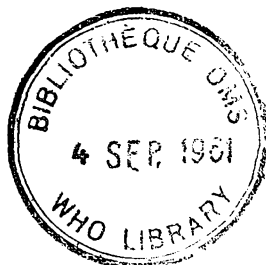


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WHO/Ma1/308 ✓
24 August 1961

ORIGINAL: ENGLISH

ANOPHELES DTHALI PATTON AS A POSSIBLE SECONDARY VECTOR
OF MALARIA IN THE NORTHERN REGION OF THE SOMALI REPUBLIC

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Anopheles dthali¹ has been suspected of playing a possible role in the transmission of malaria in certain localities (vide de Meillon, 1947) - although the species has not been definitely incriminated so far. Horsfall (1955) also envisaged the possibility of this species being associated with the reservoir of human plasmodia but specific evidence of this was not available.

The species has a wide distribution in the Northern Region of the Somali Republic and is particularly prevalent in the seepage water areas where it usually exhibits a greater intensity of breeding than A. gambiae, the main vector. No importance, with relation to malaria transmission in this region, was attributed to A. dthali on account of the highly zoophilic and exophilic nature of the species.

The species is rarely represented in indoor resting collections. However, in June 1960, 14 A. dthali were caught from within human dwellings in an endemic locality; and one of ~~these~~ showed sporozoites in the salivary glands. No infected glands were seen in A. gambiae collected at the same time. An examination of the ovaries obtained from 9 of the 14 A. dthali revealed

¹ The spelling "dthali" (instead of "d'thali") adapted by Stone, Knight & Starcke (1959) in their recent Synoptic Catalog of the Mosquitoes of the World has been followed here (Editor's remark).

that 8 of them were parous as against only one nulliparous individual. At that time there were many complaints of malaria from the people of the locality and, in fact, about 20% of a collection of blood smears, mostly from fever cases, proved positive for falciparum malaria. These findings tended to throw suspicion on A. dthali as a secondary vector of malaria in this region. An apparently conflicting observation was that, of the 11 A. dthali in the above collection from which blood smears could be obtained, none were shown to have fed on man according to precipitin tests carried out at the Lister Institute.

Night collections on human bait have disclosed a high rate of outdoor biting by Anophelines, including A. dthali. This introduces the possibility of outdoor transmission of malaria when considered in relation to the common practice of sleeping in the open and evening cultural activities indulged in by a good proportion of the people, particularly during the spring season, the latter part of which coincides with the malaria transmission period. The vectorial status of A. dthali may have some bearing on the problem of interruption of transmission of malaria in this region, but certainly it needs further investigation before its role as a secondary vector is confirmed.

REFERENCES

- de Meillon, B. (1947) The Anophelini of the Ethiopian Geographical Region. South African Institute for Medical Research, Johannesburg.
- Horsfall, W. R. (1955) Mosquitoes, their bionomics and relation to disease, New York
- Stone, A., Knight, K. L. & Starcke, H. (1959) A synoptic catalog of the mosquitoes of the world. Th. Say Foundation, Entomological Society of America, Baltimore.