Contents

Chairman's Report

The staff of the Oxford University Museum of Natural History have completed an outstanding year's work, with the unveiling of the ReDiscover Fund's display programme on time and on budget. The opening of these displays by the Vice Chancellor emphasised the importance of the role of the Museum both in the access and outreach activities of the University, and in communicating to young people that science is fun. The same messages come across from the activities of our education team, working with their colleagues across the University's museums and out in the community. These contributions are all the more remarkable as they come at minimum cost to the University, being funded substantially from outside sources. Continued successful fundraising is now essential for the development of all our activities, and consumes a substantial amount of senior staff time. The Visitors are deeply appreciative of their expertise, commitment, and dedication.

An area of immediate concern is the declining amount of funds available for the core activity of the museum; the care and conservation of its collections. Whereas display and education readily attract outside funds, basic conservation, alas, does not. The re-housing of a substantial part of our always vulnerable insect collections over the last year has been a major success. Attention must now turn to the other collections, where there is also great need of support at a level that current core funding levels cannot easily meet. Our collections provide a remarkable record of the diversity of life on our planet, and it is imperative that this is preserved for future generations of visitors and scholars alike.

This is my last report as Chairman of the Visitors. I commend this most successful institution, its Director and its staff, to my successor. They deserve not just my congratulations, but far more importantly, that of all those who derive enjoyment and knowledge from this wonderful Museum.

Sir John Hanson
Chairman of Board of Visitors

Director's Report

The completion of the ReDiscover Fund's 'Feeling Good!' phase of the refurbishment of our displays dominated activities through the first half of the year. Originally scheduled as a 30-month project, a change in the ground rules meant that we had to do it in 15 months. It was with a major sigh of relief that the displays were completed on time, and opened by the Vice Chancellor on Friday 27 January 2006, with the last specimens going up at lunchtime that day. I am indebted to my colleagues who laboured long and hard to bring the project to a successful conclusion. The 21 table cases in the ground floor arcades now house displays that illustrate the diversity of invertebrate animals, integrating specimens and images of recent and fossil examples. A spectacular slab of giant trilobites introduces 34 cases on the walls of the south and west arcades that illustrate the history of life, with many newly-acquired specimens, most notably Precambrian stromatolites, Cretaceous molluscs, and Oligocene vertebrates from North America . The celebrated fossil bones from the Kirkdale Cave hyaena den are on display for the first time in more than half a century.

In the north arcade, a new rotating DNA model ushers the visitor into our new evolution displays. 'Feeling Good!' tables in the south-west corner of the court are just that: displays of rocks, fossils, minerals, birds and animals that the visitor is invited to touch. How long these will survive the caresses of both large and small visitors remains to be seen.

Of other projects, our human/primate and lower vertebrate displays are now complete. New table cases have been purchased, and installed in the upper east gallery. They will house new thematic insect displays. Refurbished table cases in the upper north gallery will house new plant displays. Raising external funds for next phase of the displays are under way. We are now seeking support to complete the vertebrate displays in the court, and install new gemstone displays on the upper gallery.

Our bid for Accreditation, mentioned in last year's *Annual Report,* succeeded: I am particularly grateful to Monica Price for helping to bring this team effort to a successful conclusion.

There was also success in our bid for new funding as part of the South East Hub, under the aegis of the *Renaissance in the Regions* project. £34,730 in new funds became available in April 2006, and a further, larger tranche, bringing the total of new funds to £183, 654 will be allocated from April 2007. This will enable us to secure the future of our current education and IT activities to the end of March 2008, and make available a documentation post and two part - time conservation posts for 2007-8.

Our bid for AHRC funding for the years 2006-7 to 2008-9 received an A grade, but our grant was cut in real terms. The figure for 2005-6 was £331,141; that for 2006-7 is £339,400, an increase that does not even cover inflation.

Finance continues to be problematic. The cut in our 2006-7 grant noted above is augmented by a projected £51,000 increase in salary costs associated with the transfer of staff to a new salary regime, a projected major increase in utility costs, and a requirement from the University to reduced expenditure by around £26,000 in 2006-7. Against this, the news of the success of our bid for VAT exemption on the greater part of our activities was a ray of sunshine on an otherwise gloomy financial scene.

Our public activities continue to flourish, with a slight increase in visitor numbers from 318,292 in 2004-5 to 325,054. Of these, 23,704, were pupils in organised groups, an increase of 8% on 2004-5. We repeated the highly successful 'In a Different Light' event with our Pitt Rivers neighbours on 20 May. The Museum was packed, with the screening of the original silent version of *Twenty Thousand Leagues Under the Sea* as a special treat.

Plans to move into space in the Inorganic Chemistry Laboratory moved forwards, with the establishment of a Working Party with representatives of the Pitt Rivers Museum, the Inorganic Chemistry Laboratory (ICL), and the Radcliffe Science Library. A feasibility study was commissioned, and the concept of a much expanded Science Area Learning Centre (SALC) emerged to serve the shared needs of all parties. As ever, funding is the immediate problem .The first phase is to develop visitor reception and education facilities for the two museums.

Behind the scenes, work on the care and conservation of the collections is a major preoccupation, for which resources are spread too thinly. The major entomology re-housing project, funded by a major award from the Strategic Research Infrastructure Fund, moved towards a successful conclusion. The occupation of space within the Museum building,

previously occupied by Inorganic Chemistry, relieved pressure on the storage of geological materials previously housed in the south-west stairwell, and vulnerable to both visitors and the weather.

All collections now face storage problems, as curation to currently required standards always leads to expansion. The museum is running out of storage cabinets, and the wet preserved collections of biological materials are to be the subject of a search for external funds in the coming year. The acquisition of off site storage at Nuneham Courtenay is critical to the continued well-being of our priceless collections.

The Museum roof is always a source of amazement to the visitor, and concern to us. The exceptionally dry winter and spring meant that leaks were fewer and less frequent than usual. There was continuous environmental monitoring of the roof throughout the year, and a substantial physical investigation of the fabric, leading to firm proposals to deal with leaks and restore the internal fabric and decoration to its former glory. A further major source of concern with the fabric of the building is the result of both age and the increase of less than reverential visitors. In particular, slabs in parts of the floor of the court are subsiding, and areas of tiles on the galleries are disintegrating, with resultant breakage of original tiles. These problems are to be the subject of repairs in 2006-7. A further problem has been breakage of the hand made glass panels of the bird display cases on the upper north gallery, making them a potential danger to visitors. These cases need to be replaced. In the interim, plastic panels have been installed to protect both specimens and our smaller visitors. Here, as in so many areas, the Museum is becoming a victim of success that is not matched by increased resources.

Sir John Hanson retired as Chairman of our Visitors; I am most grateful to him for his support during his period of office.

Bob Green completed his stint as replacement Administrator at the end of September 2005. We had enormous fun working with him, and wish him well. Wendy Shepherd returned to the Administrator's post following maternity leave, as did our Education Officer, Janet Stott.

There were a number of staff changes throughout the year. Sue Pearson left our cleaning team after 24 years service, as did David Manning. Jane Maskell and Odette Christie, our shop team, left, as did Harry Thornton of our portering staff. Simon James replaced him and Andrew Lesnik joined the weekend team. Natalie Smith joined us as Shop Manager and Anna Crook joined the Education Department; Bethia Thomas left in March for maternity leave and Menaka Rambukwella, Image Database Technician completed her DCF contract. Alex Nadin was employed temporarily as Accounts Officer from June.

It is with the deepest regret that I record the death, in post, of our accounts clerk, Dorothea Pelham, who joined us in 1998. Throughout her illness she worked as much as she could and we admire and miss her. I also record the death of Professor Sir Richard Southwood, former Chairman of CMSC and Professor David Spencer Smith, who both had close relations with the Entomological Collections and Angelo DiMauro from the Zoological Collections. He would arrive with the swifts, and incidentally, they have been regularly monitored since 1962 by Roy Overall, and he has been made an Honorary Research Associate by the Visitors in recognition of his dedicated work.

Jim Kennedy
Director

Part I. Central Services Report

Exhibitions and Events

The Upper Galley again played host to an interesting range of temporary exhibitions. The year began with 'Divided matter' by Adam White. His large canvases were both intriguing and thought provoking. From August Simon Packard, the University Collections' Art Education Officer, displayed work which had been inspired by all the University Collections. 'Biomarkers', by Julian Grater were exhibited from October. They were large charcoal drawings, which investigated the Cambrian fossils of the Burgess Shale. The Buckland archives were dusted down and beautifully displayed to coincide with the Palaeontology Association Conference in December and Gareth Monger's original artwork was brought out for the Grand Opening of the new permanent displays on 27 January. The new displays, were made possible thanks to funding by the Millennium Commission and Wolfson Foundation, revitalised all the History of Life and Invertebrate displays and produced a permanent collection of very popular touchable displays.

Inspired by the Hope Entomological Collections, 'Insected' by Robert Taylor and Lainie Joy was hung is January. The exhibition featured a unique series of photographs of insect specimens arranged in Lainie's extraordinarily long hair. In March John Thomson, the Artist in Residence for The Botanic Garden, displayed work created within his 'red shed' housed at the Garden and featured the sculpture of a rooster to entice people upstairs to see his work. In May the every popular Korky Paul returned for ArtWeek with classes on drawing snails! A wonderfully creative work was displayed during the latter part of May, produced by the Rosehill Creative Partnership under the guidance of Graham Woodhall. Their huge papier-mâché pieces, inspired by the skeletons in the Museum, looked very much at home in the gallery. Finally, in June came the exhibition of the year; staff from both the Pitt Rivers and the OUMNH took centre stage and displayed their hidden talents with fantastic works in all media.

Miss Price produced temporary displays of the Peel Collection of gemstones in the Court, and a display of the Peel collection minerals and other recent accessions to the Mineral Collection in the Upper Gallery. Mr Walsh completed the 'Feeling Good' tables of open display specimens. He is currently preparing permanent displays on rocks. Mrs Nowak-Kemp designed and prepared a display celebrating the 350th anniversary of the publication of the *Museum Tradescantianum* catalogue, using the 17th century Tradescant specimens in the Zoological Collections. Dr Kemp and Mrs Nowak-Kemp also produced displays on Mammal-like Reptiles and Teeth: from Fish to Mammals for table cases in the main court.

Much needed additional revenue was generated through filming fees throughout the year. The Museum featured in *Songs of Praise* in November and *Prehistoric Park* by the BAFTA and Emmy award winning Impossible Pictures. The live cockroaches made their debut in *Don't get me Started* for Channel 5 and the statue of Roger Bacon played the staring role in a film about the History of Explosives, *Mark Williams' Big Bangs.*

Professor Rogers was interviewed for a Radio 4 'special' about the difficulty of assessing the impact of climate change on diseases. Dr McGavin was interviewed six times on a variety of insect-related topics for Radio Oxford and BBC South Today. He also took part in a TV series called *Take One Museum* (C4) and appeared on *Blue Peter* (BBC) with live insects. Dr McGavin spent 6 weeks in Borneo with a BBC TV crew filming a five-part series called

Expedition Borneo for transmission in 2007. Ms Simmons wrote an article about the museum and the entomological collections for the Oxford University student newspaper *The Cherwell*.

The wonderful displays of the Museum court and gallery, together with the 300 seat lecture theatre, attracted conferences, book launches, dinners on the gallery, receptions and charity events, thus continuing to generate much needed revenue with over 99 functions held this year. These included an evening for the International Black Media Festival, three days of showings in the lecture theatre for the first BritDoc Festival of documentary films in July 2006, and a piano trio concert for Flexicare. The 2005 Hands Lecture was given here by Shami Chakrabarti, and six of the eight 2006 Slade Lectures, given by Mr Tom Phillips entitled 'Making art work - the artist in the studio' were held in the Museum in Hilary Term. Six Chichele Lectures were held in Trinity Term. Other University memorial lectures were held here for Warburg, Bernard Tucker, Rodney Porter and Dorothy Hodgkins. The Ashmolean Natural History Society held their usual series of children's Christmas lectures. Local bookshops held book launches with Simon Schama and Paul Rusesabagina, which brought in an interesting variety of visitors. The Museum was again used for the University's Science Writing Competition, at which Sir David Attenborough gave a lecture and presented the prizes. The Museum was also used by Estates Management to display the plans for the Radcliffe Infirmary site on two occasions. The lecture theatre continued to be used daily throughout the academic terms for Mathematics and Chemistry undergraduate lectures.

General Education

Schools and Family Education and outreach

The Education Department has seen continued growth and development over the last year. Winning the Guardian Family Friendly Museum of the year in 2005 raised our public profile and our programmes have been extremely popular. Our links within the University, both with other collections and science departments have strengthened, as has our regional role as part of the South East Hub.

Schools
The school visitor numbers have continued to rise, with 23,704 students visiting us in organised groups.

Primary School Programme
Bookings have continued to be strong and Chris Jarvis has taught sessions most afternoons in term time as well as mornings. In addition to our established programme, special projects this year have included a 'Creative Partnerships' project with Rosehill School and the artist Graham Woodall. Most of the students had never visited a museum before. As part of the project they all visited the museum at least twice and received taught sessions as well as an outreach session. They then worked intensively with the artist at school to create some spectacular panels inspired by the large fossil plesiosaurs. The final artwork was exhibited in the Upper Gallery in May.

We have had an increased emphasis on Special Needs groups this year. One of our schools invited for the opening of 'Feeling Good' was Mabel Pritchard Special School. Following their visit they constructed a 2.5 metre 3D dinosaur complete with habitat! As part of the Oxford

Literary Festival we worked with a large group of pupils from Frank Wise Special School on a very successful story telling workshop.

Secondary School Programme

Our partnership with the Natural History Museum, the Hancock Museum and the Manchester Museum has continued and expanded this year. New initiatives for secondary schools have included 'Science behind the Headlines' workshop sessions as part of our A Level study days. These workshops follow a keynote speech and involve students in debate around a current controversial area of research and the way in which the issue is presented in the media. The workshops are led by researchers and over the last year over 40 scientists have been involved in facilitating these sessions for us. Darren Mann has led many inspiring 'meet the scientist' sessions for A level students.

We have introduced evolution study days for Key Stage 4 students with an adapted programme of a key lecture, a structured activity in the museum and a practical workshop element. Dr McGavin and Dr Siveter have been involved in these days. The evaluation has been very positive; '*explained far more than we can at school….very clever activity to consider evidence and make pupils think'*. We plan to build on the success of these days over the next year.

As part of the Strategic Commissioning Project (funded by DCMS) we published a consultation document on 'What Science Teachers want from Natural History Museums'. This document has been well received and led to the partnership being invited to submit a report to a House of Lord Select Committee on Science teaching.

Training

We have continued our association with the University Department of Education and Oxford Brookes University, teaching over 300 PGCE students, both primary and secondary. In July we were invited to talk at the LEA primary science day on ways to teach science to inspire.

In February members of the education team spoke at regional museum training days in Reading, High Wycombe and Woodstock on our 'Family Friendly' practise.

