

ment, by workers at the Massachusetts Institute of Technology, of a permeable, non-thrombogenic cellophane membrane. In the United Kingdom, the National Research Development Corporation is sponsoring the development of two new dialysers, one at the University of Strathclyde and the other at the University of Leeds.

In a deliberately provocative talk, Dr F. M. Parsons of the General Infirmary at Leeds declared that the capital cost of installing automatic kidney machines is far too high at £2,000–£3,000; a more realistic sum, he suggested, would be about £500–£1,000. In view of the high demand for intermittent dialysis and the shortage of medical staff, he proposed that there should be continued expansion of home dialysis, and advocated the use of trained lay people to instruct patients on the use of home dialysers.

One of the chief points brought out during the lively discussions was the need for an interdisciplinary approach to the design of artificial lung and kidney devices. Engineers seem to feel that medical workers are not specific in their demands for devices, but another point of view is that it is still too early to standardize designs; for the time being at least, flexibility must be the keynote.

CZECHOSLOVAK CONFERENCE

Biology of Bats

THE following letter from the Czech organizers of the first International Bat Conference, held at Hluboká on September 6 to 9, has been forwarded to *Nature* by Mr P. A. Racey of the Zoological Society of London, who managed to attend the meeting. Mr Racey says that, although only 12 of the 87 participants from 22 countries who had planned to attend found it possible to travel to Czechoslovakia, the original programme was followed as far as possible. The Czech scientists made it clear that they are anxious to maintain contact with their colleagues throughout the world no matter how difficult the political situation is, and the onus is now on the scientific communities of other countries to give as much practical support as possible to their Czech colleagues.

The statement, signed by Vladimír Hanák and Jiří Gaisler, says:

In spite of the present situation in Czechoslovakia, the Conference took place in the planned terms. The session was held on September 6, 1968, in the lecturing room of the Aleš Art Gallery at Hluboká. After the opening word by Dr W. Černý, Chairman of the Czechoslovak Zoological Society, the following participants presented their papers: Mr Braaksma (Vreeswijk), Mr Daan (Amsterdam), Mr Dorgelo (Amsterdam), Dr Gaisler and Dr Hanák (Brno and Prague), Dr Neuweiler (Tübingen), Dr Novotný (Brno), Mr Racey (London) and Dr Roer (Bonn). An excursion through south Bohemia was made on September 7, 1968. A part of the participants then joined a trip to Moravia where they visited the caves in the Moravian Karst as well as south Moravia. In accordance with the original schedule, the Conference was closed at Lednice on September 9.

The members of the Organizing Committee express their warm thanks to all who assisted them in their endeavours to organize this international meeting of

scientists engaged in bat research. Our particular thanks are due to those colleagues from abroad who took part in the Conference in spite of the unfavourable conditions in Czechoslovakia. At the same time, we fully understand the reasons that prevented the remaining ones to participate. Due to the present circumstances, we intend to publish, above all, the papers read at the Conference. The originally announced papers that could not have been read will be published only in case that their authors have no other possibility of publishing them. Their manuscripts in a limited extent should be sent to Dr V. Hanák, Institute of Systematic Zoology, Charles University, Viničné 7, Praha, Czechoslovakia, before November 30, 1968.

The participants of the Conference have approved that an endeavour should be made to organize the Second International Bat Research Conference in some of the western countries (e.g., the Netherlands), in future years.

FISHERIES

Saving the Spurdog

FISH and chip shops in the south of England could be the principal losers if measures to conserve the spurdog are not taken by the fishing authorities. The spurdog, *Squalus acanthias*, is an elasmobranch fish commonly known to Londoners as "rock salmon". There are several stocks of spurdog in the north-east Atlantic, but one stock is particularly at risk—the Scottish-Norwegian stock inhabiting the sea area from the Norwegian coast to west of the Shetland, Orkney and Hebridean Islands. This stock has been heavily fished by the English, Scots and Norwegians since 1952.

Mr M. J. Holden of the Fisheries Laboratory at Lowestoft now argues that unless there is a severe restriction of fishing, there will be a "drastic and continuing decline in the stock". In a recent report (*Fishery Invest.* (ser. 11), 25 (8); 1968. HMSO, 11s. 6d.) Mr Holden suggested ways of stopping the decline. Estimates were made of the fishing and natural mortality coefficients for the stock and the present rate of decrease of the stock was then calculated. To stop the decline, recruitment to the stock will have to be maintained, but while it is obviously necessary to protect the female fish to ensure replication, it is also necessary to take the male fish into account. This is where complications arise.

The male fish reach a smaller maximum length than the females, and therefore protection of the stock by the imposition of a minimum size limit, irrespective of sex but sufficient to protect the female fish, could result in the under-exploitation of the males. To stabilize the stock and to give a maximum yield at the present level of fishing, Mr Holden has therefore calculated separate size limits for each sex; one of 56 cm for the males and one of 80 cm for the females. Even though the sexes are easily distinguishable, it would in practice be difficult to enforce two size limits. Mr Holden has therefore calculated one size limit which would allow both the exploitation of the stock and the maintenance of recruitment. The best compromise minimum size limit would be 78 cm, but to maintain recruitment the numbers of females kept by fishermen would have to be reduced. This may be asking a lot of human nature.