

scales of the *Tinea imbricata* by ethylic alcohol and crystallisable acetic acid, the preparation being free from all greasy substance, is plunged for twenty seconds in a solution of 1 in 100 of eosine orange, and afterwards discoloured by means of a few drops of alcohol at 60°; the preparation is then plunged for one minute in an aqueous solution of toluidin blue of 1 in 100 and discoloured once more by means of alcohol till the scale gets a clear colouring, after which the preparation is clarified by means of xylol and examined microscopically.

On the specimens coloured by the Jeanselme process one can see the mycelium filaments of the parasites clearly stained in dark blue on the *epidermic* cellular elements, coloured yellowish-red.

Superior to the method of Jeanselme, just described, is the following, mentioned by one of us in the *JOURNAL OF TROPICAL MEDICINE*, of December, 1905.

This method consists in washing the suspected scale in winter-green essence and Roux mixture; in its disassociation in an ammoniacal solution of 30 per cent., and its colouring by means of lithined aniline blue prepared by a special process. The preparations obtained by this method have a rare precision and show the presence of the parasites, even if these are in minute numbers. They are superior to the methods of colouring in toluidin blue (Jeanselme), or eosin alcohol (Besson), or vesuvine (Trebondeau) and safranine (F. Noe).

In our researches we have always observed, as already stated, the parasite of Trebondeau. The constituent elements are ramified and in great number; each one of them is formed of cubic or rectangular articulations of various sizes. Where the ramifications can be described the *mycelium* elements present a single body resembling the letter T or Y.

We have investigated with the greatest care to ascertain the starting point of the *Tinea imbricata* in Brazil, but, unfortunately, all our researches have been failures. It is a current opinion among people inhabiting the infested localities that the *Tinea imbricata* is derived from water, and shows itself in persons who bathe in the rivers. All that is but a supposition; it is, however, convenient to observe that the disease has its principal centres in villages situated on the banks of rivers.

One of us has devoted himself to investigations so as to know how far the popular idea regarding the diffusing of the *Tinea imbricata* through river bathing is true, but nothing has been proved up to the present respecting the subject.

*Tinea imbricata* is, in our opinion, increasing in Brazil. The fact of its being unknown up to a short time ago denotes it was rare in past periods. It used to attack only the natives, or persons inhabiting those places where physicians were not to be found who were acquainted with tropical dermatology, and who did not make the true diagnosis of the illness. Actually it is quite different, because the disease exists in the populous centres where its greater diffusion is readily understood.

We have tried, on our patients suffering from *Tinea imbricata*, most of the forms of treatment advised.

We have obtained good results by the application of wet boric compresses, followed by friction with

black soap and the use of Goa powder, advised by Branel.

The application of an iodine liniment recommended by Patrick Manson has benefited some patients; but what has given the best results, in our cases, is the bark of *Ocalia Perdiceps* adopted in the indigenous method.

The general lines of our method are: (1) A general tepid bath with an alkaline solution of one kilogramme of sodium acid carbonate diluted in twenty litres of water. (2) A lotion with the following mixture: Bark of *Ocalia perdiceps*, 50 grammes; glacial acetic acid, 15 grammes; glycerinated water (10 per cent.), 985 grammes; let the whole macerate during two days and then filter. We employ, before making use of this medicine, an alkaline solution to soften the scales and thus facilitate the introduction of the parasiticide medicine to the cellular elements. During this treatment we recommend to the patient a liberal regimen. We add also to this, tonic remedies such as iron, arsenic and strychnine. With this treatment the results obtained are quite encouraging.

## MOSQUITO NOTES.

By Lieut.-Colonel G. M. GILES, I.M.S. (Rtd.).

### I.—NOTE ON A SMALL COLLECTION OF MOSQUITOES FROM BARHAIN IN NORTHERN ARABIA (SHORES OF PERSIAN GULF).

It is a curious coincidence that an incidental remark on the scantiness of our knowledge of the mosquitoes of the Arabian peninsula in our last issue had hardly gone to the press, when I received from Dr. A. Bennett one of my collecting boxes with a small collection of mosquitoes from the Island of Barhain.

Unfortunately, too many specimens had been crowded into the box, so that some have suffered a good deal in transit, and it is possible that it may include more species than those enumerated below.

It includes only one specimen of the *Anophelinae*, a female *Nyssorhynchus metaboles* (Theobald), rather darker than most of the specimens in the British Museum collection, but this is probably the result of rubbing.

There are a number of specimens of a *Mansonia*, which represent, I fear, a new species.

Of the ten specimens, eight are males and two females.

*Mansonia Arabica*, sp. n.—Wings unspotted, but brindled; clothed with large broad scales, many having the characteristic "bracket" form; these are mingled white and black, the former largely preponderating; fringe scales entirely white.

Thorax dark brown grounded, clothed with white ferruginous and almost black curved scales, which very probably produce a definite ornamentation which appears to reproduce the two pale stripes of *Mansonia dorsalis* (Meig.).

