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Notes on *Aeschynanthus* (Gesneriaceae) of Sumatra, Indonesia

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Key words

Aeschynanthus
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Abstract. An inventory of Gesneriaceae in Sumatra based on herbarium specimens and field observations on 17 genera. The genus *Aeschynanthus* was the most diverse group. It belongs to *Aeschynanthus* from the Anthonium Herbaria of *Aeschynanthus* in Sumatra, East Sumatra and other islands. 17 species of *Aeschynanthus* were new and the last Mary Menden of the Royal Botanic Garden Edinburgh added four more records. The new endemic species of *Aeschynanthus* in Sumatra are: *A. cinnabarinus* for other species of *A. albicaulis* and *A. ruber* are widely distributed in Sumatra and the west of Sumatra.

Publication: 20 October 2019

INTRODUCTION

The first note of the flora of Sumatra began with a publication by Jack in 1820. This was followed by notes from various authors in subsequent publications. Blume in 1858 and 1859 described six species of *Aeschynanthus*. Followed by Haller (1895) who made a list of the *Aeschynanthus* collections in the Herbarium Bogoriense (BO) and noted four species. Moore (1904) in his enumeration of the plants collected in Sumatra by W. N. and C. M. Burman mentioned six species of *Aeschynanthus* under the older genus name *Trochodorum* (see below).

The inventory of the Gesneriaceae in Sumatra resulted in a list of 11 genera (Tjptsoedirdjo et al. 2002, 2004). The genus *Cyrtandra* was the most diverse with 61 species followed by *Aeschynanthus*.

Aeschynanthus belongs to the *Trochodorum*. The first note first established by Haller (1895) under the family *Cyrtandraceae*. Haller under the genera *Trochodorum* D. Don, published in 1822 and *Aeschynanthus* Jack established a year later (Jack 1823). Both names were in use till 1954 when the name *Aeschynanthus* was conserved against *Trochodorum* (however the first name *Trochodorum* has still been used (Liu & Koyohji 1975).

MATERIAL AND METHODS

Herbarium specimens of *Aeschynanthus* from Sumatra in the Herbarium Bogoriense (BO), Andalas University Herbarium (AHU) and BPTNCP Herbarium (BO1) were selected and studied. The data were supplemented by additional field collections carried out by the authors in various regions of Sumatra: Padang, Sumatera Utara, Mount Merapi, Jambi, Mount Singalang, Sumatera Barat and Bukit Barisan, Medan, Sei. Bangsul.

RESULTS AND DISCUSSION

Seventeen species of *Aeschynanthus* were recorded for Sumatra (Table 1). The late Mary Menden added four more species.

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There is one endemic species of Sumatra namely *A. cinnabarinus*. *Aeschynanthus* species (Fig. 1) were originally also regarded as endemic but appears to be present in Java too. Two species of *Aeschynanthus*, *A. albicaulis* and *A. ruber*, are widely distributed in Sumatra and the rest of Malaysia. Most of the collections are old, having been made during the colonial era, except for the collection from Sumatera Barat which were recently collected by the newly established Andalas University Herbarium (AHU). Using an extensive herbarium of *Aeschynanthus* in Sumatera Barat. This might explain why most specimens were collected in the latter province.

The current situation in Sumatra is a catastrophe of natural forest under severe pressure due to a rapid increase in industrialization. Many forests are being cleared, not mainly because of

uses namely *A. brevicaulis* M. G., *A. caudatus* C. B. Clarke, *A. fipipinensis* R. D., and *A. marginatus* R. D. We were unable to study the specimens of these four species and we must rely on notes for collecting data, therefore, they are lacking in Table 1. The plants were found at elevations of 100–2500 m, primarily at the high altitudes. Sumatra has had the highest number of species (15). Sumatera Utara has 8, Aceh 5, and Jambi 8. The other provinces had only five or fewer species. The lowest number was found in Riau province where only two species were found.

There is one endemic species of Sumatra namely *A. cinnabarinus*. *Aeschynanthus* species (Fig. 1) were originally also regarded as endemic but appears to be present in Java too. Two species of *Aeschynanthus*, *A. albicaulis* and *A. ruber*, are widely distributed in Sumatra and the rest of Malaysia. Most of the collections are old, having been made during the colonial era, except for the collection from Sumatera Barat which were recently collected by the newly established Andalas University Herbarium (AHU). Using an extensive herbarium of *Aeschynanthus* in Sumatera Barat. This might explain why most specimens were collected in the latter province.

The current situation in Sumatra is a catastrophe of natural forest under severe pressure due to a rapid increase in industrialization. Many forests are being cleared, not mainly because of

Table 1. List of *Aeschynanthus* (Gesneriaceae) species of Sumatra.

