

# 215 new seed plant species recorded for Brunei Darussalam

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## Abstract

We provide a checklist of new seed plant species (Angiosperms and Gymnosperms) in Brunei Darussalam with detailed information. The plant database for Brunei, extracted from the Global Biodiversity Information Facility (GBIF) was compared with the existing plant checklist for Brunei and plant holdings of the UBD herbarium (UBDH). 215 species of seed plants, belonging to 59 families, were found in the GBIF list that were absent in both the Brunei checklist and UBDH collections. The plant family that recorded the highest number of new plant species was Orchidaceae, but overall, tree species dominate the list. Only 8% of the new species were IUCN Red-List evaluated. Most new species collections came from Tutong district, but the highest number of new species was from Temburong district. Almost all new species collections came from areas with easy access such as near roads and around the Kuala Belalong Field Study Centre. As much of the Brunei rainforest remains unexplored, new discoveries are likely to occur.

**Index Terms:** Brunei Darussalam, Brunei checklist, new species records, GBIF, seed plants, threat status

## 1. Introduction

Nearly 20 years has elapsed since the first checklist of seed plants for Brunei Darussalam was published<sup>1</sup> and it is to be expected that quite a number of new plant species have been collected since. This expectation is supported by an additional 234 plants species recorded for Brunei Darussalam in 2018, based on the relatively small plant species collections of the UBDH.<sup>2</sup> Here we use the Global Biodiversity Information Facility (GBIF) database,<sup>3</sup> to check for additional plant species not listed in Coode *et al.*<sup>1</sup> or Zamri and Slik.<sup>2</sup>

GBIF is a global network and research organization funded by the governments of the world and designed to provide access to collection data on every type of life on Earth.<sup>3</sup> As GBIF allows data-holding institutions to share their collection data, the information can originate from numerous sources, i.e., from an 18<sup>th</sup> century museum collection to a recent geotagged cell phone photograph. For that

reason, a plant species might be available for the world to see but still be absent from the Brunei seed plant checklist that was published more than 20 years ago.<sup>1</sup> Although the plant collections in GBIF have been identified by experienced botanists working at the participating institutions, we were unable to see the actual specimens themselves, since they were located in multiple herbaria around the world.

## 2. Methods and Materials

### 2.1 Compiling the new species list

On 22 November 2018 we extracted all seed plants collections originating from Brunei Darussalam from GBIF,<sup>3</sup> resulting in a total of 6238 seed plant collections consisting of 679 fully identified seed plant species. The GBIF data for Brunei Darussalam came from the following institutions: Nationaal Herbarium Nederland, Leiden University branch (L); Royal Botanic Gardens Kew (K); Bishop Museum (BISH); Royal Botanic Garden Edinburgh (E); British

Museum of Natural History (BM); Naturalist Biodiversity Center (WAG); University of Zimbabwe (CAH); Harvard University Herbaria (A); Australian Tropical Herbarium (CNS); and Missouri Botanical Garden (MO). This list of species was then compared with the Brunei Checklist<sup>1</sup> and the UBDH checklist<sup>2</sup> to detect species not mentioned in those two data sources. This resulted in a preliminary list of new seed plant species for Brunei Darussalam.

Because the original Brunei Checklist<sup>1</sup> was over two decades old, its nomenclature was partly outdated. This meant that some species in our preliminary new species list might be present in the Brunei Checklist under an older synonym name, or under a different family. To overcome this, all synonyms of the species in the preliminary list of new species for Brunei Darussalam, as well as their previous family classifications, were compared with the Brunei checklist<sup>1</sup> and UBDH checklist.<sup>2</sup> The synonyms were provided by both “The Plant List”<sup>4</sup> and “The Plants of the World Online”.<sup>5</sup> Plant species that were labeled “unresolved” by both websites were removed from our preliminary list. After resolving the synonym and classification issues we were left with a final list of 215 new seed plant species for Brunei Darussalam.

## 2.2 Species information

Species names were listed in the following format:

[Family Name]

[Genus] [Species] [Author] [Reference]  
[Native or Not][Threat status]

[Local Name] [Growth Form] [Location]  
[Habitat] [Elevation] [Collection numbers]

Family, Genus, Species, Author, Reference, and Collection Number were obtained from the original GBIF database,<sup>3</sup> with an additional check for up to date taxonomy.<sup>4,5</sup> Native or Non-Native status was checked using the following websites.<sup>3,5,6</sup> Threat status (critically endangered (CR), endangered (EN), vulnerable (VU), near threatened (NT) and least concern (LC)) was

determined using the IUCN Redlist website.<sup>7</sup> Local names and growth form were derived from literature and websites.<sup>6,8-19</sup> Location was available as geographic coordinates in GBIF, these coordinates were then entered into GooglePro<sup>20</sup> to find the elevation and the district in which they were located. The habitat was determined by overlaying the geographic coordinates with the forest type map in Coode *et al.*<sup>1</sup> Some geographic coordinates from the GBIF list were obviously wrong (located in the sea). In these cases, the location descriptions from the collectors were used to get the correct geographic coordinate. To study the distribution of all new species collections, a scatter plot of collection coordinates was made overlaying the map of Brunei Darussalam using GooglePro.<sup>20</sup>

## 3. Results and Discussion

From a total of 8247 plant specimens present in the original GBIF database for Brunei, 6238 specimens belonged to seed plants. This number contained 679 species names, which was further reduced to 380 species after comparing the species names and their synonyms with Coode *et al.*<sup>1</sup> After comparing with the checklist by Zamri and Slik,<sup>2</sup> and after removing unresolved species names, we were left with 215 species of seed plants that were not found in any existing checklist, and thus form new records for Brunei Darussalam. The complete list of species and their details is presented in **Table 1** and **Appendix 1**.

### 3.1 Most collected plant families

The new records for Brunei were distributed over a total of 52 plant families (see **Table 1**). The plant family with highest number of new species was Orchidaceae, the orchid family, which recorded about 29 new species followed by Annonaceae, the soursop family and Araceae, the arum family which contained 17 and 16 new species respectively (see **Figure 1**). The list continues with Rubiaceae (14), Euphorbiaceae (12), Phyllanthaceae (10), Fabaceae (9), Zingiberaceae (9), Apocynaceae (8), Elaeocarpaceae (7), Myrtaceae (7), Poaceae (6), Primulaceae (6), Moraceae (5) and another 37 families with 4 or less species (see **Table 1** and

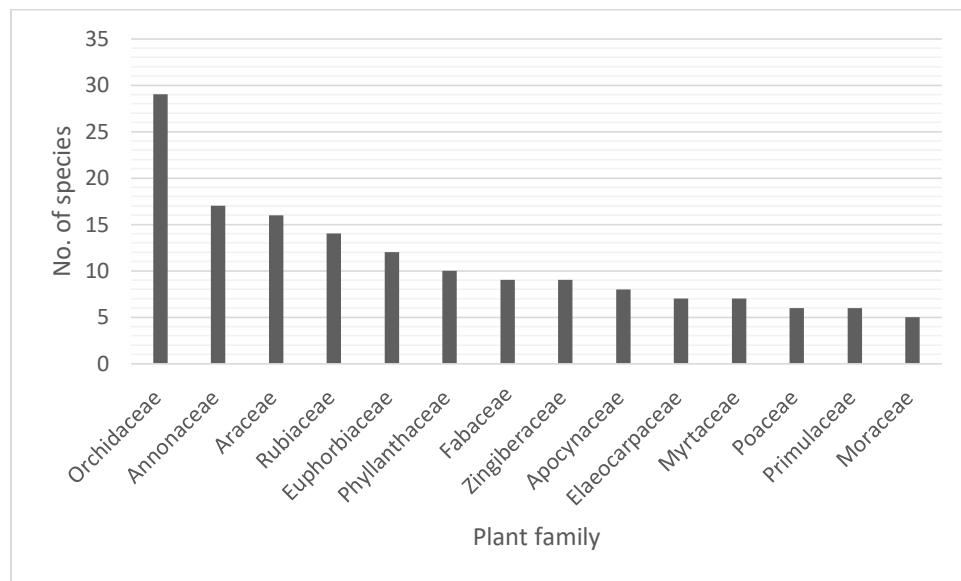
**Appendix 1).** That the Orchidaceae family recorded the highest number of new species occurrences might be due to the fact that Borneo is known to have a high orchid diversity with more than 2,500 species.<sup>17,21,22</sup>

### 3.2 Plant species distribution

Most plant species in this study were collected at locations where access was easy such as the coastal area and near the Kuala Belalong Field Study Centre in Temburong (see **Figure 2**). Therefore the collections only include a limited part of Brunei Darussalam. For example, plant collections in Belait district where mainly concentrated near the main road from Mendaram Kechil to Bukit Teraja, whereas few plants species were collected in the isolated areas of the

district. It is likely that many more species will be added to the Brunei flora when these isolated areas are explored in the future.

In Temburong district the highest number of new species (97) were found, followed by Belait district (92) and Tutong district (46) (see **Figure 3**). In Brunei Muara district on the other hand, only 8 of the new species were present. This outcome may correspond to the difference in the number and size of forest types in every district.<sup>23</sup> In addition, development is more concentrated in Brunei Muara where the main city Bandar Seri Begawan is located, and most areas in Muara district have already been cleared or are secondary regrowth forests.



**Figure 1.** The 15 families that had the highest number of new species.

### 3.3 Plant growth form

The new seed plant species were also grouped according to their plant growth form (see **Figure 4**). The highest number of species were trees, while the lowest number of species were creepers. However, herbs, climbers, epiphytes and shrubs also recorded quite a number of species with 39, 36, 26 and 23, respectively. All 26 species of epiphytes belonged to one family, the Orchidaceae. That tree species dominated the number of new species is not surprising as trees are the dominant plants in all types of forest. Furthermore, they also highly control where

other vegetation can grow due to their height (providing shade) and resource utilization. Additionally, many ecologists and botanists are specialized on trees, which might also lead to more trees being identified.

### 3.4 Threatened and Invasive Species

Around 93% of the 215 new seed plant species were not yet evaluated by the IUCN red list<sup>7</sup> and therefore their threat status remains unknown (see **Figure 5**). Of the assessed species, nine were included in a Threat category, with three being “Critically Endangered” (*Anodendron*

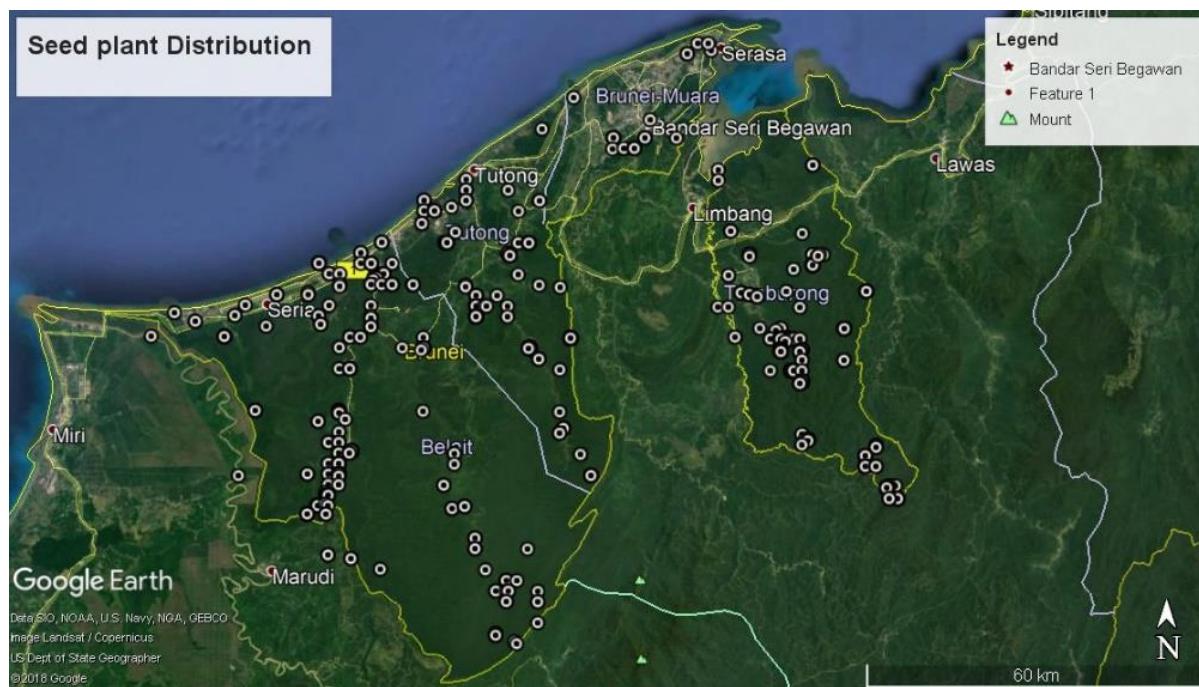
*coriaceum* (Climber), *Dolichandrone spathacea* (Tree) and *Ficus trichocarpa* (Climber). Of the other six threatened species one was classified as “Endangered” (*Nageia wallichiana* (Tree)), and five were classified as “Vulnerable” (*Gnetum acutum* (Liana), *Actephilla excelsa* (Shrub), *Eusideroxylon zwageri* (Tree), *Aglaia rivularis* (Tree), and *Dacrydium medium* (Tree)). The lower risk categories included “Near Threatened” (*Ormosia stipulacea* (Tree), *Gnetum diminutum* (Liana), *Aglaia oligophylla* (Tree) and *Falcatifolium falciforme* (Tree)) and “Least Concern” (*Mimosa pigra* (Shrub), *Gnetum raya* (Liana), *Dacrydium beccarii* (Tree), and *Persicaria barbata* (Herb)). In addition, according to the Global Invasive Species Database,<sup>24</sup> three of the newly recorded seed plant species were considered invasive species. These species were *Mimosa pigra*, *Spermacoce verticillata*, and *Antigonon leptopus*.

