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Threatened plants of the Philippines: A preliminary assessment

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An assessment of the conservation status of the full bryophyte and vascular flora of the Philippines was conducted. The threat categories used follow those previously prescribed and defined in Philippine Republic Act No. 9147, the 'Wildlife Resources Conservation and Protection Act' and its Implementing Rules and Regulations which were derived from the 1994 IUCN Categories and Criteria (ver. 2.3) and those in the DENR Administrative Order No. 2004-15. The resulting list of the threatened plants of the Philippines comprises 686 taxa in the following categories: Critically Endangered 98, Endangered 181, Vulnerable 175, Other Threatened Species 64 and Other Wildlife Species 168. The taxa in the list include 472 angiosperms, 10 gymnosperms, 202 pteridophytes and two bryophytes (mosses). Up to 75.5% of all the taxa listed are endemic to the Philippines.

Key words: threatened plants, critically endangered plants, endangered plants, vulnerable plants, endemic, indigenous, Wildlife Resources Conservation and Protection Act, Philippines

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INTRODUCTION

As one of the world's eight biodiversity hottest hotspots (Myers *et al.* 2000), the Philippines is home to some of the most endangered habitats and species in the world. Several lists of threatened plants have previously been initiated for the Philippines (*e.g.* Quisumbing 1967; Madulid 1982, 2000; Tan *et al.* 1986; Gruèzo 1990). The current list is the most comprehensive national assessment for the threatened species of Philippine plants thus far, and is the first of such prepared as mandated by Philippine law and by the most number of Filipino botanists jointly working together.

In the pursuit of the 2001 Philippine Republic Act No. 9147, also known as the 'Wildlife Resources Conservation and Protection Act', the Secretary of the national government's Department of Environment and Natural Resources (DENR), thru DENR Special Order No. 2003-32, created the Philippine Plant Conservation Committee that includes the majority of the authors of this paper. This particular committee was officially designated to serve as the 'National Red List Authority of the Philippines on Plants' and as such shall 'establish the national list of threatened Philippine plants'. This present list is thus, the output of several assessment meetings and workshops of the Philippine Plant Conservation Committee from 2004 to 2006. In part, it is our national response to Target 2 ("A preliminary assessment of the conservation status of all known plant species, at national, regional, and international levels.") of the Global Strategy for Plant Conservation (SCBD 2002) and is within the Framework for the Philippine Plant Conservation Strategy and Action Plan (DENR-PAWB 2006).

This paper provides the basis and describes the procedure taken and the categories and criteria used for the national list of threatened plants of the Philippines. This list was officially issued on 22 January 2007 as DENR Administrative Order No. 2007-01, '*The National List of Threatened Philippine Plants and their Categories*'.

MATERIALS AND METHODS

The present list includes only plants (bryophytes, pteridophytes, and spermatophytes) known to be indigenous to the Philippines. Updated working checklists earlier compiled by some of us (LLC for most of seed plants, ESF for palms and PMZ and JFB for ferns and fern allies) were used, in part, as basis for the assessments of conservation status. The taxonomic treatment of the species in the lists follows the most recent family revisions for the Flora Malesiana series, monographs and similar taxonomic accounts such as country or world checklists. Each taxon assessed and listed is given its full scientific name, including author(s) and family affinity.

The threat categories used here (see Tables 1 and 2) are those already previously specified and defined in Section 5 of Philippine Republic Act No. 9147, the 'Wildlife Resources Conservation and Protection Act' and its Implementing Rules and Regulations *viz.* "Critically Endangered Species", "Endangered Species", and "Vulnerable Species". According to Section 22 of Republic Act 9147, the determination of the threat categories should be 'based on the best scientific data, with due regard to internationally accepted criteria, including but not limited to the

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Table 1. Categories used for evaluating the conservation status or risk categories of Philippine plants.

| This paper ¹ | IUCN 1994 (ver. 2.3) |
|---|-------------------------------------|
| Critically Endangered (CR) ² | Critically Endangered (CR) |
| Endangered (EN) ³ | Endangered (EN) |
| Vulnerable (VU) ⁴ | Vulnerable (VU) |
| Other Threatened Species (OTS) ⁵ | Lower Risk /near threatened (LR/nt) |
| Other Wildlife Species (OWS) ⁶ | Lower Risk /least concern (LR/lc) |

¹Categories specified in Philippine Republic Act No. 9147, the 'Wildlife Resources Conservation and Protection Act' and its Implementing Rules and Regulations and DENR Administrative Order Nos. 2004-15 and 2007-01. ²*Critically Endangered (CR) Species* - a 'species or subspecies that is facing extremely high risk of extinction in the wild in the immediate future; this shall include varieties, formae or other infraspecific categories'. ³*Endangered (EN) Species* - a 'species or subspecies that is not critically endangered but whose survival in the wild is unlikely if the causal factors continue operating; this shall include varieties, formae or other infraspecific categories'. ⁴*Vulnerable (VU) Species* - a 'species or subspecies that is not critically endangered or endangered, but is under threat from adverse factors throughout its range and is likely to move to the endangered category in the future; this shall include varieties, formae or other infraspecific categories'. ⁵*Other Threatened Species (OTS)* - refers to a 'species or subspecies that is not critically endangered, endangered nor vulnerable but is under threat from adverse factors, such as over collection, throughout its range and is likely to move to the vulnerable category in the near future; this shall include varieties, formae or other infraspecific categories'. ⁶*Other Wildlife Species (OWS)* - refers to 'non-threatened species that have the tendency to become threatened due to predation and destruction of habitat or other similar causes as may be listed by the Secretary (of the Department of Environment and Natural Resources) upon the recommendation of the National Wildlife Management Committee; this shall include varieties, formae or other infraspecific categories'.

following: (a) present or threatened destruction, modification or curtailment of its habitat or range; (b) over-utilization for commercial, recreational, scientific, or educational purposes; (c) inadequacy of existing regulatory mechanisms, and (d) other natural or man-made factors affecting the existence of wildlife." At the time of the enactment of the law in March 2001, the 1994 IUCN Categories and Criteria were still in use and the definitions of the categories in the law were derived from these. The criteria in IUCN encompasses those mentioned in Section 22 of the law and are appropriate to apply here, with due consideration of the Guidelines on their use at regional or country level (IUCN 2003). The 1994 IUCN Categories and Criteria (ver. 2.3, IUCN 1994) were used by IUCN until 2000, and are still widely understood; many assessments in IUCN's 2006 list were still based on this version. Two other categories previously used in DENR Administrative Order No. 2004-15 for threatened Philippine animals were also used here, *viz.* "Other Threatened Species" and "Other Wildlife Species". These two categories are similar to IUCN's "Lower Risk / Near Threatened" (LR/nt) and "Lower Risk / Least Concern" (LR/lc) categories, respectively (Tables 1 and 2).

All the categories were applied only to wild populations of plants occurring within the Philippine territory in their natural distribution range. Thus, some species

Table 2. Criteria used for determining the conservation status or risk categories of Philippine plants (after the 1994 IUCN Categories and Criteria ver. 2.3 and DENR Administrative Order No. 2004-15).

Critically Endangered (CR): This category is defined by any of the following criteria (A to E).

A. Population reduction in the form of either of :

- (1) an observed, estimated, inferred or suspected reduction of at least 80% over the last 10 years or 3 generations, whichever is the longer, based on (and specifying) any of: (a) direct observation; (b) an index of abundance appropriate for the taxon; (c) a decline in area of occupancy, extent of occurrence and/or quality of habitat; (d) actual or potential levels of exploitation; (e) the effects of introduced taxa, hybridisation, pathogens, pollutants, competitors or parasites;
- (2) a reduction of at least 80%, projected or suspected to be met within the next 10 years or 3 generations, whichever is the longer, based on (and specifying) any of (b), (c), (d) or (e) above.

B. Extent of occurrence estimated to be less than 100 km² or area of occupancy estimated to be less than 10 km², and estimates indicating any two of:

- (1) severely fragmented or known to exist at only a single location;
- (2) continuing decline, observed, inferred or projected, in any of: (a) extent of occurrence; (b) area of occupancy; (c) area, extent and/or quality of habitat; (d) number of locations or subpopulations; (e) number of mature individuals;
- (3) extreme fluctuations in any, of: (a) extent of occurrence; (b) area of occupancy; (c) number of locations or subpopulations; (d) number of mature individuals.

C. Population estimated to number less than 250 mature individuals and either:

- (1) an estimated continuing decline of at least 25% within 3 years or one generation, whichever is longer or
- (2) a continuing decline, observed, projected or inferred, in numbers of mature individuals and population structure in the form of either: (a) severely fragmented (*i.e.* no subpopulation estimated to contain more than 50 mature individuals); (b) all individuals in a single subpopulation.

D. Population estimated to number less than 50 mature individuals.

E. Quantitative analysis showing the probability of extinction in the wild is at least 50% within 10 years or 3 generations, whichever is the longer.

Endangered (EN): This category is defined by any of the following criteria (A to E):

A. Population reduction in the form of either of:

- (1) an observed, estimated, inferred or suspected reduction of at least 50% over the last 10 years or 3 generations, whichever is the longer, based on (and specifying) any of: (a) direct observation; (b) an index of abundance appropriate for the taxon; (c) a decline in area of occupancy, extent of occurrence and/or quality of habitat; (d) actual or potential levels of exploitation; (e) the effects of introduced taxa, hybridisation, pathogens, pollutants, competitors or parasites;
- (2) a reduction of at least 50%, projected or suspected to be met within the next 10 years or 3 generations, whichever is the longer, based on (and specifying) any of (b), (c), (d) or (e) above.

B. Extent of occurrence estimated to be less than 5,000 km² or area of occupancy estimated to be less than 500 km², and estimates indicating any two of:

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Table 2. Cont.

- (1) severely fragmented or known to exist at no more than five locations;
 - (2) continuing decline, inferred, observed or projected, in any of: (a) extent of occurrence; (b) area of occupancy; (c) area, extent and/or quality of habitat; (d) number of locations or subpopulations; (e) number of mature individuals;
 - (3) extreme fluctuations in any of: (a) extent of occurrence; (b) area of occupancy; (c) number of locations or subpopulations and (d) number of mature individuals.
- C. Population estimated to number less than 2,500 mature individuals and either:
- (1) an estimated continuing decline of at least 20% within 5 years or 2 generations, whichever is longer or (2) a continuing decline, observed, projected or inferred, in numbers of mature individuals and population structure in the form of either: (a) severely fragmented (*i.e.* no subpopulation estimated to contain more than 250 mature individuals) and (b) all individuals in a single subpopulation.
- D. Population estimated to number less than 250 mature individuals.
- E. Quantitative analysis showing the probability of extinction in the wild is at least 20% within 20 years or 5 generations whichever is the longer.

Vulnerable (VU): This category is defined by any of the following criteria (A to E):

- A. Population reduction in the form of either of:
- (1) an observed, estimated, inferred or suspected reduction of at least 50% over the last 10 years or 3 generations, whichever is the longer, based on (and specifying) any of: (a) direct observation; (b) an index of abundance appropriate for the taxon; (c) a decline in area of occupancy, extent of occurrence and/or quality of habitat; (d) actual or potential levels of exploitation; (e) the effects of introduced taxa, hybridisation, pathogens, pollutants, competitors or parasites;
 - (2) a reduction of at least 20%, projected or suspected to be met within the next 10 years or 3 generations, whichever is the longer, based on (and specifying) any of (b), (c), (d) or (e) above.
- B. Extent of occurrence estimated to be less than 20,000 km² or area of occupancy estimated to be less than 2,000 km², and estimates indicating any two of:
- (1) severely fragmented or known to exist at no more than ten locations;
 - (2) continuing decline, inferred, observed or projected, in any of: (a) extent of occurrence; (b) area of occupancy; (c) area, extent and/or quality of habitat; (d) number of locations or subpopulations and (e) number of mature individuals;
 - (3) extreme fluctuations in any of: (a) extent of occurrence; (b) area of occupancy; (c) number of locations or subpopulations and (d) number of mature individuals.
- C. Population estimated to number less than 10,000 mature individuals and either:
- (1) an estimated continuing decline of at least 10% within 10 years or 3 generations, whichever is longer or
 - (2) a continuing decline, observed, projected or inferred, in numbers of mature individuals and population structure in the form of either: (a) severely fragmented (*i.e.* no subpopulation estimated to contain more than 1,000 mature individuals) and (b) all individuals in a single subpopulation.
- D. Population very small or restricted in the form of either of:
- (1) population estimated to number less than 1,000 mature individuals; (2) population characterised by acute restriction in its area of occupancy (typically less than 100 km²) or in the number of locations (typically less than 5).

Table 2. Cont.

E. Quantitative analysis showing the probability of extinction in the wild is at least 10% within 100 years.

Other Threatened Species (OTS): A taxon is categorized as Other Threatened Species when it has been evaluated but does not satisfy the criteria for any of the categories Critically Endangered, Endangered, or Vulnerable. However, it remains under threat from adverse factors, such as over collection, throughout its range and is likely to move to the vulnerable category in the near future. This is equivalent to the Lower Risk, near threatened category of IUCN. A taxon in this category is given the code OTS LR/nt.

Other Wildlife Species (OWS): A taxon is categorized as Other Wildlife Species when it has been evaluated but does not satisfy the criteria for any of the categories Critically Endangered, Endangered, Vulnerable, or Other Threatened Species, but have the tendency to become threatened due to predation and destruction of habitat or other similar causes as may be listed by the Secretary (of the Department of Environment and Natural Resources) upon the recommendation of the National Wildlife Management Committee. This is equivalent to the Lower Risk, least concern category of IUCN. A taxon in this category is given the code OWS LR/lc.

included in this list may, in fact, be common in cultivation as ornamentals or as horticultural and tree crops in plantations.

We carried out a national assessment of the full bryophyte and vascular flora of the Philippines. We focused firstly on taxa endemic to the Philippines, especially rare taxa with restricted ranges, and secondly on indigenous, non-endemic taxa. The assessment took account of the relatively small size of the Philippines, its archipelagic setting and mountainous topography, the significant decrease in area of forests and natural habitats, and the large number of taxa with naturally restricted distribution patterns and small population sizes. We used a range of information, mostly broad factors that contribute to extinction risks (in the absence of data on population estimates), including, *inter alia*: geographic distribution of the species within the Philippine archipelago, extent of area of occupancy, status of habitats, perceived and actual threats to habitats (*e.g.* the continuing reduction of forest areas due to logging and conversion of habitats to other uses), declines in habitat area, human impacts, and pressure on wild population due to harvesting or collection because of high economic or commercial value. We gathered this information from various sources, including the scientific literature, available herbarium specimens, biodiversity survey data and reports, and our own many long years of *in situ* field experience working in the natural habitats of these plant species across the archipelago.

Each taxon was carefully and thoroughly assessed as it occurs in the wild. The placement of candidate species in risk categories was based on a deliberated and consensus decision of the Philippine Plant Conservation Committee following the criteria set in the 1994 IUCN Categories and Criteria (ver. 2.3, IUCN 1994; Table 2). The criteria were interpreted in a consistent way across all taxonomic groups. The

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IUCN criteria and subcriteria for Critically Endangered, Endangered, and Vulnerable include a hierarchical alphanumeric numbering system (Table 2). The first level is indicated by the use of upper case alphabet letters (A-E); the second by the use of numbers (1-4); and the third by the use of lower case alphabet letters (a-e). If more than one criterion at first level is met for a particular taxon, these are separated by the comma; at second level by the '+' symbol (see Appendix Tables 1-3). Only one criterion needs to be met for a taxon to be included in a category.

