main experiment (*loc. cit.*) showed that the number of anophelines caught was far less than the collection in the control village (average anopheline catch per night 2·7 as against 25 in the nearest comparison station). The average number of engorged anophelines caught per night from the sprayed area was 0·32, while the same in the comparison station was 12. Mortality occurred of 22 per cent of the total collection in this experiment within 4–12 hr. from the time of capture, and in another 33 per cent within 12–16 hr. The reduction of mosquitoes obtained in the house catches was not, however, associated with a reduction of larval density in the area treated.

The spleen-rate in the treated villages was reduced from 63·5 to 39·5 per cent without any decline in the control village. The parasite-rate remained relatively unchanged in the experimental village, and increased markedly in the control village. There was an increase, however, of *P. falciparum* infection in the treated village.

These findings indicate that whatever be the nature of action of DDT against *A. letifer*, it can control malaria in the areas where this species is the vector. It also shows that this effect is short-lived when compared to the findings in most other countries, probably due mainly to the outdoor resting and, on occasions, outdoor feeding habits of *A. letifer*. Another vector in Malaya, even more important than *A. letifer*, is *A. maculatus*. Logically speaking, better results are to be obtained with this species than with *A. letifer* because, although *A. maculatus* is also an outdoor rester, it is not at least recorded as an outdoor feeder. Opinion regarding the utility of DDT against this vector is, however, not unanimous. While Wallace[10] believes that this insecticide is ineffective, the findings of Warton and Reed[3] do not confirm this. Further investigations are therefore necessary to throw more light on the effect and mode of action of DDT against the vectors in Malaya.

C. P. Nair

Malaria Institute of India,
22 Alipore Road, Delhi.
Aug. 10.

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Number of Radiolaria in Sediments

Through the courtesy of Dr. B. Kullenberg, who is in charge of the study of the sediment cores from the Indian Ocean taken by him with the aid of his revolutionary sampler during the Swedish Deep-Sea Expedition, I have been able to examine several of the cores from that Ocean for microfossils. These investigations have been mainly restricted to the Radiolaria, and on this subject there is considerable disparity between our results and those of the *John Murray* Expedition to the same area. As this lack of agreement involves the matter of the technique of investigation of the biological components of deep-sea sediments, it is considered advisable to publish a short notice before the appearance of the complete reports of the Expedition.

As has been the practice in dealing with most deep-sea sediments obtained by recent expeditions, the biological contributions to the sediments collected by the *John Murray* Expedition were determined after the coarse particles had been separated from the 'mud' fraction by means of a sieve with meshes approximately 160 μ in diameter. On examining the coarse material obtained in this way, Stubbings[1] reports that Radiolaria are often absent from the sediments, or occur but sparingly: he says, "even in the South Somali Basin, in which Murray and Philippi (1908) record a large area of the bottom as covered with Radiolarian ooze, none were obtained".

Examination of the Swedish samples from the same general area have confirmed the presence of radiolarian ooze in the Somali Basin, and have shown that a great number of Radiolaria are present in the sediments of many parts of the western Indian Ocean. The majority of these Radiolaria are of the order of 50–100 μ in diameter and would pass through the sieves usually used; moreover, a large proportion of them are of such delicacy that treatment of almost any kind would destroy them or render them unrecognizable. For the present investigation, a small amount of the sediment was placed on a microscopic slide, the calcareous components were dissolved with dilute hydrochloric acid, and the Radiolaria counted directly. The accompanying table gives the number of radiolarian skeletons per gram of air-dry sediment, from six localities between the Seychelles and Cape Guardafui.

Core Station No.	Position		Depth	No. of Radiolaria (per gm.)
	Lat.	Long.		
152	S. 03° 18′	E. 56° 47′	4,065 m.	300,000
153	S. 02° 18′	E. 55° 33′	4,360 m.	500,000
154	S. 00° 23′	E. 54° 30′	4,860 m.	450,000
155	N. 04° 28′	E. 52° 48′	5,117 m.	300,000
156	N. 07° 14′	E. 52° 49′	5,107 m.	350,000
157	N. 08° 05′	E. 53° 03′	5,100 m.	1,000,000

From the large amount of material from the Pacific Ocean which Prof. Hans Pettersson has generously placed at my disposal, it has been possible to compare the number of Radiolaria there with those of the Indian Ocean. A sample from lat. N. 00° 20′, long. W. 150° 36′ (depth 4,405 m.), in the region of the well-known Central Pacific radiolarian ooze, contains 540,000 Radiolaria per gram of air-dry sediment. As an example of a shallower sediment containing a high proportion of comparatively coarse terrigenous material, a similar examination was carried out on green mud from the Gulf of Aden (N. 11° 57′; E. 44° 18′; depth only 883 m.): here the occurrence of Radiolaria is of the order of 500 per gram of sediment.

The results from this investigation, which will be published in greater detail in the Reports of the Swedish Deep-Sea Expedition, emphasize the importance of a thorough examination of the finer fractions of marine sediments; if this is not carried out, wrong conclusions will inevitably be drawn from reports of the absence or scarcity of some of the biogenic components.

W. R. Riedel

Oceanografiska Institutet,
Göteborg. Oct. 10.

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