

Since no member of the Syncarida has been recorded from the British Isles before, the occurrence of these animals is of more than ordinary interest.

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MR. LOWNDES is to be congratulated on a discovery of exceptional interest. Since *Bathynella* has scarcely yet penetrated into English textbooks of zoology, it may not be superfluous to give a brief summary of its history.

Just half a century ago, Prof. Vejdovsky found in a well in Prague two examples of a minute crustacean which he was unable to refer to any of the recognised groups. Eighteen years later he kindly allowed me to re-examine the surviving type specimen and I was able to point out its resemblances to the Tasmanian *Anaspides*. Another fifteen years had to elapse, however, before the animal was found again, this time in Switzerland by Dr. P. A. Chappuis. A second species was later described from Switzerland by Dr. Th. Delachaux, and has also been recorded from Rumania. It is to this second species that Mr. Lowndes's specimens appear to belong. Since then a related genus, *Parabathynella*, has been described by Chappuis from Serbia, and the gap separating the European Syncarida from their Australian and Tasmanian relatives has been partly bridged by Sars's unexpected discovery of another species referred to *Parabathynella*, from a cave in the Malay Peninsula.

These minute, blind, subterranean crustacea are the degenerate survivors of the Syncarida found as fossils in the Carboniferous rocks of Europe and America, which have disappeared from the surface of the earth, except in Tasmania and Victoria.

No doubt careful search in the subterranean waters of wells and caves would greatly extend the known range of these crustacea, and it is to be hoped that Mr. Lowndes's example will lead cave explorers to turn their attention to the almost unknown cavernicolous fauna in the British Isles.

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### River Gauging and Flood Prevention

It is with great satisfaction that I have read the leading article on this subject in NATURE of July 2 with its complimentary reference to my measurements on the Ness Basin. On this area there are six principal water-level stations at which continuous records are being kept on clock-driven gauges. The measurements of flow, at ordinary flood and low water stages, of the three principal rivers are completed, and all that is now necessary is the maintenance, for all time, of the water-level records—a continuity that no individual can assure. The Caledonian Canal has kept daily water-level records over a great number of years and it is now possible to give with considerable accuracy the flow from Loch Ness during the great floods of the past. If the big water interests of the area will combine to assure the maintenance of my established water-level stations, and to establish other stations when required, there is no problem connected with the use of their water resources which cannot be tackled satisfactorily.

There is no doubt that inland water survey should become a national matter and that it demands a water survey department, such as forms part of the Geological Survey of the United States, which publishes hundreds of papers on systematic investigations of surface water supply.

Local associations or bodies representing the water interests of the areas should be formed to carry out the water-level work and to keep the records. The superintendent of the local association should be under the authority of the national water survey department.

In the article in NATURE it is suggested that the new Drainage (or Catchment) Boards should carry out all this survey work; and I agree, provided the water survey work is definitely under the control of a water survey department of the Ministry of Agriculture, because it is necessary to assure that the many arduous duties which will devolve on these Boards will not deflect the course of systematic measurement.

Existing water users have already a mass of useful data; and as these users are invaluable collectors of data, they should be represented in any water survey organisation. This is effected in the United States through the central control of the Geological Survey.

The lead given in NATURE should be most helpful in bringing us one step nearer to the much-needed organisation of a water survey of Great Britain. The subject is to be discussed at a joint meeting of Sections A and E at the forthcoming York meeting of the British Association; and it is to be hoped that the result will be the formation of a national body to carry out the survey required.

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### Scientific Method

THE subject of the leading article of NATURE of May 28 must commend itself to the earnest consideration of all those who view with consternation the present drift of our civilisation towards chaos. Nothing is more needful than what, for want of a better word, we call the 'scientific' point of view. Nevertheless, experience has shown that the great investigator is seldom well fitted to guide the course of practical affairs; the 'passion for discovery' differs little from other passions in being linked with a certain prejudicial obstinacy. On the other hand, the exposition of the rules and principles of scientific method can be made intelligible only when the intellect has been already hardened by the educational disciplines inseparable from a system the prizes of which are awarded to those with most 'knowledge'—often synonymous with good memory.

There is, I submit, a middle course, namely, in the teaching of the history of scientific ideas. I say, "scientific ideas", since the usual hotch-potch of names and dates is scarcely history and certainly not science. But in the scholarly and critical exposition of such works as Newton's "Opticks", Harvey's "Disquisition", and Boyle's "Sceptical Chymist", in their true historical setting (in the absence of which they appear merely as 'out of date'), illustrated by such experimental methods as were available to these great thinkers, we may show science as a living, growing organism, born of intellectual struggle; we may teach the little known truth that theories which have been 'proved' to be 'wrong' have often only been shown to be inadequate.

By some such means we may, I believe, inculcate a just appreciation of the real meaning of fact and hypothesis, of cause and law. Incidentally we may both learn and teach caution and modesty, two qualities that do not always characterise the pronouncements of modern science.

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