

NEWSLETTER

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Biology Curators' Group



IRELAND'S LAST GREAT AUK
The last Great Auk seen alive in Ireland was caught
off Waterford Harbour in May 1854
The Irish Times, 17th May 1854

The aims of the Biology Curators' Group are:-

- i) To facilitate the exchange of information between individuals concerned with collections of specimens and records, their conservation and interpretation
- ii) To present the views of biological curators to the Museums Association of Great Britain and to other bodies

Copy dates for future issues based on three copies per year:

31 August for October issue

31 December for February issue

30 April for June issue

Editor's Note

I am grateful to all my Irish friends and colleagues who promptly and comprehensively responded to a request for material for this issue.

Opinions expressed in this Newsletter are not necessarily those of the Committee of the Biology Curators' Group.

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Cover design, previous issue (vol 2 part 10)

The Sukotyro illustration was from Rees' Encyclopedia (1819) the entry being compiled by Edward Donovan. Possibly this "mythical" animal will remain a mystery although it may have been exaggerated report of the Babirusa, the Horned Deer or Deer Hog of the Celebes.

C O N T E N T S

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« Cardiff Conference - A National Plan for Systematics Collections? »

Dates confirmed 6 - 9 July 1982

Programme will be sent out soon

REMINISCENCES OF QUEEN'S UNIVERSITY MUSEUM, BELFAST

Amongst the various items still to be found in the Queen's University Zoology museum of forty years ago were specimens obtained and identified by Charles Wyville Thomson. This pioneer of oceanography had held the Chair of Natural History and Geology at Queen's between 1860 and 1870. Marine molluscs and crustaceans, blackened and crumbling, were discoverable in the depths of long-unopened drawers, wrapped in fragments of ancient newspaper as friable as the Dead Sea scrolls. Little of this material, alas, would have been worth saving.

A more spectacular exhibit was a very large and badly stuffed polar bear. This was, historically speaking, a rather famous beast, having been shot on one of the abortive expeditions which had set out to look for Sir John Franklin, whose party had vanished in the Arctic wastes while seeking the legendary North-West Passage. The bear's condition had not improved over the years. Its broad back formed a convenient landing-stage for zoology students disinclined to circumnavigate the upper gallery and negotiate a narrow stairway to the lower level. Hanging by the arms, it was possible to drop straight onto the bear and thereby save a few moments while hastening to the next lecture. Its pelt, though superficially luxuriant, was in fact of thistledown fragility. A zealous museum assistant, who once attempted to vacuum-clean the fur, had the unique experience of witnessing what appeared to be a good third of this enormous animal vanish up the tube before the machine could be switched off.

At that time, the museum also housed a large collection of exotic stuffed birds. In biologically improbable postures, they occupied shelf after shelf of dusty, glass-fronted cupboards. They also figured prominently in one bizarre incident. The Vice-Chancellor of the day had announced one of his periodic University inspections - events departmentally regarded in the same light as natural catastrophes. "I like," he had proclaimed on a recent visit to Chemistry, "to see lots of shining glass." This weird obsession created an atmosphere of panic-stricken gloom in Zoology, where acres of the stuff, opaque with the grime of ages, were only too evident. Our chief Technician, a man well versed in the psychology of senior administrators, saved the day. Armed with a filthy duster, he quickly polished the outward-facing glass eye of every bird in the collection. The resulting beady points of reflected light shone brilliantly through the murk of the totally undusted display cases. Seemingly hypnotized by this firmament of avian eyes, the Vice-Chancellor completed his tour in docile silence, afterwards complimenting the Department on its outstanding cleanliness.

Queen's still possesses a fine assortment of marsupial material. Much of this was supplied by T.T. Flynn, professor of Zoology between 1931 and 1948, who came to the Chair from the University of Hobart, Tasmania. His research field was marsupial embryology - an interest unlikely to be pursuable amongst the unpouched fauna of the Ulster countryside. Although a fine first-year lecturer and a good embryologist, Theo Flynn was inevitably destined to be known simply as "Errol Flynn's father". Errol did, in fact, pay one visit to Belfast, before his full blossoming as a Hollywood star. At a party to mark his arrival, he succeeded in spiking the orange juice of a teetotal (and very senior) academic wife with a massive slug of gin. The result, spectacular beyond all expectation, ensured his subsequent exclusion from University festivities.

The old museum has gone now - or rather it has undergone a metamorphosis into administrative offices. When the Department moved to more modern but less spacious quarters, the collections were broken up. A few specimens were retained, some given away, many destroyed. To visit their former home is a curious experience - typewriters clack where primeval silence prevailed, strip-lighting has replaced the softer shafts of a westering sun. Perhaps one should return to the place only after dark. Maybe then the old familiar shapes would re-emerge: the elephant skeleton encrusted with student signatures, the bear who died because Franklin vanished, the sad, exotic fowl. And perhaps the beneficent ghost of Wyville Thomson is there too, cataloguing yet again his treasured sea-snails from the long-forgotten voyages of a century ago.

R.V. Gotto
Zoology Department
Queen's University,
Belfast.

When the Ulster Museum achieved National status Botany and Zoology were part of the then "Department of Natural Sciences", which also included Geology. The Keeper C. Douglas Deane was also Deputy Director of the museum and the staff consisted of an Assistant Keeper in each of Geology and Zoology, a Research Assistant in Botany, a Field Officer/Senior Taxidermist and a trainee Taxidermist.

In April 1970 a separate department of Geology was erected under the Keepership of P.S. Doughty, Botany and Zoology remaining part of the responsibility of the Deputy Director. On the retirement of C.D. Deane in 1977 D.G. Erwin was appointed to the first full Keepership of the department without other responsibilities.

A major and protracted stocktaking and reexamination of direction and policy took place over the next year culminating in the production of statements of collecting policy, research policy and loans policy, together with significant reorganisation of departmental structure and working.

The collecting policy drawn-up then, (1978) is reproduced below.

Collecting Policy

(i) Irish material

This will take priority over all other material in terms of collecting effort, storage and finance. Whenever relevant and fully documented Irish material becomes available we shall attempt to obtain it for the collections.

(ii) British material

This will take secondary position only to Irish material and except where another museum has prior claim will be acquired whenever possible.

(iii) Relevant European or north-east Atlantic material

Comparative specimens of Irish species from other parts of their range, or species not found in Ireland but which are relevant to the study of the Irish fauna or flora, will be collected.

(iv) Material from further afield

Material of direct relevance to existing collections or material for display purposes will be acquired.

(v) Other material

Exceptionally a single specimen or a collection of great scientific interest or importance may become available which will not fall within the above guidelines. Sufficient flexibility must be available to encompass such an occurrence.

Although material collected is primarily preserved or unpreserved biological material of various kinds, ancillary material such as photographs, tape recordings, documents etc. will also be collected.

cover the cost of travel to any meeting, conference or consultation in England Scotland or Wales. It is thus obvious why it has been remarked about some of us that "We are conspicuous by our absence". Within the budget available it has become essential that we balance out every priority. An attendance at a conference by one member of staff means that another cannot have that piece of equipment that is "absolutely essential". We can only hope and trust that in the near future our budget will be restored to a realistic level and that we shall again be able to make fuller contribution to the various organisations to which many of us are committed.

Office, lab. and storage space has been a running sore to the Department for some years. At present some of the department is housed with the Geology department, some in "temporary" accommodation in offices without windows in the garage area. The Botany offices and labs are currently housed in a rented private house "across the road" from the main museum building. It is hoped that most of our problems in this direction will be solved in the very near future as the Zoology sections move onto a new mezzanine area in the "old" part of the building where the ceilings were high enough to permit such development.

The main storage area at present is shared by Geology and Antiquities. Although this may have seemed a logical step when the building was being designed it has led to many problems. Different climatic conditions are obviously required for different types of material. This is impossible to achieve. Security in terms of access to the collections is not under the direct control of departmental staff and for much of the time there are a number of people working in the store, not on Botany and Zoology material. This has the added problem of making pest control difficult. By the nature of the structure of the store and because of some of the other material in it, which could be affected, and for "Health and Safety" reasons it has not been possible to carry out methyl bromide fumigation. Neither, because of people working in the area, has it been possible to use residual insecticides. Thus our collections are at present unprotected from pest attack. Vigilance on the part of staff members is our only defence.

THE FUTURE

The Department has passed through a fairly traumatic period of self-examination. We now, for the first time, know where we are going. We see no reason to attempt to justify our principal function of Collecting, Curating and Researching in any other terms. We do however see our brief extending beyond the walls of the Museum. If we are to "preserve the National Heritage" in biological terms, the collections which are our prime responsibility are really only vouchers for that "Heritage". The REAL heritage is represented by the natural environment and the animals and plants which inhabit it. To preserve this natural environment thus, must also be one of our principal aims, and to achieve this we must be involved in "Conservation" work of all sorts in addition to our "basic" Museum work.

In conjunction with Conservation Branch of the Department of the Environment (N.I.) (the body which fulfils the role of the N.C.C. in N.I.) we hope to enlarge our information and specimen base. Survey work with voucher material being deposited in the Ulster Museum together with a "data bank" of site and species information should enable us to occupy our full role in the Northern Ireland community. These developments have been approved in principal, and some have been instituted in "pilot"

form. They simply await the availability of finance and staffing to institute them in their final form. (Developments on these lines may occur in the near future; a further report will be produced outlining the details if and when there is positive movement.)

David G. Erwin

MUSEUM.

In order to afford the Working classes every facility for seeing such a rare specimen as the

LIVING CHAMELEON,

and for inspecting the otherwise extensive and interesting collection contained in this Institution, the Curator will be in attendance on

EASTER MONDAY,

From 9 in the morning till 6 in the afternoon.

Ordinary Admission Fee, - - - 6d.

Mechanics & Operatives, (on this occasion only,) 2d.

Children (if accompanied by their Parents,) Half Price.

Robert F. Ward, Printer, 25, Waring-Street, Belfast.

Poster issued in 1845 as part of an advertising campaign for the Museum of the Belfast Natural History And Philosophical Society.

ORIGIN OF THE ULSTER MUSEUM

The Ulster Museum is the youngest of the "provincial" National Museums. Its transfer to a Board of Trustees took place only in April 1962, the opening of the first phase "National" museum to the public occurring as recently as 1971.

The origins of the Ulster Museum lie in the Museum of the Belfast Natural History Society, which was set up entirely by voluntary subscription and opened formally on 1st November 1831, in College Square Belfast. In 1883 it was opened to the public on "New Years Day and thereafter on Saturdays from 12 noon until 3.00p.m., supervision being in the hands of Members of Council of the Society."

In 1842 a new constitution was adopted by the Society which was renamed "The Belfast Natural History and Philosophical Society".

In 1843 William Thompson (Natural History of Ireland) was elected to the Presidency of the Society, an office he held until his death. Under his guidance and the more dynamic style of a revitalised Society the museum began to grow both physically and in its impact on the Belfast Public.

For Easter Monday 1845 the entrance fee was reduced and an "advertising campaign" mounted. The public responded ... almost 1000 of them, and "the utmost decorum and quietness was observed, no object in the collections being damaged". This obviously encouraged the Society greatly and for many years the experiment was repeated with ever increasing success. Other days were tried but none ever produced the results of Easter Mondays.

As the years passed the Society continued to flourish, both in terms of public involvement and of the collections. On the death of Thompson in 1852 a report was produced which includes the following:-

"Zoological and Botanical departments.

A complete collection cannot be acquired, but the aim should be to procure a good series illustrative of the fauna and flora of the surrounding district. The Thompson bequest has ensured a complete collection in some departments of Irish Natural History, Ornithological specimens include (i) the collection of British Birds and eggs and (ii) the foreign collection, especially the Captain Crozier collection (Australia) and the Robert Templeton collection (Ceylon). Mammals fishes and reptiles are less complete but of interest. Insects include many Irish specimens, also the Tennant (Ceylon) and Crozier collections. The British series of shells is not yet complete; the foreign series has been lately re-arranged. Other invertebrates are average for a provincial collection. The Thompson Room is to be fitted up for a display of specimens illustrative of the natural history of Ireland. A typical collection (of specimens representative of various classes etc.) is to be formed in the middle room when the Thompson Room is fitted up."

In 1863 another new society was formed, the Belfast Naturalists

Field Club, sharing many members with the B.N.H.P.S. but with much more practical objectives. Almost immediately there was increased pressure for a "local museum" with "scientific collections". The collections were completely re-catalogued and new systems of storage and labelling were instituted.

By 1880 the collections were expanding at such a rate that further extensions had been added to the original building. A "Scientific Curator", Samuel Alexander Stewart, was appointed, who during his period of office produced the first complete catalogue of the collections, a visitors guide and in conjunction with Thomas Corry, "The Flora of the north east of Ireland".

Unfortunately, from these heights the museum seemed to go into a slow decline to the beginning of the 20th century. The volume of the collections and the financial commitment required simply became too much for the Society to bear. Belfast Corporation had already in their possession several major collections (particularly the Grainger collection). It was thus logical and mutually beneficial when in July 1910 responsibility for the museum was transferred to the City of Belfast.

From this time the museum followed the course of other museums guided by a prosperous and enthusiastic industrial community. It flourished and expanded until the College Square premises were no longer adequate. A new Museum building was commissioned and the first phase was built on the Botanic Gardens site between 1924 and 1929. The collections continued to grow and staff numbers gradually grew with the appointment of subject specialists.

Once again the financial commitment grew. There was pressure to "complete" the museum but there was no way in which Belfast Corporation could find the necessary finance.

Eventually, in 1961, after a great deal of negotiation with government, a formula was agreed where the Corporation would hand over responsibility for the museum to an independant Board of Trustees. In return the Government agreed to take over responsibility for the "completion" of the building and eventually for the financial support of the institution.

Thus the MUSEUMS ACT (N.I.) 1961, established at least in name, a national institution to be called THE ULSTER MUSEUM.

David G Erwin

Note..... For further information on the history of the Ulster Museum -
A Museum in Belfast Nesbitt, N. 1979: Ulster Museum pub 233.

BOTANY SECTION

The Herbarium

The present herbarium of the Ulster Museum is an amalgamation of the municipal collections (which since 1910 included the herbaria of the Belfast Natural History and Philosophical Society, the Belfast Naturalists' Field Club and the private herbarium of Samuel Alexander Stewart) and the collections of the Botany Department, Queen's University, Belfast. The amalgamation took place in 1968 and the correct code for the unified herbarium is BEL. (BFT is an obsolete code for the former Queen's University herbarium.)

The unified herbarium is housed in the Ulster Museum and is physically organised into separate sections as follows:-

1. Flowering plants - Ireland
2. Flowering plants - Gt. Britain
3. Flowering plants - rest of the world (mostly European)
4. Pteridophytes
5. Bryophytes - British Isles
6. Bryophytes - rest of the world (as yet not sorted)
7. Myxomycetes (mostly British or Irish)
8. Lichens
9. Algae
10. Fungi (collection very small)

So far as current work by the department is concerned the most important parts of the collections are the Irish flowering plants and pteridophytes, the Irish bryophytes and the Irish marine algae, and it is these sections that are expanding as a result of field work, mainly carried out by the Museum's two botanists with help from a small number of other field botanists. There are also important collections of Irish lichens and myxomycetes, but these sections are stagnant at present because of the absence of staff or local botanists expert in them.

The herbarium staff concentrate mainly on floristic work within N. Ireland which consists of six biological counties with a small portion of a seventh. Two Floras covering the whole area between them are currently in preparation by two working groups, one centred on the Museum and the other centred elsewhere.

Early Collections

The earliest botanical records from what is now N. Ireland are probably those of William Sherard who visited Ireland in 1691, but the first local resident to systematically compile observations and collections seems to have been the Belfast naturalist JOHN TEMPLETON (1766-1825, most botanical work done 1793-1820). A portfolio of Irish mosses, some 340 ferns and about 150 algae have survived as part of the Ulster Museum herbarium. Perhaps more important are his manuscripts - a Journal 1806-1825, and part of an uncompleted Hibernian Flora - both now housed in the Ulster Museum, but with a small portion of the latter in the library of the Botany Department, British Museum (Nat.Hist.) and a MS Catalogue of the Native Plants of Ireland in the library of the Royal Irish Academy, Dublin.

In 1827 a Botanic Gardens was established in Belfast (the Ulster

Museum is situated in its grounds). Its first curator was a Scot, THOMAS DRUMMOND who had been one of the naturalists on Sir John Franklin's second expedition to British N. America and who has left us a bound herbarium of bryophytes collected on that expedition, mainly from the Rocky Mountains, dated 1828. There is also a bound herbarium of mostly Scottish and Irish mosses prepared by him for the Belfast Natural History Society in c.1830.

The BELFAST NATURAL HISTORY SOCIETY (later known as the BELFAST NATURAL HISTORY & PHILOSOPHICAL SOCIETY or BNHPS) was founded in 1821. They formed an herbarium which contains many flowering plant specimens by one of their founder members, the able Belfast naturalist, WILLIAM THOMPSON (1805-1852).

