

A new combination in *Argyreia* Lour. (Convolvulaceae)

Paweena TRAIPEM

Department of Plant Science, Faculty of Science, Mahidol University
Rama VI Road, Ratchathewi, 10400 Bangkok (Thailand)
paweena.tra@mahidol.ac.th

George W. STAPLES

Singapore Botanic Gardens, National Parks Board
1 Cluny Road, Singapore 259569 (Singapore)

Traiperm P. & Staples G. W. 2013. — A new combination in *Argyreia* Lour. (Convolvulaceae). *Adansonia*, sér. 3, 35 (2): 359-363. <http://dx.doi.org/10.5252/a2013n2a7>

KEY WORDS

Cambodia,
Indochina,
lectotypification,
new combination.

ABSTRACT

A new combination is made in *Argyreia* Lour. for the species previously described as *Erycibe longipes* Gagnep. and an expanded description and geographical distribution are provided.

RÉSUMÉ

Une nouvelle combinaison d'Argyreia Lour. (Convolvulaceae)

MOTS CLÉS
Cambodge,
Indochine,
lectotypification,
nouvelle combinaison.

Une nouvelle combinaison est fournie dans *Argyreia* Lour. pour l'espèce précédemment décrite comme *Erycibe longipes* Gagnep. et une description plus détaillée et la répartition géographique sont fournies.



FIG. 1. — Distribution of *Argyreia longipes* (Gagnep.) Traiperm & Staples, comb. nov. in Indochina.

INTRODUCTION

The genus *Argyreia* Lour. is one of the most speciose genera in Asian Convolvulaceae and also one of the most taxonomically difficult. The actual number of species is unknown, but has been variously estimated as 90 spp. (Oost-stroom & Hoogland 1953; Mabberley 2008) to as many as 125 spp. (Staples & Brummitt 2007). No revision or monograph of *Argyreia* is available and only floristic accounts from a few Asian countries are available, thus the taxonomy and nomenclature can fairly be said to be fluid. The first author having undertaken a revision of the Thai *Argyreia* for her MSc project (Traiperm 2002) and the second author having worked on several floristic accounts of the Convolvulaceae in tropical Asia (Fang & Staples 1995; Staples & Yang 1998; Staples 2010) that required getting to grips with the difficulties of *Argyreia*, we have recently embarked on the first comprehensive study of the entire genus. As a foundation for further work, we are preparing a checklist that will account for all names published in *Argyreia* in order to sort out the chaotic nomenclature and establish a workable list of names and a more precise count of the number of accepted taxa. This note deals with a long-standing taxonomic problem that makes a name available for one Indochinese species.

The *Flora of Thailand* Convolvulaceae account was published in July 2010 (Staples 2010); this included 35 species of *Argyreia* in Thailand. In the scant two years since then, an astonishing number of new taxa of Thai *Argyreia* – more than 20 distinct morpho-taxa – has come to light. Our efforts to find names for these unidentified taxa, combined with our efforts to assemble the data for the comprehensive checklist, led us to examine a number of named taxa from countries bordering Thailand that could well occur within the kingdom's borders. The first of these is from Cambodia.

In 1953, R. D. Hoogland (1953) pointed out that *Erycibe longipes* Gagnep. was, in fact, a species of *Argyreia*, but could not decide whether the species already had a name in that genus or not. Our study of the type material, which is in fruit, proved equally inconclusive. Then, early in 2011, photos of a flowering *Argyreia* collected in Cambodia were sent to Staples for naming (Fig. 2). After careful study and comparison of the relevant voucher specimen with type material, we believe this is the first flowering collection for the same species named as *Erycibe longipes* and here make a new combination for it in *Argyreia*. The available collections at hand enable us to provide an expanded description and offer some initial remarks on its relationships in this taxonomically complex genus.



FIG. 2. — *Argyreia longipes* (Gagnep.) Traiperm & Staples, comb. nov., flowering branch. Photo credit: Philip Thomas, Royal Botanic Garden, Edinburgh).