The red list is crucial for conservation efforts because it provides information on which species (both plants and animals) need to be protected.<sup>25,26</sup> Red lists are also used as an authoritative way to encourage governments to protect threatened species. Unfortunately, only

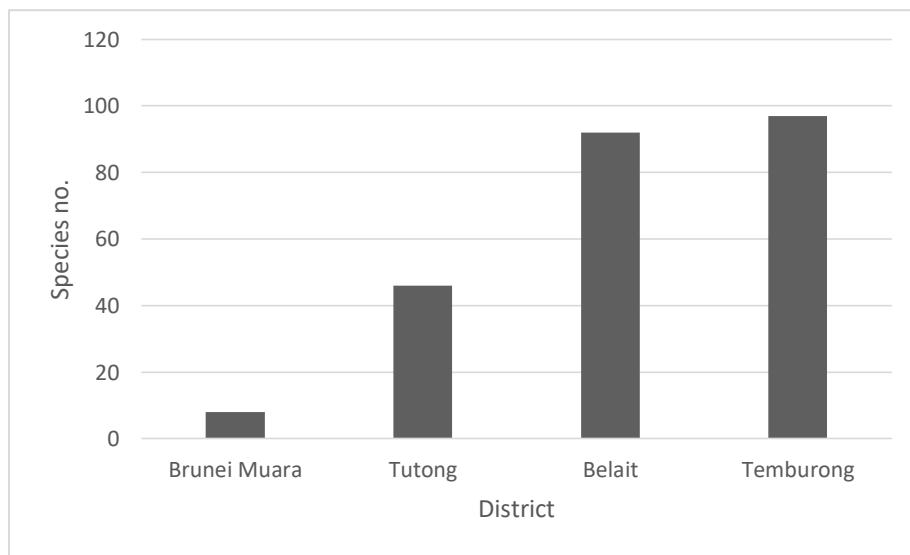
17 (8%) of the new seed plant species recorded for Brunei were assessed for the IUCN Red List, which means that there is not enough data to evaluate the risk of extinction of the other 198 (92%) plant species. More effort will have to be spent on assessing the threat status of plants in Asia to make the IUCN Red List more useful for plants in the tropics. The fact that 9 of the 17 IUCN Red List assessed species were categorized as threatened (critically endangered = 3, endangered = 1, vulnerable = 5) indicates that Brunei, with its relatively intact forests, plays an important role in the conservation of tropical plants. All critically endangered plant species in this study were found in Brunei Muara district where development is currently taking place. For that reason, Brunei needs to step up its conservation efforts, to prevent that development will be at the expense of threatened species.

### 3.5 Conclusion

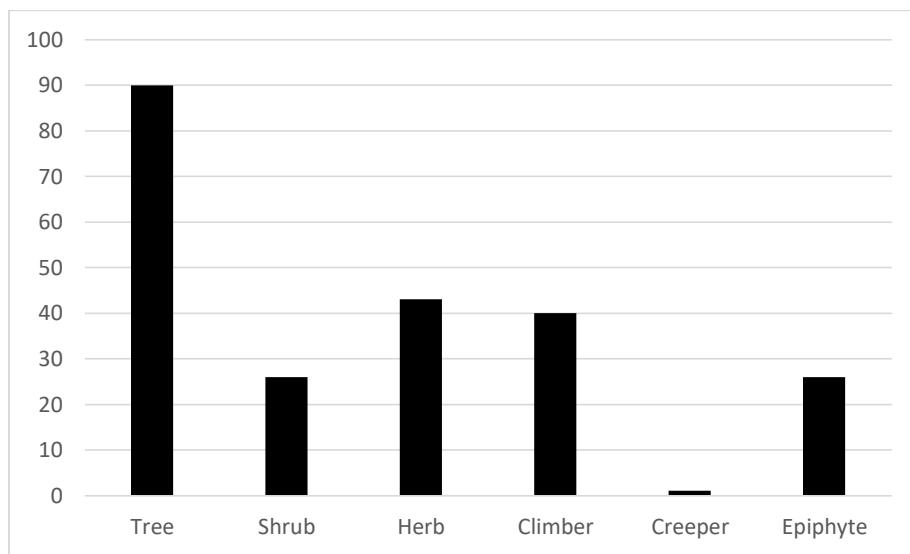
Most of Brunei’s dense rainforests remain under-explored today and the full range of plant species is most likely not yet documented. Thus in the future, more plant species will likely be discovered.



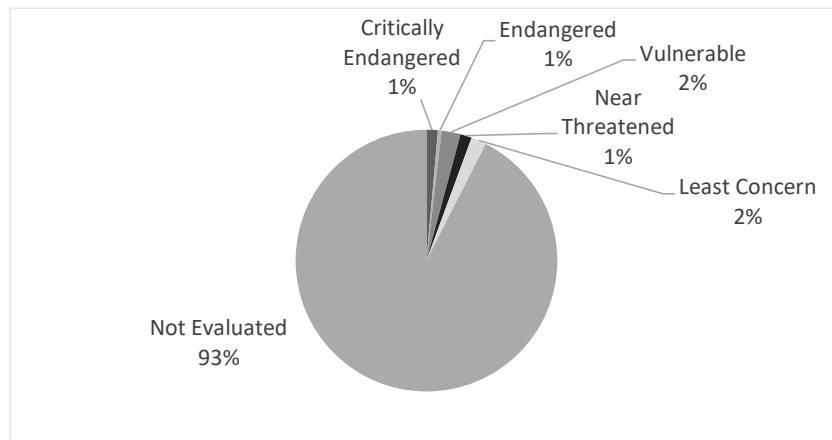
**Figure 2.** Collection localities (white open dots) of the new seed plant species in Brunei Darussalam.



**Figure 3.** Distribution of the new seed plant species across the four districts of Brunei Darussalam.



**Figure 4.** The new species numbers according to their growth form.



**Figure 5.** IUCN Red List results for the 215 new species, with no data available for 93% of the species.

## Acknowledgements

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**Table 1.** Summary of plant species present in GBIF data for Brunei, but absent in the Brunei<sup>1</sup> and UBDH<sup>2</sup> checklists. For more details on these species see *Appendix 1*.

FAMILY	GENUS
ANNONACEAE	<i>Anaxagorea borneensis</i> <i>Artobotrys hirtipes</i> <i>Artobotrys lanuginosus</i> <i>Dasymaschalon ellipticum</i> <i>Drepananthus ridleyi</i> <i>Fissistigma kingii</i> <i>Friesodielsia latifolia</i> <i>Goniothalamus bygravei</i> <i>Mitrephora maingayi</i> <i>Monocarpia borneensis</i> <i>Monocarpia kalimantanensis</i> <i>Polyalthia charitopoda</i> <i>Polyalthia miliusoides</i> <i>Popowia hirta</i> <i>Popowia odoardi</i> <i>Pseuduvaria bruneiensis</i> <i>Xylopia kuchingensis</i>
APOCYNACEAE	<i>Alyxia mujongensis</i> <i>Anodendron coriaceum</i> <i>Chilocarpus rostratus</i> <i>Dischidia cochleata</i> <i>Dischidia complex</i> <i>Dischidia punctata</i> <i>Hoya imperialis</i> <i>Strophanthus singaporianus</i>
AQUIFOLIACEAE	<i>Ilex tamii</i>
ARACEAE	<i>Amorphophallus borneensis</i> <i>Hapaline brownii</i> <i>Hestia longifolia</i> <i>Ooia kinabaluensis</i> <i>Pedicellarum paiei</i> <i>Pothos chinensis</i>

	<i>Pothos lancifolius</i>
	<i>Rhaphidophora cylindrosperma</i>
	<i>Rhaphidophora latevaginata</i>
	<i>Schismatoglottis asperata</i>
	<i>Schismatoglottis motleyana</i>
	<i>Schismatoglottis patentinervia</i>
	<i>Schismatoglottis pectinervia</i>
	<i>Schismatoglottis petri</i>
	<i>Schismatoglottis trifasciata</i>
	<i>Scindapsus treubii</i>
ARECACEAE	<i>Calamus maiadum</i>
	<i>Calamus semoi</i>
	<i>Licuala olivifera</i>
BIGNONIACEAE	<i>Dolichandrone spathacea</i>
BURSERACEAE	<i>Canarium latistipulatum</i>
	<i>Canarium odontophyllum</i>
	<i>Canarium sarawakanum</i>
	<i>Dacryodes kingii</i>
CENTROPLACACEAE	<i>Bhesa indica</i>
CLUSIACEAE	<i>Garcinia acuminata</i>
COMMELINACEAE	<i>Dictyospermum conspicuum</i>
CONNARACEAE	<i>Ellipanthus tomentosus</i>
CONVOLVULACEAE	<i>Ipomoea mauritiana</i>
CUCURBITACEAE	<i>Trichosanthes beccariana</i>
CYPERACEAE	<i>Isolepis setacea</i>
	<i>Scirpus radicans</i>
DIOSCOREACEAE	<i>Dioscorea moultonii</i>
ELAEOCARPACEAE	<i>Elaeocarpus beccarii</i>
	<i>Elaeocarpus cristatus</i>
	<i>Elaeocarpus cumingii</i>
	<i>Elaeocarpus glaber</i>
	<i>Elaeocarpus jugahanus</i>
	<i>Elaeocarpus palembanicus</i>
	<i>Elaeocarpus valetonii</i>
EUPHORBIACEAE	<i>Acalypha hispida</i>
	<i>Croton carrii</i>
	<i>Euphorbia atoto</i>
	<i>Hancea stipularis</i>
	<i>Macaranga bancana</i>
	<i>Macaranga didymocarpa</i>
	<i>Macaranga havilandii</i>
	<i>Mallotus aureopunctatus</i>
	<i>Mallotus connatus</i>

## APPENDIX 1. Species information for the 215 new species for Brunei Darussalam.

Species names are listed in the following format:

[Family Name]

[Genus] [Species] [Author] [Reference] [Native or Not][IUCN Threat status][Local Name]  
[Growth Form] [Location] [Habitat] [Elevation] [Collection numbers]

### ANNONACEAE

***Anaxagorea borneensis* (Becc.) J.Sinclair** (Sarawak Mus. J. 5: 598 [1951]) [Native] {NE}

**Growth Form:** Shrub, Small tree; **Location:** Belait; **Habitat:** Keranga Forest; Elevation: 52 m asl; **Collections:** L.1744733.

