may be connected with the presence of the larvæ of *Apanteles*. Faure[9] has found that the presence of giant cells in the blood of caterpillars of *P. brassicæ* is a sure indication of parasitism by *Apanteles* larvæ. Grandori[10] has described how in *A. glomeratus* the cells of the embryonic membrane dissociate when the larva hatches, and he states that these cells preserve their vitality to the end of the larval life. It is therefore highly probable that, in this case also, the giant cells referred to by Paillot are derived from the embryonic membrane of the parasite.

It is not yet known in how many groups of parasitic Hymenoptera dissociation of the embryonic membrane and later hypertrophy of the cells occur, and it is probable that in many forms no such phenomena take place. Chrystal[11] observed that, in the cynipoid, *Ibalia leucospoides*, Hochenw., no dissociation of the trophamnion occurred, and in the ichneumon, *Pimpla examinator*, F., I have been unable to find either a cellular membrane or dissociated cells in the egg at the time of hatching, though at an earlier stage the embryonic membrane is distinct.

DOROTHY J. JACKSON.

North Cliff,
St. Andrews.
June 5.

[1] *C.R. Acad. Sci.*, **199**, 1450; 1934.
[2] NATURE, **113**, 353; 1924.
[3] *Proc. Zool. Soc.*, 597; 1928.
[4] *Pub. Inst. Zool. Univ. Charles, Prague*, **5**, 1; 1924.
[5] *Tech. Bull., U.S. Dept. Agric.*, **230**; 1931.
[6] *Proc. Ent. Soc. Wash.*, **33**, 93; 1931.
[7] *Ann. Ent. Soc. Amer.*, **19**, 119; 1922.
[8] *C.R. Soc. biol.*, **81**, 187; 1918.
[9] "Contribution à l'Etude d'un Complexe biologique: La Piéride du Chou (*Pieris brassicæ*, L.) et ses parasites Hyménoptères". Lyon, 1926.
[10] *Redia*, Florence, **7**, 363; 1911.
[11] *Oxford Forestry Memoir*, **11**; 1930.

The Breeding of a Grey Mullet, *Mugil capito*, Cuv., in Lake Qarun, Egypt

THE common grey mullets of Egypt, *M. cephalus* (Linn.) and *M. capito*, Cuv., feed and grow in the delta lakes and are presumed to spawn near the sea coast.

Lake Qarun lies some two hundred kilometres south of the Mediterranean coast. The salinity is increasing and the gradient between fresh and salt in the water is such as to resemble the delta habitats of the mullets.

In the autumn of 1928 one of us succeeded in introducing to this lake 20,000 live fry, chiefly of *M. cephalus*, the larger of the two species. As these fry grew up but did not give rise to any second generation, continuous stocking was resorted to from 1932 onwards, with results that are shown in tabular form below:

Year	Date of fry transfer	Number of fry introduced	Mullet landings in kgm. *M. cephalus* 1929–31, *M. cephalus* and *M. capito* after	Salinity 1 km. east of Quallieh Island in parts per 1000
1928	Sept.–Dec.	20,000	——	17·19
1929	——	——	181	17·34
1930	——	——	427	17·30
1931	——	——	52	20·00
1932	16 11 31 to 10 1 32	154,000	1,154	22·40
1933	12 11 32 to 9 1 33	136,080	2,792	21·29
1934	2 12 33 to 11 2 34	257,460	42,275	18·19
1935	2 12 34 to 4 3 35	258,600	132,060 (Jan.–March)	——

Up to 1933 the weight of mullet taken from the lake bore a rough proportion to the fry introduced, but since 1934 there has been a progression of the catch (chiefly *M. capito*) that could only have been due to natural reproduction, and is out of all proportion to the fry introduced. Moreover, in a tow-net sample collected on October 24, 1934, several stages of developing eggs and larvæ were found. These can only be referred to *M. capito*, and represent the first definite identification of these stages of the species. A description will shortly be published elsewhere.

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Human Remains from Kanam and Kanjera, Kenya Colony

IT was with much regret that I learned that space could not be found for my reply to Prof. P. G. H. Boswell's letter in NATURE of March 9 (p. 371) about the human remains at Kanam and Kanjera. Many readers of NATURE will doubtless have wondered why no comment has appeared over my signature. I would be grateful if now you would insert this brief note, and the whole matter can then be left for full discussion on my return to England at the close of my present Expedition.

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East African Archæological Expedition,
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Tanganyika Territory.
May 28.

[DR. LEAKEY'S reply to Prof. Boswell's letter would have occupied several columns of NATURE, and space could not possibly be found for it. The suggestion was, therefore, made to Dr. Leakey that he should send a short reply to the specific points stated by Prof. Boswell and deal with them in detail in a communication to a scientific society. EDITOR, NATURE.]

Polyphyletic Origin of Metazoa from Plants

BOTANISTS show us an aspect of evolution-in-progress, so far as that *can* be shown, of which zoologists tell us nothing—because there is possibly nothing to tell. The evolution of plants is often indicated in terms of the appearance of the sexual differentiation in unicellular organisms, of the appearance of multicellularity, of the total life-cycle of one plant as an alternation of two generations, asexual and sexual, the individuals being sometimes morphologically distinct and independent, and of the various fate of these phases of the total life-cycle in, say, the moss, the fern and the angiosperm, when they are not distinct and independent individuals, "but the one remains permanently connected to the other like a parasite on its host plant" in Strasburger's words.

This aspect of evolution applies just as much to animals as to plants; the vertebrate, like the angiosperm, is an integration of two phases of a life-cycle, the sexual phase being greatly reduced; and other