Later 19th Century Collections

Field botany in the north of Ireland went through a period of expansion and decline within the years c.1820-1840. A new generation of field botanists in Belfast arose in and after the 1860's and most of the Ulster Museum's important Irish collections date from this revival or later. Three important events occurred in the years 1863 and 1864. Firstly a small group of active field workers developed around RALPH TATE, sent to Belfast by the Science and Art Department, South Kensington, to deliver science lectures in Belfast. Tate's protégés formed a BELFAST NATURALISTS' FIELD CLUB (BNFC) in 1863 and in the same year Tate's Flora Belfastiensis was published - the first published handbook devoted to any part of the Ulster flora. A few of Tate's specimens survive. In 1864 Prof. GEORGE DICKIE working independently produced his Flora of Ulster. Dickie and Tate left Belfast in the 1860's but the work they had begun was carried on enthusiastically by local members of the BNFC. Two members who prepared large herbaria are HUGH ROBINSON whose specimens mostly date from the 1860's, and SAMUEL ALEXANDER STEWART (1826-1910) who commenced collecting and recording in the 1860's and who became over the succeeding twenty or thirty years the accepted authority on the flora of the north of Ireland. Stewart was a trunkmaker in Belfast, but in later years he was appointed full-time curator of the Belfast Museum, founded by the BNHPS. As curator he was responsible for the museum's two herbaria, that of the BNHPS and that of the BNFC. Between about 1865 and 1910 these herbaria were considerably enlarged by specimens collected by Stewart and other members of the two societies. He also had his own private herbarium and all three collections were handed over to the City of Belfast after Stewart's death in 1910.

Other notable local botanists who have left substantial collections, mostly of Irish material, either in the two society herbaria mentioned or as separate personal collections were THOMAS HUGHES CORRY (1860-1883), ROBERT LLOYD PRAEGER (1865-1953), Rev. HENRY WILLIAM LETT (1838-1920), Rev. SAMUEL ARTHUR BRENAN (1837-1908), Rev. COSLETT HERBERT WADDELL (1858-1919). All these collected vascular plants, but Lett, Waddell and Stewart also collected substantial numbers of bryophytes; Waddell was in fact the instigator of the Moss Exchange Club (now the British Bryological Society). He also collected large numbers of lichen specimens. Brenan collected, and acquired from other collectors, a large number of algal specimens.

In about 1878 T.H. Corry seems to have proposed the idea of producing a Flora of the North-East of Ireland and commenced work on it, producing a manuscript which is now in the Ulster Museum. S.A. Stewart collaborated with him on this, but Corry, one of the few professional botanists who collected in the north of Ireland, was drowned in 1883, and Stewart had to carry on alone. Stewart and Corry's Flora eventually appeared in 1888 published by the BNFC. It covers counties Londonderry,

Antrim and Down, and most of the vouchers are housed in the Ulster Museum, with the bulk of the remainder in the herbarium of the National Botanic Gardens, Dublin (DBN).

Twentieth Century Collections

The BNFC produced the first Supplement to the Flora of the North-East in 1895, prepared by Stewart and Praeger. After Stewart's death a Second Supplement was prepared, the bulk of the work falling on the shoulders of SYLVANUS WEAR (1858-1920), an English amateur botanist who had retired to live in Belfast in 1903. His botanical work on Ireland covers only the years 1904-1920 but he has left behind a substantial collection of vascular plants and marine algae, mostly from the north of Ireland.

Wear's Second Supplement drew heavily on the field work of his friend WILLIAM JAMES COLEMAN TOMLINSON (1863-1921) an employee of the Midland Railway. Tomlinson's large herbarium was acquired by Queen's University Department of Plant Pathology, Belfast, who donated it to the Ulster Museum in 1979.

R.L. PRAEGER took on the task of preparing the second edition of the Flora of the North-East which appeared in 1938. The bryophyte section was revised by Rev. WILLIAM RUTLEDGE MEGAW (1855-1953). Another important bryophyte collection, acquired by the Museum in 1944 is that of DAVID BIGHAM BRADSHAW (1869-1944), a founder member of the Moss Exchange Club and a life-long employee of the Provincial Bank of Ireland. His collection includes British and Irish specimens by himself and many notable British bryologists and a substantial number of European specimens.

Other collectors active in the inter-war years include NATHANIEL CARROTHERS (1852-1930) - a specialist in alien plants, STEPHEN ALLEN BENNETT (1868-1934) a schoolmaster at a Belfast public school, CORRIE DENEW CHASE (1878-1965) a friend and teaching colleague of Bennett and who collected mainly on holidays abroad, Rev. FRANCIS HUGH WOODHAMS KERR (1885-1958) who with a small group of co-workers prepared an unpublished Flora of Co. Tyrone and ARTHUR WILSON STELFOX (1883-1972) whose vascular plant work in the north of Ireland mainly falls in the period 1900-1920. These collections are all of vascular plants.

MARGARITA DAWSON STELFOX (Née MITCHELL, 1866-1971), wife of A.W. Stelfox, together with Miss MARGARET WILLIAMSON REA (1875- ?) were active students and collectors of myxomycetes in the years 1914-47; M.W. Rea also collected lichens. The Ulster Museum has a large and important collection of Irish and British myxomycetes put together by these workers.

After the second world war the most significant collectors in the north of Ireland were EDWARD NORMAN CARROTHERS (1898-1977) son of Nathaniel Carrothers, R. DESMOND MEIKLE, now at Kew Gardens, who worked the Flora of Co. Fermanagh extensively, J. McK. MOON (1901-1960), a Belfast schoolteacher, and Miss MARY PATRICIA H. KERTLAND (1901-) who has produced a Supplement to the vascular plant section of the Flora of the North-East of Ireland, 2nd edition. M.P.H. Kertland was curator of the Queen's University herbarium, formed in the 1920's under Prof. JAMES SMALL (1889-1955) who assembled a small herbarium of Scottish plants. On her retirement in 1968 this herbarium was donated to the Ulster Museum and amalgamated with those herbaria already in the museum - i.e. the BNFC, BNHPS, S.A. Stewart and D.B. Bradshaw collections.

The Queen's University Herbarium includes most of the collectors mentioned so far, together with bryophyte collections by R.D. & J.W. Fitzgerald including vouchers for their Bryophyte Flora of Co. Tyrone, 1960 (Trans. Brit. Bryol. Soc.3:653-687).

Paul Hackney

ALGAE

The algal herbarium has recently been subject to complete reorganisation, the many separate collections being amalgamated together so that the specimens, filed under the name of the species may be readily accessible. Each collection is preserved as a separate entity by means of a collection number allocated to it. The size of the herbarium has recently grown considerably for not only have newly collected specimens been added to it but others have been received in exchange, donation and purchase.

As far as is known the oldest algal specimen is one dated "April 1798" and, with others of the 18th and early 19th centuries it was collected by John Templeton of Belfast (1766-1825). The Templeton specimens along with those of a few others such as James Lawson Drummond (1783-1853) are together referred to as Collection 1.

During the 19th century the number of phycologists increased and more and more collections were made. Many collectors worked on the shores of Ireland and it seems that they freely exchanged specimens. Indeed, we have some specimens which have been cut in two, the two parts ending up in separate collections. Among these collectors two of the more important are George Crawford Hyndman (1796-1867) and William Thompson (1805-1852), both Belfast men. The latter is represented by five large albums of algae, one of which is of foreign specimens, as well as many individual as yet unaccessioned specimens. Other collectors include William Strong Hore (1807-1882) an Englishman whose specimens have been found in at least three separate collections; William McCalla (c.1814-1849); S.A. Stewart (1826-1910) and S.A. Brennan (1837-1908), all Irishmen, although Stewart was born in Philadelphia he came to Belfast when he was 10 years old.

However more important than these collections are those of William Henry Harvey (1811-1866) who was born in Limerick. He travelled the World making collections, describing new species and encouraging others to collect. It was he who brought all the information together and wrote reference books still of use today. He collected not only in Ireland but also in South Africa (1835-1842), Eastern America (1849-1850), Ceylon, W. Australia, Tasmania and the Friendly Islands (1853-1856). One of the five William Thompson albums, mentioned above, has many Harvey specimens from the Cape of Good Hope and sets of exsiccatae totalling about 700 specimens, from Ceylon, Australia, Tasmania, New Zealand and the Friendly Islands are also in the herbarium. It was on collections such as these that Harvey based his books. For the British Isles he wrote: A Manual of the British Algae (1841) followed by: Phycologia Britannica (1846-1851). For America he wrote: Nereis Boreali-Americana (1852-1858); for the Southern Seas: Nereis Australia (1847) and Phycologia Australica (1858-1863) for Australia, New Zealand and Tasmania.

Some other collections are a great assemblage of miscellaneous species from many parts of the World. One such has been mounted as three collections numbered 11, 14 and 15 consisting of 231 specimens gathered by 26 different collectors, including W.H. Harvey, from a long list of locations including: Ireland, England, Channel Islands, France, Ceylon, Friendly Islands, Australia, Tasmania, New Zealand, South Africa and North America.

Specimens collected in the latter part of the 19th century in the British Isles are also in the herbarium. There is, for example, Collection 12 mostly collected by Sylvanus Wear (1858-1920) in counties Londonderry, Antrim and Down. Others are as yet unaccessioned, for example Collection 6 compiled by E.M. Holmes (1843-1930) and Collection 3 gathered by William Sawers (fl.1850's). Other specimens of Sawers have been found in Collection 17.

Modern specimens collected during the last ten years, whether by Ulster Museum collectors or by others from whom they have been received in donation or exchange, are in some respects of greater value for they carry a more detailed record of exact location and habitat.

Many collectors have had to be omitted by lack of room from these short notes, indeed the handwriting of some is as yet unidentified. Herbarium work will continue in an effort to accession all the specimens and file them according to a standard checklist for ease of access. Since 1968 when the Queen's University, Belfast, herbarium was donated to the Ulster Museum the need for this has become even more evident. Many specimens have been remounted, their collector identified, the nomenclature updated and the species given an accession number peculiar to it. Only where this is done is the specimen ready for use and available for loan.

Osborne Morton

THE LIVE PLANT DISPLAY IN THE ULSTER MUSEUM

For some years now the Botany section of the Ulster Museum has maintained a live plant display in the Museum's entrance hall. It was felt that the display might well inject some life into the section's permanent exhibits, which, however ingenious, use photographs, models and preserved specimens; that it would also show members of the public something of the wide variety in the plant kingdom was considered an advantage.

The display consists mainly of bromeliads and ferns - which have proved to be the most suited (or most resistant) to the prevailing atmosphere in the entrance hall, which is excessively dry, very hot and very dark.

The plant pots are plunged in a peat bed, which, liberally watered, provides much needed humidity, and Vita-lite fluorescent tubes give lighting of a reasonable intensity without much heat.

Members of the Bromeliaceae were chosen for their tolerance of such conditions. They are a highly evolved group, the majority having inflorescences of great complexity and beauty, occasionally scented and nearly always brightly coloured; many species also have strikingly patterned leaves. Leaves form rosettes, with the inflorescence usually rising from the centre. Dimensions within the family vary widely - in height from a few inches to 30 feet, in width again from a few inches to 4-6 feet. The tallest specimens displayed so far have been about 5 feet high.

The ferns exhibited are mostly sub-tropical species. They provide a lush green background ideal for setting off the bromeliads, but are beautiful in their own right, displaying great variety in habit, leaf colour and texture, and in the range of colour, shape and patterning of sori.

About 40 plants are on view at any one time. All have labels giving the correct botanical name, any commonly used English names, the plant family and the geographical distribution of the species.

Plants are grown on the roof of the Museum in a glasshouse and a cooler wooden shed. These have been fitted, as far as possible, with automated equipment - automatic vents and lighting, thermostatically controlled heating and fans; and a new watering system using capillary matting has been developed which requires no maintenance and is simple to operate. It can also be used to apply insecticides, fungicides and algae inhibitors. Use of these systems has cut running time to a minimum.

The plants are repotted and divided every spring, using mixtures best suited to their requirements. After initial purchases to establish the display, most new plants are acquired by vegetative propagation - usually division and removal of offsets. Some new specimens have also been acquired by exchange with institutions such as botanic gardens and agricultural colleges.

Since the plant table display started in 1974, there has been a great deal of interest shown in it by the public, and an increase in the number of enquiries about cultivated plants from both the public and members of staff.

VERTEBRATE SECTION

The collections of the vertebrate section of the Botany and Zoology department are founded on the specimens, mainly mounted birds, bequeathed to the Belfast Natural History and Philosophical Society by its first president William Thompson (1805-1852). Thompson is perhaps best known for his 'Natural History of Ireland'¹ published in four volumes, the first three on the birds of Ireland being published 1849-1851. The fourth volume on other faunal groups was published in 1856, four years after his death and completed by Thompson's friends and colleagues from manuscript notes, now in the collections of the museum.

In 1919 the collections, by then part of The Belfast Municipal Museum, were expanded with the donation of the Patterson museum collection, belonging to another of Ireland's leading naturalists Robert Lloyd Patterson and comprising bird mounts and skins from Irish localities.

The collections continued to increase throughout the early and mid 1900's, mainly through public donations rather than as a result of an active collecting policy. In 1963 the donation of the late H.T. Malcomson's collection of bird mounts greatly increased the quality of the mounted collection and over one hundred specimens from the Malcomson bequest now form the basis of the bird display in the gallery pertaining to the natural history of Ireland.

In the late 1960's the museum was fortunate to receive part of the extensive collections of mounted birds from the J.I.S. Whitaker museum, Palermo, Sicily. The specimens are in general of poor quality but they, nevertheless, widen the geographic spectrum of the collections which are otherwise mainly British and Irish in origin.

Work in progress at present includes a revised cataloguing of the entire bird and mammal collections. All the information for each specimen is being collated from old labels, day books, historical files and publications and is being placed on a new card index and label. Each specimen is being allocated a new six digit accession number based, in the case of the birds, on the B.T.O. guide No.13(1971)² to the birds of Britain and Ireland and, in the case of the mammals, on 'The Mammals of the Palaeartic Region' by G.B. Corbet (1978)³. Data on the mammal collections has been placed on computer disc as a pilot scheme for other collections.

The construction of a new Zoology store, due for completion in late 1981, will alleviate some of the section's existing storage problem and the rehousing of the bird skin and egg collection will occupy much of the section's work effort over the next six months.

The Ulster Museum does not employ a taxidermist. Mr. T. Bruton is employed in the department as a scientific officer responsible for skin preparation and osteology. Mounted specimens are contracted out to a local, museum trained, commercial taxidermist, the museum supplying the specimens, the taxidermist producing the finished mount.

FISH COLLECTION.

The fish collection numbers less than one hundred specimens and is at present housed with the invertebrate wet collection. Over the

next four years it is planned to expand the collection to include at least one of each of the commoner British and Irish freshwater and marine species. The cost of containers for fluid preserved specimens is, under present economic conditions, prohibitive and the project must await the release of more funds to the department.

A coelocanth, purchased by the department in 1975 and preserved in Steedman's solution with little loss of colour, forms the central attraction of the fish display. Recently, with the cooperation of a local dealer, the museum's fifteen foot display tank has been converted from native coldwater species to tropical species and is proving a very popular exhibit.

AMPHIBIAN AND REPTILE COLLECTIONS.

Whether due to environmental conditions, lack of deliberate or accidental introductions or saintly intervention, Ireland has a very depleted amphibian and reptilian fauna; only four species are to be found in this country, the natterjack toad having only a very localised distribution in the South West. This lack of species is very adequately reflected in the size of the amphibian and reptile collection, numbering less than fifty specimens, most of which are in poor condition with little or no information. Expansion of this collection by the addition of fluid preserved specimens from Britain and Ireland is planned and assistance from other institutions would be greatly appreciated.

BIRD COLLECTION

a. Mounts

Four major collections are represented:-

- (i) The Thompson collection dates between 1800 and 1850, is exclusively Irish and contains many first recorded Irish specimens of American vagrant species. Also included are two first recorded British specimens a Sabine's gull Larus sabini taken on Belfast Lough on 18th September 1822 and a Bonaparte's gull Larus philadelphia.
- (ii) The Whitaker collection dates between 1890 and 1914, and comprises some 2,000 specimens from the Mediterranean, North Africa and North America.
- (iii) The Queen's University Zoology Museum collection predates the formation of the Belfast Natural History and Philosophical museum and received specimens collected by early Irish naturalists and explorers. Included in this collection are three fine examples of the passenger pigeon Ectopistes migratorius and a specimen of emperor penguin Aptenodytes forsteri collected by the Ross expedition to the Antarctic of 1839-1842, the first occasion specimens of this species were collected and scientifically described.
- (iv) The Malcomson collection containing over five hundred specimens of mounted birds, mainly of British and Irish origin. The specimens were mounted by the Sheals family, a father and two sons, who owned a taxidermist's business in Belfast between 1870 and 1930⁴. Curators who have seen Sheals specimens will know of their outstanding quality. An exhibition of the work of the Sheals family is planned for 1982 and information from curators with collections containing Sheals' specimens would be appreciated.

