil. Suppl. 2: 14. 1917; Ching in Bull. Fan Mem. Inst. Biol. Bot. 8: 476. 1938; Nakaike, New Fl. Jap. Pterid. 417. f. 417a. 417b. 1992; S. G. Lu in Acta Phytotax. Sin. 28 (6): 474. 1990; Ic. Corm. Sin. 1: 239. f. 477. 1992; Fl. Jiangsu 1: 65. f. 96. 1977; Fl. Fujian 1: 199. f. 185. 1982; Fl. Anhui 1: 148. f. 143. 1985; Fl. Zhej. 1: 251. f. 1-259. 1993; Fl. Jiangxi 1: 280. f. 284. 1993. ———*Dryopteris confertipinna* Ching et Shing, Fl. Fujian 1: 199. 600. 1982. ———*Dryopteris multijugata* Ching et Shing in Bull. Bot. Res. 3 (3): 12. f. 10. 1983. ———*Dryopteris persimilis* Ching et C. F. Zhang in Bull. Bot. Res. 3 (3): 16. f. 13. 1983. ———*Dryopteris parafuscipes* Ching et Z. Y. Liu in Bull. Bot. Res. 4 (3): 23. f. 26. 1984 (non Ching et Chiu, 1987). ———*Dryopteris medialisora* Ching et Chiu in Bot. Res. 2: 6. Pl. 2. f. 4. 1987. ———*Dryopteris stenochlamys* Ching et Chiu ex Shing et J. G. Cheng in Jiangxi Sci. Journ. 8 (3): 49. 1990; Fl. Jiangxi 1: 280. f. 285. 1993. ———*Dryopteris fuscipes* form. *major* Ching ex Shing et J. F. Cheng in Jiangxi Sci. Journ. 8 (3): 49. 1990; Fl. Jiangxi 1: 280. 1993. ———*Dryopteris yaoi* Ching in Bull. Res. 2 (2): 64. Pl. 1. f. 3. 1982.

Yunnan, Sichuan, Guizhou, Guangxi, Guangdong, Hunan, Hubei, Jiangxi, Fujian, Jiangsu, Zhejiang, Anhui and Taiwan; Japan, Korea and Indo-China. Type from Guizhou.

4. 宽羽鳞毛蕨

Dryopteris ryo-itoana Kurata in Journ. Geobot. 15: 84. 1967; Nakaike, Enum. Pterid. Jap. Fil. 227. 1975; New Fl. Jap. Pterid. 441. f. 441. 1992. ——— *Dryopteris triangularifrons* Ching in Bull. Bot. Res. 2 (2): 64. f. 1–4. 1982. ——— *Dryopteris dispar* Ching et C. F. Zhang in Bull. Bot. Res. 3 (3): 17. f. 14. 1983; Fl. Zhejiang 1: 255. 1993. ——— *Dryopteris kaihuaensis* Ching et C. F. Zhang in Bull. Bot. Res. 3 (3): 24. f. 18. 1983; Fl. Zhejiang 1: 255. 1993. ——— *Dryopteris pseudofuscipes* Ching et Chiu in Bot. Res. 2: 3. Pl. 1. f. 3. 1987. ——— *Dryopteris lushanensis* Ching et Chiu in Bot. Res. 2: 20. Pl. 8. f. 1. 1987; Fl. Jiangxi 1: 286. f. 292. 1993.

Zhejiang and Jiangxi; Japan. Type from Japan.

5. 红盖鳞毛蕨

Dryopteris erythrosora (Eaton) O. Kuntze in Rev. Gen. Pl. 2: 812. 1891, C. Chr., Ind. Fil. 263. 1906; Ching in Bull. Fan Mem. Inst. Biol. Bot. 8: 481. 1938; S. G. Lu in Acta Phytotax. Sin. 28 (6): 473. 1990; Nakaike, New Fl. Jap. Pterid. 410. f. 410a, 410b. 1992; Fl. Jiangsu 1: 66. f. 99. 1977; Fl. Anhui 1: 149. f. 145. 1985; Fl. Zhejiang 1: 253. f. 1–260. 1993; Fl. Jiangxi 1: 279. f. 283. 1993. ——— *Aspidium erythrosorum* Eaton in Perry, Narr. Exp. China 2: 330. 1856. ——— *Lastrea erythrosora* (Eaton) Moore, Ind. Fil. 91. 1858. ——— *Nephrodium erythrosorum* (Eaton) Hook., Sp. Fil. 4: 120. f. 253. 1862. ——— *Dryopteris bulligera* Ching in Bull. Fan Mem. Inst. Biol. Bot. 8: 483. 1938. ——— *Dryopteris remotipinnula* Ching et C. F. Zhang in Bull. Bot. Res. 3 (3): 15. f. 12. 1983; Fl. Zhejiang 1: 255. 1993. ——— *Dryopteris sino-erythrosora* Ching et Shing in Fl. Fujian 1: 200, 600. 1982. ——— *Dryopteris pseudo-erythrosora* Ching et C. F. Zhang in Bull. Bot. Res. 3 (3): 27. f. 20. 1983 (non kodama, 1913). ——— *Dryopteris linyingensis* Ching et C. F. Zhang in Bull. Bot. Res. 3 (3): 30. f. 22. 1983; Fl. Zhejiang 1: 254. 1993. ——— *Dryopteris oppositipinna* Ching et Z. Y. Liu in Bull. Bot. Res. 4 (3): 25. f. 28. 1984. ——— *Dryopteris squamistipes* Ching et Z. Y. Liu in Bull. Bot. Res. 4 (4): 7. f. 35. 1984. ——— *Dryopteris oblongipinnula* Ching et Chiu in Bot. Res. 2: 5. Pl. 2. f. 2. 1987. ——— *Dryopteris paraerythrosora* Ching et C. F. Zhang in Fl. Zhejiang 1: 250. f. 1–258. 1993.

