sicklemia appears to be inversely proportional to the contact the various tribes have had with their most recent Hamitic invaders. Thus the trait is least common among the Bairu, who have lived for generations as helots to the ruling class of Hamitic conquerors, the Bahima, on the best pastoral land in Uganda. Next come the Banyaruanda, Banyoro and Batoro, whose traditions and customs testify to prolonged contact with the Bahima, and whose aristocracy possesses Hamitic features. The contact of the Baganda, Bakonjo and Barundi with Hamitic peoples in recent times has probably been less direct and made by way of their neighbours, the Banyoro, Batoro and Banyaruanda.

The Basoga and Bagishu, two closely related tribes, live remote from the track of the Hamitic peoples. The South Basoga, to whom the accompanying table refers, live in the swampy country between Lakes Victoria and Kyoga. The Bagishu live on the western slopes of Mount Elgon. There is no history of direct contact with Hamitic tribes, though tradition records hostile relations with the Jaluo of the neighbouring plains, themselves a tribe of high sickle-cell incidence.

The Baamba are a secluded tribe living west of the Ruwenzori Range. They are composed of the Babullibulli and Bamwezi, who differ in language and in some physical characteristics, but show the same incidence of sicklemia. They claim to be autochthonous, and of all the tribes we have investigated these pigmoids are furthest removed from the Bahima in physical appearance.

We consider that, so far as Central Africa is concerned, a study of the distribution of sicklemia could usefully contribute to physical anthropology.

H. LEHMANN
A. B. RAPER

Makerere College and Mulago Hospital,
Kampala, Uganda.
Medical Laboratory,
Kampala, Uganda.

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Stimulation of the Uropygial Gland in the Female Indian Spotted Munia, *Uroloncha punctulata* (L.), Due to Oestrogen Treatment

Hooker and Pfeiffer¹ observed an atrophy of the uropygial gland in rats after oestrogen treatment. This atrophy was prevented by androgen therapy. Bullough² reported stimulation of this gland in the mouse due to the administration of oestrogen, and further noted that prolonged oestrogenic treatment caused a depression of this gland. However, Kar³ observed that the oestrogen failed to elicit any response in the uropygial gland of White Leghorn cockerels. This hormonal ineffectiveness was explained by the assumption that the female sex hormone failed to influence this sebaceous type of gland in the cockerels with functioning testes. The present report has been concerned with an attempt to test the validity of this assumption with female birds as the experimental material.

The juvenile female spotted munia involved in this study were injected intramuscularly with alpha-

oestradiol benzoate (125 R.U. daily) for a period of 25 days. Uninjected birds served as the controls. Twenty-four hours subsequent to the final treatment, the birds were autopsied along with the control specimens. The uropygial glands were dissected out and weighed to the nearest milligram. The results obtained are presented in the accompanying table.

	Number of birds	Weight of uropygial gland		Body-weight at autopsy (gm.)
		Absolute (mgm.)	Relative* (per cent)	
Uninjected controls	10	55.5 ± 1.5†	0.0042	13.8 ± 0.2
Oestrogen-treated	10	122.2 ± 1.8	0.0087	14.0 ± 0.5

* Uropygial gland weight as percentage of the body-weight.
† Standard error of the mean.

It will be appreciated from the table that the uropygial gland was stimulated as a result of oestrogenic treatment. The present report, therefore, strengthens my view that the oestrogen shows marked sex specificity in influencing the uropygial gland³. However, a question may be raised as to whether the action of alpha-oestradiol benzoate is independent of the presence of the ovary. Since the oestrogen was without any effect on the latter⁴, it appears probable that its action on the uropygial gland was a direct one.

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AMIYA B. KAR

Department of Zoology,
University of Calcutta,
and

Department of Biology,
St. Xavier's College,
Calcutta.
March 8.

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Multipolar Meiosis in *Elephantulus*

ONE of the males used for a cytogenetical investigation of *Elephantulus myurus jamesoni*, the South African jumping shrew, showed a high incidence of multipolar meiotic divisions. This was not referred to in the original reports of the cytogenetics of *Elephantulus*^{1,2} and is described below. In a count of a hundred first meiotic metaphases and anaphases, 75 per cent of the divisions were multipolar and, of these, the vast majority were divisions with tripolar spindles. Fig. 1 is a photomicrograph of a typical tripolar first meiotic metaphase.

Multipolarity was confined to the meiotic divisions; the mitoses were normally bipolar. The consequences of these multipolar divisions are maldistribution of the chromosomes at anaphase (Fig. 2, a, b, c, d) with resulting chromosomal abnormalities of the daughter nuclei. Fig. 2 also shows that the tripolar spindle splits into three adjacent spindles at anaphase. Occasionally, diagonal spindles are found as well.

At the poles of these multipolar spindles, a clearly defined centrosome is always observed. This indicates