DENR Recommends

Volume 12

FOOD FROM THE WILDERNESS

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November 2003
Foreword

The Philippines has a rich reserve of wild and semi-wild food plants most of which could be found in the forest or in grassland ecosystems. Many indigenous groups as well as a number of upland people often depend on these wildfood plants for their subsistence.

Food-bearing plants offer great potential in augmenting scarce food supply, particularly in remote and upland communities where these plant species abound. They could also provide additional source of income to many upland and forest dwellers.

Certain wildfood plants can be eaten raw; some need cooking. Still, other species can be processed as delicacies, or made into preserves that could be stocked for future need. The cultivation of wildfood plants as alternative agricultural crops can help enhance the lives of many Filipinos.

**DENR Recommends No. 12 – “Food from the Wilderness”** is a compilation of known wildfood plants in the Philippines. Specifically, this DENR Recommends series lists 29 species of plants growing in the wilds. These wildfood plants could serve as alternative food source. The compiler indicated valuable information about each species such as its scientific name, family name, common name, description, distribution and propagation. The compiler, more importantly, specified how each species is used as food. Photographs are supplied to facilitate the readers’ identification or recognition of specific wildfood plants.

Readers can enhance their awareness and knowledge of the wildfood plants that could supplement their usual diet and income, and which might readily be available in their localities.

The list of species presented herein is not at all exhaustive. Nonetheless, this particular DENR Recommends can serve as a valuable reference for other researchers to conduct further and more in-depth studies as to the nutritive values of wildfood plants indicated in this series.

ELSO P. DIAZ
Director
**ALIBANGBANG**  
*Bauhinia malabarica* Roxb.  
Leguminosae

**Description:**  
Alibangbang is 5-10 m tall with widely spreading branches. The leaves are 4-10 cm long, 4-10 cm wide, cut from the tip into a pair of similar lobes which are joined halfway to the base. The flower clusters (corymb) are formed at the tip of the branches, or just above the attachment of the solitary leaves. The showy and slightly fragrant flowers are long-stalked with fine pink to purple petals. The fruit is flat, 20-30 cm long, 2-5 cm wide and splits lengthwise at maturity to release seeds.

**Distribution:**  
Alibangbang is found in open grazing lands throughout the Philippines.

**Propagation:**  
This is propagated by seeds, cuttings, or by marcotting. Propagation by seeds is either direct seeding, or raised at the nursery readied for outplanting in the field.

**Uses**  
The young leaves are eaten raw as a side dish to rice. They are cooked with soups, stews, or meat and fish dishes. It is well-known in Luzon as a flavoring ingredient.

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**ATIBULNAK**  
*Rubus pectinellus*

**Description:**  
Atibulnak is a trailing plant. The stem measures 0.5-1 m long and has a diameter of 0.2-0.5 cm at the biggest portion. The leaves are alternate, rough, hairy, heart-shaped, with toothed margins and 3-6 cm in diameter. The lower surface of the leaf is green; the upper surface, darker green. The calyx, stems and leaves are armed with fine small spines. The flowers are white, 2 cm or more in diameter when fully opened. The fruit is 1.4-1.6 cm in diameter. It turns bright red when ripe with a juicy subacid and of good quality flavor.
**Distribution**
This is an endemic plant of the Philippines commonly and widely growing in mossy forests, or in localities with lower elevations but with moist/cold environment. It has been observed to be growing in the cold areas of Luzon and Mindanao.

**Propagation**
Atibulnak is not cultivated but propagates itself by seeds in its natural habitat.

**Uses**
The fleshy pulp of the ripe fruit is eaten raw. The leaves are eaten as a vegetable.

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**AUNASIN**
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*Ardisia pyramidalis* (Cav.) Pers.
Myrsinaceae

**Description**
This is a small tree with slender stems. The branches are alternately crowded, unbranched, ascendingly curved and thickened at the base. The leaves are also crowded, oblong and membranous. The inflorescence is pyramidal, terminal and smooth. The flowers are pale pink, clustered upon thickened ends of branches. The fruit is crustaceous, 8 mm in diameter and spherical.