The museum now possesses a mounted bearded tit Panurus biarmicus, mounted in 1794 and believed to be one of the oldest stuffed birds in the world. Curators with specimens mounted before this date should contact the Guinness Book of Records.

The mounted bird collection is housed in thirty purpose built cupboards 2.6m x 1.9m x 0.6m. The cupboards have adjustable shelving. Attempts to make them dust-proof have so far proved inadequate. The collection is laid out in systematic sequence with the exception of the Palermo material which is housed separately and remains largely unworked.

Storage space is limited and a number of large mounts are situated in the aisles between cupboards, whilst older cases are housed in outside storage areas. The rehousing of the skin and egg collections will release extra storage space for the mount collection.

b. Bird Skin Collection

Although not containing any type material, series of skins of most British and Irish species are represented in the collection. Much of the material has been collected by the public and prepared by museum staff. The major historical collections are as follows:-

- (i) Professor C.J. Patten collection - birds taken at Irish lighthouses between the years 1911-1917. Most prepared as flat skins. Fully documented.
- (ii) W.H. Workman Museum collection - birds collected in Ireland at the beginning of the twentieth century.
- (iii) Belfast Natural History and Philosophical Society Museum Collection - collected between 1840 and 1900. Bird skins from the West Indies, New Zealand, Australia, India and Africa collected by early Irish naturalists such as Hyndman, Templeton, Halliday and Patterson. Also included are New Zealand birds collected by Capt. Crozier of the H.M.S. Terror whilst on the Ross expedition 1839-1842.

c. Bird Egg Collection

The major collection of bird eggs was purchased from the late John Cottney. Within the collection, most British and Irish species are represented by at least one clutch, fully documented but not catalogued. Other Palaearctic and Nearctic species are represented in the collections including the American Bald Eagle Haliaeetus leucocephalus and the Osprey Pandion haliaetus.

MAMMAL COLLECTIONS

The mammal collections are small totalling less than six hundred specimens (mounts and skins). The mount collection is almost entirely Irish and includes a very fine example of the Irish wolfhound.

A number of marsupials collected by the late Professor Flynn, father of the famous or rather infamous Hollywood actor Errol, are present in the collections. Present negotiations between the museum and the university should result in the remainder of the Flynn collection including a mounted thylacine or Tasmanian wolf being added

to the collections. The skin collection contains over 200 skins of the field mouse Apodemus sylvaticus collected by Dr. James Fairley from various localities in Ireland, including a series of the rather larger specimens from Rathlin Island, an island off the north coast. All the skins are fully documented.

The department is to receive a collection of over two hundred fully documented pygmy shrew Sorex minutus skins from the Zoology department of the university in the near future.

Of interest is the recent discovery in the collection of the holotype of the Irish rat Mus hibernicus, a new species described by Thompson in 1837⁵, but later to be considered as a melanic form of the brown rat Rattus norvegicus by Major Barrett-Hamilton⁶, Ireland's first mammalogist.

OSTEOLOGY

The main effort of preparative work within the section has been the expansion of the osteology collection. A reference collection of disarticulated mammal skeletons is in preparation and the department now possesses at least one skeleton of each of the wild and domesticated mammal species to be found in Ireland. This collection is used extensively by the museum's archaeological department in the identification of faunal remains from archaeological sites. Pleistocene and post-pleistocene species are not well represented and information regarding the availability, either as skeleton or carcass of wolf, lynx, reindeer, arctic fox and wild pig would be welcomed.

A series of skulls collected by Fairley of each of the following species are present in the collection -

Otter Lutra lutra - approx 40 skulls
Red fox Vulpes vulpes - over 250 skulls
Irish stoat Mustela erminea hibernica - over 40 skulls
Field mouse Apodemus sylvaticus - approx 100 skulls

Vertebrate groups, other than mammals, are poorly represented in the collections.

THE WILDLIFE ART COLLECTION

During the period the department was under the control of C.D. Deane a policy was initiated of collecting historical and contemporary wildlife paintings, sketches and sculpture. Represented in the collection are the works of Thorburn, Wolf, Tunnicliffe, Gillmor, Ede, Peterson, Donald Watson, Raymond Watson, Scott and Shackleton.

At present the wildlife art collection is spatially separated from the main museum complex but it is planned to house the collection in the new zoology store.

SUMMARY

The collections of the vertebrate section are mainly Irish in origin. The fish, reptile, amphibian and mammal collections are small and expansion of these collections is planned. The bird collection is of considerable interest, being mainly British and Irish in origin and containing many fine quality mounts and study skins. The osteology collection contains a useful series of skulls of native Irish mammals

and a reference collection is in preparation.

Curatorial work in progress includes the cataloguing of the bird and mammal collections, with simultaneous re-accessioning and re-labelling. The mammal collections are on computer disc file and a similar course of action is planned for the bird collections.

REFERENCES

1. Thompson, W. 1849-1856. Natural History of Ireland 1-4 Bohn. London.
2. Hudon, R. (ed.) 1971. A species list of British and Irish Birds B.T.O. No.13
3. Corbet, G.B. 1978. The mammals of the Palaearctic region British Museum (Natural History) 1978
4. Herriot, S. (ed.) 1968. British taxidermists a historical directory. Leicester Museum.
5. Thompson, W. 1837. Mus hibernicus Proc. Zoo. Soc. Lond. 52.
6. Eagle-Clarke, W. and Barrett-Hamilton, G.E.H. 1891. On the identity and distribution of the Irish rat Mus hibernicus, Thompson. Zoologist (3) 15 1-9

Marshall McKee



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THE DUNSCOMBE PARKER ILLUSTRATIONS

When discussing natural history illustrators the names of Gould, Audubon, Selby, Wolf, Lear and Thorburn immediately spring to mind. However, few curators would have heard of Richard Dunscombe Parker, not surprising since even Strickland's "A Dictionary of Irish Artists" fails to mention this little known artist from Co Cork.

In June 1932 Parker's niece bequeathed to the City of Belfast a collection of 170 water-colours of Irish birds painted by her uncle. The collection remained unresearched for nearly fifty years until in the summer of 1980 Mr Martyn Anglesea of this museum's Art department placed the collection on display, the exhibition proving a tremendous success with the museum's viewing public. It was during the preparations for the exhibition that the few known biographical details about Parker were revealed.

It was in 1843, during the annual meeting of the British Association for the Advancement of Science in Cork, that as a contemporary newspaper recorded "Mr Thompson then read a valuable report on the fauna of Ireland, during which some beautiful paintings of birds by Mr Parker were exhibited". An eminent English ornithologist H. G. Strickland (not the author of the aforementioned dictionary of Irish artists) expressed his gratification at Mr Parker's paintings; in fact, they were only second to Mr Gould's of London, and fully equal to Audubon's. William Thompson went even farther since 'in life-like appearance they excelled even Mr Gould's, beautiful as the latter were'.

Why have we not heard more of this Irish Audubon? The truth is simply that, as Martyn Anglesea points out, in comparison with the great illustrators of the past and despite the obvious high esteem in which Parker was held by leading naturalists, he can only be regarded as a primitive, lacking the artistic finesse of Audubon or the detail of plumage, stance and flight, characterising the work of Wolf or Thorburn. Parker

drew from museum skins and mounts, the latter usually being of poor quality. This of course was not uncommon for illustrators of the early 1800's, but the result, inevitably, lacked the realism or the ornithological accuracy of the great illustrators of the nineteenth century or of the more recent works by Tunnicliffe, Lodge or Ede.

The paintings are, nevertheless, not without considerable ornithological interest. The birds are often placed in instantly recognizable Irish landscapes and include species which could only have been recently recorded in Ireland when Parker completed his illustrations.

In his summary Martyn Anglesea states, "The collection is a valuable document of endeavour, and to see it for the first time as a whole should be a revealing experience". It was. It seems, however, that Richard Dunscombe Parker's moment of recognition has come and gone and he is now condemned to the eternal isolation and gloom of the vaults of the Ulster Museum. Unless, of course, you know different.

Marshall McKee
Assistant Keeper -
Vertebrate Zoology

'Richard Dunscombe Parker's Irish Birds', a catalogue of the exhibition and illustrated by 20 plates of the work of the artist is available from the Ulster Museum.

"Serendipity. Former name of Ceylon + ity; coined by Horace Walpole upon the title of the fairy-tale The Three Princes of Serendip, the heroes of which 'were always making discoveries by accidents and sagacity, of things they were not in quest of'" O.E.D.1970.

Since 1939 the Ulster Museum has held a collection of 67 sheets of water-colour paintings of Ceylonese butterflies and 85 sheets of drawings and water-colours of exotic Mollusca. The paintings lay neglected until the early 1970's when they were chanced on in a tea chest. Initially it was only apparent that they were of very considerable merit and that they had been executed by a 19th century naturalist called Robert Templeton. Such significance as became attached to them resulted from a chance observation in early 1979 that scribbled notes on the paintings referred to some of the species illustrated as 'nov.', 'nov.sp.', 'n.sp.', that such notes apparently predated the published descriptions of the species and that they had been made by celebrated entomologists. Three of these were of special interest: Francis Walker, George Robert Gray and Joseph Obadiah Westwood. Francis Walker published the first list of the butterflies of Ceylon and the others described Ceylonese species.

The paintings were carried to London and the advice of Richard Vane-Wright sought. He agreed that the paintings were of considerable historic and taxonomic interest and began a study. In Belfast we began to explore. It soon became evident that Robert Templeton was largely ignored in published sources. On the other hand very substantial evidences of his contributions to zoology were emerging. During 1979 and 1980 we identified

1. The published work of Robert Templeton.
2. Contemporary publications on Ceylon and Ceylonese natural history.
3. Manuscript sources.
4. The butterfly and mollusc paintings and annotations.
5. Family documents.
6. The published work and some manuscripts of contemporary naturalists.
7. Part of the Templeton collection in B.M. (N.H.).

By mid-1980 we had a sufficiently complete picture of Robert Templeton to assemble an exhibition and write a preliminary account of his life and work.

This is not the place to summarise Templeton's life and work. The preliminary account is published and available from the museum as Dr. Robert Templeton 1802-1892 Naturalist and Artist. Ulster Museum publication No.234 48pp. 19pls. 4 col. Price £2.00. Rather we wish to draw attention to the very real need for a proper understanding of the socio-historic background of collections and to lessons learned in this limited study which proceeded intermittently over a period of about six months.

When Templeton took up a twelve year residence in Ceylon in 1839 very little had been published on the natural history of the island. By this time

Templeton was a most accomplished field naturalist and was well versed in scientific procedure. Very little appropriate literature was available on the island and what was there must have been wholly insufficient. Templeton set about making collections and gathering data and executing the butterfly paintings. These materials were passed to his friend Joseph Obadiah Westwood in London - at the time Westwood was Secretary of the Entomological Society. Since Templeton was largely uncertain of the identity of his captures he assigned numbers to specimens (or in some instances to what he believed to be taxa) and used these numbers to link his specimens to his notes, drawings and paintings. In London the specimens and literature were passed between the systematists and identified, annotated, reidentified and further information was sought from Templeton. In other words the complex and subjective exercise of associating phenomena with taxa proceeded. In the 1850's the Templeton collection passed to the British Museum but the paintings were kept by the family. Westwood may have kept the documentation, much of which appears to be lost and the links between specimens, literature and the contexts of collection and documentation were broken. The reconstruction of the events of 1839 onwards to reassemble the broken links required an analysis of literature, specimens and manuscript and a knowledge of the historic context.

A good example of a reassembled taxonomic link is provided by Vane-Wright (pers. comm.) writing on Troides darsius (Gray, 1852). 'Templeton illustrates a male (No.2) and a female (No.1) of this endemic birdwing species. As with most of his paintings he shows only the upper-side of the right-hand wings and the body in full: in this and in many other cases he gives, in addition, a pencil outline of the left-hand wings. Moore [annotation] notes the male as 'Haliphron ♂' (a misidentification which also appears in Layards MS) and the other specimen as 'female not descr.' 'Ornithoptera Boisd. Amphimedon Boisd.' (repeating Doubleday's misidentification of 1846) and finally 'Ornith. Darsius G.R. Gray ♂ 2, ♀1'. TYPE MATERIAL. Gray (1852:5) in his Catalogue describes darsius from 'males and females' in the BM, and also by reference to Hewitson's figure, misidentified as amphimedon, in Doubleday 1846:pl.1, figure 2. In his later List, Gray (1856:4) enumerates five specimens 'a, b. Males. c. Female. Ceylon. presented by R. Templeton Esq. d. Ceylon. Male. From the Rev. H. Wenham's collection. e, Ceylon. Female. Presented by Dr. Kelaart'. Howarth (1977:159) notes a single syntype extant in the BM(NH), the male figured in Doubleday. Howarth gives its register number as 45.19 but this should read 45.79, the register number for a large collection of Ceylon insects purchased from Rev. Wenham. The figured male is therefore specimen d of Grays (1856) list. I have now located the two females c and e but not the males a and b. Female e is labelled 'Ceylon 48-3/darsius Gray' and comes from a small collection (B.M.48.3) of Ceylon material presented by 'Dr. Kelaart, Chatham'. Female c is labelled 'Ceylon 52-62/darsius Gray'. Register no. BM52.62 (dated June 16th) belongs to one of the large collections of Ceylon insects presented by Templeton to the B.M. As Gray's 1852 description is based on 'males and females' we may take it that the males a and b (lost?) and the extant female c, presented by Templeton, formed part of the type series even though it would appear they only reached the B.M. curators by June 1852. The BM(NH) Entomology Department library card has a pencilled date '8.i.1853' on the entry for Gray '1852' which suggests that this work may have appeared very late in 1852 or even in early 1853. I have labelled all three extant specimens, c, d and e as syntypes of Papilio darsius Gray. Although Templeton's painting of 'No.1' does not appear to correspond to specimen c it is very likely that the paintings were available to Gray at the time of fixing his description, and they can be regarded as iconotypes'.

The mollusca paintings afforded the means to reassemble some socio-historic links. An analysis of watermarks, annotations and style and comparison of the figures with those in conchological works in use in the first part of the 19th century revealed much about Templeton's early life and the surrounding intellectual climate. These insights are of especial

value in a general sense in that our collections of this period are very poorly documented. A more proper understanding of them is only emerging now that we have begun to accumulate information on the naturalists associated with them, their contacts and the literature and material available to them. For instance we know now that the mollusc paintings executed by Robert Templeton, for the most part prior to 1830, were copied from Gualteri's Index Testarum Conchyliorum (1742), Lister's Historia Conchyliorum (1685-1692), Brooke's Introduction to the Study of Conchology (1815), Donovan's Naturalist's Repository (1805), and The Natural History of British Shells, Sowerby's Genera of Recent and Fossil Mollusca (1821-1834) and Brugière's Encyclopédie Méthodique (1792) and some other minor works. Evidently the early Belfast naturalists had marshalled some very substantial resources. They also formed a well-integrated group. A sheet of paper included with the mollusc plates bears a drawing and handwriting exercise labelled 'Henry Haliday (A.H. Haliday the renowned Irish entomologist) Pinx Oct. 2nd 1820. Clifton'.

The Templeton study has proved most instructive being microcosmic in that not too many people were closely involved with him and that he spent much of his life in isolation. When we assembled information for this short account a number of features were highlighted which seem to us of general curatorial application.

The Templeton paintings which seemed of little but artistic and some historic interest were the key to the solution of a number of problems some anticipated and some not. As they were investigated one problem generated another and it soon became clear that a multidisciplinary approach to these was the most productive. The initial approaches were to experts; Richard Vane-Wright for the butterflies and Peter S. Dance and David Heppell for the molluscs. Once it was established that the paintings were important they remarked on the contexts, that is to say on the state of the science at that time, the likely Templeton contacts and possible sources of information. The advantage of expertise is not only precision but economy - what we could have done poorly over a long period of time was done well quickly. This left us with the tasks of compiling historic information and bibliographies, co-ordinating and constantly formulating new questions. As soon as was feasible we drafted a short account of Robert Templeton's life and work linked to an appeal for general and specific information and published this. Attention was drawn to this paper by writing to a variety of societies concerned with both natural history and history and repeating our appeal. This proved most fruitful and in most cases we were able to reciprocate either at the time or subsequently (most of our sources themselves required a context for their holdings or information).

Since early 19th century natural history was polymathic and since Templeton had travelled fairly widely we sought information from a variety of disciplines and countries. Main sources were the British Museum (Natural History), the Zoological Society of London, the Royal Entomological Society, the Royal Artillery Museum, the Mauritius Institute, the National Museum, Dublin, the Public Records Offices in London and Dublin, India House, the Calcutta Museum, the Hope Department of Entomology, the National Maritime Museum and the Royal Army Medical Museum and a large number of private individuals too numerous to mention individually.

