

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 694 taxa in the following categories: Critically Endangered 99, Endangered 186, Vulnerable 176, Other Threatened Species 64, and Other Wildlife Species 169. The taxa in the list include 478 angiosperms, 11 gymnosperms, 203 pteridophytes, and two bryophytes (mosses). More than 77 percent of all the taxa listed are endemic to the Philippines.

Key Words: endangered plants, Philippines, threatened plants, Wildlife Resources Conservation and Protection Act

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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; Gruezo 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 list is thus the output of several assessment meetings and workshops of the Philippine Plant Conservation Committee within the past three years. 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 for the national list of threatened plants of the Philippines and the categories and criteria used. This threatened plant 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*'. 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.

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 list follows the most recent family revisions for the Flora Malesiana series, monographs and similar taxonomic accounts such as world or country checklists. Each taxon assessed and listed is given its full scientific name, including author 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 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 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 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 Tables 6-8). Only one criterion needs to be met for a taxon to be included in a category.

RESULTS AND DISCUSSION

A total of 694 taxa of vascular plants and mosses indigenous to the Philippines have been included in the threatened plant list based on a preliminary assessment (Tables 3, 6-10; Figure 1). The threatened plant list includes 478 angiosperms, 11 gymnosperms, 203 pteridophytes, and two bryophytes (mosses) (Table 3). There are 99 taxa in the Critically Endangered (CR) species category (Tables 3 and 6), 186 taxa in the Endangered (EN) species category (Tables 3 and 7), 176 taxa in the Vulnerable (VU) species category (Tables 3 and 8), 64 taxa in the Other Threatened Species (OTS) category (Tables 3 and 9), and 169 taxa in the Other Wildlife Species (OWS) category (Tables 3 and 10).

Up to 77.5% 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 (57), Dryopteridaceae (34), Arecaceae (32), Begoniaceae (32), Dipterocarpaceae (31), Meliaceae (31), Thelypteridaceae (29), Cyatheaceae (29), Gesneriaceae (24), and Rubiaceae (22) (Table 4). These families reflect, in part, their dominance in the Philippine flora.

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*.

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 47% of the taxa assessed by IUCN are endemic to the Philippines (Table 4, IUCN 2006). More than a third, or 113, of the taxa are not in our present list. Some of these are species that are widespread in the Philippines and 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. 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 694 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 30% of the taxa in the present list are included in IUCN's 2006 figure. Of the 99 taxa in our Critically Endangered (CR) category, only 39 appear in the IUCN list, 55 of the 186 in our Endangered (EN) category, 61 of the 176 in our Vulnerable (VU) category, 30 of the 64 in our Other Threatened Species (OTS) category, and 25 of the 169 in our Other Wildlife Species (OWS) category.

The same two species of bryophytes, *Drepanolejeunea bakeri* Herzog and *Merrilliohypnum 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 Philippine 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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Table 1. Categories used for evaluating 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’.

Table 2. Criteria used for the risk categories (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:

- (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; (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); (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 20% 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; (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 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); (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);

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.

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	Pteridophytes	Bryophytes	All Taxonomic groups
Critically Endangered (CR)	89 (80)	-	10 (9)	-	99 (89)
Endangered (EN)	140 (114)	9 (4)	35 (27)	2 (2)	186 (147)
Vulnerable (VU)	123 (91)	2 (0)	51 (34)	-	176 (125)
Other Threatened Species (OTS)	56 (45)	-	8 (6)	-	64 (51)
Other Wildlife Species (OWS)	70 (47)	-	99 (80)	-	169 (127)
All Categories	478 (377)	11 (4)	203 (156)	2 (2)	694 (539)

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

Plant family	Critically Endangered (CR)	Endangered (EN)	Vulnerable (VU)	Other Threatened Species (OTS)	Other Wildlife Species (OWS)	Total
Orchidaceae	19	35	3	-	-	57
Dryopteridaceae	2	5	6	5	16	34
Arecaceae (Palmae)	18	8	5	1	-	32
Begoniaceae	-	-	1	-	31	32
Dipterocarpaceae	14	5	12	1	1	31
Meliaceae	2	1	9	3	16	31
Thelypteridaceae	1	1	5	-	22	29
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	5	4	-	19
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
Nepenthaceae	3	8	-	-	-	11
Euphorbiaceae	1	-	2	4	3	10
Myristicaceae	-	2	1	7	-	10

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	Pteridophytes	Bryophytes	All Taxonomic groups
Critically Endangered (CR)	46 (15)	-	-	-	46 (15)
Endangered (EN)	31 (9)	2 (0)	-	2 (2)	35 (11)
Vulnerable (VU) ²	131 (94)	3 (1)	-	-	134 (95)
Lower Risk / near threatened (LR/nt)	26 (5)	-	-	-	26 (5)
Lower Risk / least concern (LR/lc) ³	52 (5)	13 (11)	-	-	65 (16)
Lower Risk / conservation dependent (LR/cd)	3 (1)	-	-	-	3 (1)
Data Deficient (DD) ⁴	8 (6)	6 (3)	-	-	14 (9)
All Categories / Total	297 (135)	24 (15)	-	2 (2)	323 (152)

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

Table 6. 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.

Family	Scientific name	Common name	Category & Criteria
Apocynaceae	<i>Kibatalia longifolia</i> Merr.	Malapasnit	CR B1+2c
Arecaceae (Palmae)	<i>Areca parens</i> Becc.	Takobtob	CR A1c, B1+2ac
	<i>Calamus batanensis</i> (Becc.) Baja-Lapis	Valit	CR A1c, B1+2d
	<i>Calamus jenningsianus</i> Becc.	-	CR B1+2c
	<i>Calamus vinosus</i> Becc.	-	CR B1+2c
	<i>Daemonorops affinis</i> Becc.	Bag-bag	CR B1+2c
	<i>Daemonorops oligolepis</i> Becc.	Rogman	CR B1+2c
	<i>Daemonorops pannosus</i> Becc.	Sabilog	CR 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.	Dapiau	CR A1c, B1+2c
	<i>Pinanga bicolana</i> Fernando	Bicol abiki	CR A1cd, B1+2bd, C2a
	<i>Pinanga samarana</i> Becc.	Samar abiki	CR B1+2c
	<i>Pinanga sclerophylla</i> Becc.	Abiking-tigas	CR B1+2c
	<i>Pinanga sibuyanensis</i> Becc.	Tibañgan	CR A1c, B1+2c
	<i>Plectocomia elmeri</i> Becc.	Uñgang	CR A1c, B1+2cd
Cyatheaceae	<i>Cyathea microchlamys</i> Holtt.	Tree Fern	CR A1cd, B2c
Dipterocarpaceae	<i>Hopea acuminata</i> Merr.	Manggachapui / Dalingdingan	CR A1cd, B1+2c
	<i>Hopea basilanica</i> Foxw.	Basilan yakal	CR A1cd, B1+2c
	<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, B1+2c
	<i>Hopea quisumbingiana</i> Gutierrez	Quisumbing gisok	CR A1cd, B1+2c

