

**STUDIES ON THE BIOLOGY OF THE LACE-WING *CORYTHAUMA*
AYYARI DRAKE A PEST OF JASMINE**

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Jasmine, a much favoured plant of floriculturists is attacked by a number of pests of which *Corythauma ayyari* Drake (Tingidae : Hemiptera) is an important one. It was first recorded as a pest of jasmine by Drake (1933) and subsequently by Ayyar (1938) and David (1958). New observations made on the biology of this pest are presented in this paper.

Materials and Methods

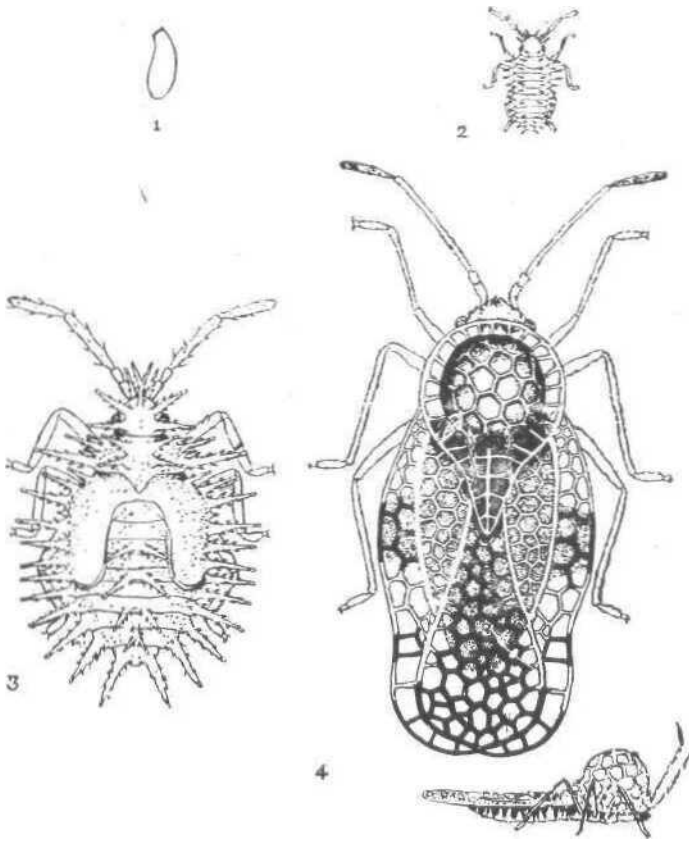
Insects required for the studies were collected on *Jasminum sambac* in the Agricultural College gardens, Vellayani, Kerala. Bulk rearings were made in the laboratory on potted plants using cylindrical wire-gauze cages, 60cm x 20cm, for enclosing the insects on the plants. Nymphal biology was studied on individual rearings in petri dishes. The average minimum temperature during the studies was 22.16°C and maximum temperature, 33.75°C. Relative humidity ranged from 86.75 to 91.88 per cent.

Results and Discussion

Eggs are thrust into the midrib or veins on the under surface of the leaves. Swellings are seen at the sites of egg laying. Egg (Fig. 1) is light yellow, opaque, elongate, curved and with shiny chorion and measuring 0.21 x 0.06 mm. Incubation period ranges from 9 to 11 days (average 10 days).

There are five nymphal instars completed on an average in 15.6 days. The instars 1 to 5 have average durations of 2.9, 2.4, 2.6, 3.2 and 4.5 days respectively. The newly hatched nymph (Fig. 2) is white and transparent measuring 0.43 mm in length. Gradually it turns brownish which colour is maintained throughout the nymphal period. The nymphal body is covered by long tubercles and apines. The second instar nymph measures 0.52 x 0.16 mm and the 3rd 0.65 x 0.21 mm. A number of finger shaped processes are seen on the body on this nymph. The 4th instar nymph is 0.97 mm long and wing buds appear in this instar. The 5th instar nymph (Fig. 3) has a length of 1.54 mm with prominent wing buds and is thickly clothed all over with tubercles, spines and finger shaped processes.

BIOLOGY OF *CORYTHAUMA AYYARI*



The various stages of *C. ayyari* Drake

2. First instar nymph
3. Fifth instar nymph
4. Adult bug (dorsal view and side view)

Adults emerge during nights. The adult (Fig. 4) is brownish, the male measuring 1.87 mm and the female 1.99 mm in length. They mate 24 hours after emergence. Preoviposition, oviposition and post-oviposition periods last for 2.75, 8.25 and 1.75 days respectively on an average, The fecundity ranges from 18 to 48 eggs per female with an average of 34.13 eggs per female. Mated males live for a period of 10.0 days on an average while unmated males live for 9.1 days. Mated females live for an average of 12.3 days and unmated females for 9.6 days. The males outnumber the females in a population in the ratio 1.16:1.00.

Damage caused

The pest occurs in the field throughout the year. The nymphs and adults feed from the underside of the leaves. Yellow spots develop at the points of feeding. When infestation is severe the whole leaves turn yellowish and gradually dry up. The attacked leaves also present a crinkled appearance. Retarded growth and flower production may result from severe and continuous infestations.

Summary

Biology of *Corythauma ayyari* (Tingidae : Hemiptera) a lacewing on *jasmine* is described with mention of the damage caused.

സംഗ്രഹം

പിച്ചിപ്പൊടികളുടെ ചാറ്റാരി കടിക്കുന്ന 'കോരിത്ഥാമ അയ്യരി' എന്ന ക്ഷുദ്രപ്രാണിയുടെ ജീവിതദശകളും അവ ചെയ്തുകൊണ്ടുണ്ടാക്കുന്ന നാശവും ഈ ലേഖനത്തിൽ പ്രതിപാദിച്ചിരിക്കുന്നു.

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