We have said the Templeton study relied largely on unravelling the connections between specimens and literature both published and unpublished. Fortunately in our study the collections were mostly in their original state. In several instances where they had been 'curated' essential links had been irretrievably broken, usually by the 'curator' - better words would be respectively vandalised and vandal. The maxim is clear - if in doubt do

nothing. This is underlined by the paintings themselves - surviving probably because they had been overlooked, they proved to be both a key and the tip of an iceberg, leading as they did to the rediscovery of Templeton's insect collection in the B.M.(N.H.), to a Templeton manuscript on Irish spiders (largely incorporated into Blackwall's Ray Society monograph), Edgar Leopold Layard's splendid Ms autobiography and providing insights into our own collections in very numerous ways.

What information we have on Robert Templeton is being collated into an extended account of his life and work and we would be most grateful for any information on him or on early natural history in Ceylon. We are particularly anxious to trace some water-colours of Ceylonese moths purportedly by Edward Donovan but in fact almost certainly the work of Templeton which were offered for sale to the B.M.(N.H.) on July 26th 1971 by Robert Wian, 6706 Los Verdos Drive, Palas Verdes Peninsula, California 90274. The museum did not buy the paintings and we have failed to trace Mr. Wian. They may have subsequently passed through a London saleroom and it seems most likely the paintings are either in the hands of a dealer or a collector, or collectors. Perhaps they will begin a new chapter.

Helena Ross
Robert Nash

TERRESTRIAL INVERTEBRATE SECTION

HISTORY

The Belfast Natural History Society was formed in 1821 and its collections amalgamated into a museum formally opened on 1st November, 1831. From what evidences are available we may presume that the founding collections of invertebrates and those acquired in the early part of the last century were comprehensive and well maintained. Certainly the early Belfast naturalists properly enjoyed a high reputation. The same may be said of the naturalists of the daughter society, the Belfast Natural History and Philosophical Society, whose collections came to the, then, Belfast Museum in 1910. At this time the land invertebrate collections were at least as well established as those in any other provincial city of similar size and importance. The word provincial has a special significance since in the hey-day of collecting Dublin was the capital city and Irish material had largely been placed in the National Museum: to a degree this continued after the partition of Ireland in 1921. It seems that after the natural history collections in Belfast passed from the hands of the committed into institutional care a not infrequent decline began and this especially affected the collections of insects and molluscs which, excepting occasional forays by the interested, received scant attention (in which they may have fared better than those which did receive some).

Since the change of status from corporation to national museum and the advent of trained staff the entomological and molluscan collections have received a more proper attention. The work has been largely remedial and has fallen into the following categories.

1. Interpretation and curation of what historic material remains, for instance the George C. Hyndman insect collection of c.1825 and the Hyndman and William Thompson Mollusc collections of c.1840.
2. The acquisition of collections to enable general museum functions to proceed and in particular to enhance understanding of the Irish fauna.
3. Documentation and publication of the collections - and eventually computerisation of contained data.

THE ENTOMOLOGICAL COLLECTIONS

1. IRISH

There is an extensive material of Diptera, Coleoptera, Hymenoptera and Lepidoptera most collected in the last ten years from all faunistic areas excepting the south-east and considerable general collections from two nature reserves, Murlough (sand-dunes) and Rostrevor (oak forest). The material comprises pinned and carded dry imagos. Spirit collections of early stages are very poorly represented.

The surviving early collections are these:

JOHNSON, W.F. (1852-1934) IRISH COLEOPTERA

A comprehensive collection which is extensively cited in the only summary in this century of the Irish beetle fauna - Johnson, W.F.

and Halbert, J.N. 1902. A list of the beetles of Ireland. Proc.R.Ir.Acad. (3)6:535-827. The collection is being overhauled, revised and will be computer catalogued in due course.

CRAWFORD, W.M. (1872-1941) IRISH COLEOPTERA

A small collection of Irish beetles with excellent data, many determined by K.G. Blair.

STELFOX, A.W. (1883-1972) IRISH ACULEATE HYMENOPTERA

A small duplicate collection of Irish aculeates many cited in Stelfox, A.W. 1927 Hymenoptera Aculeata (sensu lato) of Ireland Proc.R.Ir.Acad. (B)37:201-355.

HYNDMAN, G.C. (1796-1867) GENERAL

One of the first known collections of Irish insects, the others being the James Tardy and Mary Ball collections in Trinity College and the early parts of the Alexander Henry Haliday collection in the National Museum. The Hyndman collection is the best documented of all, however, being accompanied by a chronologically arranged acquisitions book.

WALKER, F. (1809-1874)

A small collection of aphids mounted on micro-slides including some type-material

BRITISH

A substantial British material is held mostly in the Irish systematic collections but two collections have been kept as separate entities. These are:-

A large collection of British and some European Ichneumonidae assembled by J.P. BROCK between 1963 and 1975. Some 1,100 species are contained and these include a large number of rare species several as yet unrecorded from Britain and a few Kasparyan paratypes.

A.P. Gainsford's collection of butterflies from S.W. England.

FOREIGN

There is a considerable collection of Palaearctic insects especially from Roumania, Spain, Portugal and a fairly comprehensive collection of world Lepidoptera. This latter contains some types and many rare species some poorly represented elsewhere. It is well catalogued on cards and, once funds are available, the catalogue will be computerised. Presently the collection is being overhauled and arranged systematically in available cabinets. Three of the more important collections will be kept discrete. These are

1. Parts of the Stoffel collection of Agrias (Nymphalidae) containing Le Moutt types.
2. H.M. Peebles collection of Parnassius (Papilionidae) which includes material collected by Avinoff, Grum Grshmailo, Bang-Haas, Fruhstorfer, Oberthur, Turati, Verity, Rothschild, Elwes, Bryk and Eisner. Much of the material is type.
3. P. Wilcox collection of butterflies from Malaya notable for exceptionally complete data and comprehensiveness.

Robert Nash

THE MOLLUSCA COLLECTIONS

All British Isles and foreign marine and non-marine Mollusca except material collected by the museum diving team (preserved as wet material) is curated by the Terrestrial Invertebrate section. The bulk of the collections of Mollusca date from the years 1830-1930 with only a small amount of material having been added in the years up to 1970 when there was an increase in specialist staff numbers after national museum status was assigned to the former Belfast Museum. Mention has already been made of the general history of the zoological material in the collections and the various societies and institutions which contributed to the present collections during the past 150 years.

The collections are split into British Isles collections and foreign collections of marine and non-marine Mollusca.

1. BRITISH ISLES

The marine and non-marine Mollusca collections are maintained as British Isles collections as, although they contain mainly Irish material, a significant proportion is from elsewhere in the British Isles. Recent efforts have been directed towards building up a good collection of spirit material since the Mollusca collections up to 1940 consist almost totally of dry material. The marine and non-marine collections are housed separately.

The British Isles land and freshwater Mollusca collection has been completely indexed, overhauled and rehoused in the last few years and a comprehensive catalogue has been prepared and is awaiting publication. Type, figured, cited and historically important material has been identified and placed in red boxes, for all type material of whatever sort, and green boxes for the other important material. The remainder is housed in white boxes. Much valuable historical background information to the collection and work and workers on Mollusca in Ireland has accrued in the process, through the assimilation of data from manuscripts, notebooks, record books, museum reports and original labels with the material.

The British Isles collections of particular significance are:-

THOMPSON, WILLIAM (1805-1852) MARINE and NON-MARINE

Historically important collections (1830-1850) amassed by one of the fore-most Irish naturalists whose interests covered the whole field of zoology. Much is cited in Thompson, W. 1856 Natural History of Ireland 4 : 1841 Catalogue of the land and freshwater Mollusca of Ireland Ann.Mag.nat. Hist. 6 16-34, 109-126, 194-208 and Reports to the British Association 1843, 1853.

HYNDMAN, GEORGE CRAWFORD (1796-1867) MARINE and NON-MARINE

Important collections contemporary with the Thompson collections.

Both these collections contain material sent from naturalists such as J.E. Gray, L. Jenyns, W. Yarrell, R. Tate and W.H. Harvey. Many of the records were published in Thompson (q.v.) and British Association Dredging Reports 1842, 1851, 1858, 1859.

WELCH, ROBERT JOHN (1859-1936) MAINLY NON-MARINE

An extremely well documented and meticulous collection dating from 1894-1936 which includes material from many well-known English

conchologists such as A.M. Norman, J.B. Tomlin, C. Oldham, J.W. Jackson, E. Collier, A.G. Stubbs and A.S. Kennard as well as Irish conchologists such as R.A. Phillips, A.W. Stelfox and R.F. Scharff. It has a large amount of associated manuscripts and notebooks. Many references in Journal of Conchology, Irish Naturalist and Irish Naturalists Journal.

GRIERSON, PHILIP HENRY (1859-1952) IRISH NON-MARINE

A collection linked to the useful Irish county lists which Grierson published in Irish Naturalist between 1901-1906.

GREEN, WILLIAM A. (1884?-1961) IRISH NON-MARINE

Collection made by a former photographic pupil of R.J. Welch between 1900 and 1910.

EARLE, Major P.K. MARINE

A fine collection of 127 species of British marine bivalves, part ex Salisbury collection (which contained Tomlin, Lyons, Hargreaves and Jeffrey material).

2. FOREIGN NON-MARINE

The bulk of this collection is as yet unsorted. The earliest specimens date from 1835 and it appears to have some interesting material from various sources. Welch, Collier and Standen added to it. Palaeartic Mollusca are well represented. A collection of 144 species of North American Unionidae obtained by William Thompson from Lea, Say and others donated by BNHPS and revised by T.H. Platt in 1915 is separately housed and accessioned.

MARINE - REFERENCE COLLECTION

The basis of the foreign marine collection is material collected by Richard Davison M.P. a Belfast-man who shared a keen interest in systematic conchology with George Hyndman. He had many contacts abroad who sent him material. Davison's collection passed to George Horner who later donated the material to Belfast Museum. However the scientific value of the collection was greatly reduced when many of the specimens were separated from their data when the individual foreign marine collections were formed into a single collection in a curatorial exercise a number of years ago. Original labels were also in many cases not kept.

The bulk of George Hyndman's foreign marine collection which contains material collected by friends and acquaintances as well as some purchased from Damon and Humphreys was sold by his executors to Lurgan Mechanics Institute. In 1976 Lurgan Technical College donated the collection to the Ulster Museum. The value of the collection has been reduced through dissociation of labels from specimens.

Recently, purchases have been made to supplement material in the poorly represented superfamilies in the foreign marine collection. Apart from this the only recent addition of note is a collection made by Dr. D. Roberts of Queen's University, Belfast during an expedition to N.W. Java. This duplicates a collection in the Indonesian Institute of Oceanology and contains material linked to a published catalogue.

Deficiencies and remedies

As has been explained in the introductory paragraphs the collections in Belfast rank well below those of the other national and some provincial museums, excepting the Irish material held here. The collections are especially poor in land and freshwater invertebrates other than insects and molluscs and a beginning has been made to rectify this. A great problem for this section is a lack of literature, or its alternative, access to literature. The last is more difficult to remedy but progress is anticipated. Given the history of the collections the situation would seem unpromising. However the lack of old collections may be seen as an advantage in that the taxonomic significance of old collections, excepting types, is frequently a good deal less than their size. Occasionally an inverse relationship exists, material having taken precedence over documentation. The utility of many old collections is consequently at least questionable. The future here, then, lies in modern, well documented, well researched collections linked to data retrieval systems.

MARINE SECTION

THE COLLECTIONS

Since 1972 the department has followed a policy of collecting marine invertebrates in connection with faunal survey work in Ireland. The eventual aim is to build up a collection of well-documented material, with information on habitats and distributions, of species from the North East Atlantic. There is little wet-preserved material of historical interest. It is assumed that at one time specimens collected by the Belfast based naturalists, William Thompson, George C. Hyndman and others must have been an important part of the collections. Shells and a collection of pressed hydroids and bryozoans from this era provide a tantalising glimpse of what the collections might have been, had curation in the intervening years been adequate. Nevertheless this lack of historical material does mean that all the effort of the section can be directed towards the building of collections with no preimposed constraints.

It is our policy to collect all groups of marine invertebrates, but naturally there is considerable bias due to the people involved and the nature of the collecting methods. Most of the specimens are collected by SCUBA diving, either by the museum diving team or by temporary assistants who have joined the team during the summer. Most of the collecting has been done during faunal surveys of particular areas, Strangford Lough receiving considerable attention and periods having been spent in Dundrum Bay, Co. Down and Portrush, Co. Antrim. In addition B.E. Picton has been collecting material for an Irish list of nudibranch molluscs, aided by grants from the Praeger fund of the Royal Irish Academy and by diving assistance from the Queen's University Sub-Aqua Club. Other areas visited include Lundy Island in the Bristol Channel, several Scottish localities (as part of a Nature Conservancy Council Survey team), the Faeroes and Iceland (with British Sub Aqua Club expeditions). These expeditions have resulted in the acquisition of a fairly representative collection of sponges, coelenterates, echinoderms and ascidians, as well as extensive collections of nudibranch molluscs.

An important aspect of the collecting effort has been the documentation of sites and specimens by underwater photography. Most specimens of new or unusual species are photographed in situ before collecting, or in the case of smaller animals in tanks in the laboratory while they are still alive. This has resulted in a large collection of colour transparencies linked to the specimens and providing information on the colour and appearance of the species in life. These photographs can also be used to familiarise divers with species so that recording of ecological information can take place without any risk of over collecting. As a sideline the section has been closely involved with the production of photographic identification guides which have been produced by the Underwater Conservation Society.

In the field of Marine invertebrates, perhaps even more than in the Terrestrial invertebrate field, there is still much systematic work to be done. In most groups discovery of extensions of distributions, such as new Irish records, are quite common, and the discovery of new species to science is not infrequent. It is because of this, and because much of the literature is not adequate, that it is so important to continue building collections of well-documented marine material. In the last ten years the publication of the series of Linnean Society Synopses of the British fauna has been an invaluable contribution to invertebrate taxonomy, providing the impetus for further discoveries by making identification of the groups covered less daunting. The earlier literature on marine invertebrates is mostly Victorian, out of date, difficult to obtain and hard to use.

Most of the material in the Ulster Museum marine invertebrate collection is catalogued onto a card based system, new material being catalogued as it is added. This is invaluable in groups such as the sponges where it is important to have a unique number to link a specimen, a microscope slide and a photograph. It is envisaged that this information will eventually be stored on computer file, to allow more easy data access, but at present this is held up by lack of appropriate facilities.

Criticism is sometimes mounted against the operation of a diving team, which involves considerable financial outlay compared with other methods of collecting. In any comparison of this sort it is important to remember that any method of collecting marine invertebrates, whether dredging, grabbing, or diving, is bound to be more expensive than collecting on land. In terms of quality of results, the diver, who can collect specimens, habitat and abundance information, work in rocky areas effectively, and take photographs, can produce results, which are simply unobtainable except by "having a man on the spot".

B.E. Picton

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.