***Artobotrys hirtipes* Ridl.** (Bull. Misc. Inform. Kew 1912: 383 [1912]) [Native] {NE} **Growth Form:** Climber; **Location:** Temburong; **Habitat:** Mixed Dipterocarp Forest; **Elevation:** 171 m asl; **Collections:** L.1744834.

***Artobotrys lanuginosus* Boerl.** (Icon. Bogor. 2: 52 [1903]) [Native] {NE} **Growth Form:** Climber; **Location:** Temburong; **Habitat:** Mixed Dipterocarp Forest; **Elevation:** 81 m asl; **Collections:** L.1749591, L.1749593.

***Dasymaschalon ellipticum* Nurmawati** (Floribunda 2: 78 [2003]) [Native] {NE} **Growth Form:** Small tree; **Location:** Belait; **Habitat:** Mixed Dipterocarp Forest; **Elevation:** 293 m asl; **Collections:** L.1756264.

***Drepananthus ridleyi* (King) Survesw. & R.M.K.Saunders** (Taxon 59: 1731 [2010]) [Native] {NE} **Growth Form:** Tree; **Location:** Muara; **Habitat:** Mixed Dipterocarp Forest; **Elevation:** 63 m asl; **Collections:** L.1755655, L.1755654.

***Fissistigma kingii* (Boerl.) Burkill** (Bull. Misc. Inform. Kew 1935: 317 [1935]) [Native] {NE} **Growth Form:** Creeper; **Location:** Temburong; **Habitat:** Mixed Dipterocarp Forest; **Elevation:** 371 m asl; **Collections:** L.1754157.

***Friesodielsia latifolia* (Hook.f. & Thomson) Steenis** (Blumea 12: 360 [1964]) [Non-Native] {NE} **Growth Form:** Climber; **Location:** Belait; **Habitat:** Peat Swamp Forest; **Elevation:** 15 m asl; **Collections:** L0333695.

***Goniothalamus bygravei* I.M.Turner & R.M.K.Saunders** (Nordic J. Bot. 26: 329 [2009]) [Native] {NE} **Growth Form:** Small tree; **Location:** Belait; **Habitat:** Mixed Dipterocarp Forest; **Elevation:** 331 m asl; **Collections:** L.3965635, L.3965637, L.3965632, L.3965636, L.3965633, L.3965641, L.3965634, L.3965598, L.3965657, L.3965607, L.3965656, L.3965599, L.3965605, L.3965600.

***Mitrephora maingayi*** (Natuurk. Tijdschr. Ned.-Indië 31: 12 [1870]) [Native] {NE} **Growth Form:** Tree; **Location:** Temburong; **Habitat:** Mixed Dipterocarp Forest **Elevation:** 78 m asl; **Collections:** L.1757167.

***Monocardia borneensis* Mols & Kessler** (Bot. Jahrb. Syst. 122: 235 [2000]) [Native] {NE} **Growth Form:** Subcanopy Tree; **Location:** Belait; **Habitat:** Mixed Dipterocarp Forest; **Elevation:** 289 m asl; **Collections:** L.1762375.

***Monocardia kalimantanensis* P.J.A.Kessler** (Rheedia 3: 73 [1993]) [Native] {NE} **Local name:** Banitan, Karai-man, Mehawai, Pisang-pisang, Semukau; **Growth Form:** Subcanopy tree; **Location:** Belait; **Habitat:** Mixed Dipterocarp Forest; **Elevation:** 11-81 m asl; **Collections:** L.2067122, L.1757782, L.1757771.

**Polyalthia charitopoda** I.M.Turner (Folia Malaysiana 9: 90 [2008]) [Native] {NE} **Growth Form:** Understory tree; **Location:** Belait; **Habitat:** Mixed Dipterocarp Forest; **Elevation:** 101-190 m asl; **Collections:** barcode-00295751, K000381536.

**Polyalthia miliusoides** I.M.Turner (Folia Malaysiana 9: 86 [2008]) [Native] {NE} **Growth Form:** Shrub; **Location:** Tutong; **Habitat:** Mixed Dipterocarp Forest; **Elevation:** 52 m asl; **Collections:** L.1767113.

**Popowia hirta** Miq. (Ann. Mus. Bot. Lugduno-Batavi 2: 21 [1865]) [Native] {NE} **Growth Form:** Understory tree; **Location:** Temburong; **Habitat:** Mixed Dipterocarp Forest; **Elevation:** 180 m asl; **Collections:** 09-2955, 01-3216, 04-1703, 10-2900, L.1759545, L.1759549.

**Popowia odoardi** Diels (Notizbl. Bot. Gart. Berlin-Dahlem 11: 82 [1931]) [Native] {NE} **Local name:** Pisang-pisang; **Growth Form:** Understory tree; **Location:** Belait; **Habitat:** Peat Swamp Forest; **Elevation:** 16 m asl; **Collections:** L.1759476.

**Pseuduvaria bruneiensis** Y.C.F.Su & R.M.K. Saunders (Syst. Bot. Monogr. 79: 62 [2006]) [Native] {NE} **Growth Form:** Tree; **Location:** Temburong; **Habitat:** Mixed Dipterocarp Forest; **Elevation:** 317-356 m asl; **Collections:** 2377750, L0046964, L.1764397, K000574577, S14-54677.

**Xylophia kuchingensis** I.M.Turner & D.M.Johnson (Harvard Pap. Bot. 14: 129 [2009]) [Native] {NE} **Growth Form:** Tree; **Location:** Belait; **Habitat:** Peat Swamp forest; **Elevation:** 43 m asl; **Collections:** L.1775350.

## APOCYNACEAE

**Alyxia mujongensis** Markgr. (Blumea 23: 384 [1977]) [Native] {NE} **Growth Form:** N/A; **Location:** Temburong; **Habitat:** Montane Forest, **Elevation:** 995 m asl; **Collections:** L.2711377, L.2711378, WAG.1475212, WAG.1475213.

**Anodendron coriaceum** (Blume) Miq. (Fl. Ned. Ind. 2: 455 [1857]) [Native] {CR} **Growth Form:** Climber; **Location:** Belait; **Habitat:** Peat Swamp Forest; **Elevation:** 25 m asl; **Collections:** L.3718352.

**Chilocarpus rostratus** Markgr. (Blumea 19: 165 [1971]) [Native] {NE} **Growth Form:** Climber; **Location:** Tutong-Temburong; **Habitat:** Mixed Dipterocarps Forest; **Elevation:** 9-850 m asl; **Collections:** WAG.1491590, WAG.1491591, WAG.1491592, L.2712580, L.2712575.

**Dischidia cochleata** Blume (Bijdr. 1060 [1826]) [Native] {NE} **Growth Form:** Epiphyte; **Location:** Belait; **Habitat:** Mixed Dipterocarps Forest; **Elevation:** 173 m asl; **Collections:** L.3739366.

**Dischidia complex** Griff. (Not. Pl. Asiat. 4: 50 [1854]) [Native] {NE} **Growth Form:** Epiphyte; **Location:** Belait; **Habitat:** Mixed Dipterocarps Forest; **Elevation:** 19 m asl; **Collections:** L.3739367.

**Dischidia punctata** (Blume) Decne. (Prodri. 8: 631 [1844]) [Native] {NE} **Growth Form:** Epiphyte; **Location:** Belait; **Habitat:** Mixed Dipterocarps Forest; **Elevation:** 69 m asl; **Collections:** L.3739329.

**Hoya imperialis** Lindl. (Edwards's Bot. Reg. 32: t. 68 [1846]) [Native] {NE} **Growth Form:** Climber; **Location:** Tutong; **Habitat:** Mixed Dipterocarps Forest; **Elevation:** 53-358 m asl; **Collections:** L.2726621, L.2726625, L.2726624, L.2726622.

**Strophanthus singaporianus** (Wall. ex G.Don) Gilg (Monogr. Afrik. Pflanzen-Fam. 7: 11 [1903]) [Native] {NE} **Growth Form:** Climber, Shrub; **Location:** Belait; **Habitat:** Peat Swamp Forest; **Elevation:** 21 m asl; **Collections:** L.4284180, L.4284042, L.2708044, WAG.1605701.

**AQUIFOLIACEAE**

***Ilex tamii* T.R. Dudley** (Hollies 244 [1997]) [Non-Native?] {NE} **Growth Form:** Small tree; **Location:** Temburong; **Habitat:** Montane Forest; **Elevation:** 1151 m asl; **Collections:** L.2269305, 2823900.

**ARACEAE**

***Amorphophallus borneensis* (Engl.) Engl. & Gehrm.** (Pflanzenr. IV, 23C: 79 [1911]) [Native] {NE} **Common Name:** Voodoo Plant, Voodoo Lily, **Growth Form:** Tuberous herb; **Location:** Belait; **Habitat:** Secondary Forest; **Elevation:** 31 m asl; **Collections:** L.1409091.

***Hapaline brownii* Hook.f.** (Fl. Brit. India 6: 521 [1893]) [Non-Native] {NE} **Growth Form:** Herb; **Location:** Temburong; **Habitat:** Disturbed mixed dipterocarp forest; **Elevation:** 318 m asl; **Collections:** L.1416226.

***Hestia longifolia* S.Y.Wong & P.C.Boyce** (Bot. Stud. (Taipei) 51: 252 [2010]) [Native] {NE} **Growth Form:** Herb; **Location:** Muara-Belait; **Habitat:** Disturbed mixed dipterocarp forest; **Elevation:** 22-36 m asl; **Collections:** L.1422654, L.1422656.

***Ooia kinabaluensis* S.Y.Wong & P.C.Boyce** (Bot. Stud. (Taipei) 51: 548 [2010]) [Native] {NE} **Growth Form:** Herb; **Location:** Temburong; **Habitat:** Montane Forest; **Elevation:** 995 m asl; **Collections:** L.1417512.

***Pedicellarum paiei* M.Hotta** (Acta Phytotax. Geobot. 27: 61 [1976]) [Native] {NE} **Growth Form:** Climber; **Location:** Temburong; **Habitat:** Mixed Dipterocarp Forest; **Elevation:** 318 m asl; **Collections:** L.1417228.

***Pothos chinensis* (Raf.) Merr.** (J. Arnold Arbor. 29: 210 [1948]) [Non-native] {NE} **Growth Form:** Liana; **Location:** Temburong; **Habitat:** Mixed Dipterocarp Forest; **Elevation:** 171 m asl; **Collections:** E00348661.

***Pothos lancifolius* Hook.f.** (Fl. Brit. India 6: 554 [1893]) [Non-native] {NE} **Growth Form:** Climber; **Location:** Temburong; **Habitat:** Mixed Dipterocarp Forest; **Elevation:** 526 m asl; **Collections:** L.1418135.

***Rhaphidophora cylindrosperma* Engl. & K.Krause** (Pflanzenr. IV, 23B: 28 [1908]) [Native] {NE} **Growth Form:** Climber; **Location:** Belait; **Habitat:** Secondary Forest; **Elevation:** 14 m asl; **Collections:** L.1422062, L.1422061.

***Rhaphidophora lateviginata* M.Hotta** (Acta Phytotax. Geobot. 22: 4 [1966]) [Native] {NE} **Growth Form:** Climber; **Location:** Temburong; **Habitat:** Mixed Dipterocarp Forest; **Elevation:** 318 m asl; **Collections:** L.1422416.

***Schismatoglottis asperata* Engl.** (Bull. Soc. Tosc. Ortic. 4: 297 [1879]) [Native] {NE} **Growth Form:** Herb; **Location:** Belait; **Habitat:** Mixed Dipterocarp Forest; **Elevation:** 147 m asl; **Collections:** L.1422876.

***Schismatoglottis motleyana* (Schott) Engl.** (Pflanzenr. IV, 23Da: 102 [1912]) [Native] {NE} **Growth Form:** Herb; **Location:** Belait; **Habitat:** Mixed Dipterocarp Forest, Secondary Forest; **Elevation:** 31-147 m asl; **Collections:** L.1422668, L.1422664, L.1422666.

