

The Family Aristolochiaceae in Trinidad, with reference to its medicinal uses, its folklore, and its use as a larval foodplant by Papilionidae.

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ARISTOLOCHIA, a genus with worldwide distribution, is known and used for its alleged medicinal properties. Five species (one introduced) are found on Trinidad, one of these, *A. boosii* Panter 1981, being a species new to science. Other species have been recorded as being introduced for cultivation, i.e., *A. elegans* Mast., *A. hians* Willd., and *A. odoratissima* L. I have been unable to find specimens of these in Trinidad. The following are the species found on Trinidad and Tobago, with notes on their alleged medicinal and mystical properties. The synonymy is from Pfeifer (1966).

1. *ARISTOLOCHIA GRANDIFLORA* Sw., Prod. Veg. Ind. Occ. 126, 1788, non Vahl (1791), nec Gomez (1803), nec Arruda (1816). (Type: *Swartz s.n., S*) – Fig. 1.
A. scandens P. Browne, Civ. & nat. hist. Jamaica 329, 1756, non Mill. (1768). (ex char.)
A. cordiflora Mutis ex H.B.K., Nov. Gen. Sp. Pl. 2: 149, 1817. (Type: *Mutis s.n., not seen*)
A. foetens Lindley, Bot. Reg. t. 1824, 1836. (ex ic.)
A. gigas Lindley, loc. cit. t. 60, 1842. (Type: *Hartweg s.n., not seen*)
A. gigantea Hook., Bot. Mag. t. 4221, 1846. (ex ic.)
Howardia gigantea (Hook.) Klotzsch, Monatsb. Acad. Berlin 1859: 610, 1859. (quoad syn. Hook.)
H. grandiflora (Sw.) Klotzsch loc. cit.
Aristolochia grandiflora (Sw.) *B. hookeri* Duchr. in DC., Prod. 15 (1): 473, 1864. (Based on *A. gigantea* Hook.)
Local name: “swan flower”.

Description & Distribution. This vine is common in the valleys south of the Northern Range and I have also seen it on the road between Maracas Bay and Las Cuevas on the North Coast. It is also reported from Mexico, Guatemala, Honduras, El Salvador, Nicaragua, Costa Rica, Panama and Cuba. It can be a substantial plant at times covering whole clumps of bamboo, cocoa trees, etc. The flowers are large, up to 25 cm across, with a pungent odor of decaying meat which attracts flies and carrion beetles (Staphalinidae and Histeridae) for pollination. The seed pods split at the bottom allowing the seeds to fall to the ground.

Medicinal Properties. No references can be traced to this species regarding medicinal uses except a note that it is extremely poisonous.

Butterfly Larval Foodplant. No Papilionidae have been found using this as a larval foodplant on Trinidad and Tobago. Malcolm

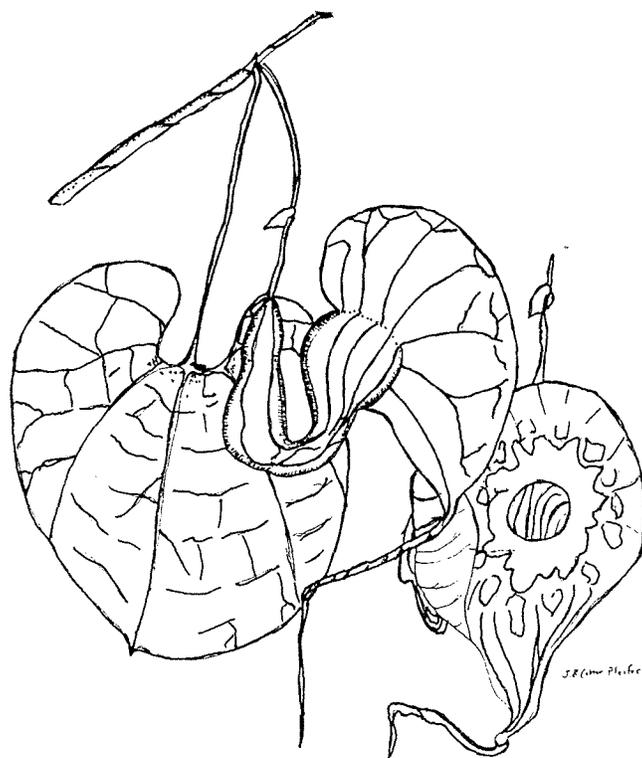


Fig. 1. *Aristolochia grandiflora* Sw.