We have given advice and presentations to a range of museum professionals from Eton College Museum to the Wildfowl and Wetlands Trust.

Chris Jarvis has been on the SE Creative and Cultural Entitlement working party, which published an advocacy document this year. Joy Todd has represented the Museum on the evaluation team of the SE Hub. Sarah Lloyd and Janet Stott hosted a Strategic Commissioning Project conference at the museum in July.

Janet Stott spoke at the Oxford University Alumni reunion in New York on 'A decade of Success, a decade of Promise'.

Joy Todd and Susan Birch gave a presentation at the British Interactive Group Conference on our family friendly activities.

Community

The Community Education post was created in August 2005 to engage with new audiences and help increase the diversity of visitors to all of the Hub museums. Susan Birch was initially employed part-time, but became full time from April 2006.

During the past year, Susan has been visiting a variety of different community groups in Oxford, including Adults with Basic Skills Needs, ESOL (English for Speakers of Other Languages) groups and sheltered housing associations. These sessions allow people to engage directly with the objects through handling sessions and raises awareness of the museums and

their collections. A great deal of support has been given by many curators and departments within the museums in allowing objects to be used for these sessions.
Over 600 adults and children have been involved in outreach sessions over the past year. 52% of groups receiving an outreach session then went on to book a visit to one or more of the four HUB museums. Most members of these groups were visiting the museums for the first time.
Susan Birch has also been involved in organising the museums' involvement at the Cowley Road Food Festival, the Oxford Trust Science Shop and has hosted the 2nd Adult Learning in Museums Network meeting.

Volunteers
The Museum's use of volunteers continues to grow; Joy Todd has placed 253 volunteers in a wide range of activities, from family science communication events to working in collections. Over the last year they have given 1923 hours to the Museum.
Joy Todd co-ordinated a Museums and Education Course in Hilary Term in conjunction with the University Department for Continuing Education, this course offered a brief introduction to the work of museums, with a focus on interpretation and family education. The course was fully subscribed and very well received.

Families
Following our success in winning the 2005 Family Friendly award we have had another very busy year in terms of family events. Highlights have included half term events 'Creatures of the Night' in October and 'Museum Magic' in February. 'Dinosaur Doodles' on the opening weekend of 'Feeling Good!' was very popular, with four packed workshops. In April we held 'A Victorian Welcome' weekend. Museum staff dressed up in Victorian costumes and visitors had the choice of a variety of Victorian activities; from a tour of the Museum with 'Dr Felchworthy' and the opportunity to meet 'Mary Anning' and view original artefacts, to having their portrait taken in a Victorian photographic studio complete with costumes and props. We are indebted to André Ashington for his inspirational involvement in this event.
After the success of last year, in May we ran another 'In a Different Light 'open evening with the Pitt Rivers, as part of the European Night of Museums. Once again the Museums were teeming with visitors who felt themselves privileged to attend such a special event. Members of all collections helped to make the event such a success; it seems clear that there is a demand for this to become an annual event. Our summer holiday activities were on the theme of 'By the Seaside' and throughout the school holidays we ran a 'sensory sea search' activity trail. We were able to do this because of the hard work of Chiaki Watanabe, a Leicester University Museum Studies MA student who was based with us this summer. After the successful events of last year, 'Oxfordshire Goes Wild' was held in November and July; in July we had stands from 15 different local wildlife groups and over 1,700 people attended, with the opportunity to experience a wide variety of live wildlife including bats, owls, newts and even the chance to handle a bumble bee!

Staffing
Anna Crook joined the education team in May as a part-time education assistant; her help with managing the school bookings system and family activities has been much appreciated. As our team has grown, it became necessary to reorganise our office to accommodate 6 desks. Through our secondary school Museum partnership, we were able to purchase an interactive whiteboard system for teaching in the seminar room, which has made a difference to our teaching sessions.

The Education team has received much vital assistance and advice from each of the collections over the past year.

Public Education and Outreach

Dr McGavin gave lectures for a number of museum based education events such as 'Wow! How?' the Cherwell Science Enrichment Day, Sixth Form Study Day and Experts in Action. He also gave two lectures for the Aim Higher Summer School organised by the Admissions Office. Dr McGavin and Wendy Fuggles from the Pubic Affairs Directorate ran 'Bug Bricks' a science project for Oxford Primary Schools. All Hope Entomology Collections staff contributed to 'Making Museums'.

Dr McGavin hosted a number of tours of the museum notably for a group of Harvard students led by Dr Andrew Berry and delegates to the Association for the Scientific Study of Consciousness. During the year Dr McGavin gave four lectures on insects under the Royal Institution Schools Science Events programme and a number of talks to groups as varied the St Helen and St Katharine School General Studies class, the Harwell W.I., the Woodstock Stoke Club and Oxford Science. He also ran a master class at the University of Derby and hosted a visit of Derby students to the HEC.

Mr Mann talked to the Appleton Gardner's Club about beetles in the garden, to the Oxford University Exploration Club about insect sampling in the tropics and to the AGM of the Amateur Entomologist's Society about dung beetles and cockroaches in Borneo. He also gave a one-day workshop on plant bugs at the Hill End Residential and Field Study Centre. He and Ms Simmons participated in several outreach sessions involving insect handling.

Dr Ismay, jointly with Mr M. Harvey (Bucks and Milton Keynes Biological Records Centre) and Ms Schulten, led a workshop for the Buckinghamshire Invertebrate Group on preparation and curation of insect specimens. During National Insect Week he and Ms Schulten spent a day in Long Crendon Primary School; this included a presentation on insects, handling sessions and a bug hunt.

Dr Siveter gave a talk on exceptionally preserved fossils from the Herefordshire (Silurian) Lagerstätte to the Woolhope Naturalists Field Club, on the Chengjiang (Cambrian) Lagerstätte to the Oxford Geology Group, and on both of these topics to GCSE and A-level students at the Dudley Museum and Art Gallery and at the October 2005 Science Fair in the OUMNH. The Herefordshire research work was also presented by a colleague in his Oxford-based research group at the Annual Meeting of the British Association in Dublin. One of the recent papers from this work, which discussed the soft part anatomy of a fossil brachiopod, received wide publicity on the worldwide web after being published in *Nature*.

Mr Powell gave talks to the Rotary Club (Oxford Isis and Oxford North), the Graduate Society, the Ashmolean Natural History Society of Oxfordshire, and the Oxford Geology Group; and led fieldtrips for Oxford Civic Society, the Ashmolean Natural History Society of Oxfordshire, and Oxfordshire Geology Trust. In addition, Mr Powell and Mr Jeffery both led field trips for the Oxford Geology Group.

Miss Price gave lectures to the Southampton Mineral and Fossil Society in October and the Cheltenham Mineral and Geological Society in February. She hosted a visit by the Oxford Mineral and Lapidary Club in November.

Dr Kemp gave an invited lecture on fossils and development to King's College London, and was a panellist at an international evolution discussion at the Ian Ramsay Centre, Oxford and

he lectured to a Harvard University Summer School on Fossils and Evolution. He continued his duties as University Lecturer, and Tutorial Fellow.

Mrs Nowak-Kemp gave talks and tours of the Museum and the Zoological Collections to the administrators of various University Departments, Harvard University students and their tutors, a Chinese delegation, the Oxford Isis Rotary Club, Joy Todd's volunteers and various other organised groups.

The Zoological Collections held an Open Morning in July, for all members of the Museum staff, and invited individuals from Pitt Rivers and the Ashmolean Museums, and the DNA laboratory of the Zoology Department. The Curator gave a talk on the history, nature, and contemporary significance of the collections, followed with demonstrations by the staff of some of the most important holdings.

Shop Report

Ms Natalie Smith took over as Shop Manager from Ms Jane Maskell who left at the end of March 2006 to set up her own textile and jewellery business. Ms Odette Christie also left the shop in December 2005 to join the retail management team at Hampton Court. Both are missed and thanked for their excellent work.

Mr Trevor Hambidge, Ms Hannah Donaldson, Mr Simon Wiltshire and Ms Susana Catanho continue to help on the shop; they have been joined by Ms Cristiane Coutinho during the week.

Till sales reached £130,741 this year, 5.47% up on the previous financial year. February half term was extremely busy bringing in £7,000 and in April, when the Museum was open for the first time over the Easter weekend, the takings were up by nearly £2,500. Sales were down in October and June reflecting a drop in visitor numbers during these months.

New product lines were introduced during the year including ranges of mugs, notebooks and postcards with matching images of insects, museum architecture, ammonites and Corsi marbles. Ms Maskell and Ms Christie also designed an attractive new poster advertising the Museum for sale in the shop. Ms Smith has designed a new museum badge and is currently researching other new ranges of museum products.

As the shop is expected to remain in its current location for the foreseeable future, a complete refit will hopefully be carried out. Ms Smith has been obtaining designs and quotations from the University Estates Office and professional shop fitting companies.

The Sales Committee is thanked for their help and encouragement.

Information Technology

Several new computers were bought during the course of the last year, and the majority of Museum staff are now using Windows XP. The new Windows 2003 server has been set up, and the transfer of users and collections databases is underway. Zoological and entomological data have been transferred, and all the education staff now connected to the new server.

IT staff continue to use Sophos software to protect the Museum's computers from viruses. Individual machines are now set to update directly from Sophos rather than via updates from OUCS distributed by the Museum server. The new system means that protection against new viruses is more immediate and is no longer dependent on the local server.

March 2006 saw the completion of the third phase of the Designation Challenge project. The three main achievements of the project were:

The re-design and launch of the new Museum website

The new website was launched on 31 March 2006. It complies with the requirements of the Disability Discrimination Act, has a more up-to-date appearance, and much improved navigation. The conversion of the website to the new design was a substantial piece of work, as it includes not just the main pages but two major subsections – the Learning Zone and the online specimen databases.

Learning more

The new website also includes a completely new section: Learning more. This section comprises a series of educational articles, in the form of downloadable pdf files, on various aspects of the Museum and its collections.

The image database

The image database now holds a total of 8,428 pictures – a substantial proportion of the Museum's photographic archive. The images are of specimens, displays, architecture, events and activities, and they include material from all the collections. The database is used by staff across the museum: IT staff in the development of online resources, administrative staff with publicity, curatorial staff in the care of collections, and educational staff with the preparation of teaching material.

The overall number of web visitors for the year from August 2005 to July 2006 has increased once again: the total number of visits to the Museum's website over the period was 886,133. This compares with the figure of 696,848 for the previous 12 months. The most popular web pages remain those in the Learning Zone.

At the end of March 2006 Bethia Thomas, Programme Development Officer for the DCF project, left the Museum to start her maternity leave, and Menaka Rambukwella, Image Database Technician for DCF, left to work in the Pitt Rivers education group. Rosemary Painter's contract was extended until March 2008. She will continue to work alongside Sarah Phibbs, as IT Officer.

In October 2005 another Diptera database was converted for the web. Over 5,000 palaearctic Diptera specimens have now been added to the existing searchable databases. Nearly 30,000 Jurassic specimen records were added to the online geological databases in January 2006. New specimen databases have been set up in Zoology for fish, amphibians and reptiles. Staff and volunteers are entering information from the handwritten catalogues.

In November Sarah Phibbs, together with Joy Todd, the Museum's Volunteer and Events Co-ordinator, wrote a proposal to be submitted to the Academic Computing Development Team for a volunteer and events database. The proposal was accepted, and an interactive volunteer and events database is now being developed by the ACDT for implementation across the university museums.

Early in 2006 Education staff were keen to purchase an interactive whiteboard for their teaching sessions in the seminar room. Rosemary Painter undertook the research to find appropriate equipment. In February 2006 she organised the installation of the new 'Smartboard', and set up a training session for Museum staff on use of the new equipment.

In June 2006 IT staff created a number of web pages to display the results of the Bug Bricks outreach project. Eight local primary school participated in the scheme, and information about the project, the individual school results, and clues for identifying the most common bugs are now available as part of the Learning Zone.

Part II. Reports from the Collections, Libraries, Environmental Archaeology Unit, Henry Wellcome Ancient Biomolecules Centre, and Simonyi Professor for the Understanding of Science

The Hope Entomological Collections

We are very sad to report the deaths of two prominent entomologists who had along associations with the Hope Entomological Collections, Professor Sir Richard Southwood and Professor David Spencer Smith (Emeritus Hope Professor of Entomology).

We extend a warm welcome to Professor David J. Rogers of the Department of Zoology who has been appointed to the Curatorship of the Entomological Collections.

Professor Rogers was an invited participant in meeting in Washington DC, to discuss the role of Earth observation for human health/welfare and to make recommendations to Congress for the next quinquennium and advised on global H5N1 risk mapping using satellite and other data. He attended the *Forum on Climate and Disease*, at Yale University, the *International Scientific Committee for Trypanosomiasis Research and Control* meeting in Addis Ababa, Ethiopia and the Mitre Corporation: *Infectious Disease Modelling Conference* on avian influenza in Washington DC. In addition, Professor Rogers attended the final project meeting of *Euro-Mediterranean Public Health Information Systems* in Tunis, Tunisia, the *European Society of Vector Ecology* meeting in Serres, Greece and the launch of a NERC program for investigating the impacts of environmental change on human health in London.

Professor Rogers was appointed Chair of Steering Committee of the Yeha Natural Resource Management Institute, Ethiopia, with a remit to design a M.Sc. and Ph.D. program for young African graduates.

Dr McGavin continued to serve as a member of the Biological Collections Committee of the Linnean Society and was elected to serve on the Council. Dr McGavin also continued to serve as external examiner for the Certificate in Field Biology at the University of Sussex.

Mr Mann continued to serve on the editorial board for *The Coleopterist* and as a member of council for the British Entomological Society.

Ms Simmons visited the Florida State Collection of Arthropods (self-funded).

Mr Cooter was elected Honorary Research Associate of the Hope Entomological Collections.

Dr Pont organised the 27th *Annual Meeting of the British Simuliid Group* in Oxford. He continued to serve on the editorial board of *Zoology in the Middle East*, *Fauna of Arabia* and *Studia Dipterologica* and Secretary/Treasurer of the Council for International Congresses of Dipterology. Dr Pont continued to be a Scientific Associate of the Natural History Museum, London, an Associate in Science at the B.P. Bishop Museum, Honolulu and to serve on the panel that judges nominees for the Thomas Say Award, a prestigious award given annually by the Entomological Foundation of the Entomological Society of America.

Dr Ismay led an insect day at Burnham Beeches NNR. He attended several indoor and outdoor meetings of *Dipterist's Forum*. Dr Ismay participated in a workshop on Empidoidea at Preston Montford Field Studies Centre. He attended a meeting of the Royal Entomological Society's Special Interest Group on Conservation and participated in several meetings on mosquitoes leading to the formation of the UK Mosquito Association, advising in particular on mosquitoes in urban areas.

Dr Kathirathamby attended an informal Meeting on Code, Copyright and Zoobank at the Zoological Society and gave a talk on 'ZooTaxa - the First Five Years'.