Yunnan, Guizhou, Sichuan, Guangxi, Guangdong, Hunan, Hubei, Jiangxi, Fujian, Jiangsu, Zhejiang and Anhui, Japan and Korea. Type from Japan.

6. 桃花岛鳞毛蕨

Dryopteris hondoensis Koidz. In Acta Phytotax. Geobot. 1: 31. 1932; C. Chr., Ind. Fil. Suppl. 3: 88. 1934; Nakaike, New Fl. Jap. Pterid. 424. f. 424. 1992; Iwatsuki, Ferns and Farn Allies of Japan 199. Pl. 126. f. 4–5. 1992; Fl. Zhejiang 1: 269. f. 1–271. 1993.

Zhejiang and Sichuan; Japan and Korea. Type from Japan.

系 2 阔鳞鳞毛蕨系

Ser. 2. *Championianae* Ching ex S. G. Lu, ser. nov.

Stipite uti rhachi paleis rufo-brunneis, ovatis vel late lanceolatis, margine erosis vel integris densissime obtecto.

Type: *Dryopteris championii* (Benth.) C. Chr..

This series contains 5 species and 1 variety in China.

7. 轴鳞鳞毛蕨

Dryopteris lepidorachis C. Chr., Ind. Fil. 274. 1906 (based on *Polypodium rheosorum* Bak., 1891); Fl. Jiangsu 1: 65. f. 95. 1977; Fl. Fujian 1: 201. 1982; Fl. Anhui 1: 147. f. 142. 1985; Ching et Chiu in Bot. Res. 2: 19. Pl. 7. f. 4. 1987. ———*Polypodium rheosorium* Bak. In Ann. Bot. 5: 457. 1891 (non Bak., 1844). ———*Nephrodium rheosorium* (Bak.) Hand. —Mazz., Symb. Sin. 6: 24. 1929. ———*Dryopteris championii* var. *rheosora* (Bak.) Shing in Fl. Jiangxi 1: 282. 1993; C. F. Zhang in Fl. Zhejiang 1: 250. 1993. ———*Dryopteris basitripinnatifida* Ching et Z. Y. Liu in Bull. Bot. Res. 4 (4): 6. f. 34. 1984. ———*Dryopteris lepidocaulon* Ching et Chiu in Bot. Res. 2: 19. Pl. f. 3. 1987.

Zhejiang, Jiangsu, Jiangxi, Anhui and Fujian. Type from Zhejiang.

8. 观光鳞毛蕨

Dryopteris tsoongii Ching in Bot. Res. 2: 14. Pl. 6. f. 1. 1987; Fl. Jiangxi 1: 282. f. 287. 1993; Fl. Zhejiang 1: 260. 1993. ———*Dryopteris wuyuanensis* Ching in Bot. Res. 2: 15. Pl. 6. f. 2. 1987.

Anhui, Zhejiang and Jiangxi. Type from Anhui.

9. 京鸡鳞毛蕨

Dryopteris kinkiensis Koidz. ex Tagawa in Acta Phytotax. Geobot. 2: 200. 1933; C. Chr., Ind. Fil. Suppl. 3: 89. 1934; Nakaike, New Fl. Jap. Pterid. 428. 1992; Fl. Jiangxi 1: 273. f. 275. 1993; Fl. Zhejiang 1: 260. f. 1–262. 1993. ———*Dryopteris zhenanensis* Ching et Chiu in Bot. Res. 2: 11. Pl. 5. f. 1. 1987; Fl. Zhejiang 1: 258. 1993. ———*Dryopteris championii* var. *tenuifrons* (H. Ito) H. Ito in Nakai et Honda, Nova Fl. Jap. 4: 48. 1939. ———*Dryopteris neoassamensis* Ching in Bull. Fan Mem. Inst. Biol. Bot. 8: 480. 1938.

Sichuan, Zhejiang, Jiangxi, Fujian and Guangdong; Japan. Type from Japan.

10. 高鳞毛蕨

Dryopteris simasakii (H. Ito) Kurata in Journ. Geobot. 18: 5. 1970; Nakaike, New Fl. Jap. Pterid. 447. f. 447. 1992; Iwatsuki, Ferns and Fern Allies of Japan 196. Pl. 122. f. 4. 1992. ———*Dryopteris indusiata* var. *simasakii* H. Ito in Journ. Jap. Bot. 9: 57. f. 6. 1933. ———*Dryopteris labordei* var. *simasakii* (H. Ito) H. Ito in Nakai et Honda, Nova Fl. Jap. 4: 46. 1939. ———*Dryopteris excelsior* Ching et Chiu in Bot. Res. 2: 8. Pl. 3. f. 4. Pl. 4. f. 1. 1987. ———*Dryopteris laodianensis* Ching et Chiu in Bot. Res. 2: 16. Pl. 6. f. 3. 1987. ———*Dryopteris erythrochlamys* Ching et Z. Y. Liu in Bull. Bot. Res. 4 (4): 5. f. 33. 1984.

Yunnan, Guizhou, Sichuan, Guangxi and Zhejiang; Japan. Type from Japan.

