LIFE WITH THE POTTERS

By G. JENKINS

Generally speaking, you can tell the size of a man's income by the size of the house he lives in.

In the world of potter wasps you can tell the particular species by the type of house it builds. Each species invariably builds exactly the same type of nest for its young.

Let me explain what a potter wasp is, and why it is called "potter." The true potter wasp belongs to the Eumeninae, sub-family of the great wasp family, which is divided into three groups, the social wasps (Jack Spaniards are "social" wasps), the solitary wasps (like the "potter") and the fossorial wasps (wasps living in burrows in the ground). The potter wasps get their name from the vase-like mud cells they build on walls, trees, shrubs and often inside houses.

NESTS OF CLAY

One of the most familiar is the dome-like structure about ¾ in. in diameter made by **Eumenes canaliculatus,** one of the largest of the potters. It looks very much like a Jack Spaniard and can easily be mistaken for one, particularly as both have a fierce sting!

Four years ago, while strolling in my garden, I saw a small black insect hovering over a clay nest not more than three-eighths of an inch long, bulbous at one end, tapering at the other, and having a vase-like neck at the bulbous end. The insect was putting its head inside the vase and moving round and round. This was **Eumenes regulus,** probably one of the smallest of the Trinidad potters. It is the life-history of this wasp that I want to tell you about very briefly. You will find it in diagrammatic form on Page 16.

My first potter wasp built two cells, laid an egg in each, suspended on a delicate thread, provisioned them, closed the vase-like entrance and flew away, never to return.

PARASITISED

Had Ma Potter returned for the births she would have thrown three fits for, from each cell, emerged an ichneumon fly (a species of Caryptinae). The wasp larvae had been parasitised. Ichneumons don't believe in spending time building nests for their youngsters when they can use someone else's. It saves a lot of time and trouble —its the other fellow has the trouble! So when she sees a potter building a nice new nest, Mrs. Ichneumon bides her time and then,

with her long oviposter—or egg-laying machine—she inserts her own egg on the potter wasp's larvae.

Following this disappointment, I found some more nests and was able to trace the life history.

LIFE HISTORY

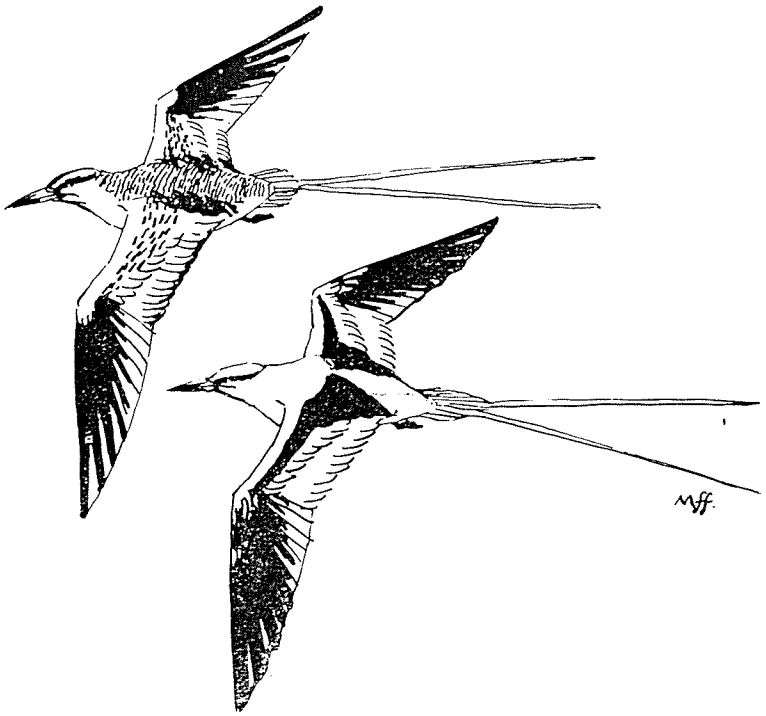
E. **regulus,** like all the potter wasps, suspends her egg from the cell roof by a thin thread and provisions the cell with small spiders or caterpillars, paralysed by her sting. Then she flies away after sealing the cell. Inside, the egg hatches in four days and a small maggot-like larva emerges and falls on to the food supply below. At this stage it is no more than ⅛ in. long.

