

Hiroshi ITO*: **Ferns of Thailand and Laos collected**
by Dr. T. Tuyama in 1957-58

伊藤 洋*: 津山博士採集タイとラオスのシダ類

By the courtesy of Prof. T. Tuyama I have studied the fern specimens collected by him in Thailand and Laos in 1957-58. The following list is based on the results of my work. T-nos. and L-nos. are his field numbers of the specimens in Thailand and Laos respectively. OCUBE-nos. are those of the Osaka City University Biological Expedition to Southeast Asia (Thailand) to which he joined as a guest. A part of his collection, Thelypteroid ferns, was already examined by Dr. K. Iwatsuki, who published a paper in this Journal 38: 313-315, 1963.

OSMUNDACEAE

Osmunda japonica Thunb.—Phou Khao Khoai, 65 km NE of Vientiane (L57063).

O. vachellii Hook.—2 km S of Ban Phu Phao, 23 km NE of Phongsavanh (L57333).

SCHIZAEACEAE

Lygodium flexuosum (L.) Sw.—Doi Chieng Daw, W of Chieng Daw, Wang Tao—Ban Hoet That (T57255); Doi Loi Bian, near Ban Pasui, SE of Mae Hongson (T58260).

L. japonicum (Thunb.) Sw.—Phongsavanh, Farm of IVS (L57614); Upper basin of Mae Kha Waterfall, Mae Hoi (OCUBE-226-53).

GLEICHENIACEAE

Dicranopteris linearis (Burm. f.) Underw.—Phongsavanh (L57531); Pa Mon (OCUBE-108-28); Muong Khu—Hoet That (OCUBE-218-38; 218-71).

D. splendida (Hand.-Mazz.) Tagawa—Top of Mt. Phu Phao, Ban Phu Phao, 25 km NE of Phongsavanh (L57257).

PTERIDACEAE

Adiantum capillus-veneris L.—Doi Chieng Daw, W of Chieng Daw, Wang Tao—Ban Hoet That (T57250); Doi Loi Bian, near Ban Pasui, SE

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of Mae Hongson (T58249).

A. caudatum L.—Ban Mae That—Hang Chat (OCUBE-128-3); Upper basin of Mae Khu Waterfall, Mae Hoi (OCUBE-226-55); Mae Hoi (OCUBE-228-81).

A. flabellulatum L.—N of Ban Hang (L57443).

Cheilanthes farinosa (Forsk.) Kaulf.—Doi Loi Bian, near Ban Pasui, SE of Mae Hongson (T58246).

Coniogramme fraxinea (D. Don) Diels—Doi Loi Bian, near Ban Pasui, SE of Mae Hongson (T58253).

Microlepia obtusiloba Hayata—Doi Suthep, W of Chieng Mai (T57179); Mt. Phou San, N of Ban Hang, NE of Phongsavanh (L57637).

M. platyphylla (D. Don) J. Sm.—Doi Loi Bian, near Ban Pasui, SE of Mae Hongson (T58812).

M. puberula v. A. v. R. —Tok—Meh Sod (OCUBE-205-4).

M. speluncae (L.) Moore—Doi Chieng Daw, W of Chieng Daw, Wang Tao—Ban Hoet That (T57253).

M. strigosa (Thunb.) Presl—Mt. Phou San, 12 km N of Ban Hang, NE of Phongsavanh (L57228; 57644).

Onychium japonicum (Thunb.) Kunze—Doi Pui, near Ban Pasui, SE of Mae Hongson (T58656).

Pityrogramma calomeranos (L.) Link —Hoet That —Wang Thao (OCUBE-219-11); Mae Hoi, along irrigation waterway (OCUBE-228-30).

Pteridium aquilinum (L.) Kuhn var. *wightianum* (Wall.) Tryon—Doi Suthep, W of Chieng Mai (T57162); Phou Khao Khoai, 65 km NE of Ventiane (L57019); Ban Phu Phao, 25 km NE of Phongsavanh (L57309); Phongsavanh (L57547).

