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ON CULTIVATING *IBICELLA LUTEA* (MARTYNIACEAE)

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Ibicella lutea and *Proboscidea* species are easy to grow, provided you do two things; first you must convince the seeds to germinate, and second you cannot treat them like carnivorous plants!

Let us discuss seeds. Some strains of *Ibicella* are adapted to cultivation, while other types confound even the most driven and experimental horticulturists. *Ibicella* seeds collected from plants colonizing a weedy lot will probably be difficult to germinate. Obtain your seed from a nursery catalogue, seed bank, or another gardener and they should germinate easily, even if they are several years old.

Seed should be sown 1 cm deep in a rich, sandy soil. High soil temperatures trigger germination, so keep your pots in a sunny spot. Immediately upon germination transplant the seedlings into the pots that will house the plants through maturity. The larger the pot, the larger your plant will be. I use pails at least 40 cm (15 inches) tall (Figure 1). Give the plants full sun and water daily but do not keep the soil sopping wet! Fertilizers are not required, but probably would encourage vigorous growth. I grow this plant outdoors and it is usually beset by white flies and caterpillars. The white flies do not cause too much damage and the caterpillars can be removed manually.

I have noticed *Ibicella* has two flowering phases during its long growing season. The first phase occurs when the plants are just a few months old. The fruit from this first phase of flowering mature in only a month or so. After these first few flowers, the plant stops flowering and concentrates upon growing larger. The second phase of flowering starts when the first crop of seeds are nearly mature. In my cultivation this phase continues until the plants are killed by frost. Fruit take up to three months to mature and grow to 16 cm or longer. Pollinate flowers from the first phase because you may not have the long growing season required to get seed from later flowers. Incidentally, *Ibicella* has sensitive stigmatic lobes that when touched, quickly flex out of the way and enclose the applied pollen. This is obviously an adaptation to avoid self-pollination by pollen-coated insects backing out of the flower. (It appears that moving stigma lobes only occur in the order Scrophulariales, which includes *Ibicella* and the carnivorous genera *Pinguicula*, *Genlisea*, and *Utricularia*.)



Figure 1: *Ibicella lutea*.

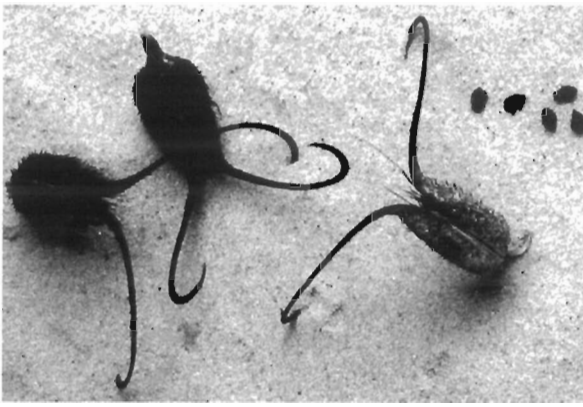


Figure 2: *Ibicella lutea* claws and seed.

Several species of *Utricularia* have moving stigma lobes.)

After pollination the ovary elongates rapidly. At maturity the green skin of the fruit peels away to reveal the woody interior, which then splits along part of its length and curls into the characteristic “devil’s claws” (Figure 2). The seed have an interesting dispersal mechanism. Two rows of seed in the devil’s claw can fall out easily; the other two rows of seed may escape only after the woody claws rot

away. Since the claws are adapted to hook onto animals, these modifications ensure that some seed fall near the parent plant while other seed may be transported great distances. Clever.

Some people confuse *Ibicella* with plants in the genus *Proboscidea*, but it is easy to tell the genera apart. Both genera have a few narrow bracts at the base of the flowers and petals fused into a tube at the base, but while the five sepals (the calyx) are separate in *Ibicella*, they are fused (connate) in *Proboscidea* (Figure 3). Mature woody *Ibicella* claws are also unique—they are covered with spines. There are yet other genera in the Martynia family, but it is unlikely you would confuse *Ibicella* with them.

If you decide to grow this plant, be aware it is illegal to grow in some areas because the claws of the fruit may annoy livestock. For example, it is declared a noxious (prohibited) weed in Western Australia. It may be illegal elsewhere, too.

I have stopped growing this plant because I do not think it is carnivorous! Furthermore, the foliage smells terrible and I am weary of washing that horrible fungal odor off my hands. (Conversations with Jan Schlauer and Peter D’Amato reveal that not all *Ibicella* plants smell as dreadful as mine do. I am lucky.)

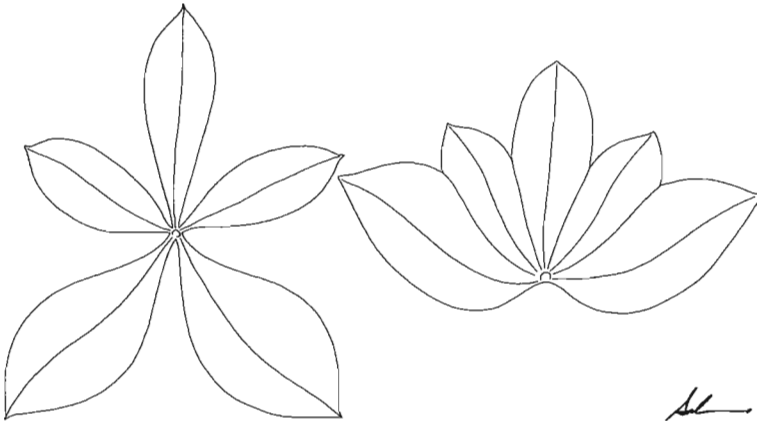


Figure 3: Calyx lobes, *Ibicella* (left), *Proboscidea* (right). By E.M. Salvia.