

NOTE ON THE OCCURRENCE OF THE
LEECH *LIMNATIS NILOTICA* IN
SEISTAN AND THE AFGHAN-
BALUCH DESERT

By N. ANNANDALE, D.Sc., F.A.S.B., Director, and AMIN-UD-DIN,
M.Sc., Research Assistant, Zoological Survey of India.

Blanchard¹ has given numerous instances of the leech *Limnatis nilotica* causing haemorrhage in the throat of men and beasts when swallowed, while Masterman² supplies details of cases in Palestine. The oldest reference, however, is probably to be found in the story of how Gideon³ chose out his picked men, careful and fitted for a sudden night-attack on the enemy. This he did by selecting those who lifted up water from a stream in their hands before drinking it, instead of lapping like a dog direct from the stream. The precaution is still a necessity for all who drink from streams and springs in Palestine (where the danger of swallowing a leech is real), and might still be used in separating careful from careless persons. In all cases investigated in Palestine the leech swallowed has been *L. nilotica* (cf. Masterman, *op. cit.*).

It is, therefore, of particular interest to put on record the occurrence of this leech on the borders and even within the boundaries of the Indian Empire. While travelling to Seistan in November 1918, Dr. Annandale and Dr. Kemp saw a member of an Indian labour corps carefully skimming water from the top of a spring at Makki in Western Baluchistan, close to the Afghan border. When asked why he did this, the man said that he was afraid of leeches. No leech was seen in this spring, but many were observed at Robot close to the point at which the Afghan, Baluch and Persian frontiers meet, and also at Hurmuk across the last. Specimens were not obtained at any of these places, but there can be little doubt from the observations made that they belong to the same species as one captured at Nawarchah, a place some distance north of Hurmuk and well within the district of Seistan, on the tongue of a horse.

The specimen is small, being only 2.5 cm. long and .5 cm. broad as preserved in 90% alcohol, but it agrees in all essentials with small specimens of *L. nilotica* (Savigny) from Palestine. It belongs to the colour-form in which the dark markings are obscure or obsolete. The posterior sucker is of a characteristic size, the

¹ *Boll. Mus. Zool. Torino* IX, No. 189, p. 43 (1894).

² *Parasitology* I, p. 282 (1908).

³ *Judges* VII, 6. Frazer in his *Folk-lore in the Old Testament* adopts a ritualistic explanation.

diameter being about 5 mm. and that of the anterior sucker only 2 mm.

L. nilotica is easily distinguished from the common Indian species, *Limnatis (Poecilobdella) granulosa* (Savigny), by the absence of the colour-pattern characteristic¹ of the sub-genus *Poecilobdella* and by its smaller size.

¹ See Blanchard in Weber's *Zool. Ergeb. Niederland. Ost.-Ind.* IV, p. 346, fig. 3.

