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PICTORIAL KEY TO THE "ANOPHELES LEUCOSPHYRUS" GROUP

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Details of the taxonomy of the "Anopheles leucosphyrus" complex have been worked out by Colless (1956, 1957) and Reid (1949). In view of the difficulties in the classification of this group and the importance of certain species (A. balabacensis, A. leucosphyrus and probably the "Celebes form" of A. leucosphyrus) as malaria vectors, a pictorial key to the adult females of the group has been prepared for the use of field workers. Like any other key the present one might fail with occasional individual specimens. The preparation of the present key has been based mainly on the above-mentioned publications and for the use of the workers in the Western Pacific. Certain species, like A. cristatus which is very rare and A. elegans which does not occur in the Region, are purposely not included in the key. However, for ready reference, the species and subspecies of the "A. leucosphyrus" group together with their distribution are quoted below:

Anopheles balabacensis baisasi Colless, 1957

Philippines (Luzon).

A. b. balabacensis Baisas, 1936

Brunei, Burma, Cambodia, China (Taiwan, ? Hainan, ? Yunnan), India (Assam, Bengal, Karwar), Indonesia (Java), Laos, Malaya (near the Thailand border only), North Borneo, Philippines (Balabac and Palawan), Sarawak (extreme north), Thailand and Viet Nam.

A. b. introlatus Colless, 1957

Malaya (Selangor).

A. cristatus King & Baisas, 1936

It closely resembles A. riparis and is very rare, only from the type locality (Mindanao, Philippines).

A. elegans James, 1903

Ceylon, India.

A. hackeri Edwards, 1921

Malaya, North Borneo, Sarawak, probably also Indonesia (Sumatra) and the Philippines (Palawan).[1]

A. leucosphyrus Dönitz, 1901

Indonesia (Sumatra, ? Balikpapan), Malaya and Sarawak.

A. pujutensis Colless, 1948

Borneo, Indonesia (Sumatra) and Malaya.

A. riparis macarthuri Colless, 1956

Malaya and Sarawak

A. r. riparis King & Baisas, 1936

Philippines (Mindanao).

In addition, the "Celebes form of A. leucosphyrus", which closely resembles A. hackeri and appears to be confined to Celebes and its neighbouring islands, should be a valid species according to a personal communication from Dr Colless in 1960.

ACKNOWLEDGEMENTS

I should like to take this opportunity to thank Drs D. H. Colless and J. A. Reid for their useful comments on the pictorial key and their permission

[1] A. hackeri has recently been incriminated in the transmission of P. knowlesi of monkeys in Malaya - (Editor's remark)

to copy the drawings from their publications. Thanks are also due to Mr Nha of the Administration General for Malaria Eradication (AGME) in Saigon, for the drawings made by him.

REFERENCES

Colless, D.H. (1956) Trans. R. ent. Soc. London, 108, 37

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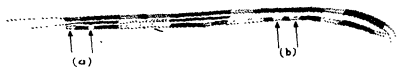
PICTORIAL KEY TO THE ANOPHELES LEUCOSPHYRUS GROUP

ADULT FEMALES

PALPS ABOUT AS LONG AS PROBOSCIS

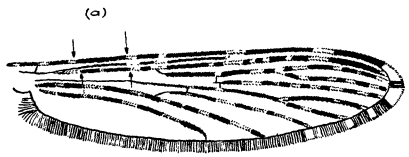
VEIN I: (a) PRESECTOR DARK SPOT WITH ONE OR MORE PALE INTERRUPTIONS, (b) PREAPICAL DARK SPOT USUALLY WITH 2-3 PALE INTERRUPTIONS



VEIN I: PRESECTOR DARK SPOT WITHOUT PALE INTERRUPTIONS; PREAPICAL DARK SPOT USUALLY WITH ONE PALE INTERRUPTION

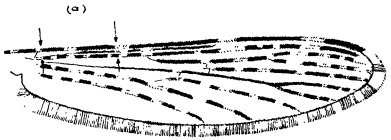
RIPARIS

(a) PRESECTOR DARK SPOT OF VEIN I ABOUT THE SAME LENGTH AS THAT ON COSTA.
(b) HIND TARSAL SEGMENT 4 WITH A DISTINCT BASAL PALE BAND.



BALABACENSIS

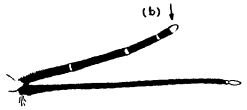
(a) PRESECTOR DARK SPOT OF VEIN I LONGER, EXTENDING BASALLY AT LEAST TO THE LEVEL OF THE HUMERAL DARK SPOT ON THE COSTA
(b) HIND TARSAL SEGMENT 4 USUALLY WITH NO BASAL PALE BAND.



LEUCOSPHYRUS

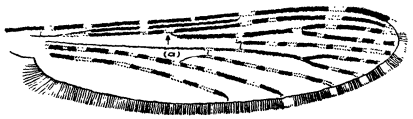
PALPS MUCH SHORTER THAN PROBOSCIS

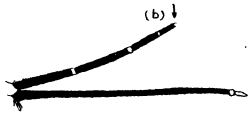
(a) MIDDLE DARK SPOT OF VEIN I WITH TWO PALE INTERRUPTIONS; (b) PALPS WITH BROAD APICAL PALE BAND, ABOUT EQUAL IN LENGTH TO THE PREAPICAL DARK BAND.



PUJUTENSIS

MIDDLE DARK SPOT OF VEIN I WITH ONLY ONE PALE INTERRUPTION; PALPS WITH VERY NARROW APICAL PALE BAND, MUCH SHORTER THAN THE PREAPICAL DARK BAND.





HACKERI