

than half an inch across at its widest. Though it looked a physical impossibility for it to swallow the frog, the snake had no doubts on the matter and retreating to its lair behind the stone, set to work. It had caught the frog about halfway down the leg, and it first worked its way back till the foot was in its mouth and then started literally to crawl outside its victim. The jaws worked alternately from side to side. Getting a purchase with the top jaw, there followed a violent heave until the lower jaw could grip a little further on, the two becoming entirely dislocated and the gape enormously stretched as it reached the thicker portion of the frog's body. The frog struggled violently until one leg was engulfed after which it seemed to become resigned to its fate and lay quite passive though still alive. Reaching the base of the first leg, the snake worked its way across the caudal region of the body and with considerable difficulty managed to double up and swallow the other hind leg. After that it was comparatively plain sailing though the gape and throat looked as if they might split at any moment. The whole process took about twenty minutes.

In this case the snake made no attempt to turn the frog round and swallow it head first. If it had tried to do so, it (the latter) would very probably have managed to break away, and it seems likely that most small, non-venomous snakes which devour their prey alive must swallow it as they catch it in whatever position it may be.

COOVERCOLLY,

SOMWARPET, COORG.

F. N. BETTS.

January 8, 1937.

XXIX.—THE GIANT WOOD SPIDER.

I give below an account of the interesting behaviour of a species of small fly with a Giant Wood Spider (*Nephila maculata*) which is very common in the Coffee at this time of year. If you consider it worthy of record please publish it in the *Journal*.

During Coffee crop harvesting operations I noticed one of these spiders on the top of a Coffee bush having had its web torn down and was surprised to see a small fly crawling about one of its palpi. I watched to see what the spider would do to such a daring adventurer; but not content with its dangerous position the fly stepped on to the mandibles and put its head seemingly into the very jaws of its giant hereditary enemy. In a few seconds I was watching with even closer attention as the fly's abdomen was visibly swelling with the intake of some liquid and when about twice its original size the fly departed. Now what was the liquid imbibed from the lips of so formidable an enemy of all flies in general? Was I a witness to the equivalent, in the Arachnid tribe, to the African Crocodile Bird?

Further investigation may bring fresh light on the subject, but the fly being so small and easily overlooked there is remote chance of ever seeing such an interesting incident again. The spider took not the slightest notice of the fly, at anyrate did not appear to resent its presence. I was unable to see exactly how or from whence the fly sucked up the liquid as the nearer I moved my head the further the spider moved away.

NADUAR ESTATE,
VALPARAI P.O., S. INDIA.

January 20, 1937.

R. N. CHAMPION-JONES.

XXX.—NOTES ON THE MOULTING PROCESS OF THE
SPIDER (*MYRMARACHNE PLATALEOIDES*, CAMB.)

(With four text figures)

Though it is generally believed that the spiders do not undergo any metamorphosis except the development of the palpal organs in the males after their final moult, yet a kind of transformation not only in the tarsal segment of the pedipalp of the male but also in the mandibles, teeth and fangs takes place in *Myrmarachne plataleoides*, Camb., and some other of *Attid* spiders.

Sometime ago I collected a specimen of *Myrmarachne plataleoides*, apparently a female, and put it in a glass tube. The next morning I was surprised to note a remarkable change in the contour of its body. The specimen had, by now, become a fully developed male, provided with the copulatory organs at the digital joints of the palpi; the chelicerae being nearly half as long as the body. These characteristics were not at all noticeable on the previous day when the specimen was actually collected. This marked transformation led me to investigate the details of the moulting habits of this species of spider, particularly with reference to the changes that occur during the final moult.

Colour.—After emergence from egg, the young *M. plataleoides* looks yellow with a continuous black line over the anterior row of eyes. The young ones come out of the retreat after 5 or 6 days. They measure about 1 to 1.5 mm. in length. At this stage the dorsum of the cephalothorax is almost black with a slight yellowish tint. The anterior portion of the abdomen, both dorsally and ventrally, is orange or reddish-yellow in colour, while the posterior half is deep black. The cephalic portion is high and flat, but the thoracic portion slopes with a slight upward curvature in the middle; the abdomen is oval with a slight depression on the dorsum.

Moults.—Within seven to ten days after emergence from the retreat, the young spider changes its skin. The second moult takes place ten to fifteen days after the first, a slight depression appearing at the middle of the cephalothorax. The young spider now appears