Curation

This has been an extremely busy year and has seen the installation of airtight metal cabinets in the Swinhoe, Shelford and Carpenter Rooms paid for by a SRIFII grant. The work has involved the total rearrangement and transfer of large amount of material. In the Carpenter Room alone 3,550 drawers of foreign Lepidoptera were moved to the Huxley Room to make way for the new furniture and to rationalise our collections. The entire British collections have been restructured and are now housed in the Westwood Room, which also involved moving the British Lepidoptera from the Upper Poulton Room. The upper Poulton Room now houses recent accession material and historic collections.

Mr Mann continued his research into un-recognised types in the collections, with 25 types, mainly of Coleoptera and Hymenoptera coming to light in the last 12 months.

Ms Simmons has been active in re-curating both the collection of Erotylidae and Endomychidae and has been working on the Wollaston Collection, funded by a grant from PRISM (PReservation of Industrial and Scientific Material) fund. This involves remedial work on the collection specimens, re-labelling, specimen transfer and updating/maintaining the database. The transfer of the arranged Madeiran Collection of Coleoptera has now been completed. Ms Simmons has also been co-ordinating and training volunteers and work experience students to carry out curatorial tasks and has been working with Ms Joy Todd in order to increase the number of student volunteers recruited from both Oxford University, Oxford Brookes and other UK universities.

Dr Pont completed the re-identification and re-arrangement of the collection of Palaearctic Muscidae (Diptera) and began sorting and identifying the Verrall-Collin duplicate collections of Fanniidae and Muscidae, as a prelude to incorporating them into the main collection. The database of the Palaearctic Diptera Collection was put on-line, and so all the major Diptera holdings of the Museum are now available on-line (Verrall-Collin types, Bigot Exotic Diptera, Palaearctic Diptera).

Dr Ismay continued to curate British and Palaearctic Diptera. This included sorting and identifying Palaearctic Diptera accessions to family level, and identifying Chloropidae and some other families to species level.

Mr Ackland completed the identification and re-arrangement of all the British Anthomyiidae including all unidentified material.

Mr Lansbury continued to curate the collection of foreign aquatic Heteroptera.

Geological Collections

Dr Seiffert gave four invited lectures on primate and mammalian evolution at the annual meeting of the Primate Society of Great Britain (in London), the Natural History Museum (London), Stony Brook University (U.S.A.), and Université Montpellier II (France). He also presented a paper at the 53rd *Symposium of Vertebrate Palaeontology and Comparative Anatomy*. He worked with Dr Kemp and Professor Kennedy to create new museum displays on the evolution of mammals, and work is also underway on the curation of various Pleistocene mammal collections.

Dr Siveter gave a talk on the remarkably preserved fauna from the Herefordshire (Silurian) Konservat-Lagerstätte, at the Ludlow Research Group Meeting held at the British Geological Survey, Nottingham. Presentations by others of the research team working on this Lagerstätte were given at the Institute of Oceanography, Southampton; the University of Bath (as one of the 'Millennium Lectures'); the International Ostracod Meeting, University of Berlin; and to the Annual Meeting of the Micropalaeontological Society, London (as a presidential address). Dr Siveter visited SW China for two weeks, as part of a Royal Society funded project, to study the Cambrian fossils of the Chengjiang area. During the visit he helped draft, on behalf of Chinese colleagues, a proposal to UNESCO for World Heritage status for the Chengjiang Lagerstätte, and he was made a visiting Professor of the University of Yunnan (Kunming). He also chaired the Organising Committee for the 49th Annual Meeting of the Palaeontological Association. The two days of non-thematic lectures and posters, which took place in December 2005, were held in the Museum, as was an associated one-day symposium on Ediacaran biotas. The Annual Dinner for the meeting was at Christ Church, and a field excursion to the Oxfordshire Mesozoic completed the programme. The meeting, which by general consent was very successful, attracted 300 palaeontologists from many parts of the world, including China, Russia and North and South America. Dr Siveter continued with curation of the Palaeozoic (Devonian and Carboniferous) collections. He also acted as an Assessor for examinations in the Department of Earth Sciences.

Mr Jeffery has worked with Mr Ashington on the curation of Jurassic and Cretaceous material presented by J.H. Callomon, and with Mrs Alton on the archiving of the manuscripts and reprint collection of the late Donald Baden-Powell, a notable figure in Quaternary geology. Enquiries from the public have, as ever, occupied a significant amount of time, with nearly 500 received in person, by letter, email and telephone – a personal record. He has provided advice and specimens for Lancaster Museum's "Richard Owen – Dinosaur Man", and The Oxfordshire Museum's "Baskets", exhibitions; and provided specimens and documentary support for the BBC's *The Story of God* series, and VOX TV's *Dinosaur Descendants – Giants of The Sea*, parts of which were filmed in the University Museum. He has guided field excursions for the Tertiary Research Group, and continues in post as acting editor of the journal *Tertiary Research* during its transition to a new format, and as one of the group of associate editors of *Caenozoic Research*, the successor journal.

Professor Kennedy gave the Annual Address at the *49th Meeting of the Palaeontological Association*, on the subject of 'William Buckland and the origins of palaeoecology'. Most of his time this year has been devoted to the ongoing display programme, both the 'History of Life' and 'Invertebrate Biodiversity' displays, which had their Grand Opening in January 2006, and the new rock cycle and plant displays, planned for the south side of the court and the east upper gallery respectively. Professor Kennedy also provided preliminary identifications for

some 3,000 specimens, mainly Cretaceous material presented by A.S. Gale, the late J.M. Hancock, and C.W. Wright, prior to their documentation by Mr Ashington.

Up until the end of January, Ms Hay was working full-time on the 'History of Life' displays, mounting and installing specimens. Since then, she has been engaged in a variety of preparation, conservation and casting projects. She undertook the acid-preparation of some bovid bones from the ?Miocene of Namibia, and worked with Mr Francis on the conservation of a bison scapula from the Pleistocene of the Isle of Wight. She made a new mould and cast from a 19th century model of *Hyracotherium* for the new evolution displays, and produced a painted cast of the astragalus of *Phoberomys pattersoni* (a late Miocene caviomorph) for the forthcoming vertebrate evolution displays. She also conserved an ichthyosaur skeleton on the east wall of the Museum, which was suffering from pyrite decay in its gut region. The affected section has now been detached and removed to a buffered environment, and a painted cast has been produced to go in its place.

Ms Howlett has also spent much of the year on the new displays: sending specimens away for mounting, checking details for display labels, updating database storage locations and generally ensuring the wellbeing of specimens during this period of upheaval. She worked with Ms Phibbs and Ms Rambukwella on the geology section of the Museum's image database, and with Professor Kennedy, Ms Rambukwella and Mr Hall on an exhibition of images from the Buckland archives to coincide with the Palaeontological Association meeting. She documented and dismantled the Stanton Harcourt and Oxfordshire Building Stones displays on the upper east gallery, to make way for the new plant displays, and has recently completed a condition survey of all the British Cretaceous material stored in the Hambidge Room. She also gave a tour of Geological Collections to staff from the Earth Sciences Library of the Natural History Museum, London.

Mrs Irving has completed the registration of American Carboniferous plants. In the process she has determined, by comparison of lithologies, the bringing together of parts and counterparts from other parts of the collection, and other detective work, that over half of those stated to be from Mazon Creek, Illinois are actually from Lancashire. She has also half-completed the registration of foreign, mainly Gondwanan, Permian plants. This has been complicated by wrongly-registered material that has since been re-registered as Triassic, Jurassic or Cretaceous, and correctly-registered material belonging to the Jurassic and Cretaceous which had been incorrectly located amongst Permian specimens, as well as unregistered material with very little, if any, information. Her conservation work has involved the ongoing maintenance and correct storage of pyritic and other vulnerable specimens, and associated RH / temperature environmental monitoring.

Mr Ashington catalogued nearly 6,000 specimens, including Jurassic and Cretaceous material from early North Sea core samples and Pleistocene material from Aldabra Atoll, as well as a large collection from the Cretaceous of south India, presented by A.S. Gale. He took part in a half-term educational activity on the subject of 'Myth and Magic', assisting educational staff in discussing the history of museum artefacts and specimens with visitors. He collaborated with Ms Howlett in the construction of a display of material associated with Mary Anning, and with Mr Francis in the design and running of a 'Victorian' photographic studio, both of which formed part of the Museum's 'Victorian Welcome' in April. He was also responsible for screenings of *Gertie the Dinosaur* (1914) and the silent version of *Twenty Thousand Leagues under the Sea* (1916) at the 'Festival of Light 2006'.

Mr Francis has continued his work on the Palaeozoic collections, and has managed to catalogue some 2,700 specimens. He has now completed the cataloguing of the main Devonian collections, and has made a good start on the Carboniferous. Since January he has also been working one day a week with Dr Siveter, on the material from the Herefordshire Lagerstätte. He has split several hundred nodules, notable finds from which have included a new arthropod, a trilobite, and a pycnogonid, all with soft part morphology preserved, and has added numbers to some 1,500 specimens. Other contributions to the Museum have included helping with the Annual Conference of the Palaeontological Association, with the 'Victorian Welcome' event, and with the movement of material to Nuneham Courtenay.

Mr Powell has continued, as an Honorary Associate Curator, to answer enquiries on building stones, which this year have included sources of stone for the new Pitt Rivers extension, and to curate parts of the Jurassic collections. He finally completed his proof-reading of the Jurassic database, allowing it to be released online in January 2006. His book, *The geology of Oxfordshire* was published in November 2005, and was very well received.

Mr Clasby has continued his work on the Tertiary collections, transcribing old labels and adding curatorial comments to aid future cataloguing.

Mineralogical Collections

The curator continued his petrological research, with a particular focus this year on the Mount Everest collection of Lawrence Wager. This has involved visits from Professor Richard Law (Virginia Tech), and a short but fruitful programme of mineral analysis on selected samples. These culminated in a well-received presentation of results at the 21st International Himalaya-Karakoram-Tibet Workshop on March 29th 2006 in Cambridge, entitled *Metamorphic Evolution of the Upper Parts of the Greater Himalayan Slab, Everest Area, from the 1933 Sample Collection of L R Wager*. Another landmark was the completion of a paper with former D Phil student Clare Warren, extending the pressure-temperature modelling of high-pressure mineral assemblages into new bulk compositions.

Dr Waters has also been dealing with the consequences of the loss of the Optics Laboratory in the Department of Earth Sciences, and of the eventual transfer of teaching materials to the planned new departmental building. Among other things, this has involved: re-housing and making an inventory of optical and petrological equipment, mainly microscopes and accessories dating from the 1940s to the 1970s; and making a catalogue of historical petrology teaching collections from Wager onwards, including thin sections, hand specimens, class handouts and other documentation.

Miss Price completed her term as a member of the British Geological Survey Collections Advisory Committee in May, having attending meetings in Keyworth and Edinburgh this year. She attended the AGM of the Russell Society in April and a Geological Curators' Group meeting on dangerous minerals in May. Towards the end of the year, she was commissioned by the Quintet Group to write a 'Sourcebook of Decorative Stone' which will be illustrated by many specimens from the Corsi and decorative rocks collections. Mr Walsh gave two papers at the *Third International Symposium on Mineral Diversity - Research and Preservation* held at the Earth and Man National Museum, Sofia, Bulgaria in October, and he attended the conference fieldtrip.

Routine curatorial work has continued through the year. New acquisitions have been catalogued and samples of the Peel collection and other recently acquired minerals were placed on display in the upper gallery. Identities were checked for all gemstones in the Peel Collection, and they were accessioned, photographed, and placed on display in a new temporary exhibition in time for the January opening of new exhibitions in the Court. An audit of registered mineral specimens housed in the teaching laboratories of the Department of Earth Sciences was carried out. Specimens were retrieved, photographed, condition reports prepared and catalogue records upgraded. Further batches of specimens from the Mineral Collection at the University of Reading were transferred to the Museum, unpacked and given a preliminary cleaning and evaluation. Miss Price attended the Oxford Mineral and Gem Shows in March and July, buying a small number of specimens, and further specimens were purchased by Mr Walsh at the Munich Mineral Show in October and the Sussex Mineral Show in November.

Professor Vincent has continued to catalogue the Collection archives, working mainly on papers relating to the meteorite collection. Miss Price has begun a major upgrade of the documentation and storage of the meteorites, revising the electronic catalogue, photographing and preparing condition reports, and beginning the transfer to new conservation-grade storage. Miss Phipps has updated the electronic database with details from Grady's *Catalogue of Meteorites* in the Natural History Museum.

Miss Price coordinated with Mr Hall the purchase of a new telemetric environmental monitoring system for the Museum, which will allow individual collections easier access to and analysis of temperature and humidity data in their collections areas. Automatic monitoring of light levels has been introduced into Court areas. As part of the long-term conservation of vulnerable minerals in the collections, Mrs Irving has prepared condition reports, including digital photography and the identification of associated species, for pyritic and related specimens requiring oxygen-free storage. She has continued the maintenance and correct storage of previously ammonia-treated pyritic and other vulnerable specimens, and associated environmental monitoring.

Mrs Cooke has continued her research for a publication on the Corsi Collection catalogue and is actively seeking a publisher for her research and translation. She attended a meeting of the *Association for the Study of Marble and Other Stones in Antiquity* at Maison Méditerranéenne des Sciences de l'Homme, Aix-en Provence where she gave a paper entitled 'The patrimonial use and re-use of stone at Chatsworth House by successive dukes of Devonshire'. Lack of working and storage space has limited the amount of curatorial work that can be done on other petrological collections at present. Mr Ted Smith has continued to sort, clean, label and check locality data for historic rocks, working mainly on the W.A.B. Coolidge collection of Alpine rocks. Mr Oliver White completed the numbering of several thousand Daubeny specimens in the summer of 2005, and returned in June 2006 to progress the electronic cataloguing of the collection. Mrs Irving attended a GCG workshop on the Curation and Conservation of Rock Collections at the National Museum of Wales, Cardiff in June.

Laura Cotton, a first year undergraduate in Earth Sciences at Oxford has assisted with curatorial and outreach activities on a regular basis through the year under the joint museums volunteer programme, working mainly on the documentation and reidentification of mis-identified minerals. Larisa Vircavs spent half of a two week work experience placement in Mineral Collections, imaging decorative stones. Other work experience volunteers Laura Pinker and James White each spent just a day or two assisting in Mineral Collections. We would like to thank all the volunteers who have assisted with Collections work during the past year.

Zoological Collections

We are very sad to report the death in 2005 of Angelo DiMauro, Honorary Research Associate, who spent many summers since 1974 visiting the Zoological Collections to work on the dry crustacean collections.

The Curator was on sabbatical leave for Michaelmas and Hilary terms.

