

Asplenium inaequilaterale: A new record for Thailand

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Received 18 Nov 2008

Accepted 2 Oct 2009

ABSTRACT: An addition to the pteridophyte flora of Thailand, *Asplenium inaequilaterale* Willd., is reported for the first time. This new record is based on a reexamination and redetermination of a collection made in Mae Hong Son Province in 1964. The species is described and illustrated.

KEYWORDS: Aspleniaceae, fern, pteridophyte

INTRODUCTION

Asplenium L. is one of the largest genera of vascular plants, consisting of about 700 species, and belongs to the family Aspleniaceae in the order Polypodiales¹. In Thailand, 37 species have been recorded previously^{2,3}. An additional species *Asplenium inaequilaterale* Willd., is reported here.

This study is based on the redetermination of a single collection made in Mae Hong Son Province (Mae La Noi) in northern Thailand in 1964. Duplicates of this collection [*B. Hansen, G. Seidenfaden & T. Smitinand 10929*] are housed in the Bangkok Forest Herbarium (BKF) and at three herbaria in Europe: the University of Copenhagen (C), the Royal Botanic Gardens, Kew (K), and the Nationaal Herbarium Nederland, Universiteit Leiden branch (L). For comparison, I also examined herbarium material at the Botanical Museum in Berlin (B) and at the Natural History Museum (BM) in London (Herbarium acronyms are according to Ref. 4). The morphological characters of the Mae La Noi specimens are consistent with the descriptions of *A. inaequilaterale* in Refs. 5, 6. They are also extremely similar to those of the type specimen of *A. inaequilaterale* in the Willendow Herbarium at B and to those of other specimens identified as *A. inaequilaterale* at B and BM. Accordingly, *A. inaequilaterale* is a new record for Thailand. The description below is based on the Thai material.

DESCRIPTION

Asplenium inaequilaterale Willd. in L., Sp. Pl., ed. 4, 5: 322.1810; Sledge, Bull. Brit. Mus. Nat. Hist. (Bot.) 3, 6: 252.1965.; Schelpe & N. C. Anthony in Fl. S. Africa (Pteridophyta): 191. f. 63:1. 1986.; Philcox, Revis. Handb. Fl. Ceylon XV(A): 15. 2006.

Type: Réunion, *Bory s.n.* [Herb. Willdenow no. 19896] (Holotype, B!).—*A. brachyotus* Kunze in Linnaea, 10: 512.1836. —*A. erectum* Bory var. *brachyotus* (Kunze) Sim, Ferns S. Afr., ed. 1: 138, t. 66.1892.—*A. suppositum* Hieron. in Engl., Bot. Jahrb. Syst. 46: 353.1911.—*A. laetum* sensu Sim, Ferns S. Afr., ed. 2: 150, t. 50.1915. non Sw. (1806).—*Asplenium laetum* Sw. var. *brachyotus* (Kunze) Bonap. Notes Ptéridol. 16: 60.1925. (Fig. 1).

Rhizome erect to suberect, about 1 cm in diam., apex clothed with scales, scales about 1 mm long by 0.35 mm wide, ovate-lanceolate to sublinear, acuminate, entire, dark-brown centrally, paler at margin. Stipes 12–12.7 cm long, pale to greenish brown, tufted, rounded below, grooved above, glabrous to sparsely pubescent; rachis similar, glabrous. Lamina 18–21.6 × 4.2–5 cm, oblong to oblong-lanceolate in outline, 1-pinnate, apex lobed. Pinnae herbaceous, dark-green, glabrous, up to 20(–25) pairs, pinnae subopposite or alternate, about 1 cm distant, basal pinnae slightly or not reduced in size, 2.0–2.5 × 0.8–1.0 cm, trapezoid-lanceolate, dimidiate, acroscopic base truncate, subparallel to rachis, basiscopic base obliquely excised to about half the length of pinna, acute or subacute, margin incised-crenate or serrate throughout, glabrous. Veins free, forked, nearly reaching the margin. Sori 2–4 (6) pairs, 4–5 × 1.5 mm, mostly midway on veins; indusium membranous, entire.

Specimens Examined.— *B. Hansen, G. Seidenfaden & T. Smitinand 10929* (BKF, C, K, L).

