



Talipariti simile (Blume) Fryxell: a new record for Vietnam

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Talipariti simile (Blume) Fryxell: 베트남 미기록종

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ABSTRACT: *Talipariti simile* (Blume) Fryxell, Malvaceae is reported as new record from Vietnam. The plant can be differentiated from its allied species *T. macrophyllum* (Roxb. ex Hornem.) Fryxell in having glabrescent stems with purplish and smaller hairs, lanceolate-oblong and smaller stipules and ovoid capsules which are devoid of apicule or beaks. Taxonomic description, line drawing and color photographs have been provided to add to the species identification. Furthermore, comparison of the diagnostic characters between this species and the above mentioned related species is made.

Keywords: *Talipariti simile*, Malvaceae, new record, Vietnam

적 요: *Talipariti simile* (Blume) Fryxell (아욱과)을 베트남 미기록 종으로 처음으로 보고한다. 본 종은 줄기에 털이 없는 유사종인 *T. macrophyllum* (Roxb. ex Hornem.) Fryxell 와는 달리 줄기에 자색을 띠는 작은 털이 있으며, 탁엽은 피침상 타원형으로 크기가 작으며, 삭과는 난형이며 끝이 뾰족하지 않거나 부리모양이 아니다. 종 동정을 위한 분류학적 기재, 식물도해, 원색사진을 첨부하였다. 또한 유사 종들과의 비교를 위한 검색형질을 제시하였다.

주요어: *Talipariti simile*, 미기록종, 아욱과, 베트남

Talipariti Fryxell is a small genus consisting of 22 species and two varieties. It is largely tropical (except *T. hamabo*) and distributed in Southeast Asia, New Guinea, the Greater and Lesser Antilles, and along the coasts of Australia, India, South and Central America, and islands of the Indian and Pacific

Oceans (Fryxell, 2001; Mabberley, 2008). The genus is differentiated from its allied genus *Hibiscus* by the presence of larger stipules, calyx lobes with nectaries on the midribs, distinctive fruits structure (a 5-valved capsule with 'false dissepiments' that make it seem imperfectly 10-loculed), arborescent habit and broadly ovate and elliptic leaves (lobed in *T. hastatum*) that are entire or finely denticulate, usually leathery in texture, and often bear one to several foliar nectaries on the principal veins abaxially. In Vietnam, the genus is represented by only two species *i.e.* *T. macrophyllum* (Roxb.

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Table 1. Morphological comparison of *Talipariti simile* with its closest ally.

Morphological characters	<i>T. simile</i>	<i>T. macrophyllum</i>
Young stem	With minute arachnoid hairs and larger stellate hairs 1-1.5 mm long, stems eventually glabrescent and purplish	Densely shaggy-hirsute with yellowish stellate hairs to 5-8 mm long
Leaf surface	The upper surface sparsely pubescent with scattered stellate hairs, the lower surface whitish	The upper surface coarsely tomentose, more densely so and yellowish beneath
Petiole	4-11 cm long, glabrescent	17-35 cm long, hirsute
Stipule	5-7 cm × 1-1.5 cm, lance-oblong, sometimes asymmetrically so, externally stellate-hirsute	3-11 cm × 1.5-3 cm, ovate to scimitar-shaped, externally hirsute
Capsule	Ovoid, not beaked	Obovoid, apiculate or beaked.