Barcant in “Butterflies of Trinidad and Tobago” erroneously lists it as the possible foodplant of *Parides sesostris* (R & J), however, I have never seen *A. grandiflora* in the southwest of the island to which area *P. sesostris* is confined, and the foodplant of *P. sesostris* on Trinidad and Tobago is *A. boosii*. Hamilton A. Tyler in “The Swallowtail Butterflies of N. America” (Naturegraph Publishers, Inc., Healdsburg, CA. 95448.) lists *Parides photinus* (Doubleday) 1844, *P. montezuma* (Westwood) 1842, *P. i. iphidamus* (Fab.) 1793 and *P. arcas mylotes* (Bates) 1861, as feeding on it in El Salvador. Some small larvae of sawflies (Hymenoptera) and moths have been seen feeding on this plant on Trinidad.

2. *ARISTOLOCHIA RUGOSA* Lam., Encycl. Meth. Bot. 1: 252, 1783. (ex ic. cit.) – Fig. 2
A. obtusata Sw., Prod. Veg. Ind. Occ. 126, 1788. (ex ic. cit.)
A. barbata Jacq., Ic. Pl. Rar. 3: t. 608, 1789. (ex ic.)

A. dictyantha Duchr., Ann. Sci. Nat., ser. 4, 2: 40. 1854. (Type: *Vargas s.n.*, photo G-DC)

A. eurystoma Duchr., loc. cit. 41. (Type: *Beaupertuis s.n.*, P)
Howardia obtusata (Sw.) Klotzsch, Monatsb. Acad. Berlin 1859: 612, 1859.

H. barbata (Jacq.) Klotzsch, loc. cit. 613.

H. schomburgkii Klotzsch, loc. cit. (ex char.)

Aristolochia dictyantha Duchr. *B. schomburgkii* (Klotzsch) Duchr. in DC., Prod. 15 (1): 447, 1864.

A. rumicifolia Schomb. ex Duchr., loc. cit., non Mart. (1824) pro syn.

Local names: "wild tref", "matte root", "mat root".

Description & Distribution. This plant is the most widely distributed species on Trinidad and Tobago. I have found it throughout the two islands. It is also recorded from Antigua, Guadeloupe and Martinique. It is normally a small plant, preferring to grow up banks formed by road cutting where, under optimum conditions, the leaves can reach a length of 25 cm. Normally however, the leaves do not exceed 13 cm. The flowers are small, not exceeding 10 cm in length and 2.5 cm in width at the lip, and are sometimes called "dutchman's pipe". They also smell of decaying flesh and attract flies and minute beetles for pollination. The roots tend to be tuberous. The seeds are dispersed as in *A. grandiflora*.