	<i>Hopea samarensis</i> Gutierrez	Samar gisok	CR A1cd, B1+2c
	<i>Shorea astylosa</i> Foxw.	Yakal	CR A1cd
	<i>Shorea malibato</i> Foxw.	Yakal-milibato	CR A1cd
	<i>Vatica elliptica</i> Foxw.	Kaladis narig	CR A1cd
	<i>Vatica pachyphylla</i> Merr.	Thick-leaved Narig	CR A1cd
Dryopteridaceae	<i>Ctenitis paleolata</i> Copel.		CR A1c
Ebenaceae	<i>Diospyros blancoi</i> A DC.	Kamagong / mabolo	CR A1cd
	<i>Diospyros brideliifolia</i> Elmer	Malinoag	CR B1+2ac
	<i>Diospyros cauliflora</i> Blume	Apunan	CR A1cd
	<i>Diospyros poncei</i> Merr.	Ponce kamagong	CR A1cd, B1+2ac
Ericaceae	<i>Rhododendron javanicum</i> (Blume) Benn. var. <i>schadenbergii</i> (Warb.) Sleum.	Malagos	CR A1cd
	<i>Rhododendron kochii</i> Stein	Koch's malagos	CR A1cd
	<i>Rhododendron taxifolium</i> Merr.	Yew-leafed rhododendron	CR A1cd, B1+2bc
Euphorbiaceae	<i>Reutealis trisperma</i> (Blanco) Airy Shaw	Baguilumbang	CR A1c
Hypericaceae	<i>Hypericum pulogense</i> Merr.	Pulag St. Johnswort	CR A1c, B1+2ac
Isoetaceae	<i>Isoetes philippinensis</i> Merr. & Perry	Philippine Quillwort; Rogiro	CR A1c, B1+2bc
Lauraceae	<i>Cinnamomum cebuense</i> Kosterm.	Cebu kalingag	CR A1ac, B1+2cd, C2a
Leguminosae	<i>Pterocarpus indicus</i> Willd. forma <i>indicus</i>	Smooth narra	CR A1cd
	<i>Pterocarpus indicus</i> Willd. forma <i>echinatus</i> (Pers.) Rojo	Prickly narra	CR A1cd
Loranthaceae	<i>Thaumasianthes amplifolia</i> (Merr.) Danser	Samar mistletoe	CR B1+2ac
Meliaceae	<i>Aglaia pyriformis</i> Merr.	Kanining-peneras	CR B1+2ac
	<i>Toona calantas</i> Merr. & Rolfe	Kalantas	CR A1cd
Myrtaceae	<i>Syzygium nitidum</i> Benth.	Makaasim	CR A1cd
	<i>Tristaniopsis decorticata</i> (Merr.) Peter G. Wilson & Waterhouse	Malabayabas	CR A1cd, B2c
	<i>Xanthostemon bracteatus</i> Merr.	Mapilig	CR B1+2ac
	<i>Xanthostemon philippinensis</i> Merr.	Bagoadlau	CR B1+2ac
Nepenthaceae	<i>Nepenthes argentii</i> M. Jebb & M. Cheek	Argent pitcher plant	CR A1cd, B1+2bc
	<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 remotinervius</i> (Merr.) Kiew	Pamoplasin	CR A1c
	<i>Olea palawanensis</i> Kiew	Palawan olive	CR B1+2ac
Orchidaceae	<i>Amesiella monticola</i> J. Cootes & D.P. Banks	-	CR B1+2ac
	<i>Ascoglossum calopterum</i> (Reichb.f.) Schlechter	-	CR B1+2ac
	<i>Ceratocentron fesseli</i> Senghas	-	CR B1+2ac
	<i>Dendrobium schuetzei</i> Rolfe	-	CR A1cd, B2bc
	<i>Euanthe sanderiana</i> (Reichb.f.) Schltr. [= <i>Vanda sanderiana</i> Reichb.f.]	Waling-waling	CR A1cd
	<i>Gastrochilus calceolaris</i> (Buch.-Ham. ex J.E. Sm.) D.Don	-	CR A1cd
	<i>Paphiopedilum acmodontum</i> Schoser ex M.W. Wood	Lady slipper	CR A1cd, B1+2ac
	<i>Paphiopedilum adductum</i> Asher	Lady slipper	CR A1cd, B1+2ac
	<i>Paphiopedilum anitum</i> Golamco	Lady slipper	CR A1cd
	<i>Paphiopedilum argus</i> (Reichb.f.) Stein	Lady slipper	CR A1cd
	<i>Paphiopedilum fowliei</i> Birk	Lady slipper	CR A1cd, B1+2ac
	<i>Paphiopedilum haynaldianum</i> (Reichb.f.) Stein	Lady slipper	CR A1cd
	<i>Paphiopedilum hennisianum</i> (M.W. Wood) Fowlie	Lady slipper	CR A1cd
	<i>Paphiopedilum randsii</i> Fowlie	Lady slipper	CR A1cd
	<i>Paphiopedilum urbanianum</i> Fowlie	Lady slipper	CR A1cd, B1+2ac
	<i>Paphiopedilum usitatum</i> O. Gruss & J. Roeth	Lady slipper	CR A1cd, B1+2ac
	<i>Phalaenopsis micholitzii</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	-	CR A1cd
Peranemaceae	<i>Peranema cyatheoides</i> D. Don var. <i>luzonicum</i> (Copel.) Ching & S.H. Wu	-	CR A1c
Polypodiaceae	<i>Platycerium coronarium</i> (Koenig ex Müller) Desv.	Staghorn fern	CR A1cd

