

Enumeratio Pteridophytorum Japonicorum

III. Selaginellaceae

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Abstract Nineteen species of Selaginellaceae are enumerated from Japan, with their synonyms and information of their distribution range: *Selaginella boninensis*, *S. davidii*, *S. doederleinii*, *S. flagellifera*, *S. helvetica*, *S. heterostachys*, *S. involvens*, *S. leptophylla*, *S. limbata*, *S. lutchuensis*, *S. moellendorffii*, *S. nipponica*, *S. remotifolia*, *S. selaginoides*, *S. shakotanensis*, *S. sibirica*, *S. tama-montana*, *S. tamariscina*, and *S. uncinata*. The related literature for the recognition of each species in Japan, information from distribution maps, chromosome numbers and photographs of spores from Japanese materials are cited.

Key words: *Selaginella*, enumeration, Japan.

The present paper is planned along the same lines as my previous work (Nakaike 1975, 1996). Its chief aim is to clarify the taxa of Japanese Selaginellaceae, their scientific names, and the history of recognition of each taxon in Japan. In addition to this, the synonyms are also listed. The literature on the distribution and synonyms of each species is cited from the Old and the New World. The chromosome numbers and photographs of spores are also cited from observations of Japanese materials.

In this paper, nineteen species of the genus *Selaginella*, which is the sole component of the family Selaginellaceae, are enumerated. The species are arranged in alphabetical order in species epithets.

Enumeration

Selaginella Beauv.

Prod. 101. 1805. nom. cons. Type of the genus: *Selaginella spinosa* Beauv.

Selaginella boninensis Bak. in J. Bot. 23: 178. 1885; Handb. Fern-Allies 111. 1887; Matsum., Ind. Pl. Jap. 361. 1904; Makino et Nemoto, Fl. Jap. 1550. 1925; Koidz. in Acta Phytotax. Geobot. 4: 230. 1935; Tagawa in Acta Phytotax. Geobot. 10: 275. 1941; Col. III. Jap. Pterid. 254. 1959; in Acta Phytotax. Geobot. 25: 178. 1973; Ohwi, Fl. Jap. Pterid.

15. 1957; Namegata et Kurata in Namegata, Coll. Cultiv. Our Ferns & Ferns All. 251. 1961; Sugimoto, Keys Herbac. Pl. Jap. Pterid. 92. 1966; Reed in Mem. Soc. Brot. 18: 69. 1966; Ohba in Sci. Rep. Tohoku Univ. ser. IV (Biol.) 36: 77. 1971; Huang, Spore Fl. Taiwan 16. pl. 7. f. 1–3. 1981; Nakaike, New Fl. Jap. Pterid. 35. f. 35a. 35b. 1982; Kuo in Taiwaniana 30: 13. 1985; Kurata et Nakaike, Ill. Pterid. Jap. 6: 126. 865. f. 17. 1990; K. Iwats., Ferns & Ferns All. Jap. 52. pl. 12. f. 3–4. 1992; Takamiya in J. Plant Res. 106: 149–166. 1993; Tsai et Shieh in Huang, Fl. Taiwan, 2nd ed. 46. 1994.

Lycopodioides boninensis (Bak.) Kuntze, Rev. Gen. Pl. 1: 826. 1891.

Selaginella longicauda Warburg in Mon-sunia 1: 108. 123. t. IV. fig. c. 1900; Koidz. in Acta Phytotax. Geobot. 4: 229. 1935.

Selaginella somae Hayata, Ic. Pl. Formos. 7: 101. f. 66. 1918.

Selaginella ornithopodioides auct.: Kunze in Bot. Zeit. 1848: 588. p.p.

Nom. Jap.: Hiba-goke, koushun-kurama-goke, munin-kurama-goke.

Distr.: Japan (Izu Isls. and Bonin Isls.), Taiwan, Philippines, and Vietnam.

Distr. Map. Japan: Kurata et Nakaike (op. cit.).

Chromosome numbers: $2n = 16$ (Takamiya, op. cit.).

Ic. Spore: Kurata et Nakaike (op. cit.).

***Selaginella davidii* Franch.** in Pl. David. 1: 344. 1889; Alston in Bull. Fan Mem. Inst. Biol. 6: 274. 1934; Reed in Mem. Soc. Brot. 18: 93. 1966; Acad. Sinica (ed.), Ic. Cormophyt. Sinic. 1: 111. f. 222. 1972; Ching in Fl. Tsinling. 2: 20. pl. 2. f. 9–13. 1974.

Selaginella gebaueriana Hand.-Mazz. Symb. Sin. 6: 9. t. 1. f. 4. 1929.

Selaginella cavaleriei Hieron. in Doubl.-Verz. Berl. Tauschv. 50: 24. 1928.

Selaginella subdentata A. Br. ex Schmidt in Act. Hort. Gotob. 5: 53. 1930.

Nom. Jap.: Mitani-kurama-goke.

Distr.: Japan (Ryukyu) and China.

***Selaginella doederleinii* Hieron.** in Hedwigia 43: 41. 1904; Alston in Bull. Fan Mem. Inst. Biol. 6: 279. 1934; Koidz. in Acta Phytotax. Geobot. 4: 225. 1935; Ohwi, Fl. Jap. Pterid. 13. 1957; Tagawa, Col. Ill. Jap. Pterid. pl. 5. f. 27. 1959; in Sci. Rep. Tohoku Univ. ser. IV (Biol.) 29: 313. 1963; in Acta Phytotax. Geobot. 25: 174. 1973; Namegata et Kurata in Namegata, Coll. Cultiv. Our Ferns & Ferns All. 251. 1961; Sugimoto, Keys Herbac. Pl. Jap. Pterid. 93. 1966; Reed in Mem. Soc. Brot. 18: 102. 1966; Jotani et Ohba in Sci. Rep. Yokosuka City Mus. 14: 52. 1968; Hatusima, Fl. Ryukyus 119. 1971; Shimura, Phot. Ecol. Guid. Jap. Pterid. 21. f. 19. 1972; Acad. Sinica (ed.), Ic. Cormophyt. Sinic. 1: 112. f. 224. 1972; Serizawa in Sci. Rep. Takao Mus. Nat. Hist. 7: 5. 1975; Huang, Spore Fl. Taiwan 16. pl. 8. 1–2. pl. 13. f. 1–2. 1981; Nakaike, New Fl. Jap. Pterid. 36. f. 36a. 36b. 1982; Kuo in Taiwania 30: 13. 1985; Nasu et Seto in Spec. Publ. Osaka Mus. Nat. Hist. 16·17: pls. 63–65. 1986; 18: 16. 1986; Shimabuku, Check List Vasc. Fl. Ryukyu Isls. 5. 1990; Kurata et Nakaike, Ill. Pterid. Jap. 6: 130. 865. f. 18. 1990; K. Iwats., Ferns & Ferns All. Jap. 52. pl. 9. f. 5. 1992; Takamiya in J. Plant Res. 106: 149–166. 1993; Tsai et Shieh in Huang, Fl. Taiwan, 2nd ed. 48. 1994.

Selaginella doederleinii var. *opaca* Serizawa in J. Phytogeogr. Tax. 30: 44. 1982.

Selaginella atrovirides auct.; Matsum., Ind. Pl. Jap. 360. 1904; Makino et Nemoto, Cat. Jap. Pl. Herb. Nat. Hist. Dept. Tokyo Imp. Mus. 409. 1914; Fl. Jap. 1550. 1925; Makino in J. Jap. Bot. 1: 124. 1917.

Selaginella plumosa auct.: Matsum., Ind. Pl.

Jap. 362. 1904.

Selaginella springiana auct.: Sasaki, List Pl. Formos. 47. 1928.