**Distribution**
Aunasin is endemic to the Philippines, widely distributed in Luzon in partially shaded areas of secondary dipterocarp forests. It thrives at low and medium altitudes and flowers in March and June.

**Propagation**
This species is propagated by seeds. The mature seeds are extracted and directly seeded, or sown in potting media. The seedlings are outplanted when 18 cm high. Aunasin grows well on sandy soil, and vigorously on soils with thick humus.

**Uses**
The young leaves are used as greens, or cooked with meat, or fish and eaten as a vegetable. The flowers are fruit are cooked as flavoring for fish. For salad, the young leaves are blanched and mixed with onions, tomatoes, garlic and salt.
**BANGKORO**  
*Morinda citrifolia* L.  
Rubiaceae

**Description**  
This is an erect, smooth shrub or small tree, 3-10 m high. The leaves are broadly elliptic to oblong, obtuse, acute, slightly acuminate, 12-25 cm long, opposite; the stipules are more or less united into a short sheath. The flowers are numerous. The calyx is truncate. The corolla is white, about 1 cm long and the limb 5-lobed, 1 cm in diameter. The fruit is ovoid, fleshy, white or grayish-white and 3-6 cm long.

**Distribution**  
Bangkoro is chiefly found along or near the seashores, in thickets and second-growth forests throughout the country. It is also found in the mangrove forest of Pagbilao, Quezon.

**Propagation**  
This is propagated by seeds and by cuttings.

**Uses**  
The fruit is eaten raw. The young leaves may be eaten as a vegetable.

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**BIGA**  
*Alocasia macrorrhiza* (L.) Schott  
Araceae

**Description**  
Biga is a coarse erect herbaceous plant up to 2 m high. Its trunk is stout. The leaves are very large, broadly ovate, the larger ones up to 1.5 m long; the margin is undulate; the apex, pointed; and the base, deeply cordate. The petioles are long and very stout. The spathe is peduncled; with the tube, 4-5 cm long; the blade, yellowish to yellowish-green, up to 23 cm long. The pistillate part of the spadix is 3-4 cm long, about 1.5 cm thick, contracted above. The fertile part of the male inflorescence is about 6 cm long; the appendage, 15 cm long. When ripe, berries are red, globose or ovoid and fleshy.
**Distribution**
This is found wild in old clearings and secondary forests at low and medium altitudes throughout the Philippines. It also occurs in open wetlands, along steams and in some types of humid forests.

**Propagation**
This can be propagated by corms, very seldom by suckers.

**Uses**
The stems and corms are eaten when roasted, or boiled. The stems, corms leaves and petioles contain numerous needlelike stinging crystals of calcium oxalate (raphides). These are destroyed by boiling, or roasting.

**BIGNAI**

*Antidesma bunius* (L.) Spreng.
Euphorbiaceae

**Description**
Bignai is a small, smooth, dioecious tree, 4-10 m high, forming a dense crown. The leaves are small, shiny, oblong, 8-20 cm long, pointed at the base. The flowers are small and green. The male flowers are borne on spikes and the female ones on racemes. The fruit is ovoid, red, fleshy, acid and about 8 mm long. It contains a single seed.

**Distribution**
It is an endemic plant of the Philippines. It is common and widely distributed in thickets, open places and second-growth forests throughout the country. It is one of the commonest trees in the first stages of the invasion of grassland by second-growth forests.

**Propagation**
This species can be propagated by seeds and by grafting, or budding. In budding, petioles (green, smooth but fairly matured bud with brown lenticels) are used. The buds are cut 3.5-4.0 cm long. The age of stock at the point of insertion of the bud is not important. It can be also propagated by stem cuttings and by marcotting. Marcotting is done on roots, 2.0-4.5 cm in diameter, in 95 days.