	<i>Platycerium grande</i> (Fee) Kunze	Giant staghorn fern	CR A1cd
Pteridaceae	<i>Podosorus angustatus</i> Holtt.	-	
	<i>Pteris calocarpa</i> (Copel.) M.G. Price	-	CR A1c
	<i>Pteris pachysora</i> (Copel.) M.G. Price	-	CR A1c
	<i>Rafflesia manillana</i> Teschem.	Malaboo	CR A1a, B2ad
Rafflesiaceae	<i>Rafflesia speciosa</i> Barcelona & Fernando	Uruy	CR A1c, B2c
	<i>Rafflesia schadenbergiana</i> Göppert ex Hieron.	Bo-o	CR A1c, B2c
	<i>Greeniopsis pubescens</i> Merr. [= <i>Greeniopsis multiflora</i> (Elmer) Merr.]	Paluay mabolo	CR A1c
Rubiaceae	<i>Villaria acutifolia</i> (Elmer) Merr.	Tango	CR B1+2ac
Rutaceae	<i>Swinglea glutinosa</i> (Blanco) Merr.	Kabuyok	CR A1cd
Sapindaceae	<i>Gongrospermum philippinense</i> Radlk.	Kasau-kasau	CR A1c
	<i>Guioa palawanica</i> Welzen	Palawan alahan	CR A1c
	<i>Guioa parvifoliola</i> Merr.	Angset	CR A1c
	<i>Guioa reticulata</i> Radlk.	Alahan-sinima	CR A1c
Thelypteridaceae	<i>Coryphopteris borealis</i> Holtt.	-	CR A1c
Verbenaceae	<i>Clerodendrum quadriloculare</i> (Blanco) Merr.	Bagauak-morado	CR A1cd
	<i>Tectona philippinensis</i> Benth. & Hook.f.	Philippine teak	CR A1cd, B2bc

Table 7. 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.

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 agamae</i> Merr. [= <i>Schefflera foxworthyi</i> Merr.]	Agama galamay-amo	EN A1c, B2c
	<i>Schefflera albido-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
Arecaceae (Palmae)	<i>Adonidia merrillii</i> (Becc.) Becc.	Manila Palm	EN A1c, B1+2cd
	<i>Areca camarinensis</i> Becc.	Mono	EN A1c, B1+2ac
	<i>Calamus balerensis</i> Fernando	Malatandulang parang	EN A1c, B1+2cd
	<i>Heterospathe 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
Asclepiadaceae	<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
	<i>Hoya greenii</i> Kloppenburg	-	EN A1cd, B1+2c
	<i>Hoya halconensis</i> Kloppenburg	-	EN A1c, B2c
	<i>Hoya heuschkeliana</i> Kloppenburg	-	EN A1cd, B1+2c
	<i>Hoya panchoi</i> Kloppenburg [= <i>Hoya diversifolia</i> Blume]	-	EN A1cd, B1+2c
	<i>Hoya pulgarensis</i> Elmer	-	EN A1cd, B2c
	<i>Hoya quinquinervia</i> Warb.	-	EN A1cd, B2c
	<i>Hoya quisumbingii</i> Kloppenburg	-	EN A1cd, B2c
	<i>Hoya rizaliana</i> Kloppenburg	-	EN A1cd, B2c

	<i>Hoya wayetii</i> Kloppenburg	-	EN A1cd, 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> (J. 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 integra</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
Cycadaceae	<i>Cycas curranii</i> (J. Schust.) K.D. Hill	Curran pitogo	EN A1cd, B2bc
	<i>Cycas edentata</i> de Laubenf.	Pitogong dagat	EN A1cd, B2bc
	<i>Cycas riuminiana</i> Porté ex Regel	Pitogo	EN A1cd, B2bc
	<i>Cycas silvestris</i> 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 euryynchus</i> Miq.	Basilan apitong	EN A1cd+2cd, B1+2bc
	<i>Dipterocarpus philippinensis</i> Foxw.	Hairy-leaved apitong	EN A1cd+2cd, B1+2bc
	<i>Hopea plagata</i> (Blanco) Vidal	Yakal saplungan	EN A1cd, B1+2bc
	<i>Shorea ovata</i> Dyer ex Brandis	Tiaong	EN A1cd, B1+2bc
Dryopteridaceae	<i>Dryopteris chrysocoma</i> (Christ) Chr.	-	EN A1c
Ebenaceae	<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 pyrrhocarpa</i> Miq.	Anang	EN A1cd,

			B1+2ac
Ericaceae	<i>Rhododendron subsessile</i> Rendle	Ausip	EN A1cd, B2c
Fabroniaceae	<i>Merrilliobryum fabronioides</i> Broth.	-	EN B1+2cd
Gesneriaceae	<i>Agalmyla bilirana</i> Hilliard & B.L. Burtt	Biliran lipstick plant	EN A1c, B2c
Lauraceae	<i>Cinnamomum oroi</i> Quisumb. <i>Cryptocarya palawanensis</i> Merr. <i>Litsea leytenensis</i> Merr.	Oro kalingag Paren Batikuling	EN A1c, B1+2c EN A1c, B2c EN A1cd, B2c
Leguminosae	<i>Afzelia rhomboidea</i> (Blanco) Vidal <i>Intsia bijuga</i> (Colebr.) Kuntze <i>Kingiodendron alternifolium</i> (Elmer) Merr. & Rolfe <i>Koompassia excelsa</i> (Becc.) Taub. <i>Sindora supra</i> Merr. <i>Strongylodon macrobotrys</i> A. Gray	Tindalo Ipil Batete Manggis Supa Jade Vine / Tayabak Kamatog	EN A1cd, B2c EN A1cd, B2c
Lejeuneaceae	<i>Drepanolejeunea bakeri</i> Herzog	-	EN B1+2cd
Lycopodiaceae	<i>Lycopodium halconense</i> Copel. [= <i>Lateristachys halconensis</i> (Copel.) Holub] <i>Lycopodium magnusianum</i> Herter [= <i>Huperzia magnusiana</i> (Herter) Holub] <i>Lycopodium phlegmaria</i> L. [= <i>Huperzia phlegmaria</i> (L.) Rothm.] <i>Lycopodium salvinioides</i> (Herter) Tagawa [= <i>Huperzia salvinioides</i> (Herter) Holub] <i>Lycopodium squarrosum</i> G. Forst. [= <i>Huperzia squarrosa</i> (G. Forst.) Trevis.]	-	EN A1c EN A1c EN A1c EN A1c
Melastomataceae	<i>Astrocalyx calycina</i> (Vidal) Merr. <i>Beccarianthus ickisii</i> Merr. <i>Beccarianthus pulcherrimus</i> (Merr.) Maxw. <i>Medinilla banahaensis</i> Elmer <i>Medinilla calelanensis</i> Elmer <i>Medinilla clementis</i> Merr. <i>Medinilla compressicaulis</i> Merr. <i>Medinilla coronata</i> Regalado	Tanghau Ickis tungau Malintungau Kalambog- lambog Tiualos tatana Gubangbang Salanakad Pagirang	EN B2ac EN B2ac EN B2ac EN A1cd, B2ac EN A1cd, B2ac EN A1cd, B2ac EN A1cd, B2ac

