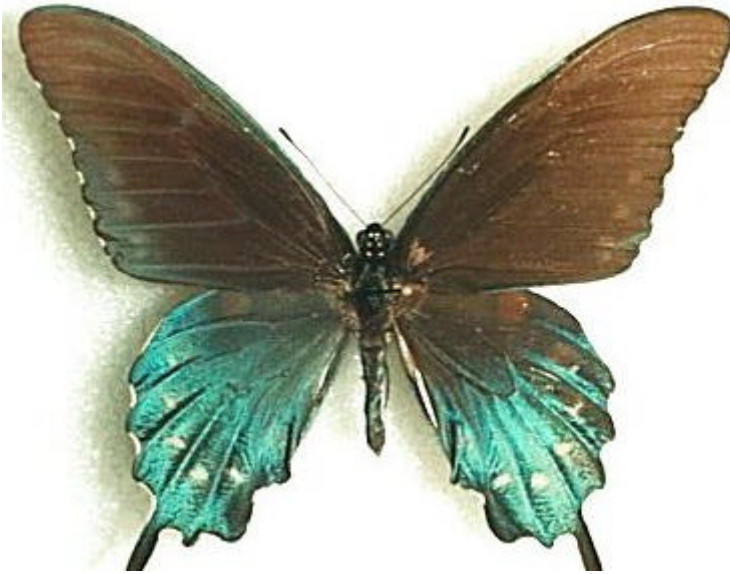


## Pipevine Swallowtail Butterfly Project



Pipevine swallowtails butterflies, *Battus philenor*, were once native to our area, but no longer. Local herbalist and health practitioner, Martha Benedict, has been incubating larvae, hatching butterflies, and planting out pipevine plants on which they feed. She'd like help increasing their territory and has come to the Master Gardeners to see if we would like to work on this project.

California pipevine plant, *Aristolochia californica*, is a slow-growing vine that needs tending for the first two years, after which it is

drought tolerant, but requiring monthly watering during very dry years. In hot places, it can grow under oaks or in dappled sun; here near the coast it needs full sun. Pipevine swallowtail butterflies lay eggs on the pipevine and the larvae eat their leaves, but the adult butterflies nectar on wallflowers – so we might plant those nearby as well.

Master Gardeners will, under the supervision of Martha Benedict, obtain and plant California pipevine plants in contiguous areas, including expanding the plantings at Pasatiempo Golf Course. This project will extend these areas further over a number of years as the plant populations become established.

We need individual gardeners to plant them, and to find additional sites where they might flourish. They're best planted in wide-area groupings; for example, one plant in each backyard on a block, or 12 in a school garden, to support the pipevine swallowtail butterfly populations. Martha has them growing in her garden off of Pasatiempo Golf Course, so the comeback of the pipevine swallowtail butterflies is centered there right now, and the ideal situation would be to expand out from there, as well as from any other cluster of plantings we can start.

Cabrillo Horticulture has already taken cuttings, air cuttings, and seeds from a variety of pipevines from Martha's garden, with which they will start 200 seedlings this November and December. They are willing to plant another 200 if we secure enough Master Gardeners to plant those out. Newman's Own Foundation is the likely granting agency that will pay for the plants.

- Early spring '08 Martha and volunteer MGs will plan and map areas to be planted and disseminate information about the swallowtails' habitats and the pipevine's requirements
- Late spring '08, 6" starts will be distributed to participating MGs
- Plants will need tending for the next three years, after which they'll need to be monitored but will not require much direct care
- Larvae and butterflies will be brought to established plantings in three years
- MGs will commit to maintaining the plantings for those three years.

## About the Butterfly

The pipevine swallowtail, *Battus philenor*, ranges from southern Canada southwards across USA to Mexico, Tres Marias islands and on to Guatemala and Costa Rica. In the United States, the butterfly is found in New England down to Florida, from Southern Ontario (Canada) to Nebraska, Texas, Arizona, California, Oregon and New Mexico. As larvae, pipevine swallowtails feed only on plants in the genus *Aristolochia*. As a butterfly, *B. philenor* feeds solely on nectar from flowers, including thistles (*Cirsium*), bergamot, lilac, viper's bugloss, common azaleas, phlox, teasel, dame's rocket, lantana, petunias, verbenas, lupines, yellow start thistle, California buckeye, yerba santa, brodiaceas, and gillias (Opler et al. 1995; Pyle 1981; Scott 1986; Comstock 1927; Lucien 1972; Allen 1991).



## About the Plant

One of the most distinctive of California's endemic plants is *Aristolochia californica*, the California pipevine or California Dutchman's-pipe. It is a winter-deciduous semi-woody vine with purple-striped curving pipe-shaped flowers that give rise to winged capsular green fruits. After it blooms, the plant sends out new green heart-shaped leaves. The vines grow from rhizomes to a length of over twenty feet and can become quite thick in circumference at maturity. This plant is common in moist woods and along streams in northern and central California.

The flowers have an unpleasant odor that is attractive to tiny carrion-feeding insects. The insects crawl into the convoluted flowers and often become stuck and disoriented for some time, picking up pollen as they wander. Most eventually escape; the plant is not insectivorous as was once thought.

The larva of the pipevine swallowtail butterfly relies on California pipevine as its only food source. The red-spotted black caterpillars consume the leaves of the plants and then use the flowers as a secure, enclosed place to undergo metamorphosis. The plant contains a toxin which when ingested by the caterpillars makes them unpalatable to predators. (Wikipedia: [http://en.wikipedia.org/wiki/Aristolochia\\_californica](http://en.wikipedia.org/wiki/Aristolochia_californica))

*Aristolochia* grows well in containers. It tends to grow along the ground and takes some coaxing to get it to climb.

