Oxford University Museum of Natural History

Annual Report 2006-2007

Oxford University Museum of Natural History
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Cover photograph: Tibetan dancers in OUMNH. *In a DifferentLight,* 19 May 2007. Rob Judges

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Chairman's Report

Re-involvement in the business of the Museum, which I haunted as a schoolboy and zoology undergraduate has been a revelation. The continuing fund-raising success of the Director and his colleagues has allowed yet further progress on the renewal of existing displays, and the creation of new ones. Every visit reveals something new. A particular innovation has been the link with the Druce Herbarium in the Department of Plant Sciences, leading to the new botanical displays now in hand.

The Museum, now seen as the gateway to the Science Area, has plans for landscaping and improvements in the immediate environment to welcome the visitor. The success of our institution as a major element of the public face of the University is shown by our visitor numbers, which increased to nearly 368,000 in 2006-7. Of these, nearly 24,000 were school pupils taught by our excellent and innovative education team. Weekends and school half terms saw an a range of ingenious and entertaining activities as well as many special events: our May *In a Different Light,* a joint event with our Pitt Rivers neighbours brought in 3,000 visitors, with long, good-natured queues on the lawn entertained by a percussion band. It gained the top commendation from the national organisers of *Museums and Galleries Month*. Over the year there was great success behind the scenes, including £120,000 raised to refurbish and conserve our priceless vertebrate spirit collections.

The Museum runs a very lean, cost-effective operation, and the level of curatorial activity, care and conservation of vulnerable biological and geological materials is outstanding. Set against this is the continuing uncertain financial base. The Museum has a recurrent structural deficit that must be eliminated: core funds do not support the level of activity necessary to ensure the survival of our collections. Accordingly, I have instituted a review of finances leading to a five-year recovery plan, as well as exploring new ways of increasing income.

The Museum is a major success story. It is vital that it has the support to so continue.

John Krebs
Chairman, The Visitors of the
Oxford University Museum of Natural History

Director's Report

Our display programme continues apace, supported by grants from DCMS/Wolfson, The Trust for Oxfordshire's Environment and Waste Recycling Environmental Ltd. New displays on the rock cycle linked to the needs of the National Curriculum were installed, and work on new plant displays - a first for the Museum - and thematic insect displays are in hand. Those on birds, mammals, gemstones and local geology are at the planning stage. I am grateful to my colleagues for their assistance in this time-consuming activity. The most spectacular improvement to the appearance of the Court has been the restoration of our processing mammal skeletons to their original oak bases, thanks to the craftsmanship of our cabinet-maker Bill Richey, and Peter Johnson. The bases had been converted into seats in the 1970s when things Victorian were thought to be of little value, and the appreciation of the court display furniture was at a low ebb. We have more skeletons than bases, and the next phase will be to build facsimiles from scratch to complete the project. This will transform the western aisle of the court, and protect the skeletons from little fingers. With the projects now in hand, the completion of the display programme is moving towards its final phase.

Public activities continue at a high level, led by our education team, supported by staff at large, and a team of volunteers. These activities are reflected in visitor numbers: 367,796 in 2006-7, an 11.3% increase over the previous year. The number of school pupils taught in organised groups remained stable at 23,672. Numbers are limited by the teaching space available, basically the museum court and a single seminar room. Every weekend and half term saw

special activities, culminating in our highly commended contribution to *In a Different Light* as part of Museums and Galleries Month, as noted in the report by our Chairman.

Space remains a preoccupation. The continuing delay in the construction of the University Book Repository at Osney means that the release of the current repository at Nuneham Courtenay for conversion to a Joint Museums Store remains some years away. This is causing problems across the Oxford museums sector. Accordingly, space allocated to the Museum in the old Inorganic Chemistry building has been refurbished and allocated to Pitt Rivers on a temporary basis, allowing them to vacate premises on the Banbury Road acquired by Kellogg College. The space will be returned to the Museum when the Nuneham Courtenay store comes on line, or earlier if other space becomes available.

The saga of the Science Area Learning Centre continues. It has been adopted by the Mathematical Physical and Life Sciences Division as part of their Five Year Plan, and a Working Party, chaired by Professor Tim Softley, will take the matter forwards. In the meantime, plans for a joint Natural History and Pitt Rivers visitor facility are in hand, and fund raising has begun for the £520,000 needed to complete the project.