SYSTEMATICS

Argyreia longipes (Gagnep.)
Traiperm & Staples, comb. nov.
(Fig. 2)

Erycibe longipes Gagnep., *Notulae Systematicae* 3: 140 (1915). — Type: Cambodia. [Kampong Spoe province] “Prov. de Thepong, mts de Knang-Krépeuh”, V.1870, *L. Pierre* 857 (lecto-, P[P00608668], designated here; iso-, A!, BM!, E!, GH!, K!, P[P04524263, P00608669, P00608667]!, SING!).

SPECIMENS EXAMINED. — **Cambodia.** Kampot province: Bokor National Park, along the road to Popokvil nearest the road to the tea farm, 6.V.1999, *M. Monyrak* 32 (A!, K!); Pouthisat prov.: Phnom Samkos Wildlife Sanctuary, 18.I.2011, *P. Thomas et al.* 4 (E, SING!).

Vietnam. Lâm Đông province: “P. Sapoum sud de la Station agricole de Blao”, 23.II.1933, *Poilane* 22093 (P[P03545746]), SING!).

DISTRIBUTION. — Cambodia, Vietnam, and very likely in SE Thailand as well (Fig. 1).

ECOLOGY. — Collected in dwarf evergreen forest, evergreen gallery forest along a seasonally dry stream, and “grande forêt”; elevation 1000-1200 m.

PHENOLOGY. — Flowering: January; fruiting: February, May.

VERNACULAR NAMES. — *Voir cham* (Khmer); *che* (Moi dialect, Vietnam).

ETHNOBOTANICAL USE. — Label data on *Monyrak* 32 report that the whole plant is used medicinally, without providing any details.

DESCRIPTION

Woody climber, 2.5 m to more than 10 m long; stem drying striate, brownish, glabrous; indumentum consisting of simple appressed hairs.

TABLE 1. — Morphological characters of taxonomic importance for *A. longipes* (Gagnep.) Traiperm & Staples, comb. nov., *A. penangiana* (Choisy) Boerl. and *A. scortechinii* (Prain) Hoogland.

Character	<i>A. longipes</i> comb. nov.	<i>A. penangiana</i>	<i>A. scortechinii</i>
Number of secondary veins per side	4-5	6-9	7-8
Sepal trichomes	Glabrous or sparse (appressed, pubescent)	Sparse to moderate density, hairs longer, pilose	Densely appressed puberulent (mealy look)
Blade shape	Ovate to elliptic; base rounded or obtuse	Elliptic, widest near middle; base rounded or obtuse	Broadly ovate; base rounded or subcordate
Blade pubescence	Glabrous or nearly so	Glabrous or nearly so	Sparsely hairy underneath
Number of flowers/inflorescence	2-4(-6)	7-12	6-13
Inflorescence peduncle length	3-6 cm	6.5-8.5 cm	7.5-15 cm

Leaf petiole ± sulcate adaxially, 1.0-3.0 cm long, sparsely appressed pubescent; leaf blade ovate to narrowly ovate, 5-11 by 3-5.5 cm, base rounded or ± truncate, margins entire, slightly revolute, apex acuminate, chartaceous when dry, drying darker above, underside dotted with tiny glands, glabrous on both sides or nearly so (with a few hairs along midvein or scattered on blade); secondary veins 4 or 5 per side, veins indistinct above, prominent below, tertiary veins indistinct. Inflorescence erect, axillary, subumbelliform; peduncle slender, 2.5-10 cm long, appressed pubescent like petioles; secondary branches short; bracts tiny scales, early deciduous; bracteoles none or like bracts, appressed puberulent; pedicels *c.* 1 cm long. Flowers diurnal; buds narrowly ellipsoid, apex hairy, glabrous below middle. Calyx unequal, outer 2 sepals ovate, smaller than inner, thick, convex, 3.5-4.5 by 3-4 mm, inner broadly ovate to transverse elliptic, 5-6 mm long and wide, smooth, sparsely appressed pubescent to glabrous, entire, apex obtuse-rounded. Corolla funnelform, 3.0-3.5 cm long (when dry), basal tube 0.5 cm, cylindrical, flaring gradually above, limb spreading, shallowly lobed-ruffled, limb whitish or pale pink, darker pink inside tube, midpetaline bands appressed hairy with simple hairs, hairs thinning below, corolla tube and interplacae glabrous outside. Stamens included, subequal in length; filaments 2.2-2.3 cm, basally triangular, flattened, and fused for 0.5 cm with