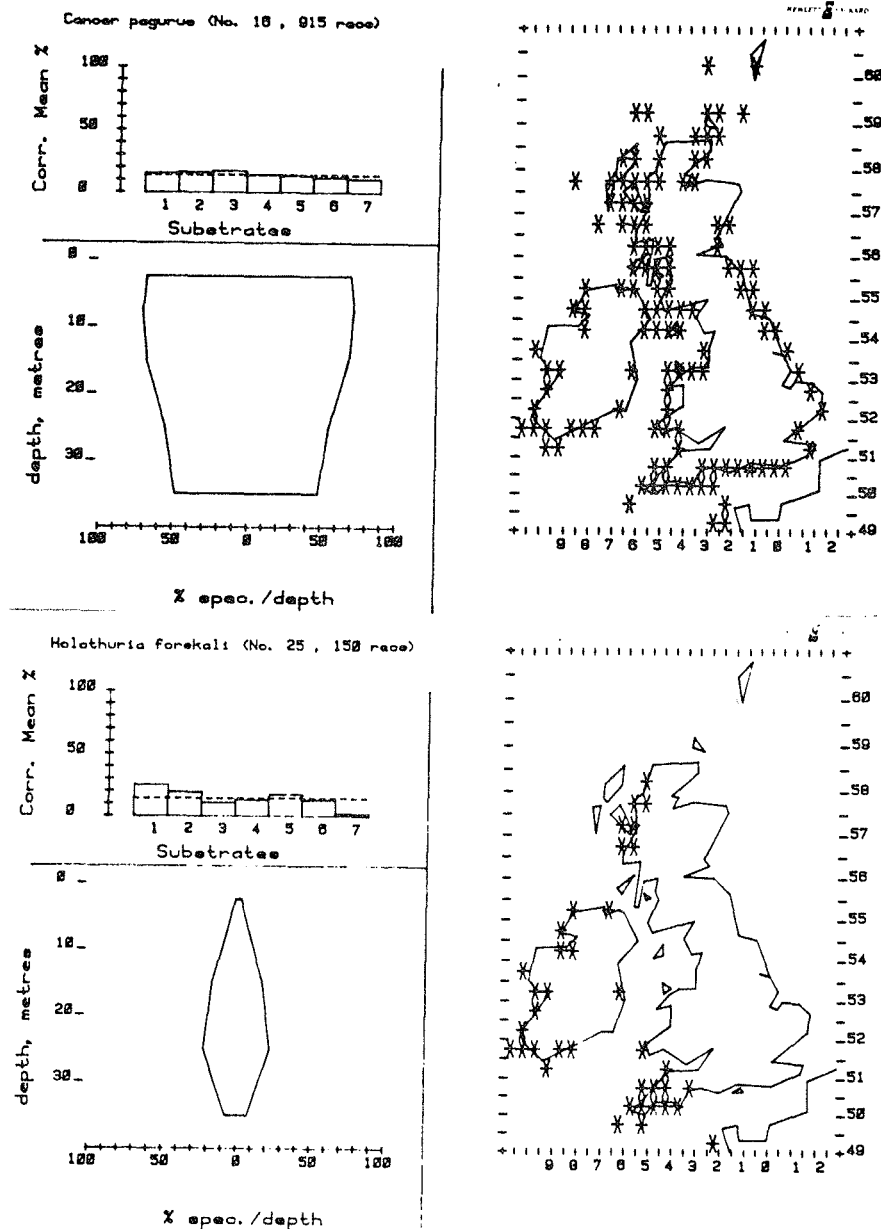


Fig 2

Microcomputer printouts of processed record information.

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		GRID REF or LAT/LONG	
NAME		LOCALITY	
ADDRESS			
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
			FINE SAND
			MUD
WHERE THERE SHELL FRAGMENTS PRESENT? IF YES, ENTER 'S' IN APPROPRIATE BOX ABOVE	YES	NO	YES NO
SPECIES - Tick P (Present) or C (Common)	P	C	P C
1 Laminaria hyperborea		15 Aporrhais pes-pellicani	
2 Laminaria saccharina		16 Cancer pagurus	
3 Pachymatisma johnstonia		17 Macropopus puber	
4 Alcyonium digitatum		18 Nephrops norvegicus	
5 Tubularia sp.		19 Asterias rubens	
6 Virgularia sp.		20 Marthasterias glacialis	
7 Metridium senile		21 Crossaster papposus	
8 Lanice conchilega		22 Ophiothrix fragilis	
9 Arenicola marina		23 Ophiocoma nigra	
10 Pecten maximus		24 Echinus esculentus	
11 Chlamys opercularis		25 Holothuria forskali	
12 Modiolus modiolus		26 Antedon bifida	
13 Ensis sp.		27 Clavelina lepadiformis	
14 Turritella communis		28 Labrus mixtus	
OTHER PROMINENT SPECIES			
		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

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 underwater 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

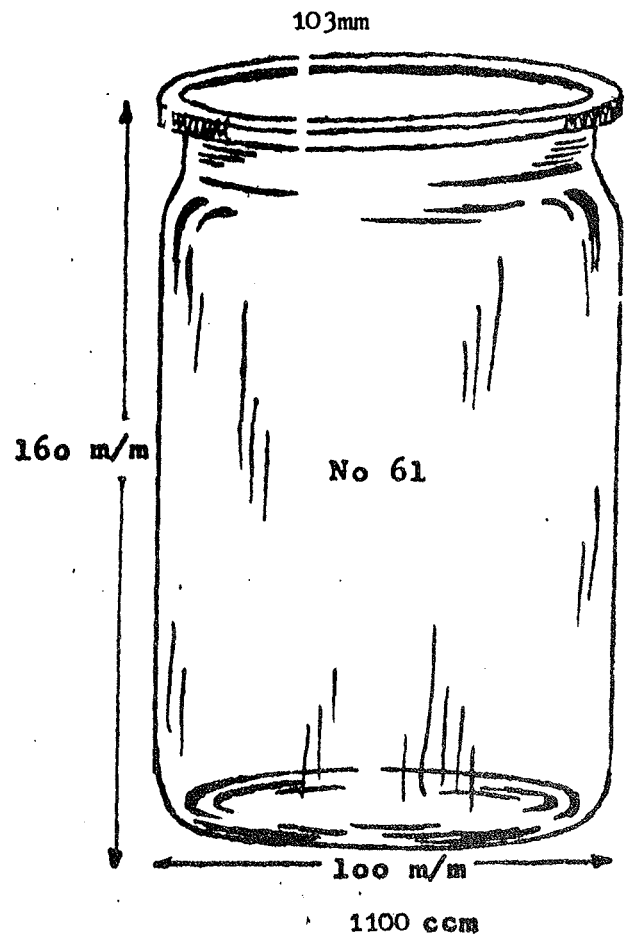
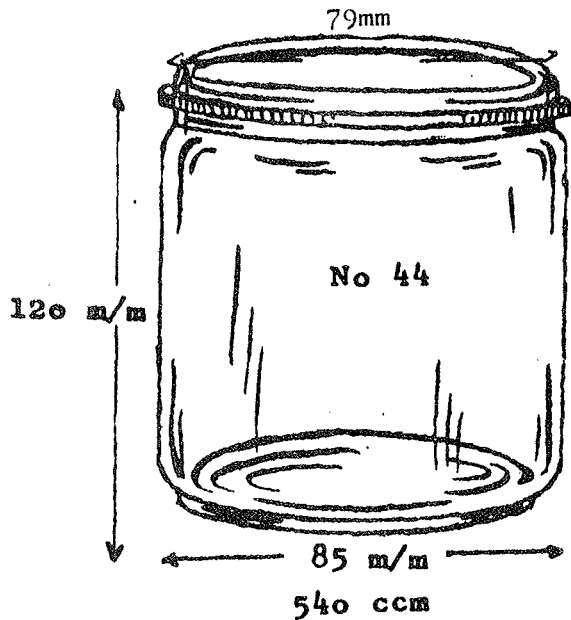
MODEL DISPLAYS

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.

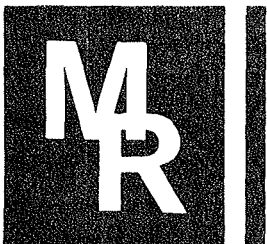
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THE ZOOLOGY MUSEUM AT TRINITY COLLEGE DUBLIN

The Department of Zoology museum in Trinity College Dublin has been in existence since 1887. At that time the museum's display area consisted of a large ground floor with a spiral staircase leading to the galleries above. However, as time progressed and the demand for office and laboratory space increased with the growing numbers of students, areas in the Zoology building were allocated to other departments in the faculty. This resulted in drastic changes in the size and style of the museum and it now occupies only a relatively small area on the Zoology department's first floor.

The museum's function is primarily a teaching one, providing practical demonstrations for over 300 undergraduate students each year. These demonstrations include a wide range of material covering all the major animal groups. Excluding the insect material, the museum has over 5,000 specimens in its collection, the majority of which are no longer on display. Probably the most valuable specimen is a mounted preparation of Ireland's last Great Auk (*Alca impennis*)*. These birds inhabited the North Atlantic region until they became extinct in the mid-19th century largely as a result of predation by man. The particular specimen on display was presented to Trinity College in 1844 by a Dr. Burkitt. It is of significant interest as it was in fact the last Great Auk seen alive in Ireland and is the only known example showing immature plumage. Other specimens of interest on display include a Passenger Pigeon, Tasmanian Wolf, New Zealand Night Parrot, a Black Rhinoceros and an Indian Elephant. The collection also includes material of historical interest including samples of Globigerina ooze from the Challenger expedition of 1872, insect material from the collections of Tardy, Haliday, Wright and Coulter and a series of beautifully hand-made glass models prepared by the famous Blaschka family in the latter half of the 19th century.

As the museum is in constant use, the main teaching collection requires regular maintenance and updating. This frequently means the collection and preparation of specimens to supplement or replace existing material. Recent additions to the collection include a puma, several grivet monkeys, a wallaby, a common porpoise and an 18 month old elephant, kindly donated by the Royal Zoological Society of Ireland. As there is a scuba-diving unit within the department, the museum's collection of marine and freshwater

* See Front Cover.

exhibits is constantly being increased. Along with scuba-diving, other techniques involved in maintaining the museum include osteology and underwater photography as well as the usual general techniques associated with museums.

Although the museum is principally used for teaching purposes, it is however open to the public at certain times and anyone interested in seeing the collection is always very welcome.

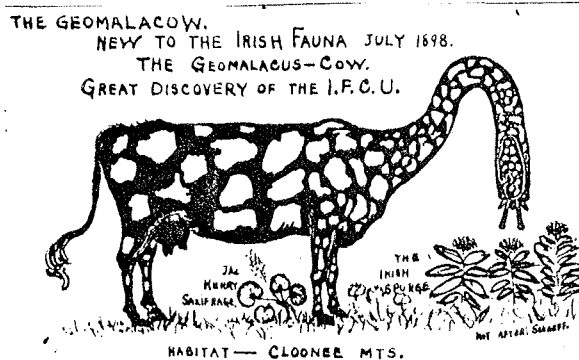
Further information on the museum or on any aspect of its collection can be obtained from the museum's curator Martyn Linnie at the Zoology Dept., Trinity College, Dublin 2.



Mr. R. Welch, "THE TRAVELLER'S PHOTOGRAPHER."

We have much pleasure in giving our readers a portrait of one of the leading scenic photographers in the United Kingdom, Mr. R. Welch, of Lonsdale Street, Belfast. It is open to question whether any other gentleman has, in recent years, taken a greater number of touring views. Numerous specimens of Mr. Welch's studies have appeared in the "Tourist."

Mr. Welch does not take portraits, but confines himself strictly to landscape, antiquarian, and especially natural history photography, in many cases for use in science schools, museums, and scientific societies. Liverpool Museum has a good set of his early Irish antiquities, and some of the large geological and antiquarian views. Nottingham Natural History Museum (county of Notts) has a very extensive series of his geological subjects (large and small) for use on the walls. Manchester Museum, Salford Museum, Pool Park, Dublin (very many of plant life, bird life, antiquarian, Irish ethno-



From his diary preserved in the Ulster Museum

Robert John Welch (1859-1936) was awarded an honorary MSc from Queen's University, Belfast in 1925 for his "contributions to advancement of knowledge of archaeology, geology, botany and zoology", and contributed (by donation) "more than 1 million land and freshwater shells to museums in GB and Ireland". There must be plenty of his material in a number of museums in this country.

graphic and geological—some of these panelled permanently along walls and cases).

Apart from the above Mr. Welch photographs for several big shipbuilders, and many of the Irish Railway Companies. He often travels with scientific parties, and has even supplied the French Government with special views for the Paris Museum. *THE TOURIST*, July 1893.

NATURAL HISTORY IN THE NATIONAL MUSEUM OF IRELAND: PART 1

C. E. O'Riordan, J. P. O'Connor and J. M. C. Holmes

Alas, the editor's kind offer of space in the Newsletter for an article on the National Museum arrived in the middle of the holiday and collecting season when most of us were *inter alia* racing around Ireland in pursuit of specimens or basking in the sun. It was only possible therefore to produce part one of a two part article on the institution. Our collections are very important and we feel that they are more deserving of a fuller treatment than time presently permits. Part two will describe therefore our scientific collections and their significance. It will appear in a future issue of the B.C.G. newsletter.

GENERAL DETAILS

The Natural History collections are mainly housed in the Natural History Museum which is situated on Upper Merrion Street, a few minutes walk from the centre of the city. The National Gallery, Government Buildings and the Dail (the Irish Parliament) are nearby. The Natural History Museum is one of four divisions of the National Museum of Ireland. The postal address is the National Museum of Ireland, Kildare Street, Dublin 2 (telephone: Dublin 765521). The public exhibition is open Tuesday to Saturday (10am - 5pm) and Sunday (2pm - 5pm). It is closed on Mondays and on Good Friday and Christmas Day.

In 1970, the Botanical Section was transferred to the National Botanic Gardens. The Museum caters therefore for Zoology and Geology. Although, at present, there is no geological staff, this situation is being rectified. Interviews for two geologists have been held and it is hoped that appointments will be made in the near future. The present staff consists of Dr. C. E. O'Riordan (Keeper), Dr. J. P. O'Connor (Assistant Keeper), Mr. J. M. C. Holmes (Assistant Zoologist), Mr. P. O'Sullivan (Senior Technical Assistant), Ms. D. Murphy, Mr. L. O'Neill and Ms. G. Griffith (Technical Assistants).

PUBLIC EXHIBITION

The exhibition is a traditional one organised systematically and has changed little since it was arranged at the turn of the century. It is housed on four levels *viz* Ground Floor, First Floor, Lower Gallery and Upper Gallery.

GROUND FLOOR

The specimens exhibited on this floor are intended to illustrate the wildlife of Ireland. Examples of almost all the vertebrate and many of the important invertebrate animals now living in Ireland are shown. In addition, the remains of beasts which lived in this country in prehistoric times are exhibited. There are magnificent skeletons of the extinct Irish Giant Deer, including a female, on display. There are several special exhibits of animals in their natural surroundings including the fauna of a marine rock pool. A very popular specimen is a Basking Shark which is suspended from the ceiling.

FIRST FLOOR AND LOWER GALLERY

The general collection of vertebrate animals, including elephants, giraffes, walrus etc., may be seen here. The skeletons of two whales, stranded on Irish coasts, are suspended from the roof. Species of special interest include the Giant Panda, Malayan Stink Badger, Pigmy Hippopotamus, Okapi, Thylacine, Dugong, Sumatran Rhinoceros, Labrador Duck, Passenger Pigeon, Dodo, Solitaire and

Aepyornis (with an egg). The display is a comprehensive one of the vertebrate fauna of the world.

UPPER GALLERY

The general collection of invertebrate animals is on this floor and it includes all the major and minor groups. The display of beautiful glass models of delicate animals, which cannot be preserved in spirit, is of particular interest. These were prepared in the latter half of the nineteenth century by Leopold and Rudolph Blaschka of Hosterwitz near Dresden. A total of 530 models were purchased between 1878 and 1886, many of which may be seen.

THE MUSEUM IN THE PAST

The Natural History Museum originated as one of the many activities initiated by the Royal Dublin Society in furtherance of its aims of fostering the useful arts and sciences in Ireland. The nucleus of the Museum was formed by the purchase of the Leskean Collection of minerals and insects in 1792 aided by a grant from Parliament. In the early years, the embryo museum occupied two rooms in the Society's Hawkins Street premises.

In 1815 the expanding collections were transferred to a suite of six rooms in Leinster House which had been purchased by the Society as its new headquarters. In the first sixty years of its existence the emphasis was on geology, particularly mineralogy, though some zoological material was acquired. With the appointment of a full-time Director in 1851, Dr. Alexander Carte, the emphasis switched to zoology and Carte rapidly set about augmenting the collections wherever necessary.

A new Natural History Building was completed on Leinster Lawn, adjacent to Leinster House and Dr. David Livingstone delivered a lecture on his African discoveries at the formal opening. Following a revision of the State funding of the Royal Dublin Society in 1865, the State undertook complete support of the Natural History Museum and mineralogy. With this extra aid the Museum staff was augmented by the appointment of A. G. More and W. F. Kirby. Purchases of specimens were greatly increased, and the Museum was gradually opened more and more to the public.

Under the Science and Art Act of 1877 the Natural History Museum and other institutions were formally transferred to State ownership, though the Royal Dublin Society retained some offices in Leinster House. The new group of institutions was placed under the Directorship of Dr. Wm. E. Steele, and Carte was confirmed as Director of the Natural History Museum.

When the Science and Art building was completed in 1890, the herbarium from the Botanic Gardens was set up there. For a few years the Geological Survey collections and some Museum palaeontological material was also displayed there, though later transferred to a corridor adjoining the Natural History Museum.

Dr. R. F. Scharff was appointed to the Natural History Museum in 1887 and was made Keeper a year later. With the aid of the staff, among whom were A. C. Haddon, A. R. Nichols, G. H. Carpenter, J. N. Halbert, Miss Jane Stephens, R. Southern and C. M. Selbie, over the next quarter of a century he gradually overhauled the entire exhibition and storage system, bringing it into line with the taxonomically arranged displays of the time. A geological and palaeontological exhibition was set up in a nearby annexe.

In 1922 the Free State Government took over Leinster House in order to hold the Dail (Parliament) there, and the Museum was closed to the public for two years. The annexe and geological collections were never opened again. The

staff was reduced in the early 1920s and Mr. A. W. Stelfox, assisted by Mr. E. O'Mahony, were the sole staff left to cope with normal museum routine.