	<i>Medinilla magnifica</i> Lindl.	Kapa-kapa	EN A1cd, B2ac
	<i>Medinilla palawanensis</i> Regalado	Palawan medinilla	EN A1cd, B2ac
	<i>Medinilla pendula</i> Merr.	Baladu	EN A1cd, B2ac
	<i>Medinilla stenobotrys</i> Merr.	Lalanug	EN A1cd, B2ac
	<i>Medinilla surigaoensis</i> Regalado	Eastern Mindanao medinilla	EN A1cd, B2ac
	<i>Medinilla tayabensis</i> Merr.	Mt. Binuang medinilla	EN A1cd, B2ac
Meliaceae	<i>Walsura monophylla</i> Merr.	Bukalau	EN A1c, B2ac
Myristicaceae	<i>Knema ridsdaleana</i> de Wilde	Ridsdale tambalau	EN A1c, B1+2c
Myrtaceae	<i>Myristica colinridsdalei</i> de Wilde	Ridsdale duguan	EN A1c, B2c
	<i>Tristaniopsis littoralis</i> (Merr.) Peter G. Wilson & Waterhouse	Taba	EN A1c, B2ac
	<i>Xanthostemon fruticosus</i> Peter G. Wilson & Co	Sierra Madre mangkono	EN A1c, B2c
	<i>Xanthostemon speciosus</i> Merr.	Palawan mangkono	EN A1cd, B2c
	<i>Xanthostemon verdugonianus</i> Naves	Mangkono	EN A1cd, B2c
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	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 lawrenceae</i> Reichb.f.	-	EN A1cd, B2c
	<i>Amesiella philippinensis</i> (Ames) Garay	-	EN A1cd, B2c
	<i>Bulbophyllum stramineum</i> Ames [= <i>Bulbophyllum cumingii</i> (Lindl.) Reichb.f.]	-	EN A1cd, B2c
	<i>Bulbophyllum whitfordii</i> Rolfe	-	EN A1cd

<i>Coelogyné palawanensis</i> Ames	-	EN A1cd, B1+2c
<i>Corybas laceratus</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>Cymbidium aliciae</i> Quisumb.	-	EN A1c, B2c
<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> (Reichb.f.) Stein	-	EN A1cd
<i>Phalaenopsis fasciata</i> Reichb.f.	-	EN A1cd
<i>Phalaenopsis gertrudeae</i> Quisumb. [= <i>Phalaenopsis × veitchiana</i> Reichb.f.]	-	EN A1cd
<i>Phalaenopsis hieroglyphica</i> (Reichb.f.) H.R. Sweet	-	EN A1cd
<i>Phalaenopsis × intermedia</i> Lindl.	-	EN A1cd
<i>Phalaenopsis × leucorrhoda</i> Reichb.f.	-	EN A1cd
<i>Phalaenopsis lindenii</i> Loher	-	EN A1cd, B2c
<i>Phalaenopsis lueddemanniana</i> Reichb.f.	-	EN A1cd, B2c
<i>Phalaenopsis pallens</i> (Lindl.) Reichb.f.	-	EN A1cd, B2c
<i>Phalaenopsis × porteri</i> Reichb.f.	-	EN A1cd
<i>Phalaenopsis pulchra</i> (Reichb.f.) H.R. Sweet	-	EN A1cd, B2c
<i>Phalaenopsis reichenbachiana</i> Reichb.f. & Sander	-	EN A1cd
<i>Phalaenopsis sanderiana</i> Reichb.f.	-	EN A1cd, B2c
<i>Phalaenopsis schilleriana</i> Reichb.f.	-	EN A1cd, B2c
<i>Phalaenopsis stuartiana</i> Reichb.f.	-	EN A1cd, B2c
<i>Phalaenopsis × veitchiana</i> Reichb.f.	-	EN A1cd
<i>Phalaenopsis × virataii</i> Quisumb.	-	EN A1cd
<i>Vanda javierae</i> D. Tiu ex Fessel & Lückel	-	EN A1cd, B1+2c
<i>Vanda scandens</i> Holttum	-	EN A1cd
<i>Vanda luzonica</i> Loher ex Rolfe	-	EN A1cd, B2c
<i>Vanda merrillii</i> Ames & Quisumb.	-	EN A1cd, B2c
<i>Vandopsis davisii</i> Ames & Quisumb. [= <i>Staurochilus</i> <i>loherianus</i> (Kraenzl.) Karas.]	-	EN A1cd, B2c
<i>Vandopsis kupperiana</i> Kraenzl. [= <i>Staurochilus luzonensis</i>	-	EN A1cd, B2c

	(Ames) Ames]		
	<i>Vandopsis leyensis</i> Ames [= <i>Staurochilus fasciatus</i> (Reichb.f.) Ridl.]	-	EN A1cd
Poaceae (Gramineae)	<i>Danthonia oreoboloides</i> (F. Muell.) Stapf	Pulag carpet grass	EN B2bc
Podocarpaceae	<i>Podocarpus costalis</i> C. Presl <i>Podocarpus lophatus</i> de Laubenf. <i>Podocarpus palawanensis</i> de Laubenf. & Silba [= <i>Podocarpus rumphii</i> Blume]	Igem-dagat Igem-pugot Palawan igem	EN A1cd, B2bc EN A1c, B1+2bc EN A1c, B2bc
Polypodiaceae	<i>Podocarpus rotundus</i> de Laubenf. <i>Lecanopteris deparioides</i> (Cesati) Baker <i>Lecanopteris lomariooides</i> (Kunze) Copel.	Igem-bilogan Mahabac	EN A1c, B1+2bc EN A1c, B2c
Pteridaceae	<i>Lecanopteris luzonensis</i> Hennip.	Ant fern	EN A1c, B2c
Rosaceae	<i>Pteris endoneura</i> M.G. Price	-	EN A1c, B2c
Rubiaceae	<i>Prunus pulgarensis</i> (Elmer) Kalkm. <i>Prunus rubiginosa</i> (Elmer) Kalkm.	gupit Bakad pula	EN A1c, B1+2c EN A1c, B2c
Sapindaceae	<i>Boholia nemastostylis</i> Merr. <i>Mussaenda philippinensis</i> Merr. <i>Cubilia cubili</i> (Blanco) Adelb. <i>Dimocarpus longan</i> Lour. ssp. <i>malesianus</i> Leenh. var. <i>malesianus</i> <i>Dimocarpus longan</i> Lour. ssp. <i>malesianus</i> Leenh. var. <i>echinatus</i> Leenh.	- - Kubili Alupag lalaki	EN A1c, B1+2c EN A1cd, B2c EN A1c, B2c EN A1c, B2c
	<i>Gloeocarpus patentivalvis</i> (Radlk.) Radlk.	Alupag amo	EN A1c, B2c
	<i>Guioa acuminata</i> Radlk. <i>Guioa discolor</i> Radlk. <i>Guioa myriadenia</i> Radlk. <i>Guioa truncata</i> Radlk.	Pasi Alahan-puti Ulas Uyos	EN A1c, B2c EN A1c, B2c EN A1c, B2c EN A1c, B2c
	<i>Litchi chinensis</i> Sonn. ssp. <i>philippinensis</i> (Radlk.) Leenh.	Alupag	EN A1cd, B2c
Sapotaceae	<i>Ganua monticola</i> (Merr.) H.J. Lam <i>Ganua obovatifolia</i> (Merr.) Assem <i>Madhuca betis</i> (Blanco) McBride <i>Madhuca oblongifolia</i> (Merr.) Merr.	Betis-bundok Pianga Betis Malabetis	EN A1c, B2c EN A1c, B2c EN A1cd, B2bc EN A1cd, B2bc
Selaginellaceae	<i>Selaginella atimonanensis</i> B.C. Tan & Jermy <i>Selaginella pricei</i> B.C. Tan & Jermy	-	EN A1c, B2bc 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.) Holtt.	-	EN A1c, B2c
	<i>Tectaridium macleanii</i> Copel.	-	EN A1c, B2c
Thelypteridaceae	<i>Chingia urens</i> Holtt.	-	EN A1c, B2c
Verbenaceae	<i>Vitex parviflora</i> Juss.	Molave	EN A1cd, B2bc
Woodsiaceae	<i>Diplazium egenolfioides</i> M.G. Price	-	EN A1c, B2c
Zingiberaceae	<i>Hedychium philippinense</i> K. Schum.	Dainsuli	EN A1cd, B2c

