

British Birds

Editorial

Birds and marine pollution

Press reactions to the Stockholm Conference on the Human Environment (see also 'News and comment' on page 359) were, perhaps unavoidably, mixed. Many laid most stress on such features as the absence of the Russian and other governments, the tons of paper circulated, and the activities of fringe and political groups. Yet a heartening measure of agreement was reached on many issues and, if only the governments of the world translate these into action, real progress might be made.

A major topic considered by the 110 countries represented was the growing contamination of the oceans and here a number of proposals were adopted, including principles for the control of marine pollution (one aim being to eliminate by the mid-1970's all deliberate discharging of oil from ships), a draft convention on ocean dumping, and international programmes to assess and monitor the extent and dangers of marine pollution. The worries which led to this spate of proposals owed much to the activities of ornithologists in recent years, for birds have proved both on land and at sea one of the best indicators of possible threats. In this connection, therefore, it is appropriate that the first joint conference of the three major British ornithological organisations, to be held in London on 21st November 1972, will be on 'Birds in the Modern Environment' with the aim of explaining to amenity and conservation bodies, industrialists, technicians and the Government just how vital this contribution has been in the past and how much research is now being undertaken by hundreds of professional and amateur ornithologists. It needed many years of painstaking enquiry to elucidate the full story of the sublethal effects of the organochlorines on such predators as the Peregrine *Falco peregrinus*, and unravelling the possible effects of pollutants on marine species is a far more complex and difficult task.

The first essential is to assess the populations of the different species and how these are changing. Such information is not available for large areas of the world and even in Britain and Ireland, with a long tradition of seabird censuses, a complete survey of the location and numbers of all coastal breeding birds and all marine species was not attempted until the Seabird Group undertook Operation Seafarer in 1969-70. The results of this are now being prepared for publication, but it is clear that, although geographical coverage was virtually complete, the accuracy of the counts varied greatly between the different species. Some, such as the petrels (Hydrobatidae), are virtually impossible even to estimate without long-term research, while for others, including the auks (Alcidae), a group under particular threat, there are formidable difficulties in censusing even now and a paucity of information on past numbers.

It is hoped that it will prove possible to repeat Operation Seafarer at intervals, perhaps every ten years, but clearly more regular surveys are needed for such species as the auks which may be at risk. So an annual monitoring scheme for selected colonies is being organised by C. J. Bibby, of the Royal Society for the Protection of Birds, in co-operation with the Seabird Group and the British Trust for Ornithology, and he would welcome offers of help from societies and individuals who can undertake long-term counts of any colony. He is also responsible for the Beached Birds Survey, which aims particularly to assess the trends in oil pollution of our shores and here, too, more helpers are required. The B.T.O. will shortly be tackling other aspects of seabird populations, by repeating earlier censuses of inland roosting gulls and breeding Black-headed Gulls *Larus ridibundus*.

If the assessment of trends in seabird populations is difficult, any attempt to ascertain the underlying causes presents still more formidable problems. Possible factors may include climatic change, natural or man-made variations in food supplies, predation, disease, protection or persecution by man, interspecific competition, and pollution by a variety of substances, including oil, persistent organochlorines, heavy metals, sewage and floating solid objects. On the pollution side, while some authorities rely confidently on the capacity of the oceans to dilute contaminants, others, especially ecologists, are far less sanguine. The Report of the National Academy of Sciences (Washington 1971), for example, pointed out that the amount of DDT compounds in the marine biota was estimated to be less than 0.1% of total production, yet this had produced a demonstrable impact on the marine environment and, as only a quarter of the world production of DDT compounds to date has yet reached the oceans, there would be no opportunity to redress the consequences if, as seems likely, these substances have a long half-life. The extent of our ignorance of life in the seas was shown by the Irish Sea bird disaster in autumn

1969, when a massive enquiry by Government scientists and ornithological bodies failed to identify any certain cause.

More recently, Dr J. J. M. Flegg (*Bird Study*, 19: 7-17) reported that the Puffin *Fratercula arctica*, long known to be declining in many areas of southern Britain, may be undergoing a severe and rather rapid diminution at one of its northern strongholds, St Kilda. Again Government and voluntary bodies are combining in an attempt to find the causes. The Nature Conservancy, which already has scientists concerned with breeding studies and the extent of contamination by such pollutants as heavy metals (see J. L. F. Parslow *et al.*, *Bird Study*, 19: 18-35, for some preliminary results), is engaging Dr M. P. Harris to carry out further research at Scottish colonies under Dr David Jenkins, in conjunction with similar work to be financed by the R.S.P.B. in south Wales under Dr C. M. Perrins. Perhaps even more significant, and certainly far less understood, are the pressures facing Puffins and other marine species during the long months they spend at sea outside the nesting season. Here the feasibility study by Dr W. R. P. Bourne and T. Dixon, under a Natural Environment Research Council grant awarded to Professor G. M. Dunnet of Aberdeen University, has been in progress for two years, while similar studies are being made by Canadian scientists in the western Atlantic. It is essential that all this research be strengthened and extended, for, unless man's profligate use of the world's oceans as a dump for his waste is curtailed and controlled, there is a grave possibility that we face not only the decline and extinction of some marine species but also the catastrophic diminution in essential food supplies for an ever-expanding world population.