A Committee of Enquiry was set up by the Minister of Education in 1927, some three years after the Department of Education had assumed responsibility for the Museum. The effective result of its recommendations was that Irish Antiquities was brought into greater prominence and given additional staff. The Committee admitted that Natural History, excepting Botany, was in a very precarious position but its recommendations had the effect of reducing the professional staff of the zoological section from five to two, and though the appointment of a geologist was recommended the post was not advertised.

Dr. P. O'Connor was appointed Keeper in 1930 and Miss G. Roche joined the staff the same year. During the nineteen thirties to the nineteen sixties activity was at a relatively low level due to understaffing. During this time, with the rapidly growing collections throughout the entire National Museum, the lack of space was becoming very evident. Various recommendations were made but no practical solution emerged.

In 1962, the annexe was demolished to make room for a Dail office block and the geological collections were transferred to the Royal Hospital at Kilmainham. A decision to transfer the Herbarium to the National Botanic Gardens was also taken that year, though the actual transfer did not take place until 1970.

A moderate increase in staffing took place during the nineteen sixties and seventies but the Natural History staffing level of 1914 has not yet been restored. It is hoped that this situation will be rectified in time.

THE MUSEUM TODAY

Despite the vicissitudes of the past, the Museum is again booming and at the centre of Irish Natural History. Each year, the number of enquiries and visitors increases. The institution provides a nucleus of taxonomic expertise which is utilized by a wide variety of clients including government departments (Fisheries, Agriculture etc.), universities, health boards, industry and the general public. Most identification problems in the Republic usually end up at the Museum often having been passed from hand to hand via incredibly tortuous routes. Indeed, the Natural History Museum has now reasserted its position as a major identification centre for the State; a service which it is able to provide often with the help of many kind friends abroad.

The staff also co-operate with the scientific and naturalist community by refereeing papers, giving advice and confirming identifications. The Museum is greatly utilized as an information centre for matters pertaining to Natural History.

Despite the staffing problems described in the historical section, very little deterioration in the collections is evident. It is obvious that much of the staff's time in the past was put into basic curation; a tradition which continues today. Very few specimens have therefore been destroyed. This situation, coupled with the increase in staff, has restored confidence both among naturalists and the public. The net result is that the Museum is once again receiving a flood of scientific material from abroad and from Ireland. Since we wish our collections to be as representative as possible of the Irish fauna, we urgently require voucher specimens of many species recorded by visitors to our shores. We hope that some of the readers of this article can oblige us - a single specimen would suffice!

In addition to our basic curation and the identification service, the Museum is rapidly becoming an important centre for zoological research in Ireland.

The number of visiting workers has increased enormously. Innumerable enquiries concerning various aspects of research (types, loans etc.) are resolved each year. The staff themselves are engaged in research and are publishing an increasing number of papers on various aspects of the Irish fauna, a trend which is expected to continue.

Although the public exhibition has not been greatly modified over the years, this has proved in many ways to be an advantage. The display has now a charm of its own. It demonstrates the layout of a Victorian museum with its emphasis on the animals themselves as objects of interest. Nowadays, the request from visitors is to preserve it as it is! Within this constraint and our shortage of staff, a programme of improvement (painting, labelling etc.) has been initiated. Attempts are being made to reduce the number of specimens in the public area (an important part of our storage area) and there are several new exhibitions. In recent times, the Museum has received favourable comment in the press and has now appeared in the Dublin Bus Guide as a place of interest.

Undoubtedly, many of our readers will recognise the problems facing the institution. We lack money, space and staff. In recent years, successive Irish governments have recognised the need to preserve the National Heritage. In this context, it is hoped that our problems will be solved and that the Museum will continue to prosper.

SOME NOTES ON THE DISPERSAL OF THE COLLECTIONS OF THE ORDNANCE SURVEY OF
IRELAND (1832 - 1843)

by C.E. O'Riordan, National Museum of Ireland.

BRIEF HISTORICAL BACKGROUND

In 1832 Captain J.E. Portlock was chosen to take charge in Ireland of the geological branch of the Ordnance Survey, which itself, had been set up some seven years previously. Extensive geological surveying was carried out in County Derry and parts of Counties Tyrone and Fermanagh, and a large collection of specimens was formed. Collectors were also employed in the fields of botany and zoology.

A museum was established in the Ordnance Survey Office in Belfast about 1837 to accommodate the material. Probably due to the expense of the survey, its activities were severely curtailed and the office and museum in Belfast were broken up in 1840 and everything connected with this department removed to the Ordnance Survey Office, Phoenix Park, Dublin.

Portlock, however, continued with his classic Report on the Geology of the County of Londonderry, and parts of Tyrone and Fermanagh which was published in 1843. Portlock's official geological work ended with the publication of this report. Prior to this however, preliminary notices were published in 1835 and 1837 which included botanical and zoological information.

In 1844 Sir Robert Peel's government decided to detach the geological surveys of Great Britain and Ireland from the Ordnance Survey Department and these were soon consolidated with the Geological Survey of Great Britain and Ireland under the Office of Woods and Forests. H.T. De la Beche was appointed Director General.

In accordance with the Minister General's and Board of Ordnance's order of 24th February 1845, Captain Larcom of the Ordnance Survey formally transferred the collections to the Geological Survey Office, Dublin. This transfer was acknowledged by H.T. De la Beche on 20th October 1845, thus placing the collections in the custody of the Geological Survey under the Office of Woods and Forests.

At this time the Government decided to establish in Dublin an institution somewhat on the plan of the then Museum of Economic Geology in London. However, it was to be more extended in scope, because in addition to its Museum functions, students were to be given lectures by a staff of professors. Initially, it was placed under the Office of Woods and Forests, but later it was transferred to a newly created Department of Science and Art.

The Museum's Director was Sir Robert Kane who was appointed in 1845. Two years later, Lord Castlemaine's house in 51 Stephen's Green (now the headquarters of the Office of Public Works) was chosen as a suitable location for the Museum, and on January 9th 1847 the Ordnance Survey Collections were handed over by the Geological Survey Office to the Museum of Economic Geology.

The galleries were completed in 1852 when the arrangement and classification of the collections were begun. In the following year the name was changed to the Museum of Irish Industry. Its two chief functions were exhibition and education. The 'exhibitional division' consisted of three distinct collections (1) the geological collections (2) the industrial collections (3) Portlock's zoological and botanical collections. The geological collections were comprised of (1) palaeontological collections of the Geological Survey of Ireland (2) duplicate specimens from the Museum of Economic Geology, London (3) Ordnance Survey fossils

collected by Portlock (4) rocks collected by the Geological Survey in the South and by Portlock in the North of Ireland (5) the Krantz cabinet of European rocks. The Geological Survey material, which was being augmented all the time, was solely in charge of the Geological Survey staff.

Following reports of a Royal Commission and a Select Committee of the House of Commons in 1864 the Museum of Irish Industry was abolished as such and portion of the Ordnance Survey collections was transferred to the Natural History Museum of the Royal Dublin Society, now the National Museum of Ireland. The formal date of transfer was 25th September 1867. The educational function of the Museum of Irish Industry was later subsumed into the new College of Science.

DISPERSAL OF THE ORDNANCE SURVEY COLLECTIONS

(1) The Botanical Collections.

About 1834 Thomas Hopkirk was appointed botanist to the geological branch of the Ordnance Survey. As illness prevented him from taking up active duty, David Moore was appointed in his place. From 1834 to 1838 Moore collected widely, in Cos. Derry and Antrim, and particularly around Lough Neagh. When the Survey ceased botanical operations Moore obtained a post as curator in the Botanic Gardens, Glasnevin.

Though no specific mention is made in the Ordnance Survey MSS as to the disposal of the 3,000 odd specimens which were deposited in the Ordnance Herbarium, it seems that they were eventually transferred to the Museum of Irish Industry, and remained there until the Museum was abolished. It is presumed that they were transferred to the Natural History Museum with the zoological material in 1867 because reference is made in the Index of Authors in the second edition of Cybele Hibernica as follows:

"Moore, David, Ph.D. Herbarium prepared for the Ordnance Survey and con-

taining a nearly complete series of the wild plants of Derry and Antrim, now preserved in the Science and Art Museum, Dublin Herb. Moore."

In 1970 the Herbarium of this Museum (now National Museum of Ireland) was transferred to the Botanic Gardens, Glasnevin. Miss M. Scannell, Head of Herbarium confirms that there is material in Herbarium (DBN) labelled "Flora of Antrim by David Moore".

(2) The Zoological Collections

The names of the individual Ordnance Survey collectors are difficult to trace. However it is known that eminent naturalists such as William Thompson, Robert Ball and Alexander Haliday were involved in the identification and classification of the fauna.

The zoological collections originally consisted of over 8,000 specimens of vertebrates and invertebrates as well as some birds'eggs. These were handed over to the Museum of Irish Industry, Dublin in 1847 except for over 100 duplicate specimens of mounted birds which were presented to the Museum of Trinity College, Dublin.

Subsequent to the abolition of the Museum of Irish Industry the zoological collections were passed to the Natural History Museum of the Royal Dublin Society in September 1867. That Museum, as previously stated, now forms part of the National Museum of Ireland.

(3) The Geological Collections

The dispersal of the geological collections was somewhat more complex, and the individual sub-collections are best treated separately.

Minerals

The Ordnance Survey mineral collection consisted of an "office set"

of some 800 specimens and, in some cases up to six additional sets amounting to some 900 specimens and 200 further samples making a total of 1900 in all. The collection was transferred to the Museum of Irish Industry in 1847. Some of these specimens were eventually transferred to the Natural History Museum, presumably in 1867, because sixty-three specimens in the collection can be definitely recognised as Ordnance Survey material. Most have the MSS numbers. The fate of the remainder of the mineral collection is not known.

Rocks

No mention is made in the Ordnance Survey MSS of any rocks in the collection. Twenty-five rocks are itemised in the Inventory Catalogue (No 2) of the Collection of Irish, British and Foreign Rocks in the Industrial Museum of Ireland, as being collected by the Ordnance Survey. About half were collected in Cos. Antrim, Derry and Tyrone and the remainder in Co. Donegal. None of these specimens are in the National Museum Collections, and in view of their absence from the MSS Catalogue it is unlikely they were ever deposited in this Museum.

Fossils

Only a very brief summary of the major taxonomic groups and numbers of fossils in each group is mentioned in the Ordnance Survey MSS. Five sets are listed and a further 70 boxes of duplicate fossils. One of these sets, containing 1614 specimens was sent to the Museum of Economic Geology in London (now the Institute of Geological Sciences).

According to Tunnicliff (1980) the fossil collection was split, probably between 1854 and 1857. Apparently some of the Portlock material was transferred to the Ulster Museum in Belfast. Further material was transferred to the Geology Department of Trinity College Dublin. Tunni-

cliff (1980) has catalogued the Lower Palaeozoic Fossils now extant in these collections. Not all the fossils have been accounted for, it is understood.

Mc Henry and Watts (1895) refer to a "portion of the famous Portlock Collections" in the Geological Survey of Ireland Collections" which were displayed in the National Museum of Ireland from 1890 to 1924. These particular collections were exhibited by the Geological Survey in the National Museum, but were curated and maintained by the Survey staff.

In June 1922 the Museum was closed to the public for two years because the adjoining Leinster House was taken over by the new Irish Free State Government in order to hold the Dáil (Parliament) there. In 1924 the entire Geological Survey exhibition was dismantled, packed and removed into storage in the Geological Survey Office, by officers of the Geological Survey. Included in this removal was the Survey's Portlock material. There are no Portlock fossils in the National Museum's own collections.

APPEAL

It is quite likely that sets of specimens from the Ordnance Survey Collection have been deposited in other Museums or Institutions in Ireland or the United Kingdom. These notes, it is hoped, will encourage curators to supply additional information concerning these collections, if they are, in fact, still extant.

ACKNOWLEDGMENTS

I wish to thank Mr. D. Felton and Miss G. Griffiths for searching through the Museum catalogues and providing lists of Ordnance Survey material in the National Collection. Thanks are also due to Miss M.

Scannell, Head of Herbarium, National Botanic Gardens, Dublin for information concerning Ordnance Survey material in Herbarium (DBN).

WORKS CONSULTED AND REFERENCES CITED

Manuscript Catalogue of Fauna, Flora and Minerals with summary of Ordnance Survey Collections handed over to Museum of Economic Geology (1847). in Library of National Museum of Ireland.

Report upon the Royal Dublin Society, The Museum of Irish Industry and the system of scientific instruction in Ireland. (1863) H.M.S.O. Dublin 125pp.

Inventory Catalogue of Irish British and Foreign Rocks in the Collection of Industrial Museum of Ireland, Dublin (1866)
H.M.S.O. Dublin

Jukes, J.B. (1867) Her Majesty's Geological Survey of the United Kingdom and its connection with the Museum of Irish Industry, in Dublin and that of Practical Geology in London. Dublin. 34pp.

McHenry A. Watts WW (1895) Guide to the Collections of Rocks and Fossils belonging to the Geological Survey of Ireland arranged in room III E of the Museum of Science and Art, Dublin. H.M.S.O. Dublin 125pp.

More, A.G., Colgan N., and Scully R.W. (1898) Contributions towards a Cybele Hibernica 2nd Ed. Ponsonby, Dublin 538pp.

Portlock, J.E. (1843) Report on the Geology of the county of Londonderry and parts of Tyrone and Fermanagh. Dublin and London 784pp. Pls. 37.

Tunnicliff, S.P. (1980) A catalogue of the lower palaeozoic fossils
in the collection of Major General J.E. Portlock. Ulster
Museum, Belfast. 111pp.

Mystery of the trout that was a salmon

by Avril Lansdell
Curator
Weybridge Museum

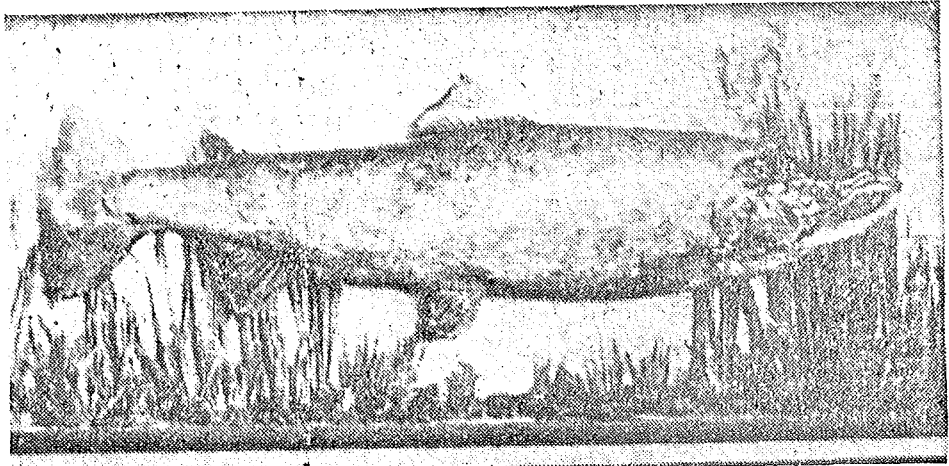
THE historic Weybridge Salmon is a large stuffed fish, mounted in a glass case which now hangs at the top of stairs at Weybridge Library.

This fish has an interesting history, both as a fish and as a museum specimen, and can rightly be classed as a local "curiosity". Its history starts on March 9, 1861, when a local professional fisherman, Mr. George Keene (who made his living by hiring boats and giving advice to gentlemen who wished to fish in the Thames), found it, floating on the surface of the water.

There was a mystery about the fish from the beginning, and it was described as a "long lean fish, very much out of condition, only faintly spotted and both upper and lower jaws beaked, indicating old age."

George Keene thought it was a trout, but as it was different from the trout which he normally caught, thought also that it came from somewhere else and had been put in the Thames after its death. Even so, he had it stuffed and mounted in a bow-fronted glass case with a label saying: "Taken in the Thames." Two other trout, stuffed and mounted by the same taxidermist, were labelled "Killed in the Thames."

While at the taxidermist it was seen by two fish experts, Frank Buckland, who was to become Inspector of Salmon Fisheries in 1867, and Sir William Jardine, who was a Commissioner for Salmon Fisheries in England and Wales. Buckland thought it was not a



Thames trout, but did not like to say that it was a salmon, while Sir William Jardine said it was definitely a salmon.

A controversy raged over this fish in Victorian sporting magazines for many years for the simple reason that in 1861 the Thames was so polluted that the experts could not believe that a salmon could survive in it to reach as far above London as Weybridge.

George Keene kept the fish for the rest of his life, but his widow sold it in 1889.

In 1911, it was sold again to J. E. Harting, a well-known naturalist, who presented it, with several other specimens from his own collection, to Weybridge Museum. Mr. Harting first took the fish to the British Museum (Natural History) and showed it to a Mr. G. A. Boulanger, who pronounced it a salmon.