***Schismatoglottis patentinervia* Engl.** (Pflanzenr. IV, 23Da: 90 [1912]) [Native] {NE} **Growth Form:** Robust herb; **Location:** Belait; **Habitat:** Secondary Forest; **Elevation:** 31 m asl; **Collections:** L.1422638.

***Schismatoglottis pectinervia* A.Hay** (Telopea 9: 138 [2000]) [Native] {NE} **Growth Form:** Herb; **Location:** Temburong; **Habitat:** Mixed Dipterocarp Forest; **Elevation:** 171 m asl; **Collections:** K000291717.

***Schismatoglottis petri* A.Hay** (Telopea 9: 162 [2000]) [Native] {NE} **Growth Form:** Lithophytic herb; **Location:** Belait; **Habitat:** Mixed Dipterocarp Forest; **Elevation:** 89 m asl; **Collections:** K000291720.

***Schismatoglottis trifasciata* Engl.** (Pflanzenr. IV, 23Da: 106 [1912]) [Native] {NE} **Growth Form:** Herb; **Location:** Tutong; **Habitat:** Mixed Dipterocarp Forest; **Elevation:** 53 m asl; **Collections:** L.1422742, L.1422741.

***Scindapsus treubii* Engl.** (Bot. Jahrb. Syst. 25: 13 [1898]) [Native] {NE} **Growth Form:** Perennial herb; **Location:** Temburong; **Habitat:** Mixed Dipterocarp Forest; **Elevation:** 318 m asl; **Collections:** L.1418713.

## ARECACEAE

***Calamus maiadum* J.Dransf.** (Rattans Brunei 193 1997 [1998]) [Native] [Endemic] {NE} **Growth Form:** Climber; **Location:** Belait; **Habitat:** Mixed Dipterocarps Forest; **Elevation:** 89 – 191 m asl; **Collections:** K000114121- JD7027, K000114120-6593.

***Calamus semoi* Becc.** (Ann. Roy. Bot. Gard. (Calcutta) 11(App.): 129 [1913]) [Native] {NE} **Growth Form:** Climber; **Location:** Temburong; **Habitat:** Mixed Dipterocarp Forest; **Elevation:** 716 m asl; **Collections:** K000114124-7117, K000114125-1407.

***Licuala olivifera* Becc.** (Malesia 3: 78 [1889]) [Native] {NE} **Growth Form:** Tree; **Location:** Tutong-Temburong; **Habitat:** Secondary Forest Mixed Dipterocarp Forest; **Elevation:** 107 – 348 m asl; **Collections:** L.4179734, L.4179735, L.4179733, K000113146- BRUN17368, 2319669-900.

## BIGNONIACEAE

***Dolichandrone spathacea* (L.f.) Seem.** (J. Bot. 1: 226 [1863]) [Native] {CR} **Growth Form:** Understory tree; **Location:** Belait; **Habitat:** Peat-swamp Forest; **Elevation:** 9 m asl; **Collections:** QRS 57700.1-394, QRS 57701.3-3945.

## BURSERACEAE

***Canarium latistipulatum* Ridl.** (Bull. Misc. Inform. Kew 1930: 81 [1930]) [Native] {NE} **Growth Form:** Tree; **Location:** Temburong; **Habitat:** Mixed Dipterocarp Forest; **Elevation:** 112 m asl; **Collections:** 1415170-14463.

***Canarium odontophyllum* Miq.** (Fl. Ned. Ind. 1(2 Suppl.): 525 [1859]) [Native] {NE} **Growth Form:** Tree; **Location:** Temburong; **Habitat:** Mixed Dipterocarp Forest; **Elevation:** 56 m asl; **Collections:** 1415172-14448.

***Canarium sarawakanum* Kochummen** (Sandakania 5: 73 [1994]) [Native] {NE} **Growth Form:** Tree; **Location:** Temburong; **Habitat:** Mixed Dipterocarp Forest; **Elevation:** 224 m asl; **Collections:** 1415291-14454.

***Dacryodes kingii* (Engl.) Kalkman** (Fl. Males. 5: 224 [1956]) [Non-native] {NE} **Growth Form:** Shrub, Tree; **Location:** Brunei Temburong; **Habitat:** Mixed Dipterocarp Forest; **Elevation:** 147 – 186 m asl; **Collections:** 1415197-14428, 1415198-14457.

## CENTROPLACACEAE

***Bhesa indica* (Bedd.) Ding Hou** (Blumea, Suppl. 4: 152 [1958]) [Non-native] {NE} **Growth Form:** Tree; **Location:** Tutong-Belait; **Habitat:** Secondary Forest, Mixed Dipterocarp Forest; **Elevation:** 23 – 149 m asl; **Collections:** L.3750816, L.3750449, L.3748479, L.3748347, L.3748478, L.2282693, L.2282692, L.3750811.

## CLUSIACEAE

***Garcinia acuminata* Planch. & Triana** (Ann. Sci. Nat., Bot. IV, 14: 355 [1860]) [Non-native] {NE} **Growth Form:** Tree; **Location:** Tutong; **Habitat:** Secondary Forest; **Elevation:** 32 m asl; **Collections:** L.2417671.

## COMMELINACEAE

***Dictyospermum conspicuum* (Blume) J.K.Morton** (J. Linn. Soc., Bot. 59: 436 [1966]) [Non-native] {NE} **Growth Form:** Herb; **Location:** Temburong; **Habitat:** Mixed Dipterocarp Forest; **Elevation:** 109 m asl; **Collections:** L.3757617.

## CONNARACEAE

***Ellipanthus tomentosus* Kurz** (J. Asiat. Soc. Bengal, Pt. 2, Nat. Hist. 41(2): 305 [1872]) [Native] {CR} **Growth Form:** Shrub; **Location:** Belait; **Habitat:** Secondary Forest; **Elevation:** 92 m asl; **Collections:** L.3762477, L.3762476.

## CONVULVULACEAE

***Ipomoea mauritiana* Jacq.** (Collectanea 4: 216 [1790]) [Non-native] {NE} **Growth Form:** Climber; **Location:** Belait; **Habitat:** Secondary Forest; **Elevation:** 22 m asl; **Collections:** L.2724985, 2812749.

## CUCURBITACEAE

***Trichosanthes beccariana* Cogn.** (Monogr. Phan. 3: 380 [1881]) [Non-native] {NE} **Growth Form:** Climber; **Location:** Temburong; **Habitat:** Mixed Dipterocarp Forest, Peat-swamp Forest; **Elevation:** 2 – 171 m asl; **Collections:** barcode-00261847-788, L.2988407.

## CYPERACEAE

***Isolepis setacea* (L.) R.Br.** (Prod. Fl. Nov. Holl. 222 [1810]) [Non-native] {NE} **Growth Form:** Herb; **Location:** Temburong; **Habitat:** Mixed Dipterocarp Forest; **Elevation:** 569 m asl; **Collections:** L.1402789.

***Scirpus radicans* Schkuhr** (Ann. Bot. (Usteri) 4: 49 [1793]) [Non-native] {NE} **Growth Form:** Herb; **Location:** Belait; **Habitat:** Secondary Forest; **Elevation:** 33 m asl; **Collections:** 2377761-5668.

## DIOSCOREACEAE

***Dioscorea moultounii* Prain & Burkill** (Bull. Misc. Inform. Kew 1925: 62 [1925]) [Native] {NE} **Growth Form:** Tuberous herbaceous vine; **Location:** Tutong; **Habitat:** Mixed Dipterocarp Forest; **Elevation:** 43 m asl; **Collections:** K001144440-16467.

## ELAEOCARPACEAE

*Elaeocarpus beccarii* DC. (Bull. Herb. Boissier II, 3: 367 [1903]) [Native] {NE} **Local name:** Perdu; **Growth Form:** Mid-canopy tree; **Location:** Belait; **Habitat:** Secondary Forest; **Elevation:** 29 m asl; **Collections:** CNS 143540.1-264.

*Elaeocarpus cristatus* Coode (Kew Bull. 53: 88 [1998]) [Native] {NE} **Growth Form:** N/A; **Location:** Temburong; **Habitat:** Mixed Dipterocarp Forest; **Elevation:** 171 m asl; **Collections:** E00679257-833.

*Elaeocarpus cumingii* Turcz (Bull. Soc. Imp. Naturalistes Moscou 19(2): 491 [1846]) [Non-native] {NE} **Growth Form:** Tree; **Location:** Temburong; **Habitat:** Mixed Dipterocarp Forest; **Elevation:** 850 m asl; **Collections:** L.3790356.

*Elaeocarpus glaber* Blume (Catalogus 78 [1823]) [Native] {NE} **Local name:** Bangkinang, Bengkinang, Bengkining hutan, Kemurik, Pabom, Surugam, Tamang; **Growth Form:** Tree; **Location:** Tutong-Belait-Temburong; **Habitat:** Mixed Dipterocarp Forest, Secondary Forest; **Elevation:** 26 – 63 m asl; **Collections:** A.846, A.1366, A.1350, A.1126, L.3788950, CNS 143532.1-234.

*Elaeocarpus jugaharus* Coode (Kew Bull. 53: 118 [1998]) [Native] {NE} **Growth Form:** Tree; **Location:** Temburong; **Habitat:** Mixed Dipterocarp Forest, Montane Forest; **Elevation:** 850 – 1693 m asl; **Collections:** L.3790237, L.3790593, L.3790236, L.0537785.

*Elaeocarpus palembanicus* (Miq.) Corner (Gard. Bull. Straits Settlem. 10: 323 [1939]) [Native] {NE} **Growth Form:** Tree; **Location:** Tutong-Belait; **Habitat:** Mixed Dipterocarp Forest; **Elevation:** 18-63 m asl; **Collections:** A.463, A.707, A.1105, L.3790596.

*Elaeocarpus valetonii* Hochr. (Pl. Bogor. Exs. 29 [1904]) [Native] {NE} **Local name:** Kungkurad, Peredu, Sengkurat, Tamang; **Growth Form:** Mid-canopy tree; **Location:** Temburong; **Habitat:** Mixed Dipterocarp Forest; **Elevation:** 145 m asl; **Collections:** CNS 143538.1-261.

## EUPHORBIACEAE

*Acalypha hispida* Burm.f. (Fl. Indica 303 [1768]) [Non-native] {NE} **Local name:** Pokok ekor kucing; **Growth Form:** Shrub; **Location:** Belait; **Habitat:** Keranga Forest; **Elevation:** 17 m asl; **Collections:** L.2180378.

*Croton carrii* Airy Shaw (Kew Bull. 27: 82 [1972]) [Non-native] {NE} **Growth Form:** N/A; **Location:** Belait; **Habitat:** Secondary Forest; **Elevation:** 76 m asl; **Collections:** L.2210750, L.2210749.

*Euphorbia atoto* G.Forst. (Fl. Ins. Austr. 36 [1786]) [Non-native] {NE} **Growth Form:** Shrub; **Location:** Belait; **Habitat:** Secondary Forest; **Elevation:** 7 m asl; **Collections:** L.2215929, L.2215928.

*Hancea stipularis* (Airy Shaw) S.E.C.Sierra, Kulju & Welzen (Blumea 52: 364 [2007]) [Native] {NE} **Growth Form:** Tree; **Location:** Temburong; **Habitat:** Mixed Dipterocarp Forest; **Elevation:** 572 m asl; **Collections:** L.2223510.

*Macaranga bancana* (Miq.) Müll.Arg. (Prodri. 15(2): 990 [1866]) [Native] {NE} **Local name:** Benuah, Layang-layang, Purang, Sedaman, Sedaman laki; **Growth Form:** Understory tree; **Location:** Tutong; **Habitat:** Secondary Forest; **Elevation:** 31 m asl; **Collections:** L.2236791.

***Macaranga didymocarpa*** Whitmore (Kew Bull. 39: 607 [1984]) [Native] {NE} **Growth Form:** Tree; **Location:** Tutong; **Habitat:** Secondary Forest; **Elevation:** 32 m asl; **Collections:** L.2241706, L.2241708, L.2241707, L.2241711.