Most of the Invertebrate Section's time before Christmas was taken up with finishing the Invertebrate displays. Material for this was gathered during fieldwork in Panama and Fiji, as well as several UK locations. This was supplemented by a variety of purchased and donated material from as far away as Antarctica and Brazil. As expected, the final push to complete the displays was rather hectic, and staff put in a considerable effort to finish the displays on time. When it came to mounting the wet material, the team was supported by Simon Moore and Jon Shrives. Unfortunately, the wet display cells are proving to be rather troublesome and are presently being monitored.

Since Christmas work in the Section has returned to core curation activities with the mollusc holdings and the wet collections once again being the prime focus of the work, as well as accessioning the accumulated backlog of recent donations. A considerable body of work has been achieved in the historical wet collection, with the majority of storage solutions being checked and upgraded, specimens cleaned and where necessary rehoused in more appropriate conditions.

To alleviate external grant pressure, Ms Conyers was seconded to the Vertebrate Section to assist with the completion of the PRISM funded Human Remains for three months at the beginning of the year.

The Section also hosted and co-organised a Fluid Conservation Course (3-6 April 2006) taught by Simon Moore. There were twelve participants from UK museums and two delegates from the National Museum of Australia, Canberra.

Mr John Davies continued his work on the mollusc collections, and visited the Vienna Naturhistorisches Museum.

The team was strengthened at the end of the year by the temporary employment of Ms Rachel Hale, who has made considerable progress on the curation of the large Antarctic collection, acquired in 2005.

Mrs Nowak-Kemp continued her archival research of the human material. She has worked with colleagues in other Oxford University museums and the Natural History Museum in London and was given permission to transfer the Rolleston Archives on a four-year loan from the Ashmolean Museum to the Zoological Collections.

In October she finished the curation and conservation of the collection of human skulls, pathological collections, and the other post-cranial material. Work has started on the Human Remains database and about 50% of the specimens have been entered so far.

Considerable progress has been achieved in the reptilian spirit collections with the help of a volunteer Mrs Sue Benenson working on the conservation of lizards, and in the reorganization

and curation of the dry ichthyological material with help given by Mrs Joanna Gilmour. Mr Simon Moore spent 3 days working on spirit specimens most in need of his specialist skills. In the course of this, a probably 17th century Ashmolean specimen of a snake in its original bottle has come to light. Work has been started on listing the osteological material of Amphibia and Reptilia stored in the Tank Room. At the same time all our holdings of spirit-preserved Ophidia, and dry Bell/Hope Chelonia have been listed and are in the process of being entered into a new Reptilia database.

Another new database has been established to build on the work done in the ichthyology collection and so far 171 specimens of fish have been entered. This year for the first time the most thorough examination of every bird skin specimen was introduced in an extended anti-Anthrenus programme; 18 specimens were found to show some signs of pest activity.

In October Mrs Nowak-Kemp attended a meeting held at the headquarters of the Wellcome Trust in London, to discuss the developments in Human Remains policy, and in March the meeting of the Bird Curators – Britain and Ireland (BBCBI) held in the University Museum of Zoology in Cambridge. She has also visited the Christ Church and the Ashmolean Museum archives.

Mrs Nowak-Kemp organized six practical classes, with 18 individual sessions, in the Zoological Collections laboratory. These include both Oxford Brookes and Oxford Universities:

1st year Archaeology/Anthropology
2nd year Archaeology/Anthropology
Zooarchaeology
Mammal Evolution – part 1
Mammal Evolution – part 2
Primates and Primates Conservation – Brookes University

Altogether over 150 students used the Zoological Collections specimens and facilities in the course of their practical classes.

We are, as in the previous year, very grateful to all the people who have volunteered their time to work on the curation and conservation of various parts of the vertebrate collections.

The Hope and Arkell Libraries

New books and journals were catalogued on to OLIS and the retrospective cataloguing continued with substantial monographs found among the entomology 'offprints' collection being added to the database.

The manuscripts of H.W Miles and J.V. Dacie (entomologists) and Ernest Westlake and Professor J.A. Douglas (geologists) were cleaned, sorted and put into new folders in archival storage boxes and a catalogue made of each collection. Work commenced on the papers of C.J. Bayzand (geologist).
The Phillips' papers catalogue has been rekeyed as a *Word* file.

Many entomology offprints have been added to the collection. These were selected from surplus stock at the Natural History Museum and from Classeys. Both categories have been acquired via Mr Darren Mann and these additions will continue.
Further geology offprint collections have been acquired from Earth Sciences Department and from Keele University, a gift of Dr Philip D. Lane.
Professor H.S. Torrens donated some of his research notes to the Museum. More files are to follow. This material has been housed in the upper Phillips Room, and has not yet been catalogued.

The Museum's projects for the Andrew Mellon Foundation-funded Oxford Digital Library (ODL): *Key 17th to early 19th century geological literature related to the collections of the Oxford University Museum of Natural History and the early development of the English School of Geology* and *Key 19th century entomological literature related to the Hope Entomological Collections of the Oxford University Museum of Natural History, and the early development of entomology as an academic subject, with special reference to J.O Westwood, 1805-1893* were completed last year (2004-05) but have not so far been officially launched by OULS. Before that happens some corrections to indexes need to be made by the ODL team.

A substantial amount of entomology periodical literature has been sent for binding. (In recent years most of the entomology binding budget had been spent on new boxes for the offprints.)
A book move was almost completed, to free space downstairs in the Hope Library by moving more material upstairs.
As usual the normal day-to-day management of the library and reader services have also occupied a significant proportion of each week.

The Librarian put out a display of geology manuscripts for guests of Dr Derek Siveter on 6 April and hosted, with Ms Eliza Howlett, a visit by librarians from the Natural History Museum libraries on 10 March.
The Librarian attended the annual Oxford Librarians' conference on 16 March, and continued her membership the Entomology Libraries and Information Network (ELIN) and the History of Geology Group (HOGG). She continued chairing the Cataloguing of Electronic Resources Special Interest Group (ERSIG) until resigning in June.
Courses for the new OLIS (VTLS *Virtua*) were attended during July.

Mr Rennison Hall reports that he has continued with the conservation of the Museum's archives, mainly the large illustrations and lecture diagrams of William Buckland and John Phillips and some other paper-based materials.
Several damaged books from the Museum's libraries were repaired.
Ms Susan Goodfellow, who is a painting conservator, worked part-time as a volunteer in the Conservation Studio as his assistant and under his supervision to learn the skills and techniques of paper conservation.
Photographic services were carried out for all the Museum departments, producing both digital and film images.
He has acted as exhibition co-ordinator for internal and visiting temporary exhibitions of pictures in the upper gallery. He has also organized, with Ms Joy Todd, an exhibition of artwork done by members of staff from both the University Museum and Pitt Rivers Museum. This included mounting, labelling and displaying works.
The environmental monitoring continues in the Museum's display and storage areas and at the off-site store at Nuneham Courtenay.
He has continued to carry out COSHH assessments for the chemicals used in the Conservation Studio and is Deputy Chemical Officer for the Museum.

Environmental Archaeology Unit

A second season of excavation was undertaken in the garden of the House of the Greek Epigrams at Pompeii. One of the more important discoveries was evidence that the garden had been bedded out on a regular grid with herbaceous perennial plants. It is the first example of this aspect of Roman gardening to be found. More of the settlement buried beneath ash from a prehistoric eruption which was discovered last year was exposed by excavating below the bottom of a Roman quarry pit.

A visit was made to Herculaneum to advise on the archaeological potential of a Roman sewer which had been opened up during the conservation work. This lead to a contribution on the sewer contents to the television programme *Pompeii Live!*

First year practical classes and third year archaeological science option classes for the degrees of Archaeology and Anthropology and of Classical Archaeology and Ancient History were given in the Museum, making use of the collections. Four students gained additional experience in environmental archaeology by working as assistants in the Unit.

Henry Wellcome Ancient Biomolecules Centre

The Museum continues to play an important role in ongoing research at the Ancient Biomolecules Centre (ABC). The majority of experimental research taking place in the museum has been under the direction of Mr Greger Larson, whose research into the molecular and evolutionary process of domestication in pigs continues to receive international attention. Results of this research have been presented at two international conferences during the last year, as well as resulting in several high-profile publications. This work is ongoing, and promises to shed light both into the patterns and processes of pig domestication in particular, and to how domestication in general affects the genetic diversity of the domesticate populations.

Pigs, however, were not the only focus of research in the ABC over the last year. Dr Jaoo Weinstock, who recently left the ABC for a positioning Copenhagen, led a large-scale project investigating the evolution, systematics and phylogeography of Pleistocene horses, which received widespread attention from the international media. Dr Beth Shapiro continues her work on ancient bison populations, extending previous reports to explicitly incorporate demographic history, in the effort to distinguish between the role of humans and environmental change in the end-Pleistocene mass extinctions. A new project, in collaboration with museums in Ekaterinburgh and St Petersburg, has also begun, investigating the taxonomic and population history of bison from the Urals range. This project will hope to extend the analysis of bison to include ancient and modern European populations. In other research, Dr Shapiro has been looking into possible causes of the Plague of Athens, specifically addressing previous claims that DNA evidence implicated typhoid fever: a claim that she shows is not justified by the current data. DNA from dirt has been another major focus in the ABC this year, with Mr James Haile working to isolate DNA from extinct species from various soil environments, for example mammoths from Siberian permafrost, moa from New Zealand, and Neanderthals from cave sites across Europe.

Other research in the ABC has focused on analyzing ancient DNA data itself, with the hope of developing better experimental techniques for isolating the data, as well statistical models for analyzing it. In collaboration with researchers in the US and Canada, Beth Shapiro was involved with the first use of the new Roche 454 sequencing technology, in which 30 million base-pairs of mammoth were produced to create the first extinct metagenome. Additionally, ABC intern Tim Heupink, working with newly-appointed postdoctoral researcher Dr Simon Ho have been investigating how DNA degrades through time after death, and incorporating this information into new phylogenetic models.

Simonyi Professor for the Public Understanding of Science

The Simonyi Professorship has continued to command a high profile in all areas promoting the public understanding of science. Professor Dawkins has addressed a wide variety of audiences including literary festivals in Oxford, Shrewsbury, Salisbury, Dumfries and Galloway, talks at the British Library, Darwin Day at UCL, the Science Festival at The Centre for Life, Newcastle upon Tyne as well as many University and science conferences. In January 2006 Channel 4 showed the two part documentary by Professor Dawkins, *The Root of All Evil,* which had record number of viewers. Numerous radio interviews followed including Radio London, Radio 4, National Public Radio Washington and ABC in Australia. Articles have been published in the major broadsheets including *The Independent, The Guardian, The Glasgow Herald* and journals such as *The Skeptic*. Professor Dawkins has appeared on television including *The Jonathon Dimbleby Show,* and with Robert Winston. This year saw the publication of the 30th Anniversary edition of *The Selfish Gene* and a *Festscrhift* volume edited by Alan Grafen and Mark Ridley: *Richard Dawkins: How A Scientist Changed The Way We Think*. Professor Dawkins won the Shakespeare Prize (Hamburg), and was awarded the Golden Plate Award by the Academy of Achievement in Los Angeles. The annual Charles Simonyi Lecture was given in the Oxford Playhouse by Sir Harry Kroto, Nobel Prize Winner, and, despite the heat and the football World Cup, ticket sales outstripped those of the theatre.

Part III Appendices

Appendix 1: Visitors of the Oxford University Museum of Natural History at 31 July 2006

The Vice-Chancellor J.A. Hood, BE, M.Phil., Ph.D.
Sir John Hanson, KCMG,CBE, MA (Chairman)
The Assessor C.C.C. Andreyev, MA, D.Phil
The Proctors Dr S.J. Goss, MA, D.Phil., S.L. Mapstone, MA, D.Phil
Professor L.R.M. Cocks, OBE, TD, MA, D.Phil., D.Sc., FGS
Professor P.C. England, MA, D.Phil., FRS
Professor A.N. Halliday, B.Sc., Ph.D.
Professor P.H. Harvey, MA, D.Phil., D.Sc., FRS
Professor P.W.H. Holland, MA, Ph.D., D.Sc., FRS
Dr M. O'Hanlon, MA, Ph.D.
Mr B.R. Ward-Perkins, MA
Dr T.D. Wyatt, BA, Ph.D.
Professor W.J. Kennedy, MA, B.Sc., Ph.D., D.Sc., FGS (Secretary)
Dr T.S. Kemp, MA, Ph.D. (in attendance)
Professor D.J. Rogers, MA, D.Phil. (in attendance)
Dr E.C. Seiffert, BA, Ph.D. (in attendance)
Dr D.J. Waters, MA, D.Phil. (in attendance)

Appendix 2: Staff of the University Museum at 31 July 2006

Director: Professor W.J. Kennedy, MA, B.Sc., Ph.D., D.Sc., FGS
Administrator: Ms W. Shepherd, MA (status), B.Sc.
Assistant to the Director: Mr K.L. Walsh, MA, PGCE, FGS

Hope Entomological Collections

Curator: Professor D.J. Rogers, MA, D.Phil.
Assistant Curator: Dr G.C. McGavin, MA (status), B.Sc., D.I.C., Ph.D.

Geological Collections

Curator: Dr E.J. Seiffert, BA, Ph.D.
Assistant Curator: Dr D.J. Siveter, MA (status), B.Sc., Ph.D., FGS; Mr P.A. Jeffery

Mineralogical Collections

Curator: Dr D.J. Waters, MA, D.Phil.

Assistant Curator: Miss M.T. Price, MA (status), B.Sc., M.Sc., AMA

Zoological Collections

Curator: Dr T.S. Kemp, MA, Ph.D.

Assistant Curator: Dr S. De Grave, B.Sc., M.Sc., Ph.D.

Information Technologists

Officer: Ms S. Phibbs, BA
Assistant: Dr R. Painter, BA, M.Sc., D.Phil.
Programme Development Officer (on maternity leave): Ms B. Thomas, B.Sc.

Education Officers

Officer: Mrs J. Stott, BA, PGCE
Secondary School Officer: Ms S. Lloyd, B.Sc., PGCE
Primary School and Family Officer: Mr C. Jarvis, BA, PGCE
Community Officer: Miss S.J. Birch, BA, MA
Volunteers Co-ordinator: Mrs Joy Todd, M.Sc.
Education Assistant: Ms A. Crook, BA

Librarian

Ms S.M. Brecknell, BA, ALA

Environmental Archaeology Unit

Director: Professor M.A. Robinson, MA, Ph.D., FSA

Curatorial Officers

Mr D. Mann, B.Tec.; Mrs M. Nowak-Kemp, B.Sc., M.Sc.

University Support Staff

Mr C. Burras; Ms L. Conyers; Mr R. Hall, NDD, B.Tec.; Ms J. Hay, BA; Ms E.A. Howlett, BN; Mr J. Hogan, B.Sc.; Mrs E.J. Irving, BA, M.Sc.; Mr P. Johnson; Mr W. Richey; Ms Z. Simmons, B.Sc.