Nom. Jap.: Oni-kurama-goke, midori-kata-hiba.

Distr.: Japan (Honshu-Izu Isls., Shikoku, Kyushu, and Ryukyu), Taiwan, China, Indo-China, and Malaya.

Distr. Map. Japan: Kurata et Nakaike (op. cit.).

Chromosome numbers: $2n=18$ (Takamiya, op. cit.).

Ic. Spore: Nasu et Seto (op. cit.); Kurata et Nakaike (op. cit.).

***Selaginella flagellifera* W. Bull.** Cat. No. 225: 9. 1886; Bak., Handb. Fern-Allies 50. 1887; Reed in Mem. Soc. Brot. 18: 114. 1966.

Selaginella biformis A. Br. ex Kuhn, Forsch. Gazelle, IV. Bot. 6: 17. 1889; Alston in Bull. Fan Mem. Inst. Biol. 6: 282. 1934; in Philipp. J. Sci. 58: 974. 1935; in Bull. Jard. Bot. Buit. ser. III. 13: 441. 1935; 14–2: 185. 1937; 16–4: 346. 1940; Koidz. in Acta Phytotax. Geobot. 4: 226. 1935; Tagawa in Sci. Rep. Tohoku Univ. ser. IV (Biol.) 29: 312. 1963; Sugimoto, Keys Herbac. Pl. Jap. Pterid. 92. 1966; Hatusima, Fl. Ryukyus 119. 1971; Serizawa in Sci. Rep. Takao Mus. Nat. Hist. 7: 5. 1975; Tagawa et K. Iwats., Fl. Thailand 3–1: 17. 1979; Nakaike, New Fl. Jap. Pterid. 34. f. 34a. 34b (holotype of *S. utchinensis*). 1982; Nasu et Seto in Spec. Publ. Osaka Mus. Nat. Hist. 16·17: pls. 61–62. 1986; 18: 16. 1986; Shimabuku, Check List Vasc. Fl. Ryukyu Isls. 5. 1990; K. Iwats., Ferns & Ferns All. Jap. 52. pl. 9. f. 3. 1992; Dixit, Selagin. India 39. figs. 7A–G, pls. VII, VIII. 1992; Takamiya in J. Plant Res. 106: 149–166. 1993.

Selaginella hirticaulis Warb. in Monsunia 1: 103. 144. 1900.

Selaginella biformis var. *cataphracta* v. A. v. R. in Bull. Jard. Bot. Buit. ser. II. 28: 52. 1918.

Selaginella subaquatilis v. A. v. R. in Bull. Jard. Bot. Buit. ser. III. 2: 179. 1920.

Selaginella utchinensis Koidz. in Acta Phytotax. Geobot. 4: 229. 1935; Tagawa in Acta Phytotax. Geobot. 16: 185. 1956; Namegata et Kurata in Namegata, Coll. Cultiv. Our Ferns & Ferns All. 252. 1961.

Nom. Jap.: Tsuru-kata-hiba.

Distr.: Japan (Ryukyu), China, Philippines, Thailand, India, Indo-China, Java, Celebes, New Guinea, and Myanmar.

Chromosome numbers: $2n=20$ (Takamiya, op. cit. as *Selaginella biformis*).

Ic. Spore: Nasu et Seto (op. cit. as *Selaginella biformis*).

***Selaginella helvetica* (L.) Spring** in Flora 21(1): 149. 214. 1838; Mon. Fam. Lycop. 83. 1842; Bak., Handb. Fern-Allies 37. 1887; Takeda in Bot. Mag. Tokyo 23: 238. 1909; Nakai in J. Coll. Sci. Imp. Univ. Tokyo 31: 424. 1911; Makino et Nemoto, Fl. Jap. 1551. 1925; Hara in Bot. Mag. Tokyo 48: 706. 1934; Alston in Bull. Fan Mem. Inst. Biol. 6: 272. 1934; Koidz. in Acta Phytotax. Geobot. 4: 227. 1935; Ohwi, Fl. Jap. Pterid. 14. 1957; Tagawa, Col. Ill. Jap. Pterid. 19. 255. pl. 4. f. 25. 1959; Namekata et Kurata in Namekata, Coll. Cultiv. Our Ferns & Ferns All. 251. 1961; Lawalrée in Tutin et al. Fl. Europ. 1. 5. 1964; Sugimoto, Keys Herbac. Pl. Jap. Pterid. 93. 1966; Okuyama, Col. Ill. Alp. Fl. Jap. 217. pl. 108. f. 370. 1966; Reed in Mem. Soc. Brot. 18: 124. 1966; Lee in Bull. Seoul Nat. Univ. Forests 4: 59. 1967; Shimura, Phot. Ecol. Guid. Jap. Pterid. 22. f. 20. 1972; Jalas et Suominen, Atl. Fl. Europ. 25. map 14. 1972; Park, Ill. Encycl. Fauna & Fl. Korea, 16. Pterid. 419. 1975; Nakaike, New Fl. Jap. Pterid. 36. f. 36a. 36b. 1982; Dostál in Hegi, Ill. Fl. Mitteleur. 1-1: 47. 1984; Nasu et Seto in Spec. Publ. Osaka Mus. Nat. Hist. 16-17: pls. 78-80. 1986; 18: 18. 1986; Kurata et Nakaike, Ill. Pterid. Jap. 6: 134. 865. f. 19. 1990; K. Iwats., Ferns & Ferns All. Jap. 53. pl. 11. f. 1. 1992; Takamiya in J. Plant Res. 106: 149-166. 1993.

Lycopodium helvetica L. Sp. Pl. 2: 1104. 1753.

Diplostachyum helveticum (L.) Beauv., Prodr. 107. 1805.

Stachygynandrum helveticum (L.) Beauv. ex Jaume, St. Hill. Exp. Fam. Nat. 1: 39. 1805.

Bernhardia helvetica (L.) Gray, Nat. Arr. 2: 23. 1821.

Lycopodioides helvetica (L.) Kuntze, Rev. Gen. Pl. 1: 824. 1891.

Heterophyllum helveticum (L.) Hieron. in Borner, Volksflora 285. f. 249. 1912.

Lycopodium radicans Schrank, Baier. Fl. 2: 493. 1789.

Selaginella mariesii Bak. in J. Bot. 1883: 44; Matsum., Cat. Pl. Herb. Coll. Sci. Imp. Univ. 240. 1886; Fern Allies 36. 1887; Makino et Nemoto, Fl. Jap. 1552. 1925.

Lycopodioides mariesii (Bak.) Kuntze, Rev. Gen. Pl. 1: 826. 1891.

Nom. Jap.: Ezo-no-hime-kurama-goke, miyama-hime-tachi-kurama-goke, hime-kurama-goke, ezo-hime-kurama-goke.

Distr.: Japan (Hokkaido and Honshu), Korea, China, Himalaya, Russia, Persia, and Europe.

Distr. Map. Europe: Jalas et Suominen (op. cit.). Japan: Kurata et Nakaike (op. cit.).

Chromosome numbers: $2n=18$ (Takamiya, op. cit.).

Ic. Spore: Nasu et Seto (op. cit.); Kurata et Nakaike (op. cit.).