***Macaranga havilandii*** Airy Shaw (Kew Bull. 23: 112 [1969]) [Native] {NE} **Growth Form:** Small tree; **Location:** Tutong-Belait; **Habitat:** Mixed Dipterocarp Forest, Peat-swamp Forest; **Elevation:** 40 – 107 m asl; **Collections:** L.2230845, L.2230849, L.2230848.

***Mallotus aureopunctatus*** (Dalzell) Müll.Arg. (Prod. 15(2): 973 [1866]) [Non-native] {NE} **Growth Form:** Tree; **Location:** Belait; **Habitat:** Mixed Dipterocarp Forest, **Elevation:** 24 m asl; **Collections:** L.3784712.

***Mallotus connatus*** M.Aparicio (Blumea 52: 54 [2007]) [Native] {NE} **Growth Form:** N/A; **Location:** Belait; **Habitat:** Peat-swamp Forest; **Elevation:** 33 m asl; **Collections:** L.2243537.

***Mallotus leucodermis*** Hook.f. (Fl. Brit. India 5: 441 [1887]) [Native] {NE} **Local name:** Galungan, Galunggung, Perupuk, Perupuk Batu; **Growth Form:** Mid-Canopy Tree; **Location:** Belait-Temburong; **Habitat:** Keranga Forest, Mixed Dipterocarp Forest, Submontane Forest; **Elevation:** 111 - 180 m asl; **Collections:** CP-1042, CAH-318, 10-5187, 05-5045.

***Ptychopyxis grandis*** Airy Shaw (Kew Bull. 14: 367 [1960]) [Native] {NE} **Growth Form:** Treelet, Tree; **Location:** Tutong; **Habitat:** Secondary Forest, Mixed Dipterocarp Forest; **Elevation:** 64 m asl; **Collections:** L0584266, L.2253417.

***Trigonostemon aurantiacus*** (Kurz ex Teijsm. & Binn.) Boerl. (Handl. Fl. Ned. Ind. 3(1): 284 [1900]) [Non-native] {NE} **Growth Form:** N/A; **Location:** Temburong; **Habitat:** Mixed Dipterocarp Forest; **Elevation:** 318 m asl; **Collections:** L.2259027.

## FABACEAE

***Bauhinia lambiana*** Baker f. (J. Bot. 76: 19 [1938]) [Native] {NE} **Growth Form:** Tendrilled liana; **Location:** Belait; **Habitat:** Mixed Dipterocarp Forest; **Elevation:** 87 m asl; **Collections:** L.1976121.

***Crudia caudata*** Prain (J. Asiat. Soc. Bengal, Pt. 2, Nat. Hist. 66: 219 [1897]) [Native] {NE} **Growth Form:** N/A; **Location:** Belait; **Habitat:** Secondary Forest; **Elevation:** 31 m asl; **Collections:** L.3884887.

***Dalbergia bintuluensis*** Sunarno & Ohashi (J. Jap. Bot. 72: 202 [1997]) [Native] {NE} **Growth Form:** N/A; **Location:** Tutong; **Habitat:** Secondary Forest; **Elevation:** 14 m asl; **Collections:** L.1984399.

***Dalbergia borneensis*** Prain (J. Asiat. Soc. Bengal, Pt. 2, Nat. Hist. 70: 44 [1901]) [Native] {NE} **Growth Form:** N/A; **Location:** Muara; **Habitat:** Secondary Forest; **Elevation:** 22 m asl; **Collections:** L.1984403

***Derris montana*** Benth. (F.A.W.Miquel, Pl. Jungh.: 253 [1852]) [Native] {NE} **Growth Form:** Liana; **Location:** Belait; **Habitat:** Peat-swamp Forest; **Elevation:** 21 m asl; **Collections:** L.2039719.

***Millettia borneensis*** Adema (Blumea 45: 407 [2000]) [Native] {NE} **Local Name:** Babai, Biansu, Binsu, Marbahai, Merbatrai, Tonudou. **Growth Form:** Upper canopy tree; **Location:** Belait; **Habitat:** Peat-swamp Forest; **Elevation:** 21 m asl; **Collections:** L.2049382.

***Mimosa pigra*** L. (Cent. Pl. I: 13 [1755]) [Non-native] {LC} **Growth Form:** Woody invasive shrub; **Location:** Belait; **Habitat:** Peat-swamp Forest; **Elevation:** 6 m asl; **Collections:** L.2041626.

**Ormosia stipulacea** Meeuwen (Reinwardtia 6: 234 [1962]) [Native] {NT} **Growth Form:** N/A; **Location:** Tutong-Belait; **Habitat:** Mixed Dipterocarp forest, Secondary Forest; **Elevation:** 10 – 43 m asl; **Collections:** L.3885408, K000628248, K000628247.

**Spatholobus auricomus** Ridd.-Num. (Reinwardtia 10: 165 [1985]) [Native] {NE} **Growth Form:** N/A; **Location:** Tutong; **Habitat:** Mixed Dipterocarp forest; **Elevation:** 47 m asl; **Collections:** L.3885390.

## FAGACEAE

**Castanopsis paucispina** Soepadmo (Reinwardtia 7: 398 [1968]) [Native] {NE} **Growth Form:** Tree; **Location:** Belait; **Habitat:** Mixed Dipterocarp Forest; **Elevation:** 87 m asl; **Collections:** L.3792180.

**Lithocarpus mariae** Soepadmo (Reinwardtia 8: 258 [1970]) [Native] {NE} **Growth Form:** Tree; **Location:** Tutong; **Habitat:** Secondary Forest, Mixed Dipterocarp Forest; **Elevation:** 44 m asl; **Collections:** L.1570350.

## GENTIANACEAE

**Fagraea ceilanica** Thunb. (Kongl. Vetensk. Acad. Nya Handl. 3: 132 [1782]) [Native] {NE} **Local Name:** Akar sempirai, Kayu alah, Penungpang, Salang mapit, Seraya. **Growth Form:** Shrub, Liana, Small tree; **Location:** Belait; **Habitat:** Mixed Dipterocarp Forest; **Elevation:** 65 m asl; **Collections:** L.2687914.

**Fagraea gardenioides** Ridl. (J. Fed. Malay States Mus. 5: 42 [1914]) [Non-native] {NE} **Growth Form:** N/A; **Location:** Belait; **Habitat:** Secondary forest; **Elevation:** 7 m asl; **Collections:** L.2674651.

## GESNERIACEAE

**Cyrtandra phoenicoides** Hilliard & B.L.Burtt (Edinburgh J. Bot. 61: 177 [2004]) [Native] {NE} **Growth Form:** Herb, Shrub; **Location:** Temburong; **Habitat:** Mixed Dipterocarp Forest; **Elevation:** 268 m asl; **Collections:** E00188886-811, E00188887-811.

**Cyrtandra splendens** C.B.Clarke (Monogr. Phan. 5: 209 [1883]) [Native] {NE} **Growth Form:** Herb, Shrub; **Location:** Belait; **Habitat:** Secondary Forest; **Elevation:** 115 m asl; **Collections:** L.3794218.

## GNETACEAE

**Gnetum acutum** Markgr. (in Fl. Males. 6: 947 [1972]) [Native] {VU} **Growth Form:** Liana; **Location:** Tutong-Belait; **Habitat:** Peat-swamp forest, Keranga Forest; **Elevation:** 19 – 46 m asl; **Collections:** L.3875127, K000454208, K000454206, K000454207, K000454210, K000454211, K000454209.

**Gnetum diminutum** Markgr. (Bull. Jard. Bot. Buitenzorg III, 10: 483 [1930]) [Native] {NT} **Growth Form:** Liana; **Location:** Tutong-Belait; **Habitat:** Peat-swamp forest, Keranga Forest; **Elevation:** 7 – 53 m asl; **Collections:** K000454620, K000454619, K000458511.

**Gnetum raya** Markgr. (Blumea 14: 284 [1967]) [Native] {LC} **Growth Form:** Liana; **Location:** Tutong; **Habitat:** Secondary Forest; **Elevation:** 75 m asl; **Collections:** K000454873.

## LAMIACEAE

***Clerodendrum disparifolium* Blume** (Bijdr. 809 [1826]) [Native] {NE} **Local Name:** Patah ayam, Petah ringan, Sipang; **Growth Form:** Shrub; **Location:** Muara-Belait; **Habitat:** Mixed Dipterocarp Forest, Secondary Forest, Peat-swamp Forest, Keranga Forest; **Elevation:** 5 – 191 m asl; **Collections:** K000785325-890726, K000785560-22, K000785557-7615, K000785561-2419b, K000785559-BRUN665, K000785556-209, K000853733-15393.

***Teijsmanniodendron bullatum* Rusea** (Kew Bull. 64: 595 2009 [2010]) [Native] {NE} **Growth Form:** Herb; **Location:** Tutong-Belait; **Habitat:** Mixed Dipterocarp Forest; **Elevation:** 24 – 188 m asl; **Collections:** L.2754840, L.2754839, K000721852-17471, K000721848-7827, K000721854-6828, K000721855-256, K000721853-16469, K000721856-253.

## LAURACEAE

***Cryptocarya griffithiana* Wight** (Icon. Pl. Ind. Orient. 5: t. 1830 [1852]) [Native] {NE} **Local name:** Madang, Medang; **Growth Form:** Subcanopy tree; **Location:** Muara-Tutong-Belait; **Habitat:** Peat-swamp Forest, Mixed Dipterocarp Forest, Secondary Forest; **Elevation:** 17 – 41 m asl; **Collections:** L.3903636, L.3903840, L.3908199, L.3887626, L.3903833.

***Eusideroxylon zwageri* Teijsm. & Binn.** (Natuurk. Tijdschr. Ned.-Indië 25: 292 [1863]) [Native] {VU} **Local Name:** Belian, Belian timun, Betian, Talion bening, Tebelian geriting, Telianoi, Teluyan, Ulin, Ulin bening, Ulion; **Growth Form:** Mid-canopy tree; **Location:** Belait; **Habitat:** Mixed Dipterocarp Forest; **Elevation:** 81 m asl; **Collections:** QRS 102256.1-14965, QRS 102257.1-14966, QRS 104233.2-14965.

***Litsea fulva* (Blume) Villar** (Blanco, Fl. Philipp. ed. III Nov. App. 181 [1880]) [Native] {NE} **Growth Form:** Tree; **Location:** Temburong; **Habitat:** Mixed Dipterocarp Forest, Montane Forest; **Elevation:** 47 – 781 m asl; **Collections:** 19-3471, 01-0911, 01-0183, L.3883431, L.3912887, L.3912882, L.3912888.

## LORANTHACEAE

***Scurrula parasitica* L.** (Sp. Pl.: 110 [1753]) [Non-native] {NE} **Growth Form:** Parasitic shrub; **Location:** Tutong; **Habitat:** Mixed Dipterocarp Forest; **Elevation:** 358 m asl; **Collections:** L.3890694, L.3890695, L.3923679.

## LOWIACEAE

***Orchidantha longiflora* (Scort.) Ridl.** (Fl. Malay Penins. 4: 292 [1924]) [Non-native] {NE} **Growth Form:** Perennial herb; **Location:** Belait; **Habitat:** Secondary Forest; **Elevation:** 31 m asl; **Collections:** L 0673560, L 0673559.

## MALVACEAE

***Clappertonia ficifolia* (Willd.) Decne.** (J.P.B.Delessert, Icon. Sel. Pl. 5: 1 [1846]) [Non-native] {NE} **Growth Form:** Shrub; **Location:** Belait; **Habitat:** Secondary Forest; **Elevation:** 45 m asl; **Collections:** L.4204872, L.4204845.

***Sterculia lanceolata* Cav.** (Diss. 6: 287, pl. 143, f. 1 [1788]) [Non-native] {NE} **Growth Form:** Tree; **Location:** Temburong; **Habitat:** Secondary Forest; **Elevation:** 43 m asl; **Collections:** L.4146549.