11. 密鳞毛蕨

Dryopteris simasakii var. *paleacea* (H. Ito) Kurata in Journ. Geobot. 18: 5. 1970; Nakaike, New Fl. Jap. Pterid. 448. f. 448. 1992. ———*Dryopteris indusiata* var. *paleacea* H. Ito in Journ. Jap. Bot. 9: 57. f. 7. 1933. ———*Dryopteris labordei* var. *simasakii* form. *paleacea* (H. Ito) H. Ito in Nakai et Honda, Nova Fl. Jap. 4: 46. 1939. ———*Dryopteris rufosquamosa* Ching et Chiu in Bot. Res. 2: 6. Pl. 3. f. 1. 1987. ———*Dryopteris paomowanensis* Ching et Z. Y. Liu in Bull. Bot. Res. 4(4): 10. f. 38. 1984.

Yunnan, Sichuan, Guizhou and Guangxi; Japan. Type from Japan.

12. 阔鳞鳞毛蕨

Dryopteris championii (Benth.) C. Chr. apud Ching in *Sinensia* 3: 327. 1933; C. Chr., *Ind. Fil. Suppl.* 3: 83. 1934; Ching in *Bull. Fan Mem. Inst. Biol. Bot.* 8: 486. 1938, *Id. Fil. Sin.* 4: 181. Pl. 181. 1937; *Id. Corm. Sin.* 1: 239. f. 478. 1972; *Fl. Jiangsu* 1: 66. f. 97. 1977; *Fl. Fujian* 1: 197. f. 183. 1982; *Fl. Anhui* 1: 152. f. 148. 1985; Ching et Chiu in *Bot. Res.* 2: 12. Pl. 5. f. 2. 1987; S. G. Lu in *Acta Phytotax. Sin.* 28 (6): 473. 1990; Nakaike, *New Fl. Jap. Pterid.* 402. f. 402a, 402b. 1992; *Fl. Zhejiang* 1: 249. f. 1-257. 1993. *H. Jiangxi* 1: 281. f. 286. 1993. — *Aspidium championii* Benth., *Fl. Hongk.* 456. 1861. — *Dryopteris changii* Ching in *Wuyi Sci. Journ.* 1: 7. 1981. — *Dryopteris wuyishanensis* Ching in *Fl. Fujian* 1: 198. f. 184. 1982. — *Dryopteris bullatipaleacea* Ching in *Bull. Bot. Res.* 2 (2): 65. f. 2-1. 1982. — *Dryopteris yandongensis* Ching et C. F. Zhang in *Bull. Bot. Res.* 3 (3): 13. f. 11. 1983; *Fl. Zhejiang* 1: 256. 1993. — *Dryopteris linganensis* Ching et C. F. Zhang in *Bull. Bot. Res.* 3 (3): 23. f. 17. 1983; *Fl. Zhejiang* 1: 250. 1993. — *Dryopteris gutishanensis* Ching et C. F. Zhang in *Bull. Bot. Res.* 3 (3): 29. f. 21. 1983; *Fl. Zhejiang* 1: 257. 1993. — *Dryopteris nanchuanensis* Ching et Z. Y. Liu in *Bull. Bot. Res.* 3 (4): 20. f. 18. 1983. — *Dryopteris laoshanensis* J. X. Li et S. f. Ma in *Bull. Bot. Res.* 3 (4): 139-141 (cum. fig.). 1983. — *Dryopteris infrahirtella* Ching et Z. Y. Liu in *Bull. Bot. Res.* 3 (4): 22. f. 19. 1983. — *Dryopteris neofuscipes* Ching et Z. Y. Liu in *Bull. Bot. Res.* 4 (3): 22. f. 25. 1984. — *Dryopteris paleifera* Ching et Z. Y. Liu in *Bull. Bot. Res.* 4 (4): 2. f. 30. 1984. — *Dryopteris huanglungensis* Ching in *Bot. Res.* 2: 10. Pl. 4. f. 3. 1987. — *Dryopteris neofuscipes* Ching et Chiu in *Bot. Res.* 2: 4. Pl. 1. f. 4. 1987 (non Ching et Z. Y. Liu, 1984). — *Dryopteris qinyuanensis* Ching et Chiu in *Bot. Res.* 2: 7. Pl. 3. f. 2. 1987 (err. *D. chinyuanensis*). — *Dryopteris wangii* Ching in *Bot. Res.* 2: 13. Pl. 5. f. 3. 1987. — *Dryopteris conferta* Ching et Chiu in *Bot. Res.* 2: 17. Pl. 7. f. 1. 1987. — *Dryopteris zunyiensis* Ching in *Bot. Res.* 2: 18. Pl. 7. f. 2. 1987. — *Dryopteris grandiosa* Ching et Chiu in *Bot. Res.* 2: 8. Pl. 3. f. 3. 1987; *Fl. Zhejiang* 1: 259. 1993.

Yunnan, Sichuan, Guizhou, Guangxi, Guangdong, Hongkong, Hunan, Hubei, Jiangxi, Fujian, Jiangsu, Zhejiang, Shandong and Henan; Japan and Korea. Type from Hongkong.

组 2. 黑鳞鳞毛蕨组

Sect. 2. *Indusiatae* S. G. Lu, sect. nov.

Basi stipitis paleis nigris vel atrobrunneis linearilanceolatis dense oblecto, sursum uti rhachi subglabra.
Scales on the base of stipes black or nearly black, upper parts of stipes and rachis subglabrous.