**Uses**
The fruit may be eaten raw, or made into an excellent wine, or a refreshing drink. It is sometimes used as a substitute for tomato, or vinegar in the preparation of certain dishes. The young leaves are eaten with rice.
**DIKAI**
*Embelia philippinensis* A. DC.
Myrsinaceae

**Description**
This is a woody vine with spiny old stems. The branches are smooth and glabrous. The leaves are alternate, leathery, smooth and 7-14 cm long. The flowers are small, whitish and occur in considerable numbers on compound inflorescences. Fruit is berrylike, sour, about 5 mm in diameter, red, usually with an apiculate style.

**Distribution**
Dikai is an endemic plant of the Philippines. It thrives in open or partially shaded secondary dipterocarp forests at low and medium altitudes. It is confined by sparsely distributed from northern Luzon to the northern provinces of Mindanao.

**Propagation**
Dikai is propagated by seeds, or by cuttings. Matured seeds are sown in potting media until they germinate and grow into seedlings. At the height of 30 cm the seedlings are outplanted in the field. Cuttings are taken from the matured stems.

**Uses**
The fleshy pericarp of the ripe fruit is eaten raw. The young acidic leaves are cooked with meat, fish, or vegetables, to make soup sour.

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**HIMBABAHO**
*Allaeanthus luzonicus* (Blanco) F. Vill.
Moraceae

**Description**
Himbabao is a medium-sized deciduous tree with a height of 15 m and a diameter of 30 cm. The leaves are alternate with pointed apex and rounded base. The lower surface is hairy. The flowers are very small and are borne on very long, slender, spikelike flowering branches. Pistillate and staminate inflorescences are borne on separate plants, hence, a dioecious plant.
**Distribution**
This species is distributed in the Philippines, from northern Luzon to Basilan. It is commonly found in thickets and second-growth forests at low and medium altitudes and also in the dipterocarp forest of Mt. Makiling, Laguna.

**Propagation**
Himbabao is generally propagated by seeds, or by cuttings from matured branches with approximately 0.8 cm in diameter.

**Uses**
The young leaves and male inflorescence are cooked and eaten as vegetable. They could be cooked solely, or in mixture with other vegetables such as eggplant, bitter melon, cabbage, sweet potatoes, and seasoned with fish and tomatoes. The flowers are blanched and made into a good salad.

**IBA**
*Cicca acida* (L.) Merr. Euphorbiaceae

**Description**
This is a small, smooth, deciduous tree, 4-9 m high. The branches are thickened and bear nodules in the axils of the fallen leaves. The leaves are smooth, 20-40 cm long, unequally pinnate and crowded at the ends of the branches. The leaflets are alternate, entire, oblong-ovate and 2-7 cm long. The flowers are small, pink, and crowded in clusters on racemes which grow from the nodules on branches. Male and female flowers are usually on separate plants. The fruit is rounded, greenish-white, fleshy, acid, edible, 1-1.5 cm in diameter and contains a hard, bony, 6-8-grooved stone.

**Distribution**
Iba is widely distributed in and about towns in the country. It is occasionally cultivated for its acid, edible fruit, but is nowhere abundant.

**Propagation**
It is propagated by seeds.

**Uses**
The fruit when ripe is eaten raw. The unripe fruit is cooked as a sour flavoring. It can be made into jams and jellies, and is also pickled.
**JADEVINE**  
*Srtongyloodon macrobotrys* A. Gray  
Leguminosae

**Description**  
This is a scandent, tall tree climber. The rough, woody stem turns and twists like a rope. This enables the plant to climb tall forest trees. The glossy, deep-green compound leaves with three leaflets are profusely produced. The racemes (flower clusters), 60-90 cm long, hang down gracefully from the stem. Each flower is 5-7 cm long, boat-shaped, and gently curved like an upturned beak. The name jade vine comes from the jade or deep blue-green flowers. The fruit has several seeds which have a short period of viability and should be planted soon after they are released from the fruit.

**Distribution**  
Jade vine, a native of the Philippines, grows wild in the damp forests of Luzon and Mindoro. It occurs in Cagayan, Bataan, Cavite, Laguna, Quezon, Mindoro, Sorsogon and Catanduanes.

