

place even after the expiry of the normal time for incubation when higher humidity was provided.

The larva undergoes four moults. Each stadium is of twenty-four hours' duration. After fourth ecdysis, cocoon formation starts which requires twenty-four hours for completion. Generally fourth ecdysis and the exhaustion of the host synchronize.

The larva though inside the cocoon is still active and retains larval form till the beginning of the sixth day after fourth ecdysis. At the end of the sixth day it becomes inactive, passes out faecal matter of brownish colour enveloped within its peritrophic membrane (dejectamenta) and acquires the shape of prepupa. At the termination of the seventh day it casts off the last, i.e., the fifth larval skin. This ecdysis always takes place inside the cocoon. The prepupal stage is of twenty-four hours' duration and ends with the expiry of the seventh day. The prepupa remains enclosed within the last larval skin whose casting off coincides with the process of transformation of prepupa into pupa. The period between fourth moult and the emergence of adults is of seventeen to twenty-one days' duration. The pupa at the time of emergence leaves behind fragments of the cast skin. The total number of days required from the time of egg-laying to the emergence varies from twenty-two to twenty-six days.

During winter, the duration from egg-laying to emergence ranges between forty-six to fifty-eight days at field temperature. In this season the hatching period and the duration of every stage is almost doubled. This aspect of long and short-timed generations has not hitherto been noted in the life-history of either this or its sister species, namely, *S. necevillei*.

It has been observed that the larvae of the parasite in the stored stems of juar take longer time to emerge than those in the field during winter months. Such cases of delayed emergence in the stores and godowns have been recorded at the end of the following month of March. It may be concluded that

the storing is helpful for the repetition of life-cycle of the parasite at the end of winter season every year.

The phenomenon of parthenogenesis is very common during winter and less common in the remaining part of the year.

It has been recorded that the maximum percentage of successful hatching is about 70; while that of emergence of adults from cocoon is above 90; The maximum number of eggs laid by a single female is thirty-two. If a female is forced to lay more than one egg on or near the same host then only one egg is hatched; but on distributing these eggs on separate hosts about 50 per cent. of eggs have been observed to hatch.

The maximum longevity of a parasite both male and female after emergence from the cocoon is fifty-one days. The average longevity of the male is thirty-seven days. This age limit falls down during summer months. The females invariably die soon after they have finished egg-laying. This parasite is very sensitive to unhygienic conditions, hence every care should be taken while breeding it in order to provide healthy environment to achieve good results.

A detailed description of biology, life-history, and morphology of the parasite will shortly be published elsewhere.

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THE I. C. I. RESEARCH FELLOWSHIPS AND THE DELEGATION OF INDIAN SCIENTISTS

AT a luncheon held in honour of the Delegation of Indian Scientists, Lord McGowan, Chairman, Imperial Chemical Industries, reported that the Directors of the Company had offered to provide at nine Universities in Great Britain, eighty fellowships of the average value of £600 per annum to be held by senior workers in various branches of science. He revealed that by way of Excess Profits Tax, National Defence Contribution and Income-tax, the Company paid to the British and Overseas Governments a sum amounting to 12.5 million sterling.

Replying to the toast proposed by Lord McGowan, Sir Shanti Swarup Bhatnagar referred to "The I.C.I.'s partiality to their own country". He pointed out that the Imperial Chemical Industries had two big and

prosperous factories in India and pleaded "for grants on a generous scale for scholarships for scientific research in India by the I.C.I." This suggestion appears to have immediately caught the imagination of Lord McGowan. While agreeing to consider in a friendly way the question of endowing research fellowships in Indian Universities, Lord McGowan assured the members of the Indian Delegation, that the eighty fellowships in the British Universities would be open to Indian scientists in free competition.

This in short is the "inside story" of the I.C.I.'s farsighted and enlightened munificence now extended to the Universities in India. Details of this Fellowship Scheme are published elsewhere in this issue.