***Selaginella heterostachys* Bak.** in J. Bot. 23: 177. 1885; Handb. Fern-Allies 110. 1887; Alston in Bull. Fan Mem. Inst. Biol. 6: 290. 1934; Koidz. in Acta Phytotax. Geobot. 4: 230. 1935; Ohwi, Fl. Jap. Pterid. 14. 1957; Tagawa, Col. Ill. Jap. Pterid. 20. 255. pl. 5. f. 31. 1959; in Acta Phytotax. Geobot. 25: 179. 1973; Okuyama, Col. Ill. Wild Pl. Jap. 5: 50. 1960; Namekata et Kurata in Namekata, Coll. Cultiv. Our Ferns & Ferns All. 251. 1961; Sugimoto, Keys Herbac. Pl. Jap. Pterid. 93. 1966; Reed in Mem. Soc. Brot. 18: 125. 1966; Jotani et Ohba in Sci. Rep. Yokosuka City Mus. 14: 53. 1968; Shimura, Phot. Ecol. Guid. Jap. Pterid. 21. f. 23. 1972; Huang, Spore Fl. Taiwan 17. 1981; Nakaike, New Fl. Jap. Pterid. 38. f. 38a (syn-type of *S. heterostachys*, Hance 7491 & Wright, s.n.). 38b. 38c. 1982; Kuo in Taiwania 30: 13. 1985; Nasu et Seto in Spec. Publ. Osaka Mus. Nat. Hist. 16-17: pls. 86-87. 1986; 18: 19. 1986; Kurata et Nakaike, Ill. Pterid. Jap. 6: 140. 865. f. 20. 1990; K. Iwats., Ferns & Ferns All. Jap. 54. pl. 11. f. 5. 1992; Tsai et Shieh in Huang, Fl. Taiwan, 2nd ed. 50. 1992; Takamiya in J. Plant Res. 106: 149-166. 1993.

Lycopodioides heterostachya (Bak.) Kuntze, Rev. Gen. Pl. 1: 826. 1891.

Selaginella recurvifolia Warb. in Monsunia 1: 109. 125. 1900; Matsum., Ind. Pl. Jap. 1: 363. 1904.

Selaginella praticola Hand.-Mazz. in Sitzgs. Akad. Wiss. Wien 59: 50. 1922.

Selaginella tarokensis Yamamoto in J. Soc. Trop. Agr. Taihoku 3: 237. 1931.

Selaginella integerrima auct.: Matsum., Cat. Pl. Herb. Coll. Sci. Imp. Univ. 240. 1886; Makino et Nemoto, Cat. Jap. Pl. Herb. Nat. Hist. Dept. Tokyo Imp. Mus. 409. 1914; Fl. Jap. 1551. 1925.

Selaginella savatieri auct.: Terasaki, Zokunihon-shokubutsu-zufu f. 3932. 1938.

Selaginella lutchuensis auct.: Ute et Naito in J. Geobot. 13: 91. 1965.

Nom. Jap.: Hime-tachi-kurama-goke, himekurama-goke.

Distr.: Japan (Honshu, Shikoku, and Kyushu), Taiwan, China, Hong Kong, and Vietnam.

Distr. Map. Japan: Okuyama (op. cit.), Kurata et Nakaike (op. cit.).

Chromosome numbers: $2n=32$ (Takamiya, op. cit.).

Ic. Spore: Nasu et Seto (op. cit.); Kurata et Nakaike (op. cit.).

Selaginella involvens (Sw.) Spring, Mon. Fam. Lycop. 63. 1842; in Bull. Acad. Brux. 10: 136. 1843; Hieron. in Hedwigia 50: 2. 1911; Nakai in J. Coll. Sci. Imp. Univ. Tokyo 31: 424. 1911; Alston in Bull. Jard. Bot. Buit. ser. III. 16-4: 1940; Tagawa, Col. Ill. Jap. Pterid. 19. 255. pl. 5. f. 28. 1959; Okuyama, Col. Ill. Wild Pl. Jap. 5: 40. 42. 1960; in Sci. Rep. Tohoku Univ. ser. IV (Biol.) 29: 311. 1963; in Acta Phytotax. Geobot. 25: 176. 1973; Sugimoto, Keys Herbac. Pl. Jap. Pterid. 93. 1966; Reed in Mem. Soc. Brot. 18: 133. 1966; Lee in Bull. Seoul Nat. Univ. Forests 4: 59. 1967; Jotani et Ohba in Sci. Rep. Yokosuka City Mus. 14: 53. 1968; Hatusima, Fl. Ryukyus 120. 1971; Shimura, Phot. Ecol. Guid. Jap. Pterid. 24. f. 22. 1972; Acad. Sinica (ed.), Ic. Cormophyt. Sinic. 1: 114. f. 227. 1972; Ching in Fl. Tsinling. 2: 21. 1974; Serizawa in Sci. Rep. Takao Mus. Nat. Hist. 7: 5. 1975; Park, Ill. Encycl. Fauna & Fl. Korea, 16. Pterid. 420. 1975; Tagawa et K. Iwats., Fl. Thailand 3-1: 24. 1979; Kurata et Nakaike, Ill. Pterid. Jap. 6: 152. 865. f. 21. 1990; Huang, Spore Fl. Taiwan 17. pl. 8. f. 3-4. pl. 13. f. 3-4. 1981; Nakaike, New Fl. Jap. Pterid. 39. f. 39a. 39b. 1982; Ching et Wu in Wu (ed.), Fl. Xizang. 1: 27. 1983; Kuo in Taiwaniana 30: 13. 1985; Nasu et Seto in Spec. Publ. Osaka Mus. Nat. Hist. 16-17: pls. 56-57. 1986; 18: 15. 1986; Shimabuku, Check List Vasc. Fl. Ryukyu Isls. 5. 1990; K. Iwats., Ferns

& Ferns All. Jap. 52. pl. 9. f. 1-2. 1992; Dixit, Selagin. India, 46. figs. 12A-I, pl. XIII. 1992; Takamiya in J. Plant Res. 106: 149-166. 1993; Tsai et Shieh in Huang, Fl. Taiwan, 2nd ed. 50. pl. 11. 1994.

Lycopodium involvens Sw., Syn. Fil. 182. 1806.

Lycopodioides involvens (Sw.) Kuntze, Rev. Gen. Pl. 1: 826. 1891.

Lycopodium caulescens Wall. ex Hook. et Grev. in Hook. Bot. Misc. 2: 382. 1831.

Selaginella caulescens (Wall. ex Hook. et Grev.) Spring in Bull. Acad. Brux. 10: 137. 1843; Franch. et Sav., Enum. Pl. Jap. 199. 1877; 616. 1878; Ito, Cat. Pl. Koishik. Bot. Gard. part 2. 2nd ed. 26. 1881; Matsum., Cat. Pl. Herb. Coll. Sci. Imp. Univ. 240. 1886; Nom. Jap. Pl. 177. 1884; Ind. Pl. Jap. 361. 1904; Okubo, Cat. Pl. Bot. Gard. Imp. Univ. 258. 1887; Bak., Handb. Fern-Allies 94. 1887; Makino et Nemoto, Cat. Jap. Pl. Herb. Nat. Hist. Dept. Tokyo Imp. Mus. 409. 1914; Fl. Jap. 1550. 1925; Terasaki, Nihon-shokubutsu-zufu f. 2098. 1933; Alston in Bull. Fan Mem. Inst. Biol. 6: 285. 1934; in Bull. Jard. Bot. Buit. ser. III. 13: 441. 1935; 14-2: 185. 1937; Makino, Ill. Fl. Nippon 970. 1940.

Lycopodium pennula Desv. in Prodr. Fil. Ann. Soc. Linn. Paris 6: 187. 1827. p.p.

Selaginella pennula (Desv.) Spring in Bull. Acad. Brux. 10: 137. 1843. p.p.

Lycopodioides pennula (Desv.) Kuntze, Rev. Gen. Pl. 1: 827. 1891.

Selaginella peltata Presl, Bot. Bem. 152. 1844.

Selaginella caulescens var. *subintegerrima* Spring, Monogr. Lyc. 2: 159. 1850.