Table 8. 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.

Family	Scientific name	Common name	Category & Criteria
Actinidiaceae	<i>Saurauia bontocensis</i> Merr.	Dagwey	VU A1cd, B2c
Adiantaceae	<i>Adiantum cupreum</i> Copel.	Copperry 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.	-	VU A1c, B2c
Alangiaceae	<i>Alangium longiflorum</i> Merr.	Malatapay	VU A1c
Anacardiaceae	<i>Dracontomelon dao</i> (Blanco) Merr. & Rolfe	Dao	VU A1cd
	<i>Dracontomelon edule</i> (Blanco) Skeels	Lamio	VU A1cd
	<i>Koordersiodendron pinnatum</i> (Blanco) Merr.	Amugis	VU A1cd
	<i>Mangifera altissima</i> Blanco	Pahutan	VU A1cd
	<i>Mangifera merrillii</i> Mukherji	Pahong-liitan	VU A1c, B2c
	<i>Mangifera monandra</i> Merr.	Malapaho	VU A1c, B2c
	<i>Semecarpus paucinervius</i> Merr.	Ligas-ilanan	VU A1c, B2c
	<i>Dasymaschalon scandens</i> Elmer	Kalabuyo	VU A1c, B1+2c
	<i>Mitrephora caudata</i> Merr.	Lanutan-buntolan	VU A1c, B1+2c
Annonaceae	<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> (Ridley)	Tabingalang	VU A1c, B1+2c
	Leonardía & Kessler		
	<i>Orophea cumingiana</i> Vidal	Mapatak	VU A1c, B2c
	<i>Polyalthia elmeri</i> Merr.	Bangar	VU A1c, B1+2c
	<i>Polyalthia palawanensis</i> Merr.	Palawan-lanutan	VU A1c, B1+2c
	<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-manok	VU A1c, B1+2c
Aquifoliaceae	<i>Ilex palawanica</i> Loesen. ex Elmer	Palawan kalasan	VU A1c, B1+2c
	<i>Alocasia micholitziana</i> Sander	Micholitz alocasia	VU A1cd, B1+2c
Araceae	<i>Alocasia zebrina</i> Schott ex van Houtte	Badiang	VU A1cd, B2c
	<i>Arthrophyllum pulgarense</i> Elmer	Higin	VU A1c, B1+2c

Araucariaceae	<i>Agathis celebica</i> (Koord.) Ward	Palawan almaciga	VU A1cd, B2c
	<i>Agathis philippinensis</i> Warb.	Almaciga	VU A1cd, B2c
Areceae (Palmae)	<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
Asclepiadaceae	<i>Hoya paziae</i> Kloppenburg	-	VU A1cd, B2c
	<i>Quisumbalingia 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>Radermachera 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
Combretaceae	<i>Terminalia macrantha</i> Merr. & Quisumb. ex Rojo	Bongoran	VU A1c, B1+B2c
	<i>Terminalia surigaensis</i> Merr.	Dalinsoi	VU A1c, B2c
Cyatheaceae	<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
	<i>Cyathea rufopannosa</i> Christ	Tree Fern	VU A1cd
	<i>Cyathea setulosa</i> Copel.	Tree Fern	VU A1cd
	<i>Cyathea sibuyanensis</i> Copel.	Tree Fern	VU A1cd
	<i>Cyathea zamboangana</i> Copel.	Tree Fern	VU A1cd
	<i>Dicksonia mollis</i> Holtt.	Tree Fern	VU A1cd
Dilleniaceae	<i>Dillenia reifferscheidia</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	Hasselt's panaw	VU A1cd+2cd
	<i>Dipterocarpus kunstleri</i> King	Broad-leaved apitong	VU A1cd+2cd
	<i>Shorea almon</i> Foxw.	Almon	VU A1cd
	<i>Shorea contorta</i> Vidal	White lauan	VU A1cd
	<i>Shorea falciferoidea</i> Foxw. ssp. <i>falciferoidea</i>	Yakal-yamban	VU A1cd
	<i>Shorea negrosensis</i> Foxw.	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	Bakat gubat	VU A1cd
	<i>Securinega flexuosa</i> Muell.-Arg.	Anislag	VU A1c
Fagaceae	<i>Lithocarpus apoensis</i> (Elmer) Rehd.	Apo oak	VU A1c
	<i>Lithocarpus jordanae</i> (Laguna) Rehd.	Katiluk	VU A1c
Gesneriaceae	<i>Aeschynanthus cuernosensis</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 madulidii</i> Mendum	Madulid's lipstick plant	VU A1cd, B1+2c
	<i>Aeschynanthus miniaceus</i> B.L. Burtt & P.J.B. Woods	Pamingkauan	VU A1cd, B1+2c
	<i>Aeschynanthus nervosus</i> Schltr.	Chila	VU A1cd, B2c
	<i>Aeschynanthus ovatus</i> Schltr.	Round-leaved 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>Agalmyla biflora</i> (Elmer) Hilliard & B.L. Burtt.	Twin-flowered lipstick plant	VU A1cd, B2c
	<i>Agalmyla calelanensis</i> (Elmer) Hilliard & B.L. Burtt	Tasik-sa-lomot	VU A1cd
	<i>Agalmyla glabra</i> (Merr.) Hilliard & B.L. Burtt	Smooth lipstick plant	VU A1cd
	<i>Agalmyla montistomasi</i> Hilliard & B.L. Burtt	Benguet lipstick plant	VU A1cd, B1+2c