No.	Species	Province	Elev. (m)
1	<i>A. albicaulis</i> (Blume) Haller	A. B. 78–85, 91	150–1700
2	<i>A. angustifolius</i> (Blume) Haller	A. B. 85–90, 92	150–1700
3	<i>A. caudatus</i> (Blume) Haller	SE	150
4	<i>A. cinnabarinus</i> sp. nov.	SE	600
5	<i>A. fipipinensis</i> (R. D.) Clarke	SE, SE	1100–2000
6	<i>A. marginatus</i> (R. D.) Clarke	SE	1100–2000
7	<i>A. ruber</i> (Blume) Haller	SE	150–1700
8	<i>A. ruber</i> (Blume) Haller	SE	150–1700
9	<i>A. ruber</i> (Blume) Haller	SE	150–1700
10	<i>A. ruber</i> (Blume) Haller	SE	150–1700
11	<i>A. ruber</i> (Blume) Haller	SE	150–1700
12	<i>A. ruber</i> (Blume) Haller	SE	150–1700
13	<i>A. ruber</i> (Blume) Haller	SE	150–1700
14	<i>A. ruber</i> (Blume) Haller	SE	150–1700
15	<i>A. ruber</i> (Blume) Haller	SE	150–1700
16	<i>A. ruber</i> (Blume) Haller	SE	150–1700
17	<i>A. ruber</i> (Blume) Haller	SE	150–1700

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Notes on *Aeschynanthus* (*Gesneriaceae*) of Sumatra, Indonesia

Sri S. Tjitrosoedirdjo^{1,2}, R. Zakaria², Nurainas³

Key words

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Abstract An inventory of *Gesneriaceae* in Sumatra based on herbarium specimens and field trips resulted in 17 genera. The genus *Cyrtandra* was the most diverse genus, followed by *Aeschynanthus*. Here we enumerate the species of *Aeschynanthus* in Sumatra. Distribution and altitudinal notes on 17 species of *Aeschynanthus* were made and the late Mary Mendum of the Royal Botanic Garden Edinburgh added four more species. The only endemic species of *Aeschynanthus* in Sumatra is *A. chrysanthus*, two other species, *A. albidus* and *A. wallichii*, are widely distributed in Sumatra and the rest of Malesia.

Published on 30 October 2009

INTRODUCTION

The first work on the flora of Sumatra began with a publication by Jack in 1820. This was followed by works from various authors in scattered publications. Miquel in 1856 and 1861 described six species of *Aeschynanthus*, followed by Hallier (1896) who made a list of the *Aeschynanthus* collections in the Herbarium Bogoriense (BO) and noted five species. Merrill (1934), in his enumeration of the plants collected in Sumatra by W.N. and C.M. Bangham, mentioned six species of *Aeschynanthus* under the older genus name *Trichosporum* (see below).

The inventory of the *Gesneriaceae* in Sumatra resulted in a list of 17 genera (Tjitrosoedirdjo et al. 2003, 2004). The genus *Cyrtandra* was the most diverse with 61 species, followed by *Aeschynanthus*.

Aeschynanthus belongs to tribe *Trichosporeae*. The tribe was first established by Nees (1825) within the family *Cyrtandraceae*. Nees united the genera *Trichosporum* D. Don, published in 1822, and *Aeschynanthus* Jack published a year later (Jack 1823). Both names were in use till 1934, when the name *Aeschynanthus* was conserved against *Trichosporum*. However, the tribal name *Trichosporeae* Nees still stands (Burt & Woods 1975).

MATERIAL AND METHODS

Herbarium specimens of *Aeschynanthus* from Sumatra in the Herbarium Bogoriense (BO), Andalas University Herbarium (ANDA) and BIOTROP Herbarium (BIOT) were selected and studied. The data were supplemented by additional field collections carried out by the authors in various regions of Sumatra: Tapanuli, Sumatera Utara, Mount Kerinci, Jambi; Mount Singgalang, Sumatera Barat and Bukit Biowa Piluwen, Tes, Bengkulu.

RESULTS AND DISCUSSION

Seventeen species of *Aeschynanthus* were recorded for Sumatra (Table 1). The late Mary Mendum added four more spe-

cies namely *A. brevicalyx* Miq., *A. caudatus* C.B. Clarke, *A. flippancei* Ridl. and *A. marginatus* Ridl. We were unable to study the specimens of these four species and we had no access to the collecting data, therefore, they are lacking in Table 1.

The plants were found at elevations of 100–2500 m, primarily at the higher altitudes. Sumatera Barat had the highest number of species (15). Sumatera Utara had 8, Aceh 6 and Jambi 6. The other provinces have only five or fewer species. The lowest number was found in Riau province where only two species were found.

There is one endemic species in Sumatra, namely *A. chrysanthus* *Aeschynanthus volubilis* (Fig. 1) was originally also regarded as endemic but appears to be present in Java too. Two species of *Aeschynanthus*, *A. albidus* and *A. wallichii*, are widely distributed in Sumatra and the rest of Malesia. Most of the collections are old, having been made during the colonial era, except for the collections from Sumatera Barat, which were recently collected by the newly established Andalas University Herbarium (ANDA) during an intensive botanical exploration of Sumatera Barat. This might explain why most species were collected in the latter province.