Pteris biaurita L.—Nang Rawang, 80 km E of Ayutthaya (T57006); Doi Suthep, W of Chieng Mai (T57105); Doi Chieng Daw, W of Chieng Daw, from Bon Hoet That upwards (T57298); Meh Sod—Tak (OCUBE-206-18); Muong Khu—Hoet That (OCUBE-218-45).

P. decrescens Christ—Doi Suthep, W of Chieng Mai (T57129).

P. ensiformis Burm.—Hase's Farm, 20 km NE of Phongsavanh (L57187).

P. formosana Bak.—Doi Suthep, W of Chieng Mai (T57220).

P. quadriaurita Retz.—Top of Mt. Phu Phao, Ban Phu Phao, 25 km NE of Phongsavanh (L57284).

P. venusta Kunze—Doi Pui, near Ban Pasui, SE of Mae Hongson (T58667).

P. vittata L.—N of Ban Hang (L57455); Phongsavanh (L57550); Mae Hoi, along irrigation waterway (OCUBE-228-27; 228-31); Near Ban Nam Pinding, E of Mae Hongson (T58758).

Sphenomeris chusana (L.) Copel.—2 km S of Ban Phu Phao, 23 km NE of Phongsavanh (L57335); Phongsavanh, Farm of IVS (L57622).

DAVALLIACEAE

Araiostegia perdurans (Christ) Copel.—Doi Suthep, E of Chieng Mai (T57406).

Davallia solida (Forst.) Sw.—Mt. Phou San, 12 km N of Ben Hang, NE of Phongsavanh (L57645).

Humata platylepis (Bak.) Ching—Doi Suthep, E of Chieng Mai (T57402).

H. repens (L. fil.) Diels—Hoet That—Wang Thao (OCUBE-219-26); Doi Suthep, E of Chieng Mai (T57405).

Nephrolepis hirsutula Presl—Mae Hoi, along irrigation waterway (OCUBE-228-43).

Oleandra undulata Ching—Phou Khou Khoai, 65 km NE of Ventiane (L57022).

O. wallichii (Hook.) Presl—Doi Pui, near Ban Pasui, SE of Mae Hongson (T58657).

ASPIDIACEAE

Arachniodes simulans (Ching) Ching—Doi Chieng Daw, W of Chieng Daw, from Ban Hoet That upwards (T57335); Muong Khu, South Peak (OCUBE-217-18); Muong Khu—Hoet That (OCUBE-218-54); Doi Loi Bian, near Ban Pasui, SE of Mae Hongson (T58238; 58244).

A. spectabilis (Ching) Ching—Mt. Phou San, 12 km N of Ban Hang, NE of Phongsavanh (L57198).

Athyrium dissitifolium (Bak.) C. Chr. (determined by Dr. M. Tagawa's favour)—Doi Suthep, W of Chieng Mai (T57175); Muong Khu—Hoet That (OCUBE-218-50); Doi Pui, near Ban Pasui, S of Mae Hongson (T58628); Ban Pasui, S of Mae Hongson (T58537).

Bolbitis subcordata (Copel.) Ching—Doi Suthep, W of Chieng Mai (T57170).

B. virens (Wall.) Schott—Ban Pasui, SE of Mae Hongson (T58857).

Ctenitopsis fuscipes (Wall.) C. Chr.—Doi Chieng Daw, W of Chieng Daw, Wang Tao—Ban Hoet That (T57256).

Dryopteris cochleata (D. Don) C. Chr.—Doi Chieng Daw, W of Chieng Daw, from Ban Hoet That upwards (T57310); Hase's Farm, 20 km NE of Phongsavanh (L57169); Muong Khu, South Peak (OCUBE-217-17); Muong Khu—Hoet That (OCUBE-218-68; 218-89).

D. panda (Clarke) C. Chr.—Doi Inthanon (OCUBE-110-117).

D. sparsa (D. Don) O. Kuntze—2 km S of Ban Phu Phou, 23 km NE of Phongsavanh (L57339).

D. stenolepis (Bak.) C. Chr.—Mt. Phou San, N of Ban Hang, NE of Phongsavanh (L57641; 57642).

D. yunnanensis (Christ) Copel.—Doi Suthep, W of Chieng Mai (T57174); Doi Loi Bian, near Ban Pasui, SE of Mae Hongson (T58235).