RESULTS AND DISCUSSION

A total of 686 taxa of vascular plants and mosses indigenous to the Philippines have been included in the threatened plant list based on a preliminary assessment (Table 3 and Appendix Tables 1-5). The threatened plant list includes 472 angiosperms, 10 gymnosperms, 202 pteridophytes, and two bryophytes (mosses) (Table 3). There are 98 taxa in the Critically Endangered (CR) species category (Table 3 and Appendix Table 1; Figure 1A-1F), 181 taxa in the Endangered (EN) species category (Table 3 and Appendix Table 2; Figures 1G-1I, 2A-2C), 175 taxa in the Vulnerable (VU) species category (Table 3 and Appendix Table 3, Figure 2D-2I), 64 taxa in the Other Threatened Species (OTS) category (Table 3 and Appendix Table 4; Figure 3A-3F), and 168 taxa in the Other Wildlife Species (OWS) category (Table 3 and Appendix Table 5; Figure 3G-3I). Up to 75.5 % of the taxa in the present threatened plant list are endemic to the Philippines (Table 3).

The main families of plants contributing to the threatened plant list (number of taxa in brackets) are Orchidaceae (53), Palmae (32), Begoniaceae (32), Dipterocarpaceae (31), Meliaceae (30), Thelypteridaceae (30), Cyatheaceae (29), Gesneriaceae (24), Rubiaceae (22) and Polypodiaceae (21) (Table 4). These families reflect, in part, their dominance in the Philippine flora.

The scientific names of taxa as they appeared in the DENR Administrative Order No. 2007-01 issued on 22 January 2007 establishing '*The National List of Threatened Philippine Plants and their Categories*' are here corrected and updated. In the lists that follow (Appendix Tables 1-5), traditional family names are maintained, but current family placements where known are indicated by footnotes to conform with current usage. Species names that have now become synonyms are retained for reference; currently accepted names are indicated in square brackets. Some names have been corrected for typographical errors and author citations into the standard form. The total number of taxa here is thus, slightly lower than in the DENR Administrative Order No. 2007-01.

Unlike the IUCN Red List, the threatened plant list presented here has been made part of the laws of the Philippines. There are stiff fines and penalties for the illegal collection and trade of any plant included in the *National List of Threatened Philippine Plants*. Republic Act 9147 and its Implementing Rules and Regulations allow the collection of plants in this list only for scientific and propagation purposes, and only by accredited individuals, business, research, educational, or scientific entities. It considers it unlawful for any person, group or entity to collect and/or

trade the species listed unless such acts are covered by a permit granted by the DENR pursuant to the provisions of the law.

A number of recently described plant species from the Philippines also qualify as threatened. They are, unfortunately, not yet included in this initial assessment. A regular review of the list and reassessment of the risks of species is required by Philippine Republic Act No. 9147. In the future, some other species may be included in the list, others may move from one category to another, or they may be removed from the list. The law, however, stipulates that no species shall be removed from the list within three years following its initial listing.

Philippine plants in the 2006 IUCN Red List

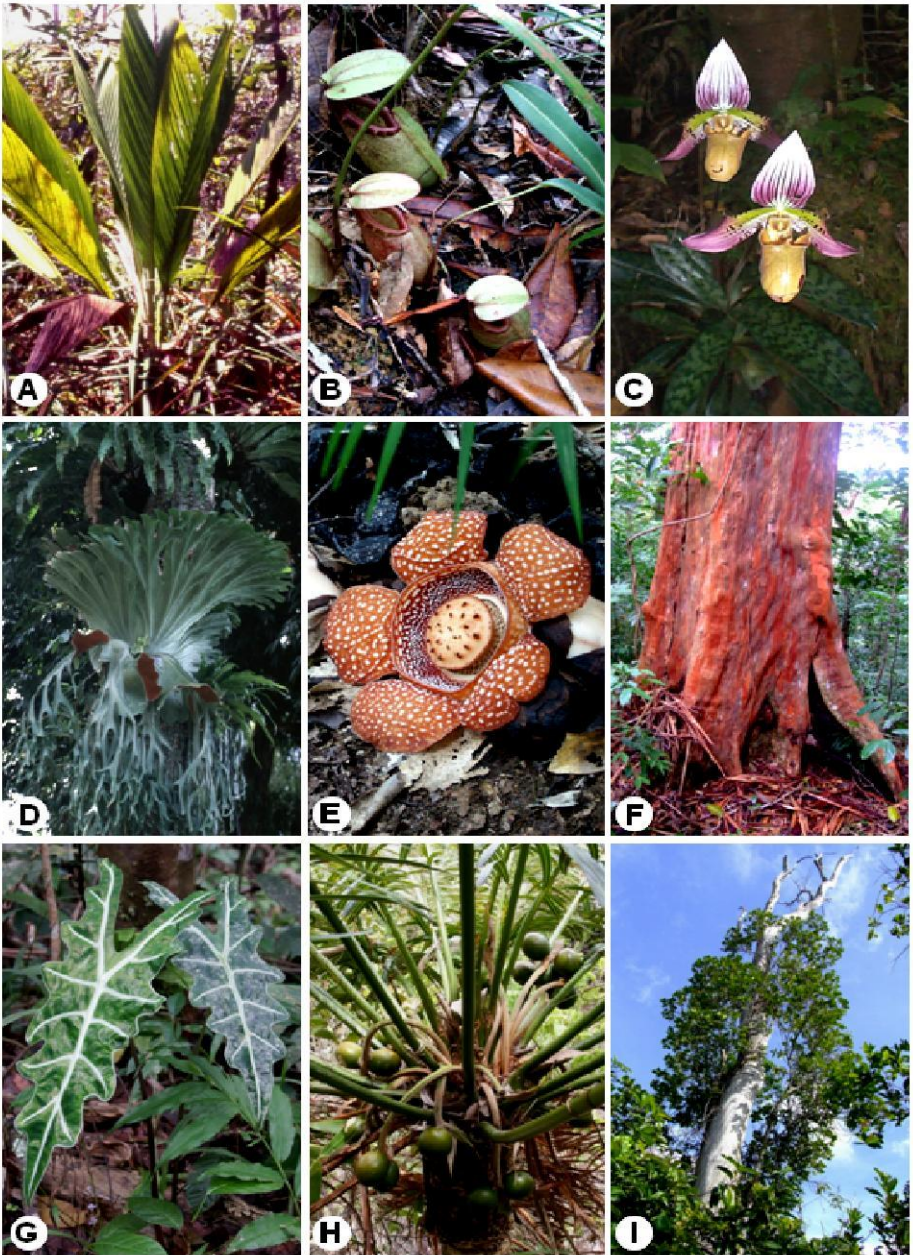
IUCN's 2006 figure of 323 taxa for the Philippines represents an increase by nearly a hundred taxa from the year 2000. Only 52.6% of the taxa assessed by IUCN are endemic to the Philippines (Table 4, IUCN 2006). About 34.9% of the taxa are not in our present list. Some of these are species that are widespread in the Philippines and in the South East Asian region [e.g. *Alstonia scholaris* (L.) R.Br., *Alstonia macrophylla* Wall., *Calophyllum inophyllum* L., *Octomeles sumatrana* Miq. and *Rhizophora apiculata* Blume]. Although others are Philippine endemics [e.g. *Artocarpus blancoi* (Elmer) Merr., *Ficus ulmifolia* Lam. and *Macaranga bicolor* Muell.-Arg.], these are still rather frequent in thickets and second-growth forests in most islands of the archipelago. At least seven species included in the 2006 IUCN list for the Philippines are, in fact, not native to the Philippines, viz. *Santalum album* L. (VU), *Alstonia spathulata* Blume (LR/lc), *Irvingia malayana* Oliv. ex A.W. Benn. (LR/lc), *Scleropyrum wallichianum* (Wight & Arnott) Arnott (LR/lc), *Swintonia spicifera* Hook. f. (LR/lc), *Tarrietia parvifolia* (Merr.) Merr. & Chun. (= *Heritiera parvifolia* Merr.) (LR/lc) and *Cinnamomum parthenoxylon* (Jack) Meisn. (DD). Pteridophytes (ferns and fern allies) were not included in the 2006 IUCN Red List.

The figure of 686 taxa in our present list is significantly greater, in fact, more than double, the 323 taxa red-listed by IUCN for the Philippines (Table 5, IUCN 2006). Only about 30% of the taxa in the present list are included in IUCN's 2006 figure. Of the 98 taxa in our Critically Endangered (CR) category, only 39 appear in the IUCN list in various categories, 55 of the 181 in our Endangered (EN) category, 61 of the 175 in



Figure 1. Threatened plants of the Philippines. A. *Heterospathe califrons* Fernando, Critically Endangered (CR). B. *Nepenthes merrilliana* Macfarlane, Critically Endangered (CR). C. *Paphiopedilum acmodontum* Schoser ex M.W. Wood, Critically Endangered (CR). D. *Platynerium grande* (Fee) Kunze, Critically Endangered (CR). E. *Rafflesia manillana* Teschem., Critically Endangered (CR). F. *Tristaniopsis decorticata* (Merr.) Peter G. Wilson & Waterhouse, Critically Endangered (CR). G. *Alocasia sanderiana* W. Bull., Endangered (EN). H. *Cycas edentata* de Laub., Endangered (EN). I. *Xanthostemon speciosus* Merr., Endangered (EN). A-B and D-I photos by Edwino S. Fernando; C photo by Leonardo L. Co.

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our Vulnerable (VU) category, 30 of the 64 in our Other Threatened Species (OTS) category and 25 of the 168 in our Other Wildlife Species (OWS) category.

The same two species of bryophytes, *Drepanolejeunea bakeri* Herzog and *Merrillioobryum fabronioides* Broth., are categorized as Endangered (EN) in both the IUCN and the current list. These two bryophyte species have earlier been assessed by Tan *et al.* (2000).

All other plant species native to the Philippines not included in the current list should still be treated as though they are 'threatened' to help protect the plants and their habitats.

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Figure 2. Threatened plants of the Philippines. A, *Azelia rhomboidea* (Blanco) Vidal, Endangered (EN). B. *Medinilla magnifica* Lindl., Endangered (EN). C. *Ophioglossum pendulum* L., Endangered (EN). D. *Alangium longiflorum* Merr., Vulnerable (VU). E. *Botrychium daucifolium* Wall., Vulnerable (VU). F. *Dipteris lobbiana* (Blume) Moore, Vulnerable (VU). G. *Leptosolena haenkei* C. Presl, Vulnerable (VU). H. *Shorea polysperma* (Blanco) Merr., Vulnerable (VU). I. *Strongylodon elmeri* Merr., Vulnerable (VU). A-B, D and H photos by Edwino S. Fernando; C, E-G and I photos by Leonardo L. Co.

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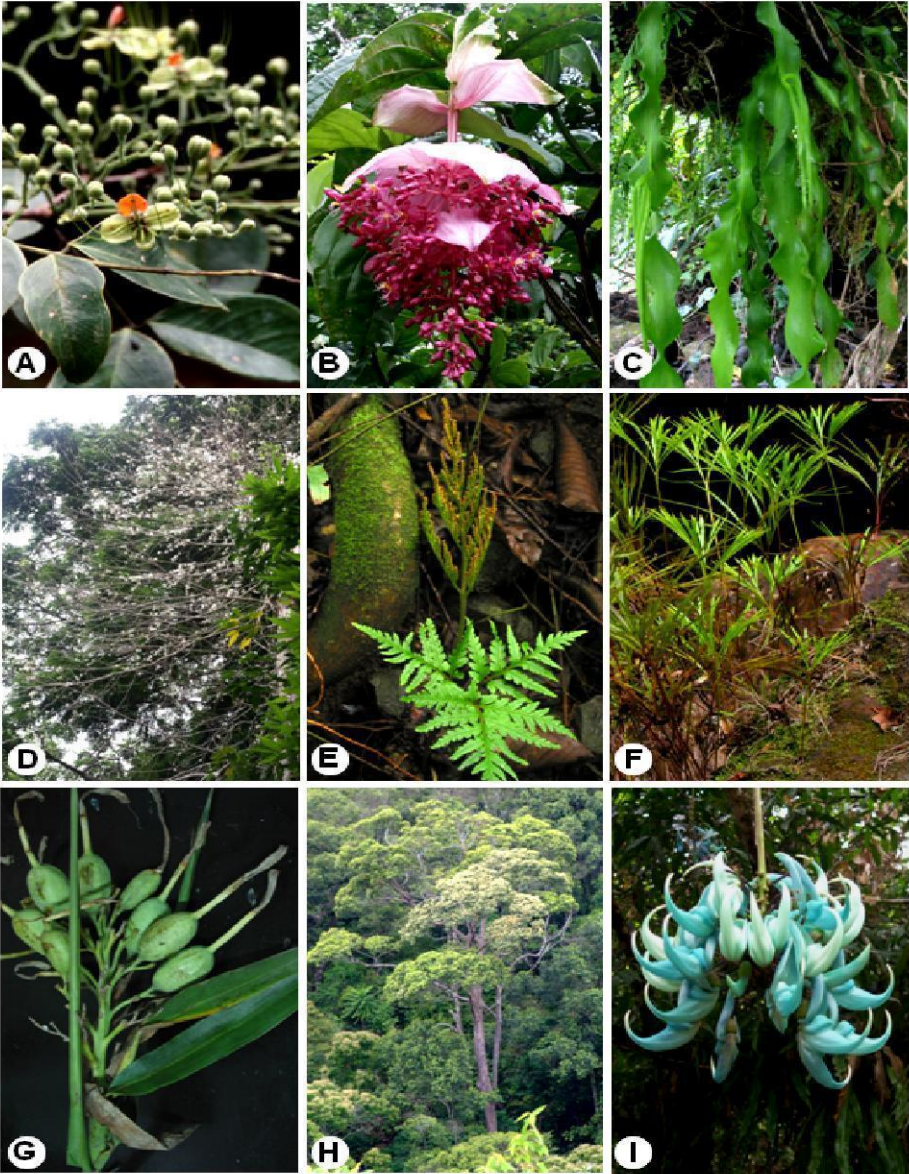


Table 3. Summary of the threatened Philippine plants and their categories. Figures in parenthesis refer to the number of taxa endemic to the Philippines.

| Category | Angiosperms | Gymnosperms | Peridophytes | Bryophytes | All Taxonomic groups |
|--------------------------------|-------------|-------------|--------------|------------|----------------------|
| Critically Endangered (CR) | 88 (78) | - | 10 (9) | - | 98 (87) |
| Endangered (EN) | 136 (110) | 8 (3) | 35 (27) | 2 (2) | 181 (142) |
| Vulnerable (VU) | 123 (90) | 2 (0) | 50 (24) | - | 175 (114) |
| Other Threatened Species (OTS) | 56 (43) | - | 8 (6) | - | 64 (49) |
| Other Wildlife Species (OWS) | 69 (47) | - | 99 (79) | - | 168 (126) |
| All Categories | 472 (368) | 10 (3) | 202 (145) | 2 (2) | 686 (518) |

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Table 4. Plant families contributing the most number of taxa in the *National List of Threatened Philippine Plants*.

| Plant family | Category ¹ | | | | | Total |
|----------------------------|-----------------------|----|----|-----|-----|-------|
| | CR | EN | VU | OTS | OWS | |
| Orchidaceae | 18 | 32 | 3 | - | - | 53 |
| Palmae (Arecaceae) | 18 | 8 | 5 | - | 1 | 32 |
| Begoniaceae | - | - | 1 | - | 31 | 32 |
| Dipterocarpaceae | 14 | 5 | 12 | - | - | 31 |
| Meliaceae | 2 | 1 | 9 | 3 | 15 | 30 |
| Thelypteridaceae | 1 | 1 | 5 | - | 23 | 30 |
| Cyatheaceae | 1 | 17 | 11 | - | - | 29 |
| Gesneriaceae | - | 1 | 21 | 2 | - | 24 |
| Rubiaceae | 2 | 2 | 12 | - | 6 | 22 |
| Polypodiaceae | 3 | 3 | 12 | 2 | 1 | 21 |
| Leguminosae | 2 | 8 | 4 | 4 | - | 18 |
| Asclepiadaceae | - | 15 | 2 | - | - | 17 |
| Myrtaceae | 4 | 4 | - | 8 | - | 16 |
| Melastomataceae | - | 14 | 1 | - | - | 15 |
| Sapindaceae | 4 | 9 | - | 1 | - | 14 |
| Hymenophyllaceae | - | - | - | - | 13 | 13 |
| Ebenaceae | 4 | 4 | 3 | - | - | 11 |
| Dryopteridaceae | 1 | 2 | - | - | 7 | 10 |
| Euphorbiaceae ² | 1 | - | 2 | 4 | 3 | 10 |
| Nepenthaceae | 3 | 7 | - | - | - | 10 |
| Myristicaceae | - | 2 | 1 | 7 | - | 10 |

¹CR = Critically Endangered; EN = Endangered; VU = Vulnerable; OTS = Other Threatened Species; OWS = Other Wildlife Species.