**Propagation**  
This is propagated by seeds, by cuttings, marcotting and layering. The species thrives in loamy, well-drained soil. Plants grown from seeds start to flower in their third year. The flowering period is from March to June.

**Uses**  
The blossoms or the young flowers are eaten as vegetable. These are prepared as salad in the same way katuray blossoms are.

**KAKAWATE**  
*Gliricidia sepium* (Jacq.) HBK.  
Leguminosae/Fabaceae

**Description**  
This is a smooth deciduous tree, 3-10 m high. The leaves are 15-25 cm long with 13 leaflets which are opposite, oblong-ovate, and 4-6 cm long, with pointed tip and rounded base. The racemes are numerous on the leafless branches and contain many flowers. The flowers are 2 cm long and pink with truncate calyx; they occur 5-10 to a raceme. The pods are narrowly oblong to oblanceolate, 10-14 cm long, about 2 cm wide, and flat, and contain 6-8 seeds.
Distribution
Kakawate is thoroughly naturalized throughout the Philippines in the settled areas at low and medium altitudes. It was introduced by the Spaniards from Mexico, and its common name is of Aztec origin.

Propagation
Kakawate could be propagated by cuttings taken from matured branches of a two-year-old tree, or older. The cuttings should be about 4.7 cm long with fine woodiness. The end of the cuttings to be planted should be cut across. For better results, the cuttings should be planted at approximately 25.4 cm in depth at slanting position (at an angle of about 60° from the ground level).

Uses
The leaves are used as adjunct to adobo, a Filipino dish. The flowers are used as salad.

KALUMPIT
Terminalia microcarpa Decne. Combretaceae

Description
The tree grows to about 35 m high with a diameter of about 100 cm. It has a strong, far-spreading main branches with small leafed foliage interspersed with aging red leaves. It has a pronounced buttress, up to 4 m high with wavy ridges. The leaves are closely alternate, bunched at the end of the twigs, smooth, oblong-ovate, 6-15 cm long and 3.5 cm wide; the apex is obtuse or shortly acuminate and the base is acute; the upper face of the young leaves are covered with very fine, light brown, silky depressed hairs while the lower face is glabrous. The flowers are small, yellowish-white and borne on slender spikes which grow from the axils of the leaves. The fruit is about 3 cm in diameter, smooth, fleshy, sour and dark red.

Distribution
This is very common and widely distributed in dipterocarp forests from northern Luzon to southern Mindanao at low and medium elevations. It is not cultivated.

Propagation
Kalumpit is propagated by seeds and by grafting.

Uses
The fruit is eaten raw when ripe (violet-black in color). Fleshy and acidic, the fruit is made into preserves. The ripe fruit are boiled and cooked with sugar; oftentimes sun-dried for longer storage. They can also be dehydrated or made into wine.
**KANDIKANDILAAN**  
*Dillenia reifferscheidia* F. Vill.  
Dilleniaceae

**Description**  
This is an erect, branched, half-woody plant which grows 1-1.5 m high. Old stems are rounded while young ones are slightly angled. The leaves are elliptic to oblong ovate, 3-10 cm long with pointed tip and toothed margins. The spikes are terminal, rather slender, 10-30 cm long and 3-4 mm thick, green and continuous. The corolla is deep-blue and about 1 cm long. The fruit is enclosed in the calyx, closely appressed to and somewhat sunk in the rachis, smooth, oblong and about 4 mm long.

**Distribution**  
Kandikandilaan is a common weed in open, waste places at low and medium altitudes in the settled areas throughout the Philippines. It is a native of tropical America and is now pantropic in distribution in the country.

**Propagation**  
It is propagated from seeds.

**Uses**  
The leaves are for stew, or omelet. The leaves have been used to adulterate tea.

**KATMON-KALABAU**  
*Dillenia reifferscheidia* F. Vill. Dilleniaceae

**Description**  
This is a large tree reaching a height of about 15 m and a diameter of 45 cm. The leaves are alternate, smooth and very large. The flowers are also very large, white and showy. The fruit is green and fleshy, about the size of an apple.

