

INTRODUCTION

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The Fleet is a 13 Km tidal lagoon on the coast of Dorset. It is separated from the open sea of West Bay by the Chesil Beach and opens into Portland Harbour and, ultimately, Weymouth Bay through a narrow entrance at Smallmouth (N.G.R. S.Y.6667762). The long narrow lagoon extends west to Abbotsbury (SY 575840) and beyond this the Chesil Beach continues to West Bexington (SY 544868).

In 1971 the Natural Environment Research Council set up a working party on estuarine research to bring all users of estuaries together for the overall management of these resources. The Fleet is not an "industrial estuary", but is a unique, brackish water lagoon of high scientific value, having many estuarine characteristics.

The inaugural meeting of the "Fleet Study Group" in April 1975 was held at Weymouth College of Education with the principal of the College, Miss O'Sullivan, in the Chair. Dr P Head of N.E.R.C. was present at the meeting in an advisory capacity as were representatives of the Strangways Estate, Dorset Naturalists' Trust, Wessex Water Authority, Nature Conservancy Council, Dorset County Council and Freshwater Biological Association. Subsequently a small Committee met three times a year.

The activities of the Fleet Study Group are strictly scientific with the main aims being to review and evaluate the state of knowledge on the Fleet and the associated Chesil Beach. Additional, associated objectives are the identification of "gaps" in the available information and listing of priorities for future work. Remoteness from centres of marine research has led to neglect of the Fleet as a subject of study. In addition the region is, both literally and metaphorically, overshadowed by the presence of the Chesil Beach.

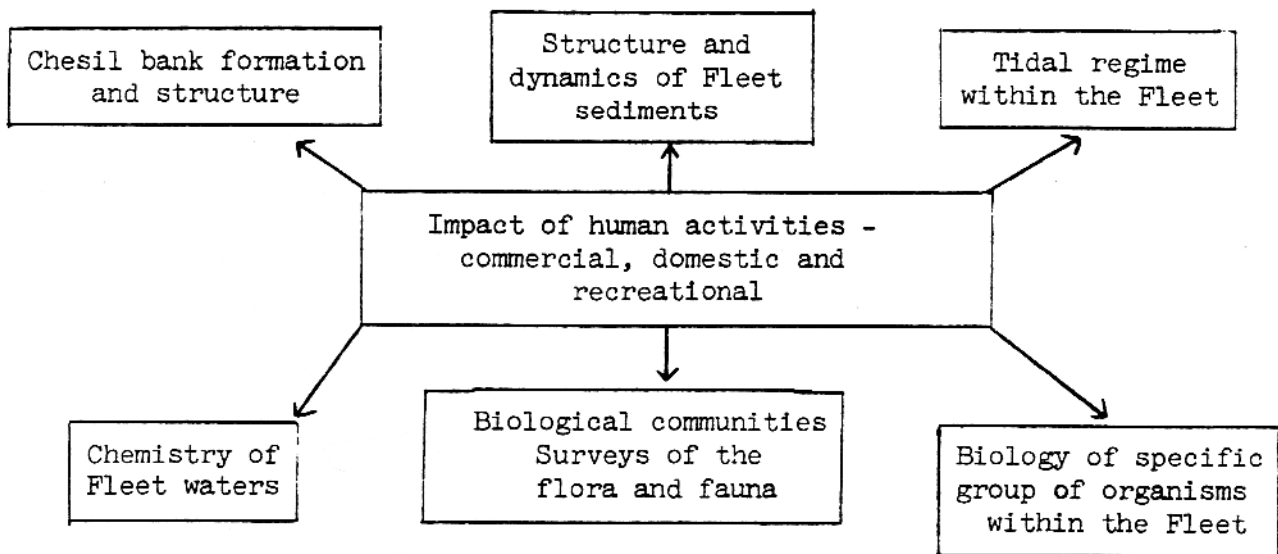
Much of the Fleet area is controlled by the Strangways Estate and under the auspices of the estate is used by multiple interests. In particular, there are activities related to education, ornithology, boating, angling and bait digging, commercial fishing, military training and general recreation.

The Fleet is designated by the Nature Conservancy Council as a grade one Site of Special Scientific Interest. Much of this interest has, up to the present time, lain in the structure and development of the Chesil Beach, hydrological mapping, complex tidal changes within the Fleet, and the presence

of populations of swans, terns, widgeon and other birds which colonise the area. A good deal of information is also available on the flora of the margins of the Fleet and on the phytoplankton, benthic algae, Ostracoda, Mollusca and Foraminifera which inhabit the intertidal and sublittoral regions. Much of the British work on the vegetation of "shingle" has been carried out on the Chesil Beach. Watson (1922) records many lichens and a few mosses from the beach.

In May 1976 a list of scientific organisations and individual scientists was drawn up and "circulated" with a view to stimulating interest in the pursuit of studies on geomorphology, hydrology, chemistry and biology, these having been, tentatively, assigned priorities with regard to "sequential desirability" in terms of the progression of data collection. The highest priority was given to a proposal for examination of the tidal regime within the Fleet although it was realised that this should not preclude the initiation of any other work which might contribute to knowledge.

In general, research requirements can be divided into two interrelated groups as follows,



Some of the conservational and recreational issues affecting the Fleet and its surroundings are discussed by Sturdy in a report dated 1972. Although it is not within the objectives of the Fleet Study Group to judge on contentious or political issues, clearly information of this kind must be considered when assigning relative priority or desirability to particular aspects of research. In addition it is necessary to give due attention to the preservation of rare or localised species or, perhaps of greater relevance, to the maintenance of unique or scarce habitats. All of these factors should be borne in mind, in the assessment of existing "gaps" in knowledge which usually stem from the way in which science singles out subjects or biological taxa for detailed attention.

The aesthetic qualities of any region should always be considered but, from the ecological point of view, it should not be emphasised to the detriment of "smelly" mud flats or "inaccessible" salt marsh.

The Fleet area has been described as a naturalists' paradise by W C Cook and there can be no doubt of the importance of such a unique feature to research.

The present publication is a compilation of the work of authors having widely different interests. Understandably, their individual contributions may differ somewhat in style. In addition the content of the various chapters will vary according to the information, at present, available. Hopefully in the not too distant future some of the very obvious gaps in our knowledge of the Fleet will be filled in and the ecological patterns represented within this unique coastal feature will be more clearly defined to the advantage of all.