Behind the scenes, there has been activity in all sectors, limited by space, as curation invariably leads to expansion. The occupation of space within the Museum curtilage previously occupied by Inorganic Chemistry has eased pressure on storage of geological material. Delivery of the final batch of 88 steel cabinets will allow the secure re-housing of the bulk of the Diptera collection. Our major success in this area has been the award of £100,000 from the EPA Cephalosporin Fund, which together with grants from the Prism Fund and St John's College will allow us to completely re-house and conserve our irreplaceable vertebrate spirit collections. I am grateful to my colleagues Małgosia Nowak-Kemp and Tom Kemp for preparing the meticulously researched original proposal. In other areas, the ordering of new cabinets for palaeontological and dry invertebrate material will ease pressure, as will access to new storage in the old Inorganic Chemistry building.

Finance, however remains a problem. Our 2006-07 AHRC grant was £312,000; our HEFCE grant via the University was £601,000. Grants from other organisations and individuals was £397,000. Income from donations and trading activities was £191,000. Our 2006-07 year ended with a deficit of £70,000.

The roof continues to excite interest. High winds detached slates from the roof of the tower; mercifully, none struck the glass roof below. The result was that the front of the Museum was covered in scaffolding for parts of the spring and summer, for necessary repairs, and also for repainting of woodwork. This enable the Director to make a detailed photographic record of the external sculptures, and the discovery that some of the cats on the celebrated cat window have glass eyes.

Lord Krebs took over as Chairman of the Visitors at the beginning of Michaelmas Term 2006; I am grateful to him for his encouragement and advice.

Our faithful cleaner Delphreen Hastings retired after 22 years and 7 months. Bethia Thomas, who worked as assistant to our previous director, as an assistant in Geological Collections, and latterly as our IT Programme Development Officer left after 8 years and four months on the Museum staff. We thank them both for their valuable contributions to the Museum.

Our activities would not have been possible without the generous support of all individuals and organisations that have aided us financially or with their time over the past 12 months, and we offer them our gratitude and thanks.

Jim Kennedy
Director

Part I Public Activities

Exhibitions

Funding from the Trust for Oxfordshire's Environment and the DCMS/Wolfson Foundation Museums and Galleries Improvement Fund enabled us to complete a series of 30 table top cases in the court, illustrating the 'Rock Cycle' and displaying 203 igneous, sedimentary and metamorphic rock samples. On the Upper Gallery the Trust and DCMS/Wolfson also funded long runs of table top cases on insects and plants. The insects display includes commissioned models: a giant cockroach, the life cycle of mosquitoes, and ants. The botany displays are a first for Oxford museums. We have obtained further funding for displays on the upper galleries on 'Gemstones' and on the 'Geology of the Oxford Region'.

Mr Richey and Mr Johnson started the refurbishment and restoration of a series of knee-high English oak plinths for the articulated skeletons in the court. They also completed a base for the large *Tyrannosaurus rex* cast, which includes a sound and public address system; and bases for various large Jurassic fossil reptiles.

The artists Martin Huxter and Peter Braunsteiner displayed their work 'The Insect Collection' in the Upper Gallery during the months of August and September. Their marvellous series of paintings and collages explored the structure and function of pattern found in moths and beetles. Appropriately over the winter months we displayed the work of John Kelly, who travelled with the British Antarctic Survey. The work, 'Due South' included a beach hut, an albatross suspended between the rafters, and beautiful extracts from his illustrated diaries. In contrast our third temporary exhibition, 'Moments in the Lives of Neotropical birds', watercolours by Robin Schiele focused on threatened and endemic species from the Colombian Andes, with a proportion of the sales going to their conservation.

From May, to coincide with the Tricentennary of the birth of Linnaeus, we displayed the work of Rosemary Wise. Her stunningly accurate botanical illustrations were drawn from live specimens and included watercolours of flowers drawn in Linnaeus's garden. The exhibition was a great commercial success. Finally in July to coincide with 'Alice's Day' we displayed, courtesy of Christ Church College, Salvador Dali's pictorial interpretations of *Alice in Wonderland* consisting of one etching and 12 colourful photogravures. The work, completed in 1969, was both weird and wonderful, and featured the Museum's swifts.

Elsewhere in the Court, there was a temporary display of the newly accessioned Peel gemstone collection. This was followed in May by a temporary display of specimens from the Tradescant Collection, the oldest natural history collection in the country, to mark the 350th anniversary of the publication of *Museum Tradescantianum*. In the upper gallery, a row of cases displaying archives and specimens connected to the Oxford Geologist William Buckland (1784-1856) were on view to Museum visitors during the *William Buckland 150th Anniversary Symposium.*

Conferences and Lectures

A number of conferences have been held in the Museum during the course of the year, organised by Collections and Library staff.