**Distribution**  
This is an endemic species and commonly found in primary forests at medium altitudes in Zambales, Mindoro, Catanduanes, Negros and Mindanao.
Propagation
Katmon-kalabau is propagated by seeds and by cuttings from matured branches.

Uses
The fruit is eaten raw. The edible portion is green, juicy, acidic with a flavor like that of apple. The taste of the fruit is not particularly good, but owing to its acid, juicy character, it is refreshing when eaten in the woods. The fruit is also made into excellent sauce, or jam.

LANGKUAS
*Alpinia pyramidata* Blanco.
Zingiberaceae

Description
This is a coarse herb. The leaves are about 45 cm long, 8 cm wide, pointed at both ends, the upper surface, smooth and the lower, hairy. The inflorescence is terminal on leafy shoots. The flowers are white, about 3 cm long and borne on rather large, compound inflorescences.

Distribution
It occurs from central Luzon to southern Mindanao.

Propagation
Langkuas is propagated by suckers.

Uses
The rhizome/root is used as a condiment. Its flavor is similar to that of ginger, but much less pungent. It is also cooked with the sap of sugar cane, or with honey and water to produce an intoxicating beverage. The young rhizomes and the tender undeveloped shoots are eaten, so are the flowers and buds.

MALABULAK
*Salmania malabarica* (DC) Schott & Endl.
Malvaceae

Description
This is a very large tree, 25 m high or more, with few or many, very large, pyramidal spines. The leaves are deciduous with 5-7 leaflets that are oblong to oblong-lanceolate, acuminate, 10-20 cm long, glabrous; the petioles are longer than the leaflets. The flowers are large, red, 8-10 cm long and appear while the
tree is leafless, fascicled at or near the ends of the branches. The petals are more or less hairy on both surfaces. The capsules are about 15 cm long, the valves silky within. The seeds are numerous, smooth, or obovate, and embedded in silky hairs.

**Distribution**
This species is found at low altitudes throughout the Philippines.

**Propagation**
It is propagated by seeds.

**Uses**
Buds, young pods and roots of seedlings are cooked and eaten.

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**NIOG-NIOGAN**
*Ficus pseudopalma* Blanco. Moraceae

**Description**
This is an erect, small, palmlike tree, glabrous, unbranched, 2-6 m high and 4-6 cm in diameter. It rarely has few branches or with few stems from the base. The leaves are alternately crowded towards ends, smooth, shiny on upper surface and paler beneath. The stipules are lanceolate, persistent, 5-7 cm long, usually in pairs on short peduncles in the axils of the leaves. The receptacles are solitary or in axillary pairs, dull red or purplish when mature. Niog-niogan flowers all throughout the year.

**Distribution**
This species is widely distributed in the Philippines at low altitudes. It is common in dry woods, or shrubberies, ranging from the seacoast to 236 m asl.

**Propagation**
Niog-niogan could be propagated from black, pentagonal seeds.

**Uses**
The young leaves are eaten as vegetable. They are cooked with coconut milk, meat, or fish.

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**PAKO**
*Athyrium esculentum* (Retz.) Copel.
Athyriaceae/Woodsiaceae

**Description**
The rootstocks are stout, the caudex erect, woody, thickened, bearing many blank, wiry roots, and the tip clothed with brown, linear
scales. The stipes are green and somewhat smooth, 20-50 cm long. The fronds are 2- or 3-pinnate, 50-80 cm long, about half as wide as long. The pinnules are lanceolate, 2-3 cm long and rather coarsely toothed. The sori are superficial, arranged in pairs on the side of the veins, or veinlets.

**Distribution**
Pako is a characteristic plant on gravel bars and banks of swift streams. It is widely distributed in the Philippines.

**Propagation**
It is propagated vegetatively and by spores.

**Uses**
The young fronds of this fern are much desired and are eaten in all parts of the country, either raw or cooked. They are used as a leafy vegetable, or as an ingredient of stews; they are even pickled. The young fiddle heads are eaten as salad. Pako is a fair source of calcium, a very excellent source of phosphorous and a good source of iron and vitamin B.