## MARANTACEAE

***Schumannianthus benthamianus* (Kuntze) Veldkamp & I.M.Turner** (Kew Bull. 71(4)-47: 2 [2016]) [Native] {NE} **Growth Form:** Herb; **Location:** Belait; **Habitat:** Peat-swamp Forest; **Elevation:** 10 m asl; **Collections:** L.3916274.

## MELIACEAE

***Aglaia rivularis* Merr.** (Univ. Calif. Publ. Bot. 15: 125 [1929]) [Native] {VU} **Growth Form:** Tree; **Location:** Temburong; **Habitat:** Mixed Dipterocarp Forest; **Elevation:** 348 m asl; **Collections:** L.2144165, L.2150070, L.2150071, L.2150014.

## MENISPERMACEAE

***Diplocisia glaucescens* (Blume) Diels** (H.G.A.Engler (ed.), Pflanzenr., IV, 94: 225 [1910]) [Non-native] {NE} **Growth Form:** Climber; **Location:** Temburong; **Habitat:** Mixed Dipterocarp Forest; **Elevation:** 318 m asl; **Collections:** L.3913893, L.3913892.

## MORACEAE

***Ficus callosa* Willd.** (Mém. Acad. Roy. Sci. Hist. (Berlin) 1798: 102 [1798]) [Native] {NE} **Growth Form:** Tree; **Location:** Tutong; **Habitat:** Secondary Forest; **Elevation:** 14 m asl; **Collections:** L.1605990, 2791281.

***Ficus depressa* Blume** (Catalogus: 35 [1823]) [Native] {NE} **Growth Form:** Tree; **Location:** Temburong; **Habitat:** Mixed Dipterocarp Forest; **Elevation:** 149 m asl; **Collections:** L.1606376, 2796641.

***Ficus eumorpha* Corner** (Gard. Bull. Singapore 17: 439 [1960]) [Native] {NE} **Growth Form:** Shrub; Tree; **Location:** Temburong; **Habitat:** Montane Forest; **Elevation:** 1693 m asl; **Collections:** L.1601143, 2799122.

***Ficus heteropleura* Blume** (Bijdr. Fl. Ned. Ind.: 466 [1825]) [Native] {NE} **Growth Form:** Climber; **Location:** Belait; **Habitat:** Mixed Dipterocarp Forest; **Elevation:** 18 m asl; **Collections:** L.1602464, 2804137.

***Ficus trichocarpa* Blume** (Bijdr. Fl. Ned. Ind.: 448 [1825]) [Native] {CR} **Growth Form:** Climber; **Location:** Temburong; **Habitat:** Mixed Dipterocarp Forest; **Elevation:** 348 m asl; **Collections:** L.1613092, 2835380.

## MYRTACEAE

***Eugenia media* (Sagot) Nied. ex T.Durand & B.D.Jacks.** (Index Kew. Suppl. 1: 164 [1902]) [Non-native] {NE} **Growth Form:** N/A; **Location:** Temburong; **Habitat:** Mixed Dipterocarp Forest; **Elevation:** 348 m asl; **Collections:** L.2508498.

***Syzygium claviflorum* A.M.Cowan & Cowan** (Trees N. Bengal: 67 [1929]) [Native] {NE} **Local name:** Jambu arang, gelam, lenceh, Obah, Ubah; **Growth Form:** Canopy tree; **Location:** Tutong; **Habitat:** Secondary Forest; **Elevation:** 14 m asl; **Collections:** K000259546, K000259547.

***Syzygium creaghi* (Ridl.) Merr. & L.M.Perry** (Mem. Amer. Acad. Arts, n.s., 18: 164 [1939]) [Native] {NE} **Local name:** Obah, Obah paya; **Growth Form:** Canopy tree; **Location:** Belait-Temburong; **Habitat:** Mixed Dipterocarp Forest, Peat-swamp forest; **Elevation:** 31 – 850 m asl; **Collections:** L.2507640, L.0526841, L.2507639, L.2507641.

**Syzygium cymosum (Lam.) DC.** (Prodr. 3: 259 [1828]) [Non-native] {NE} **Growth Form:** Tree; **Location:** Temburong; **Habitat:** Mixed Dipterocarp Forest; **Elevation:** 530 m asl; **Collections:** L.2507503.

**Syzygium jambos (L.) Alston** (H.Trimen, Handb. Fl. Ceylon 6(Suppl.): 115 [1931]) [Native] {NE} **Growth Form:** Tree; **Location:** Temburong; **Habitat:** Mixed Dipterocarp Forest, Secondary forest; **Elevation:** 81 – 196 m asl; **Collections:** L.3932135, L.3932088.

**Syzygium panzeri Merr. & L.M.Perry** (Mem. Amer. Acad. Arts, n.s., 18: 162 [1939]) [Native] {NE} **Growth Form:** N/A; **Location:** Temburong; **Habitat:** Mixed Dipterocarp Forest; **Elevation:** 850 m asl; **Collections:** L.2529736.

**Xanthomyrtus flava (Stapf) Diels** (Bot. Jahrb. Syst. 57: 366 [1922]) [Native] {NE} **Growth Form:** N/A; **Location:** Temburong; **Habitat:** Montane Forest; **Elevation:** 1152 m asl; **Collections:** L.3919133.

## OLACACEAE

**Ximenia Americana L.** (Sp. Pl. 1193 [1753]) [Non-native] {NE} **Growth Form:** Shrub, Small tree; **Location:** Tutong; **Habitat:** Secondary Forest; **Elevation:** N/A; **Collections:** L.4163880.

## OLEACEAE

**Jasminum longipetalum King&Gamble** (J. Asiatic Soc. Bengal, Pt. 2, Nat. Hist. 74: 262 [1905]) [Non-native] {NE} **Growth Form:** Shrub; **Location:** Belait; **Habitat:** Peat-swamp Forest; **Elevation:** 18 m asl; **Collections:** L.2683778.

## ORCHIDACEAE

**Aphyllorchis montana Rchb.f.** (Linnaea 41: 57 [1876]) [Native] {NE} **Growth Form:** Saprophyte, Terrestrial herb; **Location:** Temburong; **Habitat:** Mixed Dipterocarp Forest; **Elevation:** 569 m asl; **Collections:** L.0663766, L.1482916.

**Bulbophyllum calceolus J.J.Verm.** (Orchids Borneo 2: 157 [1991]) [Native] {NE} **Growth Form:** Perennial epiphyte; **Location:** Temburong; **Habitat:** Peat-swamp Forest; **Elevation:** 32 m asl; **Collections:** L.1492646.

**Bulbophyllum coniferum Ridl.** (J. Fed. Malay States Mus. 4: 67 [1909]) [Native] {NE} **Growth Form:** Perennial epiphyte; **Location:** Temburong; **Habitat:** Montane Forest; **Elevation:** 1014 m asl; **Collections:** L.1492959, L.0538708.

**Bulbophyllum hymenanthurum Hook.f.** (Fl. Brit. India 5: 767 [1890]) [Native] {NE} **Growth Form:** Perennial epiphyte; **Location:** Temburong; **Habitat:** Montane Forest; **Elevation:** 1014 m asl; **Collections:** L.0538705.

**Bulbophyllum multiflexum J.J.Sm.** (Mitt. Inst. Allg. Bot. Hamburg 7: 66 [1927]) [Native] {NE} **Growth Form:** Perennial epiphyte; **Location:** Temburong; **Habitat:** Montane Forest; **Elevation:** 1014 m asl; **Collections:** L.1495162, L.1495161.

**Bulbophyllum obtusum (Blume) Lindl.** (Gen. Sp. Orchid. Pl. 56 [1830]) [Native] {NE} **Growth Form:** Perennial epiphyte; **Location:** Temburong; **Habitat:** Montane Forest; **Elevation:** 1014 m asl; **Collections:** L.1495021.

**Bulbophyllum papillatum J.J.Sm.** (Bull. Dép. Agric. Indes Néerl. 43: 60 [1910]) [Native] {NE} **Growth Form:** Perennial epiphyte; **Location:** Temburong; **Habitat:** Montane Forest; **Elevation:** 1014 m asl; **Collections:** L.1488756.

***Bulbophyllum salaccense* Rchb.f.** (Bonplandia (Hannover) 5: 57 [1857]) [Native] {NE} **Growth Form:** Perennial epiphyte; **Location:** Temburong; **Habitat:** Montane Forest; **Elevation:** 1014 m asl; **Collections:** L 0538703.

***Bulbophyllum tothastes* J.J.Verm.** (Orchids Borneo 2: 277 1991.) [Native] {NE} **Growth Form:** Perennial epiphyte; **Location:** Temburong; **Habitat:** Peat-swamp Forest; **Elevation:** 32 m asl; **Collections:** L.2109017.

***Bulbophyllum trigonopus* Rchb.f.** (Gard. Chron. n.s., 16: 71 [1881]) [Native] {NE} **Growth Form:** Perennial epiphyte; **Location:** Tutong-Temburong; **Habitat:** Mixed Dipterocarp Forest, Montane Forest; **Elevation:** 357 – 1014 m asl; **Collections:** L 0662975, L.4172636, L.1489231.

***Chelonistele unguiculata* Carr** (Gard. Bull. Straits Settlem. 8: 77 [1935]) [Native] {NE} **Growth Form:** Epiphyte, Lithophyte; **Location:** Tutong; **Habitat:** Mixed Dipterocarp Forest; **Elevation:** 358 m asl; **Collections:** L.1500126, L.4171687.

***Coelogyne craticulilabris* Carr** (Gard. Bull. Straits Settlem. 8: 214 [1935]) [Native] {NE} **Growth Form:** Sympodial epiphyte; **Location:** Temburong; **Habitat:** Montane Forest; **Elevation:** 1014 m asl; **Collections:** L.1500859.

***Coelogyne monilirachis* Carr** (Gard. Bull. Straits Settlem. 8: 206 [1935]) [Native] {NE} **Growth Form:** Sympodial epiphyte; **Location:** Temburong; **Habitat:** Montane Forest; **Elevation:** 1014 m asl; **Collections:** L 0821910.

***Coelogyne verrucosa* S.E.C.Sierra** (Blumea 45: 309 [2000]) [Native] {NE} **Growth Form:** Sympodial epiphyte; **Location:** Belait-Temburong; **Habitat:** Mixed Dipterocarp Forest; **Elevation:** 123 – 569 m asl; **Collections:** L 0663763, L.1496917.

***Crepidium ramosum* (J.J.Sm.) Marg. & Szlach.** (Polish Bot. J. 46: 69 [2001]) [Native] {NE} **Growth Form:** Spur epiphyte; **Location:** Belait; **Habitat:** Peat-swamp Forest; **Elevation:** 52 m asl; **Collections:** L.1506112.

***Dendrobium corallorhizon* J.J.Sm.** (Bull. Jard. Bot. Buitenzorg III, 11: 140 [1931]) [Native] {NE} **Growth Form:** Epiphyte, Lithophyte; **Location:** Temburong; **Habitat:** Montane Forest; **Elevation:** 967 – 1014 m asl; **Collections:** L.1498055, 76778-s.n.

***Dendrobium indragiriense* Schltr.** (Repert. Spec. Nov. Regni Veg. 9: 164 [1911]) [Native] {NE} **Growth Form:** Epiphyte, Lithophyte; **Location:** Tutong; **Habitat:** Peat-swamp Forest; **Elevation:** 20 m asl; **Collections:** L.1502430, L.4266678, 78172-1782.

***Dendrobium pseudoaloifolium* J.J.Wood** (Kew Bull. 39: 82 [1984]) [Native] {NE} **Growth Form:** Epiphyte, Lithophyte; **Location:** Temburong; **Habitat:** Secondary Forest; **Elevation:** 23 m asl; **Collections:** L.1506609.

***Dendrobium rosellum* Ridl.** (J. Linn. Soc., Bot. 31: 268 [1896]) [Native] {NE} **Growth Form:** Epiphyte, Lithophyte; **Location:** Tutong; **Habitat:** Mixed Dipterocarp Forest; **Elevation:** 358 m asl; **Collections:** L.1506421, L.1506422, L.4172818.