Selaginella japonica Ball in J. Roy. Hort. Soc. n.s. 1: xxix. 1866; Moore ex MacNab in Tr. Bot. Soc. Edinb. 9: 8. 1868. non Miq. 1867.

Selaginella caulescens var. *japonica* (Ball) Bak. in J. Bot. 1885: 24; Handb. Fern-Allies 95. 1887; Matsum., Ind. Pl. Jap. 361. 1904; Makino et Nemoto, Fl. Jap. 1550. 1925.

Selaginella microstachya Warb. in Monsunia 1: 104. 116. 1900.

Selaginella pseudo-stauntoniana Pamp. in Nuovo Giorn. Bot. Ital. n. s. 18: 103. 1911.

Selaginella warburgii Hieron. in Elmer's Leaflets Phil. Bot. 6: 1988. 1913.

Selaginella caudispica v. A. v. R. in Bull. Jard. Bot. Buit. II. 11: 35. 1913.

Selaginella pachystachys Koidz. in Acta Phytotax. Geobot. 4: 226. 1935; Ohwi, Fl. Jap. Pterid. 13. 1957; Namekata et Kurata in Namekata, Coll. Cultiv. Our Ferns & Ferns All. 252. 1961.

Selaginella stauntoniana auct.: Matsum., Ind. Pl. Jap. 1: 363. 1904; Makino et Nemoto, Fl. Jap. 1553. 1925.

Nom. Jap.: Kata-hiba, hime-hiba, me-hiba.

Distr.: Japan (Honshu, Shikoku, Kyushu, and Ryukyu), Korea, Taiwan, India, Myanmar, Sri Lanka, Himalaya, SE Asia, Thailand, Borneo, and Celebes.

Distr. Map. Japan: Okuyama (op. cit.), Kurata et Nakaike (op. cit.).

Chromosome numbers: $2n=20$ (Takamiya, op. cit.).

Ic. Spore: Nasu et Seto (op. cit); Kurata et Nakaike (op. cit.).

Selaginella leptophylla Bak. in J. Bot. 23: 157. 1885; Handb. Fern-Allies 109. 1887; Matsum., Ind. Pl. Jap. 362. 1904; Makino et Nemoto, Fl. Jap. 1552. 1925; Alston in Bull. Fan Mem. Inst. Biol. 6: 291. 1934; Tagawa in Acta Phytotax. Geobot. 10: 194. 1941; in Sci. Rep. Tohoku Univ. ser. IV (Biol.) 29: 315. 1963. pro *S. aff. leptophylla*; in Acta Phytotax. Geobot. 25: 179. 1973; Reed in Mem. Soc. Brot. 18: 143. 1966; Hatusima, Fl. Ryukyus 120. 1971. pro *S. aff. leptophylla*; Serizawa in Sci. Rep. Takao Mus. Nat. Hist. 7: 5. 1975; Huang, Spore Fl. Taiwan 17. pl. 8. f. 7–9. pl. 14. f. 4–5. 1981; Nakaike, New Fl. Jap. Pterid. 40. 40a. 40b. 1982; Kuo in Taiwaniana 30: 13. 1985; Shimabuku, Check List Vasc. Fl. Ryukyu Isls. 6. 1990; Kurata et Nakaike, Ill. Pterid. Jap. 6: 166. 865. f. 22. 1990; K. Iwats., Ferns & Ferns All. Jap. 54. pl. 11. f. 2. 1992.

Lycopodioides leptophylla (Bak.) Kuntze, Rev. Gen. Pl. 1: 826. 1891.

Selaginella cristata Warb. in Monsunia 1: 109. 125. 1900.

Selaginella wichurae Warb. in Monsunia 1: 110. 127. 1900.

Selaginella leptophylla var. *wichurae* (Warb.) Tagawa in Acta Phytotax. Geobot. 10: 194. 1941.

Selaginella stenostachya Hayata, Ic. Pl. Formos. 4: 130. f. 68. 1914. non Warb. 1900.

Selaginella hayatana Satake in Bot. Mag. Tokyo 48: 261. 1934.

Selaginella satakeana Koidz. in Acta Phytotax. Geobot. 5: 40. 1936.

Nom. Jap.: Koke-kata-hiba.

Distr.: Japan (Ryukyu), Taiwan, S. China, and Philippines.

Distr. Map. Japan: Kurata et Nakaike (op. cit.).

Ic. Spore: Kurata et Nakaike (op. cit.).

Selaginella limbata Alston in J. Bot. 70: 62. 1932; in Bull. Fan Mem. Inst. Biol. 6: 275. 1934; Tagawa in Sci. Rep. Tohoku Univ. ser. IV (Biol.) 29: 313. 1963; Sugimoto, Keys Herbac. Pl. Jap. Pterid. 93. 1966; Reed in Mem. Soc. Brot. 18: 144. 1966; Hatusima, Fl. Ryukyus 121. 1971; Shimura, Phot. Ecol. Guid. Jap. Pterid. 25. f. 23. 1972; Serizawa in Sci. Rep. Takao Mus. Nat. Hist. 7: 6. 1975; Nakaike, New Fl. Jap. Pterid. 41. f. 41a. 41b. 41c. 1982; Shimabuku, Check List Vasc. Fl. Ryukyu Isls. 6. 1990; Kurata et Nakaike, Ill. Pterid. Jap. 6: 170. 865. f. 23. 1990; K. Iwats., Ferns & Ferns All. Jap. 53. pl. 10. f. 3. 1992; Takamiya in J. Plant Res. 106: 149–166. 1993.

Selaginella stolonifera auct.: Hook. ex Hance in J. Linn. Soc. 13: 143. 1873.

Nom. Jap.: Amami-kurama-goke.

Distr.: Japan (Kyushu–Amami isl.), China, and Hong Kong.

Distr. Map. Japan: Kurata et Nakaike (op. cit.).

Chromosome numbers: $2n=18$ (Takamiya, op. cit.).

Ic. Spore: Kurata et Nakaike (op. cit.).

Selaginella lutchuensis Koidz., Pl. Nov. Amami. 4. 1928; in Acta Phytotax. Geobot. 1: 165. 1932; 4: 228. 1935; Tagawa in Acta Phytotax. Geobot. 16: 185. 1956; Col. Ill. Jap. Pterid. 20. 255. pl. 5. f. 30. 1959; in Sci. Rep. Tohoku Univ. ser. IV (Biol.) 29: 314. 1963; Namekata et Kurata in Namekata, Coll. Cultiv. Our Ferns & Ferns All. 251. 1961; Sugimoto, Keys Herbac. Pl. Jap. Pterid. 93. 1966; Reed in Mem. Soc. Brot. 18: 148. 1966; Hatusima, Fl. Ryukyus 120. 1971; Shimura, Phot. Ecol. Guid. Jap. Pterid. 26. f. 24. 1972; Serizawa in Sci. Rep. Takao Mus. Nat. Hist. 7: 6. 1975; Nakaike, New Fl. Jap. Pterid. 42. 42a (holotype of *S. lutchuensis*). 42b. 42c. 1982; Nasu et Seto in Spec. Publ. Osaka Mus. Nat. Hist. 16·17: pls. 88–89. 1986; 18: 19. 1986;

Shimabuku, Check List Vasc. Fl. Ryukyu Isls. 6. 1990; Kurata et Nakaike, Ill. Pterid. Jap. 6: 174. 865. f. 24. 1990; K. Iwats., Ferns & Ferns All. Jap. 54. pl. 11. f. 5. 1992; Takamiya in J. Plant Res. 106: 149-166. 1993.

Nom. Jap.: Hime-mukade-kurama-goke.

Distr.: Japan (Kyushu and Ryukyu).