Type: *Dryopteris indusiata* (Makino) Yamamoto.

This section contains 12 species in China.

13. 裸果鳞毛蕨

Dryopteris gymnosora (Makino) C. Chr., *Ind. Fil.* 269. 1906; Tagawa, *Col. Illustr. Jap. Pterid.* 105. Pl. 39. f. 219. 1959; *Fl. Fujian* 1: 203. f. 190. 1982; S. G. Lu in *Acta Phytotax. Sin.* 28 (6): 472. 1990; Nakaike, *New Fl. Jap. Pterid.* 419. f. 419. 1992; *Fl. Zhejiang* 1: 262. f. 1-264. 1993; *Fl. Jiangxi* 1: 284. f. 289. 1993. — *Nephrodium gymnosorum* Makino in *Bot. Mag. Tokyo* 13: 64. 1899. — *Dryopteris labordei* auct., non C. Chr., 1906; *Id. Corm. Sin.* 1: 240. f. 480. 1972; *Fl. Fujian* 1: 203. f. 189. 1982; *Fl. Anhui* 1: 153. f. 151. 1985; *Fl. Zhejiang* 1: 261. f. 1-263. 1993; *Fl. Jiangxi* 1: 283. f. 288. 1993.

Yunnan, Sichuan, Guizhou, Hunan, Hubei, Jiangxi, Zhejiang, Fujian and Anhui; Japan. Type from Japan.

14. 平行鳞毛蕨

Dryopteris indusiata (Makino) Makino et Yamamoto ex Yamamoto, Suppl. Ic. Pl. Formos. 5: 3. 1932; Tagawa, Col. Illustr. Jap. Pterid. 104. 209. Pl. 39. f. 218. 1959; S. G. Lu in Acta Phytotax. Sin. 28 (6): 474. 1990; Nakaike, New Fl. Jap. Pterid. 425. f. 425. 1992; Fl. Jiangxi 1: 285. f. 291. 1993; Fl. Zhejiang 1: 264. f. 1-266. 1993. — *Nephrodium gymnosorum* var. *indusiatum* Makino in Bot. Mag. Tokyo 13: 65. 1899. — *Dryopteris gymnosora* var. *indusiata* (Makino) Makino ex Bonaparte in Not. Pterid. 7: 49. 1918.

Yunnan, Sichuan, Guizhou, Guangxi, Hunan, Jiangxi, Zhejiang and Fujian; Japan. Type from Japan.

15. 华南鳞毛蕨

Dryopteris tenuicula Matthew et Christ in Lecomte, Not. Syst. 1: 51. 1909; C. Chr., Ind. Fil. Suppl. 1: 40. 1913; Ching in Bull. Fan Mem. Inst. Biol. Bot. 8: 484. 1938; Fl. Zhejiang 1: 261. 1993. — *Dryopteris purpurella* Tagawa in Acta Phytotax. Geobot. 1: 307. 1932; Col. Illustr. Jap. Pterid. 104. 212. Pl. 38. f. 216. 1959; C. Chr., Ind. Fil. Suppl. 3: 96. 1934; Nakaike, New Fl. Jap. Pterid. 440. f. 440. 1992. — *Dryopteris rubristipes* Ching et Z. Y. Liu in Bull. Bot. Res. 3 (4): 19. f. 17. 1983. — *Dryopteris jiulongshanensis* Chiu et Yao in Bull. Bot. Res. 2 (2): 62. Pl. 1. f. 1. 1982. — *Dryopteris yaoi* Ching in Bull. Bot. Res. 2 (2): 64. Pl. 1. f. 3. 1982. — *Dryopteris neglecta* Ching et Z. Y. Liu in Bull. Bot. Res. 4 (4): 4. f. 32. 1984. — *Dryopteris subtenuicula* Ching et Chiu in Bot. Res. 2: 29. Pl. 10. f. 3. 1987. — *Dryopteris subchampionii* Ching in Bot. Res. 2: 14. Pl. 5. f. 4. 1987.

Guangdong, Guangxi, Guizhou, Sichuan, Hunan and Zhejiang; Japan and Korea. Type from Guangdong.

16. 无柄鳞毛蕨

Dryopteris submarginata Rosenst. in Fedde, Repert. Sp. Nov. 13: 132. 1914; C. Chr., Ind. Fil. Suppl. 2: 17. 1917; Fl. Fujian 1: 200. 1982; Fl. Zhejiang 1: 262. 1993. — *Dryopteris sessilipinna* Ching et Chiu in Bot. Res. 2: 29. Pl. 10. f. 4. 1987. — *Dryopteris nudistipes* Ching et Chiu in Bot. Res. 2: 30. Pl. 11. f. 1. 1987.

Sichuan, Guizhou, Guangxi, Hunan, Jiangxi, Zhejiang and Fujian. Type from Guizhou.

17. 广西鳞毛蕨

Dryopteris guangxiensis S. G. Lu in Guihaia 19 (1): 27-28. 1999. — *Dryopteris parafuscipes* Ching et Chiu in Bot. Res. 2: 4. Pl. 2. f. 1. 1987 (non Ching et Z. Y. Liu, 1984).

Guangxi. Type from Mt. Daming.