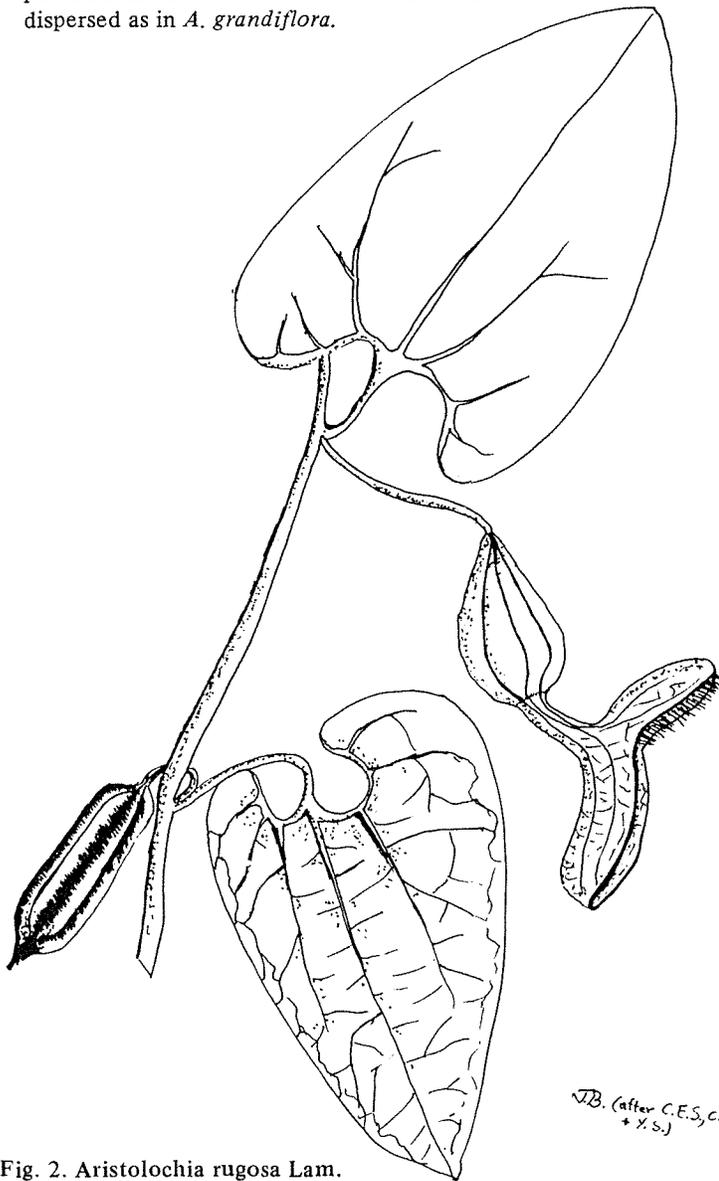


Fig. 2. *Aristolochia rugosa* Lam.

Medicinal Properties & Folklore. This plant is used medicinally as an antidote for snake bite and scorpion stings where the whole roots are soaked in alcohol together with other ingredients, as an abortifacient and a remedy for excessive pain during menstruation (dysmenorrhoea), and as an aid to ease the pain of childbirth. It has also been reported as being used to treat indigestion, heat, amenorrhoea, jaundice, and as a post partum depurant. It was identified to me by numerous people as being the "wild tref."

Butterfly Larval Foodplant. Two of the three species of *Parides*, *neophilus parianua* (R. & J.) and *anchises cymocles* (Dbl.) use this as a larval foodplant, as does one of the three species of *Battus*, *B. polydamus* (R. & J.) found on Trinidad and Tobago.

3. *ARISTOLOCHIA TRILOBATA* L., Sp. Pl. 960, 1753. (Type *Linn. Herb. London, no. 1071.1*, photo) – Fig. 3.

A. scandens P. Browne, Civ. & nat. hist. Jamaica 329, 1756. (ex char.)

A. trifida Lam., Encycl. Meth. Bot. 1: 251, 1783. (ex char.)

A. triloba Salish., Prod. 214, 1796. (Based on *A. trilobata* L.)

A. surinamensis Willd., Sp. Pl. 4: 151, 1805. (ex ic. cit.)

A. macroua Gomez, Mem. Acad. Lisboa 3: Mem. dos Corresp. 77, 1812. (Type: *Martius inter Basil 1817*, photo M)

A. appendiculata Vell., Fl. Flum. 9: t. 98, 1827. (ex ic.)

A. caudata Booth ex Lindl., Bot. Reg. t. 1453, 1831, non Jacq. (1762), nec Parodi (1878). (ex ic.)

A. macrota Duchr. in DC, Prod. 15 (1): 447, 1864. (Type: *Schomburgk 679*, photo G-DC.)

A. tapetotricha Lem., Illustr. Hort. 3: Misc. 22, 1856 (ex char.)

Howardia macroua (Gomez) Klotzsch, Monatsb. Acad. Berlin 1859: 617, 1859.

H. surinamensis (Willd.) Klotzsch, loc. cit. 613.

H. trilobata (L.) Klotzsch, loc. cit. 617.

Local names: "tref", "twef."