Distr. Map. Japan: Kurata et Nakaike (op. cit.).

Chromosome numbers: $2n = 18$ (Takamiya, op. cit.).

Ic. Spore: Nasu et Seto (op. cit.); Kurata et Nakaike (op. cit.).

***Selaginella moellendorffii* Hieron.** in Engl. et Prantl, Nat. Pfl.-fam. 1-4: 680. 1902; Alston in Bull. Fan Mem. Inst. Biol. 6: 283. 1934; in Philipp. J. Sci. 58: 377. 1935; Tagawa in Acta Phytotax. Geobot. 25: 175. 1973; Reed in Mem. Soc. Brot. 18: 159. 1966; Hatusima, Fl. Ryukyus 120. 1971; Serizawa in Sci. Rep. Takao Mus. Nat. Hist. 7: 6. 1975; Huang, Spore Fl. Taiwan 17. pl. 9. f. 1-2. pl. 15. f. 1-2. 1981; Acad. Sinica (ed.), Ic. Cormophyt. Sinica. 1: 113. f. 226. 1972; Ching in Fl. Tsinling. 2: 20. pl. 2. f. 14-19. 1974; Nakaike, New Fl. Jap. Pterid. 43. f. 43a. 43b. 1982; Kuo in Taiwaniana 30: 13. 1985; Nasu et Seto in Spec. Publ. Osaka Mus. Nat. Hist. 16-17: pl. 60. 1986; 18: 16. 1986; Shimabuku, Check List Vasc. Fl. Ryukyu Isls. 6. 1990; K. Iwats., Ferns & Ferns All. Jap. 52. pl. 9. f. 4. 1992; Takamiya in J. Plant Res. 106: 149-166. 1993; Tsai et Shieh in Huang, Fl. Taiwan, 2nd ed. 53. 1994.

***Selaginella subcaulescens* Hayata**, Ic. Pl. Formos. 7: 99. f. 64. 1918.

Nom. Jap.: Inu-kata-hiba, katahiba-modoki.

Distr.: Japan (Honshu, Shikoku, Kyushu, and Ryukyu), Taiwan, China, Philippines, and Indo-China.

Chromosome numbers: $2n = 20$ (Takamiya, op. cit.).

Ic. Spore: Nasu et Seto (op. cit.).

***Selaginella nipponica* Franch. et Sav.**, Enum. Pl. Jap. 2: 199. 1877; 615. 1878; Bak. Handb. Fern-Allies 66. 1887; Matsum., Ind. Pl. Jap. 362. 1904; Komatsu, Ic. Pl. Koisikav. 1-6: 161. pl. 81. 1913; Makino et Nemoto, Fl. Jap. 1552. 1925; Alston in Bull. Fan Mem. Inst. Biol. 6: 272. 1934; Koidz. in Acta Phytotax. Geobot. 4: 227. 1935; Ohwi, Fl. Jap. Pterid. 14.

1957; Tagawa, Col. Ill. Jap. Pterid. 17. 255. pl. 4. f. 24. 1959; Okuyama, Col. Ill. Wild Pl. Jap. 2: 173. 1960; Namegata et Kurata in Namegata, Coll. Cultiv. Our Ferns & Ferns All. 251. 1961; Sugimoto, Keys Herbac. Pl. Jap. Pterid. 93. 1966; Reed in Mem. Soc. Brot. 18: 165. 1966; Jotani et Ohba in Sci. Rep. Yokosuka City Mus. 14: 53. 1968; 27. f. 25. 1972; Acad. Sinica (ed.), Ic. Cormophyt. Sinica. 1: 114. f. 228. 1972; Ching in Fl. Tsinling. 2: 21. pl. 3. f. 1-6. 1974; Park, Ill. Encycl. Fauna & Fl. Korea, 16. Pterid. 420. 1975; Huang, Spore Fl. Taiwan 18. pl. 9. f. 4. pl. 15. f. 3. 1981; Nakaike, New Fl. Jap. Pterid. 44. f. 44. 1982; Ching et Wu in Wu (ed.), Fl. Xizang. 1: 25. 1983; Kuo in Taiwaniana 30: 13. 1985; Nasu et Seto in Spec. Publ. Osaka Mus. Nat. Hist. 16-17: pls. 81-83. 1986; 18: 19. 1986; Kurata et Nakaike, Ill. Pterid. Jap. 6: 178. 865. f. 25. 1990; K. Iwats., Ferns & Ferns All. Jap. 53. pl. 10. f. 1-2. 1992; Takamiya in J. Plant Res. 106: 149-166. 1993; Tsai et Shieh in Huang, Fl. Taiwan, 2nd ed. 53. 1994.

***Lycopodioides nipponica* (Franch. et Sav.) Kuntze**, Rev. Gen. Pl. 1: 827. 1891.

***Selaginella savatieri* Bak.** in J. Bot. 1884: 87; Matsum., Cat. Pl. Herb. Coll. Sci. Imp. Univ. 240. 1886; Ind. Pl. Jap. 1: 363. 1904; Okubo, Cat. Pl. Bot. Gard. Imp. Univ. 258. 1887; Makino et Nemoto, Cat. Jap. Pl. Herb. Nat. Hist. Dept. Tokyo Imp. Mus. 410. 1914; Fl. Jap. 1553. 1925; Makino, Ill. Fl. Nippon 969. 1940.

***Lycopodioides savatieri* (Bak.) Kuntze**, Rev. Gen. Pl. 1: 827. 1891.

***Selaginella shen-siensis* Chirst** in Nuovo Giorn. Bot. Ital. n.s. 4: 102. 1897. p.p.

***Selaginella hachijoense* Nakai** in Bot. Mag. Tokyo 35: 149. 1921; Makino et Nemoto, Fl. Jap. 1551. 1925; Namegata et Kurata in Namegata, Coll. Cultiv. Our Ferns & Ferns All. 251. 1961.

***Selaginella jugorum* Hand.-Mazz.** Symb. Sin. 6: 8. t. 1. f. 3. 1929.

***Selaginella denticulata* auct.**: Miq. in Ann. Mus. Bot. Lugd. Bat. 3: 185. 1867; Franch. et Sav., Enum. Pl. Jap. 198. 1877; 616. 1878.

***Selaginella helvetica* auct.**: Franch. et Sav., Enum. Pl. Jap. 199. 1877; 616. 1878; Matsum., Ind. Pl. Jap. 361. 1904.

***Selaginella ornithopodioides* auct.**: Thunb., Fl. Jap. 341. 1784; Miq. in Ann. Mus. Bot.

Lugd. Bat. 3: 185. 1867; Franch. et Sav., Enum. Pl. Jap. 199. 1877; 616. 1878.

Selaginella shensiensis auct.: Matsum., Ind. Pl. Jap. 1: 363. 1904; Makino et Nemoto, Fl. Jap. 1553. 1925.

Nom. Jap.: Tachi-kurama-goke, hai-kurama-goke, hachijou-goke.

Distr.: Japan (Honshu, Shikoku, Kyushu, and Ryukyu), Korea, Taiwan, China, and Indo-China.

Distr. Map. Japan: Kurata et Nakaike (op. cit.).

Chromosome numbers: $2n=18$ (Takamiya, op. cit.).

Ic. Spore: Nasu et Seto (op. cit.); Kurata et Nakaike (op. cit.).

