A NEW SPECIES OF Sonerila (MELASTOMATAEAE) FROM THE WESTERN GHATS - INDIA

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Abstract
A new species of Sonerila Roxburgh (Melastomataeae) is described and illustrated. Sonerila nayarana sp. nov. occurs in the Velliangiri hills, the Western Ghats in the Coimbatore District, Tamil Nadu, India. It seems most similar to Sonerila parameswaranii Ravikumar & Lakshmanan, 1999.

Key words: taxonomy, Sonerila nayarana, Coimbatore, Tamil Nadu

Introduction
Sonerila Roxburgh (Melastomataeae) occurs with c. 43 species from India and Sri Lanka to China and through Malesia to New Guinea (Lundin & Nordenstam, 2009; www.tropicos.org). It is well represented in Southern India. In Tamil Nadu there are about 23 species and 2 varieties (Nair & Henry, 1983; Giri & Nayar, 1985; Ravikumar, 1999). It is the only trimerous genus (except for the monotypic Stussenia Hansen and Lithobium Bong.) and the stamens are in one or rarely two whorls.

During a floristic study of the Velliangiri hills in the Western Ghats of the Coimbatore District, Tamil Nadu, India, a species of Sonerila was collected that appeared not to be identifiable with any previously known species (Hooker, 1897; Gamble & Fischer, 1957; Nair & Henry, 1983; Giri & Nayar, 1985; Ravikumar, 1999; Lundin & Nordenstam, 2009). It is apparently most similar to S. parameswaranii Ravikumar & Lakshmanan from the Pachakumatchi Hills, Tamil Nadu, and is here described as new.

Sonerila nayarana Murugesan & Balasubramaniam sp. nov. (Pl. 1, Fig. 1)

Type: Cat. no. KASCH 343A-C (Holotype), MH 2784 A-C (Isotype); Loc. Velliangiri hills (1800 m a.s.l.), Coimbatore District, Tamil Nadu, India; Coll. M. Murugesan; Date. 18-IX-2004.

Diagnosis: Sonerilae parameswaranii similissima, habitu herbarceo prostrato vel procumbenti ad 30 cm alto, foliis ovatis ad orbiculariter ovatis 0.5-3 cm
longis 0.4-2.5 cm latis palminervatis, basi cordate
rotundata raro truncata pilis paucis, marginibus
serratis ciliatis, apice acute, petiolo ad 2.5 cm
longo, pedicellis ad 3 mm longis, filamentis 4—6
mm longis, antheris ovatis 2—4 mm longis, stylo
5—8 mm longo differt. Differentiae S. parameswaranii in tabula 1 datae.

Sonerila nayarana is most similar to S. parameswaranii, but differs in the prostrate to
capricious up to 30 cm long habit, leaves ovate or
orbicular-ovate, 0.5-3.0 x 0.4-2.5 cm, palminerved,
base cordate-rounded or rarely truncate with a few
hairs, margins serrate, ciliate, apex acute, petiole up
to 2.5 cm long, pedicels up to 3 mm long, filaments
4-6 mm long, anthers ovate, 2-4 mm long, style 5-8
mm long. The differences with S. parameswaranii
are given in Table 1.