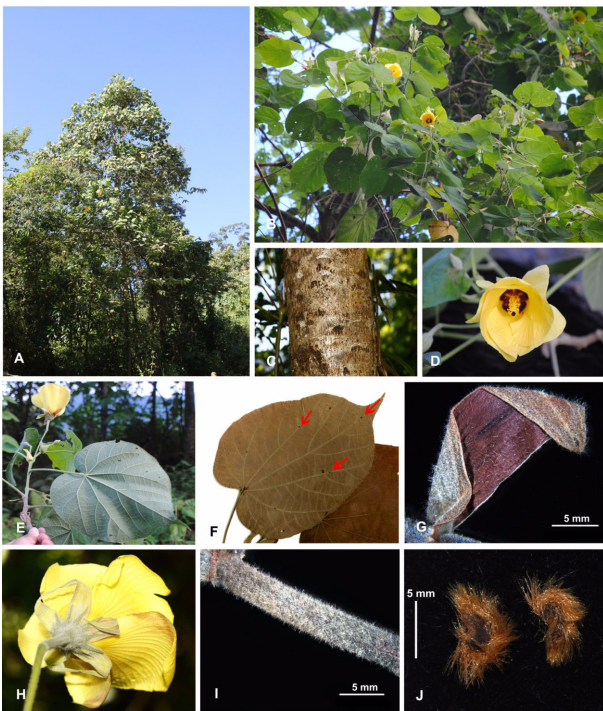


Fig. 1. *Talipariti simile* (Blume) Fryxell. A. Habit; B. Flowering branch. C. Bark; D. Open flower; E. Flowering twig; F. Leaf showing position of the nectary glands; G. Stipule; H. Flower showing calyx and epicalyx; I. Young stem; J. Seeds.

ex Hornem.) Fryxell and *T. tiliaceum* (L.) Fryxell (Ho, 2003).

During a floristic exploration trip to Hon Ba Nature Reserve in Khánh Hòa province of Vietnam, an interesting species of *Talipariti* was encountered which after a thorough scrutiny of the available literature (Pierre, 1879; Fryxell, 2001; Ho, 2003), identified as *T. simile* (Blume) Fryxell. This species was so far reported from Indonesia and India but never from Vietnam. Hence, we report this as a new distributional record for the flora of Vietnam. A detailed description along with the differentiating characters from the allied taxa (Table 1), illustration and color photographs (Fig. 1 and 2) have been provided.

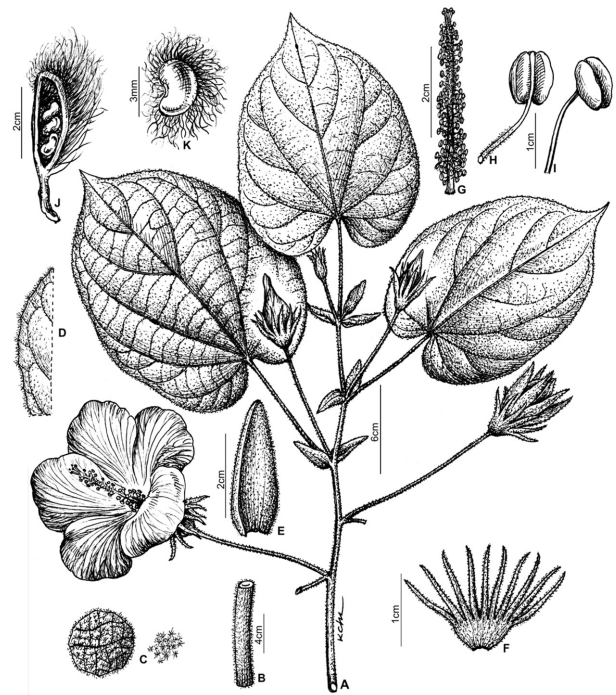


Fig. 2. *Talipariti simile* (Blume) Fryxell. A. Flowering twig; B. Young stem; C. Abaxial surface of leaf showing stellate hairs; D. Leaf margin; E. Stipule; F. Toothed epicalyx; G. Staminal column; H & I. Filaments in upper and lower staminal column; J. Mericarp; K. Seed. (Illustration drawn by Mrs. Kim Chi).

***Talipariti simile* (Blume) Fryxell**, Contr. Univ. Michigan Herb. 23: 225-270 (2001).

Hibiscus similis Blume, Bijdrag 2: 73 (1825). *Paritium simile* (Blume) G. Don, Gen. Hist. 1: 485 (1831). *Hibiscus tiliaceus* var. *similis* (Blume) Hochreutiner, Annuaire Conserv. Jard. Bot. Geneve 15-16: 244 (1912). *Hibiscus tiliaceus* subsp. *similis* (Blume) Borssum Waalkes, Blumea 14: 33 (1966). – TYPE: INDONESIA. Java, *Blume s.n.* (lectotype, designated by Borssum Waalkes, 1966: P). [Authentic material was not found at L, *vide* Borssum Waalkes 1966, p. 34.]

