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## CORAL COLLECTIONS FROM THE CHAGOS ARCHIPELAGO, INDIAN OCEAN, AT SUNDERLAND MUSEUM

During 1977 the attention of the Natural Sciences section of Tyne and Wear Museums was drawn to the extensive invertebrate collections from the Chagos Archipelago stored at Durham University. These had been formed as a result of Joint Services Expeditions to Chagos in 1972 (Egmont Atoll) and 1975 (to Danger Island and others along the western rim of the Chagos Bank), all collections being carried out by SCUBA divers under the scientific leadership of Dr. David Bellamy. The coral collections, which were most extensive (some 4000 specimens) had been initially researched by Dinesen (1977) following the Danger Island expedition (see Baldwin AE (1975)), but had remained largely otherwise unworked. It became apparent on subsequent examination of the collections that their full potential had not been realised - much more work was required on the identification and taxonomy of the collection, and the data associated with each specimen (exact location, depth etc) provided a valuable contribution to the distribution and ecology of corals. Only a small number of specimens were of display quality, the majority being hand samples collected at specific points along a line transect.

Obviously the scientific value of the collection was unquestionable, but it was debatable that its proper place was in a local museum. However, Durham had been the recognised centre for research on Chagos, and a further expedition, of a years duration, was then being planned from the University. Because of this strong link, and the fact that reorganisation of the basement area at Sunderland could allow for storage of such a large collection, an approach was made to David Bellamy regarding the collection's future, and the possibility of its donation to Tyne and Wear Museums. Only a little persuasion was necessary (a large part of the collection being housed in the Bellamy garage), and the collection was formally handed over at the opening of the Local Wildlife Gallery in Sunderland Museum in December 1977. (Davis 1978).

It was fortunate that the arrival of the collection coincided with the approval of a Manpower Services Commission Scheme devoted to the cataloguing of museum objects. Charles Sheppard, a member of the 1975 expedition, was employed on this scheme to carry out sorting, identification and documentation of the coral collections, whilst also being encouraged to carry out the organisation of the next Chagos Expedition, planned to begin November 1978, from the Museum.

Specimens were cleaned, transferred to individual polythene bags, and following identification placed in robust plastic stacking trays,

one genus per tray. These were stacked on open Dexion racking. Following this initial sorting, work began on the tedious but necessary task of numbering the individual specimens and entering the information associated with them onto MDA cards - this work is still, inevitably, continuing. The benefits of this task (often difficult to see when confronted by yet another tray of corals) will become apparent when the information can be manipulated by computer. One major problem being faced is the storage of the large 'display' specimens which inevitably have to be separated from the genera trays, making the location of all specimens of a particular genus extremely time consuming. To overcome this problem (and that of gaining access to specimens in the bottom tray of a stack) units with adjustable shelving have been designed to allow storage of all specimens in taxonomic order, and installation of these into the basement will begin in 1980. The arrival of coral specimens from the 1978/79 Expedition has now consumed all remaining basement space, so the installation of the new units is even more desirable.

Because of its central position the Chagos group is very important biogeographically but before the present work was carried out on the Expedition collections the coral fauna appeared to be a little anomalous. Due partly to previously incomplete sampling the increase in generic diversity that existed southwards along the Lacadive-Maldive ridge suddenly appeared to reverse with Chagos being lower than the Southern Maldive. Charles Sheppard has now identified the Scleractinian genera, showing that Chagos is in fact currently the most diverse of all sites in the Lacadive-Chagos chain. Following the recent expedition to the Northern atolls it is also, with present knowledge, the most diverse site generically of the Indian Ocean.