	<i>Agalmyla parviflora</i> Hilliard & B.L. Burtt	Leyte lipstick plant	VU A1cd, B1+2c
	<i>Agalmyla persimilis</i> Hilliard & B.L. Burtt	Agusan lipstick plant	VU A1cd
	<i>Agalmyla rotundiloba</i> Hilliard & B.L. Burtt	Round-lobed lipstick plant	VU A1cd, B1+2c
	<i>Agalmyla samarica</i> Hilliard & B.L. Burtt	Samar lipstick plant	VU A1cd
	<i>Agalmyla sibuyanensis</i> Hilliard & B.L. Burtt	Sibuyan lipstick plant	VU A1cd, B1+2c
	<i>Agalmyla urdanetensis</i> (Elmer) Hilliard & B.L. Burtt	Balibadon	VU A1cd
Guttiferae	<i>Calophyllum laticostatum</i> P.F. Stevens	Thick-veined bitanghol	VU A1c
Hammamelidaceae	<i>Embolanthera spicata</i> Merr.	Paningit	VU A1c, B1+2c
Lauraceae	<i>Cinnamomum mercadoi</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	Makapilit	VU A1c
	<i>Sindora inermis</i> Merr.	Kayugalo	VU A1cd
	<i>Strongylodon elmeri</i> Merr.	Bindanugan	VU A1cd
Lycopodiaceae	<i>Lycopodium carinatum</i> Desv.		VU A1c
Melastomataceae	<i>Medinilla dolichophylla</i> Merr.	Gunang	VU A1cd
Meliaceae	<i>Aglaia angustifolia</i> Miq.	Kaniuing kitid	VU A1c
	<i>Aglaia cumingiana</i> Turcz.	Alauihau	VU A1c
	<i>Aglaia edulis</i> (Roxb.) Wall	Malasaging	VU A1cd
	<i>Aglaia rimosa</i> (Blanco) Merr.	Balubar	VU A1c
	<i>Aglaia smithii</i> Koord.	Batukanag	VU A1c
	<i>Aglaia tenuicaulis</i> Hiern	Oksa	VU A1c
	<i>Aphanamixis polystachya</i> (Wall.) R.N. Parker	Kangko	VU A1c
	<i>Dyxosylum angustifoliolum</i> (Merr.) Harms [= <i>Dysoxylum cauliflorum</i> Hiern]	Tarublang	VU A1c
	<i>Dyxosylum 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 sarensis</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
Orchidaceae	<i>Aerides leeana</i> Reichb.f.	-	VU A1cd
	<i>Dendrobium sanderae</i> Rolfe	-	VU A1cd
	<i>Epigeneium treacherianum</i> Reichb.f. ex Hook.f.) Summerh.		VU A1cd

Sapotaceae	<i>Palaquium luzoniense</i> (Fernandez-Villar) Vidal <i>Palaquium mindanaense</i> Merr. <i>Palaquium philippense</i> (Perr.) C. Robinson <i>Pouteria villamilii</i> (Merr.) Baehni	Red nato / nato Pinulog Malak-malak Villamil nato / White nato	VU A1cd VU A1cd VU A1cd VU A1cd
Selaginellaceae	<i>Selaginella magnifica</i> Warb. <i>Selaginella tamariscina</i> (Beauv.) Spring	- -	VU A1c VU A1c
Tectariaceae	<i>Tectaria stalactica</i> M.G. Price	-	VU A1c
Thelypteridaceae	<i>Chingia paucipaleata</i> Holtt. <i>Chingia pricei</i> Holtt. <i>Christella subdentata</i> Holtt. <i>Coryphopteris squamipes</i> (Copel.) Holtt. <i>Cyclogramma auriculata</i> (J. Sm.) Ching	- - - - -	VU A1c VU A1c VU A1c VU A1c VU A1c
Verbenaceae	<i>Clerodendrum macrocalyx</i> H.J. Lam	-	VU A1c
Woodsiaceae	<i>Clerodendrum mindorense</i> Merr. <i>Cornopteris irigaense</i> (Copel.) M.G. Price <i>Diplazium costulisorum</i> C. Presl <i>Diplazium cultratum</i> C. Presl <i>Diplazium propinquum</i> (Copel.) Alderw. <i>Gymnocarpium oyamense</i> (Baker) Ching	Bagab - - - - -	VU A1c VU A1c VU A1c VU A1c VU A1c VU A1c
Zingiberaceae	<i>Adelmeria paradoxa</i> (Ridley) Merr. <i>Leptosolenhaenkei</i> C. Presl	Parapat Banai	VU A1cd VU A1cd

Table 9. 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).

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.	Aniam	OTS LR/nt
	<i>Antidesma subolivaceum</i> Elmer	Aniam-Gubat	OTS LR/nt
	<i>Drypetes palawanensis</i> Pax & Hoffm.	Tombong-uak	OTS LR/nt
Fagaceae	<i>Macaranga congestiflora</i> Merr.	Amublit	OTS LR/nt
	<i>Lithocarpus luzoniensis</i> (Merr.) Rehd.	Kilog	OTS LR/nt
Flacourtiaceae	<i>Lithocarpus ovalis</i> (Blanco) Rehd.	Mangasiriki	OTS LR/nt
	<i>Hydnocarpus alcalae</i> C. DC.	Dudua	OTS LR/nt
Gesneriaceae	<i>Xylosma palawanense</i> Mendoza	Mansalay	OTS LR/nt
	<i>Monophyllaea longipes</i> Kraenzl.	North luzon one-leaved plant	OTS LR/nt
Labiatae	<i>Monophyllaea merrilliana</i> Kraenzl.	Sabongaiahon	OTS LR/nt
	<i>Plectranthus apoensis</i> (Elmer) H. Keng	Kalalapo-bulan	OTS LR/nt
Lauraceae	<i>Plectranthus merrillii</i> H. Keng	Bungbungtit	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
	<i>Persea philippinensis</i> (Merr.) Elmer	Kulilisiau	OTS LR/nt
Leguminosae	<i>Adenanthera intermedia</i> Merr.	Tanglin	OTS LR/nt
	<i>Entada rheedii</i> Sprengel	Gugo	OTS LR/nt
	<i>Luzonia purpurea</i> Elmer	Baloktot	OTS LR/nt
	<i>Parkia habesonii</i> Elmer [= <i>Parkia speciosa</i> Hassk.]	Butad	OTS LR/nt