For many years it had pride of place in the museum, but during the 1930s, after J. E. Harting's death, the museum's natural history collection was largely dispersed and the fish relegated to a storeroom. After the Second World War, some museum specimens (largely natural history) were transferred to the loft over old stables which were being used as a general storage space for all manner of unwanted objects and furniture. The museum had been allocated a small por-

tion of the stables in which were kept agricultural specimens.

In 1974 the stables were pulled down. Shortly before this museum staff were told that everything in the stables was to be destroyed and that they could remove anything they wanted including anything from the loft. Accordingly, the present museum staff explored the loft — a dangerous task as part of the floor was rotten — and unearthed a great many treasures, some of which had been lost over the years.

Most of the natural history specimens were moth-eaten and rotten and had to be thrown away, but miraculously the fish had survived. Although the glass of its case had been smashed, the back on which the fish was mounted, and the base, complete with its artificial reeds and stones representing the river-bed, remained intact.

It was a filthy dirty, but a young art student, Mr. John Pulford, then employed as a Saturday receptionist-museum assistant, cleaned and revarnished the fish. Elmbridge Council's carpenters made a new case, and the fish, and its reeds, were transferred. It was exhibited under the title, *A Fishy Mystery*, and the magazine cuttings relating to it were shown with it.

In 1979, Mr. Alwyne Wheeler, of the British Museum (Natural History), published a book, *The Tidal Thames*, referring to all the well-known fish that had been caught in the Thames. At the time, however, he did not know of the Weybridge Salmon. Having learnt of it he came to visit the museum, and has now duly pronounced it to be a salmon, that, in spite of the Thames pollution, could well have migrated upstream to Weybridge.

His findings on the fish were published in *The London Naturalist* in 1980. The museum now proudly exhibits the fish, and also sells re-prints of Mr. Wheeler's article for 20p. Anyone wishing to know more details of this remarkable fish is recommended to read it.

Weybridge Museum will be open during August from 2 p.m.-5 p.m. each weekday and 10 a.m.-1 p.m. and 2 p.m.-5 p.m. on Saturdays. The main gallery of the museum will be closed, however, during September, October and November for a complete refurbishing and the construction of a new natural history gallery.

During this period, old photographs of the district and photographs of museum specimens on the recently-reddecorated stairs, together with the archaeology gallery in the museum vestibule, will be open.

The salmon will also be on display.

INTERNATIONAL PRESS-CUTTING BUREAU
Lancaster House,
70 Newington Causeway, London, S.E.1

Extract from
Surrey Daily Advertiser, Guildford



British Museum (Natural History) Celebrating 100 years at South Kensington in 1981

British Museum (Natural History)
Cromwell Road, London SW7 5BD

Wednesday and Thursday,
18 and 19 November 10.30-16.30

Departments open:

Zoology
Entomology
Botany
Palaeontology
Mineralogy
Library Services

*Telephone
01-589 6323 exts 667 and 206

Many aspects of the scientific work and supporting library services of one of the world's leading taxonomic institutions will be shown in over 100 exhibits and staff will be on hand to talk about their research and services.

Those involved professionally with some aspect of the earth or life sciences; university students; members of natural history societies, etc, are welcome to come behind the scenes. Tickets for admission will not be issued, but those who wish to attend are asked to inform the 'Open Days Office'.*

Some light refreshments may be bought at the Museum and there are restaurants and pubs in the area. The nearest underground station is South Kensington and buses Nos 14, 30, 49, 74, stop near to the Museum.

The new Natural History Section at St. Helens Museum & Art Gallery

Although the new Local Authority Museum and Art Gallery opened to the public in October 1980, completion of the natural history displays was delayed, and they were not opened until 7th. September this year. The section, which comprises twelve separate cases, relates to the fauna of the local Sankey Valley Park, which follows the route of the Sankey Navigation (the first canal to be cut in England). It was used up to 1963 but thereafter fell rapidly into a state of dereliction until 1976, when plans were drawn up to create a pleasant piece of open countryside which would attract wildlife that had once been plentiful.

The Park's Chief Ranger gave the writer substantial assistance in developing the theme of the displays and the following habitats were selected to be represented: 'reedbeds', 'meadows', 'ploughed land', 'hedgerows', 'colliery spoil' and 'rough ground', plus 'ponds' and 'woodland', which were assigned two cases each. 'Parks and Gardens' and 'lakes' were added so that species found throughout St. Helens Borough could be included in the section. 65 vertebrates are displayed, of which 7 mammals and 7 birds were purchased between 1978 and 1981 and were mounted at the North Western Museum and Art Gallery Service by James Dickinson, Natural History Conservation Officer. He also designed the internal layout, provided naturalistic 'supports' and fixed all the vertebrate specimens. Photographic backdrops produced by the Museum Technician, Peter Gillett, give added realism to these habitat displays. There are 105 invertebrates on show, which were selected and fixed by Dr. Ian Wallace, Keeper of Invertebrate Zoology at Merseyside County Museums. This collection comprises bees, beetles, bugs, butterflies, caterpillars, cocoons, flies, grasshoppers, moths, nymphs, pupæ, spiders, and molluscs, and have all been presented to the Museum. Each case has a timber mounted habitat sign mounted externally (as are the labels) and the specimens are identified by means of outline drawings and alphabetical and numerical keys. There are also descriptions of the habitats and maps to indicate their extent and location within the Valley Park. Posters relating to flora and fauna, and aspects of wildlife conservation have been mounted between the cases. The latter are front-loading and are lit by fluorescent tubes concealed above diffusers and covered with anti-ultra violet light sleeves. Additional illumination is provided by reflective spot lamps from a ceiling track.

Worksheets on British mammals, birds, butterflies and moths have been prepared by the writer aimed at ten-year olds.

A large number of natural history specimens will continue to be kept in permanent storage. Of the vertebrates, British mounted birds form the largest group. A recent stock check indicated a total figure of 261 (excluding the 47 on display) but in several instances there are duplicates and triplicates of species. The largest collection of British birds ever presented were the 40 cases of approximately 85 specimens given by a local firm of corn merchants, Messrs. Thomas Foster & Sons in 1938. 29 birds caught in the Solway and Cumbria were provided between 1904 and 1926 by Linnaeus E. Hope, Curator of Carlisle Art Gallery and

Museum. In 1939, 10 mounted specimens and 3 skins were obtained from Miss. G. V. Barnard, Curator of the Castle Museum, Norwich, in exchange for an American Tapir which came originally from the City of Liverpool Museum. The remainder were presented by local families or individuals.

Non-British birds of worldwide distribution total 98 mounted specimens with no duplicates, although there are different types of humming birds, toucans, tanagers, parrots etc. In 1910 S. F. Harmer, Keeper of Zoology at the British Museum (Natural History) made it known that he had duplicate birds available for distribution to other institutions. 33 foreign birds have been identified as coming from this source. 24 more, principally from South America, were presented by Bootle Corporation in 1926.

There are 13 British mammals on display and only a miniscule collection in store comprising a few red squirrels, rabbits, brown and white Scottish hares, a mole, an adult fox and cub, an otter and a polecat. The sole non-British mammals are an American ocelot and an Indian tiger and tiger cub. There is a miniscule collection of fish comprising 3 pikes, one European and two New Zealand brown trout, a bream, single specimens of Barbados bull, cow and porcupine fish, and one thornback ray.

There are no vertebrate skeletons in the Collection but there is a small group of British bird skulls, two sawfish snouts, antlers of the roe and fallow deer, an Indian Elephant's molar and a horse's molar. The bird egg collection is very small and consists of British examples stored in five drawers plus some loose ones. Four of the drawers comprise a local collection of Daniel Critchley dating from 1897-1903.

The invertebrates in store comprise 633 mollusc shells, the vast majority donated by various local individuals between 1896 and 1927; 41 corals presented by a Mr. J. Morgan of Worthing in 1902 (on loan to Manchester Museum since 1974); 39 invertebrates and amphibians (mostly British) stored in fluid and all purchased from Gerrard & Haig Ltd. in 1972; and 5 cabinets of lepidoptera. The latter are mostly British specimens but include a small number of unidentified foreign butterflies, some still enclosed in folded papers from the country of origin. The only provenanced insects are those in the collection of Daniel Critchley and include specimens caught in the St. Helens area (Carr Mill, Moss Bank, Rainhill and Bold), elsewhere in Merseyside (Huyton, Roby, Wallasey, Prescot, Hightown, Kirby Moss [= West Kirby]); Delemere Forest, Warrington, Aldershot, Pembroke and the Isle of Man between 1893 and 1920.

Esme Lloyd
Curator,
Museum & Art Gallery,
College Street,
St. Helens,
Merseyside, WA10 1TW.

Freshwater Invertebrates of the Sheffield District (Sorby Record Special Series No. 4). Edited by Krys A. Lasada and Eluned H. Smith

150mm x 210mm, 58pp, 113 maps and 37 black and white illustrations. Sheffield, England (Sorby Natural History Society and Sheffield City Museums) 1981. Soft back, staple bound: £1.00.

This publication is the outcome of an invertebrate faunal survey of the water bodies in the Sheffield Metropolitan District. It was made possible by funding from the Manpower Services Commission under their Special Temporary Employment Scheme.

The survey is qualitative and the editors have recognised its limitations in that the sites were largely only able to be visited once during the survey period and that as the collection method was largely by hand net that some deep water species were not encountered. In total 434 sites were visited during 1979/80. Twenty invertebrate groups are represented in the material and all have been identified to species level where possible. Critical species have been forwarded to experts for identification and confirmation. Three chapters have been entirely written by specialists who had material forwarded to them. Each chapter has a short introduction to the anatomical features of the group followed by an outline of their biology and natural history.

The distribution of each species in the Sheffield area is discussed in relation to the known national distribution and a distribution map has been prepared for the commoner species. All known records prior to the survey period are included in both the text entry and the distribution map. Inevitably some groups are grossly under represented, for example the Tricladida, where correct identification requires living material and the Diptera where the taxonomic literature on the immature stages is inadequate or not available in a provincial museum library. Perhaps the most surprising omission from the survey is a complete absence of records of the Cladocera (Crustacea) which are relatively easily identified. It is possible that the mesh size of the collecting net was too large to retain some species although I suspect that the larger species would have been encountered.

In general the booklet is well presented with a clear type face and remarkably free from error. The illustrations are derived from previously published sources and are presumably intended as decorations rather than an aid to identification. At a selling price of one pound the booklet is certainly not over priced, it will appeal to teachers and stimulate naturalists to look closer into the freshwater habitats in the Sheffield area.

Generally this attractive little series of publications demonstrates the forward looking policy of both Sheffield City Museum and the Sorby Natural History Society who are to be congratulated on the standard of presentation and the honest assessment of the limitations imposed by the collecting methods and frequency.

John Gray,
August 1981.

A Century of Zoology at the British Museum through the lives of two keepers
1815-1914 by A. E. Gunther. Dawson, 1975 533 pp; 33 pages of black and
white photographs. Price £30.00.

The book was first published in 1975 and it is perhaps opportune that it should be reviewed in the year which marks the centenary of the British Museum (Natural History), with which it is concerned.

The book is primarily the individual biographies of J. E. Gray (1800-1875) and Albert Gunther (1830-1914) who were keepers of the Natural History Departments at the Museum. The biographies were in fact conceived separately; that on Albert Gunther by his son R. T. Gunther and that on Gray by W. R. Dawson. Both were eventually written by one author who is Albert Gunther's grandson.

The theme of the book is the careers of the two men in the museum. In a less substantial book this might be regarded as an artificial device for publication purposes. Gunther however succeeds in combining two comprehensive biographies of these two separate and different individuals with the development of the museum to which they contributed so much. Gray and Gunther as keepers presided over nearly a century of almost unprecedented expansion in the size and the quality of the natural history departments which eventually required their removal to two completely new buildings. This period may be viewed by some as the halcyon days of natural history. A glance through the book will reveal that conditions were far from perfect for those working in a professional capacity and that development of the collection to the extent they desired was frequently a thankless task. It was a problem that we tend to consider as one purely of the 20th century - a lack of resources.

The book is the result of considerable scholarly work, attested by the prolific biographic and bibliographic notes which follow each chapter and yet it is eminently readable, and even the slight touches of humour are not out of place. The format of separating each topic or period into chapters inevitably disrupts the chronological flow and leads to some duplication but greatly facilitates reference to the subjects covered. Those which are submerged within the chapters are readily available through the detailed Index.

Although this book will undoubtedly remain a standard biography of Gray and Gunther its main use, I suspect, will be as a personal view of a significant part of the history of the Natural History Department of the British Museum. It is certainly no mere duplication of the more prosaic account found in the History of the Collections (Vol. 2, Appendix, 1912). The two books are complimentary and as far as I am concerned are both consulted just as frequently and are both invaluable. Whether the present account is supplemented by the rash of books (including another by the same author) to mark the Museum centenary, remains to be seen.

P. F. Lingwood.

Mr. Palmer, now Deceased.
Balls donated by his widow.

From a label in North Hertfordshire Museum referring to hair balls from a cow's stomach.

THE 'BALFOUR' TEACHING HERBARIUM : PERTH MUSEUM

Introduction

In 1978 one of us (MAT) supervised the re-storing of many of Perth Museum's important natural science collections. One of these, the 'Balfour' Herbarium, was known to have been inherited from the Literary and Antiquarian Society of Perth. At the time only a cursory examination of the collection was possible but a more recent examination of both the collection and related archives has shown it to be a unique (?) example of a 19th century university teaching collection.

The Edinburgh Situation

The herbarium of Edinburgh University is thought to have been started by John Hope who was Professor of Botany from 1761 to 1786 but for many years it remained disorganised and neglected. At the beginning of 1839 the University collection was united with the herbarium of the recently formed Botanical Society of Edinburgh who agreed to organise it. At this time the joint collections were housed in the University and in return the Professor of Botany, then Robert Graham, was "entitled, for the instruction of his class, to take out from the joint collections such portions thereof, from time to time, as he shall think necessary, the same being always duly restored."¹

At some stage this provision was taken a stage further and part of the collections became separated for use as a teaching herbarium. Unfortunately the early history of this teaching collection is unclear but it seems likely that since many of the Botanical classes were held at the Royal Botanic Garden, about 3 miles from the University, it was decided to keep a teaching herbarium permanently in the classroom there. In the teaching herbarium now known as the 'Balfour' herbarium, the dates on the specimens suddenly stop at 1863 which coincides with the date that the British part of the main herbarium was moved to the Botanic Garden. Presumably any new material collected by pupils after this date was added to the main herbarium rather than the teaching herbarium. Another possibility is that the 'Balfour' herbarium did not originate till this date, it being made up of specimens set aside when the main herbarium was moved. But whatever its origins, it is reported that in 1870 "a class herbarium, illustrating genera and species arranged² in families" was maintained in the main classroom at the Botanic Garden.

The Professor of Botany at this time was John Hutton Balfour who based a large part of his instruction on living and pressed material. (In³ 1875 a total of 77,704 fresh specimens were used in Botanical classes.) As part of the Botany course, students were required to produce a collection of pressed specimens for competitive examination, the best herbarium each year receiving a gold medal.⁴ Originally specimens for these herbaria had to be collected within a radius of ten miles of Edinburgh, (the same range as R K Greville's *Flora Edinensis* of 1824). In 1863 J H Balfour reported that "the facilities presented by railways has extended the range of excursions, so that twenty miles is now the extent of country embraced in the announcement for the Prize Herbaria."⁴ In 1872 J H Balfour's son, Isaac Bailey Balfour, won the gold medal by collecting 1005 plant species within this range which was "by far the largest collection ever presented for competition at the University."⁵ Alternatively students could present a collection of specimens displaying some particular topic of plant anatomy. The flower dissections in particular were highly detailed and some were framed and displayed in the museum next to the classrooms.² A reasonable number of

specimens which almost certainly came from these Prize Herbaria can be found throughout the 'Balfour' collection.

In the mid 1870s Frederick Morgan Webb the Curator of the Herbarium of the Royal Botanic Garden sorted through the British collections and in the process set aside a new class herbarium of 2,000 specimens. ⁶ Presumably the old collection had outlived its usefulness but rather than restoring the specimens to the main herbarium, it appears that Balfour realised that others might find the collection useful and kept it intact.

The Perth Situation

Throughout the 1870s there was an intense rivalry between two societies in Perth. The older, the Literary and Antiquarian Society (1784), was championed by Dr W C McIntosh who later achieved fame as a marine biologist but who at this time was Superintendent of Murthly Assylum near Perth. The younger, the Perthshire Society of Natural Science (1867), was led by Dr F Buchanan White. Several attempts were made by the 'doves' in the two societies to reconcile them but the 'hawks' would have none of it and the often voiced plan for a joint museum foundered.