The *William Buckland 150th Anniversary Symposium* was held in August, and attracted 150 delegates from around the world. It was organised by the Director who spoke at the meeting. Mr Powell also gave a talk, on *Megalosaurus* . Displays of Buckland's specimens and archives, arranged by Professor Kennedy, Miss Howlett and Mr Hall, were accompanied by examples from Mary Morland's Collection and the Corsi Marbles which were arranged by Miss Price.

In November, the 2006 Annual General Meeting of the Dipterists' Forum, was held over three days in the University Museum and included sessions in the Hope Library, Hope Entomological

Collections and the AGM in the Lecture Theatre. It was organised by Dr Ismay and Mr Mann, who both spoke at the meeting. The Librarian mounted a display of entomological treasures and gave a tour and a brief history of the Hope Library.

In June, a meeting of the Oxford University Museums' and Collections'and Histories Group, *Fakes and mistakes,* was organised by Ms Brecknell and hosted in the Museum. Staff gave a number of presentations. Ms Brecknell spoke on the fate of Ernest Westlake's 'eolith' collection; Mr Powell's talk was on the Beringer lying-stones, and Miss Price gave a talk about fakes and forgeries in the Mineral Collections. Each of these talks was illustrated with an exhibition of specimens. Mrs Nowak-Kemp and Mr Mann gave collections tours.

The stunning architecture and the displays in the Museum court and gallery, together with the 300 seat lecture theatre, attracted other conferences, company recruitment evenings, dinners on the gallery, receptions and charity events, which continued to generate much needed revenue. Over 58 functions were held this year, including an evening for the International Black Media Festival, an evening reception fundraising for Helen and Douglas House, Oxford and a delightful concert for local charity Flexicare.

The eight 2007 Slade Lectures, given by Professor Paul Binski on 'English Gothic Art and Architecture before the Black Death' were held in the Museum in Hilary Term. Other University memorial lectures: for Warburg, Bernard Tucker, Rodney Porter and Dorothy Hodgkin, were held here. The Ashmolean Natural History Society held their usual series of children's Christmas lectures, though sadly they were poorly attended. The Museum was again used for the University's Science Writing Competition, at which Dr George McGavin gave the keynote lecture and presented the prizes. The Museum's court was used by the Estates Directorate for three days to display their plans for the Earth Sciences Department's new building. The lecture theatre continued to be used daily throughout the academic terms for some 386 hours of Mathematics and Chemistry undergraduate lectures.

Media

Members of the Museum staff, and the Museum's splendid building have featured on the television and in the press this year.

Dr McGavin was interviewed a number of times on a variety of topics, such as crane flies and the decline of bees for Radio Oxford, Radio 2 and BBC South Today. He appeared on BBC Breakfast TV to discuss a new film about giant Japanese hornets, and was also a co-presenter on *Expedition Borneo*, a five part TV series, which was screened in January. Dr McGavin was interviewed for the 'On the Spot Feature' in the Oxford University *Blueprint* magazine, and was invited to make five short films about insects for *The One Show* on BBC1.

Mrs Nowak-Kemp was interviewed by the BBC and by the Japanese Television Network about the Dodo, *Alice in Wonderland*, and the Tradescants. In November, Dr Kemp participated in the filming of a BBC television programme on 'Extinction'.

Much needed additional revenue was generated though filming fees. The Museum starred in an episode of *Lewis* featuring a chase through the Museum and a stunt man hanging out of the tower room. The two days of filming was hugely exciting, once we cleared up the Health and Safety issues and problem over the shrunken heads! On a more serious note BBC Religion and Ethics filmed with Simon Conway Morris around the galleries, and Channel Four filmed with Jimmy Doherty in the Huxley Room. The swifts featured in both a nature programme presented by Bill Oddie, but also as the stars of the relaunch of the Suzuki swift car advertising campaign.

Family Activities

The family programme run by the Education Department continues to be extremely busy and events have been very well attended. Highlights have included the large half term events 'Dragons and Treasure' in October and 'Faces of Egypt' in February.

Family Friendly Sunday afternoons form the core of the Museum's regular family programme. Changes over the last year have included a new 'explorers' backpack produced by Ms Crook, and the introduction of a book corner.

