

HOST PLANT SPECIFICITY OF THE BLACK SWALLOWTAIL BUTTERFLY, *POLYDORUS ARISTOLOCHIAE* (PAPILIONIDAE)

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Polydorus aristolochiae (Fabricius) is the commonest large-tailed, black butterfly of the Indo-Pakistan Subcontinent. At Tando Jam (25°26' N; 68°32' E), West Pakistan, the larvae have been found in large numbers on *Aristolochia bracteata* L. This is a native species of the Family Aristolochiaceae of great medicinal value. Along with other Aristolochias, its anthelmintic properties have been known for some time, from which is derived the local name of "Kidamar" or "Kiramar" (Worm-killer) in many parts of India (Kirtarkar and Basu, 1933).

HOST PLANT SPECIFICITY

Witt (1909), Bell (1911), Wynter-Blyth (1957), and Alam (1962), reported *Aristolochia indica* L., as the only host plant of *P. aristolochiae*. According to Ghosh (1914) the insect probably feeds on all species of *Aristolochia*. He further mentioned that in the field the insect also feeds on Kadu, *Lagenaria vulgaris* Ser. and *Luffa aegyptiaca* Mill. (Cucurbitaceae). Beeson (1941) reported *Aristolochia* spp. and *Dioscorea wallichii* (Aristolochiaceae) as the host plants.

There seems to be no record of *Aristolochia bracteata* L. as the host plant of this butterfly. The larvae eat green leaves and fruits. In absence of green leaves, larvae depend totally on green fruits.

ALTERNATE POTENTIAL HOST PLANTS

Ghosh (1914) quoted that in 1901, larvae were reported from Surat Farm (25°00' N; 88°39' E), Gujrat State, India, as feeding on Kadu Plant, *Lagenaria vulgaris* Ser. (Cucurbitaceae), and in 1905, were reported to be found on *Luffa aegyptiaca* Mill. (Cucurbitaceae), at Darbhanga (31°13' N; 72°58' E), Behar, India. In his insectary, however, they did not feed on either of these plants.

Leaves of different plants in the found vicinity of Tando Jam, West Pakistan, on which either the butterfly was found sitting, or where the larvae were found pupating were offered to larvae in the laboratory to see if they would feed on such plants.

Leaves were repeatedly supplied to groups of larvae in cages, petri dishes, glass bottles, and glass chimneys to encourage them to feed. Leaves of the following plants were offered: Akk, *Calotropis procera*

(Asclepiadaceae); Karandi, *Abutilon indicum* (Malvaceae); Kir, *Capparis aphylla* (Capparidaceae); Devi, *Prosopis spicigera* (Leguminaceae); Ber, *Zizyobus rotundifolia* (Rhamnaceae); Mango, *Mangifera indica* (Anacardiaceae); and Babul, *Acacia arabica* (Leguminaceae).

In order to study the potential host range of the insect, leaves of the various plants were supplied to the captive larvae in the same manner as were the leaves of *Aristolochia bracteata* L. None of the larvae, aside from those reared on *A. bracteata*, fed upon the leaves and all died of starvation after three to five days.

It is concluded that this species does not have alternate host plant because the larvae refused to feed on all other possible host plants. *Aristolochia bracteata* L. is the only host plant which was recorded in the Tando Jam area.

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