

periments among the birds in the New York Zoological Society's collection.

Speaking of this mite, Zürn says: "Wohnort. Im Unterhautzellgewebe, ferner im Bauchfell, in den serösen Überzügen der Eingeweide, in dem Bindegewebe, welches die grösseren Blutgefässe, namentlich die Aorta, umgibt, bei Tauben und einigen wildlebenden Vögeln." In all the birds which have come under my observation the mites have been absolutely confined to an irregular patch on each side of the breast-bone.

Another paragraph of interest follows: "*Hypodectes columbarum* ist keine fertig entwickelte Milbe, sondern die Larve einer solchen. Megnin hält sie für die Nympe einer ungekannten Milbe, wahrscheinlich eines *Pterolichus*. Der genannte Forscher will eine solche wurmförmige Larve oder Nympe auf einem sich mausernden Vogel beobachtet haben, wie sie in die klaffenden Follikel der ausgefallenen Federn eindrang; * * * Ist die Mauser vorüber, dann nehmen die Nymphen die normale Form an, indem sie sich aus ihren Hüllen befreien und auf die Oberfläche der Haut wandern."

This subdermal form may be the immature stage of an arthropod with incomplete metamorphosis, and as the birds afflicted had passed their moult, the fact that entrance was gained through a gaping feather follicle is not impossible. The hairs on the legs of these organisms would certainly seem to suggest that part, at least, of their existence is spent where these would be of more use than in an inch or two of subcutaneous tissue.

In two living ibises incisions in the skin of the breast were made, and by pushing the skin back and forth near the pectoral muscle, to which it is so loosely attached, a number of very small mites were 'teased' into view, but these birds have shown no ill effects from them.

If the ravages of these mites ever become again troublesome, the treatment suggests itself of injecting or applying some liquid inimical to parasites, as iodine, during the moulting of the birds which seem to be particularly susceptible.

Attempts to inoculate pigeons have not thus

far been made, as in dead birds the parasites have been also without life, and the living birds which have been examined have been too valuable to warrant any extensive incision for the purpose of obtaining living mites.

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NOTE ON DISCORBINA RUGOSA D'ORBIGNY, FROM PROVINCETOWN, CAPE COD.

THROUGH the courtesy of Professor J. Henry Blake, of Harvard, the writer recently received a number of specimens of Foraminifera from various localities. Among this material was some shore sand from Provincetown, Cape Cod, Mass., which contained a large number of foraminifera. Upon examination these were found to belong to a single species, namely *Discorbina rugosa* d'Orbigny.

The species is a particularly interesting one, since it does not appear to be at all common at the present time. The *Challenger* Expedition obtained the species from only two stations: off Papua, near Raine Island, depth 155 fathoms, and off Ki Island, 580 fathoms.

D'Orbigny in his report in 1839 on the Foraminifera of American Meridionale, described the shell under the name *Rosalina rugosa* from the Bay of St. Blas, Patagonia.

In the 'Challenger Report' Brady describes the shell as follows: "A more or less explanate modification of *Discorbina* resembling *Anomalina ammonoides* in general contour. The test is compressed and exhibits some approach to bilateral symmetry, and the peripheral edge is round and lobulated. The umbilical cavity of the inferior side is partially covered in by valvular flaps protecting the successive apertures."

This shell is very abundant in the Cape Cod shore sand at Provincetown, but the writer was unable to find a single specimen in some material submitted from Woods Holl. A more thorough examination may perhaps reveal the shell in other localities along the Atlantic coast, but it is probably confined to northern waters. Our specimens are large, well developed, of a dark brownish color and in a state of perfect preservation.

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