Hibiscus tiliaceus var. *hirsutus* Hochreutiner, Annuaire

Conserv. Jard. Bot. Geneve 4: 64 (1900). - TYPE: INDONESIA, Java. Tjikoja, cr. In graminosis prope Buitenzorg, *Zollinger 132* (lectotype, designated by Borssum Waalkes, 1966: G; isolectotypes: BM, FI, L-2, P).

Hibiscus tortuosus Wallich ex Prain, Bengal pl. 1: 268 (1903), non *Hibiscus tortuosus* Roxburgh 1832. *Hibiscus prainii* Raizada & Chatterjee, Sci. & Cult. 26: 47 (1960). - TYPE: INDIA. *Wallich 1913.A.* (Holotype: CAL-Photo!; Isotype: K-W, labeled '1913.1').

Trees, 18-25 m tall, innovations pubescent, larger hairs stellate, 1-1.2 mm long, mature stem glabrescent. Leaf blades ovate, 8-18 cm × 6-22 cm, cordate at base, margin finely crenate, apex acute or acuminate, acumen ca. 4 cm long, palmately 5-9-nerved, adaxial surface slightly pubescent, hairs stellate, 0.5-1 mm in diameter, abaxial surface dense stellate pubescence; foliar nectaries 3-7, elongate, ca. 6 mm long, positioned distally on principal nerves, 1/3-2/3 the distance from base to apex of blade; petioles 5-10 cm long, glabrescent; stipules lanceolate-oblong, 5.5-6.5 cm × 1-1.5 cm, acute, outside stellate-hirsute, strigose beneath. Flowers subsessile; involucre cupuliform, 16-20 mm long, densely pubescent, 10 toothed, the teeth 14-18 mm long, narrowly triangular; calyx 2-3 cm long, densely pubescent; petals 6-8 cm × 3-5 cm, yellow with red center, more or less stellate-pubescent; staminal column 3.5-4 cm long, filaments ca. 1 cm long; stigmas capitate, ca. 1 mm diameter. Capsules ovoid, 2.5-3 cm long, 5-locular, hirsute. Seeds 3-5.5 mm × 2-2.5 mm, black, reniform, with 0.5-2 mm long hairs. Fl. & Fr.: Throughout the year.

Distribution: India, Indonesia, Vietnam (Khánh Hòa Province).

Specimens examined: VIETNAM: Khánh Hòa Province: Hon Ba Nature Reserve: 11th April, 2012; *T.T. Bach et al.-HIKK-1255* (KRIB, HN); *l.c.*, 19th May 2011; N 12° 06' 34.5"; E 108° 58' 51.7", *L.V. Nong et al.-HIKK-726* (KRIB, HN). INDIA: *s.l.*, *Wallich-1913.A.* (Holotype) Acc. No. 55594, CAL-Photo!). *Talipariti macrophyllum* (Roxb. ex Hornem.) Fryxell, VIETNAM: Kon Tum Province: Sa Thay district, Sa Son Comm.: 05 April 2009; *T.T. Bach, V.T. Chinh, D.V. Hai, B.H. Quang-0022957* (KRIB).

Notes: The plant is considered a hybrid of *Talipariti macrophyllum* (Roxb. ex Hornem.) Fryxell and *Talipariti tiliaceum* (L.) Fryxell as it shows intermediate feature of having distinctive distal positioning of the foliar nectaries in these two species, a character not found in any other species of the genus (Prain, 1903; Raizada & Chatterjee, 1960; Borssum Waalkes, 1966). Molecular studies on these taxa may provide some interesting insights.

Key to *Talipariti* in Vietnam (modified from Fryxell, 2001)

1. Leaves with distally positioned nectaries on the principal veins beneath
1. Leaves with nectaries basally positioned on the principal veins beneath *T. tiliaceum*
2. Stems prominently shaggy hirsute, hairs yellowish, 5-8 mm long; stipules 3-11 cm × 1.5-3 cm, ovate to scimitar-shaped; capsules obovoid, apiculate or beaked *T. macrophyllum*
2. Stems glabrescent, hairs purplish, 1-1.5 mm long; stipules 5-7 cm × 1-1.5 cm, lance-oblong; capsules ovoid, not apiculate or beaked *T. simile*

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