Description & Distribution. This plant is perhaps the most widely distributed species of *Aristolochia* in the area, being found throughout the West Indies, down the Gulf Coast of Mexico through Central America, Panama and into South America. I have found it only under cultivation on Trinidad and Tobago. However, it has been reported from the Manzanilla Road growing wild, but human habitation occurs in this area so it probably has gone wild from someone's garden. It can be a substantial plant if conditions are right. Leaves are dark green, waxy, trilobate. The flowers are reminiscent of the pitcher plants of N. America (*Sarracenia*), and attract flies and beetles for pollination. The seeds are dispersed as in *A. grandiflora*.

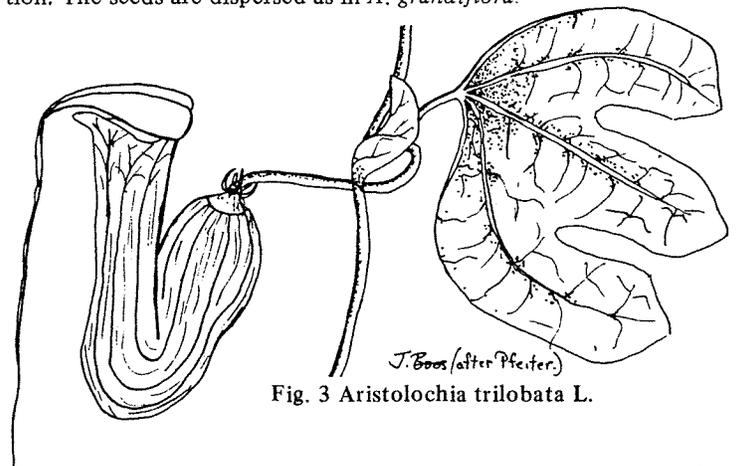


Fig. 3 *Aristolochia trilobata* L.

Medicinal Properties & Folklore. This plant has a wealth of folklore associated with it and is venerated by some as a god. Although surrounded by secrecy, so much so that it is not often spoken about, I have learned some, though not all, of the various uses of this plant and the rituals connected with it. Medicinally, it is the primary plant used as an abortifacient and is given by mothers to their daughters ostensibly as a "pain reliever" on or about when their periods are due. I have been told that the dose is three mature leaves boiled in a small quantity of water with a pinch of salt. This potion, which is reported to be extremely bitter, is then strained and drunk. The larvae of *Battus polydamus* (Papilionidae) which are commonly found feeding on this plant are collected and soaked in strong rum to be used both as a remedy for pains of any kind and to counteract the effects of potions given by women to men (locally called "stan home" or "stay home") to ensure marriage. It is also reportedly used to ease parturition, as a post-partum depurant and to treat hypertension, diabetes, dysmenorrhoea, snake bite and scorpion sting. The leaves are considered to bring good luck in fishing, gambling and athletic sports if worn pinned, out of sight, inside the vest against the heart. It is believed that this plant must be planted in front of homes. An old English silver threepence piece is buried next to it together with other objects and potions. Various prayers are then said and the plant is then said to be "mounted" and now has additional powers of protection. If a person with evil intentions enters the yard the plant will warn the owner by "whistling". To maintain this good relationship, no one must be allowed to pick leaves or disturb the plant in any way. It must only be spoken to in pleasant tones; permission must be sought from it by the owner to pick a leaf or remove a sucker (young plant). These plants should only be given to people who appreciate their importance. Having them and treating them in the proper manner ensures good fortune and wealth to the owner. I stress that these beliefs are not confined to any one class of person. My own specimen was obtained from an employee who kept it at White Hall, office of the Prime Minister! I was also told that proof of the plant's happiness is its flowering, and that when this happens good fortune is bound to occur for the lucky owner.

Butterfly Larval Foodplant. As far as I know, *Battus polydamus* (R. & J.), *Parides neophilus parianus* (R. & J.), *P. anchises cymocles* (Dbl.) use it as a larval foodplant when it is planted near their habitats.

4. **ARISTOLOCHIA BOOSII** Panter, 1981. Kew Bulletin Vol. 30 (2) (1981) 231-233. Fig. 4.