The following genera and sub-genera are now recognised in the collection:-

Psammocora	Leptoseris
Stylocoeniella	Pachyseris
Stylophora	Gardineroseris
Seriatopora	Agariciella (Wells M.S.)
Pocillopora	Goniopora
Madracis	Porites (Porites)
Acropora	P. (Synaraea)
Astreopora	Alveopora
Montipora	Cycloseris
Coscinaraea	Diaseris
Pavona (Pavona)	Fungia (Pleuroctis)
P. (Polyastra)	F. (Verrillofungia)
P. (Pseudocolumnastraea)	F. (Danafungia)

Fungia (Fungia)	Favites
Herpolitha	Oulophyllia
Halomitra	Goniastrea
Herpetoglossa	Platygyra
Polyphyllia	Leptoria
Podabacia	Hydnophora
Fungiacyathus	Diploastrea
Madrepora	Montastrea
Galaxea	Leptastrea
Culicia	Cyphastrea
Oulangia	Echinopora
Echinophyllia	Merulina
Physophyllia	Caryophyllia (Caryophyllia)
Oxypora	Paracyathus
Mycedium	Polycyathus
Pectinia	Desmophyllum
Blastomussa (Blastomussa)	Stephanocyathus
B. (Ceriomorpha)	Euphyllia (Euphyllia) (Veron et al MS)
Scolymia	E. (Fimbriaphyllia) "
Acanthastrea	Plerogyra
Lobophyllia (Lobophyllia)	Physogyra
Symphyllia	Balanophyllia
Ctenella	Denrophyllia
Caulastrea	Tubastraea
Pleisiastrea	Turbininaria
Favia	

The realisation of the importance of the collections lead to the decision to produce an illustrated booklet (Corals of Chagos) which would serve as a generic guide to any curator with a collection of Indian Ocean Corals. Although this would include chapters on corals in general, and the history of scientific discovery on the Archipelago, the bulk of the publication would be short descriptions of each genus, with accompanying photographs. Charles Sheppard completed the manuscript before leaving for the Indian Ocean, and all the plates have been produced. Unfortunately the booklet has been yet another victim of the cuts in expenditure, and although other means of finance are being sought, its fate remains uncertain.

Peter Davis and Charles Sheppard  
Sunderland Museum

#### References

- Baldwin E. A. (1975) A report on the Joint Services Expedition to Danger Island in the Central Indian Ocean.
- Davis P.S. (1978) A new gallery on a limited budget - Local Wildlife at Sunderland Museum.

- Dinesen Z. (1977) The Coral Fauna of the Chagos Archipelago. Proc. 3rd. Int. Coral Reef Symp pp155-161.
- Rosen B. R. (1971) Annotated check list and bibliography of corals of the Chagos Archipelago (including the recent collection from Diego Garcia) with remarks on their distribution. Atoll Research Bulletin 149 pp67-88

THE WORK OF THE MUSEUMS NORTH NATURAL HISTORY PANEL

Most B. C. G. members will be familiar with the various panels which provide, on a voluntary basis, specialist advice to the various Area Museum Services, and many will probably be members of their own area Natural History panel. This panel "System" dates from the formative days of the Area Services, back in the early 1960's.

In North East England one of the driving forces behind the establishment of the North of England Museum Service was Museums North, the Northern Federation of Museums and Art Galleries. The Federation carried out a survey amongst museums in the region to discover what they would like to see provided by an area service, and it was instrumental in getting Durham County Council to convene a meeting of all interested local authorities, to which the Federation's findings were reported. One of the recommendations of the report was that a number of advisory panels (with membership drawn from specialists working in the region's museums) should be set up. An important feature of this system, which was accepted, was that the panel chairmen would be full voting members of the Area Council.

A number of technical officers were appointed to the new service. They were all hosted by various member museums, the Natural History Officer, Beverley Christopher, being based at the Hancock Museum at Newcastle upon Tyne. The job of the panels in those days was, broadly speaking, to help the officers to determine their priorities of work.

The North of England Area Museum Service did not, however, become established on a really firm basis until 1974, at a time when Local Government re-organisation had brought about a number of major changes in museum organisation in the North-East, particularly in the Tyne and Wear and Teesside areas.