

## 越南、老挝蕨类植物新记载 (3) ——

### 凤尾蕨属\*

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**摘要:** 通过野外调查和标本研究, 报道越南、老挝两地凤尾蕨属 *Pteris* 7 个新记载的物种, 它们分别是 *P. argyraea*、四川凤尾蕨 *P. sichuanensis*、两广凤尾蕨 *P. maclurei*、单叶凤尾蕨 *P. pseudopellucida*、有刺凤尾蕨 *P. setuloso-costulata*、琼南凤尾蕨 *P. morii*、栗轴凤尾蕨 *P. wangiana*。

**关键词:** 凤尾蕨属; 凤尾蕨科; 越南; 老挝

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## Some New Records of Ferns from Vietnam and Laos (3)

### *Pteris* (Pteridaceae)

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**Abstract:** Genus *Pteris* from Vietnam and Laos is revised in this paper. Seven species newly reported from Vietnam and Laos are *P. argyraea*, *P. sichuanensis*, *P. maclurei*, *P. pseudopellucida*, *P. setuloso-costulata*, *P. morii*, and *P. wangiana*.

**Key words:** *Pteris*; Pteridaceae; Vietnam; Laos

*Pteris* L. is a genus with about 250 species widely distributed in the warm-temperate and tropical areas of the world (Kubitzki, 1990). Christensen and Tardieu-Blot (1940) reported 29 *Pteris* species from Vietnam, Laos and Cambodia. However, Ho (1990) reported 26 species and one variety of *Pteris* in Vietnam and other three species were considered as synonyms. Tagawa and Iwatsuki (1985)

reported 27 species of *Pteris* from Thailand, while Holttum (1968) reported 14 species from Malaysia. During our extensive expedition to Vietnam and Laos in past five years, we collected 21 species of the taxa which reported by Ho (1990) and we collected 7 species as new records for Vietnam and Laos. Our report could be a very useful data for the 'Flora of Vietnam, Laos and Cambodia' in progress.

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**1** *Pteris argyraea* T. Moore, Gard. Chron 691. 1859; Hieronymus in Hedwigia **55**: 342. 1914; C. Chr. Index Fil. Suppl. 58. 1913–1916; Moran Fern Grower's Manual 473. fig. 13. 105. 2001.

Specimens examined: **Vietnam**: Lam Dong Prov., Da Lat city, Ta Nung Commune Tran Le agriculture farm, approximately 11°56'08" N, 108°22'47" E, 1 310–1 380 m. 08. Nov. 2006, WP<sup>①</sup>-1459. **Laos**: Khammouane Prov., Hinboun Distr., Khounkham Vill., Houay Muang (Phou Hai), 18°13' 469" N, 104°32'671" E, 9 Nov., 2007, WS-338.

Ecology: In primary broad-leaved evergreen forest.

Distribution: Indonesia (type from Java), **New to Vietnam and Laos.**

Discussion: The blade of *P. argyraea* resembles that of *P. quadriaurita* Retz. but differs by whitish band on the center of the underside of the pinnae. It also resembles *P. aspericaulis* var. *tricolor* Moore, but distinctly different from it by without minor mucronate at the apex of ultimate segments and with longer spines along the costa.

**2** *Pteris sichuanensis* H. S. Kung in Acta Bot. Yunn. **4** (4): 337. pl. 1. 1982 *et* Fl. Sichuan. **6**: 217. pl. 65. 1–2. 1988; S. G. Lu in C. Y. Wu, Fl. Yun. **253**: 2006.

Specimens examined: **Vietnam**: Ha Giang Prov., Yen Minh Distr., Lao Va Chai Mun., 23°06'30" N, 105°04' 32" E, 25 Nov. 2004, WP-605; WP-690.

Distribution: China (Sichuan, Guizhou, Yunnan). **New to Vietnam.**

Ecology: On crevice of rocks in wet and rich-humus places, at the edge of broad-leaved submontane forest of limestone areas.

Discussion: Similar to *P. deltoton* Bak. but differs from it by the lamina simple or pinnate, lateral pinnae 3–5 pairs, lanceolate, long-caudate at apex,

with laciniate on the margin.

**3** *Pteris maclurei* Ching, in Bull. Dept. Biol. Sun Yatsen Univ. **6**: 28. 1933; Tagawa in Acta Phytotax. Geobot. **5**: 104. 1936; S. H. Wu in C. Y. Wu Fl. Reip. Pop. Sin. **3** (1): 80. pl. 23. fig. 4. 1990. — *Pteris nakasimae* Tagawa in Acta Phytotax. Geobot. **7**: 84. 1938.

Specimens examined: **Vietnam**: Hoa Binh Prov., Tan Lac Distr., Lung Van Mun., Huop Vill., 20° 32'52" N, 105° 11'47" E, 900–980 m, 28 Nov. 2003, WP-245; WP-280; Quyet Chien Mun., Hung Vill., 20°32'58" N, 105°11'56" E, 700–940 m. 30 Nov. 2003, WP-328. Kon Tum Prov., Kon Plong Distr., Hieu Mun., 14°41'48" N, 108°22'23" E, 1 150 m, 20 Nov. 2003, WP-139; Po E Mun., Ist Vill. 14°43'16" N, 108°38'18" E, 1 200 m, WP-210. **Laos**: Bolikhamxay Prov., Kham Keuate Distr., Phou Koma Thong Pei Vill., 5 Nov. 2007, WS-0275.