Description & Distribution. Specimens of this new plant to science and for Trinidad and Tobago were collected by myself at Palo Seco and Gran Ravine, S, Trinidad, while following a female *P. sesostris* (R. & J.) in its egg laying. These specimens, which I took to our National Herbarium, could not be identified locally and were taken to Kew Gardens by Dr. D. Philcox where they were described as a new species (J. A. Panter, 1981) and named after the collector, (Holotype TRIN 22067 K.) It is a large vine that grows up quite tall trees and spreads across their canopies at 10-15 m. It is also found growing between and over bushes. The flowers are slender and upright, each about 7.5 cm long, and are borne on inflorescences arising at the leaf nodes with one flower opening at a time, instead of singly at the basal leaf nodes as in the other species. The seed pods are interesting. When the capsule splits it forms a basket or "censer" which is blown or shaken by the wind causing the seeds to fall out and be blown away from the area. Dispersal can take place only in wind, thus ensuring

wider dispersal than the previously mentioned three species. So far *A. boosii* has been recorded only from the S.W. area of Trinidad.

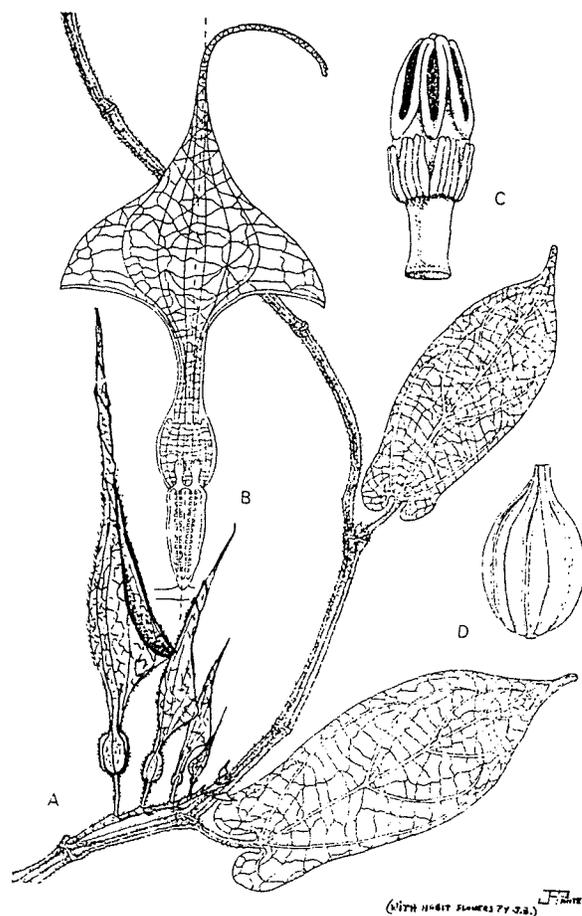


Fig. 4. *Aristolochia boosii* Panter.
A. habit B. flower dissected longitudinally, semi-digrammatic; C. gynostemium; D. fruit.

Butterfly Larval Foodplant. This plant is used as food by the larvae of *Parides sesostris* (R. & J.) and *Battus belus varus* (R. & J.), both of whose larvae were collected and reared on it, and also, I suspect, *Battus lycidas* (Cram). Adult females of this rare species were seen performing egg-laying behaviour around this plant. Since it occurs only in the S.W. Peninsula of Trinidad and is the larval foodplant of the mentioned butterfly species, their very local distribution on the island of Trinidad is accounted for. F.C. Urich reports that he saw a *P. sesostris* laying on this plant in Los Iros forest in 1962.

Medicinal Properties & Folklore. No medicinal uses are reported for this plant.

5. **ARISTOLOCHIA ARBOREA** Linden.

Description & Distribution. This species is at present known only from two plants in the gardens near the National Herbarium at the U.W.I., St. Augustine, Trinidad. It has been previously misidentified as *A. longifolia* Champ. It grows as a medium sized shrub, and small purple-brown flowers are borne in cauliflorous, many-branched inflorescences at the base of the upright "trunks" and on the exposed base of the roots. It occurs naturally in Mexico, Guatemala and El Salvador.

Medicinal Properties & Folklore. Nothing is known about the properties of this plant. Its leaves when crushed do not smell like the other species of *Aristolochia* in Trinidad.

Butterfly Larval Foodplant. No butterfly is known to breed on this species in Trinidad.

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