At the end of eight days the larva has grown to 5/16 in. long after eating nearly all its food supply and becomes quiescent as it enters the pre-pupal stage. Three days later the larva divides into two distinct sections and the thorax and abdomen begin to take shape. At the same time the larva begins to discolour and turn black, and the eyes begin to appear. The pupal stage is now in full swing, the insect turns completely black, the thorax takes on its familiar shape, the pear-shaped abdomen appears and at the same time the indentation stretches until it is merely a thin stalk connecting thorax and abdomen.

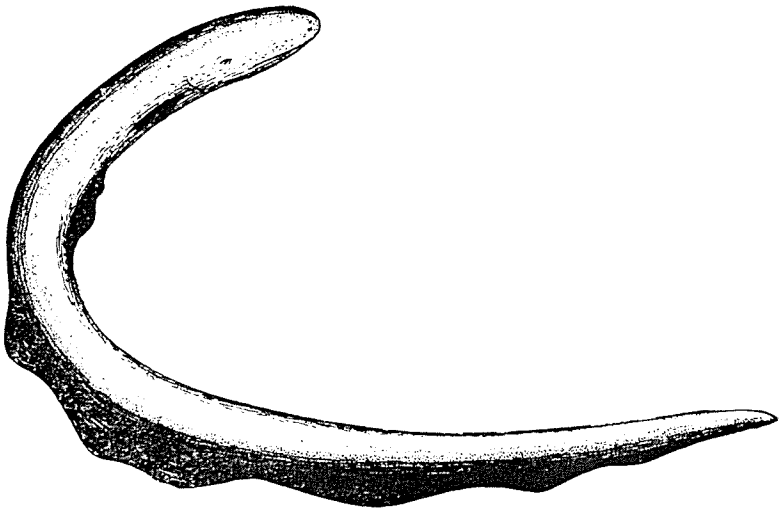
Then the legs and wings sprout from the mesothorax and metathorax. At this stage the antennae are drawn back over the head and are lying along the top of the thorax, while the legs are drawn up on each side of the thorax and the wings lie closed along the top of the thorax. This process takes on the average fourteen days and thirty days after Ma Potter has laid her egg, her child takes to the air.

POSSIBILITIES FOR STUDIES

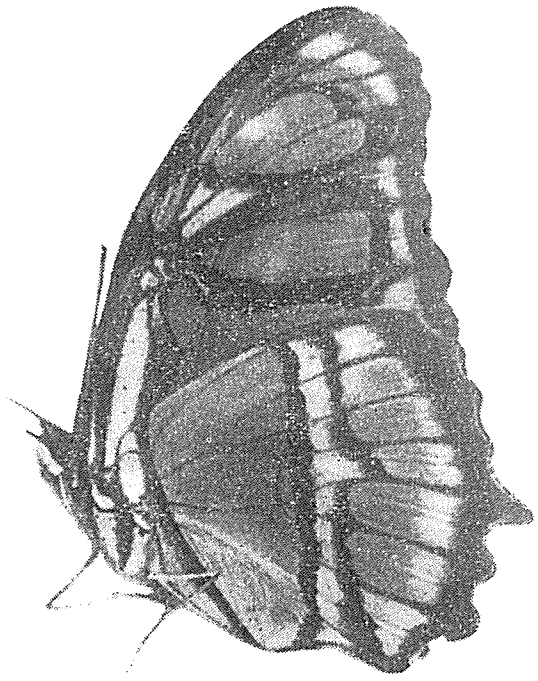
This, briefly, is the general pattern of development. As in all Nature, there are variations from time to time but this sketch merely paints in the outline. During most of the dry season potter wasp activity ceases. What happens during this period? Do temperature and weather have any influence? The female makes the nest—what happens to the male? These are a few of the questions awaiting answer. In the study of Trinidad's wasps, the surface has been barely scratched.