18. 落叶鳞毛蕨

Dryopteris tenuipes (Rosenst.) Serizawa in Journ. Jap. Bot. 46: 19. 1971; Fl. Taiwan 1: 329. 1994. — *Dryopteris erythrosora* var. *tenuipes* Rosenst. in Hedwigia 56: 341. 1915; Hayata, Ic. Pl. Formos. 8: 147. 1918; H. Ito in Bot. Mag. Tokyo 50: 69. 1936.

Taiwan. Type from Taipei.

19. 三角鳞毛蕨

Dryopteris subtriangularis (Hope) C. Chr., Ind. Fil. 296. 1906; Ching in Bull. Fan Mem. Inst. Biol. Bot. 8: 485. 1938; Tard. -Blot. et C. Chr. in Lecomte, Fl. Gen. Indo-Chine 7 (2): 315. Pl. 35. f. 1-2. 1940; Ching et Y. X. Ling in Acta Phytotax. Sin. 22 (3): 202. 1984; Fraser-Jenkins in Bull. Br. Mus. Nat. Hist. Bot. 18 (5): 430. f. 53. 1989. — *Nephrodium subtriangulare* Hope in Journ. Bot. Lond. 28: 327. 1890. — *Lastrea filix-mas* var. *subtriangularis* (Hope) Bedd., Suppl. Ferns Brit. Ind. 56. 1892. — *Dryopteris subassamensis* Ching in Bull. Fan Mem. Inst. Biol. Bot. 8: 451. 1938. — *Dryopteris uropinna* Price in Gard. Bull. Sing. 30: 244. f. 1. 1977; C. M. Kuo in Taiwania 30: 31. 1985 (excl. Syn.). — *Dryopteris erythrosora* auct., Wu, Wang et Pong in Bull. Dept. Biol. Sun Yatsen Univ. 3: 38. f. 10. 1932 (non O. Kuntze, 1891). — *Dryopteris acutidens* Ching in Acta Phytotax. Sin. 8: 141. Pl. 21. f. 24. 1959; Fl. Hainan 1: 144. 1964 (non C. Chr., 1905). — *Dryopteris caudifrons* Ching in Acta Phytotax. Sin. 8: 148. Pl. 22. f. 25. 1959; Fl. Hainan 1: 144. 1964.

Yunnan, Guizhou, Sichuan, Xizang, Guangxi, Hainan, Taiwan, Vietnam, Philippense, Thailand, Burma and India. Type from India.

20. 阿萨姆鳞毛蕨

Dryopteris assamensis (Hope) C. Chr. et Ching in Bull. Dept. Biol. Coll. Sci. Sun Yatsen Univ. 6: 4. 1933; Tard. -Blot. et C. Chr. in Lecomte, Fl. Gen. Indo-Chine 7 (2): 316. 1941; Fraser-Jenkins in Bull. Br. Mus. Nat. Hist. Bot. 18 (5): 428. f. 52. 1989. — *Nephrodium assamensis* Hope in Journ. Bot. Lond. 28: 326. 1890. — *Lastrea filix-mas* var. *assamensis* (Hope) Bedd., Suppl. Ferns Brit. Ind. 57. 1892. — *Dryopteris filix-mas* subsp. *assamensis* (Hope) C. Chr., Ind. Fil. 266. 1906.

Yunnan, Guizhou, Guangxi, Guangdong and Hongkong; Vietnam, Sikkim and N. India. Type from India (Assam).

21. 羽裂鳞毛蕨

Dryopteris integriloba C. Chr. in Bull. Dept. Sun Yatsen Univ. 6: 5. 1933; Ind. Fil. Suppl. 3: 87. 1934; Ching in Bull. Fan Mem. Inst. Biol. Bot. 8: 479. 1938; Fl. Hainan. 1: 145. 1964; C. Chr. et Tard. -Blot. in Lecomte, Fl. Gen. Indo-Chine 7 (2): 314. 1941. — *Dryopteris hirtosparsa* auct.: Wu, Wang et Pong in Bull. Dept. Biol. Sun Yatsen Univ. 3: 40. Pl. 11. 1932 (non Christ, 1908). — *Dryopteris subintegiloba* Serizawa in Journ. Jap. Bot. 46: 17. f. 1-a. 1971; Fl. Taiwan 1: 328. 1994.

Yunnan, Guangxi, Guangdong, Hainan and Taiwan; Vietnam, Type from Guangdong (Dinhua).

22. 大明鳞毛蕨

Dryopteris tahmingensis Ching in Bull. Fan Mem. Inst. Biol. Bot. 8: 480. 1938; Pic. Ser., Ind. Fil. Suppl. 4: 128. 1965. — *Dryopteris hwangii* Ching in Fl. Fujian 1: 200. 600. 1982.

Yunnan, Guangxi, Guangdong and Fujian. Type from Guangxi (Mt. Daming).

23. 齿头鳞毛蕨

Dryopteris labordei (Christ) C. Chr., Ind. Fil. 273. 1906; Ching in Bull. Fan Mem. Inst. Biol. Bot. 8: 488. 1938; Ic. Corm. Sin. 1: 240. 1972 (excl. descr. et f. 480); Fl. Fujian 1: 203. 1982 (excl. descr. et f. 189); Fl.

Anhui 1: 153. 1985 (excl. descr. et f. 151); S. G. Lu in Acta Phytotax. Sin. 28 (6): 474. 1990; Fl. Zhejiang 1: 261. 1993 (excl. descr. et f. 1-263), Fl. Jiangxi 1: 283. 1993 (excl. descr. et f. 288). ——*Aspidium labordei* Christ in Bull. Soc. Bot. France 52: Mem. 1: 40. 1905.