In 1879 the PSNS started to raise funds to build a natural history museum in Perth and the L & A Soc responded by organising its own fund raising events to extend its woefully inadequate museum. At the same time the L & A Soc was adding a considerable amount of new material to its collections and in March 1880 W C McIntosh wrote to the secretary of the L & A Soc "Prof Balfour has arranged that I shall see the cases in the Botanical Classroom when I go over to the Examinations in the beginning of April, and that I can then have them sent to Perth at once." ⁷

In May he wrote to Prof J H Balfour "The two large and the two smaller cases containing the splendid collection of plants, came safely this morning, and we got them duly installed in our Library (Assylum) in a few minutes. They will be in perfect safety till our hall is ready.

You have made the Soc and the Fair City a most handsome gift, one indeed, whose value will increase as time rolls on. I had no idea the collection was so extensive and the nomenclature and classification so complete. Many sincere thanks for the pleasure you have given me in being the medium in transferring this boon to the Society." ⁸

The collection remained with the L & A Soc until 1914 when, along with its other collections, it passed into public ownership. It was always referred to as the 'Balfour Collection' and its true nature was not discovered until last year when it was examined following its transfer to new storage units. The collection remains intact (with exception of the lichens which were incorporated into Perth Museum's general collection in 1979) and contains about 8,500 specimens, divided into two parts which correspond with the first two parts of Balfour's 'Manual of Botany'.

Part 1 Vegetable Anatomy

The first part with about 1,000 specimens, contains studies of various aspects of plant morphology and is made up almost completely from the best of the students' prize herbaria. The subjects of these studies included flower dissections, forms of leaves, venation of leaves, forms of petioles, forms of roots, studies of germination etc.

Part 2 Plant Systematics

The second and larger part with about 7,500 specimens forms a reference herbarium. Unfortunately the information on these specimens is not very complete. Though most of the specimens have locality data, only about half have dates of collection and fewer have the collector's names. This part of the collection is made up of specimens from the old University Herbarium, the herbarium of the Botanical Society of Edinburgh and by specimens collected by Professor Balfour and his students.

The majority of the plants were collected in Scotland, especially around Edinburgh but there are many specimens from all over Britain and Europe and some from Australia, India, Africa and America. Though most of their dates lie between 1820 and 1863 some are considerably older, the oldest dated sheet being 1767.

Acknowledgements

The authors would like to thank the staff of the Royal Botanic Garden, Edinburgh for their help in establishing the nature of the Balfour Herbarium. In particular, Mrs J Wood (nee Lamond) for her visits to Perth and her many useful comments.

References

1. Extract from the Report of the College Committee of 27 December 1838 - see Fletcher and Brown (1970) "The Royal Botanic Garden, Edinburgh 1670-1970" p 117-8.
2. Fletcher and Brown (1970) "The Royal Botanic Garden, Edinburgh 1670-1970" p 150.
3. J H Balfour (1875) "Statistics of the Botanical Class for 1875" in Trans Bot Soc Edin Vol XII Appendix B pxxiv.
4. J H Balfour and J Sadler (1863) "Flora of Edinburgh" p V-Vi.
5. W Thompson (1872) "Opening Presidential Address" in Trans Bot Soc Edin Vol XI p 416.
6. F M Webb (1876-7) "Notes upon some plants in the British Herbarium at the Royal Botanic Garden, Edinburgh" in Trans Bot Soc Edin Vol XIII p 88,90.
7. Perth Museum Archives No. 486.
8. RBG Edinburgh : Balfour Correspondence

N F Stewart + M A Taylor
Perth Museum & Art Gallery
George Street
PERTH

FOUND H.M.S. SYLVIA

A previous note in the Newsletter (1981, 2 (9), p.432) surmised that there were two ships named Sylvia. Tizard (Chronological list of officers conducting British Maritime discoveries and surveys, 1900), confirms this and details the surveys which the two ships undertook.

The first H.M.S. Sylvia was a cutter engaged almost exclusively in surveying home waters. Between 1841 and 1843 she was based at Spithead under the command of Comm. W. L. Sheringham. In 1844 she came under the command of Commander (later Captain) G. A. Bedford who for the next fifteen years used H.M.S. Sylvia and a variety of boats and hired vessels to survey the coasts of Ireland.

The replacement H.M.S. Sylvia, a screw sloop was employed away from British Waters. Her first surveying commission was in 1866 surveying the coasts of China under the command of E. W. Brooker. In 1868 she was transferred to the seas around Japan where she spent the following eleven years under the command of Commander (later Captain) H. C. St. John, Commander P. Aldrich (previously Lieutenant aboard H.M.S. Challenger during her famous oceanographic voyage) and Captain Bonham W. Bax. This was followed by two years from 1882 around the coast of South America under the command of Capt. J. C. Wharton who was recalled to be appointed Hydrographer to the Navy. His replacement, Captain Aldrich, joined the ship to survey the Cape of Good Hope. The last recorded surveying commission was between 1885-1888 along the coasts of Africa under the command of Capt. L. S. Dawson.

It would appear that the foraminifera at Bolton (B.C.G. Newsletter (1980) 2 (8); 393-4) dated 1872/3 and 1886, were taken while H.M.S. Sylvia was en route to her main area of operations i.e. Japan and Africa respectively.

P. F. Lingwood.

At a time when great interest is being evinced in the records of our older natural history societies, the following extract from a publication issued from London in 1795 will appeal to our readers. It is sent by Mr. R. Muschamp, of Radcliffe.

Page 229. OLDHAM SOCIETY.

Getting the right priorities !

There is a society of botanists in Oldham, established about 20 years ago, begun originally by Dr. Haulkyard, George Hyde, and John Newton.—The society meets nine months in the year, and each member contributes six pence a month (the present members are all artificers), two pence of which is reserved for the purchase of books, and the remaining four pence spent in liquor.—They have purchased by this means about twenty volumes, and are possessed of 1,500 specimens of plants, properly classed.

The time by many devoted to pastime, or sometimes to worse purposes, is by the members of this society usually employed in the pursuit of their favourite amusement of either selecting or arranging their specimens.

In collecting plants different members have gone as far as Liverpool, Lancaster, Chester, Nottingham, Hull, &c., and one of the members has undertaken a voyage, and to proceed as far as the western parts of America, to botanize under the patronage of John Lee Philips esquire of Manchester.—On the 21st of June, in the present year, one of the members being upon the mountains near Oldham, discovered for the first time *uva urfa*.

Lancashire Naturalist, 3; (1910)

THE ANATOMICAL INVENTORY PROJECT OF THE AMERICAN ORNITHOLOGISTS' UNION

For the last several years, the Committee on Collections of the American Ornithologists' Union has been inventorying the skeletal and fluid-preserved specimens of birds in North American collections. Although these specimens are valuable for many kinds of studies (including systematic ornithology, paleontology, archaeology, and functional anatomy), a number of species are not represented at all as anatomical specimens, and very few have long series of specimens. Workers often have trouble locating the specimens they need. Thus, we felt that such an inventory would be useful.

A large number of North American museums have co-operated with this project. Enclosed is a sample page of some of our early results. We are so encouraged with our progress that we are now attempting to add information for many other museums, throughout the world. Data for the British Museum have already been included. We very much hope that, if your collection contains either skeletal or fluid-preserved specimens, you will be able to participate in this project.

The inventory will probably be distributed as a computer print-out. This will mean that up-to-date copies will always be available at reasonable cost. Unfortunately, it would cost too much for us to be able to distribute them free.

We hope next to develop a list of all species that are not represented as skeletons or fluid-preserved specimens in any collection. Then we want to determine the geographic distribution of these species, to determine where collecting efforts should be concentrated, to maximize efforts at improving anatomical holdings. We will publish the results of this analysis.

We hope you agree that this project will benefit all ornithologists and that you can join us in the work. What we need is a list of how many skeletal specimens and how many fluid-preserved specimens you have of each species. For skeletons, we need to know if the specimen is essentially complete or is only a few elements.

We also hope you will be willing to give us the names and addresses of other collections in your country that might be able to provide information of this nature.

We would appreciate it if you could return the enclosed questionnaire.

Thank you very much for your co-operation.

Marion J. Mengel, Chairman
Committee on Collections
American Ornithologists' Union.

ANATOMICAL INVENTORY QUESTIONNAIRE

To: D. Scott Wood
Division of Birds
Carnegie Museum of Natural History
Pittsburgh, Pennsylvania 15213
USA

My collection has _____ avian skeletal specimens.
I hope to be able to send you information about how many complete
and partial skeletons we have for each species by _____
(date)

We have _____ fluid-preserved specimens of birds.
I hope to be able to send you information about how many we have
for each species by _____.
(date)

I would like for you to send me a list of the birds of the
world for me to record this information on _____.
(yes or no)

I am listing on the back of this letter the addresses of
other museums in my country that may have anatomical specimens of
birds and that might be able to participate in this project.

(Name--please print)

(Institution)

(Address)

SPECIES	TOTAL	MUSEUM													
		1	2	3	4	5	6	7	8	9	10	11	12	13	14
CUTIA NIPALENSIS															
PTERUTHIUS RUFIVENTER															
FLAVISCAPIS	2					2									
XANTHOCHLORUS															
MELANOTIS															
AENOBAEUS															
CAMPSORFYNCHUS RUFULUS															
ACTINODURA EGERTONI															
RAMSAYI															
NIPALENSIS															
WALDENI															
SOULIEI															
MORRISONIANA	2							2							
MINLA CYANOCRYPTERA	6			2											1
STRIGULA	6							2		2					2
IGNOTINCTA															
ALCIPPE CHRYSOTIS															
VARIEGATICEPS															
CINEREA															
CASTANECEPS	7							1		5					1
VINIPECTUS	2							1							1
STRIATICOLLIS															
RUFICAPILLA															
CINERICEPS															
RUFUGULARIS															
BRUNNEA	1												1		
BRUNNEICAUCA	8			3	4	1									
POICICEPHALA	8							4		4					
PYRRHOPTERA															
PERACENSIS															
MORRISONIA															
NIPALENSIS	24			6		1		2		5					
ABYSSINICA	3			2						1					
ATRICEPS															
LICPTILUS NIGRICAPILLUS	1														1
GILBERTI															
RUFOCINCTUS															
CHAPINI															
PAROPHASMA GALINIERI															
PHYLLANTHUS ATRIPENNIS															
CROCIAS LANGBIANIS															
ALBONOTATUS	1												1		
HETEROPHASIA ANNECTENS															
CAPISTRATA	8			1	1		4								2
GRACILIS															
MELANOLEUCA															
AURICULARIS	1			1											
PULCHELLA															
PICACIDES	2												2		
YUHINA CASIANICEPS	20														1

- | | | | |
|--------------------|--------------------|---------------------|----------|
| 1 = ROYAL CNT MUS | 9 = ERIT MUS NAT H | 17 = SAN DIEGO MUS | 25 = UNI |
| 2 = UNIV KANSAS | 10 = UNIV CKLAHOMA | 18 = UNIV ARIZONA | 26 = WAS |
| 3 = UNIV MICHIGAN | 11 = CARNEGIE MUS | 19 = CAL ACAD SCI | 27 = |
| 4 = MUS VERT ZOOL | 12 = UNIV S FLA | 20 = CSU LONG BEACH | 28 = |
| 5 = AMER MUS NAT H | 13 = MUS COMP ZOOL | 21 = UC LOS ANGELES | 29 = |
| 6 = FLA ST MUS | 14 = DELAWARE MUS | 22 = MOORE LAB ZOOL | 30 = |
| 7 = YALE PEAB MUS | 15 = WASH ST MUS | 23 = ST EDNAVENTURE | 31 = |
| 8 = LA ST UNIV | 16 = CORNELL UNIV | 24 = UNIV NEW MEX | 32 = |

David Dyson.

I have an impression that Mr. Dyson before his death was selling portions of his collections—of shells at any rate—as a brother of mine, long deceased, bought a considerable number, principally, I think, land and fresh water. I remember Mr. Dyson, but personally had not much dealing with him.

Milton of Campsie, near Glasgow.

JOHN HUNT.

✻ ✻ ✻ ✻ ✻ ✻

P.S.—I had not thought that Mr. Dyson died as far back as '56, and he certainly did not strike me as an illiterate man. It is possible that the disposing of the collections that I mention may have been by the brother after his death. David Dyson had a room in Newall's when I first saw him, and the Directory would tell when that occupation ended.

J.H.

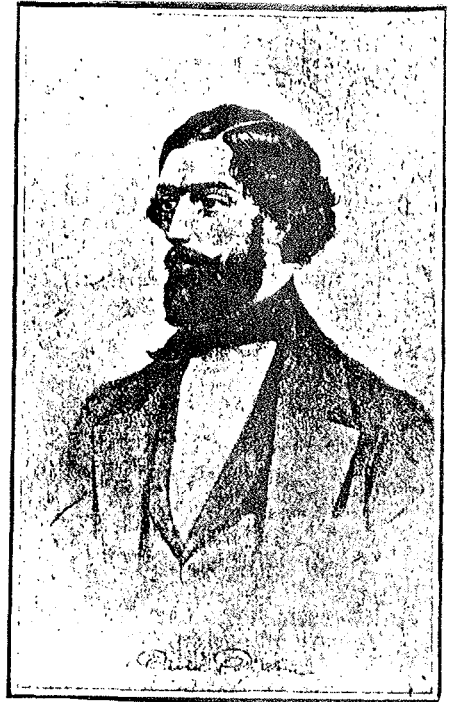
✻ ✻ ✻ ✻ ✻ ✻

Referring to a kindly notice which appeared in the *Manchester City News* on Feb. 15th, Mr. Abm. Stansfield forwarded to them the following note, which we take the liberty of reproducing:—"David Dyson, the Oldham naturalist, I knew personally, over fifty years ago. He had been appointed by the then Lord Derby as curator of his large natural history collection at Knowsley Hall, and his little book on "Shells" was in my father's library at Todmorden. He was a man of small education, but of a quick natural intelligence—bright and alert—of a most amiable disposition, and his devotion to natural history studies was complete—it was heroic. When I last saw him his appearance gave little promise of a long life, and his early death was a distinct loss to science. While his self-denying labours, as in the case of many another martyr, enriched the world, very scant honour has hitherto been done to his memory, which to me a fragrant one. But, his time will come; as it comes to all who render true service, whether to science, art, or literature."

Lost Collections.

I am reminded by Mr. Jackson's article, where he mentions David Dyson's lost collection, that a great deal of collections must have been lost to us in the past. I remember hearing of a Mr. Berry, of Accrington, an indefatigable collector long before the present Accrington Society came into being. After his death, and the succeeding breaking up of his accumulations, a canal boat was used to remove them. Where did they vanish to? Surely they must have left some trace. T.D.

✻ ✻ ✻ ✻ ✻ ✻



... David Dyson, the well-known naturalist, died on December 10th, 1856, at the residence of his brother, John Dyson, Rusholme, Manchester, at the early age of thirty-three, the cause of his death being due to ulceration of the larynx. He was born at Oldham in 1823, and his early years were passed as a factory worker. He, however, soon evinced a passion for collecting insects, and every available penny of his hard earnings was spent in the gratification of his love for Entomology. He subsequently turned his attention to Ornithology and Conchology, making large collections. His ardour in these pursuits led him, in 1843, to undertake a voyage to the United States of America. He was then twenty years of age, and quite unknown beyond his own neighbourhood. His own slender savings and some money given him by his elder brother furnished him with such scanty means for his voyage that on landing in New York he had only a few shillings left. His industry and energy, however, enabled him to make a tour in his new profession as collector through the States, across the Alleghany mountains, and as far as St. Louis, earning the means of subsistence on his way by selling portions of his collections in Natural History to the local museums. After an absence of almost twelve months, he returned to England with upwards of eighteen thousand specimens of insects, birds, shells, and plants. This collection was found to contain some very rare specimens, and his success was the source of amazement among many leading naturalists, so much so that Mr. Hugh Strickland invited him to his father's residence, Cracombe House, Worcestershire, and he and other gentlemen attempted to engage him to make a second voyage to America, but the negotiations failed. Dyson being then near to London, took the opportunity to visit the city for the first time in his life, and found, to his great surprise, that his fame as a collector had preceded him thither. At the British Museum he found that news had been received there of his recent visit to the Stricklands, and an engagement was offered him to go out in search of specimens to Central America, which he accepted. He started for Central America on Sept. 17th, 1844, and landed at Belize on Nov. 3rd. He remained in Honduras till the latter end of 1845, ...

... re-
turned after an absence
of about eleven months,
his collection on this
occasion including a great variety of humming-birds, moths,
beetles, and shells. In the latter part of his life he devoted
himself almost entirely to Conchology, and he left behind him a
private collection numbering upwards of twenty thousand shells,
many of them very rare, and including more than ten thousand
different species. He also left a large collection of birds and
insects. These collections, I believe, were very valuable, and
equalled by few out of London, but what became of them I have
so far been unable to discover.

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