²Includes Phyllanthaceae and Putranjivaceae.

Figure 3. Threatened plants of the Philippines. A. *Ardisia romani* Elmer, Other Threatened Species (OTS). B. *Hydnocarpus alcalae* C. DC., Other Threatened Species (OTS). C. *Monophyllaea longipes* Kraenzl., Other Threatened Species (OTS). D. *Protium connarifolium* (Perkins) Merr., Other Threatened Species (OTS). E. *Rosa luciae* Franch. & Rochbr. ex Crepin, Other Threatened Species (OTS). F. *Syzygium ciliato-setosum* (Merr.) Merr., Other Threatened Species (OTS). G. *Begonia chloroneura* P. Wilkie & Sands, Other Wildlife Species (OWS). H. *Dillenia philippinensis* Rolfe, Other Wildlife Species (OWS). I. *Tapainidium acuminatum* Kramer, Other Wildlife Species (OWS). A-B, D-E and H photos by Edwino S. Fernando; C, F-G and I photos by Leonardo L. Co.

Philippine threatened plants

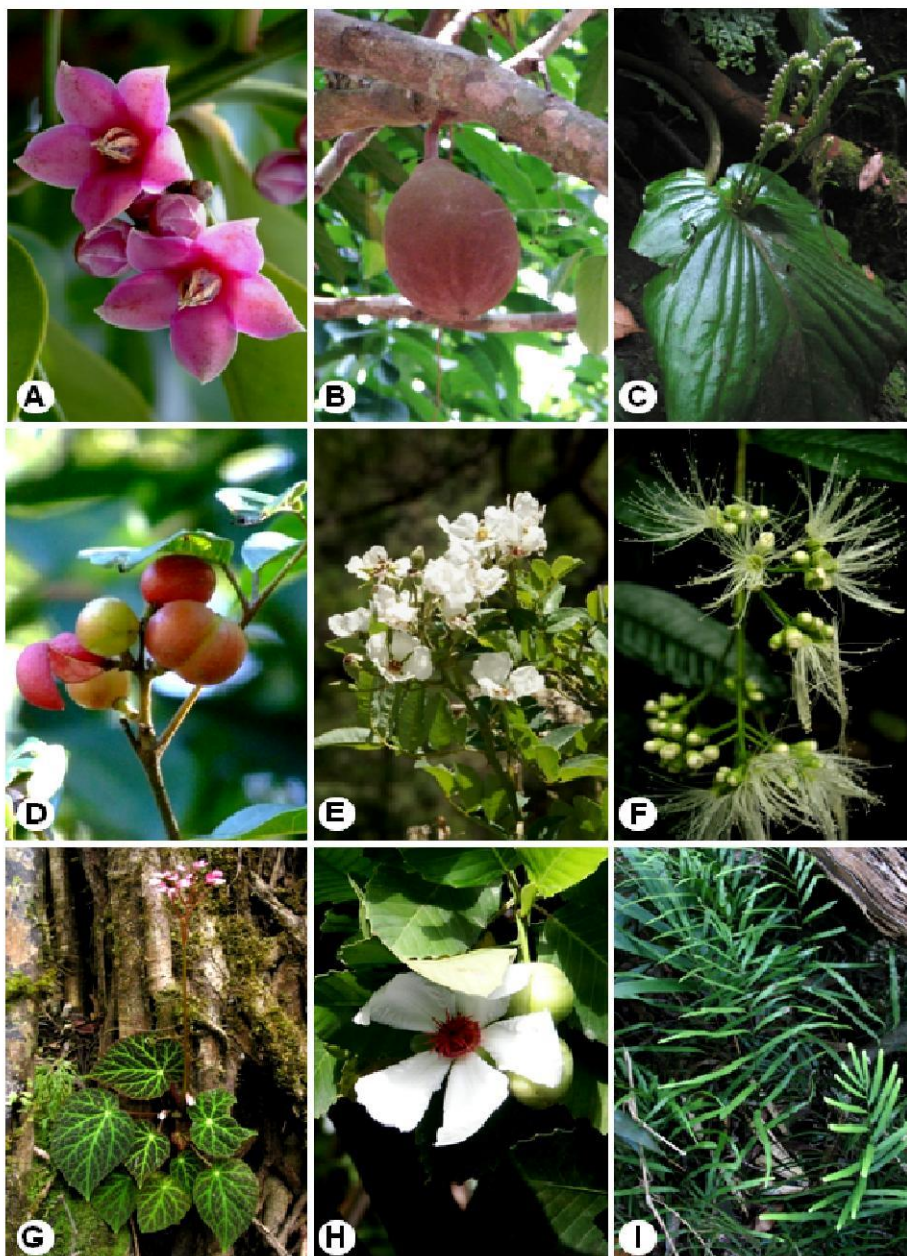


Table 5. Summary of Philippine plants included in the 2006 IUCN Red List of Threatened Species (IUCN 2006). Figures in parenthesis refer to the number of taxa endemic to the Philippines.

| Category ¹ | Angiosperms | Gymnosperms | Peridiphytes | Bryophytes | All Taxonomic groups |
|---|-------------|-------------|--------------|------------|----------------------|
| Critically Endangered (CR) | 46 (31) | - | - | - | 46 (31) |
| Endangered (EN) | 31 (24) | 2 (0) | - | 2 (2) | 35 (26) |
| Vulnerable (VU) ² | 131 (95) | 3 (1) | - | - | 134 (96) |
| Lower Risk / near threatened (LR/nt) | 26 (5) | - | - | - | 26 (5) |
| Lower Risk / least concern (LR/lc) ³ | 52 (5) | 13 (2) | - | - | 65 (7) |
| Lower Risk / conservation dependent (LR/cd) | 3 (1) | - | - | - | 3 (1) |
| Data Deficient (DD) ⁴ | 8 (2) | 6 (2) | - | - | 14 (4) |
| All Categories / Total | 297 (163) | 24 (5) | - | 2 (2) | 323 (170) |

¹Many taxa in the 2006 list were assessed using threat categories in IUCN Categories and Criteria ver. 2.3 (1994) and ver. 3.1 (2001)

²VU - includes one taxon not native to the Philippines.

³LR/lc - includes five taxa not native to the Philippines.

⁴DD- includes one taxon not native to the Philippines; Data Deficient (DD) is not considered a threat category in the 1994 and 2001 versions.

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Appendix Table 1. National list of threatened Philippine plants in the Critically Endangered (CR) Species Category. The criteria used here follow those of the IUCN (ver. 2.3, IUCN 1994; Table 2) for the same category. All taxa are endemic to the Philippines except those marked with an asterisk (*).

| Family | Scientific name | Common name | Category & Criteria |
|---------------------------------|---|-----------------------------|---------------------|
| Apocynaceae | <i>Kibatalia longifolia</i> Merr. | Malapasnit | CR B1+2c |
| Cyathaceae | <i>Cyathea microchlamys</i> Holtum | Tree fern | CR A1cd, B2c |
| Dipterocarpaceae | <i>Hopea acuminata</i> Merr. | Mangaclapui, Dalingingan | CR A1cd |
| | <i>Hopea basilanica</i> Foxw. | Basilan yakal | CR A1cd, B1+2bc |
| | <i>Hopea brachyptera</i> (Foxw.) Slooten | Mindanao narek | CR A1c+2c, B1+2cd |
| | <i>Hopea cagayanensis</i> (Foxw.) Slooten | Narek | CR A1cd+2cd, B1+2cd |
| | <i>Hopea foxworthyi</i> Elmer | Dalindingan | CR A1cd, B1+2bc |
| | <i>Hopea malibato</i> Foxw. | Yakal-kaliot | CR A1cd, B1+2c |
| | <i>Hopea mindanensis</i> Foxw. | Yakal-magasusu | CR A1cd, B1+2c |
| | <i>Hopea philippinensis</i> Dyer | Gisok-gisok | CR A1cd |
| | <i>Hopea quisumbingiana</i> Gutierrez | Quisumbing gisok | CR A1cd, B1+2bc |
| | <i>Hopea samarensis</i> Gutierrez | Samar gisok | CR A1cd, B1+2bc |
| | <i>Shorea aspylosa</i> Foxw. | Yakal | CR A1cd |
| | <i>Shorea malibato</i> Foxw. | Yakal-malibato | CR A1cd, B1+2c |
| | <i>Vatica elliptica</i> Foxw. | Kaladis narig | CR A1cd, B1+2c |
| <i>Vatica pachyphylla</i> Merr. | Thick-leafed Narig | CR A1cd, B1+2c | |
| Dryopteridaceae | <i>Ctenitis paleolata</i> Copel. | - | CR A1c |
| Ebenaceae | * <i>Diospyros blancoi</i> A.D.C. | Kanangong, Mabolo | CR A1cd |
| | <i>Diospyros bridalifolia</i> Elmer | Malinaog | CR B1+2ac |
| | * <i>Diospyros cauliflora</i> Blume | Apunan | CR A1cd |
| | <i>Diospyros poncei</i> Merr. | Ponce kanangong | CR A1cd, B1+2ac |

Philippine threatened plants

Appendix Table 1. Cont.

| | | | |
|---------------|--|---|---|
| Ericaceae | * <i>Rhododendron javanicum</i> (Blume) Benn. var. <i>schaedenbergii</i> (Warb.) Sleum. <i>Rhododendron kochii</i> Stein <i>Rhododendron taxifolium</i> Merr. | Malagos | CR A1cd |
| Euphorbiaceae | <i>Reutealis trisperma</i> (Blanco) Airy Shaw | Koch's malagos Yew-leafed rhododendron Baguikulumbang | CR A1cd CR A1cd, B1+2bc CR A1c |
| Hypericaceae | <i>Hypericum pulogense</i> Merr. | Pulag St. | CR A1c, B1+2ac |
| Isoetaceae | <i>Isoetes philippinensis</i> Merr. & Perry | Johnswort | CR A1c, B1+2bc |
| Lauraceae | <i>Cinnamomum cebuense</i> Kosterm. | Philippine Quillwort, Rogiro | CR A1ac, B1+2cd, C2a |
| Leguminosae | * <i>Pterocarpus indicus</i> Willd. forma <i>indicus</i> | Cebu kalingag | CR A1cd |
| Loranthaceae | * <i>Pterocarpus indicus</i> Willd. forma <i>echinatus</i> (Pers.) Rojo <i>Thaumasianthes amplifolia</i> (Merr.) Danser | Smooth narra Prickly narra | CR A1cd CR B1+2ac |
| Meliaceae | <i>Aglaia pyramiformis</i> Merr. * <i>Toona calantans</i> Merr. & Rolfe | Samar mistletoe | CR B1+2ac CR A1cd |
| Myrtaceae | * <i>Syzygium nitidum</i> Benth. <i>Tristaniaopsis decorticata</i> (Merr.) Peter G. Wilson & Waterhouse <i>Xanthostemon bracteatus</i> Merr. <i>Xanthostemon philippinensis</i> Merr. | Kanining-peneras Kalantas Makaasim Malabayabas | CR A1cd CR A1cd CR A1cd, B2c |
| Nepenthaceae | <i>Nepenthes argentea</i> M. Jebb & M. Cheek | Mapilig Bagoadlau Argent pitcher plant | CR B1+2ac CR B1+2ac CR A1cd, B1+2bc |

Appendix Table 1. Cont.

| | | | |
|-------------|--|--------------------------------------|-----------------|
| | <i>Nepenthes merrilliana</i> Macfarlane | Mindanao giant pitcher plant, Lapsai | CR A1cd, B1+2ac |
| | <i>Nepenthes sibuyanensis</i> J. Nerz | Sibuyan pitcher plant | CR A1cd, B1+2bc |
| Oleaceae | <i>Chionanthus clementis</i> (Quisumb. & Merr.) Kiew | Kayantol | CR B1+2ac |
| | <i>Chionanthus remoinerivius</i> (Merr.) Kiew | Panoplasin | CR A1c |
| | <i>Olea palawanensis</i> Kiew | Palawan olive | CR B1+2ac |
| Orchidaceae | <i>Ameselia monticola</i> J. Cootes & D.P. Banks | - | CR B1+2ac |
| | * <i>Ascoglossum calopterum</i> (Rehb.f.) Schltr. | - | CR B1+2ac |
| | <i>Ceratocentron fessellii</i> Senghas | - | CR B1+2ac |
| | <i>Dendrobium schuetzei</i> Rolfe | - | CR A1cd, B2bc |
| | <i>Euanthe sandariana</i> (Rehb.f.) Schltr. | Waling-waling | CR A1cd |
| | * <i>Gastrochilus calceolaris</i> (Buch.-Ham. ex J.E. Sm.) D. Don | - | CR A1cd |
| | <i>Paphiopedilum acmodontium</i> M.W. Wood | Lady slipper | CR A1cd, B1+2ac |
| | <i>Paphiopedilum adductum</i> Asher | Lady slipper | CR A1cd, B1+2ac |
| | <i>Paphiopedilum anium</i> Golanco [= <i>Paphiopedilum adductum</i> Asher] | Lady slipper | CR A1cd, B1+2ac |
| | <i>Paphiopedilum argus</i> (Rehb.f.) Stein | Lady slipper | CR A1cd |
| | <i>Paphiopedilum fowlei</i> Birk | Lady slipper | CR A1cd, B1+2ac |
| | <i>Paphiopedilum haynaldianum</i> (Rehb.f.) Stein | Lady slipper | CR A1cd |

