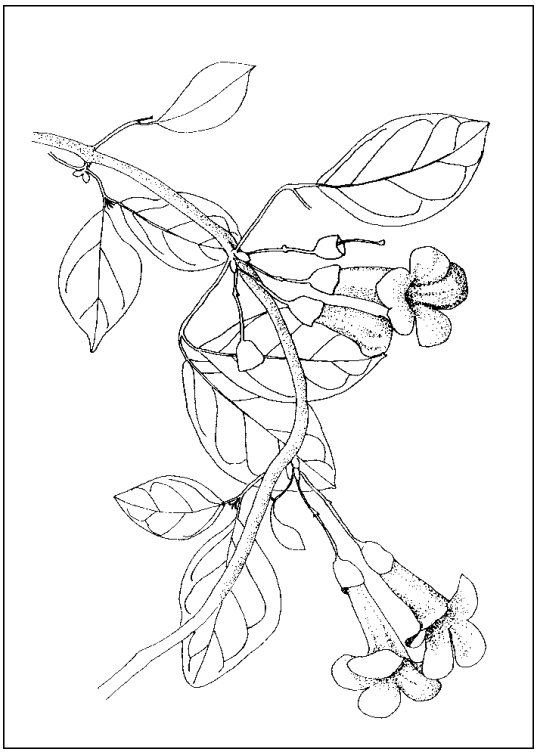
***Macfadyena unguis-cati* (L.) A.H. Gentry** cat's claw
BIGNONIACEAE

Synonyms: *Bignonia unguis* L. emend. DC.
Bignonia unguis-cati L.
Batocydia unguis (L. emend. DC.) Mart. ex DC.
Doxantha unguis (L. emend. DC.) Miers
Doxantha praesignis Miers
Doxantha serrulata Miers



General Description.—Cat's claw is a woody vine or occasionally a scrambling shrub. The name, and its equivalent in Spanish, uña de gato, comes from the tripartite, hooked tendrils resembling an animal's claws that enable the vine to adhere to tree bark and other surfaces (Acevedo-Rodríguez 1985). Old plants are more or less free hanging. It is also known by the common names bejuco de gato, paz y justicia, and griffe à chatte (Howard 1989, Liogier 1995). Cat's claw has a strong and flexible, cylindrical stem that is brown in color with many lenticels. The stems produce adventitious roots to anchor them tightly to vertical surfaces. Cat's claw may exceed 8 cm in stem diameter and extend more than 20 m into the crowns of trees. A long main root extends laterally near the soil surface with finer roots scattered over its length. Tubers are produced by both young and old plants (Stockard 2001). The plant grows and maintains few branches until the growing tip reaches increased light. The compound leaves have two leaflets with the clawed tendril between them. The leaves are generally ovate to lanceolate in shape but quite variable in size. Depending on both age and environment, petioles may vary from 0.25 to 2.5 cm in length, and blades may vary from 1 to 16 cm in length. They are dark green above and lighter below. Inflorescences are axillary with one to three flowers. The 4.5 to 10 cm-long tubular flowers have five lobes and are bright yellow with red-orange lines in the throat. From them develops a long (up to 75 cm), narrow (1.0 to 1.5 cm), flattened capsule that produces brown, flattened, winged seeds. The species has both diploid (2n = 40) and tetraploid (2n = 80) populations (Acevedo-Rodríguez 1985, Gentry 1983, Howard 1989, Liogier 1995).

Range.—Cat's claw is native to the Greater and Lesser Antilles, Mexico, Central America, and South America to Argentina (Howard 1989). The species is reported to have naturalized and escaped in Florida, Texas, Hawaii (Aquatic Plant Control Operations Support Center 2001), New Caledonia (Pacific Island Ecosystems at Risk 2001), Australia (Stockard 2001), South Africa (Pest Cabweb 2001).

Ecology.—In Puerto Rico, cat's claw grows from near sea level to over 600 m in elevation and in sites that receive mean annual rainfalls from about 750 to about 2400 mm. It will tolerate most soils, except very poorly drained and salty soils. The species can tolerate a few degrees of frost, being killed to the ground but resprouting afterward (Watkins and Sheehan 1975). Cat's claw is moderately shade tolerant as a young plant and grows in both full sun and under forest canopies. It may be less shade tolerant as an adult. The species is common in savannas, secondary forest, and

remnant high forest. It can survive grazing and fire but is eliminated by deep grass swards.

Reproduction.—In Hawaii, flowering takes place during the spring (Rauch and Weissich 2000) whereas there are actually two periods of flowering in Puerto Rico, both during dry seasons (Acevedo-Rodríguez 1985). In Costa Rica, nearly all the plants flower at once and flowering lasts just a short time (Gentry 1983). The capsules mature about 6 months after flowering. The winged seeds are dispersed by the wind. Seedlings are common and widespread in suitable habitat. Eleven capsules collected in Puerto Rico had a maximum of 212 seeds and a minimum of 106 seeds. These seeds (air dry) averaged 0.0224 $\pm$ 0.0005 g/seed or 45,000 seeds/kg. One hundred percent of the seeds tested germinated between 49 and 95 days after sowing in commercial potting mix. Young plants sprout when damaged and layer (root) whenever stems touch the ground. Cat's claw, for ornamental uses, have been propagated by seed, cuttings, and layering (Turner and Wasson 1999).

Growth and Management.—Stem extension is moderately rapid, especially in sprouts. Diameter growth of cat's claw stems is slow. The vines are long-lived, nearly as long as the trees that they claim for support. There are relatively few problems in establishing cat's claw. Insect and disease problems are rare. The biggest problem is controlling ornamental plants. Yearly pruning after the flowering season is essential to maintaining them within the bounds desired. In its native range cat's claw vines have only a minor effect on the trees they parasitize. However, the species is beginning to seriously suppress native vegetation in parts of Florida (Florida Exotic Plant Council 2001) and Australia (Stockard 2001). The only means of control recommended at present is to cut the vines and paint the cut ends with glyphosate herbicide (Stockard 2001). However, Vélez and van Overbeek (1950) report that older plants are killed by simply cutting the stems. A more practical long-term solution is hoped for in the ongoing biological control introductions in several countries (Pest Cabweb 2001).

Benefits.—Despite the propensity to naturalize and compete with native vegetation, cat's claw is still a handsome ornamental. It is often used to cover fences or screen unsightly buildings. Cat's claw is recommended for areas where there is little chance of invasion and especially in desert areas because it requires relatively little water for maintenance (Desert-Tropicals 2001). It was reported that a preparation made from cat's claw was used to treat dermatitis from *Hippomane mancinella* L. (Michell and Rook 2001). A number of other uses in herbal medicine from diverse locations are cited by Liogier (1990).

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