Biology Curators Group Newsletter

Title: The Marine Section and the Underwater Conservation Society

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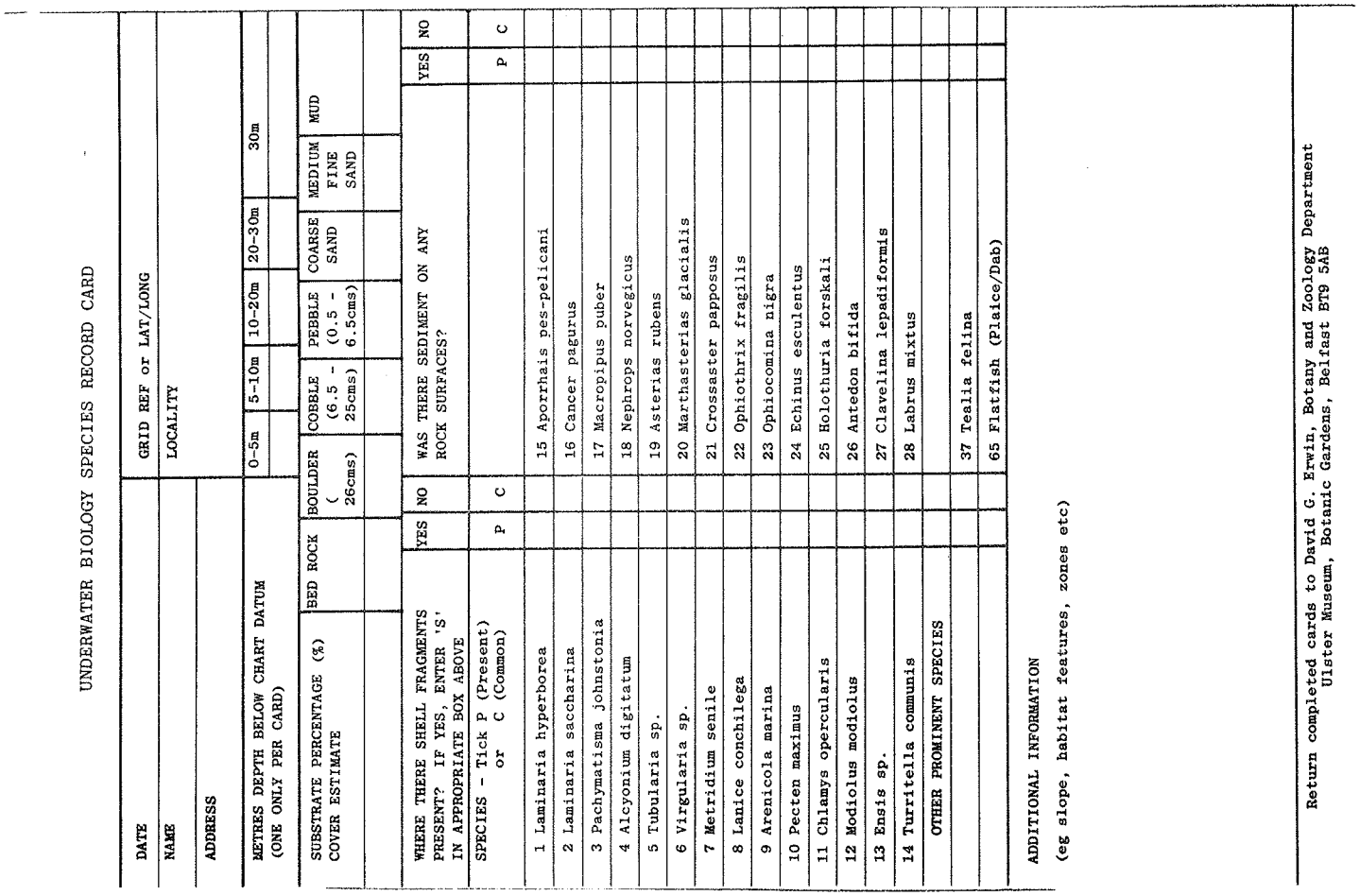
The Marine Section and the Underwater Conservation Society

Underwater Conservation Year in 1977 was extremely successful in mobilising a large number of amateur divers towards involvement in the environment and more particularly into active participation in a number of "projects". The response was so enormous and the involvement so rewarding that it was apparent that the momentum gathered should not be permitted to erode. The schemes were continued as "The Underwater Conservation Programme" and were eventually utilised as a basis for the "Underwater Conservation Society".

The Marine section of the Department has been deeply involved in these activities since their institution. In terms of information, specimens and perhaps most important, contact with a network of people prepared to look at and for particular things underwater all around the British Isles the exercises have been extremely worthwhile in museum terms.



