

the reports which have been received this year from the twelve colleges which participated during the year ended March 31st in the annual grant, now amounting to £25,000, made by Parliament for 'University Colleges in Great Britain,' and the three colleges in Wales, which receive from the Treasury a grant of £4,000 each. The twelve colleges are: Birmingham, Mason College; Bristol, University College; Dundee, University College; Leeds, Yorkshire College; Liverpool, University College; London, Bedford College, King's College, University College; Manchester, Owens College; Newcastle-upon-Tyne, Durham Science College; Nottingham, University College, and Sheffield, University College. The Welsh Colleges are: Aberystwyth, University College of Wales; Bangor, University College of North Wales; Cardiff, University College of South Wales and Monmouthshire. Major P. G. Craigie's annual report to the Board of Agriculture on the distribution of grants for agricultural education and research in 1897-98 has also been issued as a Parliamentary paper. The total amount distributed during the financial year to the fifteen institutions receiving assistance was £7,200, as compared with £7,000 in the previous year.

DISCUSSION AND CORRESPONDENCE.

TROCHOSPHERA AGAIN.

IN SCIENCE of December 25, 1896, Dr. Kofoid, of the Illinois Fresh-water Biological Station, records the occurrence, during the preceding summer, of *Trochosphaera solstitialis* Thorpe in the Illinois River. The discovery in America of this remarkable Rotifer, previously known only from the antipodes, is of great interest. Dr. Kofoid raises the question whether its presence in Illinois is due to recent importation, or whether *Trochosphaera* is to be considered a normal member of our fauna, taking a place with many other Rotifera as a cosmopolitan form. Its rediscovery at a station distant from that recorded by Kofoid is perhaps worthy of mention in the columns of SCIENCE. *Trochosphaera solstitialis* was found in the work of the Biological Survey carried on during the past summer at Put-in-Bay Id., Lake Erie, by the U. S. Fish Commission. It occurred very

sparingly in a swamp near the U. S. Fish Hatchery, Put-in-Bay, for a few days in August, 1898. This swamp has a dense bottom growth of *Ceratophyllum*, while the surface is completely mantled with *Lemna*, *Spirodela* and *Wolffia*. It is connected with Lake Erie by a streamlet about forty feet in length, the direction of the current through which depends upon the level of the lake. When the lake is high, water flows into the swamp, and at such times the ordinary plankton Rotifera of the lake are found in the swamp. When the lake is low the swamp water passes outward into the lake. *Trochosphaera* was found at a low-water period, along with *Notops clavulatus* and some other Rotifers which, though rare, are known to be widely distributed. As this swamp has such intimate connection with the lake, it would not be surprising to find *Trochosphaera* in swampy parts of Lake Erie itself.

The discovery of *Trochosphaera* at two such widely separated stations in the United States certainly tends, so far as it goes, to indicate that the animal is to be considered a normal member of the American fauna. Workers on Rotatoria are few in America, and it may be that more extended observations would show *Trochosphaera* to be widely distributed, even though somewhat rare.

Unfortunately, but few individuals were obtained, so that it is not possible to furnish specimens to those desirous of examining this remarkable animal.

H. S. JENNINGS.

DARTMOUTH COLLEGE, HANOVER, N. H.

THE OCCURRENCE IN GREAT ABUNDANCE OF INSECTS ORDINARILY MERELY COMMON.

A NOTE in one of the New York papers a day or so ago reporting that a strange butterfly—in all probability *Anosia plexippus*, judging from the description of the color—was present in extraordinary abundance at Topeka, Kansas, on the 6th inst., preventing work out of doors and gathering on the rails of a branch of the Union Pacific Railroad in such numbers as to stop a train by their bodies greasing the rails, calls to mind a similar large swarm of this species seen by the author near Unadilla, Nebraska, in 1885. The air was full of the in-

sects, which were flying lazily southward, paying no attention to the flowers in their way. They were not quite as numerous, however, as the Topeka report makes them out to have been. Large swarms of this species are not infrequent, being noticed from time to time.

The report also calls to mind two other instances that come under this head. One is a report of a large number of centipedes seen in Nebraska all crawling southward (?) and noted by the author in *SCIENCE* some years ago. The other was the occurrence at Lincoln, Nebraska, in 1889 or 1890, of a great swarm of *Hydrophilus* (probably *triangularis*) attracted apparently by the electric lights. They were so numerous that the sound produced by their striking the electric cars resembled the rattle of large hail stones. They came in at the open windows of the cars, greatly annoying the passengers. Along the sidewalk of O Street their matted bodies were very numerous. Possibly a bushel or more could have been swept up in the distance of a block. The occurrence of the insect in such large numbers is the more remarkable since in the vicinity of Lincoln it had not formerly been noted as a very common species, ponds and other suitable breeding places not being abundant. Yet the fact that the electric light appeared to form a factor in the concentrated abundance of the insect seems to indicate that the gathering was probably from the country round about, though it does not preclude the possibility of a migrating swarm, due possibly to the drying-up of their natural habitats.

F. C. KENYON.

WASHINGTON, D. C., October 8, 1898.

SCIENTIFIC LITERATURE.

SOME RECENT LITERATURE ON CHILD-STUDY.

THERE are probably few terms in popular use which are more variously understood than Child-Study. In the minds of some it revives a harrowing scene wherein parents and teachers are observed plying trivial or abstruse questions to their children, or experimenting with them in other ways, in the endeavor to obtain data requested in syllabi and blanks which are being scattered broadcast over the land, having already, as one eminent person is afraid, found

their way into most homes and school-rooms of the country. When these data are obtained they are hurried off to the designers of the syllabi, who tabulate them, presenting the outcome in numerical results which are supposed to constitute the propositions of a presumptive science of Child-Study. To other minds this term denotes a significant movement which has for its purpose the investigation of psychical phenomena occurring in the development of human beings, this work being conceived of as different from the analysis and description of adult consciousness. Those who regard Child-Study from this point of view see that while some of the investigations that are being made, possibly the majority of them, are valueless from a scientific standpoint, yet the heart of the thing is full of vitality and is well able to produce increasing abundance of life in the whole structure.

To those who have 'syllabi' and 'Child-Study' so strongly associated that they cannot be dis severed, this movement will be looked upon as a fad of only temporary interest and of little or no importance. Professor Baldwin, for instance, seems to estimate Child-Study in this way;* for he certainly cannot have in mind the broader reaches of the subject as concerned with the study of human ontogeny, since he would scarcely regard his own numerous contributions thereto, nor would anyone else, as of a faddish, transitory character. It seems likely that others have connected the term simply with the least important aspects, with the froth or eddyings, one might say, of the study of developmental psychology. Doubtless its origin and use has led to this confusion, since it has been employed principally by those who have suddenly become infatuated with the study of children, but who have brought to the undertaking meager attainments, and scarcely any first-rate qualifications for rightly conducting the work. In this way much is being offered as contributions to science which in its elaboration has not conformed to the rules of scientific procedure. But to some investigators at least this is not an occasion for discouragement, but rather one for rejoicing and congratulation; since all science has been conceived and nour-

*See *Psychological Review*, March, '98, p. 219.