**PITOGO**
_Cycas circinalis_ L. ssp. _riuminiana_
Cyacadaceae

**Description**
This is a palmlike tree with a stout stem reaching a height of 12 m and a diameter of 50 cm, although it is usually much smaller than this. The leaves are pinnate, 0.5-1.5 m long and produced in a cluster at the top of the trunk. The leaflets, 20-30 cm long and about 1 cm wide, are acuminate; the lower leaflets are reduced to spines. The male cones are ovoid and cylindric, up to 60 cm long. The female sporophylls are brownish-rusty and tomentose with 4-6 naked ovules. The fruit is ovoid to ellipsoid, 3-5 cm long.

**Distribution**
This species is widely distributed in the Philippines, especially from Batangas islands and northern Luzon to Palawan and Mindanao. It occurs locally and is generally found near the seashore.

**Propagation**
Pitogo is sometimes propagated by seeds. The mature female plant produces more or less, or alternation of, large foliage leaves and clusters of comparatively small, highly modified, brown leaf sporophylls. On either side of the sporophyll is a row of few oval structure of ovules, which, if fertilized, become seeds. The male plant produces an enormous cone at the tip of the stem once a year. Very large quantities of pollen can be obtained from this cone and if the pollen grains are transferred to the tips of the ovules, so that the latter may be fertilized, then the ovules grow and become seeds.
Uses
The young leaves when about 30 or 40 cm long and still rolled up are cooked and eaten as a vegetable. The ripe seeds are crushed and soaked in water which must be changed several times. This is done to remove the poisonous element. The product is then dried, and the flourlike substance is cooked into small cakes, or as porridge.

PONGAPONG
*Amorphophallus campanulatus* (Roxb.) Bl. ex
Decne Araceae

Description
Pongapong is a perennial, stemless herb. The corm is depressed-globose, up to 30 cm in diameter, flowering before leafing every year from the previous year’s corm. The petioles are rough and mottled. The blades are divided into numerous lobes. The leaves may be as much as a meter in width and usually spring from the ground singly. The flower is dull purple and up to 30 cm in diameter. It emits a very offensive odor, similar to that of putrid meat. This odor attracts flies which pollinate the plant. The flowers and leaves are not found on the plant at the same time, but mature corms produce them alternately. The leaves and corms contain very numerous stinging crystals.

Distribution
Pongapong is commonly found in most, or all provinces of Luzon including Mindoro. It occurs in thickets, in secondary forests, along roads, trails at low and medium altitudes in the settled areas of the Philippines.

Propagation
This is propagated by seeds which take about 45 days to germinate.

Uses
The petioles of young, unexpanded leaves are edible, when thoroughly cooked. The young leaves, stems and corms are cooked and eaten as vegetables and as dessert. The stinging crystals are destroyed by boiling.
**PUGAHAN**  
*Caryota cumingii* Lodd. Palmae

**Description**  
This is also called “fish-tailed palm” because its leaflets resemble the tail of a fish. It grows 5-8 m high with a diameter of 20 cm. It has a slender trunk. The leaves are spreading, alternate, up to 1.5 m long which are dispersed along a considerable portion of the upper part of the trunk. The petioles are very short. The inflorescence is auxiliary, pendulous and up to 80 cm long. The peduncle is 20 m long. The spikes are numerous, furfuraceous, slender and up to 50 cm long. The male flowers are dull purple and yellow, with petals about 5 mm long and six stamens. The fruit is globose, purple, fleshy and small with a single seed. The pulpy outer covering contains very numerous, stinging, needlelike crystals or raphides. The seed has a chestnut-brown polished surface. The branches of the spadix bear strong, hairy minute scales.

**Distribution**  
Pugahan is an endemic species, widely distributed in the Philippines.

**Propagation**  
It is propagated by seeds, or by suckers.

**Uses**  
The sap is a source of “tuba” or palm wine. The bud is cooked and eaten as vegetable. Sometimes it is cooked with coconut milk, or sautéed with fish, or meat.