Selaginella remotifolia Spring in Miq., Pl. Jungh. 3: 276. 1854; Bak., Handb. Fern-Allies 65. 1887. pro syn.; Alston in Bull. Fan Mem. Inst. Biol. 6: 274. 1934; in Bull. Jard. Bot. Buitenz. ser. III. 13: 434. 1935; 14-2: 177. 1937; in Philipp. J. Sci. 58: 364. 1935; Tagawa in Acta Phytotax. Geobot. 10: 193. 1941; Col. Ill. Jap. Pterid. 18. 255. pl. 4. f. 26. 1959; in J. Jap. Bot. 36: 205. 1961; in Sci. Rep. Tohoku Univ. ser. IV (Biol.) 29: 314. 1963; in Acta Phytotax. Geobot. 25: 172. 1973; Okuyama, Col. Ill. Wild Pl. Jap. 5: 160. 1960; Sugimoto, Keys Herbac. Pl. Jap. Pterid. 94. 1966; Reed in Mem. Soc. Brot. 18: 191. 1966; Hatusima, Fl. Ryukyus 121. 1971; Shimura, Phot. Ecol. Guid. Jap. Pterid. 28. f. 26. 1972; Serizawa in Sci. Rep. Takao Mus. Nat. Hist. 7: 6. 1975; Park, Ill. Encycl. Fauna & Fl. Korea, 16. Pterid. 421. 1975; Huang, Spore Fl. Taiwan 18. pl. 9. f. 4-5. pl. 15. f. 4. 1981; Nakaike, New Fl. Jap. Pterid. 45. f. 45a (syntype of *S. japonica*). 45b. 45c. 1982; Kuo in Taiwaniana 30: 12. 1985; Nasu et Seto in Spec. Publ. Osaka Mus. Nat. Hist. 16-17: pls. 71-72. 1986; 18: 17. 1986; Shimabuku, Check List Vasc. Fl. Ryukyu Isl. 7. 1990; Kurata et Nakaike, Ill. Pterid. Jap. 6: 184. 865. f. 26. 1990; K. Iwats., Ferns & Ferns All. Jap. 53. pl. 10. f. 4-5. 1992; Takamiya in J. Plant Res. 106: 149-166. 1993; Tsai et Shieh in Huang, Fl. Taiwan, 2nd ed. 53. 1994.

Selaginella japonica Miq. in Ann. Mus. Bot. Lugd. Bat. 3: 185. 1867; Terasaki, Nihon-shokubutsu-zufu f. 2097. 1933; Makino, Ill. Fl. Nippon 969. 1940.

Selaginella remotifolia var. *japonica* (Miq.) Koidz. in Acta Phytotax. Geobot. 4: 228. 1935; Ohwi, Fl. Jap. Pterid. 14. 1957; Namegata et Kurata in Namegata, Coll. Cultiv. Our Ferns & Ferns All. 252. 1961.

Selaginella kelungensis Hayata, Ic. Pl. Formos. 7: 97. f. 59. 1918; Koidz. in Acta Phytotax. Geobot. 4: 228. 1935; Tagawa in J. Jap. Bot. 36: 205. 1961. pro syn.

Selaginella kraussiana auct.; Franch. et Sav., Enum. Pl. Jap. 200. 1877; 615. 1878; Matsum., Nom. Jap. Pl. 177. 1884; Cat. Pl. Herb. Coll. Impel. Univ. 241. 1886; Ind. Pl. Jap. 1: 362. 1904; Okubo, Cat. Pl. Bot. Gard. Imp. Univ. 259. 1887; Makino et Nemoto, Cat. Jap. Pl. Herb. Nat. Hist. Dept. Tokyo Imp. Mus. 410. 1914; Fl. Jap. 1551. 1925.

Nom. Jap.: Kurama-goke, youraku-goke, atago-goke, eizan-goke, okinawa-kurama-goke, kiirun-kurama-goke, nise-kurama-goke.

Distr.: Japan (Hokkaido, Honshu, Shikoku, Kyushu, and Ryukyu), Korea, Taiwan, China, Philippines, Malaysia, Sumatra, Indonesia, Myanmar, and New Guinea.

Distr. Map. Japan: Kurata et Nakaike (op. cit.).

Chromosome numbers: $2n=20$ (Takamiya, op. cit.).

Ic. Spore: Nasu et Seto (op. cit.); Kurata et Nakaike (op. cit.).

Selaginella selaginoides (L.) Beauv. ex Martius et Schrank, Hort. Reg. Monac. 1: 182. 1829; Link, Fil. Sp. 158. 1841; Bak., Handb. Fern-Allies 34. 1887. pro syn.; Matsum., Ind. Pl. Jap. 1: 363. 1904; Takeda in Bot. Mag. Tokyo 23: 235. 1909; Makino et Nemoto, Fl. Jap. 1553. 1925; Miyabe et Kudo in J. Fac. Agr. Hokkaido Imp. Univ. 26: 61. 1930; Koidz. in Acta Phytotax. Geobot. 4: 222. 1935; Ohwi, Fl. Jap. Pterid. 12. 1957; Tagawa, Col. Ill. Jap. Pterid. 17. 256. pl. 4. f. 21. 1959; Namegata et Kurata in Namegata, Coll. Cultiv. Our Ferns & Ferns All. 252. 1961; Lawalrée in Tutin et al. Fl. Europ. 1: 5. 1964; Sugimoto, Keys Herbac. Pl. Jap. Pterid. 94. 1966; Okuyama, Col. Ill. Alp. Fl. Jap. 217. pl. 108. f. 371. 1966; Reed in Mem. Soc. Brot. 18: 206. 1966; Hultén, Fl. Alaska 31. 1968; Shimura, Phot. Ecol. Guid. Jap. Pterid. 29. f. 27. 1972; Jalas et Suominen, Atl. Fl. Europ. 24. map 13. 1972;

Jermy et al., Atl. Ferns Brit. Isl. 9. 1978; Nakaike, New Fl. Jap. Pterid. 46. f. 46a. 46b. 1982; Shimizu, New Alp. Fl. Jap. Col. 2: 262. pl. 142. f. 477. 1983; Dostál in Hegi, Ill. Fl. Mitteleur. 1-1: 44. 1984; Nasu et Seto in Spec. Publ. Osaka Mus. Nat. Hist. 16·17: pls. 44-46. 1986; 18: 12. 1986; Kurata et Nakaike, Ill. Pterid. Jap. 6: 198. 865. f. 27. 1990; K. Iwats., Ferns & Ferns All. Jap. 51. pl. 7. f. 2. 1992; Valdespino, Fl. North Amer. 2: 41. 1993; Takamiya in J. Plant Res. 106: 149-166. 1993.

Lycopodium selaginoides L. Sp. Pl. 2: 1101. 1753.

Lycopodium ciliatum Lam., Fl. Franc. 1: 32. 1778.

Selaginella ciliata (Lam.) Opit, Böhm. Phanerog. Cryptog. Gew. 114. 1823.

Selaginella spinosa Beauv., Prodr. 112. 1806.

Lycopodium bryophyllum Presl, Rel. Haenk. 1: 81. 1825.

Selaginella spinulosa A. Br. in Döll, Fhein Fl. 38. 1843.

Lycopodina spinulosa (A. Br.) Bubani, Fl. Pyrenaea 4: 445. 1901.

Nom. Jap.: Koke-sugi-ran.

Distr.: Japan (Hokkaido and Honshu), Russia, Europe, and North America.

Distr. Map. Japan: Okuyama (op. cit.), Kurata et Nakaike (op. cit.). Circumpolar: Hultén (op. cit.). Alaska: Hultén (op. cit.). North America: Valdespino (op. cit.). Europe: Jalas et Suominen (op. cit.). British Isles: Jermy et al. (op. cit.).

Chromosome numbers: $2n=18$ (Takamiya, op. cit.).

Ic. Spore: Nasu et Seto (op. cit.)