Philippine threatened plants

Appendix Table 1. Cont.

| | | |
|--|--------------------|----------------------|
| <i>Paphiopedilum hennisiannum</i> (M.W. Wood) Fowlie | Lady slipper | CR A1cd |
| <i>Paphiopedilum randstii</i> Fowlie | Lady slipper | CR A1cd |
| <i>Paphiopedilum urbanianum</i> Fowlie | Lady slipper | CR A1cd, B1+2ac |
| <i>Paphiopedilum usitanum</i> O.Gruss & J.Roeth [= <i>Paphiopedilum parnatatum</i> Cavestro] | Lady slipper | CR A1cd, B1+2ac |
| <i>Phalaenopsis nicholizii</i> Rolfe | - | CR A1cd |
| <i>Phragmorchis teretifolia</i> L.O. Williams | - | CR A1cd |
| * <i>Vanda lamellata</i> Lindl. var. <i>calayan</i> Valmayor & D. Tiu [= <i>Vanda lamellata</i> Lindl. var. <i>lamellata</i>] | - | CR A1cd |
| <i>Areca petersii</i> Becc. | Takobto | CR A1c, B1+2ac |
| <i>Calamus batanensis</i> (Becc.) Bajaj-Lapis | Valit | CR A1c, B1+2d |
| <i>Calamus jenningsianus</i> Becc. | - | CR A1c, B1+2c |
| <i>Calamus vinosus</i> Becc. | - | CR A1c, B1+2c |
| <i>Daemonorops affinis</i> Becc. | Bag-bag | CR A1c, B1+2c |
| <i>Daemonorops oligolepis</i> Becc. | Rogman | CR A1c, B1+2c |
| <i>Daemonorops pannosus</i> Becc. | Sabilog | CR A1c, B1+2c |
| <i>Heterospathe califrons</i> Fernando | Yanisi | CR A1c, B1+2bc, C2a |
| <i>Heterospathe dransfieldii</i> Fernando | Dransfield sanakti | CR B1+2c |
| <i>Heterospathe scitula</i> Fernando | Malasanakti | CR A1cd, B1+2cd |
| <i>Heterospathe sibuyanensis</i> Becc. | Bilis | CR A1c, B1+2c |
| <i>Heterospathe trispatha</i> Fernando | Tatlong bilisan | CR A1c, B1+2c |
| <i>Pinanga batanensis</i> Becc. | Dapiaw | CR A1c, B1+2c |
| <i>Pinanga bicolorana</i> Fernando | Bicol abiki | CR A1cd, B1+2bd, C2a |
| <i>Pinanga samarana</i> Becc. | Samar abiki | CR B1+2c |

Appendix Table 1. Cont.

| | | | |
|------------------|--|---------------------|----------------|
| | <i>Pinanga sclerophylla</i> Becc. | Abiking-tigas | CR B1+2c |
| | <i>Pinanga sibuyanensis</i> Becc. | Tiangan | CR A1c, B1+2c |
| | <i>Plectocomia elmeri</i> Becc. | Uñgang | CR A1c, B1+2cd |
| Perannaceae | <i>Peranema cyathoides</i> D. Don var. <i>luzonicum</i> (Copel.) Ching & S.H. Wu | - | CR A1c |
| Polypodiaceae | * <i>Platyceium coronarium</i> (Koenig ex Miller) Desv. | Staghorn fern | CR A1cd |
| | <i>Platyceium grande</i> (Fee) Kunze | Giant staghorn fern | CR A1cd |
| | <i>Podosorus angustatus</i> Holttum | | CR A1c |
| | <i>Pteris calocarpa</i> (Copel.) M.G. Price | - | CR A1c |
| Pteridaceae | <i>Pteris pachysora</i> (Copel.) M.G. Price | - | CR A1c |
| | <i>Rafflesia manillana</i> Tschern. | Malabó | CR A1a, B2ad |
| Rafflesiaceae | <i>Rafflesia speciosa</i> Barcelona & Fernando | Urny | CR A1c, B2c |
| | <i>Rafflesia schadenbergiana</i> Göppert ex Hieron. | Bó-o | CR A1c, B2c |
| Rubiaceae | <i>Greeniopsis pubescens</i> Merr. | Paluy mabolo | CR A1c |
| | <i>Villaria acutifolia</i> (Elmer) Merr. | Tango | CR B1+2ac |
| Rutaceae | <i>Svinglea glutinosa</i> (Blanco) Merr. | Kabayok | CR A1cd |
| Sapindaceae | <i>Gongospermum philippinense</i> Radlk. | Kasan-kasan | CR A1c |
| | <i>Guioa palawanica</i> Welzen | Palawan alahan | CR A1c |
| | <i>Guioa parvifolia</i> Merr. | Angset | CR A1c |
| | <i>Guioa reticulata</i> Radlk. | Alahan-sinima | CR A1c |
| Thelypteridaceae | <i>Coryphopteris borealis</i> Holttum | - | CR A1c |
| Verbenaceae | * <i>Clerodendrum quadriloculare</i> (Blanco) Merr. ¹ | Baganak-morado | CR A1cd |
| | <i>Tectona philippinensis</i> Benth. & Hook.f. ¹ | Philippine teak | CR A1cd, B2bc |

¹Lamiaceae.

Philippine threatened plants

Appendix Table 2. National list of threatened Philippine plants in the Endangered (EN) Species Category. The criteria used here follow those of the IUCN (ver. 2.3, IUCN 1994; Table 2) for the same category. All taxa are endemic to the Philippines except those marked with an asterisk (*).

| Family | Scientific name | Common name | Category & Criteria |
|-----------------------------|--|---------------------|---------------------|
| Anacardiaceae | * <i>Mangifera odorata</i> Griff. | Huani | EN A1cd, B2bc |
| Apocynaceae | <i>Kibatalia puberula</i> Merr. | Paslit-mabolo | EN A1c, B2bc |
| | <i>Kibatalia stenopetala</i> Merr. | Paslit-kitid | EN A1c, B2bc |
| Araceae | <i>Alocasia sanderiana</i> W. Bull. | Sander's alocasia | EN A1cd |
| Araliaceae | <i>Schefflera aganata</i> Merr. [= <i>Schefflera foxworthyi</i> Merr.] | Agama galamay-amo | EN A1c, B2c |
| | <i>Schefflera albedo-bracteata</i> Elmer | Makinging | EN A1c, B2c |
| | <i>Schefflera curranii</i> Merr. | Curran galamay-amo | EN A1cd |
| | <i>Schefflera palawanensis</i> Merr. | Palawan galamay-amo | EN A1c, B2c |
| | <i>Hoya alagensis</i> Kloppenburg | - | EN A1cd, B1+2c |
| | <i>Hoya angustisepala</i> Burton | - | EN A1cd, B1+2c |
| | <i>Hoya burtoniae</i> Kloppenburg | - | EN A1cd, B1+2c |
| | <i>Hoya crassicaulis</i> (Elmer) Kloppenburg | - | EN A1cd, B1+2c |
| | <i>Hoya el-nidicus</i> Kloppenburg | - | EN A1cd, B1+2c |
| | <i>Hoya gigantanganensis</i> Kloppenburg | - | EN A1cd, B1+2c |
| Asclepiadaceae ¹ | <i>Hoya greenii</i> Kloppenburg | - | EN A1cd, B1+2c |
| | <i>Hoya halcomensis</i> Kloppenburg | - | EN A1c, B2c |
| | <i>Hoya heuschkeliana</i> Kloppenburg | - | EN A1cd, B1+2c |

Appendix Table 2. Cont.

| | | | |
|--------------------------------------|---|-----------|----------------|
| | <i>Hoya panchoi</i> Kloppenburg [= <i>Hoya diversifolia</i> Blume] | - | EN A1cd, B1+2c |
| | <i>Hoya pulgarensis</i> Elmer | - | EN A1cd, B2c |
| | <i>Hoya quinquerivra</i> Warb. | - | EN A1cd, B2c |
| | <i>Hoya quisumbingii</i> Kloppenburg | - | EN A1cd, B2c |
| | <i>Hoya rizaliana</i> Kloppenburg | - | EN A1cd, B2c |
| | <i>Hoya wayetti</i> Kloppenburg | - | EN A1c, B2c |
| Centrolepidaceae | * <i>Centrolepis philippinensis</i> Merr. | - | EN A1c, B2c |
| Combretaceae | <i>Terminalia darlingii</i> Merr. | Malaputat | EN B2bc |
| Cyatheaceae | <i>Cyathea acuminata</i> Copel. | Tree fern | EN A1cd |
| | <i>Cyathea apoensis</i> Copel. | Tree fern | EN A1cd |
| | <i>Cyathea atropurpurea</i> Copel. | Tree fern | EN A1cd |
| | <i>Cyathea binuangensis</i> Alderw. | Tree fern | EN A1cd |
| | <i>Cyathea callosa</i> Christ | Tree fern | EN A1cd |
| | <i>Cyathea caudata</i> (L. Sm.) Copel. | Tree fern | EN A1cd |
| | <i>Cyathea christii</i> Copel. | Tree fern | EN A1cd |
| | <i>Cyathea cinerea</i> Copel. | Tree fern | EN A1cd |
| | <i>Cyathea curranii</i> Copel. | Tree fern | EN A1cd |
| | <i>Cyathea edanoi</i> Copel. | Tree fern | EN A1cd |
| | <i>Cyathea ferruginea</i> Christ | Tree fern | EN A1cd |
| | <i>Cyathea fuliginosa</i> (Christ) Copel. | Tree fern | EN A1cd |
| | <i>Cyathea halconensis</i> Christ | Tree fern | EN A1cd |
| | * <i>Cyathea heterochlamydea</i> Copel. | Tree fern | EN A1cd |
| | <i>Cyathea integrifolia</i> J. Sm. ex Hook. | Tree fern | EN A1cd |
| <i>Cyathea masapilidensis</i> Copel. | Tree fern | EN A1cd | |
| <i>Cyathea negrosiana</i> Christ | Tree fern | EN A1cd | |

Philippine threatened plants

Appendix Table 2. Cont.

| | | | |
|---------------------|--|------------------------|---------------------|
| Cycadaceae | <i>Cycas curranii</i> (J. Schust.) K.D. Hill | Curran pitogo | EN A1cd, B2bc |
| * | <i>Cycas edentata</i> de Laub. | Pitogong dagat | EN A1cd, B2bc |
| * | <i>Cycas ruminiana</i> Porté ex Regel | Pitogo | EN A1cd, B2bc |
| | <i>Cycas silvestris</i> K.D. Hill [= <i>Cycas curranii</i> (J. Schust.) K.D. Hill] | Palawan pitogo | EN A1cd, B2bc |
| | <i>Cycas wadei</i> Merr. | Culion pitogo | |
| Dipterocarpaceae | <i>Anisoptera costata</i> Korth. | Mindanao palosapis | EN A1cd+2cd, B2c |
| * | <i>Dipterocarpus eurynechus</i> Miq. | Basilan apitong | EN A1cd+2cd, B1+2bc |
| | <i>Dipterocarpus philippinensis</i> Foxw. | Hairy-leafed apitong | EN A1cd+2cd, B1+2bc |
| * | <i>Hopea plagata</i> (Blanco) Vidal | Yakal saplungan | EN A1cd, B2bc |
| * | <i>Shorea ovata</i> Dyer ex Brandis | Tiaong | EN A1cd, B1+2bc |
| * | <i>Dryopteris chrysocoma</i> (Christ) Chr. | - | EN A1c |
| | <i>Dryopteris permagna</i> M.G. Price | - | EN A1c |
| | <i>Diospyros longiciliata</i> Merr. | Itom-itom | EN A1cd, B1+2ac |
| * | <i>Diospyros philippinensis</i> A.DC. | O-oi | EN A1c, B1+2abc |
| * | <i>Diospyros pilosanthera</i> Blanco | Bolong-eta | EN A1cd, B1+2ac |
| * | <i>Diospyros pyrrocampa</i> Miq. | Anang | EN A1cd, B1+2ac |
| * | <i>Rhododendron subsessile</i> Rendle | Ausip | EN A1cd, B2c |
| Fabroniaceae | <i>Merrillibryum fabronioides</i> Broth. | - | EN B1+2cd |
| Gesneriaceae | <i>Agathya bilirana</i> Hilliard & B.L. Burt | Biliran lipstick plant | EN A1c, B2c |
| Gramineae (Poaceae) | <i>Danthonia oreoboloides</i> (F. Muell.) Stapf | Pulag carpet grass | EN B2bc |

Appendix Table 2. Cont.

| | | | |
|---------------|--|---|---|
| Lauraceae | <i>Cinnamomum oroi</i> Quisumb. <i>Cryptocarya palawanensis</i> Merr. <i>Lisea leytenis</i> Merr. | Oro kalingag Paren Batikuling | EN A1c, B1+2c EN A1c, B2c EN A1cd, B2c |
| Leguminosae | * <i>Azelia rhomboida</i> (Blanco) Vidal * <i>Inisia bijuga</i> (Colebr.) Kuntze * <i>Kingiodendron alternifolium</i> (Elmer) Merr. & Rolfe * <i>Koompassia excelsa</i> (Becc.) Taub. <i>Sindora supa</i> Merr. <i>Strongylodon macrobotrys</i> A. Gray <i>Sympetalandra densiflora</i> (Elmer) Steen. | Tindalo Ipil Batete Manggis Supa Jade Vine, Tayabak Kamatog | EN A1cd, B2c EN A1cd, B2c EN A1cd, B2c EN A1cd, B2c EN A1c, B2c |
| Lejeuneaceae | * <i>Wallacedendron celebicum</i> Koord. <i>Drepanolejeunea bakeri</i> Herzog <i>Lycopodium halconense</i> Copel. [= <i>Lateristachys halconensis</i> (Copel.) Holub] | Banuyo - - - | EN A1cd, B2c EN B1+2cd EN A1c, B2c |
| Lycopodiaceae | <i>Lycopodium magnusianum</i> Herrer [= <i>Huperzia magnusiana</i> (Herrer) Holub] * <i>Lycopodium phlegmaria</i> L. [= <i>Huperzia phlegmaria</i> (L.) Rothm.] * <i>Lycopodium salvinoides</i> (Hertler) Tagawa [= <i>Huperzia salvinoides</i> (Hertler) Holub] * <i>Lycopodium squarrosum</i> G. Forst. [= <i>Huperzia squarrosa</i> (G. Forst.) Trevis.] | - - - - | EN A1c EN A1c EN A1c EN A1c |

Philippine threatened plants

Appendix Table 2. Cont.

