

# Some new records of *Selaginella* from China

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## ABSTRACT

Five Asian species of *Selaginella* distributed in the neighboring regions of China were recently discovered within the territory of China. They are *Selaginella pallida* Spring, *S. pentagona* Spring, *S. subdiaphana* (Wall. ex Hook. & Grev.) Spring, *S. tenuifolia* Spring, and *S. shakotanensis* (Franch. ex H. Takeda) Miyabe & Kudo. The first four species are mainly distributed in the East Himalaya, while the last one is from Northeast Asia.

**KEYWORDS:** *Selaginella*, new records, Asia, China

## INTRODUCTION

The initial critical taxonomic revision of Chinese *Selaginella* was published by Alston (1934), who recognized 41 species from China. In the Chinese National Flora of China and English Flora of China (Zhang 2004, Zhang et al. 2013) the numbers of recognized species increased from 64 and 7, respectively. Since 2013, we have been engaged in the new international Flora Pan-Himalaya project and carried out several field trips to Yunnan and Xizang, targeting particularly for *Selaginella*.

Dr. Benito Tan did his master studies on *Selaginella* from the Philippines and later on mainly on bryophytes. He helped many Chinese plant taxonomists on mosses and ferns and also invited me to the Herbarium of the Singapore Botanic Gardens (SING) to study the Malesian *Selaginella* when he was the Director. It turned out a report of two additional species to the Flora of Malay Peninsula (Zhang and Tan, 2015).

## ENUMERATION OF SPECIES NEW TO THE FLORA OF CHINA:

***Selaginella pallida*** Spring in Bull. Acad. Roy. Sci. Brussels 10 (1): 234. 1843. *Lycopodium tenellum* Buch.-Ham., Prodr. Fl. Nepal. 18. 1825, nom. illeg., later homonym non (P. Beauv.) Desv. (1814); *Selaginella nepalensis* Spring, Bull. Acad. Roy. Sci. Brussels 10(1): 234. 1843.

*Lycopodium pallidum* Hook. & Grev., Bot. Misc. 2(6): 389. 1831 [ante 10 Sep 1831], nom. illeg., non *Lycopodium pallidum* Beyr. ex Gaudich. -- Voy. Uranie, Bot. pt. 7: 285.

1828 [16 Aug 1828], nom. illeg.

*Selaginella bomiensis* Ching & S.K. Wu, Fl. Xizang. 1: 25. 1983.

Representative specimen: China, Xizang, Nyalam, Zhangmu, Friendship Bridge, alt. 1800-2000 m, Xian-Chun Zhang et al. 5298 (PE).

Distribution: Nepal, Bhutan, India, and China (Xizang).

***Selaginella pentagona*** Spring in Mém. Acad. Roy. Sci. Belgique 24: 150. 1849.

Representative specimen: China, Yunnan, Gongshan, alt. 1200-1300 m, Xian-Chun Zhang et al. 8084 (PE); *ibid.*, Xiao-Hua Jin et al., DLJ-ET 0241, DLJ-ET 0251(PE).

Distribution: Myanmar, India, and China (Yunnan).

***Selaginella subdiaphana*** (Wall. ex Hook. & Grev.) Spring in Bull. Acad. Roy. Sci. Brussels 10(1): 232. 1843.

*Lycopodium subdiaphanum* Wall. ex Hook. & Grev. in Hook., Bot. Misc. 2: 401.1831.

Representative specimens: China, Yunnan, Gongshan, alt. 1300-1400 m, Xian-Chun Zhang et al. 8110, 8111 (PE); Xizang, Medog, Xiao-Hua Jin et al. 19130 (PE).

Distribution: Bhutan, Nepal, India, Myanmar and China (Yunnan, Xizang).

***Selaginella tenuifolia*** Spring in Mém. Acad. Roy. Sci. Belgique 24: 253. 1850.

Representative specimen: China, Xizang, Cona, under forest, alt. 2445 m, *PE-Xizang Exped. PE6280* (PE).

Distribution: Myanmar, Bhutan, Sikkim, NE India, Nepal, Thailand, and China (Xizang).

***Selaginella shakotanensis*** (Franch. ex H. Takeda) Miyabe & Kudo, Fl. Hokkaido 63. 1930.

*Selaginella rupestris* (L.) Spring var. *shakotanensis* Franch. ex H. Takeda in Bot. Mag. Tokyo 23: 237, f. 17. 1909.

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Representative specimen: China, Heilongjiang, Yichun, Qiao-Ping Xiang and Zhong-Tao Wang 39 (PE).

Distribution: Sakhalin, Japan, Korea, and China (Heilongjiang).

This is a species of the monophyletic group of *Selaginella* with uniform monomorphic leaves which are found mainly in America. Four species of this group are distributed in China, *Selaginella indica* (Milde) R.M. Tryon, and *S. vardei* H. Lev. from Southwest China, while *S. sibirica* (Milde) Hieron., and *S. shakotanensis* (Franch. ex H. Takeda) Miyabe & Kudo are from Northeast China.

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