LOST RIVERS OF SOUTH AUSTRALIA.

On Tuesday evening, at the University, Mr. W. Howchin gave a lecture on the lost rivers of South Australia before a large and appreciative audience. He asked the question, "What is the lost river of South Australia," at which some foraata of period of its geological history had possessed magnificent waterways, which be called the lost rivers. He proceeded to explain how these were the lost rivers of South Australia, which had taken place. A great rift valley had transgressed the continent of Australia, and this valley with its waters was drained of all water by the rivers which pass through it. The alterations in the configuration and altitudes of the country were such that the water was either directed or diverted to off the ancient courses. They had to look to several factors to find the explanation of the lost rivers. The continent of Australia was divided into east and west drainage. The alterations in the configuration and altitudes of the country were such that the water was either directed or diverted to off the ancient courses. As they looked on the old watercourses in which the water was no longer flowing, they could not help asking the question, "Where are the lost rivers?" But still the research would not be revived. In a fine series of lantern views illustrations were shown of the different parts of the State. Mount Lofty was shown, and the lecturer explained that the watercourse of this range was directed to the Barossa range. The changes affected by the steep faulting of the Mount Lofty range were shown, and the watercourses were directed to the Barossa range. The changes in the watercourses were shown, and the effect on the watercourses was explained. The changes in the watercourses were explained, and in their present form they were just as different as the peaks of which they were composed were of different geological structures. They had been formed in a different geological cycle. There were several striking instances of rivers flowing through rift valleys, but among these was an extra illustration of the world were the Rhine and the Jordan. A good illustration of the new direction of currents of the lost rivers of South Australia was taken from the Broughton, the tributaries of which flowed at right angles to the main channel, and ran north and south. Originally the main stream took that direction. The light showed similar characteristics. Reference was made to the Murray, and Mr. Howchin said it was a young river, but its grade was well advanced. At one time there had been a wide valley of the watercourse, but the watercourse was now narrow. There were none of these left. It had worn its way down through a barrier of sand. The Channel which have occurred in the basin of the Ouseperras were explained, and their effect on the watercourse was illustrated by lantern views. With the exception of the Murray it was the only true antecedent river in the State. The Murray was the largest and oldest river in Australia, and it belonged to a former geological cycle, and had made its history in that cycle. In conclusion, Mr. Howchin said that climate had changed for the worse, and had had its effect on the rivers. The changes were evident from the disappearance of all classes of flora and fauna. Crocodiles, turtles, and the curious cetaceans (many aquatic species disappeared, but land fauna, such as the diprotodon, and huge birds which had disappeared, was the result of the absence of vegetation for their subsistence). The climate of the ancient vegetation in the south country was very different from the climate of the ancient vegetation which had been replaced by the vegetation now found in many localities. Still, the climate might have been worse. Nature had given Australia a mixture of her best and worst, and it was for her to strike a balance and be thankful.
ANCIENT AUSTRALIA.

Living Relics of Diprotodon Days.

South Australia is not the place she used to be. Mr. Walter Howchin, F.G.S., published an account of his four-week's expedition to the inland about a month ago. The occasion was the third and last of his series on "The Lost Rivers of South Australia," and a large audience listened with interest to the geological exposition. First he dealt with matters which may be skilfully summed up thus:

- The one-time continental rivers of Australia have changed their courses as much as the Murray, and it has been partially beheaded; its northern tributaries have been cut off by changes in the land surface. The rivers of South Australia have in recent times changed their directions. A great barrier has been built across the course of the Macumba, which has now been changed, so that it flows into the Indian Ocean.

- Crocodiles at Port Augusta.

All these points of Mr. Howchin's discussion are accordingly confirmed, but the lecture secured absorbed attention, and a large audience was present for the fora of South Australia today with its one-hundredth flood. The question was that the climate of South Australia had changed for the worse in recent times. What is now the cause of the change can be ascertained. The flood was due to the change in the climate of the region. When the waters entered the Indian Ocean, the sea-level rose considerably. The rivers of South Australia have been changed in recent times, and the new course is not yet complete. Once there were crocodiles as far as the mouth of the Murray, but they have been killed off by changes in the land. Large turtles also exist, such as the turtle or the crocodile, which live in the estuaries and feed on fish and small aquatic animals. They are not as abundant as in earlier times. The vegetation gradually changes, but some plant life remains, and two new species of birds now exist, the curlew and the teal. The vegetation gradually changes and finally in the muddy uplands, where the bird's life is not so abundant, remains of the diprotodons. The Diprotodon is a large animal, and in the remains of the diprotodons, the bird's life is not so abundant.