UNDERWATER BIOLOGY SPECIES RECORD CARD

DATE

NAME

ADDRESS

GRID REF or LAT/LONG

LOCALITY

METRES DEPTH BELOW CHART DATUM (ONE ONLY PER CARD): 0-5m | 5-10m | 10-20m | 20-30m | 30m

SUBSTRATE PERCENTAGE (%) COVER ESTIMATE: BED ROCK | BOULDER (26cms) | COBBLE (6.5 - 25cms) | PEBBLE (0.5 - 6.5cms) | COARSE SAND | MEDIUM FINE SAND | MUD

WHERE THERE SHELL FRAGMENTS PRESENT? IF YES, ENTER 'S' IN APPROPRIATE BOX ABOVE	YES	NO
SPECIES - Tick P (Present) or C (Common)	P	C
1 Laminaria hyperborea		
2 Laminaria saccharina		
3 Pachymatisma johnstonia		
4 Alcyonium digitatum		
5 Tubularia sp.		
6 Virgularia sp.		
7 Metridium senile		
8 Lanice conchilega		
9 Arenicola marina		
10 Pecten maximus		
11 Chlamys opercularis		
12 Modiolus modiolus		
13 Ensis sp.		
14 Turritella communis		
OTHER PROMINENT SPECIES		

WAS THERE SEDIMENT ON ANY ROCK SURFACES?	YES	NO
	P	C
15 Aporrhais pes-pelicani		
16 Cancer pagurus		
17 Macropipus puber		
18 Nephrops norvegicus		
19 Asterias rubens		
20 Marthasterias glacialis		
21 Crossaster papposus		
22 Ophiothrix fragilis		
23 Ophiocomina nigra		
24 Echinus esculentus		
25 Holothuria forskali		
26 Antedon bifida		
27 Clavelina lepadiformis		
28 Labrus mixtus		
37 Tealia felina		
65 Flatfish (Plaice/Dab)		

ADDITIONAL INFORMATION
(eg slope, habitat features, zones etc)

Return completed cards to David G. Erwin, Botany and Zoology Department
Ulster Museum, Botanic Gardens, Belfast BT9 5AB

Fig 1.

Species Recording Scheme card "A" side as issued to amateur divers.

One of the initial projects was a "Species Recording Scheme" which requested divers to record the occurrence of 70 selected "species" together with habitat information (fig.1). The card was designed with an "easy" A side with 28 species and a more difficult B side. Initially divers were referred to pre-existing identification literature and a slide set but it soon became evident that this was not suitable

and various alternatives were tried. A solution emerged in the production of a sheet for each species where the salient identification features of the LIVING organism are featured together with notes on species with which it may be confused. This is accompanied with a photograph in the form of a colour miniprint which can be attached to the sheet. The whole series bind up into an identification manual for the species in the scheme. This relatively cheap format proved to be so successful that it has been continued in other projects and is now utilised in I.D. manuals for Nudibranchs, Anthozoans and Sponges produced by the Society. Other manuals are also in the initial stages of preparation.

The Species Recording Scheme arose out of work we had been doing in Strangford Lough, Northern Ireland, and has enabled a great deal of basic information on the species concerned to be acquired. The ranges of some of the species has been substantially extended, backed up when necessary by voucher specimens. The completed cards have been processed on a microcomputer and the derived information is now available in several forms. More than 1,500 cards have been received enabling the production of distribution maps together with habitat analyses which apply to the whole of the British Isles and not only to one research site (Fig.2). "Shell" are to sponsor the publication of the results in the coming year.