Abdomen generally pale, clothed with a mixture of white, with a few ferruginous scales, the former form-

ing an almost pure white median line, while the latter are mainly confined to the sides. In addition, there are on all but the last segments a pair of L-shaped dark brown spots, the horizontal limbs of which form an apical dark border to the segments, interrupted by the median white line.

Legs brindled, with black, white, and ferruginous scales, giving a generally rather dark effect, with snowy knee spots, and three fairly broad, articular, ferruginous bands on the tarsi (rather variable).

Proboscis dark at the tip and absolute base, and quite pale in the middle, but still not definitely banded.

Head mainly covered with white, forked scales. Antennæ of ♂ ferruginous, of ♀ with almost white plumes. Palpi of ♂ almost white, with darker spots

erroneous, too, to assert that in any *Mansonia* there are no median scales, as stated in Mr. Theobald's definition of his genus. Unrubbed specimens must, of course, be selected, but what is actually the case is that in the more typical species the median as well as the lateral scales have assumed the peculiar broad form.

In the present species this is only commencing, though when separate and flattened out, the median scales are considerably wider than they appear in the *camera lucida* outline of the figure. Another character of the genus is that the species are brindled, with mixed scales of contrasting colours, not only on the wings, but more or less over the entire body, and especially on the legs.

A somewhat striking character of the venation of the present species is the exceptional shortness of both the fork-cells.

The two remaining species included in the collection are almost cosmopolitan, for the warmer parts of the world, being:—

(2) *Stegomyia fasciata*, Fabr. Ten specimens, all but two of which are females.

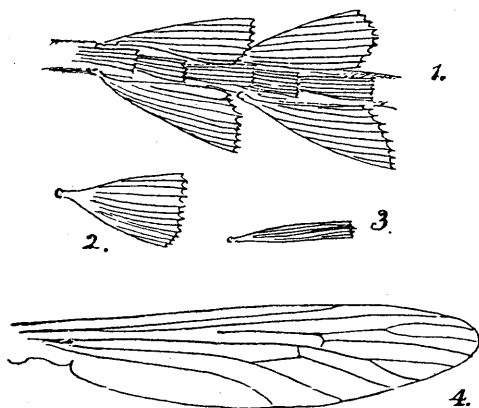
(3) *Culex fatigans*, Wied. Twelve specimens, eight of which are females and four males.

II.—Dr. Adolf Eysell kindly sends me a reprint of the forty-ninth report of the Natural History Clubs of Cassell, entitled, "Sind die Culiciden eine Familie?" (Are the *Culicidae* a Single Family?). He first takes up the consideration of the genera *Corethra* and *Mochloryx*, which are now usually placed as a sub-family (the *Corethrinae*) of the *Culicidae*, and gives excellent reasons for deprecating their inclusion with the true gnats, with which probably most naturalists who have studied these insects will agree. It may be remarked that it was only after considerable hesitation that I decided to include descriptions of these insects in my "Handbook of the Gnats or Mosquitoes," and I believe that Mr. Theobald felt a similar hesitation when preparing his monograph.

Our ultimate decision to do so I personally regard as a mistake, which unnecessarily extended the scope of our books. These insects, in fact, are not gnats at all, their mouth-parts differing entirely from the piercing apparatus of those insects, and should really be considered midges with a wing venation that chances to resemble that of the *Culicidae*.

Possibly this is a case of mimicry, though, as is often the case, it is difficult to see what advantage accrues to the midge from its resemblance to the gnats. His proposal, however, to promote the *Corethrinae* into a distinct family, instead of transferring them to the *Chironanidae*, may not, however, command such general approval, and still more his proposal to adopt the same course with regard to the *Anophelinae*, for if, apart from the *Anophelinae*, the *Culicidae* are not a single family, and, it may be added, a remarkably natural one, it is difficult to understand what constitutes family resemblance.

It is perhaps only a natural evolution of the process which is rapidly reducing our conception of genus to the level of species, and each naturalist's decision must depend on his conception of the limits of these extremely elastic and ill-defined terms. It is obvious, however, that it only requires a sufficient extension of



*Mansonia arabica*. (1) Portion of 1st longitudinal vein. (2) A broad scale from one of the hinder veins. (3) Lateral scale from anterior fork. (4) Venation.

at the joints and in middle of the long second joint; of ♀, dark brown. Scutellum with white and ferruginous scales; pleura ferruginous, with some white tufts; venter mainly white scaled; sides of abdomen densely fringed with long brown hairs. A fairly large mosquito.

The female has a median, ferruginous abdominal stripe, and the L-shaped spots so large as to be almost continuous laterally, and in both the marking is generally darker than in the male.

In Mr. Theobald's classification I conclude that this species would be placed as a *Grabhamia*, as it is strikingly like our English species *dorsalis*, which is included by Mr. Theobald in that genus. In the ♀ the resemblance is specially close. I confess, however, that I am unable to distinguish the limitations of *Grabhamia*, as the distinction between it and his *Tæniorrhynchus* on the one hand, and *Mansonia* on the other, do not appear to be quite apparent.