Thailand. — NORTHERN: Mae Hong Son (Mae La Noi).

Distribution. — S. Africa, Mascarenes, S. India, and Sri Lanka.

Ecology. — On rocks in streams at 1550 m altitude.

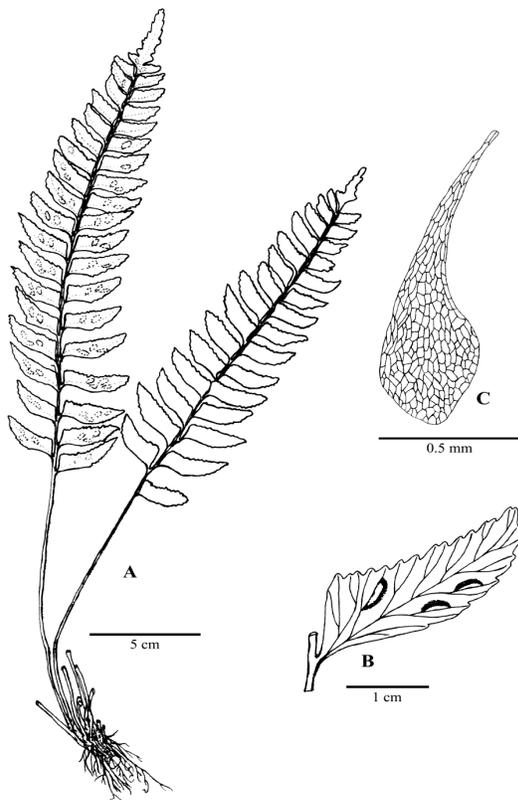


Fig. 1 *Asplenium inaequilaterale* Willd. A: Habit; B: Pinna showing sori; C: Rhizome scale. Drawn by Sahanat Petchsri from B. Hansen, G. Seidenfaden & T. Smitinand 10929 (K).

Identification. — *A. inaequilaterale* can be identified using the key in Table 1.

Note. — The description of *A. inaequilaterale* given here is based on the Thai specimens. It is important to note that these specimens have fronds of nearly the same size as the type specimen in the Willdenow herbarium (which has a single frond of approximately 34 × 7 cm). It is also worth mentioning that, at least in S Africa, *A. inaequilaterale* has an altitudinal range of 25–1400 m on forest floors and stream banks in dense shade⁵, while it is found on rocks in streams at 1550 m in Thailand. Also, in view of the broad altitudinal

range outside Thailand, it remains possible that this species might be found at other altitudes in Thailand.

A. inaequilaterale has a wide distribution from South Africa eastwards to northern Thailand. However, there are no specimens or records of this species between Sri Lanka and Thailand. The absence of data for Myanmar is probably due to the fact that the pteridophyte diversity of that country is very poorly known. *A. inaequilaterale* is very likely to be found in mountainous areas in Myanmar and along the Thailand-Myanmar border.

Acknowledgements: This work was supported by Chulalongkorn University, Ratchadaphiseksomphot Endowment fund, Grant No. R007.2550. I am also indebted to Chulalongkorn University for funding a trip, through the Plants of Thailand Research Unit to visit the main herbaria in Europe. I wish to express my sincere thanks to the curators and staff of the following herbaria: B, BK, BKF, BM, K, L and P for kindly granting me permission to study their herbarium specimens. I also thank Sahanat Petchsri for his assistance in drawing Fig. 1.

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Table 1 Identification key from Ref. 2 amended to include *A. inaequilaterale*.

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| 19. Frond more than 5 cm wide | |
| 20. Pinnae more than 8 cm long | 12. <i>A. salignum</i> |
| 20. Pinnae up to 5 cm long | |
| 21. Pinnae lobed to costa, apparently bipinnate | 14. <i>A. thunbergii</i> |
| 21. Pinnae crenately toothed at margin | |
| 22. Frond proliferous; rachis winged, pinnae chartaceous. | 13. <i>A. tenerum</i> |
| 22. Frond not proliferous; rachis not winged, pinnae herbaceous. | 38. <i>A. inaequilaterale</i> |
| 19. Frond up to 4.5 cm wide | 22. <i>A. normale</i> |