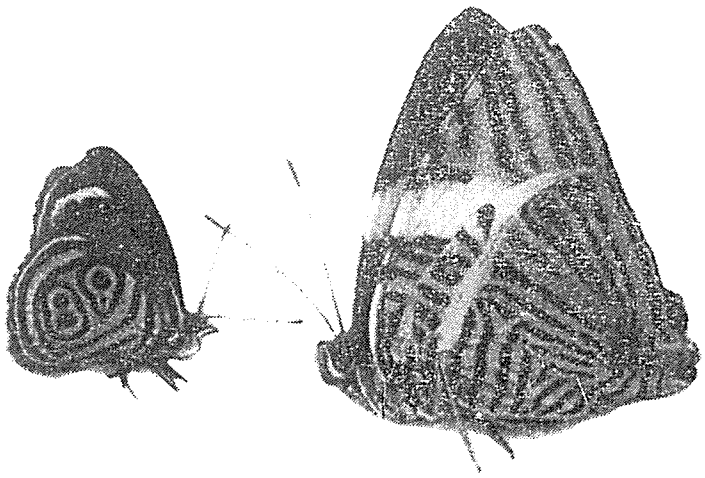
Red-billed Tropic Birds (Phaethon Aethereus) in flight.



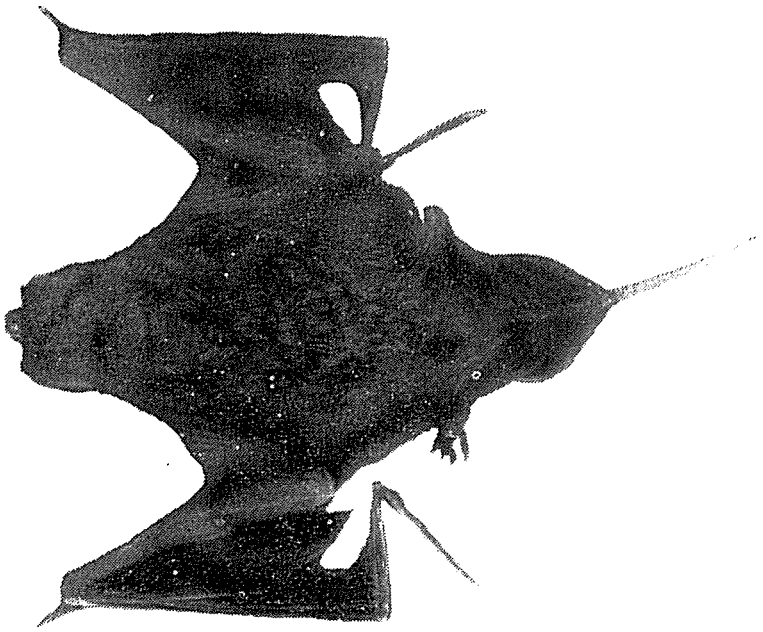
Electric Eel (Electrophus electricus, Linn.).



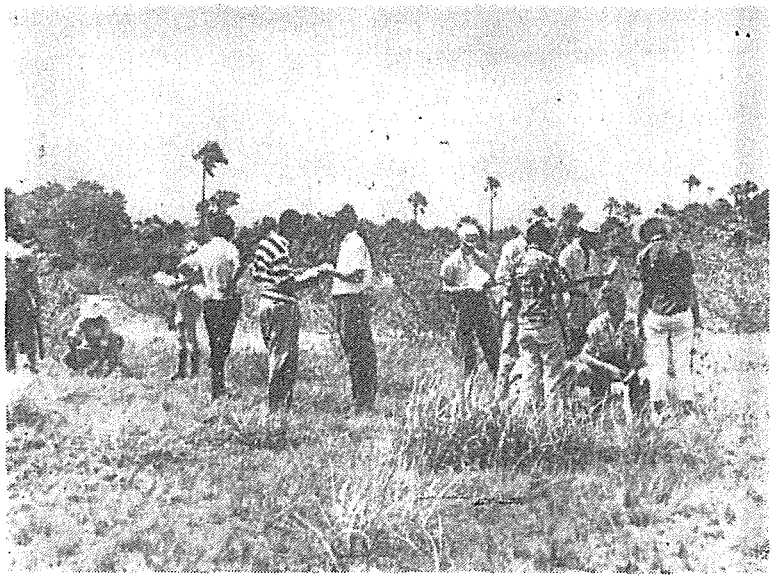
Bamboo Page Butterfly (Victorina steneles).
(Photo: John P. Fortune)