***Selaginella shakotanensis* (Franch. ex Takeda) Miyabe et Kudo** in J. Agr. Hokkaido Imp. Univ. 26: 63. 1930; Alston in J. Bot. 70: 61. 1932; Hara in Bot. Mag. Tokyo 48: 707. 1934; Koidz. in Acta Phytotax. Geobot. 4: 223. 1935; Ohwi, Fl. Jap. Pterid. 13. 1957; Tagawa, Col. Ill. Jap. Pterid. 17. 256. pl. 4. f. 17. 1959; Namegata et Kurata in Namegata, Coll. Cultiv. Our Ferns & Ferns All. 252. 1961; Okuyama, Col. Ill. Wild Pl. Jap. 7: 93. 94. 1963; Sugimoto, Keys Herbac. Pl. Jap. Pterid. 94. 1966; Reed in Mem. Soc. Brot. 18: 209. 1966; Shimura, Phot. Ecol. Guid. Jap. Pterid. 30. f. 28. 1972; Park, Ill. Encycl. Fauna & Fl. Korea,

16. Pterid. 421. 1975; Nakaike, New Fl. Jap. Pterid. 47. f. 47a. 47b. 1982; Shimizu, New Alp. Fl. Jap. Col. 2: 263. 1983; Nasu et Seto in Spec. Publ. Osaka Mus. Nat. Hist. 16·17: pls. 50. 1986; 18: 13. 1986; Kurata et Nakaike, Ill. Pterid. Jap. 6: 202. 865. f. 28. 1990; K. Iwats., Ferns & Ferns All. Jap. 51. pl. 8. f. 5. 1992.

Selaginella rupestris var. *shakotanensis* Franch. ex Takeda in Bot. Mag. Tokyo 23: 237. f. 17. 1909; Takeda in Bot. Mag. Tokyo 23: 237. 1909; Makino et Nemoto, Fl. Jap. 1553. 1925; Makino, Ill. Fl. Nippon 970. 1940.

Bryodesma shakotanense (Franch. ex Takeda) Sojak in Preslia 64: 155. 1992.

Selaginella rupestris auct.: Miyoshi et Makino, Poket-atlas Alp. Pl. Jap. 1: 50. pl. 25. f. 144. 1906; Makino et Nemoto, Cat. Jap. Pl. Herb. Nat. Hist. Dept. Tokyo Imp. Mus. 410. 1914.

Nom. Jap.: Himo-kazura, hime-hikage-no-kazura, karakusa-kazura, hime-himo-kazura.

Distr.: Japan (Hokkaido and Honshu), Korea, and E. Russia.

Distr. Map. Japan: Okuyama (op. cit.); Kurata et Nakaike (op. cit.).

Ic. Spore: Nasu et Seto (op. cit.); Kurata et Nakaike (op. cit.).

***Selaginella sibirica* (Milde) Hieron.** in Hedwigia 39: 290. 1900; Miyabe et Kudo in J. Fac. Agr. Hokkaido Imp. Univ. 26: 62. 1930; Koidz. in Acta Phytotax. Geobot. 4: 223. 1935; Ohwi, Fl. Jap. Pterid. 12. 1957; Tagawa, Col. Ill. Jap. Pterid. 17. 256. pl. 4. f. 23. 1959; Namegata et Kurata in Namegata, Coll. Cultiv. Our Ferns & Ferns All. 252. 1961; Okuyama, Col. Ill. Wild Pl. Jap. 7: 93. 1963; Sugimoto, Keys Herbac. Pl. Jap. Pterid. 94. 1966; Reed in Mem. Soc. Brot. 18: 210. 1966; Lee in Bull. Seoul Nat. Univ. Forests 4: 59. 1967; Hultén, Fl. Alaska 31. 1968; Park, Ill. Encycl. Fauna & Fl. Korea, 16. Pterid. 422. 1975; Nakaike, New Fl. Jap. Pterid. 48. f. 48a. 48b. 1982; Shimizu, New Alp. Fl. Jap. 2: 263. 1983; Nasu et Seto in Spec. Publ. Osaka Mus. Nat. Hist. 16·17: pls. 47-49. 1986; 18: 13. 1986; Kurata et Nakaike, Ill. Pterid. Jap. 6: 208. 865. f. 29. 1990; K. Iwats., Ferns & Ferns All. Jap. 51. pl. 7. f. 3-4. 1992; Valdespino, Fl. North Amer. 51. 1993.

Selaginella rupestris form. *sibirica* Milde, Fil. Eur. 262. 1867; Takeda in Bot. Mag. Tokyo 23: 236. 1909; Makino et Nemoto, Fl.

Jap. 1552. 1925.

Bryodesma sibiricum (Milde) Sojak in Preslia 64: 155. 1992.

Selaginella rupestris form. *amurensis* Milde, Fil. Eur. 262. 1867.

Selaginella rupestris form. *manchuriensis* Milde, Fil. Eur. 262. 1867.

Selaginella schmidtii Hieron. in Hedwigia 39: 292. 1900.

Selaginella schmidtii var. *krauseorum* Hieron. in Hedwigia 39: 293. 1900.

Selaginella rupestris auct.: Matsum., Ind. Pl. Jap. 1: 363. 1904.

Nom. Jap.: Ezo-no-himo-kazura.

Distr.: Japan (Hokkaido), Korea, Russia, Alaska, and North America.

Distr. Map. Japan: Kurata et Nakaike (op. cit.). Circumpolar: Hultén (op. cit.). Alaska: Hultén (op. cit.). North America: Valdespino (op. cit.)

Ic. Spore: Nasu et Seto (op. cit.); Kurata et Nakaike (op. cit.).

Selaginella tama-montana Serizawa in J. Jap. Bot. 53: 242. 1978; Nakaike, New Fl. Jap. Pterid. 49. f. 49a (isotype of *S. tama-montana*). 49b. 1982; Nasu et Seto in Spec. Publ. Osaka Mus. Nat. Hist. 16·17: pls. 84–85. 1986; 18: 19. 1986; K. Iwats., Ferns & Ferns All. Jap. 55. pl. 12. f. 5. 1992; Takamiya in J. Plant Res. 106: 149–166. 1993.

Nom. Jap.: Yama-kurama-goke.

Distr.: Japan (Honshu).

Chromosome numbers: $2n=18$ (Takamiya, op. cit.).

Ic. Spore: Nasu et Seto (op. cit.).

Selaginella tamariscina (Beauv.) Spring, Mon. Fam. Lycop. 64. 1842; in Bull. Acad. Brux. 10: 136. 1843; Alston in Bull. Fan Mem. Inst. Biol. 6: 270. 1934; in Philipp. J. Sci. 58: 363. 1935; Koidz. in Acta Phytotax. Geobot. 4: 224. 1935; Ohwi, Fl. Jap. Pterid. 13. 1957; Tagawa, Col. Ill. Jap. Pterid. 19. 256. pl. 5. f. 29. 1959; in Sci. Rep. Tohoku Univ. ser. IV (Biol.) 29: 310. 1963; in Acta Phytotax. Geobot. 25: 177. 1973; Namegata et Kurata in Namegata, Coll. Cultiv. Our Ferns & Ferns All. 252. 1961; Okuyama, Col. Ill. Wild Pl. Jap. 7: 168. 1963; Sugimoto, Keys Herbac. Pl. Jap. Pterid. 94. 1966; Reed in Mem. Soc. Brot. 18: 223. 1966;

