

investigated it seems premature to speculate upon the nature of the cyanide-stable portion of respiration as we may have here a case of incomplete inhibition of cytochrome oxidation by cyanide. There is also the possibility that in one tissue there may exist more than one cytochrome oxidase, varying in sensitivity towards cyanide.

Further details as to the cyanide sensitivity of the tea oxidase and its similarities to cytochrome oxidase will be published elsewhere.

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June 21.

<sup>1</sup> Commoner, B., *Biol. Rev.*, 15, 168 (1940).

<sup>2</sup> Roberts, E. A. H., *Biochem. J.*, 30, 2166 (1936).

## Faunistics and Ages of the East African Islands

ON an ordinary map the three low tropical islands of Pemba, Zanzibar and Mafia appear to bear a similar relationship to the African continent, from which they are all distant less than thirty miles. In fact, however, while the last two islands are on the continental shelf, Pemba is surrounded by water 2,500 ft. deep. Geological opinion is unanimous that Zanzibar and Mafia have been separated from the mainland only since Pleistocene times, but the geological history of Pemba is more uncertain. It has been maintained by Stockley<sup>1,2</sup> that this island has not been connected with Africa at least since Miocene times and his views have obtained wide currency. Actually the geological evidence on which this view is based is not very conclusive; for it is limited to the apparent non-existence of an unconformity between the (non-fossiliferous) Wete beds and the Chakechake beds which are dated as early Miocene.

Recently with the help of the British Museum (Natural History) we have examined the existing check-lists of the island vertebrates<sup>3</sup>. We find that many species have been admitted on inadequate or mistaken evidence while, on the other hand, many have to be added as a result of recent years collecting. We have analysed the revised check-lists and considered the results in conjunction with the fact that: (a) evergreen forest, probably the predominant formation in the islands in the past, has been greatly reduced in all of them, (b) owing to the topography and the currents the chances of Pemba's being colonized from the mainland (or another island) are, under present conditions, much smaller than those of the other islands. We find that the island faunas are all much poorer than that of the comparable strip on the mainland coast, with important families unaccountably absent, especially in Pemba. In specific composition the island faunas are entirely East African, except for certain Mascarene affinities, most of which appear in Pemba although there is none in Zanzibar. These peculiarities of Pemba are, however, contrary to expectation, exhibited almost entirely by flying animals, which tends to reduce their zoo-geographical significance. The most striking feature of the faunas is that endemism is low in all three islands and in all the vertebrate classes it is mostly subspecific and it is in no case generic. In addition to the single-island endemic subspecies

there are several that are confined to Pemba + Zanzibar or Zanzibar + Mafia.

The faunistic evidence is thus in entire accord with the view that Zanzibar and Mafia are Pleistocene islands, and on the whole is strongly against the view that Pemba has been isolated since the Miocene or indeed much longer than the other islands. This conclusion would support the view<sup>4</sup> that the submarine scarps of Pemba may be connected with the extensive Pleistocene rifting in East Africa.

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<sup>1</sup> Stockley, G. M., "Report on the Geology of the Zanzibar Protectorate", Zanzibar (1928).

<sup>2</sup> Stockley, G. M., *Tanganyika Notes Rec.*, 3, 82-86 (1937).

<sup>3</sup> Voeltzkow, A., "Reise in Ost-Afrika in den Jahren 1903-1905". Abt. 1, Stuttgart (1923).

<sup>4</sup> von Staff, H., "Wiss. Ergeb. Tendagurn-Expedition 1909-1912", Berlin (1914).

## Camouflage in War-time

IN NATURE of August 3, p. 168, Mr. C. H. Rowe, criticizing schemes of camouflage painting in Great Britain, made a suggestion, based apparently on hearsay only, which implied that the interests of the Paint Manufacturers' Association was partly responsible for what he considered to be unscientific camouflage.

For the information of readers of NATURE, I must explain that the National Paint Federation is not consulted, and has no influence, on the selection of the shades of colours used or the camouflage scheme decided upon, and, moreover, has been instructed that it is not to act in an advisory capacity on such matters. Its duty is to provide paint to the shade of colour selected by, and made to a specification approved by, the Government Department concerned.

We cannot, therefore, accept credit for the excellence of many of the schemes that have been carried out in Great Britain, or blame for any failures.

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I HASTEN to apologize to Mr. S. K. Thornley and to readers of NATURE for the statement made in my letter. The fact that I made clear that my information was entirely hearsay, and that it was from a source which I have had, hitherto, no reason to consider unreliable, does not absolve me. I should, of course, have consulted the Paint Federation first.

Mr. Thornley's prompt denial of responsibility is very welcome, but perhaps he will go further and tell us who it is that approves the specifications for the shades of colour and the paint for Army camouflage ordered from his members. If he can do this, we may be one step further in tracking down the monster of khaki and green 'kidneys' to his lair.

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