Egenolfia appendiculata (Willd.) J. Sm.—Near Ban Nam Pinding, E of Mae Hongson (T58734).

Elaphoglossum conforme (Sw.) Schott—Mt. Phou San, 12 km N of Ban Hang, NE of Phongsavanh (L57211).

Pteridrys australis Ching—Doi Loi Bian, near Ban Pasui, SE of Mae Hongson (T58237).

Tectaria polymorpha (Wall.) Copel.—Doi Chieng Daw, Wang Tao—Ban Hoet That (T57254); Doi Loi Bian, near Ban Pasui, SE of Mae Hongson (T58808).

T. subtriphylia (Hook. et Arn.) Copel.—Doi Chieng Daw, W of Chieng Daw, Wang Tao—Ban Hoet That (T57268); Doi Pui, near Ban Pasui, SE of Mae Hongson (T58668).

Thelypteris uliginosa (Kunze) Ching—Mae Hoi, along irrigation waterway (OCUBE-228-30).

BLECHNACEAE

Woodwardia japonica (L. fil.) Sm.—N of Ban Hang (L57459).

ASPLENIACEAE

Asplenium crinicaule Hance—Mt. Phou San, N of Ban Hang, NE of Phongsavanh (L57638).

A. ensiforme Wall. ex Hook. et Grev.—Mt. Phou San, N of Ban Hang, NE of Phongsavanh (L57639; 57647); Top of Mt. Phu Phao, Ban Phu Phao, 25 km NE of Phongsavanh (L57280).

A. nidus L.—Near Wat Chieng Daw, Chieng Daw (cultivated) (T57395).

A. normale D. Don—Mt. Phou San, N of Ban Hang, NE of Phongsavanh (L57640).

A. prolongatum Hook.—Mt. Phou San, 12 km N of Ban Hang, NE of Phongsavanh (L57204).

VITTARIACEAE

Vittaria flexuosa Fée—Muong Khu—Hoet That (OCUBE-218-67; 218-72); Hoet That—Wang Thao (OCUBE-219-27).

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津山尚氏が 1957-58 年にタイとラオスで単独で採集されたシダと、同じ年タイで大阪市立大学東南アジア学術調査隊（小川房人・依田恭二両氏）に同行して採集されたシダとを見せていただいた。それらのうちヒメシダ科のものはすでに岩槻邦男氏が検定して、本誌 38: 313-315 (1963) に発表しておられるので、このたびは残りの全部について報告する。

□河野昭一：種分化と適応 三省堂，4,700 円。「植物の進化生物学」の第二巻として出版された本書は、「種の分化と適応」の諸問題に関して日本の研究者が本格的に展開した最初のものである。類書に見られないすぐれた特色の一つは、可塑的変異とヘテロプラスティックな発生をとりあげた第 3 章にある。環境の変化に対応した形質の発現を、遺伝的制御機構の働きによる個体発生における誘導という観点でとらえることが提唱されている。このことは一般論としては既に常識であるが、分類学分野ではそうとは言えない。また、Durrant, Highkin らによる conditioning の例を紹介しつつ、環境条件が、ある条件下では後世代の形質に反映する可能性を強調している部分は、高等植物における遺伝性について更に深い理解が必要であることを示唆していると言えよう。これらの点は、ある意味では適応の本質や種の地理的変異の問題を解明するカギをにぎっている可能性すらあるのである。

第二に特徴的なのは、「種の問題の生態的アプローチ」と題した第 5 章である。種のもつ生活様式、とくに種の再生産システムの面から種レベルの法則、さらには種分化の歴史的過程と背景をよみとろうとする試みは独創的である。これまで、ともすれば種を分ける目的で新しい方法を応用したり、集団遺伝学の理論を単純に適用することにとどまりがちであったが、こうした傾向を排した本書の登場は、正に分類学が内包してきた種に関する様々な問題意識を発展させる一つの学問分野として進化生物学が確立し、他の分野に対しても積極的に貢献しうる段階に到達したことを象徴していると言っても言いすぎでない。

(森田龍義)