***Dendrobium subulatum* (Blume) Lindl.** (Gen. Sp. Orchid. Pl. 91 [1830]) [Native] {NE} **Growth Form:** Epiphyte, Lithophyte; **Location:** Muara; **Habitat:** Secondary Forest; **Elevation:** 10 m asl; **Collections:** L.1507307.

***Dendrochilum imitator* J.J.Wood** (Check-list Orchids Borneo 179 [1994]) [Native] {NE} **Growth Form:** Epiphyte, Lithophyte; **Location:** Temburong; **Habitat:** Montane Forest; **Elevation:** 958 m asl; **Collections:** K000392335.

***Mycaranthes citrina* (Ridl.) Rauschert** (Feddes Repert. 94: 455 [1983]) [Native] {NE} **Growth Form:** Epiphyte; **Location:** Temburong; **Habitat:** Secondary Forest; **Elevation:** 22 m asl; **Collections:** L.1510494.

***Neuwiedia inae* de Vogel** (Blumea 17: 333 [1969]) [Native] {NE} **Growth Form:** Terrestrial herb; **Location:** Tutong; **Habitat:** Mixed Dipterocarp Forest; **Elevation:** 107 m asl; **Collections:** L.1534350.

***Peristylus gracilis* Blume** (Bijdr. 404 [1825]) [Native] {NE} **Growth Form:** Terrestrial herb; **Location:** Temburong; **Habitat:** Mixed Dipterocarp Forest; **Elevation:** 348 m asl; **Collections:** L.1519117.

***Phalaenopsis fuscata* Rchb.f.** (Gard. Chron. n.s., 2: 6 [1874]) [Native] {NE} **Growth Form:** Epiphyte; **Location:** Tutong; **Habitat:** Mixed Dipterocarp Forest; **Elevation:** 358 m asl; **Collections:** L.1519460.

***Spathoglottis aurea* Lindl.** (J. Hort. Soc. London 5: 34 1850.) [Native] {NE} **Growth Form:** Terrestrial herb; **Location:** Belait; **Habitat:** Keranga Forest; **Elevation:** 87 m asl; **Collections:** L.1533691.

***Thrixspermum canaliculatum* J.J.Sm.** (Bull. Jard. Bot. Buitenzorg II, 13: 42 [1914]) [Native] {NE} **Growth Form:** Monopodial epiphyte; **Location:** Belait; **Habitat:** Peat-swamp Forest; **Elevation:** 43 m asl; **Collections:** L.1540345.

***Trichoglottis vandiflora* J.J.Sm.** (Bull. Dép. Agric. Indes Néerl. 22: 49 [1909]) [Native] {NE} **Growth Form:** Epiphyte; **Location:** Temburong; **Habitat:** Montane Forest; **Elevation:** 1014 m asl; **Collections:** L.1529322.

***Trichotosia lawiensis* (J.J.Sm.) J.J.Wood** (Check-list Orchids Borneo 223 [1994]) [Native] {NE} **Growth Form:** Epiphyte; **Location:** Temburong; **Habitat:** Montane Forest; **Elevation:** 1014 m asl; **Collections:** L.1535327, L 0303134.

## PHYLLANTHACEAE

***Actephila excelsa* (Dalzell) Müll.Arg.** (Linnaea 32: 78 [1863]) [Native] {VU} **Growth Form:** Shrub; **Location:** Belait; **Habitat:** Peat-swamp Forest; **Elevation:** 18 m asl; **Collections:** K000187077-BRUN 16892.

***Baccaurea edulis* Merr.** (Univ. Calif. Publ. Bot. 15: 149 [1929]) [Native] {NE} **Growth Form:** Tree; **Location:** Belait; **Habitat:** Mixed Dipterocarp Forest; **Elevation:** 39 m asl; **Collections:** L.2188488, L.2188487.

***Baccaurea maingayi* Hook.f.** (Fl. Brit. India 5: 370 [1887]) [Native] {NE} **Growth Form:** Tree; **Location:** Belait; **Habitat:** Peat-swamp Forest; **Elevation:** 43 m asl; **Collections:** L.2191475.

***Baccaurea parviflora* (Müll.Arg.) Müll.Arg.** (Prod. 15(2): 462 [1866]) [Native] {NE} **Local name:** Rambai hutan; **Growth Form:** Tree; **Location:** Temburong; **Habitat:** Mixed Dipterocarp Forest; **Elevation:** 99 m asl; **Collections:** 153823-Schatz 3251.

***Baccaurea ramiflora* Lour.** (Fl. Cochinch. 661 [1790]) [Non-native] {NE} **Local name:** Tampoi; **Growth Form:** Tree; **Location:** Tutong; **Habitat:** Secondary Forest; **Elevation:** 64 m asl; **Collections:** L.2189311.

***Baccaurea trigonocarpa* Merr.** (Univ. Calif. Publ. Bot. 15: 152 [1929]) [Native] {NE} **Growth Form:** Shrub; Tree; **Location:** Temburong; **Habitat:** Secondary Forest; **Elevation:** 81 m asl; **Collections:** L.2197234.

***Cleistanthus pubens* Airy Shaw** (Kew Bull. 21: 365 [1968]) [Native] {NE} **Local name:** Komuning; **Growth Form:** Understory tree; **Location:** Belait; **Habitat:** Keranga Forest; **Elevation:** 57 m asl; **Collections:** L.2206079.

***Phyllanthus lanceilimbus* (Merr.) Merr.** (Philipp. J. Sci. 30: 402 [1926]) [Native] {NE} **Growth Form:** N/A; **Location:** Tutong; **Habitat:** Peat-swamp Forest; **Elevation:** 5 m asl; **Collections:** L.2219870.

***Phyllanthus microcarpus* (Benth.) Müll.Arg.** (Linnaea 32: 51 [1863]) [Non-native] {NE} **Growth Form:** Rare shrub; **Location:** Temburong; **Habitat:** Mixed Dipterocarp Forest; **Elevation:** 140 m asl; **Collections:** L.2059435.

***Phyllanthus ruber* (Lour.) Spreng.** (Syst. Veg. 3: 22 1826.) [Non-native] {NE} **Growth Form:** Shrub, Treelet; **Location:** Tutong-Temburong; **Habitat:** Mixed Dipterocarp Forest; **Elevation:** 39 – 318 m asl; **Collections:** L.2227970, L.2228072, L.2228085, L.2227971.

## POACEAE

***Digitaria fuscescens* (J.Presl) Henrard** (Meded. Rijks-Herb. 61: 8 [1930]) [Native] {NE} **Growth Form:** Perennial herb; **Location:** Belait; **Habitat:** Secondary Forest; **Elevation:** 53 m asl; **Collections:** CANB 67187.1, L.1244347, 2800873.

***Digitaria violascens* Link** (Hort. Berol. 1: 229 [1827]) [Native] {NE} **Growth Form:** Herb; **Location:** Belait; **Habitat:** Secondary Forest; **Elevation:** 6 – 28 m asl; **Collections:** L.3801733, L.1246709, L.1246707, 2838547, 2838578.

***Garnotia stricta* Brongn.** (Voy. Monde Phan.: 133 [1832]) [Native] {NE} **Growth Form:** Perennial herb; **Location:** Temburong; **Habitat:** Mixed Dipterocarp Forest; **Elevation:** 171 – 348 m asl; **Collections:** L 0398769, L 0398772, L 0580825.

***Imperata cylindrica* (L.) Raeusch.** (Nomencl. Bot. ed. 3: 10 [1797]) [Non-native] {NE} **Local name:** Lalang; **Growth Form:** Herb; **Location:** Temburong; **Habitat:** Mixed Dipterocarp Forest; **Elevation:** 349 m asl; **Collections:** CANB 67170.1-5624.

***Pogonatherum crinitum* (Thunb.) Kunth** (Enum. Pl. 1: 478 [1833]) [Non-native] {NE} **Growth Form:** Perennial herb; **Location:** Temburong; **Habitat:** Mixed Dipterocarp Forest; **Elevation:** 349 m asl; **Collections:** CANB 67288.1-5598.

***Schizostachyum khoonmengii* S.Dransf.** (Kew Bull. 55: 491 [2000]) [Native] {NE} **Growth Form:** Perennial herb; **Location:** Temburong; **Habitat:** Mixed Dipterocarp Forest; **Elevation:** 302 m asl; **Collections:** K000795370-SD 998, K000290709-998, K000290710-998, K000290708-998.

## PODOCARPACEAE

***Dacrydium beccarii* Parl.** (Prodr. 16(2): 494 [1868]) [Native] {LC} **Growth Form:** Shrub, Tree; **Location:** Temburong; **Habitat:** Montane Forest; **Elevation:** 520 m asl; **Collections:** K000288671-BRUN15823.

***Dacrydium medium* de Laub.** (Blumea 23: 98 [1976]) [Non-native] {VU} **Growth Form:** Tree; **Location:** Tutong; **Habitat:** Mixed Dipterocarp Forest; **Elevation:** 37 m asl; **Collections:** L.4174274, L.4174275.

***Falcatifolium falciforme* (Parl.) de Laub.** (J. Arnold Arbor. 50: 309 [1969]) [Native] {NT} **Growth Form:** Tree; **Location:** Temburong; **Habitat:** Montane Forest; **Elevation:** 520 – 1430 m asl; **Collections:** K000288838-S8743, K000288832-BRUN1066.

***Nageia wallichiana* (C.Presl) Kuntze** (Revis. Gen. Pl. 2: 800 [1891]) [Native] {EN} **Growth Form:** Mid-canopy tree; **Location:** Temburong; **Habitat:** Secondary Forest, Mixed Dipterocarp Forest; **Elevation:** 79 – 716 m asl; **Collections:** K000289003-7201, K000289002-6953.

## POLYGONACEAE

*Antigonon leptopus* Hook. & Arn. (Bot. Beechey Voy. 308 [1838]) [Non-native] {NE} **Growth Form:** Invasive climber; **Location:** Belait; **Habitat:** Secondary Forest; **Elevation:** 8 m asl; **Collections:** L.4190730.

*Persicaria barbata* (L.) H.Hara (in Fl. E. Himal. 70 1966.) [Non-native] {LC} **Growth Form:** Perennial herb; **Location:** Belait; **Habitat:** Peat-swamp Forest; **Elevation:** 7 m asl; **Collections:** L.4190729.

## PRIMULACEAE

*Ardisia belaitensis* C.M.Hu (Blumea 47: 504 [2002]) [Native] [Endemic] {NE} **Growth Form:** N/A; **Location:** Belait; **Habitat:** Peat-swamp Forest, Mixed Dipterocarp Forest; **Elevation:** 36 – 53 m asl; **Collections:** L.2627368, L.0064528, K001089875-153.

*Ardisia forbesii* S.Moore (J. Bot. 52: 291 [1914]) [Native] {NE} **Local name:** Decar flanak, Kubi, Merjemah; **Growth Form:** Understory tree; **Location:** Tutong-Belait-Temburong; **Habitat:** Mixed Dipterocarp Forest, Montane Forest; **Elevation:** 39 – 793 m asl; **Collections:** L.2624152, L.2624180, L.2624172, L.2624292, L.2624302.

*Ardisia fuliginosa* Blume (Bijdr. 692 [1826]) [Native] {NE} **Growth Form:** Shrub, Small tree; **Location:** Belait; **Habitat:** Mixed Dipterocarp Forest; **Elevation:** 148 m asl; **Collections:** L.2624558, L.2624559.

*Ardisia lepidotula* Merr. (Philipp. J. Sci., C 13: 115 [1918]) [Native] {NE} **Growth Form:** N/A; **Location:** Temburong; **Habitat:** Mixed Dipterocarp Forest, Montane Forest; **Elevation:** 572 – 1693 m asl; **Collections:** L.2632054, L.2632051.

*Ardisia obscurinervia* Merr. (Philipp. J. Sci., C 13: 112 1918.) [Native] {NE} **Growth Form:** N/A; **Location:** Belait; **Habitat:** Mixed Dipterocarp Forest; **Elevation:** 29 m asl; **Collections:** L.2632133.