**PUKINGGANG-BAGING**  
*Clitoria ternatea* L. Leguminosae

**Description**  
This is a climbing vine with cylindrical and slender stems which grow up to 1 cm in diameter. The leaflets, 5-7, are elliptic to oblong and 3-7 cm long. The stipules are small and acicular. The flowers are solitary. The calyx is green, about 1.5 cm long. The corolla is 3.5-4 cm long; the standard, deep-blue with a white-yellowish center of pale blue or nearly white. The pods are 5-10 cm long, and flat, with 6-10 seeds.

**Distribution**  
Pukinggang-baging is found throughout the Philippines in thickets and in the settled areas at low and medium altitudes. It was an introduced species and is now pantropic in distribution.
**Propagation**
This is propagated by seeds.

**Uses**
The pods are eaten. The flowers are used to tinge boiled rice cerulean.

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**PURIKET**  
*Bidens pilosa* L. Compositae

**Description**
This is an erect, branched, more or less hairy herb about 0.2-1.5 m high. The leaves are up to 15 cm long, the upper ones usually much smaller. They are once or twice pinnately divided. The flowering heads are about 8 mm long. The disc flowers are brown, or yellowish; the ray ones, yellow, or nearly white. The seeds are black, 1-1.5 cm long, with 4 projections at the apex.

**Distribution**
This species is very common and widely distributed from northern Luzon to southern Mindanao. Its dispersal mechanism is apparently responsible for the wide distribution of the species. Puriket has spiny bristles which readily attach to clothes, or animal furs.

**Propagation**
This is propagated by seeds.

**Uses**
The leaves are used as a substitute for tea. The flowers are mixed (by the Igorots) with balls of boiled rice which are set to ferment in the manufacture of crude spirits. This plant is used in making an Igorot wine called "sinitsit". In the Mt. Province, the leaves are considered as a vegetable.

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**QUIAPO/KIAPO**  
*Pistia stratiotes* L. Araceae

**Description**
Quiapo is a floating, gregarious and stemless plant. The leaves are pale green, overlapping, wedge-shaped, succulent, up to 10 cm long and 5 cm wide, covered on both surfaces with numerous fine hairs. They are produced in a rosette which gives the plant an appearance something like that of ordinary lettuce. Prominent veins are arranged in a fanlike manner. The flowers are inconspicuous, small, green, surrounded by green tubular spathes arising in the leaf axis in the center of the leaf whorl. The
fruit is green, berrylike, slimy, rupturing irregularly, containing 4-12 brown seeds. The seeds are oblong, tapering towards the apex, 2-2.5 mm long, with a thick regulose seed coat.

**Distribution**
*Pistia stratiotes* occurs in great abundance on the surfaces of stagnant water, shallow water of lakes and slow-moving streams, and even in rice paddies at low altitudes. This species is common and widely distributed at low and medium altitudes in the Philippines.

**Propagation**
The plant multiplies profusely by means of stalked buds coming from around the stem. This bud is capable of producing additional new suckers around themselves, thus, facilitating rapid multiplication of new plants.

**Uses**
The young leaves are cooked and eaten as vegetables. They are boiled to destroy the stinging crystals, or raphides, which are very abundant in the leaves.

**SUSONG-KALABAU**
*Uvaria rufa* Blume Annonaceae

**Description**
This is a climbing shrub, the younger parts of which are densely hairy. The leaves are alternate, hairy, pointed at the tip, somewhat heart-shaped at the base, and 8-16 cm long. The fruits are oval, or kidney-shaped, hairy and red and usually about 1.5-2 cm in diameter. They are borne in rounded clusters. The fruit contains two rows of flat, semicircular seeds; it is fleshy and red when ripe.

**Distribution**
Susong-kalabau is found in dry thickets and in second-growth forests at low and medium altitudes from central Luzon to southern Mindanao.