| | | | |
|-----------------|---|----------------------------|---------------|
| Melastomataceae | <i>Astrocybe calycina</i> (Vidal) Merr. | Tanghau | EN B2ac |
| | <i>Beccarianthus ickisii</i> Merr. | Ickis tungau | EN B2ac |
| | <i>Beccarianthus pulcherrimus</i> (Merr.) Maxw. | Malintungau | EN B2ac |
| | <i>Medinilla banahaensis</i> Elmer | Kalambog-lambog | EN A1cd, B2ac |
| | <i>Medinilla calelanensis</i> Elmer | Tiualos tatana | EN A1cd, B2ac |
| | <i>Medinilla clementis</i> Merr. | Gubangbang | EN A1cd, B2ac |
| | <i>Medinilla compressicaulis</i> Merr. | Salanakad | EN A1cd, B2ac |
| | <i>Medinilla coronata</i> Regalado | Pagirang | EN A1cd, B2ac |
| | <i>Medinilla magnifica</i> Lindl. | Kapa-kapa | EN A1cd, B2ac |
| | <i>Medinilla palawanensis</i> Regalado | Palawan medimilla | EN A1cd, B2ac |
| | <i>Medinilla pendula</i> Merr. | Baladu | EN A1cd, B2ac |
| | <i>Medinilla stenobotrys</i> Merr. | Lalanug | EN A1cd, B2ac |
| | <i>Medinilla surigaensis</i> Regalado | Eastern Mindanao medinilla | EN A1cd, B2ac |
| | <i>Medinilla tayabensis</i> Merr. | Mt. Binuang | EN A1cd, B2ac |
| Meliaceae | <i>Walsura monophylla</i> Merr. | medinilla | EN A1c, B2ac |
| Myristicaceae | <i>Knema ridsdaleana</i> de Wilde | Bukalau | EN A1c, B1+2c |
| | <i>Myristica colimridsdalei</i> de Wilde | Ridsdale tambalau | EN A1c, B2c |
| Myrtaceae | <i>Tristanopsis littoralis</i> (Merr.) Peter G. Wilson & Waterhouse | Ridsdale duguan | EN A1c, B2ac |
| | <i>Xanthostemon fruticosus</i> Peter G. Wilson & Co | Taba | EN A1c, B2c |
| | <i>Xanthostemon speciosus</i> Merr. | Sierra Madre mangkono | EN A1c, B2c |
| | <i>Xanthostemon verdugonianus</i> Naves | Palawan mangkono | EN A1cd, B2c |
| | | Mangkono | EN A1cd, B2c |

Appendix Table 2. Cont.

| | | | |
|-----------------|---|----------------------------|-----------------|
| Nepenthaceae | <i>Nepenthes bellii</i> Kondo | Kondo pitcher plant | EN A1cd, B2ac |
| | <i>Nepenthes burkei</i> Masters | Burke pitcher plant | EN A1cd, B2ac |
| | <i>Nepenthes deaniana</i> Macfarlane | Macfarlane pitcher plant | EN A1cd, B2ac |
| | <i>Nepenthes globamphora</i> Sh. Kurata & Toyoshima [= <i>Nepenthes bellii</i> Kondo] | Globamphora pitcher plant | EN A1cd, B2ac |
| | <i>Nepenthes petiolata</i> Danser | Pitcher plant | EN A1cd, B1+2ac |
| | <i>Nepenthes philippinensis</i> Macfarlane | Pitcher plant, Kuong-kuong | EN A1cd, B2ac |
| | <i>Nepenthes truncata</i> Macfarlane | Pitcher plant, Sandaoua | EN A1cd, B2ac |
| | <i>Nepenthes ventricosa</i> Blanco | Pitcher plant, Kako | EN A1cd, B2ac |
| Ophioglossaceae | * <i>Ophioglossum pendulum</i> L. | Adder's tongue | EN A1cd |
| Orchidaceae | <i>Aerides lawrenciae</i> Rehb.f. | - | EN A1cd, B2c |
| | <i>Ameiella philippinensis</i> (Ames) Garay | - | EN A1cd, B2c |
| | * <i>Bulbophyllum stramineum</i> Ames | - | EN A1cd, B2c |
| | [= <i>Bulbophyllum cunningii</i> (Lindl.) Rehb.f.] | - | EN A1cd |
| | <i>Bulbophyllum whitfordii</i> Rolfe | - | EN A1cd, B1+2c |
| | <i>Coelogyne palawanensis</i> Ames | - | EN A1c, B1+2c |
| | <i>Corybas laceraus</i> L.O. Williams | - | EN A1c, B1+2c |
| | <i>Corybas merrillii</i> (Ames) Ames | - | EN A1c, B1+2c |
| | <i>Corybas ramosianus</i> J. Dransf. | - | EN A1c, B1+2c |
| | <i>Gymbidium aliciae</i> Quisumb. | - | EN A1c, B2c |

Philippine threatened plants

Appendix Table 2. Cont.

| | | |
|--|---|----------------|
| * <i>Cymbidium gonzalesii</i> Quisumb. [= <i>Cymbidium ensifolium</i> (L.) Sw.] | - | EN A1c, B1+2c |
| <i>Dendrobium lunatum</i> Lindl. | - | EN A1cd, B1+2c |
| <i>Paphiopedilum ciliolare</i> (Rehb.f.) Stein | - | EN A1cd |
| <i>Phalaenopsis fasciata</i> Rehb.f. | - | EN A1cd |
| <i>Phalaenopsis</i> x <i>gertrudeae</i> Quisumb. [= <i>Phalaenopsis</i> x <i>veitchiana</i> Rehb.f.] | - | EN A1cd |
| <i>Phalaenopsis hieroglyphica</i> (Rehb.f.) H.R. Sweet | - | EN A1cd |
| <i>Phalaenopsis</i> x <i>intermedia</i> Lindl. | - | EN A1cd |
| <i>Phalaenopsis</i> x <i>leucorrhoda</i> Rehb.f. | - | EN A1cd, B2c |
| <i>Phalaenopsis lindeni</i> Loher | - | EN A1cd, B2c |
| <i>Phalaenopsis heddemanniana</i> Rehb.f. | - | EN A1cd, B2c |
| <i>Phalaenopsis pallens</i> (Lindl.) Rehb.f. | - | EN A1cd, B2c |
| <i>Phalaenopsis</i> x <i>porteri</i> Rehb.f. [= <i>Phalaenopsis</i> x <i>intermedia</i> Lindl.] | - | EN A1cd |
| <i>Phalaenopsis pulchra</i> (Rehb.f.) H.R. Sweet | - | EN A1cd, B2c |
| <i>Phalaenopsis reichenbachiana</i> Rehb.f. & Sander | - | EN A1cd |
| <i>Phalaenopsis sanderiana</i> Rehb.f. | - | EN A1cd, B2c |
| <i>Phalaenopsis schilleriana</i> Rehb.f. | - | EN A1cd, B2c |
| <i>Phalaenopsis stuartiana</i> Rehb.f. | - | EN A1cd |
| <i>Phalaenopsis</i> x <i>veitchiana</i> Rehb.f. <i>Phalaenopsis</i> x <i>viratai</i> Quisumb. [= <i>Phalaenopsis</i> x <i>veitchiana</i> Rehb.f.] | - | EN A1cd |

Appendix Table 2. Cont.

| | | | |
|---|--|---------------------|----------------|
| | <i>Vanda javierae</i> D. Tiu ex Fessel & Lückel | - | EN A1cd, B1+2c |
| * | <i>Vanda scandens</i> Holtum | - | EN A1cd |
| | <i>Vanda hazonica</i> Lohrer ex Rolfe | - | EN A1cd, B2c |
| | <i>Vanda merrillii</i> Ames & Quisumb. | - | EN A1cd, B2c |
| | <i>Vandopsis davisii</i> Ames & Quisumb. | - | EN A1cd, B2c |
| | [= <i>Staurochilus loherianus</i> (Kraenzl.) Karas.] | - | EN A1cd, B2c |
| | <i>Vandopsis kupperiana</i> Kraenzl. | - | EN A1cd, B2c |
| | [= <i>Staurochilus hazonensis</i> (Ames) Ames] | - | EN A1cd |
| | <i>Vandopsis leytenensis</i> Ames | - | EN A1cd |
| | [= <i>Staurochilus leytenensis</i> (Ames) Christenson] | - | EN A1cd |
| | <i>Adonidia merrillii</i> (Becc.) Becc. | Mania Palm | EN A1c, B1+2cd |
| | <i>Areca camarinensis</i> Becc. | Monó | EN A1c, B1+2ac |
| | <i>Calamus balerensis</i> Fernando | Malatandlang parang | EN A1c, B1+2cd |
| | <i>Heterospatha brevicaulis</i> Fernando | Marighoi-baba | EN A1c, B1+2cd |
| | <i>Oncosperma platyphyllum</i> Becc. | Anibong | EN B1+2ac |
| | <i>Pinanga glaucifolia</i> Fernando | Abiking-puti | EN A1c, B1+2ac |
| | <i>Pinanga sobolifera</i> Fernando | - | EN A1c, B1+2ac |
| * | <i>Salacca clemensiana</i> Becc. | Lakaubi | EN B1+2ac |
| * | <i>Podocarpus costalis</i> C. Presl | Igem-dagat | EN A1cd, B2bc |
| | <i>Podocarpus lophatus</i> de Laub. | Igem-pugot | EN A1c, B1+2bc |

Philippine threatened plants

Appendix Table 2. Cont.

| | | | |
|---------------|--|---------------------------|----------------|
| Polypodiaceae | <ul style="list-style-type: none"> * <i>Podocarpus palawanensis</i> de Laub. & Silba [= <i>Podocarpus rumphii</i> Blume] * <i>Podocarpus rotundus</i> de Laub. * <i>Lecanopteris departoioides</i> (Cesati) Baker * <i>Lecanopteris lomarioides</i> (Kunze) Copel. | Palawan igem, Malakawayan | EN A1c, B2bc |
| | <ul style="list-style-type: none"> * <i>Lecanopteris luzonensis</i> Hennip. | Igem-bilogan | EN A1c, B1+2bc |
| | <ul style="list-style-type: none"> * <i>Pteris endoneura</i> M.G. Price | Mahabac | EN A1c, B2c |
| | <ul style="list-style-type: none"> * <i>Prunus pulgarensis</i> (Elmer) Kalkm. | Gupit | EN A1c, B1+2c |
| | <ul style="list-style-type: none"> * <i>Prunus rubiginosa</i> (Elmer) Kalkm. | Bakad pula | EN A1c, B2c |
| Rubiaceae | <ul style="list-style-type: none"> * <i>Boholia nematostylis</i> Merr. | - | EN A1c, B1+2c |
| | <ul style="list-style-type: none"> * <i>Mussaenda philippinensis</i> Merr. | - | EN A1cd, B2c |
| | <ul style="list-style-type: none"> * <i>Cubilia cubili</i> (Blanco) Adalb. | Kubili | EN A1c, B2c |
| | <ul style="list-style-type: none"> * <i>Dimocarpus longan</i> Lour. ssp. <i>malesianus</i> Leenh. var. <i>malesianus</i>. | Alupag lalaki | EN A1c, B2c |
| | <ul style="list-style-type: none"> * <i>Dimocarpus longan</i> Lour. ssp. <i>malesianus</i> Leenh. var. <i>echinatus</i> Leenh. | Alupag amo | EN A1c, B2c |
| Sapindaceae | <ul style="list-style-type: none"> * <i>Gloeocarpus patentivalvis</i> (Radlk.) Radlk. | Tamaha | EN A1c, B2c |
| | <ul style="list-style-type: none"> * <i>Guttoa acuminata</i> Radlk. | Pasi | EN A1c, B2c |
| | <ul style="list-style-type: none"> * <i>Guttoa discolor</i> Radlk. | Alahan-puti | EN A1c, B2c |
| | <ul style="list-style-type: none"> * <i>Guttoa myriadenia</i> Radlk. | Ulas | EN A1c, B2c |
| | <ul style="list-style-type: none"> * <i>Guttoa truncata</i> Radlk. | Uyos | EN A1c, B2c |
| | <ul style="list-style-type: none"> * <i>Litchi chinensis</i> Sonn. ssp. <i>philippinensis</i> (Radlk.) Leenh. | Alupag | EN A1cd, B2c |

Appendix Table 2. Cont

| | | | |
|------------------|---|--------------|---------------|
| Sapotaceae | * <i>Gamua monticola</i> (Merr.) H.J. Lam [= <i>Madhuca monticola</i> (Merr.) Merr.] | Betis-bundok | EN A1c, B2c |
| | <i>Gamua obovatifolia</i> (Merr.) Assen [= <i>Madhuca obovatifolia</i> (Merr.) Merr.] | Pianga | EN A1c, B2c |
| | * <i>Madhuca beils</i> (Blanco) J.F. McBride | Betis | EN A1cd, B2bc |
| | <i>Madhuca oblongifolia</i> (Merr.) Merr. | Malabets | EN A1cd, B2bc |
| Selaginellaceae | <i>Selaginella atimonanensis</i> B.C. Tan & Jerny | - | EN A1c, B2bc |
| | <i>Selaginella pricei</i> B.C. Tan & Jerny | - | EN A1c, B2bc |
| Simaroubaceae | <i>Eurycoma longifolia</i> Jack ssp. <i>eglandulosa</i> (Merr.) Noot. | Linatog | EN A1c, B2c |
| Tectariaceae | <i>Heterogonium wenzelii</i> (Copel.) Holtum | - | EN A1c, B2c |
| | <i>Tectarium macleanii</i> Copel. | - | EN A1c, B2c |
| Thelypteridaceae | <i>Chingia urens</i> Holtum | - | EN A1c, B2c |
| Verbenaceae | * <i>Vitex parviflora</i> Juss. ² | Molave | EN A1cd, B2bc |
| Woodsiaceae | <i>Diplazium egenolifolios</i> M.G. Price | - | EN A1c, B2c |
| Zingiberaceae | <i>Hedychium philippinense</i> K. Schum. | Dainsuli | EN A1cd, B2c |

¹Asclepiadaceae is now generally considered as subfamily Asclepiodoideae of Apocynaceae.

²Jamniaceae.