The genus *Mansonia*, if not too rigidly defined, is quite a natural one; and as regards the wing, the definition I should prefer would be that the veins should be prominently, but not necessarily, entirely clothed with large broad scales. This would admit of the inclusion of a considerable number of species, such as *fasciolatus*, which Mr. Theobald places in *Tæniorrhynchus*. The asymmetry of the so-called bracket scales is in most cases more apparent than real, and is more commonly an effect of perspective. It is

the process to leave each species in a separate class of animated Nature by itself, and then I suppose we should have to start off again with the process of sorting it by instituting generoids, familoids, or some such nomenclature.

He has also been good enough to send me a reprint of his articles on the mosquitoes in Dr. C. Mense's "Handbuch der Tropenkrankheiten," which gives in comparatively short compass a thoroughly up-to-date epitome of the morphology of the family, methods of dissection, collection, preservation, general principles of classification, &c., as well as a short account of the life-history of the malarial parasite. It is well and liberally illustrated, though some of the photographs are not quite as convincing as might be desired, and certainly in some cases might advantageously be replaced by drawings.

**"Centralblatt für Bakteriologie Parasitenkunde und Infektionskrankheiten," xxxix., p. 280.**

**SCHISTOSOMUM JAPONICUM.**

Looss shows that *Schistosomum Cattoi*, Catto, 1905, is only a synonym for *S. Japonicum*, Katsurada (1904); the employment of the newer name (*S. Cattoi*) should therefore be dropped, and the older be always employed in speaking of this parasite.

**"Journal of Infect. Dis.," 1905, p. 577.**

It is well known that plague bacilli are occasionally met with enclosed in a capsule, and W. B. Wherry has met with the same peculiarity in a cocco-bacillus isolated from the liver of a plague rat. The oval capsule stained red with Romanowski; and cultivations answered to all the ordinary tests of *B. pestis*.

**"Archives de Zoologic. Exper.," 1905, p. 101.**

**RESEARCHES ON THE HAPLOSPORIDIÆ.**

Caullery, M., and Mesnil, F. The haplosporids are an order instituted by the authors in 1899. They are sporozoa allied to the microsporidia, but with quite different spores. These are always mononuclear, with large, easily demonstrated nuclei, and the cell plasma quite undifferentiated, and with no trace of polar capsule.

The authors have combined their own work with that of others on similar types, and propose the following classifications.

They divide the order into three families:—

(1) *Haplosporidiidæ*. Spores with double envelopes, the inner denser and furnished with an opening, closed by a valve in *Haplosporidium*, or open in *Urosporidium*, in which it also has a long tail-like process and a lateral wing. Parasitic in annelids.

(2) *Bertramiidæ*. Spore envelopes without opening. Genus *Bertramia* and probably *Ichthyosporidium*, one of the species of which inhabits the stomachs, and the other causes large tumours in certain fishes, but is as yet insufficiently known to be definitely placed.

(3) *Celosporidiidæ*, in which the entire parasite encloses in a dense membrane, while the mononuclear spores developed within it remain nude. It includes, besides the type genus, *Polagcaryum*, Sternbell, and *Blastulidium*, Perez.

The authors enumerate many other genera which they believe come within the order, and believe that the *Haplosporidiæ* are nearest to the *Sarcosporidiæ*, but approach also the *Microsporids* and *Rhizopods*, and perhaps to the lower fungi, such as the *Chytridiinæ*. The human parasite recently described in a nasal polypus by Minchin and Fantham, it will be noted, is a *Haplosporid*.

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### THE

## Journal of Tropical Medicine

MAY 1, 1906.

### IS MALARIA AS BLACK AS IT IS PAINTED?

THERE is an old tale, anent one of the old Georgian medical worthies—Abernethy, if memory serves us aright—that when posed by any difficult complication, he was accustomed to declare that "it was all gout." Nor, if we may judge from the writings of Haig and his school, is the doctrine by any means dead; for, indeed, the tendency of specialists generally to claim all disease as their own is proverbial.

For tropical countries malaria has, in this respect, always taken the place occupied by gout in temperate climates. Long before Laveran discovered the malaria parasite, the verdict of the tropical physician has generally been "it is all malaria," and the prominence that disease has recently attained as the pioneer of our knowledge of human protozoal disease has only added to its pre-eminence in this respect.

We have always been familiar with such terms as malarial rheumatism, malarial iritis, phlebitis, and what not, but it is tolerably certain that had these cases presented themselves to a European physician, suffering from what may be called the gouty bias, his diagnosis would have differed from that of his tropical colleague only in the substitution of the word "gouty" for "malarial."

Analysing the reports of such cases, we generally find that, beyond coincidence, the evidence in favour of the need of any qualifying word to that specifying the disease is remarkably scanty.