Lomariopsidacea e	<i>Lomagramma pedicellata</i> Copel.	-	OTS LR/nt
Meliaceae	<i>Aglaia aheniana</i> Perkins <i>Aglaia costata</i> Elmer ex Merr. <i>Sandoricum vidalii</i> Merr.	Alamag Manabioig Malasantol	OTS LR/nt OTS LR/nt OTS LR/nt
Myristicaceae	<i>Knema alvarezii</i> Merr. <i>Knema stenocarpa</i> Warb. <i>Myristica basilanica</i> de Wilde <i>Myristica frugifera</i> de Wilde <i>Myristica longipetiolata</i> de Wilde <i>Myristica philippensis</i> Lamk. <i>Myristica pilosigemma</i> de Wilde	Duhao Libago Basilan duguan - - Duguan -	OTS LR/nt OTS LR/nt OTS LR/nt OTS LR/nt OTS LR/nt OTS LR/nt OTS LR/nt
Myrsinaceae	<i>Ardisia romanii</i> Elmer	Roman tagpo	OTS LR/nt
Myrtaceae	<i>Kania microphylla</i> (Quisumb. & Merr.) Peter G. Wilson <i>Kania urdanetensis</i> (Elmer) Peter G. Wilson <i>Metrosideros halconensis</i> (Merr.) Dawson <i>Syzygium cagayanense</i> (Merr.) Merr. <i>Syzygium ciliato-setosum</i> (Merr.) Merr. <i>Syzygium densinervium</i> (Merr.) Merr. <i>Syzygium panduriforme</i> (Elmer) Merr. <i>Syzygium subrotundifolium</i> (C. Robinson) Merr.	Tigang-liitan Sambulanan Magadhan Amtuk Lakangan Salakadan Lauig-lauigan Kalogkog-dagat	OTS LR/nt OTS LR/nt OTS LR/nt OTS LR/nt OTS LR/nt OTS LR/nt OTS LR/nt OTS LR/nt
Pandanaceae	<i>Pandanus basilocularis</i> Martelli	Olango	OTS LR/nt
Polypodiaceae	<i>Arthromeris proteus</i> (Copel.) Tagawa <i>Christopteris sagitta</i> (Christ) Copel.	-	OTS LR/nt
Rhamnaceae	<i>Ziziphus hutchinsonii</i> Merr. <i>Ziziphus talanai</i> (Blanco) Merr.	Lumuluas Balakat	OTS LR/nt OTS LR/nt
Rosaceae	<i>Prunus subglabra</i> (Merr.) Kalkm. <i>Rosa luciae</i> Franch. & Rochbr. ex Crepin <i>Rosa transmorrisonensis</i> Hayata <i>Rubus heterosepalus</i> Merr.	Kanumog Kuyaob Pauikan Tukong	OTS LR/nt OTS LR/nt OTS LR/nt OTS LR/nt
Sapindaceae	<i>Guioa bicolor</i> Merr.	Kaninging	OTS LR/nt
Symplocaceae	<i>Symplocos polyandra</i> (Blanco) Brand.	Balakbakan	OTS LR/nt
Tectariaceae	<i>Tectaria adenophora</i> Copel.	-	OTS LR/nt
Urticaceae	<i>Astrothalamus reticulatus</i> (Wedd.)	Lapnai	OTS LR/nt

	C. Robinson		
Woodsiaceae	<i>Diplazium calliphylum</i> (Copel.)	-	OTS LR/nt
	M.G. Price		
	<i>Diplazium macrosorum</i> (Copel.)	-	OTS LR/nt
	M.G. Price		
	<i>Diplazium sibuyanense</i> (Copel.)	-	OTS LR/nt
	Alderw.		
	<i>Diplazium vestitum</i> C. Presl	-	OTS LR/nt
Zingiberaceae	<i>Vanoverberghia sepulchrei</i> Merr.	Agbab	OTS LR/nt

Table 10. 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).

Family	Scientific name	Common name	Category & Criteria
Arecaceae (Palmae)	<i>Areca whitfordii</i> Becc.	Bungang gubat	OWS LR/lc
Aspleniaceae	<i>Asplenium mantalingahanum</i> P.M. Zamora & Co		OWS LR/lc
Asteraceae (Compositae)	<i>Merrittia benguetensis</i> (Elmer) Merr.	Agakob	OWS LR/lc
Begoniaceae	<i>Begonia alba</i> Merr.	-	OWS LR/lc
	<i>Begonia angilogensis</i> Merr.	-	OWS LR/lc
	<i>Begonia casiguranensis</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 elatostematoidea</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
	<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
Cornaceae	<i>Mastixia macrocarpa</i> 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
	<i>Polystichum elmeri</i> Copel.	-	OWS LR/lc
	<i>Polystichum fuscum</i> Copel.	-	OWS LR/lc
	<i>Polystichum nudum</i> Copel.	-	OWS LR/lc
	<i>Psomiocarpa apiifolia</i> C. Presl	-	OWS LR/lc
Euphorbiaceae	<i>Aporosa elliptifolia</i> Merr.	Apnong-tilos	OWS LR/lc
	<i>Baccaurea odoratissima</i> Elmer	Dilak-banguhan	OWS LR/lc
	<i>Macaranga caudatifolia</i> Elmer	Daha	OWS LR/lc
Fagaceae	<i>Castanopsis philipensis</i> (Blanco) Vidal	Philippine chestnut	OWS LR/lc
	<i>Quercus merrillii</i> Seem.	Pungo-pungo	OWS LR/lc
Flacourtiaceae	<i>Flacourtia rukam</i> Zoll. & Mor.	Bitongol	OWS LR/lc
Grammitidaceae	<i>Acrosorus nudicarpus</i> P.M. Zamora & Co	-	OWS LR/lc
	<i>Calymmodon ordinatus</i> Copel.	-	OWS LR/lc
	<i>Ctenopteris halconensis</i> (Copel.) Copel.	-	OWS LR/lc
	<i>Ctenopteris matutumensis</i> Copel.	-	OWS LR/lc
	<i>Ctenopteris negrosensis</i> (Copel.) Copel.	-	OWS LR/lc
	<i>Ctenopteris pachycaula</i> (Copel.) Copel.	-	OWS LR/lc
	<i>Ctenopteris spongiosa</i> (Copel.) Copel.	-	OWS LR/lc
	<i>Grammitis bulbotricha</i> (Copel.) Copel.	-	OWS LR/lc
	<i>Grammitis loheriana</i> (Christ) Copel.	-	OWS LR/lc
	<i>Grammitis microtricha</i> Copel.	-	OWS LR/lc