**Description of the holotype:**
Procumbent, unbranched or rarely with 1 or 2
branches, deeply rooted and succulent, annual herbs, 8-
17 cm high; often rooting in the lower nodes.
Branches and branchlets densely bulbous based
hirsute; hairs 2-4 mm long. Leaves simple,
opposite or clustered at middle, ovate, 1-2.7 x 1-2.3
cm, 6-8 nerved, truncate or cordate, rarely cuneate
at base, crenate serrate rarely dentate at margins,
serrateurs hairy; the hairs often glandular, apex
acute or very shortly acuminate or rarely obtuse or
rounded; sparsely hirsute hairy on both surfaces,
especially on the nerves; petiole 0.7-2.5 cm long;
hirsute hairy at apex especially at the vicinity of
leaf base, glabrous towards base, flat. Inflorescence
a terminal scapoid cyme, 2-5-flowered, 2-3 cm
long, pedunculate. Flowers ca 1.5 cm across,
shortly pedicelled, 3-merous, purplish; pedicel up to
3 mm long. Calyx-tube campanulate, 0.9-1.2 x 0.3-
0.5 cm, densely bulbous based hirsute hairy as that
of branches and branchlets; teeth 3, ovate, 1.5-2 x
2.5-3 mm, sparsely hirsute, acute or shortly
acuminate at apex. Petals 3, obovate or rarely
spathulate, 0.5-1 x 0.9-1.2 cm, prominently 1-
nerved, sparsely hirsute hairy on nerves, acute or
rounded and apiculate at apex. Stamens 3; filaments
4-6 x 0.5-1 mm, broad at base, narrowed towards
apex; anthers yellow, lanceolate, rarely oblong or
ovate-lanceolate, 3-4 x 1.5-2 mm, obtuse at apex,
with an apical pore; connective without
appendages. Ovary inferior, globose or subglobose,
2-3 mm long; ovules many; style simple, 5-6 mm
long; stigma capitellate. Capsule obovate, rarely
globose or ovoid, 5-7 x 3-4 mm, prominently
ribbed, hairy, enclosed in persistent calyx-tube;
seeds many, minute.

**Remarks:** The species is present only during the
South-west monsoon (August to September).
Because the plants are so ephemeral and small, they
are easily overlooked. We noticed only two well-
separated populations, each of not more than 5
plants, one from under rocks and another one from
rock crevices.

**Ecology:** Rarely found along the crevices of moist
rocks in open grasslands at about 1700 m a.s.l. on
western slopes. It is always associated with species
such as Eriocaulon spp. Impatiens clavicornu, I.
goughii, Jansenella griffithiana, Parnassia
mysorensis, Swertia minor, Tripogon
anantaswamianus, T. bromoides, etc.

**Flowering & Fruiting:** August-September.

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**Table 1:** The major differences between the species

<table>
<thead>
<tr>
<th><strong>Sonerila parameswaranii</strong> Ravikumar &amp; Lakshmanan, 1999</th>
<th><strong>Sonerila nayarana</strong> Murugesan &amp; Balasubramaniam, 2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plants erect.</td>
<td>Plants prostrate-procumbent.</td>
</tr>
<tr>
<td>Shrub up to 1.5 m high.</td>
<td>Herb up to 17 cm high.</td>
</tr>
<tr>
<td>Leaves ovate-lanceolate or oblong-lanceolate, 1.6-9.2 x 0.7-3.9 cm.</td>
<td>Leaves ovate / orbicular-ovate, 0.5-3.0 x 0.4-2.5 cm.</td>
</tr>
</tbody>
</table>
| Leaves oblique at base, acuminate at apex.               | Leaves cordate or rounded or rarely truncate at base,
                                                          | acute-very shortly acuminate or rarely obtuse or rounded
                                                          | at apex.                                              |
| Leaves ciliate at margins.                               | Leaves with ciliate at serrature only.                  |
| Leaves pinninerved.                                      | Leaves palminerved.                                     |
| Petiole up to 6 cm long, densely villous.                | Petiole up to 2.5 cm long, few hairy at the vicinity of
                                                          | leaf base only.                                        |
| Pedicel up to 1.8 cm long.                               | Pedicel up to 3 mm long.                                |
| Anthers linear-lanceolate, 1-1.3 cm long.                | Anthers ovate, 2-4 mm long.                             |
| Filaments 8-10 mm long.                                  | Filaments 4-6 mm long.                                  |
| Style 1.5-1.8 mm long.                                   | Style 5-8 mm long.                                      |
**Etymology:** The new taxon is proposed in honour of Dr. M.P. Nayar, for his dedicated research in the field of Systematic Botany of Angiosperms.

**Abbreviations:** KASCH, Kongunadu Arts and Science College Herbarium; MH, Madras Herbarium (Botanical Survey of India, Southern Circle)

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**Literature cited**


Fig. 1: *Sonerila mayarana* Murugesan & Balasubramaniam sp. nov.