Central Services Support Staff

Head Porter: Mr A. Archer

Deputy Porters: Mr S. James, MA; Mr A. Lesnik; Mr D. Torstensson, BA

Administrator's Assistant and Secretary to the Director: Ms K.A. Andrews-Speed

Accounts Clerk: Ms A. Nadin, BA

Data Input Clerks: Mr A. Ashington

Shop Manager: Ms N. Smith, BA

Shop Assistants: Miss S. Silva Catanho; Miss C. Coutinho, BA; Miss H. Donaldson; Mr T. Hambidge; Mr S. Winchester

Cleaners: Mr C. Abinett, Mr G. Coates; Miss D. Hastings

Honorary Associate Curators

Mr M. Ackland
Fr A.E. Bean, MA
Mr P.S. Clasby, BA
Mr J.B. Davies, MA, M.Sc.
Mrs M. Green, D.Phys. Ed.
Mr D. Henshaw
Dr J.W. Ismay, B.Sc., Ph.D.
Mr I. Lansbury, M.Phil
Dr A.C. Pont, MA, D.Sc.
Mr H.P. Powell, MA

Honorary Research Associates

Dr P. Barrett, MA, Ph.D.
Mrs E.M.H. Cooke, MA
Mr J. Cooter, B.Sc.
Dr J. Kathirithamby, B.Sc., Ph.D.
Dr C.A. Norris, MA, D.Phil
Dr M. O'Neill, B.Sc., Ph.D., C.En.
Mr C.A. O'Toole
Mr R. Overall
Professor K.S. Thomson, MA, B.Sc., Ph.D.

Appendix 2: Other staff

The Hope Entomological Collections

We are very grateful to a number of volunteers, Nicola Whiting, Patty Harrison (Oxford Brookes), Julian Thornber (Oxford Brookes), Katherine Drayson (St Hugh's College), Paul Tinsley-Marshall, Alex Noriega (Mansfield College), Esther Miller and Jose Nunez-Mino (Green College) for curatorial assistance.

Students from various Oxfordshire schools have helped as part of their work experience: Arthur King (Cherwell School), David Laithwaite (Wood Green School), Holly Smith (Matthew Arnold School), Thomas Rider (Warriner School, Bloxham), Heather Nichol and Matthew Stott.

Alexander Cinninas conducted a study of Euglossine bees for his undergraduate degree at the University of Brighton.

Geological Collections

Mrs Jeannine Alton (NCUACS), Nick Francis (Leicester University), Alex Liu (University of Oxford), Carina Byles (Peers), James Bedingham (Matthew Arnold), Larisa Vircavs (Gosford Hill School), Thomas Rider (The Warriner School).

Mineralogical Collections

Miss Laura Cotton (University of Oxford), Miss Nina Phipps, Laura Pinker (Marlborough School), Mr Ted Smith, Professor E.A. Vincent, Larisa Vircavs (Gosford Hill School), James White (Cherwell School), and Mr O. White (University College London).

Zoological Collections

Invertebrate collections: Arthur King (Cherwell School), Rachel Hale (Worcester College)
Vertebrate collections: Mrs Sue Benenson, Mrs Jo Gilmour, Robert Davies, Mark McGranaghan (Oxford University), Sarah Jaffe (Brookes), Johan Karlsson (Brookes), Jessica Ashton (Brookes), Nina Porter (Brookes), Fiona Julia Bryce (Brookes), Allisha Ali (Brookes), Karenina Morales (Brookes), Alex Boulton (Brookes), Laurie Thraves (Oxford University).
Work experience students: Lewis Cullen (Banbury School), Justin Dupre-Harbord (European School, Culham), James Bedingham (Matthew Arnold School), Richard Abraham (Magdalen College School, Oxford) and Anna Ockwell (The Royal High School, Bath).

Environmental Archaeology Unit:

Matthew Ginniver (Keble), Ben Harrold (Keble), Isobel Henderson (St Hilda's), Sarah Raine (Keble).

Henry Wellcome Ancient Biomolecules Centre:

Director: Dr B. Shapiro, B.Sc, M.Sc, MA, D.Phil.

J. Hailes, BA, MA;	G. Larson, BA, M.Sc.;
R. Barnett, B.Sc.,	P. Endicott, B.Sc., M.Sc.
K. Oliver, BSc.,	S.Y.W. Ho, BSc, DPhil.

Simonyi Professor of the Public Understanding of Science:

Professor R. Dawkins, MA, D.Sc., FRS, FRSI
Personal Assistant: Ms J. Welsh, B.Sc., M.Sc.
Personal Assistant (on maternity leave): Mrs C. DeBlase-Ballstadt, BA

Appendix 3: Finance

The University's General Board made a grant towards recurrent costs totalling £572,179 with an additional amount of £17,774 from the HR Strategy Fund for the financial year ending 31 July 2006.

In addition we received this year's instalment towards recurrent costs from AHRC amounting to £339,990.

Grants awarded and Donations received

The extremely busy year at the Museum was focused towards meeting our obligations and targets set by the funding, totalling £755,053 received during 2004/2005. Fund raising for additional projects was put on hold while the display and rehousing projects were undertaken.

The Hope Entomological Collections

Professor Rogers received a grant of £40,000 from the Wellcome Trust for his research on the effects of habitat fragmentation on tsetse habitats and trypanosomiasis risk and $100,000 from the FAO under the Pro-Poor Livestock Policy Initiative (PPLPI) to study the environmental correlates of poverty in the Horn of Africa.

Dr Pont has been awarded a Royal Society conference grant to attend the *6th International Congress of Dipterology* in Fukuoka, Japan, September 2006. He also received a SYNTHESYS grant was for a visit to the Museum für Naturkunde, Berlin, in September 2005 to recurate the Anthomyiidae collection and catalogue the types. In addition Dr Pont received grants from the from Percy Sladen Memorial Fund and the British Ecological Society, for fieldwork on the Diptera predators of biting black flies in the Drakensberg Mountains, South Africa, planned for November 2006.

Dr Ismay and Ms B. Schulten jointly received a grant from Musée d'histoire naturelle, Geneva, to study the Diptera of the Rhone Valley and to work on the Swiss Diptera collections.

Dr Kathirathamby received a Leverhulme Trust Research Grant of £186,647 over three years for research into the use of DNA barcoding to unravel host-parasite relationships in Strepsiptera.

Geological Collections

Dr Seiffert's grant from the U.S. National Foundation (co-Principal Investigator with Dr Elwyn Simons of Duke University) for palaeontological research in the later Palaeogene of Egypt continues until the end of 2006.

Dr Siveter was funded £1,000 by the Royal Society for a research visit to Yunnan Province, China, to examine Lower Cambrian invertebrates. His Leverhulme Trust grant (£156,000) on the remarkably preserved Silurian fossils from Herefordshire Lagerstatte continues.

Zoological Collections

Dr Kemp received a Research Grant from St John's College to employ Denise Blagden and Robert Davies on the preparation of therapsid fossils from Zambia.

Dr De Grave received various external travel grants to study the Processidae collection at the National Museum of Ireland (1-3 February 2006), to attend the workshop on Global Assessment of Animal Diversity in Continental Waters (Brussels, 13-16 October 2005), to attend the Third Biodiversity Workshop in Bocas, Panama (1-15 August 2005) and the First AtoL Decapoda Workshop (Washington, 20-29 March 2006).

Environmental Archaeology Unit

Professor Robinson received a grant of £2777 from the Svenska Institutet Rom towards the cost of fieldwork at Pompeii and £229 from the British School at Rome for a site visit to Herculaneum.

Appendix 4: Research Projects

The Hope Entomological Collections

Professor Rogers reported on infectious disease risk mapping using satellite data and modelling the natural distribution and forecasting spread of pathogens with known potential for use as bio-warfare agents to the Software Technology Group/USA. He was co-author of a report on a detecting identifying and monitoring system for managing bluetongue in the UK for the Office of Science and Technology, and a report on the threats of West Nile Virus to the UK for the UK Foresight Programme.

Mr Mann continued his studies on dung beetle and cockroaches and visited the Danum Valley Research Centre in Sabah, for six weeks to carry out research, collection and to supervise a D Phil student (Eleanor Slade) on dung beetle ecosystem function.

Mr Hogan continued his part-time Ph.D. studies on the systematics of ground beetles.

Ms Simmons continued her research on the beetle families Erotylidae and Bornean Endomychidae and began an Oxfordshire vice-county survey of dung beetles.

Mr Cooter undertook field collecting in the Suva Planina, Niš region, Serbia as part of the informal 'Balkan Endogenous Coleoptera' project.

Dr Pont completed research and submitted manuscripts on the Muscidae of the Seychelles, a new species of *Morellia* from the Seychelles, a new Afrotropical genus of Limnophorini (Muscidae), a review of the Muscidae of Madagascar, and a new species of *Fannia* from Madagascar. He continued to work on Armenian *Limnophora* species (Muscidae), a review of the types of Anthomyiidae in the Museum für Naturkunde, Berlin, the Muscidae of the Fiji Islands, a review of the hunter-flies (Muscidae, genus *Coenosia*) of Spain, two new Muscidae from Kenya, and Muscidae for the *Diptera Stelviana* project. In connection with these projects, he made brief self-financed visits to the Museums of Copenhagen and Lund. Dr Pont also made two visits to Almeria, Spain, to survey predaceous Muscidae and their potential role in biocontrol programmes. Both visits were funded by the Centro de Investigación y Formación Agraria de Almería, Spain.

Dr Ismay continues his collaborative research on Palaearctic, Australian and African Chloropidae as well as the surveys of Diptera in Burnham Beeches NNR. Dr Ismay contributed to the study of insects associated with dead wood at Epping Forest, identifying the Diptera. A revision of the Chloropidae of Madagascar has continued in collaboration with Ms B. Schulten, Dr F. Menzel (Deutsches Entomologisches Institut) and Dr M. von Tschirnhaus (University of Bielefeld); this study is expected to reveal many species new to Science due to the high level of endemism in Madagascar. Dr Ismay contributed to a study of the distribution of invertebrates in reed beds, which was funded by RSPB. Dr Ismay has continued final editing of his Species Account of Acalyptrate Diptera for the Joint Nature Conservation Committee.

Mr Henshaw continued his studies of the Diptera of Epping Forest in conjunction with the City of London Corporation work on Diptera specimens received from worldwide sources, and include Canada, Egypt, Malaysia, Japan, South Korea, China and France.

Mr O'Toole continued with the identification of bees from long-term pollination studies of the native flora in Israel and Palestine.

Geological Collections

Dr Seiffert spent a month, in October and November of 2005, collecting late Eocene and early Oligocene vertebrate fossils in Egypt's Fayum Depression. This project continues to provide important new fossil evidence for early anthropoid evolution, and work is underway on a description of the most primitive fossil anthropoids from Africa, a recently discovered cranium of the early Oligocene genus *Aegyptopithecus*, and a number of other extinct mammals. Dr Seiffert is also working on a detailed analysis of relationships among living and extinct placental mammalian orders, taking into account both molecular and morphological data, with an emphasis on the endemic African group Afrotheria. Over the course of the past year this research required visits to the Natural History Museum, Stony Brook University, Duke University, Université Montpellier, the Geiseltalmuseum (Halle), and the Musée National d'Histoire Naturelle.

Dr Siveter continued to research the Silurian fossils of the Herefordshire Konservat-Lagerstätte from the Welsh Borderland. Publications during 2005-06 on this exceptional preservation horizon concerned species of Brachiopoda (in *Nature*) and Gastropoda, two phyla that have not previously featured in any paper on the biota from this Lagerstätte. This Leverhulme Trust funded research is being carried out with Postdoctoral Research Associate Dr Kate Saunders (Oxford) and colleagues from the universities of Leicester, London (Imperial College) and Yale. Dr Siveter's work on the Lower Cambrian biota of the Chengjiang Lagerstätte, China, funded by the Royal Society and in collaboration with colleagues from Kunming, Leicester and Stockholm, also continues. Fieldwork was undertaken in the Welsh Borderland and Yunnan province in connection with both these research projects. A paper was finished on Silurian non-trilobite arthropods of the UK for the Joint Nature Conservation Review Series.

Mr Jeffery has continued his work on pholadid bivalves in terrestrial amber from the Miocene of Mexico. This has thrown-up some knotty taxonomic issues, partly due to the unique preservational mode, which calls into question our current understanding of the fossil record of this group. He has obtained material for analysis from the Museum's controversial Purbeck ichthyosaur, and is preparing a contribution to a forthcoming paper detailing its likely age and provenance, as indicated by this analysis. He has also documented nearly 250 taxa of late Eocene Mollusca for a proposed monograph series.

Professor Kennedy, with his colleagues in other universities, completed final drafts of manuscripts on: *Baculites labyrinthicus* (Morton, 1834); ammonites at the Cenomanian-Turonian boundary in the Sergipe Basin, Brazil; Coniacian ammonites from James Ross island, Antarctica; ammonites and inoceramid bivalves from the Davutlar Formation of the Devrekani-Kastamonu area, northern Turkey; bivalve-ammonite associations from the Santonian of KwaZulu, South Africa; the ammonite family Pachydiscidae Spath, 1922 from KwaZulu and Natal, South Africa; and Campanian ammonites from the Bottrop Formation of western Münsterland, Germany. Other current projects include preparation of a proposal for a Global Boundary Stratotype Section and Point for the base of the Albian; describing the candidate GSSPs for the bases of the Santonian and Campanian; and stratigraphic studies of the Albian of the Vocontian Basin (SE France) and Hainault, Belgium.

Mineralogical Collections

Dr Waters continued his collaborative research with Dr M.P. Searle and others on the metamorphism and tectonics of the Himalayan chain.

Miss Price and Mrs Cooke continued research on the Corsi collection and catalogue.

Zoological Collections

Dr Kemp was awarded sabbatical leave for Michaelmas and Hilary Terms, which he spent in Oxford writing up his work on the evolution of endothermy and of hearing in mammals, and on the palaeobiology and processes of major evolutionary transitions for publication.

Dr De Grave continues his research into taxonomy and phylogeny of caridean shrimps, as well as archival research into our mollusc and crustacean holdings. Other current strands of research includes tropical polychaete ecology.

Mrs Nowak-Kemp continued her research into the history of comparative anatomy and human remains in Oxford University.

Environmental Archaeology Unit

Professor Robinson began a major project to review the environmental archaeology of the Middle and Upper Thames as part of a programme with Oxford Archaeology to publish a series of volumes on the archaeology of the regions. Various projects were completed for English Heritage, including the analysis of submerged peat deposits from a Mesolithic settlement off the coast of the Isle of Wight.

A preliminary analysis has been undertaken and a report prepared for publication on the environmental archaeology of the garden of the House of the Greek Epigrams at Pompeii. The study of the prehistoric archaeology has been widened to include the analysis of tephera interstratified with the archaeological layers.