Distribution: China, Japan. **New for Vietnam and Laos.**

Discussion: *P. maclurei* was recorded in Vietnam in the Flora Reipublicae Popularis Sinicae, but not recorded in the work of christensen and Tardieu-Blot (1940).

**4** *Pteris pseudopellucida* Ching in Lingnan Sc. Journ. **15**: 393. 1936; S. G. Lu in Fl. Yunnan **20**: 244. pl. 46. l. 2006; *P. subsimplex* Ching ex Ching *et* S. H. Wu in Acta Bot. Austro-Sinica **1**: 3. 1983; *P. pellucida* f. *simplex* Hook. Sp. Fil. **2**: 161 pl. 128B. 1858 syn. nov.

Specimens examined: **Vietnam**: Kon Tum Prov., Sa Thay Distr., Sa Son Mun., Bar Gok Vill., 14° 26'29" N, 107°42'44" E, 800–1 000 m, 15 Nov. 2003, WP-036. **Laos**: Khammouan Prov., Phou

① WP and WS are abbreviations of collector-groups. WP including S. G. Wu, L. K. Phan, J. Y. Xiang, X. Gong, V. T. Nguyen, and K. S. Nguyen (2003-2004); S. G. Wu, L. K. Phan, J. Y. Xiang, S. D. Zhang N. V. Duy, and V. T. Nguyen (2006); WS including S. G. Wu, N. D. Liu, J. Y. Xiang, Somsanith Bouamanivong, and Onevilay Souliya (2007), S. G. Wu, X. Gong, Y. Niu, Somsanith Bouamanivong, and Onevilay Souliya (2008).

Ak, Nakay Distr., 17°42'636" N, 105°08'919" E, 550 m, 30 Oct. 2007, WS-098.

Ecology: limestone areas in secondary forests.

Distribution: India, China (Southeast Yunnan).

**New for Vietnam and Laos.**

Discussion: Very similar to *P. deltodon* Bak. but rhizome scales are brown but not dark-brown, lamina serrulate, not incised on the margin, cuneate at the base, terminal pinnule without petiolule.

**5** *Pteris setuloso-costulata* Hayata, Ic. Pl. Form. **4**: 241. f. 168. 1914; Ogata, Ic. Fil. Jap. **4**: t. 197. 1931; Tagawa in Acta Phytotaxa Geobot. **16**: 71. 1956; Shieh in H. L. Li *et al.*, Fl. Taiwan **1**: 298. 1975; S. H. Wu in C. Y. Wu Fl. Reip. Pop. Sin. **1** (3): 63. fig. 18. 5. 1990.

Specimens examined: **Vietnam**: Lao Cai Prov., Sapa Distr. 1. March. 2002, T-V 309.

Distribution: Japan, Philippines, China [South Yunnan, Sichuan, Taiwan (type)], **New for Vietnam.**

Ecology: In evergreen forest.

Discussion: The lowest pinnae have more than two pinnules.

**6** *Pteris morii* Massam in Trans. Nat. Hist. Soc. Form. **32**: 242. 1942; Ching *et al.* in W. Y. Chun *et al.*, Fl. Hainan **1**: 72. 1964; S. H. Wu in C. Y. Wu, Fl. Reip. Pop. Sin. **3** (1): 18. 1990.

Specimens examined: **Vietnam**: Dong Nai Prov., Tan Phu Distr., Cat Tien National Park, 11°26'57" N, 107°21'41" E, 115 m. 17 Nov. 2006, WP-1641. *ibidem* 1684; **Laos**: Saravan Prov., Tateng Distr., Panengtay Vill., 600–700 m, 3 Dec. 2008, WS-1806; Laonharn Distr., Vang Kanan Vill., 13 Dec. 2008, WS-2047.

Ecology: In disturbed primary or secondary closed semi-deciduous seasonal tropical broad-leaved lowland forest.

Distribution: China (Hainan, Taiwan), **New for Vietnam and Laos.**

Notes: Similar to *P. cretica* L. but rhizome erect but not creeping, sterile pinnae ovate not lanceolate, terminal pinnae cuneate at base.

**7** *Pteris wangiana* Ching, in Bull. Fan. Mem. Inst. Biol. New ser **1**: 311. 1949; S. H. Wu in C. Y. Wu, Fl. Reip. Pop. **3** (1): 73. pl. 21. 1–2. 1990.

Specimens examined: **Vietnam**: Dak Nong Prov., Dak Gloong Distr., Dak Plao Commune, Ta Dung Nature Reserve, approximately 11°52'18" N, 108°01'37" E. 1 200–1 300 m. 14 Nov. 2006, WP-1603. Ha Giang Prov. Yen Minh distr, Du Gia Mun., around 22°56'51" N, 105°10'24" E. alt 1 000–1 200 m. about 2 km to SW of Giang Tru C Vill., 29 Nov. 2004, WP-797, *ibidem* WP-834, Lam Dong Prov., Lac Duong Distr., Da Chays Com Mune., Bi Doup mountainous range approximately 12°06'02" N, 108°39'33" E, 1 800–1 900 m, 31 Oct. 2006, WP-1277; Nui Ba (Lang Bian mountain), approximately 12°02'50" N, 108°26'23" E, 1 900–2 000 m, 9 Nov. 2006, WP-1505. **Laos**: Xiangkhong Prov., Khoun Dist., Phak Leung Mt, 1 800–1 900 m, 24 Dec. 2008, WS-2272.

Distribution: China (Hainan, Southeast Yunnan).

**New for Vietnam and Laos.**

Ecology: In evergreen forest, 1 000–1 900 m.

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