Lee in Bull. Seoul Nat. Univ. Forests 4: 60. 1967; Jotani et Ohba in Sci. Rep. Yokosuka City Mus. 14: 53. 1968; Ohba in Sci. Rep. Tohoku Univ. ser. IV (Biol.) 36: 78. 1971; Hat- usima, Fl. Ryukyus 119. 1971; Acad. Sinica (ed.), Ic. Cormophyt. Sinic. 1: 111. f. 221. 1972; Shimura, Phot. Ecol. Guid. Jap. Pterid. 31. f. 29. 1972; Ching in Fl. Tsinling. 2: 18. 1974; Serizawa in Sci. Rep. Takao Mus. Nat. Hist. 7: 7. 1975; Park, Ill. Encycl. Fauna & Fl. Korea, 16. Pterid. 422. 1975; Tagawa et K. Iwats., Fl. Thailand 3–1: 23. 1979; Huang, Spore Fl. Taiwan 18. pl. 10. f. 4–7. pl. 16. f. 5. 1981; Nakaike, New Fl. Jap. Pterid. 50. f. 50. 1982; Kuo in Taiwania 30: 13. 1985; Nasu et Seto in Spec. Publ. Osaka Mus. Nat. Hist. 16·17: pls. 52–55. 1986; 18: 14. 1986; Shimabuku, Check List Vasc. Fl. Ryukyu Isls. 7. 1990; Kurata et Nakaike, Ill. Pterid. Jap. 6: 212. 865. f. 30. 1990; K. Iwats., Ferns & Ferns All. Jap. 51. pl. 8. f. 1–4. 1992; Tsai et Shieh in Huang, Fl. Taiwan, 2nd ed. 56. 1992; Takamiya in J. Plant Res. 106: 149–166. 1993.

Stachygynandrum tamariscinum Beauv., Prodr. 106. 1805.

Selaginella veitchii MacNab in Trans. Edinb. Bot. Soc. 9: 10. t. f. 1–5. 1867; Franch. et Sav., Enum. Pl. Jap. 200. 1877; 616. 1878.

Selaginella involvens var. *veitchii* (MacNab) Bak. in J. Bot. 1884: 375; Matsum., Ind. Pl. Jap. 362. 1904; Makino et Nemoto, Fl. Jap. 1551. 1925.

Selaginella involvens f. *minor* Milde, Fil. Eur. 269. 1867.

Selaginella japonica Veitch, Flor. & Pom. 137. fig. 1877.

Selaginella involvens (Sw.) Spring, Mon. Fam. Lycop. 63. 1842; in Bull. Acad. Brux. 10: 136. 1843. excl. Basion.; Miq. in Ann. Mus. Bot. Lugd. Bat. 3: 185. 1867; Franch. et Sav., Enum. Pl. Jap. 200. 1877; 616. 1878; Ito, Cat. Pl. Koishik. Bot. Gard. part 2. 2nd ed. 26. 1881; Matsum., Cat. Pl. Herb. Coll. Sci. Imp. Univ. 240. 1886; Nom. Jap. Pl. 177. 1884; Ind. Pl. Jap. 1: 361. 1904; Okubo, Cat. Pl. Bot. Gard. Imp. Univ. 258. 1887; Bak., Handb. Fern- Allies 87. 1887; Makino et Nemoto, Cat. Jap. Pl. Herb. Nat. Hist. Dept. Tokyo Imp. Mus. 410. 1914; Fl. Jap. 1551. 1925; Miyabe et Kudo in J. Fac. Agr. Hokkaido Imp. Univ. 26: 65. 1930; Terasaki, Nihon-shokubutsu-zufu f. 2099. 1933; Makino, Ill. Fl. Nippon 970. 1940.

Selaginella christii Lév. in Fedd. Repert. 9: 451. 1901.

Selaginella convolvens v. A. v. R. in Bull. Jard. Bot. Buit. ser. 2. 11: 23. 1913.

Selaginella leveillei Kümmerle in Bot. Mag. Lapok. 26: 00. 1928.

Selaginella circinale auct.; Thunb., Fl. Jap. 341. 1784.

Nom. Jap.: Iwa-hiba, iwa-matsu, iwa-goke.

Distr.: Japan (Hokkaido, Honshu, Shikoku, Kyushu, and Ryukyu), Korea, Taiwan, China, Siberia, Philippines, Indo-China, Thailand, and Indonesia.

Distr. Map. Japan: Okuyama (op. cit.), Kurata et Nakaike (op. cit.).

Chromosome numbers: $2n=20$ (Takamiya, op. cit.).

Ic. Spore: Nasu et Seto (op. cit.); Kurata et Nakaike (op. cit.).

Selaginella uncinata (Desv.) Spring, Mon. Fam. Lycop. 109. 1842; in Bull. Acad. Brux. 10: 141. 1843; Bak., Handb. Fern-Allies 48. 1887; Makino et Nemoto, Fl. Jap. 1553. 1925; Terasaki, Zoku-nihon-shokubutsu-zufu f. 3933. 1938; Alston in Bull. Fan Mem. Inst. Biol. 6: 273. 1934; Makino, Ill. Fl. Nippon 969. 1940; Ohwi, Fl. Jap. Pterid. 14. 1957; Sugimoto, Keys Herbac. Pl. Jap. Pterid. 96. 1966; Reed in Mem. Soc. Brot. 18: 229. 1966; Acad. Sinica (ed.), Ic. Cormophyt. Sinic. 1: 112. f. 223. 1972; Nakaike, New Fl. Jap. Pterid. 51. f. 51. 1982; Nasu et Seto in Spec. Publ. Osaka Mus. Nat. Hist. 16·17: pl. 69. 1986; 18: 17. 1986; K. Iwats., Ferns & Ferns All. Jap. 54. pl. 11. f. 3-4. 1992; Dixit, Selagin. India, 54. figs. 19A-Gl. 1992; Takamiya in J. Plant Res. 106: 149-166. 1993.

Lycopodium uncinatum Desv. in Pori. in Lamarck, Encycl. Suppl. 3: 558. 1813.

Lycopodioides uncinata (Desv.) Kuntze, Rev. Gen. Pl. 1: 825. 1891.

Lycopodium dilatatum Hook. et Grev. in Hook. Bot. Misc. 2: 394. 1831.

Selaginella caesia Kunze in Linnaea 20: 2. 1847.

Selaginella eurystachya Warb. in Monsunia 1: 105. 119. 1900.

Selaginella atrovirides auct.: Makino, Shokubutsu-zukan 800. f. 1536. 1908.

Nom. Jap.: Kon-teri-kurama-goke, moegi-hiba.

Distr.: Japan, China, and India.

Chromosome numbers: $2n=18$ (Takamiya, op. cit.).

Ic. Spore: Nasu et Seto (op. cit.).

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日本に生育するカタヒバ科（カタヒバ科はカタヒバ属1属にて構成される）に属する全ての種類（19種）について、正名、異名、それぞれの種類の分布、分布図、染色体（日本産）、孢子（日本産）の写真に関する文献について取りまとめた。異名については、すべてを網羅するように努めた。取り扱われた種類は次のとおりである。ヒバゴケ (*Selaginella boninensis*), ミタニクラマゴケ (*S. davidii*), オニクラマゴケ (*S. doederleinii*), ツルカタヒバ (*S. flagellifera*), エゾノヒメクラマゴケ (*S. helvetica*), ヒメタチクラマゴケ (*S. heterostachys*), カタヒバ (*S. involvens*), コケカタヒバ (*S. leptophylla*), アマミクラマゴケ (*S. limbata*), ヒメムカデクラマゴケ (*S. lutchuensis*), イヌカタヒバ (*S. moellendorffii*), タチクラマゴケ (*S. nipponica*), クラマゴケ (*S. remotifolia*), コケスギラン (*S. selaginoides*), ヒモカズラ (*S. shakotanensis*), エゾノヒモカズラ (*S. sibirica*), ヤマクラマゴケ (*S. tama-montana*), イワヒバ (*S. tamariscina*), コンテリクラマゴケ (*S. uncinata*).