Yunnan, Guizhou, Sichuan, Guangxi, Guangdong, Hunan, Hubei, Anhui, Jiangxi, Zhejiang, Fujian and Taiwan; Japan. Type from Guizhou.

24. 假稀羽鳞毛蕨

Dryopteris pseudosparsa Ching in Bull. Fan Mem. Inst. Biol. Bot. 8: 489. 1938; Pic. Ser., Ind. Fil. Suppl. 4: 124. 1965; S. G. Lu in Acta Phytotax. Sin. 28 (6): 475. 1990. ——*Dryopteris cuneatiloba* Ching et Chiu in Bot. Res. 2: 11. Pl. 4. f. 4. 1987. ——*Dryopteris scabripes* Ching in Bot. Res. 2: 9. Pl. 4. f. 2. 1987.

Yunnan, Sichuan, Guizhou and Guangxi. Type from Yunnan.

组 3. 变异鳞毛蕨组

Sect. 3. *Variae* Fraser-Jenkins in Bull. Br. Mus. Nat. Hist. Bot. 14 (3): 196. 1986.

Type: *Dryopteris varia* (L.) O. Kuntze.

This section contains 12 species in China.

25. 落鳞鳞毛蕨

Dryopteris sordidipes Tagawa in Acta Phytotax. Geobot. 3: 29. 1934; Col. Illustr. Jap. Pterid. 101. 213. Pl. 37. f. 208. 1959; Nakaike, New Fl. Jap. Pterid. 449. f. 449. 1992; Fl. Taiwan 1: 327. 1994.

Taiwan; Japan. Type from Japan.

26. 寻乌鳞毛蕨

Dryopteris xungwuensis Ching et Shing ex Shing et J. f. Cheng in Journ. Sci. Jiangxi 8 (3): 48. 1990; Fl. Jiangxi 1: 275. f. 278. 1993.

Jiangxi and Guangxi. Type from Jiangxi (Xungwu).

27. 德化鳞毛蕨

Dryopteris dehuaensis Ching in Fl. Fujian 1: 209. 601. f. 197. 1982; Fl. Zhejiang 1: 265. f. 1-267. 1993. ——*Dryopteris gushanica* Ching et Shing in Fl. Fujian 1: 209. 601. 1982. ——*Dryopteris neosordidipes* Ching ex Shing et J. F. Cheng in Journ. Sci. Jiangxi 8 (3): 48. 1990; Fl. Jiangxi 1: 275. f. 277. 1993.

Fujian, Zhejiang and Jiangxi. Type from Fujian (Dehua).

28. 黑水鳞毛蕨

Dryopteris amurensis Christ in Bull. Geogr. Bot. Mans. 1909: 35. 1909; C. Chr., Ind. Fil. Suppl. 1: 29. 1913; Ching in Bull. Fan Mem. Inst. Biol. Bot. 8: 494. 1938; Tagawa, Col. Illustr. Jap. Pterid. 204. Pl. 35. f. 198. 1959; Nakaike, New Fl. Jap. Pterid. 400. f. 400a. 400b. 400c. 1992; Fl. Herb. N. China 1: 61. f. 48. 1958.

Liaoning, Jilin, Heilongjiang and Neimongol; Japan, Korea and U. S. S. R.. Type from U. S. S. R. (Saghalin).

29. 台湾鳞毛蕨

Dryopteris formosana (Christ) C. Chr., Ind. Fil. 266. 1906; Ind. Fil. Suppl. 3: 86. 1934; Hayata, Mat. Fl.

Formos. 416. 1911; Tagawa, Col. Illustr. Jap. Pterid. 104. 208. Pl. 38. f. 215. 1959; Nakaike, New Fl. Jap. Pterid. 415. f. 415a. 415b. 1992; Fl. Zhejiang 1: 265. f. 1-268. 1993; Fl. Taiwan 1: 322. Pl. 133. 1994. — *Aspidium formosanum* Christ in Bull. Herb. Boiss. II. 4: 615. 1904; Kawakami, List. Pl. Formos. 152. 1910. — *Dryopteris phaeolepis* Hayata, Ic. Pl. Formos. 4: 169. f. 109. 1914. — *Polystichum constantissimum* Hayata, Ic. Pl. Formos. 4: 191. f. 129. 1914. — *Dryopteris constantissima* (Hayata) Hayata, Ic. Pl. Formos. 4: 191. 1914. — *Dryopteris kodamai* Hayata, Ic. Pl. Formos. 4: 156. f. 97. 1914. — *Polystichum varium* var. *eurylepidotum* Rosenst. in Hedwigia 56: 340. 1915; Hayata, Ic. Pl. Formos. 8: 156. 1918. — *Dryopteris liui* Ching in Bull. Bot. Res. 4 (4): 12. f. 41. 1984.

Taiwan, Sichuan and Zhejiang; Japan. Type from Taiwan.

30. 永德鳞毛蕨

Dryopteris yongdeensis W. M. Chu ex S. G. Lu in Acta Phytotax. Sin. 28 (6): 473. 1990.

Yunnan (Yongde). Type from Yongde.

Endemic.