Philippine threatened plants

Appendix Table 3. National list of threatened Philippine plants in the Vulnerable (VU) Species Category. The criteria used here follow those of the IUCN (ver. 2.3, IUCN 199; Table 2) for the same category. All taxa are endemic to the Philippines except those marked with an asterisk (*).

| Family | Scientific name | Common name | Category & Criteria |
|---------------|--|--------------------------|---------------------|
| Actinidiaceae | <i>Saurauia bontocensis</i> Merr. | Dagwey | VU A1cd, B2c |
| Adiantaceae | <i>Adiantum cupreum</i> Copel. | Coppery maidenhair fern | VU A1c, B2c |
| | <i>Adiantum mindanaense</i> Copel. | Mindanao maidenhair fern | VU A1c, B2c |
| | <i>Adiantum scabripes</i> Copel. | Rough maidenhair fern | VU A1c, B2c |
| | * <i>Doryopteris cuspidata</i> Copel. [= <i>Doryopteris concolor</i> (Langsdorff & Fischer) Kuhn] | | VU A1c, B2c |
| Alangiaceae | * <i>Alangium longiflorum</i> Merr.! | Malatapy | VU A1c |
| Anacardiaceae | * <i>Dracontomelon dao</i> (Blanco) Merr. & Rolfe | Dao | VU A1cd |
| | <i>Dracontomelon edule</i> (Blanco) Steels | Lamio | VU A1cd |
| | * <i>Koordersiodendron pinnatum</i> (Blanco) Merr. | Amugis | VU A1cd |
| | * <i>Mangifera altissima</i> Blanco | Pahuten | VU A1cd |
| | <i>Mangifera merrillii</i> Mukherji | Pahong-Ititan | VU A1c, B2c |
| | <i>Mangifera monandra</i> Merr. | Malapaho | VU A1c, B2c |
| | * <i>Semecarpus paucinervius</i> Merr. | Ligas-ilanan | VU A1c, B2c |
| Annonaceae | <i>Dasymaschalon scandens</i> Elmer | Kalabuyo | VU A1c, B1+2c |
| | <i>Mitrephora caudata</i> Merr. | Lanutan-buntolan | VU A1c, B1+2c |
| | <i>Mitrephora fragrans</i> Merr. | Lanutan-banguhan | VU A1c, B1+2c |
| | <i>Mitrephora lanotan</i> (Blanco) Merr. | Lanotan | VU A1c, B2c |
| | * <i>Orophea creaghii</i> (Ridl.) Leonardia & Kessler | Tabingalang | VU A1c, B1+2c |
| | <i>Orophea cumingiana</i> Vidal | Mapatak | VU A1c, B2c |

Appendix Table 3. Cont.

| | | | |
|-----------------------------|--|--------------------|----------------|
| | <i>Polyalthia elmeri</i> Merr. | Bangar | VU A1c, B1+2c |
| | <i>Polyalthia palawanensis</i> Merr. | Palawan-lanutan | VU A1c, B1+2c |
| Apocynaceae | <i>Kibatalia elmeri</i> Woodson | Elmer pasnit | VU A1c, B2c |
| | <i>Kibatalia merrilliana</i> Woodson | Merrill pasnit | VU A1c, B1+2c |
| | <i>Tabernaemontana cordata</i> Merr. | Sakang-nanak | VU A1c, B1+2c |
| Aquifoliaceae | <i>Ilex palawanica</i> Loes. ex Elmer | Palawan kalasan | VU A1c, B1+2c |
| Araceae | <i>Alocasia micholitziana</i> Sander | Micholitz alocasia | VU A1cd, B1+2c |
| | <i>Alocasia zebryna</i> Schott ex van Houtte | Badiang | VU A1cd, B2c |
| Araliaceae | <i>Arthropphyllum pulgarense</i> Elmer | Higin | VU A1c, B1+2c |
| Araucariaceae | * <i>Agathis celebica</i> (Koord.) Ward | Palawan almacega | VU A1cd, B2c |
| | * <i>Agathis philippinensis</i> Warb. | Almacega | VU A1cd, B2c |
| Asclepiadaceae ² | <i>Hoya pazitiae</i> Kloppenburg | - | VU A1cd, B2c |
| | <i>Quisumbingia merrillii</i> (Schltr.) Merr. | - | VU A1c, B2c |
| Aspleniaceae | * <i>Asplenium nidus</i> L. | Pugad-lawin | VU A1cd, B2c |
| | * <i>Asplenium vittaeforme</i> Cav. | Dahu | VU A1cd, B2c |
| Begoniaceae | <i>Begonia oxysperma</i> A.DC. | - | VU A1cd, B2c |
| Bignoniaceae | <i>Rademachera coriacea</i> Merr. | Bitbit-parang | VU A1c, B2c |
| Blechnaceae | * <i>Blechnum fraseri</i> (A. Cunn.) Luerss. | - | VU A1c, B2c |
| Celastraceae | <i>Glyptopetalum palawanense</i> Merr. | Palawan surag | VU A1c, B1+2c |
| Combricaceae | <i>Terminalia macrantha</i> Merr. & Quisumb. ex Rojo | Bongoran | VU A1c, B1+B2c |
| | <i>Terminalia surigensis</i> Merr. | Dalinsi | VU A1c, B2c |
| Cyathaceae | * <i>Cyathea contaminans</i> (Wall.) Copel. | Tree fern | VU A1cd |
| | <i>Cyathea elmeri</i> (Copel.) Copel | Tree fern | VU A1cd |
| | <i>Cyathea latipinnula</i> Copel. | Tree fern | VU A1cd |
| | <i>Cyathea obliqua</i> Copel. | Tree fern | VU A1cd |
| | <i>Cyathea philippinensis</i> Baker | Tree fern | VU A1cd |
| | <i>Cyathea robinsonii</i> Copel. | Tree fern | VU A1cd |

Appendix Table 3. Cont.

| | | | |
|------------------|---|----------------------|-------------|
| | <i>Cyathea rufopannosa</i> Christ | Tree fern | VU A1cd |
| | <i>Cyathea setulosa</i> Copel. | Tree fern | VU A1cd |
| | <i>Cyathea sibuyamensis</i> Copel. | Tree fern | VU A1cd |
| | <i>Cyathea zamboangana</i> Copel. | Tree fern | VU A1cd |
| | <i>Dicksonia mollis</i> Holttum | Tree fern | VU A1cd |
| Dilleniaceae | <i>Dillenia reifferscheidtia</i> Villar | Katmon-kalabau | VU A1c |
| Dipteridaceae | * <i>Dipteris lobbiana</i> (Blume) Moore | - | VU A1cd |
| Dipterocarpaceae | * <i>Dipterocarpus gracilis</i> Blume | Panaw | VU A1cd+2cd |
| | * <i>Dipterocarpus hasseltii</i> Blume | Hassell's panaw | VU A1cd+2cd |
| | * <i>Dipterocarpus kunstleri</i> King | Broad-leaved apitong | VU A1cd+2cd |
| | * <i>Shorea almon</i> Fxw. | Almon | VU A1cd |
| | <i>Shorea contorta</i> Vidal | White lauan | VU A1cd |
| | <i>Shorea falciferoides</i> Fxw. ssp. <i>falciferoides</i> | Yakal-yamban | VU A1cd |
| | <i>Shorea negrosensis</i> Fxw. | Red lauan | VU A1cd |
| | <i>Shorea polysperma</i> (Blanco) Merr. | Tanguile | VU A1cd |
| | * <i>Shorea seminis</i> (de Vriese) Slooten | Malayakal | VU A1cd |
| | * <i>Vatica mangachapoi</i> Blanco ssp. <i>mangachapoi</i> | Narig | VU A1cd |
| | * <i>Vatica mangachapoi</i> Blanco ssp. <i>obtusifolia</i> (Elmer) Ashton | Palawan narig | VU A1cd |
| | * <i>Vatica maritima</i> Slooten | Narig laot | VU A1cd |
| Ebenaceae | * <i>Diospyros curranii</i> Merr. | Malagaitmon | VU A1cd |
| | * <i>Diospyros ferrea</i> (Willd.) Bakh. var. <i>buxifolia</i> (Rottb.) Bakh. | Bantulinaw | VU A1cd |
| | * <i>Diospyros mindanaensis</i> Merr. | Ata-ata | VU A1cd |
| Euphorbiaceae | * <i>Balakata luzonica</i> (Vidal) Esser | Balakat gubat | VU A1cd |
| | * <i>Secur-inega flexuosa</i> Muell.-Arg. ³ | Anislag | VU A1c |
| Fagaceae | <i>Lithocarpus apoensis</i> (Elmer) Rehder | Apo oak | VU A1c |
| | <i>Lithocarpus jordanae</i> (Villanueva) Rehder | Katuluk | VU A1c |

Appendix Table 3. Cont.

Gesneriaceae

| | | |
|--|------------------------------|----------------|
| <i>Aeschynanthus cernuosensis</i> Schltr. | Cuernos lipstick plant | VU A1cd, B1+2c |
| <i>Aeschynanthus curvicalyx</i> Mendum | Cleopatra's lipstick plant | VU A1cd, B1+2c |
| <i>Aeschynanthus elmeri</i> Mendum | Elmer's lipstick plant | VU A1cd, B1+2c |
| <i>Aeschynanthus firmus</i> Kraenzl. | Lanao lipstick plant | VU A1cd, B1+2c |
| <i>Aeschynanthus littoralis</i> Schltr. | Davao lipstick plant | VU A1cd, B1+2c |
| <i>Aeschynanthus madalidii</i> Mendum | Madulid's lipstick plant | VU A1cd, B1+2c |
| <i>Aeschynanthus miniceus</i> B. L. Burt & P. J. B. Woods | Panningkauan | VU A1cd, B1+2c |
| <i>Aeschynanthus nervosus</i> Schltr. | Chila | VU A1cd, B2c |
| <i>Aeschynanthus ovanus</i> Schltr. | Round-leafed lipstick plant | VU A1cd, B1+2c |
| <i>Aeschynanthus pergracilis</i> Kraenzl. | Slender lipstick plant | VU A1cd, B1+2c |
| <i>Aeschynanthus truncatus</i> Schltr. | Truncate lipstick plant | VU A1cd, B1+2c |
| <i>Agalmya biflora</i> (Elmer) Hilliard & B. L. Burt | Twin-flowered lipstick plant | VU A1cd, B2c |
| <i>Agalmya caelemanensis</i> (Elmer) Hilliard & B. L. Burt | Tasik-sa-lonot plant | VU A1cd |
| <i>Agalmya glabra</i> (Merr.) Hilliard & B. L. Burt | Smooth lipstick plant | VU A1cd |
| <i>Agalmya montisnomasi</i> Hilliard & B. L. Burt | Benguet lipstick plant | VU A1cd, B1+2c |
| <i>Agalmya parvilimba</i> Hilliard & B. L. Burt | Leyte lipstick plant | VU A1cd, B1+2c |
| <i>Agalmya persinilis</i> Hilliard & B. L. Burt | Agusan lipstick plant | VU A1cd |
| <i>Agalmya rotundiloba</i> Hilliard & B. L. Burt | Round-lobed lipstick plant | VU A1cd, B1+2c |
| <i>Agalmya samarica</i> Hilliard & B. L. Burt | Samar lipstick plant | VU A1cd |
| <i>Agalmya sibuyanensis</i> Hilliard & B. L. Burt | Sibuyan lipstick plant | VU A1cd, B1+2c |
| <i>Agalmya wadanaensis</i> (Elmer) Hilliard & B. L. Burt | Balibadon | VU A1cd |

Appendix Table 3. Cont.

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|----------------------------|--|------------------------|---------------|
| Guttiferae (Clusiaceae) | * <i>Catophyllum laticostatum</i> P.F. Stevens | Thick-veined bitanghol | VU A1c |
| Hammamelidaceae | <i>Embolanthera spicata</i> Merr. | Panangit | VU A1c, B1+2c |
| Lauraceae | <i>Cinnamomum mercedoi</i> Vidal | Kalingag | VU A1c |
| | <i>Cryptocarya ampla</i> Merr. | Bagarilau | VU A1c |
| Leguminosae | * <i>Cynometra inaequifolia</i> A. Gray | Dila-dila | VU A1c |
| | <i>Pericopsis mooniana</i> Thwaites | Makapiilit | VU A1c |
| | <i>Sindora inermis</i> Merr. | Kayugalo | VU A1cd |
| | <i>Strongylodon elmeri</i> Merr. | Bindanugan | VU A1cd |
| Lycopodiaceae | * <i>Lycopodium carinatum</i> Desv. ex Poir. [= <i>Huperzia carinata</i> (Desv. ex Poir.) Trevis.] | Keelcd clubmoss | VU A1c |
| Melastomataceae | <i>Medinilla dolichophylla</i> Merr. | Gunang | VU A1cd |
| Meliaceae | * <i>Aglata angustifolia</i> Miq. | Kaniuing kitiid | VU A1c |
| | * <i>Aglata cumingiana</i> Turcz. | Alauihau | VU A1c |
| | * <i>Aglata edulis</i> (Roxb.) Wall | Malasaging | VU A1cd |
| | * <i>Aglata rimosa</i> (Blanco) Merr. | Balubar | VU A1c |
| | * <i>Aglata smithii</i> Koord. | Batukanag | VU A1c |
| | * <i>Aglata tenuicaulis</i> Hiern | Oksa | VU A1c |
| | * <i>Aphanaxis polystachya</i> (Wall.) R.N. Parker | Kangko | VU A1c |
| | * <i>Dysoxylum angustifolium</i> (Merr.) Harms [= <i>Dysoxylum cauliflorum</i> Hiern] | Tarublang | VU A1c |
| | * <i>Dysoxylum oppositifolium</i> F. Muell. | Kayatau | VU A1c |
| Moraceae | <i>Artocarpus rubrovenius</i> Warb. | Kalulot | VU A1c |
| | <i>Artocarpus treculianus</i> Elmer | Pakak | VU A1c |
| Myristicaceae | <i>Horsfieldia samarensis</i> de Wilde | Samar yabnob | VU A1c, B1+2c |
| Ophioglossaceae | * <i>Botrychium daucifolium</i> Wall. | Grape fern | VU A1c |
| | * <i>Botrychium lanuginosum</i> Wall. | Grape fern | VU A1c |

Appendix Table 3. Cont.

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|--|---|------------------|--------------------|
| Orchidaceae | <i>Aerides lezana</i> Rehb.f | - | VU A1cd |
| | <i>Dendrobium sanderae</i> Rolfe | - | VU A1cd |
| | * <i>Epigeneium treacherianum</i> Rehb.f. ex Hook.f.) Sumnerh. | | VU A1cd |
| Palmae (Arecaceae) | <i>Areca hutchinsoniana</i> Becc. | Pisa | VU A1c, B2c |
| | <i>Areca ipot</i> Becc. | Bungang-ipot | VU A1cd, B2c |
| | <i>Areca macrocarpa</i> Becc. | Bungang lakihan | VU A1cd, B1+2c |
| | <i>Corypha microclada</i> Becc. | Biliran buri | VU A1cd, B1+2c |
| | <i>Livistona robinsoniana</i> Becc. | Kayabing | VU A1cd, B1+2bc |
| Pandanaeae | <i>Saranga philippinensis</i> Merr. | Bageas, Abasanay | VU A1c |
| | * <i>Aglaomorpha acuminata</i> (Willd.) Hovenkamp | Libagoc | VU A1c |
| | * <i>Aglaomorpha cornucopia</i> (Copel.) Roos | - | VU A1c |
| | * <i>Aglaomorpha heraclea</i> (Kunze) Copel. | Sarukong | VU A1c |
| | * <i>Aglaomorpha meyeniana</i> (Hook.) Schott | - | VU A1c |
| | * <i>Aglaomorpha pilosa</i> (Hook. & Bauer) Copel. | - | VU A1c |
| | * <i>Aglaomorpha splendens</i> (Hook. & Bauer) Copel. | - | VU A1c |
| | * <i>Drymaria quercifolia</i> (L.) J. Sm. | Kabkab | VU A1c |
| | <i>Goniophlebium terrestre</i> Copel. | | VU A1c |
| | * <i>Microsorium punctatum</i> (L.) Copel. | Barauwai | VU A1c |
| * <i>Microsorium sarawakense</i> (Baker) Ching | - | VU A1c | |
| * <i>Microsorium scolopendria</i> (Burm.f.) Copel. | Baraweku | VU A1c | |
| * <i>Pyrosia splendens</i> (C. Presl) Ching | Turko | VU A1c | |
| Psilotaceae | * <i>Psilotum complanatum</i> Sw. | Flat whisk fern | VU A1c |
| | * <i>Psilotum nudum</i> (L.) Beauv. | Whisk fern | VU A1c |
| | * <i>Tmesipteris lanceolata</i> P. A. Dang. | - | VU A1c |