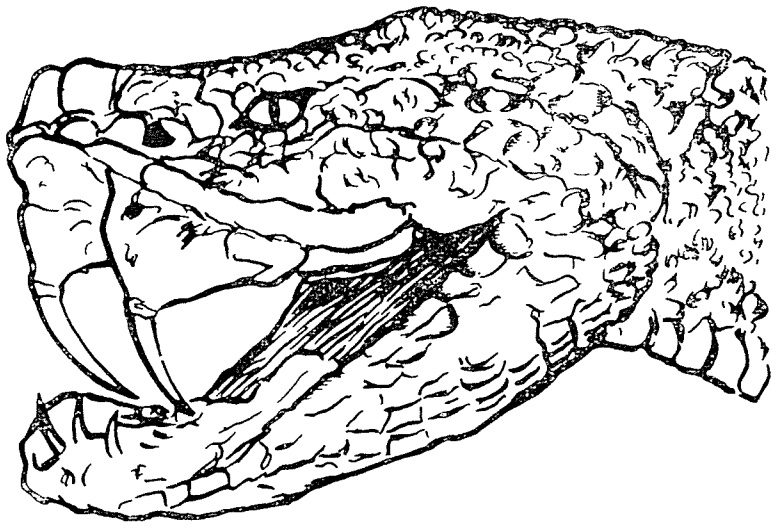
"89" (Callicore aurelia) and "Zebra" (Gynecia dirce) Butterflies.
(Photo: John. P. Fortune)



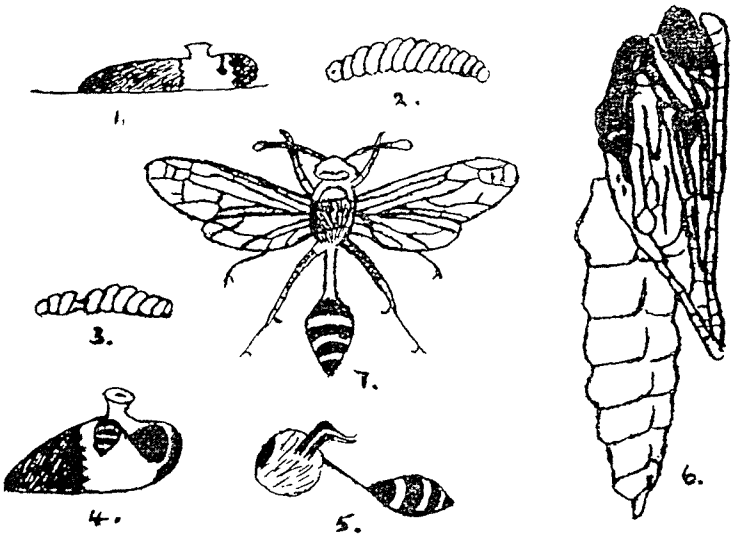
Large Free-tailed Bat (Molossus ater ater), dorsal view, male
(Photo taken by Trinidad Regional Virus Laboratory).



Trinidad Field Naturalists' Club visits Aripo Savanna
(Photo: John. P. Fortune)



Head of Trinidad's most venomous snake, the Mapepire Z'Anana.
(Drawing courtesy Capt. A. L. Mendes).



Life-history of potter wasp (Eumenes regulus)—1. Mud-cell, showing egg; 2. Larva; 3. Pupal stage begins; 4. Pupa in nest; 5. Legs begin appearing; 6. Exarate pupa; 7. Adult insect. (All enlarged).