31. 太平鳞毛蕨

Dryopteris pacifica (Nakai) Tagawa, Col. Illustr. Jap. Pterid. 100. 211. Pl. 36. f. 204. 1959; Fl. Jiangsu 1: 69. f. 104. 1977; Fl. Fujian 1: 202. f. 187. 1982; Fl. Anhui 1: 152. f. 150. 1985; Iwatsuki, Ferns and Fern Allies of Jap. 197. Pl. 124. f. 4. 1992; Fl. Zhejiang 1: 266. 1993; Fl. Jiangxi 1: 287. f. 294. 1993. — *Polystichum pacificum* Nakai in Bot. Mag. Tokyo 39: 119. 1925. — *Polystichum hololepis* var. *hikonense* H. Ito in Journ. Jap. Bot. 10: 451. 1934. — *Dryopteris varia* var. *hikonensis* (H. Ito) Kurata in Namegata et Kurata, Enum. Jap. Pterid. 304. 341. 1961; Nakaike, New Fl. Jap. Pterid. 457. f. 457a. 457b. 1992. — *Dryopteris hungjingensis* Ching et Chiu in Bot. Res. 2: 27. Pl. 10. f. 1. 1987 (err. *D. huntsingensis*). — *Dryopteris yushanensis* Ching et Chiu in Bot. Res. 2: 28. Pl. 10. f. 2. 1987. — *Dryopteris pudouensis* Ching in Bull. Bot. Res. 3 (3): 11. f. 9. 1982. — *Dryopteris quadrifida* Ching ex Shing et C. F. Cheng in Journ. Sci. Jiangxi 8 (3): 49. 1990; Fl. Jiangxi 1: 290. f. 298. 1993.

Zhejiang, Jiangsu, Anhui, Jiangxi, Fujian and Hunan; Japan and Korea. Type from Japan.

32. 假异鳞毛蕨

Dryopteris immixta Ching in Fl. Tsing. 2: 165. 225. Pl. 11. f. 1-2. 1974; Fl. Jiangsu 1: 68. f. 102. 1977; Fl. Fujian 1: 203. f. 188. 1982; Fl. Anhui 1: 149. f. 144. 1985; Fl. Zhejiang 1: 268. f. 1-270. 1993; Fl. Jiangxi 1: 288. f. 295. 1993.

Yunnan, Sichuan, Guizhou, Gansu, Shannxi, Hubei, Hunan, Jiangsu, Zhejiang, Fujian and Jiangxi. Type from Gansu.

33. 变异鳞毛蕨

Dryopteris varia (L.) O. Kuntze, Rev. Gen. Pl. 2: 814. 1891; C. Chr., Ind. Fil. Suppl. 3: 101. 1934; Ching in Bull. Fan Mem. Inst. Biol. Bot. 8: 490. 1938 (pro parte); Tagawa, Col. Illustr. Jap. Pterid. 100. 214. Pl. 36. f. 203. 1959; Fl. Jiangsu 1: 67. f. 100. 1977; Fl. Fujian 1: 201. f. 186. 1982; Fl. Anhui 1: 151. f. 147. 1985; Nakaike, New Fl. Jap. Pterid. 456. f. 450. 1992; Iwatsuki, Ferns and Fern Allies of Jap. 196. Pl. 123. f. 3.

1992; Fl. Zhejiang 1: 266. 1993; Fl. Jiangxi 1: 286. f. 293. 1993; Fl. Taiwan 1: 329. Pl. 134. 1994. ——— *Polypodium varium* L., Sp. Pl. 2: 1090. 1753. ——— *Aspidium varium* (L.) Sw. in Schrad., Journ. Bot. 1800-2: 35. 1801; Hook., Sp. Fil. 4: 80. f. 226.. 1862. ——— *Polystichum varium* (L.) Presl, Epim. Bot. 57. 1851. ——— *Lastrea opaca* Hook. in Journ. Bot. 9: 339. 1857. ——— *Aspidium opacum* (Hook.) Benth., Fl. Hongk. 456. 1861. ——— *Dryopteris yabei* Hayata, Mat. Formos. 424. 1911; Ic. Pl. Formos. 4: 187. f. 125. 1914. ——— *Polystichum hololepis* Hayata, Ic. Pl. Formos. 5: 332. 1915. ——— *Dryopteris matsuzoana* Koidz. In Bot. Mag. Tokyo 39: 15. 1925. ——— *Dryopteris ogawai* H. Ito in Nakai, Ic. Pl. As. Or. 1: 18. Pl. 9. 1935. ——— *Dryopteris caudifolia* Ching et Chiu in Bot. Res. 2: 21. Pl. 8. f. 2. 1987; Fl. Zhejiang 1: 266. 1993. ——— *Dryopteris consimilis* Ching in Bot. Res. 2: 25. Pl. 9. f. 3. 1987. ——— *Dryopteris fuyangensis* Ching et Chiu in Bot. Res. 2: 26. Pl. 9. f. 4. 1987; Fl. Zhejiang 1: 268. 1993. ——— *Dryopteris glabrescens* Ching et Chiu ex Shing et J. f. Cheng in Journ. Jiangxi Sci. 8 (3): 48. 1990; Fl. Jiangxi 1: 274. f. 276. 1993. ——— *Dryopteris lingii* in Bot. Res. 2: 23. Pl. 8. f. 4. 1987; Fl. Zhejiang 1: 267. f. 1-269. 1993. ——— *Dryopteris nanchuanensis* Ching et Z. Y. Liu in Bull. Bot. Res. 4 (4): 9. f. 37. 1984 [non 3 (4): 20. f. 18. 1983, nec 4 (3): 19. f. 21. 1984].