Appendix 5: New Acquisitions

The Hope Entomological Collections

In total there were 40 donations of some 30,000 specimens. In addition to many small donations, major acquisitions include the entire collection of Lepidoptera amassed J.V. Dacie presented by the Dacie family. The collection, comprising 14,000 butterflies with emphasis on the Middle East, South Africa, Southern Europe, North America, India and the UK, includes associated collecting notebooks and diaries.
Eleanor Slade presented 8,000 Coleoptera from Sabah, Borneo collected for her D.Phil. studies.
Mr Mann donated 2,000 insects from Tunisia and 1,000 British Scarabaeoidea.

Ray Gabriel presented 1,500 specimens including an arranged collection of British Hymenoptera.
Zoe Simmons, Mr Mann and Caroli Hamel donated 1,000 specimens collected in Bolivia and Ms Simmons gave a further 1,000 specimens, predominantly Coleoptera collected in Florida, Alabama and Tennessee.
Mr Ackland donated 132 specimens of British Anthomyiidae representing ten species and Mr Hogan donated 123 insect specimens from Provence.

One holotype and ten paratypes were deposited in the Collections:
Gaiger, S.F. OUMNH-2006-002 Curculionidae. Female paratype of *Arniticus albosignatus* Gaiger.
Cooter, J. OUMNH-2005-056 Carabidae. Paratype of *Orthomus tazekensis* ssp. *riffensis* Wrase & Jeanne; paratype of *Straneostichus vignai* ssp. *violaceus* Sciaky & Wrase; paratype of *Aristochroa militaris* Sciaky & Wrase.
Cooter, J. OUMNH-2004-042 Leiodidae. Paratype of *Liodopria wallacei* Angelini & Cooter; paratype of *Liodopria sulawesei* Angelini & Cooter; 2 paratypes of *Creagophorus angelinii* Cooter & Švec; 2 paratypes of *Zeadolopus similis* Cooter & Švec; paratype of *Leiodes graefi* Švec.
Gibbs, D. OUMNH-2005-006 Holotype of *Agromyza audcenti* Gibbs, 2004

Geological Collections

By purchase
Spatangopsis costata, Cambrian, Sweden
Acadoparadoxides, Cambrian, Morocco
Cambropallas telesto, Cambrian, Morocco
Camptostoma roddyi, Cambrian, Pennsylvania
Chancelloria eros, Cambrian, Utah
Ottoia, Cambrian, Utah
Selkirkia willoughbyi, Cambrian, Utah
Elrathia kingii, Cambrian, Utah
Peronopsis interstricta, Cambrian, Utah
Gogia spiralis, Cambrian, Utah
Margaretia dorus, Cambrian, Utah
Eodalmanitina, Ordovician, Portugal
Holocystites scutellatus, Silurian, Indiana
Caryocrinites ornatus, Silurian, New York
Scyphocrinites elegans, Devonian, Morocco
Essexella asherae, Carboniferous, Illinois
Didontogaster cordylina, Carboniferous, Illinois
Esconites zelus, Carboniferous, Illinois
Euphorberia anguilla, Carboniferous, Illinois
Acanthotelson stimpsoni, Carboniferous, Illinois
Achistrum, Carboniferous, Illinois
Archaeocidaris brownwoodensis, Carboniferous, Texas
Mazoglossus ramsdelli, Carboniferous, Illinois
Piestochilus culbertsoni, Cretaceous, South Dakota
Various ammonites, Cretaceous, South Dakota
Dinictis felina, cast of skull, Oligocene, South Dakota

Dinictis squalidens, casts of skulls, Oligocene, South Dakota
Leptomeryx evansi, cast of skeleton, Oligocene, South Dakota
Mesohippus, cast of skull, Oligocene, South Dakota
Mesohippus, cast of foot, Oligocene, South Dakota
Mesohippus, fragment of lower jaw, Oligocene, South Dakota
Perchoerus, skull and lower jaw, Oligocene, South Dakota
Metulatheca, Miocene, California
Spondylus princeps, Recent, Mexico
Nautilus pompilius, Recent, Phillipines
Various palaeoliths, Dordogne, France

By donation
Stromatolite, Precambrian, Zimbabwe (Mr K.L. Walsh)
Stromatolite, Carboniferous, Wales; *Trypanites* borings in Carboniferous Limestone, Jurassic, Somerset; dinosaur vertebra, Cretaceous, Isle of Wight; fossil wood, Eocene, Isle of Sheppey; bivalves, ammonites, echinoids and trace fossils, Cretaceous, France; *Hippurites*, Cretaceous, Slovenia; trace fossils, Oligocene, Italy; trace fossils, Miocene, Spain; teredinid bivalve borings in wood, Miocene, Malaysia (Professor A.S. Gale)
Ammonites, Cretaceous, Kazakhstan (Professor J.M. Hancock)
Ammonites, Cretaceous, Tunisia (Monsieur F. Amédro)
Bones and teeth of *Anacodon ursidens*, *Coryphodon*, *Hyracotherium* (Dr E.L. Simons)
? Insect burrows, Oligocene, South Dakota (R.J.B. Rock Shop)
Bison scapula, Pleistocene, Isle of Wight (Mr N.J. Francis)

By bequest
None

By fieldwork
Silurian soft-bodied invertebrates from the Herefordshire Lagerstätte
Jurassic and Cretaceous invertebrates from Oxfordshire
Eocene invertebrates from Barton-on-Sea, Hampshire

Mineralogical Collections

(Minerals marked * are new to the collections)

By donation

Minerals
Ewaldite* from Powys (Dr T. Cotterell)
Samples from magnesite and siderite mines in Austria (Estate of the late Professor J.M. Hancock)
Arsendescloizite* from Cumbria (Dr D. Green)
Kainosite-(Y)* from Argyll (Mr N. Hubbard)
Mereheadite* from Somerset (Professor R. Turner)
Manganocalcite from Bulgaria (Mr K.L. Walsh)
Beryl var. emerald from Colombia, beryl var. aquamarine and tourmaline from Mozambique, and unlocalised beryl (Mr O. White)

Azurite from China (Cao Xiping and Yang Liangfeng of China Geological Museum, and other participants on 'China Business Link' visit)

Decorative rocks
Large polished slabs of Baltic Brown, Balmoral granite (fine grained) and Balmoral granite (coarse grained) from Finland (Mr F. Bernacca, Finska Stenindustri Ab)
Carved bowls of black and white banded dolomite and 'onyx marble' (Dr R.K. Harrison)
Fourteeen slabs of polished or honed stone from England, France, Greece, Italy, Egypt, China, Colombia, Brazil and Australia (Mr I. MacDonald, McMarmilloyd Ltd)
Various decorative items made from ornamental stones including steatite, 'onyx marble', limestone, marble and serpentine (Miss M.T. Price)

By fieldwork
Schists from Argyll and Bute; enargite-luzonite*; hedenbergite; manganese skarns and sulphide minerals; and pegmatites, from Bulgaria (Mr K.L. Walsh)

By purchase
Titanite from Gwynedd; graftonite and holmquistite from Sweden; beryl var heliodor from Norway; halite from Poland; pickeringite from Slovakia; kochsandorite* from Hungary; galena with sphalerite from Bulgaria; rhodochrosite/baryte and anapaite from Ukraine; fuchsite schist, and kyanite from Russia; fluorite, and prehnite from China; plancheite from the Democratic Republic of Congo; quartz var. tiger's eye from South Africa; stokesite from Brazil; quartz var. tigeriron from Australia.

By Transfer
Moldavites (Museum Shop)
Wooden box containing Mohs scale minerals (Pitt Rivers Museum)
Westphal balance; alabaster sphere (Department of Earth Sciences)
Further sections of the former Accrington Museum and other reserve mineral collections (from the University of Reading)

Zoological Collections

In addition to several smaller donations, major donations include:
Decapoda from Panama and Fiji.
Decapoda from UK waters, including cited material (Mr C. Ashelby, Unicomarine Ltd.)
Caridean shrimps from Honduras (Mr C. Taylor, New College)
Decapoda and Stomatopoda from Qatar (Mr C. Ashelby, Unicomarine Ltd.)
Caridean shrimps from Sulawesi (Dr R. Unsworth, University of Essex)

An updated Database of information and photographs of all *Thylacinus cynocephalus* specimens in public and private collections worldwide, collated and donated by Dr Stephen Sleightholme, with a film of various animals including the Tasmanian Tiger kept in Bronx Zoo in 1918.
Eretmochelys imbricata (Hawksbill) carapace from Mr Gulliver.
An armadillo skin made into a basket, and an ostrich egg from Mrs Kibblewhite.

Two hatchlings of *Chelonia mydas*, skin of *Crotophaga ani* (Parrot-billed Blackbird), *Hyphantornis nigriceps* (Weaver bird) and a shark's egg-case - all transferred from the Hope Entomological Collections.
Photographs of Truganinini and a 19th century display cases of human skulls - donated by Dr MacGregor.
Collection of Palaearctic eggs presented by Mr Upham.
Cranium and mandible of *Equus caballus* (Horse), *Hippopotamus amphibius*, cranium of *Ovibos moschatus* (Musk Ox) and other bones transferred from the Geological Collections.

The Hope and Arkell Libraries

Library accessions, by purchase and donation, totalled: 259 books, 1440 pamphlets, 50 periodical volumes, and 432 periodical parts. There are 115 current journal titles. This brings the total number of bibliographic items (*i.e.* titles) in the libraries to 13,050, excluding offprints.

The following were significant donations made to the library during the course of the year:

Barnard, J.L. and Karaman, G.S. (1991) The families and genera of marine gammaridean Amphipoda (except marine gammaroids). Part 1. (*Records of the Australian Museum*, suppl. **13**, pt.1). Australian Museum, Sydney, NSW. (from Dr S. De Grave)

Chey, V.K. (1996). *Forest pest insects in Sabah*. Forest Pest Department, Sandakan.
(from Mr D. Mann)

Dipterologica bohemslovaca, v. 12, edited by P. Bitušik (2004). (*Acta Facultatis Ecologiae*, **12**, suppl. 1). Technical University of Zvolen, Slovakia. (from Dr A. Pont)

Dunkle, S.W. (2000) *Dragonflies through binoculars: a field guide to dragonflies of North America.* Oxford University Press, New York. (from Mr J. Hogan)

Grassé, P.-P. (1948-) *Traité de zoologie*. Masson, Paris (certain volumes only)
(from the Dept. of Experimental Psychology)

Hart, C.W., Jr. and Clark, J. (1989). *An interdiscplinary bibliography of freshwater crayfishes* ... Smithsonian Institution Press, Washington, D.C. (from Dr S. De Grave)

Lyneborg, L. and Barkemeyer, W. (2005). The genus *Syritta* Le Peletier and Serville, 1828 (Diptera: Syrphidae) (*Entomonograph*, v. **15**). Apollo Books, Denmark. (from Dr A. Pont)

Miller, J.Y. (1992). *The common names of North American butterflies*. Smithsonian Institution Press, Washington, D.C. (from Mr J. Hogan)

Oosterbroek, P. (2005) *De Europese families van muggen en vliegen (Diptera)*. KNNV Uitgeverij, Utrecht. (from Dr A. Pont)

Zoology in the Middle East, **37** (2006) and suppl. 14 (2006)

Appendix 6: Loans

The Hope Entomological Collections

A total of 86 loans were issued during the year to researchers worldwide. The loans comprised 10,176 specimens of which 179 were arachnids (50 types) and 9,997 were insects (265 types).

Geological Collections

14 loans were sent out, to researchers in the UK, Bulgaria and Canada. A total of 245 specimens were sent, including Precambrian and Cambrian trace fossils; various Ediacaran specimens; two cranial bones of *Eustreptospondylus*; rib and scapula fragments of the Red Lady of Paviland, recently discovered amongst the lithic material; plus large numbers of Upper Cretaceous brachiopods.

Mineralogical Collections

Regular use was made of material from Stanton and South African collections in a taught undergraduate course given by Professor Laurence Robb and Dr Waters (Earth Resources 2: Ore-forming processes). There were 14 loans of minerals and meteorites administered in the past year, supplying a total of 80 specimens for purposes including research, University tutorials, and educational activities. Ten samples were supplied for destructive research.

Zoological Collections

A total of 22 Invertebrate loans were made.

Vertebrate Collections issued 13 loans consisting of 84 specimens. In connection with the 350th anniversary celebrations of the publication of the Museum Tradescantianum catalogue, a number of Tradescant specimens were loaned for displays in the Lambeth Museum in London, and in the Oxford University's Museum of the History of Science.

Additionally, a large number of specimens were made available for the practical classes taking place in the Zoological Collections. They included specimens from the Human Remains Collection, the primate, palaeontological, domestic animals, and various other osteological collections.

As last year, the vertebrate collections continued to offer the specialised service of extraction of samples for DNA testing for researchers not being able to visit Oxford in person. We received requests from seven individuals for 17 specimens to be sampled, and of particular interest is the fact that for the first time specimens preserved in alcohol were in demand.

Appendix 7: Enquiry and Identification Services

The Hope Entomological Collections

Staff and Honorary Associate Curators have, as usual, provided Oxford staff and students as well as amateur and professional entomologists around the world with identifications. Dr McGavin continued to provide pest advice for various Oxford libraries and museums and advised the South Oxfordshire District Council on a long running problem with nuisance flies in Crowmarsh Gifford. There were 218 enquiries from researchers (126 enquiries, 33 of which concerned type material) and members of the public (92 enquiries), requiring an estimated 160 hours of staff time.

Geological Collections

There were 29 specimen identification enquiries, mostly from the general public, and 500 other enquiries, by telephone, by email or by post. Enquiries ranged from Cambrian trilobites from Scotland and Pembrokeshire, to small children with fossil fragments plucked from driveway gravels, to what subsequent study revealed to be a late 13th century or early 14th century horse of such stature and strength that it may once have taken a place in a knight's stable!

Mineralogical Collections

There were 23 requests for identifications from academics and members of the public, a total of 89 specimens. In addition there were 66 non-identification enquiries.

Zoological Collections

The Invertebrate Section dealt with over 500 enquiries this year, whilst in excess of 2,500 specimens were identified for external researchers.

The Vertebrate Collections received 203 enquiries covering topics ranging through the history of individual collectors or collections, individual species and specimens, and requests for information about the vertebrate holdings and their care in museums.

There were 24 vertebrate specimens identified. The majority of them were osteological specimens brought to the Museum by the general public; others were identifications based on photographic images and oral descriptions.

Mrs Nowak-Kemp was also asked to sex and age some human skulls in the Pitt Rivers Museum.

Appendix 8: Official Visitors

The Hope Entomological Collections

149 visits were made to the Collections by entomological researchers, students and artists from the United Kingdom and a number of other countries including China, Belgium, Brazil, France, Germany and Ukraine.

Dr Valery Korneyev from the Schmalhausen Institute of Zoology, National Academy of Sciences of Ukraine, Kiev, Ukraine spent a couple of days looking at types and other material of the Tephritoidea (Diptera).

Dr Sally White, director of the Worthing Museum, a descendant of the famous dipterist G. H. Verrall came to see the Verrall-Collin collection and the Verrall-Collin archive, and to talk about Verrall and Collin.