*Ardisia polygama* (Roxb.) A.DC. (Prodr. 8: 138 [1844]) [Non-native] {NE} **Growth Form:** N/A; **Location:** Muara-Belait-Temburong; **Habitat:** Secondary Forest, Mixed Dipterocarp Forest; **Elevation:** 18 – 572 m asl; **Collections:** L.4175542, L.4175543, L.4163134, L.2677500.

## RHAMNACEAE

*Alphitonia excelsa* (Fenzl) Reissek ex Benth. (Fl. Austral. 1: 414 [1863]) [Non-native] {NE} **Growth Form:** Tree; **Location:** Tutong-Belait-Temburong; **Habitat:** Secondary Forest, Mixed Dipterocarp Forest; **Elevation:** 6 – 81 m asl; **Collections:** L.2326557, L.2326471, L.4209991, L.4206667, L.2326559, L.2326558.

*Ziziphus rugosa* Lam. (Encycl. 3(1): 319 [1789]) [Non-native] {NE} **Growth Form:** Tree; **Location:** Temburong; **Habitat:** Mixed Dipterocarp Forest; **Elevation:** 140 – 318 m asl; **Collections:** L.2328607, L.2328606, L.4202734.

## RUBIACEAE

*Aidia beccariana* (Baill.) Ridsdale (Blumea 41: 159 [1996]) [Native] {NE} **Growth Form:** Shrub, Small tree; **Location:** Belait; **Habitat:** Freshwater swamp forest, Mixed Dipterocarp Forest, Secondary forest; **Elevation:** 18 – 147 m asl; **Collections:** L.2847147, L.2847144, L.2847149, L.2847148.

***Argostemma propinquum* Ridl.** (J. Straits Branch Roy. Asiat. Soc. 57: 53 [1911]) [Non-native] {NE} **Growth Form:** Herb; **Location:** Temburong; **Habitat:** Mixed dipterocarp forest; **Elevation:** 572 m asl; **Collections:** L.2849563.

***Discospermum abnorme* (Korth.) S.J.Ali & Robbr.** (Blumea 35: 300 [1991]) [Native] {NE} **Growth Form:** Shrub, Small tree; **Location:** Temburong; **Habitat:** Mixed dipterocarp forest; **Elevation:** 318 m asl; **Collections:** L.2904647, L.2904646.

***Lasianthus griffithii* Wight** (Calcutta J. Nat. Hist. 6: 505 [1846]) [Native] {NE} **Growth Form:** Shrub; **Location:** Tutong; **Habitat:** Mixed dipterocarp forest; **Elevation:** 189 m asl; **Collections:** L.2922780.

***Neonauclea pseudocalycina* Ridsdale** (Blumea 34: 204 [1989]) [Native] {NE} **Growth Form:** N/A; **Location:** Belait; **Habitat:** Mixed dipterocarp forest; **Elevation:** 19 m asl; **Collections:** L.2937417.

***Oxyceros bispinosus* (Griff.) Tirveng.** (Nordic J. Bot. 3: 466 [1983]) [Native] {EN} **Growth Form:** Climber; **Location:** Belait-Temburong; **Habitat:** Secondary forest, Peat swamp forest; **Elevation:** 27 – 36 m asl; **Collections:** L.2938631, L.2938609, L.2938608, L.2938610.

***Praravinia parviflora* Bremek.** (Recueil Trav. Bot. Néerl. 37: 266 [1940]) [Native] {NE} **Local name:** Kopi-kopi; **Growth Form:** Shrub; **Location:** Tutong-Temburong; **Habitat:** Mixed dipterocarp forest; **Elevation:** 55 - 340 m asl; **Collections:** L.2939025, L.2939015, L.2938992, L.2939019.

***Psychotria sarmentosoides* Valeton** (Icon. Bogor. t. 292 [1909]) [Non-native] {NE} **Growth Form:** N/A; **Location:** Muara; **Habitat:** Secondary forest; **Elevation:** 49 m asl; **Collections:** L.2944427.

***Spermacoce baileyana* Domin** (Biblioth. Bot. 89: 628 [1929]) [Non-native] {NE} **Growth Form:** Herb; **Location:** Belait; **Habitat:** Secondary forest; **Elevation:** 53 m asl; **Collections:** CANB 67205.1-5672.

***Spermacoce verticillata* L.** (Sp. Pl. 102 [1753]) [Non-native] {NE} **Growth Form:** Invasive shrub; **Location:** Tutong; **Habitat:** Secondary forest; **Elevation:** N/A; **Collections:** CBG 7803088.1-3740.

***Tarennia debilis* Ridl.** (J. Bot. 72: 272 [1934]) [Native] {NE} **Growth Form:** N/A; **Location:** Belait; **Habitat:** Peat swamp forest; **Elevation:** 8 m asl; **Collections:** L.3971575.

***Tarennia gibbsiae* Wernham** (J. Linn. Soc., Bot. 42: 93 [1914]) [Native] {NE} **Growth Form:** N/A; **Location:** Temburong; **Habitat:** Mixed dipterocarp forest; **Elevation:** 171 m asl; **Collections:** L.3970889.

***Timonius lasianthoides* Valeton** (Bull. Dép. Agric. Indes Néerl. 26: 48 [1909]) [Native] {NE} **Local name:** Bar, Bulu udok, Kemudok, Mulong udok, Rentap, Selembuca, Turang Oyung; **Growth Form:** Understory tree; **Location:** Belait; **Habitat:** Peat swamp forest; **Elevation:** 19 m asl; **Collections:** L.2957078.

***Wendlandia densiflora* (Blume) DC.** (Prodr. 4: 412 [1830]) [Native] {NE} **Growth Form:** Tree; **Location:** Temburong; **Habitat:** Mixed dipterocarp forest; **Elevation:** 340 m asl; **Collections:** L.2938871.

## RUTACEAE

***Citrus x aurantiifolia* (Christm.) Swingle** (J. Wash. Acad. Sci. 3(18): 465 [1913]) [Non-native] {NE} **Growth Form:** Small tree; **Location:** Muara; **Habitat:** Secondary forest; **Elevation:** 13 m asl; **Collections:** 5514-64, 2012872.

***Melicope accedens* (Blume) T.G. Hartley** (Sandakania 4: 67 [1994]) [Non-native] {NE} **Local name:** Kulampapa, Pahau, Pau; **Growth Form:** Understory tree; **Location:** Tutong; **Habitat:** Secondary forest; **Elevation:** 31 m asl; **Collections:** L.4194960, L.4194959.

## SALICACEAE

***Casearia loheri* Merr.** (Philipp. J. Sci., C 9: 327 [1914]) [Non-native] {NE} **Growth Form:** N/A; **Location:** Belait; **Habitat:** Peat swamp forest; **Elevation:** 49 m asl; **Collections:** L.2451654.

## SAPOTACEAE

***Madhuca malaccensis* (C.B.Clarke) H.J.Lam** (Bull. Jard. Bot. Buitenzorg III, 7: 167 [1925]) [Native] {NE} **Growth Form:** Tree; **Location:** Belait; **Habitat:** Mixed dipterocarp forest; **Elevation:** 259 m asl; **Collections:** L.4222070.

***Payena acuminata* (Blume) Pierre** (Bull. Mens. Soc. Linn. Paris 1: 528 [1885]) [Native] {NE} **Local name:** Bee-taul, Malau pedara, Natu, Nyatoh, Nyatoh merah, Nyatoh rian; **Growth Form:** Upper canopy tree; **Location:** Temburong; **Habitat:** Mixed dipterocarp forest; **Elevation:** 302 m asl; **Collections:** K000009271-176.

## SMILACACEAE

***Smilax corbularia* Kunth** (Enum. Pl. 5: 262 [1850]) [Native] {NE} **Growth Form:** Climbing vine; **Location:** Belait; **Habitat:** Keranga Forest; **Elevation:** N/A; **Collections:** L.3808994.

## SOLANACEAE

***Lycianthes laevis* (Dunal) Bitter** (Lycianthes 484–485 [1919]) [Native] {NE} **Growth Form:** Shrub; **Location:** Belait; **Habitat:** Secondary forest; **Elevation:** 31 m asl; **Collections:** L.2881514.

## URTICACEAE

***Poikilospermum micranthum* (Miq.) Merr.** (Contr. Arnold Arbor. 8: 50 [1934]) [Native?] {NE} **Growth Form:** N/A; **Location:** Belait-Temburong; **Habitat:** Secondary forest, Mixed dipterocarp forest; **Elevation:** 12 – 340 m asl; **Collections:** L.1637799, L.1637800, L.1637797, L.1637798.

## VITACEAE

***Ampelocissus pauciflora* Merr.** (Philipp. J. Sci., C 11: 126 [1916]) [Non-native] {NE} **Growth Form:** Climbing herb; **Location:** Belait; **Habitat:** Keranga Forest; **Elevation:** N/A; **Collections:** L.4254274.

## WINTERACEAE

***Drimys membranea* F.Muell.** (Fragm. 5: 175 [1866]) [Non-native] {NE} **Growth Form:** N/A; **Location:** Temburong; **Habitat:** Montane forest; **Elevation:** 608-1693 m asl; **Collections:** L.1748232, L.1748251.

**ZINGIBERACEAE**

***Boesenbergia armeniaca* Cowley** (Kew Bull. 55: 669 [2000]) [Native] {NE} **Growth Form:** Perennial herb; **Location:** Belait; **Habitat:** Secondary forest; **Elevation:** 188 m asl; **Collections:** 61944-13, K000255387-13, K000255389-13, K000255388-13.

***Boesenbergia bruneiana* Cowley** (Kew Bull. 53: 626 [1998]) [Native] {NE} **Growth Form:** Perennial herb; **Location:** Belait; **Habitat:** Peat swamp forest; **Elevation:** 53 m asl; **Collections:** 64083-185, K000255382-185, K000255383-185, K000255385-185, K000255384-185.

***Epiamomum augustipetalum*** (Edinburgh J. Bot. 55: 49 [1998]) [Native] {NE} **Growth Form:** Perennial herb; **Location:** Belait; **Habitat:** Mixed dipterocarp forest; **Elevation:** 78 m asl; **Collections:** E00830248-2974.

***Etlingera aurantia* A.D.Poulsen** (Etlingera Borneo 39 [2006]) [Native] {NE} **Growth Form:** Perennial herb; **Location:** Temburong; **Habitat:** Mixed dipterocarp forest; **Elevation:** 170 m asl; **Collections:** K000433057-169.

***Etlingera belalongensis* A.D.Poulsen** (Nordic J. Bot. 19: 141 [1999]) [Native] {NE} **Growth Form:** Perennial herb; **Location:** Temburong; **Habitat:** Mixed dipterocarp forest; **Elevation:** 171 m asl; **Collections:** E00177148-130, E00177149-130, E00177150-130, K000255132-130.

***Etlingera brevilabrum* (Valeton) R.M.Sm.** (Notes Roy. Bot. Gard. Edinburgh 43: 243 [1986]) [Native] {NE} **Growth Form:** Perennial herb; **Location:** Belait-Temburong; **Habitat:** Peat swamp forest, Mixed dipterocarp forest; **Elevation:** 27 – 171 m asl; **Collections:** E00190075-170, L.1478671, L.1478669.

***Etlingera rubromarginata* A.D.Poulsen & Mood** (Nordic J. Bot. 19: 139 [1999]) [Native] {NE} **Growth Form:** Perennial herb; **Location:** Temburong; **Habitat:** Mixed dipterocarp forest; **Elevation:** 170 m asl; **Collections:** K000255117-35, K000255118-35.

***Plagiostachys breviramosa* Cowley** (Kew Bull. 54: 154 [1999]) [Native] {NE} **Growth Form:** Perennial herb; **Location:** Temburong; **Habitat:** Undisturbed mixed dipterocarp forest; **Elevation:** 125-339 m asl; **Collections:** 64081-42, K000292329-42, K000292327-42, K000292330-42, K000292328-42.

***Tamijia flagellaris* S.Sakai & Nagam.** (Edinburgh J. Bot. 57: 245 [2000]) [Native] {NE} **Growth Form:** Perennial herb; **Location:** Belait; **Habitat:** Kerangas forest, Mixed dipterocarp forest, **Elevation:** 48 m asl; **Collections:** 61903-142.