

I conceive it can no longer be affirmed that *Cycloid* fishes did not exist previously to the Cretaceous epoch.—Yours, &c.,

C. B. ROSE, F.G.S.

Great Yarmouth, June 14th, 1864.

We append the following note in reply, obligingly furnished by Mr. W. Davis.  
EDIT.

Since Mr. Rose examined the slab in the British Museum (referred to in the above letter), another and a much better specimen has been acquired from the same locality, which, in addition to many scales in their natural position, exhibits portions of the jaws, with teeth having a *Sauroid* character.

As several species of true sauroid fishes, having similarly marked scales, occur in the Upper Oolite (Lithographic stone) of Solenhofen, it is probable that these imperfect specimens from our Kimmeridge Clay may prove to belong to a new genus of the same family.

*Thrissops formosus* and *Megalurus lepidotus* may be quoted as examples of *Ganoid* fishes having scales with *Cycloid* ornamentation. Agassiz describes the last-named species as having scales somewhat resembling those of the Carp, and gives an illustrative figure in pl. LI.<sup>a</sup> vol. ii. of his 'Poissons Fossiles.' W. DAVIES.

#### CAN THERE BE A RAINLESS DISTRICT?

*To the Editors of the GEOLOGICAL MAGAZINE.*

IN the first article of your first number I hail the words 'a wholesome scepticism.' Is the scepticism of the title of this letter 'wholesome?' I consider a 'rainless district' to be an impossibility. In Professor Desor's article on the Sahara, the 'rainless district' is not mentioned. But water is mentioned in rivers, in pools above ground, and in 'sheets' below ground, and 'moist beds' at a depth of eight or ten metres. A 'rain of several days' is mentioned, and the 'Desert of Erosion' is described as the result of 'rain and rivers.' As a matter of fact, I would ask through the medium of your Journal, does rain fall on the Sahara, or does it not? I ask the same question with regard to Egypt. According to the 'Star' of February 22, 1857, the passengers by the 'Indus' reported 'a fall of snow at Cairo.' In May 1860 part of the railroad between Cairo and Suez was washed down by heavy rains, and the travellers from India were stopped for two days. To the north of this district, in the desert of El Tyh, Mr. Lowth ('Western Footsteps in Eastern Climes') gets frequently soaked with rain. He describes the whole surface as scored with channels of torrents tributary to the Wady Legaba and El Arish. In one of these channels he found a river rushing, twenty yards wide, and three or four feet deep. And he was obliged to wait, like the rustic, *dum defluat amnis*. Now, this is no accidental affair, for the El Arish is the *Torrents Ægypti*, and has therefore carried torrents across Arabia Petrea to the *Mediterranean* for at least 2,000 years. Again, in descending the El Araba to the Dead Sea, Mr. Lowth mentions 'marks of the rush of waters, long, deep, sharp cliffs in the ground, and water-worn stones and torn shrubs half uprooted in torrent-beds.' Now, Keith John-

ston's 'western rainless district' includes all this region, and all Syria with the Jordan, and its 'former and latter rain,' and the greatest part of the Tigris and Euphrates. While his 'eastern rainless district' includes *the sources* of nearly all the largest rivers of the old world.—Your obedient servant,

GEORGE GREENWOOD, Colonel.

Brookwood Park, Alresford, Hampshire, July 13, 1864.

OUR Correspondent, F. F., Walgrave, is respectfully informed that 'Scriptural Geology' is not within the scope of the GEOLOGICAL MAGAZINE. We shall be glad, however, to receive notices of any geological facts he may have to communicate.

MR. R. SUGGATE, 15 Whitehall Place, favours us with a notice of the accidental finding of a piece of Teredo-bored wood in a rather large flint nodule from the Chalk of Hamp-shire. The flint filling the borings appeared to be slightly rayed from the centres. The specimen has been sent to the Oxford Museum.

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#### MISCELLANEOUS.

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THE FOSSIL ELEPHANT OF MALTA.—More remains of this animal have been discovered by Dr. Leith Adams, F.G.S., in extensive excavations lately made by him among the cavern-deposits and breccias near Crendi. One of the chief points with reference to the fossil Elephant found in Malta is the small size of its teeth, which, coupled with other characteristics, leaves no doubt that it was not only distinct from any living or extinct species, but was, as regards dimensions, a pigmy compared with them. It is supposed not to have been larger than a lion. Such relics, together with the bones and teeth of *Hippopotami*, &c., which of late years have been met with in great abundance in different parts of Malta and Gozo, tend to show that these islands are but fragments of what may at one time have been an extensive continent, in all probability connected with either Europe or Africa, or both. At all events, the physical geography of this portion of the Mediterranean must have changed very much since the above-mentioned animals wandered over our islands. Teeth and bones of the living Elephant of Africa, and another larger fossil species, together with the *Hippopotamus*, have been discovered by Baron Anca in the Palermo caves, thus showing that in all probability no less than three distinct descriptions of Elephants and two species of *Hippopotamus* frequented an area embraced within the southern point of Sicily and Malta, and during the Post-pliocene period, when we find the earliest traces of man's existence. None of the latter have yet been met with in Malta. But there is every probability that flint implements and such like will turn up, as they have in the Sicilian caves, more especially now that the attention of scientific inquirers has been earnestly directed to this important subject. Without the invaluable testimony afforded by the remains of the quadrupeds above mentioned, there are downcast fragments of the strata and faults along the shores of Malta, which testify to