**Propagation**
This is propagated by seeds.

**Uses**
The fruit which has an agreeable flavor is eaten raw. It can also be cooked as a vegetable.
**TALONG-TALONGAN**  
*Solanum cumingii* Dun. Solanaceae

**Description**
Talong-talongan is a spreading or ascending, somewhat branched, hairy herb, 30-60 cm in height. The leaves, 4-12 cm long, are alternate, somewhat pointed at the tip, inequilateral at the base, irregularly lobed on the margins. The flowers are violet or purplish, nearly 2 cm in diameter and are borne in small numbers on small flowering branches which are in the axils of the leaves. The fruit is rounded, smooth, about 2 cm in diameter, green, mottled with white, or yellow.

**Distribution**
This is an endemic plant which distributed from Luzon to Mindanao. It thrives in open, waste places at low and medium altitudes.

**Propagation**
Talong-talongan propagates itself by seeds in its natural habitat. If cultivated, the seeds are extracted from the ripe fruit (yellow) and are sown in seedboxes. When the seedlings reach 12 cm, they are outplanted in the field. This species is generally propagated and cultivated in the same way eggplant is.

**Uses**
The unripe fruit is cooked and eaten as a vegetable. It can also be cooked with either fish or meat.

**TIBIG**  
*Ficus nota* (Blanco) Merr. Moraceae

**Description**
This is an erect tree, 4-8 m high, more or less pubescent, with spreading branches. The leaves are oblong to elliptic or obovate, 15-36 cm long, and acuminate, the base somewhat inequilateral, cordate, the margins are distantly and irregularly toothed, the teeth small, more or less pubescent, not or slightly roughened. The receptacles are subglobose, green or when mature, yellowish, soft and fleshy, 2-3.5 cm in diameter. These are borne in large masses on special, branched inflorescences springing directly from the trunk and from the larger branches, 10-25 cm long, frequently very dense. This species flowers all throughout the year.
**Distribution**
Tibig is an endemic species occasionally found in thickets at low and medium altitudes. It is also found in dry woods throughout the Philippines.

**Propagation**
This species can be propagated effectively by seeds. In the natural stand, tibig reproduces with the aid of birds, monkeys and other animals that eat its ripe fruit. It could also be propagated by cuttings.

**Uses**
The fruit can be eaten raw when ripe. The young leaves are cooked as a vegetable. The sap of the freshly cut stem yields drinkable water.

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**WILD SUNFLOWER**
*Tithonia diversifolia* (Hem.) A. Gray
*Compositae*

**Description**
This is a robust, erect annual, 1-3 m high. The stems are stout and coarse or rough. The leaves are petiolate, alternate, ovate, serrate, acuminate, the lowest ones sometimes cordate, 10-25 cm long, up to 5 cm wide, harshly hairy. The inflorescence is very large, solitary, long, peduncled at the ends of branches, sometimes nodding, up to 20 cm in diameter. The ray flowers are bright yellow, spreading. The disk flowers are numerous, perfect, black to purple. The fruit is an achene, four-angled, compressed, tapering from the top to the base, about 1 cm long, 4 mm wide at the top.

**Distribution**
This is common along roadsides at higher elevations.

**Propagation**
It is propagated by seeds and rhizomes.

**Uses**
The seeds may be eaten roasted like peanuts. These can be processed into good cooking oil. The disk of the flower head can be eaten, too.
YABYABAN  
*Tacca pinnatifida* Forst. Taccaceae

**Description**
Yabyaban is a large, coarse herb. It has somewhat rounded or oval tubers up to 8 cm in diameter, perhaps larger in rich soil. The petioles are 1.5-2 cm in diameter and often nearly a meter long. The leaves are 1-1.5 m in diameter and divided into three parts which are again divided. The flowers are green and purplish and crowded at the apex. The fruit is ellipsoid or ovoid, smooth, yellowish, six-ribbed, and 3-4 mm long.

**Distribution**
This is found growing in sandy soils in thickets near the seashores throughout the Philippines.

**Propagation**
It is propagated by corms, or by tubers.

**Uses**
The tubers are ground, baked and eaten. The starch must be washed several times to eliminate the bitter substance found in fresh tubers. The tacca flour or starch from the rubbers forms an agreeable food when eaten with sugar. Mixed with white flour, tacca is used in making bread.