'Wow! How?', the hands-on science fair for children and their families, hosted by the OUM and Pitt Rivers Museum, had a successful fourth year, drawing 2,000 visitors. This unique museums event for Science Week featured 28 activities, all designed and run by volunteers. Sixty four science students, professionals and community volunteers presented interactive experiments on everything from how to make slime to the physics of sound. Dr McGavin gave a talk on the subject 'It's a Small World', and Ms Simmons ran an insect handling session.

In May, the third *In a Different Light* late night opening was run jointly with the Pitt Rivers Museum and won the Museums and Galleries Month Commendation Scheme for the best 2007 event. To comply with health and safety requirements numbers in the museums were limited, resulting in queues around the lawn at 10pm. During the course of the evening 3,000 people attended. The evening was even more ambitious than before as lanterns cast a colourful glow over the museum. There was masked dancing from Tibetan monks as well as a wide range of other live music performances and film screenings. Ms Simmons and Mr Hogan ran a glowing scorpion display, while Dr Waters and Miss Cotton (assisted by Mr Martin Sykes) devised and presented a display entitled 'Microscopic Magic – Tricks of the Light', featuring the curious optical behaviour of minerals and a slide show of colourful photomicrographs of rocks in thin section. The event was co-ordinated by Ms Bain (volunteer co-ordinator) and once again, Mr Ashington and all other helpers are warmly thanked for their involvement.

Education staff continue to work with other organizations to use the space in the museum to educate families about biodiversity issues of local and national importance. In April a 'Feathered Friends Fiesta' was run with the RSPB and in July the Museum repeated the very successful 'Oxfordshire goes Wild' event organized with 20 local wildlife and conservation groups in conjunction with ONCF.

Schools Education

The school visitor numbers have been stable, with 23,672 students visiting us in organised groups.

The Education Department's primary school programme has continued to be popular and is often booked up well in advance. In addition to this core programme, Mr Jarvis has worked with the Isis partnership of schools to pilot 'extended schools' sessions. These have involved both outreach to the schools and out-of-school-hours visits to the Museum. The 'Making Museums' project with primary schools from Cowley and Blackbird Leys (run jointly with the Pitt Rivers Museum) was run for the fifth year and was featured in an article in *The Guardian* newspaper as an example of best practice in museum education. Education staff are again indebted to the Entomological Collections for their enthusiastic input during these sessions. Dr McGavin also gave a number of talks on insects, Africa, animal camouflage and other topics to children at Appleton Primary School, Northbourne Primary School, and St Ebbe's Primary School.

In March Mr Jarvis visited Malta to work with the artist Graham Woodall and to establish educational links with the National Museum of Natural History and Heritage Malta, and advise on setting up science programmes for primary schools.

There has continued to be an increased emphasis on Special Needs groups this year and Education staff have developed several new sessions for them tailored to autistic, physically disabled groups, and children with emotional and behavioural difficulties.

The Strategic Commissioning Project (funded by DCMS) 'Real World Science' has continued in collaboration with the Natural History Museum, Manchester Museum and Tyne and Wear Museums, with Ms Lloyd a key member of the practitioner group. The project, now in its third year, is to develop sessions for secondary science students on curriculum topics that use museum facilities and involve practising scientists, aimed at improving students'understanding of science and encourage them to continue studying science subjects.

In addition to running the core secondary programme, Ms Lloyd has continued to develop leading work on delivering evolution programmes to schools. The opportunity was taken to develop a pilot programme for a MLA SE project for the Langley Academy. The programme focussed on ways in which museum learning can be incorporated into the school curriculum. The Education Department and teachers at Cherwell School worked in partnership with KS4 students over an extended period. The students took part in two museum visits where they had a range of experiences including meeting Alex Liu (a Geology undergraduate), listening to a 'Reduced Evolution' talk by Dr McGavin, and encountering 'Professor Acland' (brought to life by a costumed actor). In addition to the museum visits, Ms Lloyd ran nine outreach sessions on an evolution theme at the school, where students were presented with a wide variety of objects and challenged to consider what makes good scientific evidence.

On 23 May, a Key Stage 3 study day on Classification was held to celebrate the tercentenary anniversary of the birth of Linnaeus. Each student was given a copy of a booklet on Linnaeus written and illustrated by Mr Jarvis for the occasion.

In events run by the Oxford University Admissions Office, Dr McGavin gave a lecture for the Oxford University Aim Higher Summer School and gave talks to several groups of school pupils visiting Oxford under the Funding and Access scheme.

