

***Sarcotheca lunduensis* (Oxalidaceae), a New Species from W. Sarawak, Malaysia**

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In 1993 I saw a collection from Sarawak (*Kessler PK 320*) of a *Sarcotheca* Blume (Oxalidaceae) which looked like *S. ochracea* Hallier f., but with rather smaller leaves that were glabrous underneath, while the petals were said to be white, which is very exceptional in the woody members of this family, where they tend to have shades of red from pink to nearly blackish red (i.s.). Also this came from the Lundu District in the Kuching Division of Sarawak, while *S. ochracea* occurs mainly in the Bintulu Division, with some collections from E Sibiu and S Miri, and recently has been collected twice in Kalimantan (N Kutai, see note below). Over the years another four collections arrived from Lundu and Sematan (ca 1° 40-48' N, 109° 40-50' E). An analysis with DELTA showed that they agreed with each other, except that where flowers were mentioned they were said to be red.

The flowers of the un-named plant are distylous with a short-styled form (SF: styles shorter than the stamens) and a long-styled form (LF: styles longer than the stamens). The mid-styled form (MF: stigmas between the two rows of anthers) so far is unknown in the genus.

A key to the distinction of the two species is as follows -

- Leaves underneath glabrous, waxy, cinnamon or grey. Pedicels lower joint 1-3 mm long. Petals obovate, ca 2.7 mm long. Filaments in LF the shorter 0.7-1 mm long, the longer 1.3-1.4 mm long. Pistil in SF ca 1 mm long. Seeds ca 5 mm wide. Blades 5-10.5 cm long. Panicles 4-9.5 cm long. W. Sarawak (Kuching Div.: Lundu, Sematan) ***S. lunduensis***
- Leaves underneath pubescent, not waxy, reddish brown. Pedicels lower joint 4-8 mm long. Petals lanceolate to oblanceolate, 4.5-8 mm long. Filaments in LF the shorter 1.5-2 mm long, the longer 2-2.5 mm long. Pistil in SF 1.7-2 mm long. Seeds 3.25-4.5 mm wide. Blades 7.5--23.5 cm long. Panicles 7-70 cm long. C. Sarawak (Bintulu, S Miri, E Sibiu Div.), E. Kalimantan (N Kutai) ***S. ochracea***

Sarcotheca lunduensis Veldkamp, *spec. nov.*

Ab omnibus congeneribus calycibus extus ferrugineae puberulis, petiolis 1-1.5 mm latis, paniculis ferrugineae velutinis, petalis obovatis ca 2.7 mm longis, filamentis brevioribus in forma brevistyla (SF) ca 2.5 mm longis, ovariis ca 1 mm latis differt. - Typus: Sarawak, Kuching Division, Sematan Distr., Biawak, Ladang DAFA, S 56383 (*M. Eja*) (L, holo; K, KEP, SAN, SAR, MO, iso).

Petiole 8-21 by 1-1.5 mm; petiolule 4-5.5 by 1-1.5 mm. **Leaves** unifoliolate, subcoriaceous, elliptic, ovate to oblong, above glabrous, beneath midrib ferruginous hairy, waxy (see note), cinnamon or grey, base broadly cuneate, rounded, or emarginate, margins not parallel, apex acuminate or caudate, venation above not very conspicuous, nerves 5-8 pairs. **Leaflets** 5-10.5 by 2.75-4.5 cm. Panicles shorter to longer than subtending leaf, 1-3 together, erect, loosely branched, 4-9.5 cm long, ferruginous velvety; branches more or less elongated, not forked at the top, 5.5-10 mm long. Pedicels lower joint 1-3 mm long, upper joint 0.3-1 mm long. **Flowers** distylous (SF + LF). Calyx 2.25-3 mm high, outside brown puberulous, reddish brown, red, or purplish, persistent in fruit. Sepals suborbicular, ovate, broadly obovate, or elliptic, 2-2.3 by 1-2 mm, apex rounded to obtuse. Petals obovate, ca 2.7 by 1 mm, rounded. Filaments in SF the shorter ca 2.5 mm long, the longer ca 3 mm long, LF the shorter 0.7-1 mm long, LF the longer 1.3-1.4 mm long. Pistil puberulous, in SF ca 1 mm long, in LF ca 2.4 mm long. Ovary subglobose, 0.8-1 by 1 mm. Fruit subglobose, 8-9 by 6-8 mm. Rimae conspicuous, papillose. **Seeds** ca 6.5 by 5 mm. Testa transversally rugose. Cotyledons ca 4 by 2 mm. Radicle ca 1 by 0.4 mm.

Distribution: Sarawak, Kuching Div., Sematan Distr. [*S 56383* (frts), *S 56384* (fls) (*M. Eja*), *S 65450* (frts) (*Hj. Othman & Yahud et al.*), Lundu Distr. [*Kessler PK 320* (fls & frts), *S 62268* (frts) (*Hj. Othman Ismawi et al.*)]

Habitat: Riverine forest, heath forest (kerangas), up to 200 m alt.

Phenology: Flowers in end July, end December, fruits in March, early April, end July, end December. *S 56383* (frts) and *S 56384* (fls) apparently were collected close together.

Vernacular name: *Piang* (Iban), also used for *S. glauca* (Hook. f.) Hallier f.

Collector's notes: A straggling shrub or small tree, 3--5 m tall. Bark surface smooth, grey. Leaves glabrous. Flowers borne at the end of the twig. Sepals brown, red, fine brown hairy. Corolla red, white (once, see note). Fruit red, bright red.

Uses: Fruits edible, sour to taste.

Notes: The lower surface of the leaves of *Sarcotheca* species may be waxy (previously called "glaucous"). This may be checked in dry material by putting a small flame gently at some distance underneath the leaf (lower side up, and don't burn it). When there is wax a quickly spreading discoloration will be seen. This experiment can only be done once.

Kessler PK 320 states that the petals would be white. This is quite exceptional for the genus, where whitish flowers have been reported for *S. laxa* (Ridl.) Knuth and *S. rubrinervis* Hallier f., while other collections of this and other species state that they have various shades of red: pink to crimson with nearly blackish tips.

***Sarcotheca ochracea* Hallier f.**

Specimens of this species have been collected in E. Kalimantan, which is a new record for Indonesia. Although quite disjunct with the Sarawak collections at the moment I cannot find any significant differences.

The Kalimantan specimens are: *Sidiyasa et al. 1238*, N Kutai, Batu Ampar, PT Kiani Lestari, c. 1° N, 117° E, 26 November 1994 (L, WAN); *Slik BE4-287*, N. Kutai, Berau Distr., 2° 5' 45" N, 117° 17' 30" E, 2 May 1997 (L).

The type specimen of this species, *Haviland 2343*, was collected in Bintulu, Kalong, 1893. The *Gazetteer of Sarawak* (Mohizah *et al.*, 2006) mentions only a Kalong from the Sri Aman Div. (former Simanggang or 2nd Div.), far outside the distributional area of the species. I am fairly confident that Haviland knew where he was and that there were two places by that name.

Reference

Mohizah, M., S. Julia & W.K. Soh. 2006. *A Sarawak Gazetteer*. ix, 181 pp + 13 illus. Sarawak Forestry Department & Forest Research Institute, Malaysia.