Geological Collections

There were 74 scientific visits, involving researchers from the UK, France, Germany, Belgium, Poland, the USA, and China. There were also 47 other visitors, mostly from the UK. Material examined included Cambrian, Ordovician and Silurian invertebrates; Jurassic and Cretaceous invertebrates; dinosaurs, including *Megalosaurus*, *Eustreptospondylus* and *Cetiosaurus*; Mesozoic pliosaurs, turtles, crocodiles, and mammals; the Red Lady of Paviland; and Kirkdale Cave.

Dr Neda Motchurova-Dekova of the National Museum of Natural History, Sofia, spent a month in Geological Collections, looking at late Cretaceous brachiopods, and working with Professor Kennedy on the identification of a collection of post-Barremian ammonites from Bulgaria in the Sofia collections. She also liaised with Ms Howlett regarding electronic cataloguing of fossil collections.

Mineralogical Collections

There were ten official visitors to the mineral and decorative rock collections. In addition, nine civil servants and senior members of the staff of the China Geological Museum toured the collections on a visit organised by China Business Link. There were several short visits 'behind the scenes' by members of the public wishing to see specific specimens, and an evening visit by a party from the Oxford Mineral and Lapidary Society.

Zoological Collections

A total of 193 visits were made to the Vertebrate Collections by researchers from a number of countries including Japan, Australia, New Zealand, USA, Germany, Italy, and organised group visits, including Chinese scholars, Harvard University students and their teachers, students of Said School MSc course in Biodiversity Conservation and Management, administrators of Oxford University departments, Oxford Isis Rotary Club and a group of University Museum

volunteers. Additionally, not included in this count, were circa 150 students from Oxford and Brookes Universities who took part in practical classes held in the Zoological Collections.

Amongst the researchers, the biggest group was made up of ornithologists, followed by people working on various groups of mammals.

Appendix 9: Statistics of (non-staff) libraries' use

There were 284 visits made to the libraries. These break down as follows: 24 by undergraduates, 28 by postgraduates, 18 by members of OU staff or research fellows, 38 by Honorary Associate Curators/Honorary Research Associates and 176 by visitors; 62 visits involved use of archives. There were 111 recorded queries from remote 'users', some involving an exchange of correspondence or e-mails and making photocopies; of these 53 related to the archives.
(As always staff usage this year accounted for more than half of the total usage and staff made extensive use of archives).

Inter-library loan or photocopy requests for staff and honorary curators made to the British Library, etc., totalled 15, of which 3 were unsuccessful. Loans made by the RSL to the Librarian for staff numbered 19 items.
Loan/photocopy requests by other libraries totalled 47, of which 15 were unfulfilled, either because we didn't have the item or because we do not make loans.

Appendix 10: Publications

The Hope Entomological Collections

Beynon, S.A. and **Mann, D.J.** (2006). *Amara apricaria* (Paykull) (Coleoptera: Carabidae): recent records from Pembrokeshire (VC 45). *Entomologist's Monthly Magazine,* **142**, 83.

Beynon, S.A. and **Mann, D.J.** (2006). *Trechoblemus micros* (Herbst) (Carabidae): first record for Pembrokeshire (VC 45). *The Coleopterist,* 15(1), 48-49.

Bonneton, F., Brunet, F.G., **Kathirithamby, J.** and Laudet, V. (2006). The rapid divergence of the ecdysone receptor is a synapomorphy for Mecopterida that clarifies the Strepsiptera problem. *Insect Molecular Biology,* **15**(3), 351-362.

Carvalho, C.J.B. de, and **Pont, A.C.** (2006). Taxonomy, cladistics and biogeography of the South American genus *Brachygasterina* Macquart (Diptera: Muscidae). *Zootaxa,* **115**, 1-26.

Cooter, J. (2005). Review of *Catalogue of Palaearctic Coleoptera*, volume 2: Hydrophiloidea, Histeroidea and Staphylinoidea. Edited by I.Löbl and A. Smetana. Apollo Books, Stenstrup, Denmark. *Entomologist's Monthly Magazine,* **142**, 63-65.

Cooter, J. and Barclay, M.V.L., (eds) (2006). *A Coleopterist's Handbook*. 4th edition, revised. 493pp + 119 colour plates. The Amateur Entomologist volume 11. Amateur Entomologists' Society, Orpington.

Cooter, J. (2006) Beetle Families, Introduction; Sphaeriusidae; Leiodidae; Silphidae; Scaphidiinae; Clambidae; Byrrhidae; Lampyridae; Derodontidae; Dermestidae; Anobiidae; Cleroidea; Monotomidae; Phalacridae; Byturidae, Biphyllidae, Bothroderidae; Cerylonidae; Alexiidae. *In:* **Cooter, J**. and Barclay, M.V.L., (eds) 2006. *A Coleopterist's Handbook*. 4th edition, revised. 493pp + 119 colour plates. The Amateur Entomologist volume 11. Amateur Entomologists' Society, Orpington, 1-8, 28-34, 37, 40-41, 58, 61-62, 70, 73-80, 82-90, 95-96, pls 107, 108, 113, 114.

Cooter, J. (2006). Collecting Equipment. *In:* **Cooter, J.** and Barclay, M.V.L., (eds) 2006. *A Coleopterist's Handbook*. 4th edition, revised. 493pp + 119 colour plates. The Amateur Entomologist volume 11. Amateur Entomologists' Society, Orpington, 201-213.

Cooter, J. (2006). Collecting – Sample Habitats. *In:* **Cooter, J.** and Barclay, M.V.L., (eds) 2006. *A Coleopterist's Handbook*. 4th edition, revised. 493pp + 119 colour plates. The Amateur Entomologist volume 11. Amateur Entomologists' Society, Orpington, 218-239.

Cooter, J. (2006). Collecting Abroad. *In:* **Cooter, J.** and Barclay, M.V.L., (eds) 2006. *A Coleopterist's Handbook*. 4th edition, revised. 493pp + 119 colour plates. The Amateur Entomologist volume 11. Amateur Entomologists' Society, Orpington, 239-248.

Cooter, J. (2006). Curatorial Work. *In:* **Cooter, J.** and Barclay, M.V.L., (eds) 2006. *A Coleopterist's Handbook*. 4th edition, revised. 493pp + 119 colour plates. The Amateur Entomologist volume 11. Amateur Entomologists' Society, Orpington, 311-346.

Cooter, J. (2006). Examination of coleopterous genitalia. *In:* **Cooter, J.** and Barclay, M.V.L., (eds) 2006. *A Coleopterist's Handbook*. 4th edition, revised. 493pp + 119 colour plates. The Amateur Entomologist volume 11. Amateur Entomologists' Society, Orpington, 353-365.

Cooter, J. and **Mann, D.J.** (2006). Beetles Associated with Ants and Ant Nests. *In:* **Cooter, J.** and Barclay, M.V.L., (eds) 2006. *A Coleopterist's Handbook*. 4th edition, revised. 493pp + 119 colour plates. The Amateur Entomologist volume 11. Amateur Entomologists' Society, Orpington, 248-258.

Engel, M.S. and **Baker, D.B.** (2006). A remarkable new leaf-cutter bee from Thailand (Hymenoptera: Megachilidae). *Beitrage zur Entomologie –Berlin***,** 56(1), 69-74**,** 11 figs.

Finlay B. J., Thomas J.A., **McGavin, G.C**., Fenchel T. and Clarke R.T. (2006). Self-similar patterns of nature: insect diversity at local to global scales. *Proceedings of the Royal Society B,* **173**, 1935-1941.

Gillespie, J., McKenna, C., Gutell, R., Johnston, J.S., **Kathirithamby, J.** and Cognato, A. (2005). Assessing the odd secondary structural properties of nuclear small subunit ribosomal RNA sequences (18S) of the twisted-wing parasites (Insecta: Strepsiptera). *Insect Molecular Biology,* **14**(6), 625-643.

Hay, S.I., Graham, A.J. and **Rogers, D.J.** (eds) (2006). Global Mapping of Infectious Diseases: Methods, examples and emerging applications (with DVD). *Advances in Parasitology,* **62**, 454pp.

Hay, S.I., Tatem, A.J., Graham, A.J., Goetz, S.J. and **Rogers, D.J.** (2006). Global environmental data for mapping infectious disease distribution. *Advances in Parasitology,* **6**, 37-77.

Ismay, J.W. and Schulten, B. (2006). A note on the synonymy of *Gaurax britannicus* Deeming, 1980 (Diptera, Chloropidae). *Dipterist's Digest,* **12**(2), 171.

Kathirithamby, J. and Taylor, S. (2005). A new species of *Halictophagus* (Strepsiptera) from Texas and a check list of Strepsiptera from the USA and Canada. *Zootaxa,* **1056**, 1-18.

Kathirithamby, J. (2005). Further homage to Santa Rosalia: discovery at last of the elusive females of a species of Myrmecolacidae (Strepsiptera: Insecta). *In*: Ridley, M. (ed.) *Narrow Roads of Gene Land.* Collected papers by W. D. Hamilton, Vol. III. Oxford University Press, 117-134.

Kathirithamby, J. (2005). How Wallace and Dampier faced Tsunamis at sea. Correspondence to Editor. *Nature,* **438**, 282.

Kathirithamby, J. (2006). Partial List of Strepsiptera species. Tree of Life Project. http://tolweb.org/notes/?note id=2978.

Kathirithamby, J. and Hughes. D.P. (2005). Descriptions and biological notes of the first species of *Xenos* (Strepsiptera: Stylopidae) parasitic in *Polistes carnifex* F. (Hymenoptera: Vespidae) in Mexico. *Zootaxa,* **1104**, 35-45.

McPherson, J.M., Jetz, W. and **Rogers, D.J.** (2006). Using coarse-grained occurrence data to predict species' distributions at finer resolutions – possibilities and limitations. *Ecological Modelling,* **192**, 499-522.

Mann, D.J. (2006). Cockroaches in the Hope Entomological Collections: The Shelford and Hanitsch legacies. *Cockroach Studies,* **1**, 20-28.

Mann, D.J. (2006). Cockroach culture techniques: A bibliography. *Cockroach Studies,* **1**, 31-37.

Mann, D.J. (2006). The good, the bad and the ugly. *Wildlife News*, May 2006, 10-11.

Mann, D.J. (2006). *Ptilodactyla exotica* Chapin, 1927 (Coleoptera: Ptilodactylidae: Ptilodactylinae) established breeding under glass in Britain, with a brief discussion on the family Ptilodactylidae. *Entomologist's Monthly Magazine,* **142**, 67-79.

Mann, D.J. (2006). Scarabaeoidea. *In:* **Cooter, J.** and Barclay, M.V.L., (eds) 2006. *A Coleopterist's Handbook*. 4th edition, revised. 493pp + 119 colour plates. The Amateur Entomologist volume 11. Amateur Entomologists' Society, Orpington, 47-59.

Mann, D.J. (2006). Ptylodactylidae. *In:* **Cooter, J.** and Barclay, M.V.L., (eds) 2006. *A Coleopterist's Handbook*. 4th edition, revised. 493pp + 119 colour plates. The Amateur Entomologist volume 11. Amateur Entomologists' Society, Orpington, 62.

Merz, B., **Ismay, J.W.**, Schulten, B. and Dely-Draskovits, A. (2005). Neue und selten gesammelte Chloropidae (Diptera) der Schweiz. *Mitteilungen der Entomologischen Gesellschaft Basel,* **55**(3), 74-87.

O'Toole, C. (2006). Obituary: Donald Burton Baker (1922-2004). *Entomologist's Monthly Magazine*, **142**, 177-183.

O'Toole, C. and Steel, J. (2006). *North American Wildflowers for Wildlife*. Osmia Publications, Sileby. 37pp.

Pont, A.C. (2005). The Fanniidae (Diptera) described by O. Ringdahl. *Entomologist's monthly Magazine,* **141**, 201-207.

Pont, A.C. (2005). The genus *Huckettomyia* Pont and Shinonaga, 1970, in North-Western Europe (Diptera, Muscidae). *Studia dipterologica,* **12**, 9-11.

Pont, A.C., Werner, D., and Kachvoryan, E.A. (2005). A preliminary list of the Fanniidae and Muscidae (Diptera) of Armenia. *Zoology in the Middle East,* **36**, 73-86.

Pont, A.C. and Werner, D. (2006). The types of Fanniidae and Muscidae (Diptera) in the Museum für Naturkunde, Humboldt-Universität zu Berlin, Germany. *Mitteilungen des Museum für Naturkunde Berlin, Zoologische Reihe,* **82**, 3-139.

Randolph, S.E. and **Rogers, D.J.** (2006). Tick-borne diseases: mapping geographic and phylogenetic space. *Advances in Parasitology,* **62**, 263-291.

Rogers, D.J. (2006). Models for vectors and vector-borne diseases. *Advances in Parasitology,* **62**, 1-35.

Rogers, D.J., Emwanu, T and Robinson, T.P. (2006). Poverty Mapping in Uganda: an analysis using remotely sensed and other environmental data. *Pro-Poor Livestock Policy Initiative (PPLPI) Working Paper* No. 36. FAO, Rome.

Rogers, D.J. and Randolph, S.E. (2006). Climate change and vector-borne diseases. *Advances in Parasitology,* **62**, 345-381.

Rogers, D.J., Wilson, A.J., Hay, S.I. and Graham, A.J. (2006). The global distribution of yellow fever and dengue. *Advances in Parasitology,* **62**, 181-220.

Schulten, B., **Ismay, J.W.** and **Mann, D.J.** (2005). A new design of flight interception trap. *British Journal of Entomology and Natural History,* **18**, 200-201.

Simmons, Z. (2006). Erotylidae. *In:* **Cooter, J.** and Barclay, M.V.L., (eds) 2006. *A Coleopterist's Handbook*. 4th edition, revised. 493pp + 119 colour plates. The Amateur Entomologist volume 11. Amateur Entomologists' Society, Orpington, 93-94.

Simmons, Z. (2006). Endomychidae. *In:* **Cooter, J.** and Barclay, M.V.L., (eds) 2006. *A Coleopterist's Handbook*. 4th edition, revised. 493pp + 119 colour plates. The Amateur Entomologist volume 11. Amateur Entomologists' Society, Orpington, 96-97.

Tatem, A.J., Hay, S.I. and **Rogers, D.J**. (2006). Global traffic and disease vector dispersal. *Proceedings of the National Academy of Sciences,* **103**, 6242-6247.

Tatem, A.J., **Rogers, D.J**. and Hay, S.I. (2006). Global transport networks and infectious disease spread. *Advances in Parasitology,* **62**, 293-343.

Tatem, A.J., **Rogers, D.J**. and Hay, S.I. (2006). Estimating the malaria risk of African mosquito movement by air travel. *Malaria Journal,* **5**, 57 doi:10.1186/1475-2875-5-57.