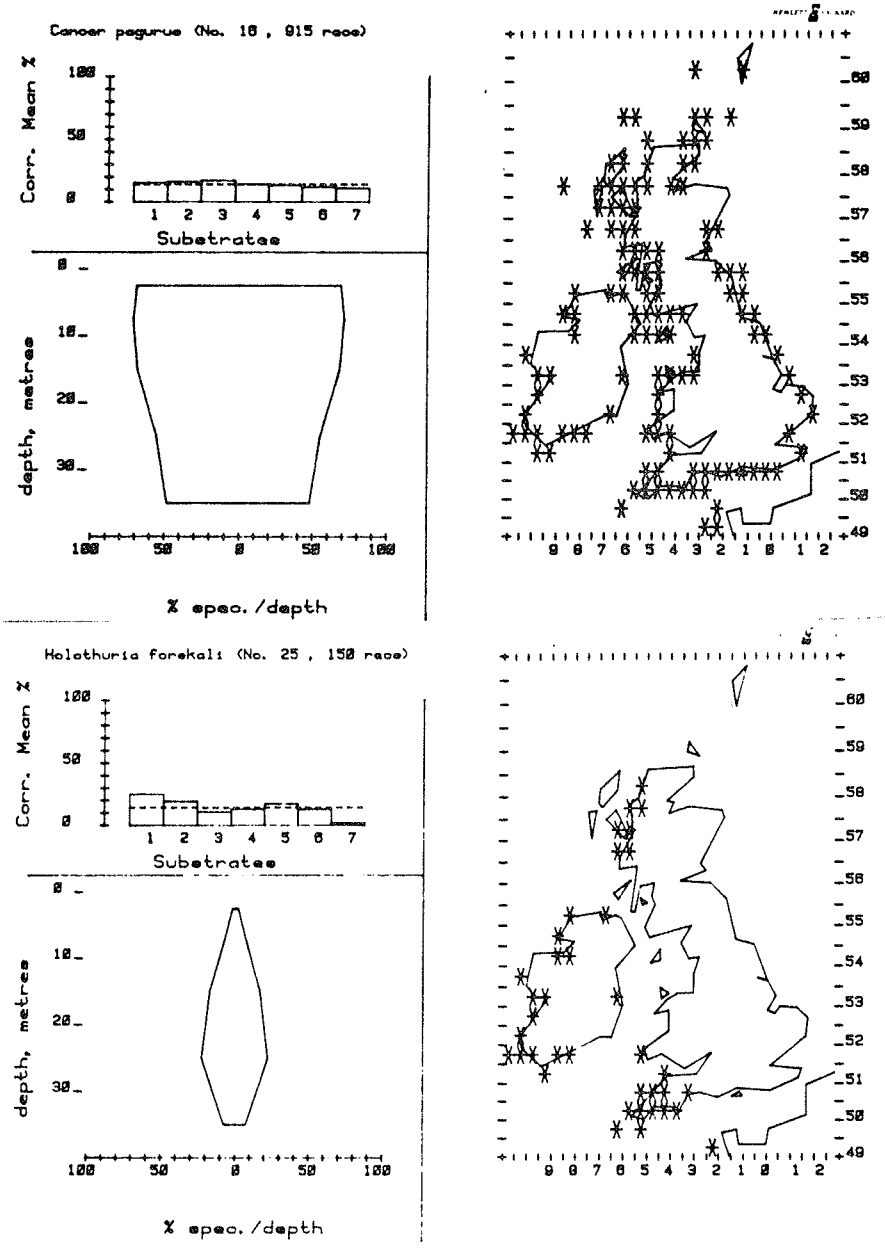


Fig 2

Microcomputer printouts of processed record information.

Many of the other schemes have also brought extremely tangible benefits to the museum and the collections, particularly the sponge, anthozoan and nudibranch schemes. Species have been added to the collections which would have been impossible by any other means. Additions to the known distributions and even the occurrence of species has occurred at almost every level from the local to National. Several species have been recorded and collected which were new to the British Isles . The taxonomy of some of the more difficult groups has been substantially aided by the acquisition of further material and most importantly by the use of under-water photography on LIVING material. It is amazing how different species may be in life which are almost indistinguishable in a museum jar.

I should sincerely recommend anyone interested, or a museum which holds collections of sublittoral material to make contact with the society. A system of regional coordinators covers the country.

Write to the Projects Coordinator: Dr. R. Earll, Candle Cottage, Kempley, Gloucestershire.

David G. Erwin

MODEL DISPLAYS

Recent trends, in natural science exhibition have perhaps offered greater scope to the modelmaker than to the taxidermist, and our galleries, like those in Cardiff and the less controversial areas of South Kensington, reflect these trends. Botanical models, if hardly in the same profusion as in Cardiff, are still much in evidence, and the techniques of modelling in wax have been applied in many invertebrate displays featuring worms, mollusca and bryozoans. In addition, polyurethane foam, vacuum-formed plastics, freeze-dried material, and engraved, edge-lit perspex have been used, sometimes adventurously, and on the whole with a considerable degree of success.

The final display in the "new" galleries, not yet completed, will demand not only the application of all these techniques, but also a theatrical expertise in lighting which will test our abilities to the limit. This is a series of five large cases showing marine vistas which will surround the viewers, putting the spectator in the case, as it were, with the exhibits outside. There are no labels, since the intensity of lighting will in at least three areas be too low to make reading possible, and in one case, there are some 2000 specimens! The information will be relayed by a taped commentary so the cases are illuminated in sequence. The magnitude of the task may be judged by the problems which arise in just one of the cases, which deals with the surface layers of the open sea. In this, a large leathery turtle and a thresher shark will be shown, marbled by the shifting light from above, which fades gradually to the murky depths below and is lost in the distance on all sides. The background is far from being totally featureless, as it includes a vast shoal, or rather the illusion of a vast shoal, of herring, and the surface is studded with a large number of jellyfish. If the problems of lighting can be solved, other difficulties may well dwindle, since the herrings need not be modelled in the usual detail - indeed it will be preferable to suppress the detail, in order to focus attention on the wood, rather than on the trees, as it were. And after this? Back to the beginning again, like the Forth Bridge painters, Government finances permitting, of course.

Sam Anderson