	<i>Prosaptia 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 reductum</i> Copel.	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.	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> Holtt.	-	OWS LR/lc
	<i>Elaphoglossum basilanicum</i> Copel.	-	OWS LR/lc
	<i>Elaphoglossum calanasanicum</i> Holtt.	-	OWS LR/lc
	<i>Elaphoglossum negrosensis</i> Holtt.	-	OWS LR/lc
Matoniaceae	<i>Logramma cordata</i> Copel.	-	OWS LR/lc
Meliaceae	<i>Matonia foxworthyi</i> Copel.	-	OWS LR/lc
	<i>Aglaia grandis</i> Korth. ex Miq.	Barongisan	OWS LR/lc
	<i>Aglaia korthalsii</i> Miq.	Korthal gisihan	OWS LR/lc
	<i>Aglaia lancilimba</i> Merr.	Tapuyi	OWS LR/lc
	<i>Aglaia leptantha</i> Merr.	Gisihan	OWS LR/lc
	<i>Aglaia leucophylla</i> King	Bubunau	OWS LR/lc
	<i>Aglaia luzoniensis</i> (Vidal) Merr. & Rolfe	Kuling-manuk	OWS LR/lc
	<i>Aglaia malaccensis</i> (Ridley) Pannell	Malacca kato	OWS LR/lc
	<i>Aglaia oligophylla</i> Miq.	Ansa	OWS LR/lc
	<i>Aglaia pachyphylla</i> Miq.	Tukang-kalau	OWS LR/lc
	<i>Aglaia palembanica</i> Miq.	Gasatin	OWS LR/lc
	<i>Aglaia rubiginosa</i> (Hiern) Pannell	-	OWS LR/lc
	<i>Aglaia sexipetala</i> Griff.	Basinau	OWS LR/lc
	<i>Aglaia squamulosa</i> King	Bugalbal-pula	OWS LR/lc
	<i>Aglaia silvestris</i> (M. Roemer) Merr.	Salamingal	OWS LR/lc
Oleandraceae	<i>Aglaia teysmanniana</i> (Miq.) Pannell	Teysmann kato	OWS LR/lc
Pandanaceae	<i>Oleandra benguetensis</i> Copel.	-	OWS LR/lc
	<i>Freycinetia sumatrana</i> Hemsl.	-	OWS LR/lc

Peranemaceae	<i>Didymochlaena truncatula</i> (Sw.) J. Sm.	-	OWS LR/lc
Poaceae (Gramineae)	<i>Aristida holathera</i> Domin	-	OWS LR/lc
	<i>Cephalostachyum mindorense</i> Gamble	Bakto	OWS LR/lc
	<i>Chionachne biaurita</i> Hackel	-	OWS LR/lc
Polypodiaceae	<i>Microsorum membranifolium</i> (R. Br.) Ching	-	OWS LR/lc
Pteridaceae	<i>Pteris brevis</i> Copel.	-	OWS LR/lc
	<i>Pteris dataensis</i> Copel.	-	OWS LR/lc
	<i>Pteris distans</i> J. Smith	-	OWS LR/lc
	<i>Pteris edanoi</i> Copel.	-	OWS LR/lc
	<i>Pteris elmeri</i> Christ	-	OWS LR/lc
	<i>Pteris loheri</i> Copel.	-	OWS LR/lc
	<i>Pteris macgregori</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.	Pangaliman	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.) Ridsd.	Kalinigi	OWS LR/lc
Selaginellaceae	<i>Selaginella apoensis</i> Hieron.	-	OWS LR/lc
Tectariaceae	<i>Aenigmopteris mindanaensis</i> Holtt.	-	OWS LR/lc
	<i>Tectaria lobbii</i> (Hook.) Copel.	-	OWS LR/lc
Thelypteridaceae	<i>Nannothelypteris aoristisora</i> (Harr.) Holtt.	-	OWS LR/lc
	<i>Nannothelypteris camarinensis</i> Holtt.	-	OWS LR/lc
	<i>Nannothelypteris inaequilobata</i> Holtt.	-	OWS LR/lc
	<i>Nannothelypteris nervosa</i> (Fée) Holtt.	-	OWS LR/lc
	<i>Nannothelypteris philippina</i> (C. Presl) Elmer	-	OWS LR/lc
	<i>Pronephrium bulusanicum</i> (Holtt.) Holtt.	-	OWS LR/lc
	<i>Pronephrium clemensiae</i> (Copel.) Holtt.	-	OWS LR/lc

	<i>Pronephrium diminutus</i> (Copel.) Holtt.	-	OWS LR/lc
	<i>Pronephrium hosei</i> (Baker) Holtt.	-	OWS LR/lc
	<i>Pronephrium solsonicum</i> Holtt.	-	OWS LR/lc
	<i>Sphaerostephanos angustifolius</i> (C. Presl) Holtt.	-	OWS LR/lc
	<i>Sphaerostephanos cartilagidens</i> P.M. Zamora & Co	-	OWS LR/lc
	<i>Sphaerostephanos dichrotrichoides</i> (Alderw.) Holtt.	-	OWS LR/lc
	<i>Sphaerostephanos fenixii</i> Holtt.	-	OWS LR/lc
	<i>Sphaerostephanos hernaezii</i> Holtt.	-	OWS LR/lc
	<i>Sphaerostephanos magnus</i> (Copel.) Holtt.	-	OWS LR/lc
	<i>Sphaerostephanos major</i> (Copel.) Holtt.	-	OWS LR/lc
	<i>Sphaerostephanos mindorensis</i> Holtt.	-	OWS LR/lc
	<i>Sphaerostephanos polisianus</i> Holtt.	-	OWS LR/lc
	<i>Sphaerostephanos spenceri</i> (Christ) Holtt.	-	OWS LR/lc
	<i>Sphaerostephanos stenodontus</i> (Copel.) Holtt.	-	OWS LR/lc
	<i>Sphaerostephanos tephrophyllus</i> (Copel.) Holtt.	-	OWS LR/lc
	<i>Sphaerostephanos williamsii</i> (Copel.) Holtt.	-	OWS LR/lc
Thymelaeaceae	<i>Aquilaria cumingiana</i> (Decne.) Ridley	Butlo	OWS LR/lc
Vittariaceae	<i>Aquilaria malaccensis</i> Lamk.	Agar wood	OWS LR/lc
	<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 taeniophylla</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

CAPTIONS TO FIGURES

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**, *Platycerium 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 Laubenf., Endangered (EN); **I**, *Xanthostemon speciosus* Merr. **A-B** and **D-I** photos by Edwino S. Fernando; **C**, photo by Leonardo L. Co.

Figure 2. Threatened plants of the Philippines. **A**, *Afzelia 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.

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**, *Tapeinidium 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.