Werner, D., **Mann, D. J.**, and **Pont, A.C.** (2006). Notes on predation by Scathophagidae (Diptera) on Simuliidae (Diptera). *Entomologist's monthly Magazine,* **142**, 143-150.

Werner, D., and **Pont, A.C.** (2006). The feeding and reproductive behaviour of the Limnophorini (Diptera: Muscidae). *Studia dipterologica, Supplement,* **14**, 79-114.

Woodcock, B.A. **Mann, D.J.**, Mirieless, C., **McGavin, G.C.** and McDonald, A.W. (2005). Re-creation of a lowland flood-plain meadow: management implications for invertebrate communities. *Journal of Insect Conservation,* **9**(3), 207–218.

Woodcock, B.A., Lawson, C.S., **Mann, D.J.** and McDonald, A.W. (2006). Effects of grazing management on beetle and plant assemblages during the re-creation of a flood-plain meadow *Agriculture, Ecosystems & Environment,* **116**, 225-234.

Geological Collections

Gale, A.S., Bengtson, P. and **Kennedy, W.J.** (2005). Ammonites at the Cenomanian-Turonian boundary in the Sergipe Basin, Brazil. *Bulletin of the Geological Society of Denmark*, **52**, 167-191, 13 figs.

Kaplan, U., **Kennedy, W.J.** and Hiss, M. (2005). Stratigraphie und Ammonitenfauna des Campan im nordwestlischen und zentralen Munsterland. *Geologie und Paläontologie in Westfalen*, **64**, 1-171,12 figs, 65 pls.

Kennedy, W.J. (2006). C.W. Wright: a most professional amateur. *Proceedings of the Geologists' Association*, **117**, 9-40, 11 figs.

Kennedy, W.J. (2006). John Michael (Jake) Hancock (1928-2004): a personal memorandum. *Proceedings of the Geologists' Association*, **117**, 103-122.

Kennedy, W.J. and Gale, A.S. (2006). The Cenomanian Stage. *Proceedings of the Geologists' Association*, 1**17**, 187-205.

Klinger, H.C. and **Kennedy, W.J.** (2005). Observations on *Baculites labyrinthicus* (Morton, 1834) (Cephalopoda: Ammonoidea) from Madagascar. *African Natural History*, **1**, 95-102.

Macdonald, D. and **Seiffert, E.R.** (2006). What is a mammal? *In*: Macdonald, D. (ed.) *The Encyclopedia of Mammals*. Facts on File, New York, xvi-xxx.

Powell, H.P. (2005). *The geology of Oxfordshire*. Dove Cote Press, Stanbridge, Dorset, 108 pp.

Rossie, J.B. and **Seiffert, E.R.** (2006). Continental paleobiogeography as phylogenetic evidence. *In*: Lehman, S. and Fleagle, J.G. (eds) *Primate Biogeography: Progress and Prospects*. Springer, New York, 469-522, 4 figs.

Seiffert, E.R., Simons, E.L., Clyde, W.C., Rossie, J.B., Attia Y., Bown, T.M., Chatrath, P. and Mathison, M. (2005). Basal anthropoids from Egypt and the antiquity of Africa's endemic higher primate radiation. *Science*, **310**, 303-304, 3 figs.

Seiffert, E.R. (2006). Afrosoricida. *In*: Macdonald, D. (ed.) *The Encyclopedia of Mammals*. Facts on File, New York, 535.

Seiffert, E.R. (2006). Revised age estimates for the later Paleogene mammal faunas of Egypt and Oman. *Proceedings of the National Academy of Sciences, U.S.A.*, **103**, 5000-5005, 3 figs.

Sutton, M.D., Briggs, D.E.G., Siveter, David J. and **Siveter, Derek J.** (2005). A Silurian articulate brachiopod with soft parts. *Nature*, **436**, 1013-1015.

Sutton, M.D., Briggs, D.E.G., Siveter, David J. and **Siveter, Derek J.** (2006). Fossilized soft tissues in a Silurian platyceratid gastropod. *Proceedings of the Royal Society of London*, B **273**, 1039-1044.

Mineralogical Collections

Cooke, L. (2006). The patrimonial use and re-use of stone at Chatsworth House by successive dukes of Devonshire *ASMOSIA VIII* 'La pierre dans tous ses etats' *Colloque International Aix-en-Provence - France 12/18 Juin 2006.* Abstracts volume.

Price, M.T. (2006). Rocks that glow in the dark. *Chemistry Review,* **15**(4), 28-29.

Walsh, K.L. and **Price, M.T.** (2005). Initiatives to protect and increase accessibility to British minerals, in situ and online. *Third International Symposium, Mineral Diversity – Research and Preservation.* Earth and Man National Museum, Sofia, Bulgaria. Abstracts volume, p 35

Walsh, K.L. and **Smith, E.C.** (2005). An eighteenth century collection of minerals from the Levant. *Third International Symposium, Mineral Diversity – Research and Preservation,* Earth and Man National Museum, Sofia, Bulgaria. Abstracts volume, p 34.

Warren, C.J., Parrish, R.R., **Waters, D.J.** and Searle, M.P. (2005). Dating the geologic history of Oman's Semail ophiolite: insights from U-Pb geochronology. *Contributions to Mineralogy and Petrology*, **150**, 403-422.

Waters, D., Law, R., Searle, M. and Jessup, M. (2006). Metamorphic Evolution of the Upper Parts of the Greater Himalayan Slab, Everest Area, from the 1933 Sample Collection of L R

Wager. *21st Himalaya-Karakorum-Tibet Workshop*, Fitzwilliam College, Cambridge, U.K. 29-31 March 2006
(http://www.the-conference.com/2006HKT/HKT_Program.pdf).

Zoological Collections

Conyers, L. (2006). A course on Fluid Preservation at Oxford University Museum of Natural History 3rd –6th April 2006. *NatSCA News*, **9**, 7.

De Grave, S. and Al-Maslamani, I. (2006). A new species of *Palaemon* (Crustacea, Decapoda, Palaemonidae) from Qatar. *Zootaxa*, **1187**, 37-46.

Kemp, T.S. (2006). The origin and early radiation of the therapsid mammal-like reptiles: a palaeobiological hypothesis. *Journal of Evolutionary Biology*, **19**, 1231-1247.

Kemp, T.S. (2006). The origin of mammalian endothermy: a paradigm for the evolution of complex biological structure. *Zoological Journal of the Linnean Society*, **147**, 473-488.

Perez, V.R., Godfrey, L.R., **Nowak-Kemp, M.B.,** Burney, D.A., Ratsimbazafy, J., and Vasey, N. (2005). Evidence of early butchery of giant lemurs in Madagascar. *Journal of Human Evolution*, **49**(6), 722-42.

Thomson, K.S. (2005). *The Watch on the Heath.* HarperCollins (also published as *Before Darwin: Reconciling God and Science*. Yale University Press, 2005).

Thomson, K.S. (2005). *Fossils, a Very Short Introduction.* Oxford University Press.

Thomson, K.S. (2005). Natural history museum collections in the 21st century. Published online in *ActionBioScience* at *www.actionbioscience.org/evolution/thomson.html*. Reprinted in *Informal Learning Review*, no. 73, 21-25.

Thomson, K.S. (2006). Dinosaurs as a cultural phenomenon. *American Scientist,* **93**, 212-214.

Thomson, K.S. (2006) American dinosaurs: who and what was first? *American Scientist*, **94**, 209-211.

Environmental Archaeology Unit

Cromarty, A.M., Barclay, A., Lambrick, G. and **Robinson, M.A.** (2006). *Late Bronze Age ritual and habitation on a Thames eyot at Whitecross Farm, Wallingford. The archaeology of the Wallingford Bypass, 1986-92*. Oxford Archaeology, Oxford.

Higham, T., van der Plicht, J., Bronk Ramsey, C., Bruins, H.J., **Robinson, M.** and Levy, T.E. (2005). Radiocarbon dating of the Khirbat en-Nahas site (Jordan) and Bayesian modelling of the results. *In:* Levey, T.E. and Higham, T. (eds) *The Bible and radiocarbon dating*. Equinox, London, 164-178.

Ingham, D. and **Robinson, M.A.** (2005). The carbonised plant remains and molluscan analysis. *In:* Lock, G., Gosden, C. and Daly, P. *Segsbury Camp. Excavations in 1996 and 1997 at an Iron Age hillfort on the Oxfordshire Ridgeway*, Oxford University School of Archaeology, Oxford, 120-1.

Levey, T.E., Adams, R.B., Najjar, M., Hauptmann, A., Andersom, J.D., Brandl, B., **Robinson, M.A.** and Higham, T. (2004). Reassessing the chronology of Biblical Edom: new excavations and ^{14}C dates from Khirbat en-Nahar (Jordan). *Antiquity,* **78**, 865-79.

Robinson, M. (2002). Geo-archaeological investigations. *In:* Dickmann, J.-A. and Pirson, F. Die Casa dei Postumii in Pompeji und ihre Insula,. *Mitteilungen des Deutschen Archäologischen Instituts Römische Abteilung*, **109**, 302-4

Robinson, M. (2002). Faunal and floral materials. *In:* Dickmann, J.-A. and Pirson, F. Die Casa dei Postumii in Pompeji und ihre Insula. *Mitteilungen des Deutschen Archäologischen Instituts Römische Abteilung*, **109**, 304-6.

Robinson, M.A. (2004). Insects. *In:* Crowson, A. *Hot rocks in the Norfolk Fens: the excavation of a burnt mound at Northwold, 1994-5*. East Anglian Archaeology Occasional Paper 16, Dereham, 22-3.

Robinson, M.A. (2004). Insects from Neolithic long barrow 2589. *In:* Ellis, C.J. *A prehistoric ritual complex at Eynesbury, Cambridgeshire. Excavation of a multi-period site in the Great Ouse Valley 2000-2001*. East Anglian Archaeology Occasional Paper 17, Salisbury, 78-80.

Robinson, M.A. (2004). Molluscs. *In:* Mudd, A. Iron Age and Roman enclosures near Higham Ferrers: the archaeology of the A6 Rushden and Higham Ferrers Bypass. *Northampton Archaeology,* **32**, 89.

Robinson, M.A. (2005). The insects. *In:* Gardiner, J. and Allen, M.J. (eds) *Before the mast: life and death aboard the Mary Rose*. Mary Rose Trust, Portsmouth, 615-17.

Robinson, M.A. (2005). Land snails from Aves Ditch. *In:* Sauer, E.W. *Linear earthwork, tribal boundary and ritual beheading: Aves Ditch from the Iron Age to the early middle ages.* British Archaeological Reports 402, Oxford, 94.

Robinson, M.A. (2005). A later Holocene Coleoptera diagram from the Somerset Levels. *In:* Smith, D.N., Brickley, M.B. and Smith, W. (eds) *Fertile ground. Papers in honour of Susan Limbrey.* Symposia of the Association for Environmental Archaeology 22, Oxbow, Oxford, 130-5.

Robinson, M.A. (2005). Fosse, piccole fosse e peristili a Pompei. *In:* Guzzo, P.G. and Guidobaldi, M.P. (eds) *Nuove ricerche archeologiche a Pompei ed Ercolano*. Electa, Naples, 109-119.

Robinson, M.A. (2006). Contributions to the inventory. *In:* Chadwick Hawkes, S. and Grainger, G. *The Anglo-Saxon cemetery at Fingleham, Kent.* Oxford University School of Archaeology Monograph 64, Oxford, 33-312.

Henry Wellcome Ancient Biomolecules Centre

Binladen, J., Wiuf, C., Gilbert, M.T.P., Bunce, M., **Barnett, R., Larson, G.,** Greenwood, A.D., **Haile, J., Ho, S.Y.W.,** Hansen, A.J. and Willerslev, E. (2006). Assessing the fidelity of ancient DNA sequences amplified from nuclear genes. *Genetics*, **172**, 733-741.

Dobney, K. and **Larson, G**. (2006). DNA and Animal domestication: more windows on an elusive process. *Journal of Zoology,* **269** (2), 261-270.

Drummond, A.J., **Ho, S.Y.W**., Phillips, M.J. and Rambaut, A. (2006). Relaxed phylogenetics and dating with confidence. *PLoS Biology*, **4**, e88.

Drummond, A.J., Rambaut, A., **Shapiro, B**. and Pybus, O.G. (2005). Bayesian coalescent inference of past population dynamics from molecular sequences. *Molecular Biology and Evolution,* **22**, 1185-1192.

Gilbert, M.T.P., **Shapiro, B**., Drummond, A. and Cooper, A. (2005). Post-mortem DNA damage hotspots in Bison (*Bison bison and B. bonasus*) provide supporting evidence for mutational hotspots in human mitochondria. *Journal of Archaeological Sciences* **32**, 1053-1060.

Ho, S.Y.W. and **Larson, G.** (2006). Molecular clocks: When times are a-changin'. *Trends in Genetics*, **22**, 79-83.

Ho, S.Y.W., Peng, Z**.**, Zhang, Y. and He, S. (2006). Uplift of the Tibetan plateau: Evidence from divergence times of glyptosternoid catfishes. *Molecular Phylogenetics and Evolution*, **39**, 568-572.

Murray, S., Jørgensen, M.F., **Ho, S.Y.W**., Patterson, D.J. and Jermiin, L.S. (2005). Improving the analysis of dinoflagellate phylogeny based on rDNA. *Protist*, **156**, 269-286.

Shapiro, B., Drummond, A.J., Rambaut, A., Pybus, O.J. and Holmes, E.C. (2006). A phylogenetic method to detect positive epistasis and its application to RNA virus evolution. *Molecular Biology and Evolution,* **23**, 1724-1730.

Shapiro, B., Rambaut, A. and Drummond, A.J. (2006). Choosing appropriate substitution models for the phylogenetic analysis of protein-coding sequences, *Molecular Biology and Evolution,* **23**, 7-9.

Shapiro, B., Rambaut, A. and Gilbert, M.T.P. (2006). No proof that typhoid caused the Plague of Athens. *International Journal of Infectious Disease*, **10**, 334-335.

Poinar, H.N., Schwarz, C., Qi, J., **Shapiro, B**., MacPhee, R.D.E., Buigues, B., Tikhonov, A., Huson, D., Tomsho, L.P., Auch, A., Rampp, M., Miller, W. and Schuster, S.C. (2006). Metagenomics to paleogenomics: Large-scale sequencing of ancient DNA. *Science,* **311**, 392-394.

Weinstock, J., Willerslev, E., Sher, A., Tong, W., Ho, S.Y.W., Rubinstein, D., Storer, J., Burns, J., Martin, L., Bravi, C., Prieto, A., Froese, D., Scott, E., Xulong, L. and Cooper, A. (2005). Evolution, systematics, and phylogeography of Pleistocene horses in the New World: A molecular perspective. *PLoS Biology*, **3**, e241.

Simonyi Professor for the Understanding of Science

Dawkins, R. (2006). *The Selfish Gene.* 30th anniversary edition. Oxford University Press, Oxford.