The current situation in Sumatra is a sad picture of natural forest under severe pressure due to a rapid increase in industrialisation. Many forests are deteriorating fast, mainly because of

Table 1 List of *Aeschynanthus* (*Gesneriaceae*) species of Sumatra

No	Species	Province ¹	Altitude (m)
1	<i>A. albidus</i> (Blume) Steud	A, B, SB, SS, SU	250–1500
2	<i>A. angustifolius</i> (Blume) Steud	A, SB, SS, SU	100–1300
3	<i>A. beccarii</i> C.B. Clarke	SB	1250
4	<i>A. chrysanthus</i> P.Woods	SB	980
5	<i>A. elongatus</i> C.B. Clarke	SB, SU	1100–2000
6	<i>A. fruticosus</i> Ridl.	SU	1350–1900
7	<i>A. horsfieldii</i> R.Br.	SB	950–1000
8	<i>A. longiflorus</i> (Blume) A. DC	J	1350–1900
9	<i>A. macrocalyx</i> C.B. Clarke	SB	–
10	<i>A. magnificus</i> Stapf	SB	980–2000
11	<i>A. obconicus</i> C.B. Clarke	SB	150–1000
12	<i>A. pulcher</i> (Blume) G. Don	A, B, J, L, SB, SS, SU	100–2100
13	<i>A. radicans</i> Jack	A, B, J, L, SB, SS, SU	100–2100
14	<i>A. rhododendron</i> Ridl.	SB	200
15	<i>A. speciosus</i> Hook	A, J, R, SB	400–2000
16	<i>A. volubilis</i> Jack	J, L, SB, SS, SU	800–2500
17	<i>A. wallichii</i> R.Br.	A, B, J, R, SB, SU	250–2000

A = Aceh B = Bengkulu J = Jambi L = Lampung R = Riau SB = Sumatera Barat SS = Sumatera Selatan SU = Sumatera Utara

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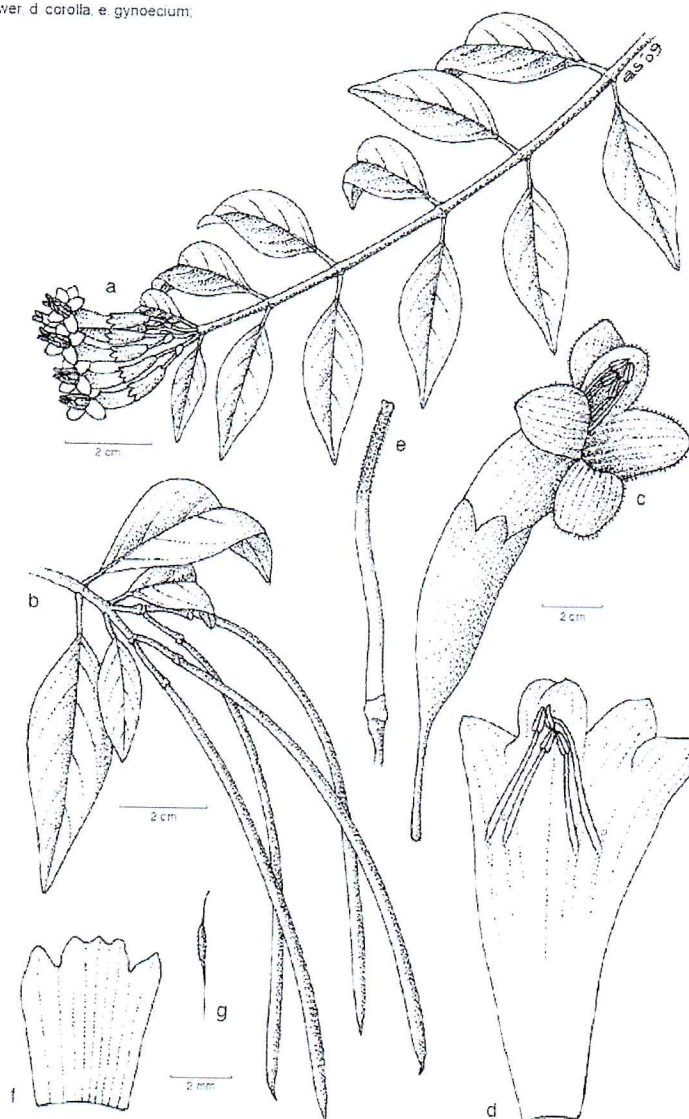
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Fig. 1 *Aeschynanthus volubilis* a. Habit, b. fruit, c. flower, d. corolla, e. gynoecium, f. calyx, g. seed



illegal logging that has become a common practice. *Aeschynanthus* mainly grows as an epiphyte or it is found in the peaty litter of the forest floor where it is hardly visible. The plants are probably vulnerable and presently we are very likely experiencing a loss of *Aeschynanthus* species due to this unfavourable change in the habitat.

CONCLUSIONS

There are 21 species of *Aeschynanthus* in Sumatra. One is endemic and two species are widely distributed in Sumatra and the rest of Malesia.

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