Yunnan, Sichuan, Guizhou, Guangxi, Guangdong, Hunan, Hubei, Henan, Jiangxi, Fujian, Zhejiang, Jiangsu, Anhui and Taiwan; Japan, Korea, Vietnam, Philippines and India. Type from Guangdong.

34. 虎耳鳞毛蕨

Dryopteris saxifraga H. Ito. in Bot. Mag. Tokyo 50: 125. 1936; Tagawa, Col. Illustr. Jap. Pterid. 101. 213. Pl. 37. f. 206. 1959; Iwatsuki, Ferns and Fern Allies of Japan, 198. Pl. 125. f. 1-2. 1992; Fl. Herb. N. China 1: 58. 1958. ——— *Dryopteris varia* var. *saxifraga* (H. Ito) H. Ohba in Sci. Rep. Tohoku Univ. (B) 36: 111. 1971; Nakaike, New Fl. Jap. Pterid. 459. f. 459. 1992. ——— *Dryopteris varia* subsp. *saxifraga* (H. Ito) Sugimoto, Keys Herb. Pl. Jap. Pterid. 282. 405. 1966.

Liaoning and Jilin; Japan and Korea. Type from Japan.

35. 两色鳞毛蕨

Dryopteris setosa (Thunb.) Akasawa in Bull. Kochi wom. Univ. 7: 27. 1959. ——— *Polypodium setosum* Thunb., Fl. Jap. 337. 1784. ——— *Aspidium setosum* (Thunb.) Sw. in Schrad., Journ. Bot. 1800-2: 39. 1801. ——— *Dryopteris varia* subsp. *setosa* (Thunb.) Sugimoto, Key Herb. Pl. Jap. Pterid. 405. 1966. ——— *Dryopteris varia* var. *setosa* (Thunb.) Ohwi, Fl. Jap. Pterid. 88. 1957; Nakaike, New Fl. Jap. Pterid. 460. f. 400a. 400b. 1992. ——— *Nephrodium bissetianum* Baker in Journ. Bot. 1877: 366. 1877. ——— *Dryopteris bissetiana* (Bak.) C. Chr., Ind. Fil. 245. 1906; Tagawa, Col. Illustr. Jap. Pterid. 100. 205. Pl. 36. f. 205. 1959; Ic. Corm. Sin. 1: 241. f. 481. 1972; Fl. Tsingling 2: 165. 1974; Fl. Jiangsu 1: 69. f. 103. 1977; Fl. Anhui 1: 150. f. 146. 1985; Iwatsuki, Ferns and Fern Allies of Japan 197. Pl. 123. f. 4-5. 1992; Fl. Zhejiang 1: 270. f. 1-272. 1993; Fl. Jiangxi 1: 288. f. 296. 1993. ——— *Polystichum bissetianum* (Bak.) Nakai in Bot. Mag. Tokyo 45: 102. 1931. ——— *Dryopteris thunbergii* Koidz. In Bot. Mag. Tokyo 38: 106. 1924. ——— *Dryopteris shanghaiensis* Ching et Chiu in Bot. Res. 2: 24. Pl. 9. f. 1. 1987. ——— *Dryopteris paravaria* Ching et Chiu in Bot. Res. 2: 22. Pl. 8. f. 3. 1987. ——— *Dryopteris sinobissetiana* Ching et Z. Y. Liu in Bull. Bot. Res. 4 (4): 8. f. 36. 1984. ——— *Dryopteris pseudobissetiana* Ching ex Shing et J. f. Cheng in Jiangxi Sci. 8 (3): 49. 1990; Fl. Jiangxi 1: 290. f. 297. 1993.

Yunnan, Sichuan, Guizhou, Hunan, Hubei, Shandong, Shanxi, Henan, Shannxi, Jiangxi, Anhui, Fujian, Zhejiang and Jiangsu; Japan and Korea. Type from Japan.

36. 棕边鳞毛蕨

Dryopteris sacrosancta Koidz. in Bot. Mag. Tokyo 38: 108. 1924; Tagawa, Col. Illustr. Jap. Pterid. 101. 212. Pl. 36. f. 207. 1959; Iwatsuki, Ferns and Fern Allies of Japan 197. Pl. 124. f. 2-3. 1992; Fl. Jiangsu 1: 68. f. 101. 1977; Fl. Anhui 1: 152. f. 149. 1985. ——*Polystichum sacrosanctum* (Koidz.) Koidz. In Bot. Mag. Tokyo 43: 388. 1929. ——*Dryopteris varia* var. *sacrosancta* (Koidz.) Ohwi, Fl. Jap. Pterid. 88. 1957; Nakaike, New Fl. Jap. Pterid. 458. f. 458. 1992. ——*Polystichum bissetianum* var. *sacrosanctum* (Koidz.) Nakai in Bot. Mag. Tokyo 45: 103. 1931. ——*Dryopteris bissetiana* var. *sacrosancta* (Koidz.) H. Ito in Bot. Mag. Tokyo 50: 36. 1936. ——*Dryopteris varia* subsp. *sacrosancta* (Koidz.) Sugimoto, Keys Herb. Fl. Jap. Pterid. 281. 405. 1966. ——*Dryopteris tieanzuensis* Ching et Chiu in Bot. Res. 2: 24. Pl. 9. f. 2. 1987.

Shandong, Liaoning and Zhejiang; Japan and Korea. Type from Japan.

本文在研究过程中, 得到中国科学院中国植物志编辑委员会的支持, 得到中国科学院植物研究所标本馆的帮助; 杭州大学张朝芳教授借阅部分研究标本。在此一并致谢。