corolla tube, hairy along margins above insertion for *c.* 0.5 cm, filamentous and glabrous above that; anthers sagittate, 0.4 cm long, introrse, dehiscent lengthwise; pollen globose, spinulose, whitish. Pistil included, disk annular, *c.* 1.5 mm long; ovary broadly elliptic, 2 mm long, glabrous, 2-locular, apex truncate; ovules 2 per cell, oblong, *c.* 1 mm long; style filiform, 2.5 cm, glabrous; stigmas capitate, biglobose, lobes deeply lobed-dissected. Fruit a berry, ellipsoid to ovoid, 1.2-2.0 by 0.7-1.2 cm, violet-rose or purple, glabrous; fruiting calyx enlarging very slightly, cupping base of fruit, not spreading when mature, nor colored inside. Seed solitary, 0.8-1.2 by *c.* 0.7 cm, drying black, glabrous, surface matt (not glossy).

REMARK

In attempting to work out the species identification we compared the available specimens with numerous species in the genus *Argyreia*. *Argyreia longipes* comb. nov. is most similar to two peninsular Malaysian species, *A. penangiana* (Choisy) Boerl. and *A. scortechinii* (Prain) Hoogland. The Table 1 summarises the morphological characters of taxonomic importance for these three species.

Although not yet known from Thailand, one of the Cambodian collections was made very near the border with Trat province and because similar habitats occur in the southeastern region of Thailand, *A. longipes* comb. nov. is likely to occur there as well.

Acknowledgements

We thank E. Wood (Harvard Herbaria), D. Middleton, A. Smith, and P. Thomas (RBG Edinburgh) for expediting loans of specimens cited in this paper. Traiperm received an SBG Research Fellowship that made collaboration with Staples possible; the support from Singapore Botanic Gardens and National Parks Board to both authors is gratefully acknowledged. The editor, Thierry Deroin, Fabiane N. Costa and an anonymous reviewer provided valuable feedback for improving the manuscript.

REFERENCES

- FANG R. C. & STAPLES G. W. 1995. — Convolvulaceae, in WU Z. Y. & RAVEN P. H. (eds), *Flora of China*, Vol. 16. Science Press, Beijing, & Missouri Botanical Garden, St. Louis: 271-325.
- HOOGLAND R. D. 1953. — A review of the genus *Erycibe* Roxb. *Blumea* 7: 342-361.
- MABBERLEY D. J. 2008. — *Mabberley's Plant-book*. Cambridge University Press, 1021 p.
- OOSTSTROOM S. J. VAN & HOOGLAND R. D. 1953. — *Argyreia*, in VAN STEENIS C. G. G. J. (ed.), *Flora Malesiana* ser. I, vol. 4. Noordhoff-Kolff, Djakarta: 494-512.
- STAPLES G. W. & BRUMMITT R. K. 2007. — Convolvulaceae, in HEYWOOD V. H. *et al.* (eds), *Flowering Plant Families of the World*. Firefly Editions, Buffalo NY, 424 p.
- STAPLES G. W. & YANG S.-Z. 1998. — Convolvulaceae, in Editorial Committee for the Flora of Taiwan, second edition, *Flora of Taiwan*, second edition, Vol. 4. Taipei, Taiwan, R.O.C: 341-384.
- TRAIPEM P. 2002. — *Taxonomic Study in Argyreia Lour. (Convolvulaceae) in Thailand*. MSc. Thesis. Dept. of Botany, Faculty of Science, Chulalongkorn University, Bangkok, Thailand, 143 p.

*Submitted on 6 September 2012;
accepted on 19 January 2013;
published on 27 December 2013.*