Philippine threatened plants

| Family | Species | Conservation Status | |
|--|--|--|---------|
| Pteridaceae | * <i>Taeniitis cordata</i> (Gaud.) Holttum | VU A1c | |
| | <i>Antherosteles barahaensis</i> (Elmer) Bremek. | VU A1c | |
| | <i>Antherosteles calophylla</i> Bremek. | VU A1c, B1+2c | |
| | <i>Antherosteles grandistipula</i> (Merr.) Bremek. | VU A1c | |
| | <i>Antherosteles luzoniensis</i> (Merr.) Bremek. | VU A1c, B1+2c | |
| | <i>Badusa palawanensis</i> Ridsdale | VU A1c, B1+2c | |
| | <i>Mussaenda acuminatissima</i> Merr. | VU A1c, B1+2c | |
| | <i>Mussaenda attenuifolia</i> Elmer | VU A1c, B1+2c | |
| | <i>Mussaenda chlorantha</i> Merr. | VU A1c, B1+2c | |
| | <i>Mussaenda setosa</i> Merr. | VU A1c, B1+2c | |
| | * <i>Myrmecodia tuberosa</i> Jack | VU A1c | |
| | <i>Myrmephytum beccarii</i> Elmer | VU A1c | |
| | <i>Villaria fasciculiflora</i> Quisumb. & Merr. | VU A1c, B1+2c | |
| | * <i>Zanthoxylum integrifolium</i> (Merr.) Merr. | VU A1c | |
| | Rubiaceae | <i>Palaequium luzoniense</i> (Fern.-Vill.) Vidal | VU A1cd |
| <i>Palaequium mindanaense</i> Merr. | | VU A1cd | |
| <i>Palaequium philippense</i> (Perr.) C.B. Rob. | | VU A1cd | |
| <i>Pouteria villamilii</i> (Merr.) Baehni | | VU A1cd | |
| * <i>Selaginella magnifica</i> Warb. | | VU A1c | |
| * <i>Selaginella tamariscina</i> (Beauv.) Spring | | VU A1c | |
| <i>Tectaria stalactica</i> M.G. Price | | VU A1c | |
| <i>Chingia paucipaleata</i> Holttum | | VU A1c | |
| <i>Chingia pricei</i> Holttum | | VU A1c | |
| <i>Christella subdentata</i> Holttum | | VU A1c | |
| <i>Coryphopteris squamipes</i> (Copel.) Holttum | | VU A1c | |
| * <i>Cyclogramma auriculata</i> (J. Sm.) Ching | | VU A1c | |
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Appendix Table 3. Cont.

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|---------------|--|---------|---------|
| Verbenaceae | <i>Clerodendrum macrocalyx</i> H.J. Lam ⁴ | - | VU A1c |
| | <i>Clerodendrum mindorense</i> Merr. ⁴ | Bagab | VU A1c |
| Woodsiaceae | <i>Diplazium costulisorum</i> C. Presl | - | VU A1c |
| | <i>Diplazium cultratum</i> C. Presl | - | VU A1c |
| | <i>Diplazium propinquum</i> (Copel.) Alderw. | - | VU A1c |
| | * <i>Gymnocarpium oyamense</i> (Baker) Ching | - | VU A1c |
| | <i>Adelpheria paradoxa</i> (Ridl.) Merr. [= <i>Alpinia paradoxa</i> (Ridl.) Loes.] | Parapat | VU A1c |
| Zingiberaceae | <i>Leptosolen haenkei</i> C. Presl | Banai | VU A1cd |

¹Coriaceae.

²Asclepiadaceae is now generally considered as subfamily Asclepiodoideae of Apocynaceae.

³Phyllanthaceae.

⁴Lamiaceae.

Appendix Table 4. National list of threatened Philippine plants in the Other Threatened Species (OTS) Category. The criteria used here follow those of the IUCN (ver. 2.3, IUCN 1994) for Lower Risk/near threatened category and DENR Administrative Order No. 2004-15 (see also Table 2). All taxa are endemic to the Philippines except those marked with an asterisk (*).

| Family | Scientific name | Common name | Category & Criteria |
|----------------|--|---------------------------------|---------------------|
| Burseraceae | <i>Canarium luzonicum</i> (Blume) A. Gray | Piling-liitan | OTS LR/nt |
| | <i>Canarium ovatum</i> Engl. | Pili | OTS LR/nt |
| | <i>Protium connarifolium</i> (Perkins) Merr. | Marangub | OTS LR/nt |
| Dilleniaceae | <i>Dillenia fischeri</i> Merr. | Katmon | OTS LR/nt |
| | <i>Dillenia luzoniensis</i> (Vidal) Martelli ex Durand & Jackson | Malakatmon | OTS LR/nt |
| Elaeocarpaceae | <i>Elaeocarpus dinagatensis</i> Merr. | Dinagat-konakan | OTS LR/nt |
| | <i>Elaeocarpus gigantifolius</i> Elmer | Nabol | OTS LR/nt |
| Euphorbiaceae | * <i>Antidesma obliquinervium</i> Merr. [= <i>Antidesma montanum</i> Blume var. <i>montanum</i>] ¹ | Aniam | OTS LR/nt |
| | * <i>Antidesma subolivaceum</i> Elmer [= <i>Antidesma tomentosum</i> Blume var. <i>tomentosum</i>] ¹ | Aniam-gubat | OTS LR/nt |
| | * <i>Drypetes palawanensis</i> (Merr.) Pax & Hoffm. [= <i>Drypetes rhakodiskos</i> (Hassk.) Airy Shaw.] ² | Tombong-uak | OTS LR/nt |
| | <i>Macaranga congestiflora</i> Merr. | Amublit | OTS LR/nt |
| | <i>Lithocarpus luzoniensis</i> (Merr.) Rehder | Kilog | OTS LR/nt |
| Flacourtiaceae | <i>Lithocarpus ovalis</i> (Blanco) Rehder | Mangasiriki | OTS LR/nt |
| | <i>Hydnocarpus atalaeae</i> C.DC. | Dudua | OTS LR/nt |
| Gesneriaceae | <i>Xylosma palawanense</i> Mendoza | Mansalay | OTS LR/nt |
| | <i>Monophyllaea longipes</i> Kraenzl. | Northern Luzon one-leaved plant | OTS LR/nt |
| | * <i>Monophyllaea merrilliana</i> Kraenzl. | Sabongaiahon | OTS LR/nt |

Appendix Table 4. Cont.

| | | | |
|-------------------------|--|----------------|-----------|
| Labiatae (Lamiaceae) | <i>Plectranthus apoensis</i> (Elmer) H. Keng | Kalalapo-bulan | OTS LR/nt |
| Lauraceae | <i>Plectranthus Merrillii</i> H. Keng | Bungbungit | OTS LR/nt |
| | * <i>Cinnamomum iners</i> Reinw. ex Blume | Clove cinnamon | OTS LR/nt |
| | * <i>Eusideroxylon zwageri</i> Teysm. & Binn. | Tambulian | OTS LR/nt |
| Leguminosae | <i>Pearsea philippinensis</i> (Merr.) Elmer | Kuilisian | OTS LR/nt |
| | <i>Adenanthera intermedia</i> Merr. | Tanglin | OTS LR/nt |
| | * <i>Ernada rheedii</i> Sprengel | Gungo | OTS LR/nt |
| | <i>Luzonia purpurea</i> Elmer | Baloktot | OTS LR/nt |
| | * <i>Parkia harbesonii</i> Elmer | Butad | OTS LR/nt |
| | [= <i>Parkia speciosa</i> Hask. J] | | |
| Lomariopsidaceae | <i>Lomagramma pedicellata</i> Copel. | - | OTS LR/nt |
| | [= <i>Lomagramma pieroides</i> J. Sm.] ³ | | |
| Meliaceae | <i>Aglaia costata</i> Elmer ex Merr. | Alamag | OTS LR/nt |
| | <i>Aglaia acheriana</i> Perkins | Manablog | OTS LR/nt |
| | <i>Sandoricum vidalii</i> Merr. | Malasantol | OTS LR/nt |
| Myristicaceae | <i>Knema alvarezii</i> Merr. | Duhao | OTS LR/nt |
| | <i>Knema stenocarpa</i> Warb. | Libago | OTS LR/nt |
| | <i>Myristica basilanica</i> de Wilde | Basilan duguan | OTS LR/nt |
| | <i>Myristica fugifera</i> de Wilde | - | OTS LR/nt |
| | <i>Myristica longipetiolata</i> de Wilde | - | OTS LR/nt |
| | <i>Myristica philippinensis</i> Lank. | Duguan | OTS LR/nt |
| | <i>Myristica pilosigemma</i> de Wilde | - | OTS LR/nt |
| Myrsinaceae | <i>Ardisia romani</i> Elmer | Roman tagpo | OTS LR/nt |
| Myrtaceae | <i>Kania microphylla</i> (Quisumb. & Merr.) Peter G. Wilson | Tigang-Itian | OTS LR/nt |
| | <i>Kania urdanetensis</i> (Elmer) Peter G. Wilson | Sambulan | OTS LR/nt |
| | <i>Metrosideros halconensis</i> (Merr.) Dawson | Magadhan | OTS LR/nt |

Appendix Table 4. Cont.

| | | | |
|---|--|----------------|-----------|
| | <i>Syzygium cagayanense</i> (Merr.) Merr. | Amtuk | OTS LR/nt |
| | <i>Syzygium ciliato-setosum</i> (Merr.) Merr. | Lakangan | OTS LR/nt |
| | <i>Syzygium densinervium</i> (Merr.) Merr. | Salakadan | OTS LR/nt |
| * | <i>Syzygium panduriforme</i> (Elmer) Merr. | Lauig-lauigan | OTS LR/nt |
| | <i>Syzygium subrotundifolium</i> (C.B. Rob.) Merr. | Kalogkog-dagat | OTS LR/nt |
| | <i>Pandanus basilocularis</i> Martelli ⁴ [= <i>Pandanus decipiens</i> Martelli] | Olango | OTS LR/nt |
| | * <i>Arthromeris proteus</i> (Copel.) Tagawa | - | OTS LR/nt |
| | <i>Christopteryx sagitta</i> (Christ) Copel. | Cacam-cam | OTS LR/nt |
| | <i>Ziziphus hutchinsonii</i> Merr. | Lumuluas | OTS LR/nt |
| | <i>Ziziphus tatanai</i> (Blanco) Merr. | Balakat | OTS LR/nt |
| | <i>Prunus subglabra</i> (Merr.) Kalkm. | Kanumog | OTS LR/nt |
| * | * <i>Rosa luciae</i> Franch. & Rochbr. ex Crepin | Kuyaob | OTS LR/nt |
| * | * <i>Rosa transmorrisonensis</i> Hayata | Pauikan | OTS LR/nt |
| | <i>Rubus heterosepalus</i> Merr. | Tukong | OTS LR/nt |
| | <i>Guioa bicolor</i> Merr. | Kananging | OTS LR/nt |
| * | * <i>Symplocos polyandra</i> (Blanco) Brand. | Balabakan | OTS LR/nt |
| | <i>Tectaria adenophora</i> Copel. | - | OTS LR/nt |
| * | * <i>Astrothalamus reticulatus</i> (Wedd.) C.B. Rob. | Lapnai | OTS LR/nt |
| | <i>Diplazium caliphyllum</i> (Copel.) M.G. Price | - | OTS LR/nt |
| | <i>Diplazium macrosorum</i> (Copel.) M.G. Price | - | OTS LR/nt |
| | <i>Diplazium sibuyanense</i> (Copel.) Alderw. | - | OTS LR/nt |
| * | * <i>Diplazium vestitum</i> C. Presl | - | OTS LR/nt |
| | <i>Yanoverberghia sepulchrei</i> Merr. | Agbab | OTS LR/nt |

¹Phyllanthaceae. ²Putranjivaceae.

³*Lomogramma pteroides* J. Sm. also includes *Lomogramma cordata* Copel. originally listed under the Other Wildlife Species (OWS) category.

⁴*Pandanus basilocularis* Martelli previously included *Pandanus decipiens* Martelli from Palawan; the former is reinstated as a species known only from Borneo; *Pandanus decipiens* Martelli remains a distinct species endemic to Palawan.

Appendix Table 5. National list of threatened Philippine plants in the Other Wildlife Species (OWS) Category. The criteria used here follow those of the IUCN (ver. 2.3, IUCN 1994) for Lower Risk/least concern category and DENR Administrative Order No. 2004-15 (see also Table 2). All taxa are endemic to the Philippines except those marked with an asterisk (*).

| Family | Scientific name | Common name | Category & Criteria |
|-------------------------------------|---|-------------------------|---------------------|
| Aspleniaceae | <i>Asplenium mantalingahanum</i> P.M. Zamora & Co | | OWS LR/lc |
| Begoniaceae | <i>Begonia alba</i> Merr. | - | OWS LR/lc |
| | <i>Begonia angilogensis</i> Merr. | - | OWS LR/lc |
| | <i>Begonia casturamensis</i> Merr. | - | OWS LR/lc |
| | <i>Begonia castilloi</i> Merr. | - | OWS LR/lc |
| | <i>Begonia caudata</i> Merr. | - | OWS LR/lc |
| | <i>Begonia chloroneura</i> P. Wilkie & Sands | - | OWS LR/lc |
| | <i>Begonia collisiae</i> Merr. | - | OWS LR/lc |
| | <i>Begonia coronensis</i> Merr. | Coron begonia | OWS LR/lc |
| | <i>Begonia edanoi</i> Merr. | - | OWS LR/lc |
| | <i>Begonia elatostematoides</i> Merr. | - | OWS LR/lc |
| | <i>Begonia esculenta</i> Merr. | - | OWS LR/lc |
| | <i>Begonia gitingensis</i> Elmer | Guiting-guiting begonia | OWS LR/lc |
| | <i>Begonia isabelensis</i> Quisumb. & Merr. | Isabela begonia | OWS LR/lc |
| <i>Begonia lacera</i> Merr. | - | OWS LR/lc | |
| <i>Begonia lancifolia</i> Merr. | - | OWS LR/lc | |
| <i>Begonia longibracteata</i> Merr. | - | OWS LR/lc | |
| <i>Begonia longinoda</i> Merr. | - | OWS LR/lc | |
| <i>Begonia obtusifolia</i> Merr. | - | OWS LR/lc | |

Philippine threatened plants

Appendix Table 5. Cont.

| | | | | |
|----------------------------|---|---|------------------|-----------|
| | <i>Begonia palawanensis</i> Merr. | - | | OWS LR/lc |
| | <i>Begonia panayensis</i> Merr. | - | | OWS LR/lc |
| | <i>Begonia parva</i> Merr. | - | | OWS LR/lc |
| | <i>Begonia perryae</i> L.B. Smith & Wasshausen | - | | OWS LR/lc |
| | <i>Begonia rubrifolia</i> Merr. | - | | OWS LR/lc |
| | <i>Begonia rufipila</i> Merr. | - | | OWS LR/lc |
| | <i>Begonia samarensis</i> Merr. | - | | OWS LR/lc |
| | <i>Begonia sarmentosa</i> L.B. Smith & Wasshausen | - | | OWS LR/lc |
| | <i>Begonia subtruncata</i> Merr. | - | | OWS LR/lc |
| | <i>Begonia urdanetensis</i> Merr. | - | | OWS LR/lc |
| | <i>Begonia wadei</i> Merr. & Quisumb. | - | | OWS LR/lc |
| | <i>Begonia weberi</i> Merr. | - | | OWS LR/lc |
| | <i>Begonia zamboangensis</i> Merr. | - | | OWS LR/lc |
| | <i>Merrittia benguetensis</i> (Elmer) Merr. | - | Agakob | OWS LR/lc |
| Asteraceae (Compositae) | | | | |
| Cornaceae | * <i>Mastixia macrocarpa</i> K.M. Matthew | - | Apanit-lakibunga | OWS LR/lc |
| Dennstaedtiaceae | | | | |
| | <i>Dennstaedtia articulata</i> Copel. | - | | OWS LR/lc |
| | <i>Dennstaedtia fusca</i> Copel. | - | | OWS LR/lc |
| | <i>Dennstaedtia macgregori</i> Copel. | - | | OWS LR/lc |
| | <i>Dennstaedtia williamsii</i> Copel. | - | | OWS LR/lc |
| | <i>Lindsaea apoensis</i> Copel. | - | | OWS LR/lc |
| | <i>Lindsaea ramosii</i> Copel. | - | | OWS LR/lc |
| | <i>Microlepia protracta</i> Copel. | - | | OWS LR/lc |
| Dilleniaceae | | | | |
| | <i>Dillenia megalantha</i> Merr. | - | Katmon-bayani | OWS LR/lc |
| | <i>Dillenia philippinensis</i> Rolfe | - | Katmon | OWS LR/lc |
| Dryopteridaceae | | | | |
| | <i>Dryopteris polita</i> Rosenst. | - | | OWS LR/lc |
| | * <i>Dryopteris uropinna</i> M.G. Price | - | | OWS LR/lc |
| | <i>Polystichum copelandii</i> (Christ) Copel. | - | | OWS LR/lc |

Appendix Table 5. Cont.

| | | | |
|--|--|------------------------|-----------|
| | <i>Polystichum elmeri</i> Copel. | - | OWS LR/Ic |
| | <i>Polystichum fuscum</i> Copel. | - | OWS LR/Ic |
| | <i>Polystichum nudum</i> Copel. | - | OWS LR/Ic |
| | <i>Pomioacarpa apiifolia</i> C. Presl | - | OWS LR/Ic |
| | <i>Aporosa elliptifolia</i> Merr. [= <i>Aporosa symplocifolia</i> Merr.] | Apnong-tlios | OWS LR/Ic |
| | * <i>Baccaurea odoratissima</i> Elmer ¹ | Dilak-bangunan | OWS LR/Ic |
| | <i>Macaranga canadiifolia</i> Elmer | Daha | OWS LR/Ic |
| | <i>Castanopsis philippinensis</i> (Blanco) Vidal | Philippine chestnut | OWS LR/Ic |
| | * <i>Quercus merrilli</i> Seem | Pungo-pungo | OWS LR/Ic |
| | * <i>Filacouria rukam</i> Zoll. & Mor. | Bitongol | OWS LR/Ic |
| | * <i>Aristida holanthera</i> Domin | - | OWS LR/Ic |
| | <i>Cephalostachyum mindorense</i> Gamble | Bakto | OWS LR/Ic |
| | <i>Chionochne bianriva</i> Hackel | - | OWS LR/Ic |
| | * <i>Aerosorus nudicarplus</i> P. M. Zannora & Co | - | OWS LR/Ic |
| | * <i>Calymnodon ordinatus</i> Copel. | - | OWS LR/Ic |
| | <i>Ctenopteris halconensis</i> (Copel.) Copel. | - | OWS LR/Ic |
| | <i>Ctenopteris matulunensis</i> Copel. | - | OWS LR/Ic |
| | <i>Ctenopteris negrosensis</i> (Copel.) Copel. [= <i>Prosopitia negrosensis</i> (Copel.) M.G. Price] | - | OWS LR/Ic |
| | <i>Ctenopteris pachycaula</i> (Copel.) Copel. | - | OWS LR/Ic |
| | <i>Ctenopteris spongiosa</i> (Copel.) Copel. | - | OWS LR/Ic |
| | <i>Grammitis bulboiricha</i> (Copel.) Copel. | - | OWS LR/Ic |
| | * <i>Grammitis loheriana</i> (Christ) Copel. | - | OWS LR/Ic |

Philippine threatened plants

| | | | |
|-------------------------|---|------------|-----------|
| Appendix Table 5. Cont. | | | |
| | * <i>Grammitis microtricha</i> Copel. [= <i>Grammitis torricelliana</i> (Brause) Parris] | - | OWS LR/lc |
| | <i>Prosopis ancestralis</i> Copel. | - | OWS LR/lc |
| | <i>Xiphopteris apoensis</i> Copel. | - | OWS LR/lc |
| Hymenophyllaceae | <i>Hymenophyllum bartlettii</i> (Copel.) Morton | Filmy fern | OWS LR/lc |
| | <i>Hymenophyllum bicolanum</i> Copel. | Filmy fern | OWS LR/lc |
| | <i>Hymenophyllum bontocense</i> Copel. | Filmy fern | OWS LR/lc |
| | <i>Hymenophyllum campanulatum</i> Christ | Filmy fern | OWS LR/lc |
| | * <i>Hymenophyllum edanoi</i> (Copel.) Morton | Filmy fern | OWS LR/lc |
| | <i>Hymenophyllum pulchrum</i> Copel. | Filmy fern | OWS LR/lc |
| | <i>Hymenophyllum ramosii</i> Copel. | Filmy fern | OWS LR/lc |
| | * <i>Hymenophyllum redactum</i> Copel. [= <i>Hymenophyllum johorensis</i> Holttum] | Filmy fern | OWS LR/lc |
| | <i>Hymenophyllum vittatum</i> Copel. | Filmy fern | OWS LR/lc |
| | * <i>Trichomanes acutum</i> C. Presl | Filmy fern | OWS LR/lc |
| | <i>Trichomanes crassum</i> Copel. [= <i>Cephalomanes crassum</i> (Copel.) M.G. Price] | Filmy fern | OWS LR/lc |
| | <i>Trichomanes gracillimum</i> Copel. | Filmy fern | OWS LR/lc |
| | <i>Trichomanes zamboanganum</i> (Copel.) Morton | Filmy fern | OWS LR/lc |
| Lindsaeaceae | <i>Tapeinidium acuminatum</i> Kramer | - | OWS LR/lc |
| Lomariopsidaceae | * <i>Elaphoglossum apoense</i> Holttum | - | OWS LR/lc |
| | * <i>Elaphoglossum basilanicum</i> Copel. [= <i>Elaphoglossum melanostictum</i> (Blume) T. Moore] | - | OWS LR/lc |
| | <i>Elaphoglossum catanasanicum</i> Holttum | - | OWS LR/lc |
| | <i>Elaphoglossum negrosensis</i> Holttum | - | OWS LR/lc |

Appendix Table 5. Cont.

| | | | | | |
|--------------------|--|----------------|--|--|----------|
| Maroniaceae | * <i>Natonia foxworthyi</i> Copel. | | | | OWS LR/c |
| Meliaceae | * <i>Aglata grandis</i> Korth. ex Miq. | Barongsan | | | OWS LR/c |
| | * <i>Aglata korthalsii</i> Miq. | Korthal gishan | | | OWS LR/c |
| | * <i>Aglata lancilimba</i> Merr. | Tapuyi | | | OWS LR/c |
| | * <i>Aglata leplantha</i> Merr. | Gishan | | | OWS LR/c |
| | * <i>Aglata leucophylla</i> King | Bubunan | | | OWS LR/c |
| | * <i>Aglata luzoniensis</i> (Vidal) Merr. & Rolfe | Kuling-manuk | | | OWS LR/c |
| | * <i>Aglata malaccensis</i> (Ridl.) Pannell | Malacca kato | | | OWS LR/c |
| | * <i>Aglata oligophylla</i> Miq. | Ansa | | | OWS LR/c |
| | * <i>Aglata pachyphylla</i> Miq. | Tukang-kalau | | | OWS LR/c |
| | * <i>Aglata palembanica</i> Miq. | Gasatin | | | OWS LR/c |
| | * <i>Aglata rubiginosa</i> (Hiern) Pannell | - | | | OWS LR/c |
| | * <i>Aglata sexipetala</i> Griff. | Basinan | | | OWS LR/c |
| | * <i>Aglata squamulosa</i> King | Bugabal-pula | | | OWS LR/c |
| | * <i>Aglata sivestris</i> (M. Roemer) Merr. | Salamingal | | | OWS LR/c |
| | * <i>Aglata teysmanniana</i> (Miq.) Pannell | Teysmann kato | | | OWS LR/c |
| Oleandraceae | * <i>Oleandra benguelensis</i> Copel. | - | | | OWS LR/c |
| Palmae (Arecaceae) | <i>Areca whitfordii</i> Becc. | Bungang gubat | | | OWS LR/c |
| Pandanaceae | * <i>Freylinetia sumatrana</i> Hemsl. | - | | | OWS LR/c |
| Peranemaceae | * <i>Didymochlaena truncatula</i> (Sw.) J. Sm. | - | | | OWS LR/c |
| Polypodaceae | * <i>Microsorium membranifolium</i> (R. Br.) Ching | - | | | OWS LR/c |
| Pteridaceae | <i>Pteris brevis</i> Copel. | - | | | OWS LR/c |
| | <i>Pteris dataensis</i> Copel. | - | | | OWS LR/c |
| | <i>Pteris distans</i> J. Smith | - | | | OWS LR/c |
| | <i>Pteris edanoi</i> Copel. | - | | | OWS LR/c |
| | <i>Pteris elmeri</i> Christ | - | | | OWS LR/c |

Philippine threatened plants

Appendix Table 5. Cont.

| | | | |
|------------------|--|----------------|-----------|
| | <i>Pteris loheri</i> Copel. | - | OWS LR/lc |
| | <i>Pteris macgregorii</i> Copel. | - | OWS LR/lc |
| | <i>Pteris melanorachis</i> Copel. | - | OWS LR/lc |
| | <i>Pteris micracantha</i> Copel. | - | OWS LR/lc |
| | <i>Pteris mucronulata</i> Copel. | - | OWS LR/lc |
| | <i>Pteris ramosii</i> Copel. | - | OWS LR/lc |
| | <i>Pteris squamipes</i> Copel. | - | OWS LR/lc |
| | <i>Pteris taenitis</i> Copel. | - | OWS LR/lc |
| Rosaceae | <i>Prunus clementis</i> (Merr.) Kalkm. | Dalisai | OWS LR/lc |
| Rubiaceae | <i>Greeniopsis discolor</i> Merr. | Pangalimanan | OWS LR/lc |
| | <i>Greeniopsis euphlebia</i> Merr. | Buhon-buhon | OWS LR/lc |
| | <i>Greeniopsis megalantha</i> Merr. | Hamagos | OWS LR/lc |
| | <i>Ixora palawanensis</i> Merr. | Palawan santan | OWS LR/lc |
| | <i>Ixora tenuipedunculata</i> Merr. | Suding | OWS LR/lc |
| | <i>Sulitia obscurinervia</i> (Merr.) Ridsdale | Kalinigi | OWS LR/lc |
| | [= <i>Atractocarpus obscurinervius</i> (Merr.) Puttock] | | |
| Selaginellaceae | <i>Selaginella apoensis</i> Hieron. | - | OWS LR/lc |
| Tectariaceae | <i>Aenigmopteris mindanaensis</i> Holttum | - | OWS LR/lc |
| | * <i>Tectaria lobbii</i> (Hook.) Copel. | - | OWS LR/lc |
| Thelypteridaceae | <i>Nannothelypteris aristisora</i> (Harr.) Holttum | - | OWS LR/lc |
| | <i>Nannothelypteris camarinensis</i> Holttum | - | OWS LR/lc |
| | <i>Nannothelypteris inaequilobata</i> Holttum | - | OWS LR/lc |
| | <i>Nannothelypteris nervosa</i> (Fée) Holttum | - | OWS LR/lc |
| | <i>Nannothelypteris philippina</i> (C. Presl) Elmer | - | OWS LR/lc |
| | <i>Pronephrum butuanicum</i> (Holttum) Holttum | - | OWS LR/lc |
| | <i>Pronephrum clemensiae</i> (Copel.) Holttum | - | OWS LR/lc |

Appendix Table 5. Cont.

| | | |
|---|---|-----------|
| <i>Pronephrum diminutus</i> (Copel.) Holtum [= <i>Sphaerostephanos diminutus</i> (Copel.) M.G. Price] | - | OWS LR/lc |
| * <i>Pronephrum hosei</i> (Baker) Holtum | - | OWS LR/lc |
| <i>Pronephrum solsonicum</i> Holtum | - | OWS LR/lc |
| <i>Sphaerostephanos angustifolius</i> (C. Presl) Holtum | - | OWS LR/lc |
| <i>Sphaerostephanos cartilagoides</i> P.M. Zamora & Co | - | OWS LR/lc |
| <i>Sphaerostephanos dichrotrichoides</i> (Alderw.) Holtum | - | OWS LR/lc |
| <i>Sphaerostephanos fenixii</i> Holtum [= <i>Sphaerostephanos iryensis</i> (Copel.) Holtum] | - | OWS LR/lc |
| <i>Sphaerostephanos hernandezii</i> Holtum | - | OWS LR/lc |
| <i>Sphaerostephanos magnus</i> (Copel.) Holtum | - | OWS LR/lc |
| <i>Sphaerostephanos major</i> (Copel.) Holtum | - | OWS LR/lc |
| <i>Sphaerostephanos mindorensis</i> Holtum | - | OWS LR/lc |
| <i>Sphaerostephanos polisianus</i> Holtum | - | OWS LR/lc |
| <i>Sphaerostephanos spenceri</i> (Christ) Holtum | - | OWS LR/lc |
| <i>Sphaerostephanos stenodontus</i> (Copel.) Holtum | - | OWS LR/lc |
| <i>Sphaerostephanos tephrophyllus</i> (Copel.) Holtum | - | OWS LR/lc |
| <i>Sphaerostephanos williamsii</i> (Copel.) Holtum | - | OWS LR/lc |

Appendix Table 5. Cont.

| | | | |
|---------------|---|-----------|-----------|
| Thymelaeaceae | * <i>Aquilaria cumingiana</i> (Decne.) Ridl. | Butlo | OWS LR/lc |
| | * <i>Aquilaria malaccensis</i> Lamk. | Agar wood | OWS LR/lc |
| Vittariaceae | <i>Monogramma capillaris</i> Copel. | - | OWS LR/lc |
| | <i>Vittaria hecistophylla</i> Copel. | - | OWS LR/lc |
| | * <i>Vittaria pachystemma</i> Christ | - | OWS LR/lc |
| | <i>Vittaria subcoriacea</i> Christ | - | OWS LR/lc |
| | <i>Vittaria taenitophylla</i> Copel. | - | OWS LR/lc |
| Woodsiaceae | <i>Athyrium stramineum</i> Copel. | - | OWS LR/lc |
| | * <i>Diplazium bolsteri</i> Copel. | - | OWS LR/lc |
| | <i>Diplazium geophilum</i> (Copel.) Alderw. | - | OWS LR/lc |
| | <i>Diplazium symmetricum</i> (Copel.) M.G. Price | - | OWS LR/lc |
| | * <i>Diplazium tenuifolium</i> (Copel.) Lellinger | - | OWS LR/lc |

¹Phyllanthaceae.

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