He also gave lectures for museum-organised sixth form study days and Real World Science, and two talks entitled 'Reduced Evolution' to pupils from the Cherwell School. Together with Wendy Fuggles of the Public Affairs Directorate, Dr McGavin ran 'H_2Oxford', a science competition on the topic of water, for schools in Oxfordshire. During the year he gave four classes on insects for The Royal Institution Schools Science Events Programme at schools in Newcross and Sydenham in London. Following his successful television appearance, Dr McGavin gave a lecture about *Expedition Borneo* to sixth form pupils at the School of St Helen and St Katharine, which he also gave to members of the Society for Graduates of Oxford University. He gave a talk entitled *Bug World* to pupils of Magdalen College School.

Community Outreach

Miss Birch, Community Officer in the Education Department, has built on her work with ESOL (English for Speakers of Other Languages) and FLLN (Family Language, Literacy and Numeracy) groups over the past year, increasing the number of programmes offered to these groups and the range of venues where these take place. As well as focus group work, she has organised and delivered a varied range of larger scale outreach sessions. These have included the Cowley Road Carnival, 'Meet the Museums' at the Westgate Shopping Centre, the Science Shop at Temple Cowley Shopping Centre and the Abingdon Youth Fair in conjunction with Thames Valley Police.

A regular programme of outreach visits to the hospital schools service at the John Radcliffe Hospital and the Nuffield Orthopaedic Centre has also been established. This programme gives these children and their parents access to the museums' collections, allowing them to learn together and to help provide a much needed distraction to their time in hospital. It also led to a memorable encounter between David Cameron M.P. and a hissing cockroach.

Miss Birch has been helped enormously by other departments within the Museum over the past year. She has been supported by Entomology, Geology, Mineralogy and Zoology collections, both through allowing the use of their resources with outreach groups and through staff time and expertise.

During the last twelve months, she has undertaken 97 outreach visits on behalf of the four HUB museums. These have involved over 1,700 adults and over 300 children. She has also facilitated 14 visits to the Museum, which have involved 95 adults and 76 children.

Collections staff have also been involved in special activities for community and special interest groups. Dr McGavin gave evening lectures on insects to members of the New Marston Wildlife Group, and the Oxford Civic Society. Ms Simmons and Mr Mann ran a day course in identification of orchard beetles for the Headington Residents' Association. Mr Powell gave talks on Oxfordshire geology to the Friends of Boars Hill and to the Abingdon Naturalists Society. He led fieldtrips for Oxford Geology Group, Oxfordshire Geology Trust, the Open University Geology Society, Beaconsfield U3A, The Wheatley Society, and Cambridge Graduate Union. Miss Price gave lectures on the mineral collections and on decorative stones to the Amateur Geological Society (North London) and to the Bath Geological Society.

Mr Powell spoke at the Oxford University Department for Continuing Education symposium *Managing change in natural and cultural diversity*. Dr McGavin gave the Oxford University National Science Week keynote address on the subject 'It's a Small World'. He was invited to give two lectures at the Cheltenham Science Festival, and also gave two lectures on behalf of the Linnean Society and the Royal Institution as part of the Linnean Tercentenary celebrations. He dressed as Darwin for a meeting of the British Humanist Society. Dr Kemp contributed a lecture entitled *The evolution of life on Earth* at a St John's College Research Centre workshop on 'Varied beginnings: the Universe in a day'.

Collections staff have given a number of behind-the-scene tours of the Museum. Examples include talks and tours by Dr McGavin and Miss Price for students on a course in natural history illustration taught by Rosemary Wise; a tour by Dr Siveter for the Geology Section of the Leicester Literary and Philosphical Society which included a viewing of some of the geological archives; visits by Oxford University History of Art students, the Victorian Society and Oxford Tour Guides hosted by Dr McGavin; and talks and tours by Mrs Nowak-Kemp to the Harvard University Summer School students and their tutors.

Part II Reports from the Collections, Sections and Research Units

The Hope Entomological Collections

Professor Rogers was an invited speaker at the Royal Statistical Society one-day meeting on spatial analysis techniques, the American Society of Tropical Medicine and Hygiene Annual Meeting in Atlanta, Georgia and at the AGM of EDEN, Emerging Diseases in a Changing European Environment, EU FP6 program in Antalya, Turkey. He was also invited to speak on the problems of scale in ecology at NERC Wallingford and at a Foresight (UK horizon scanning) Meeting, DTI Conference Centre in London. He attended and spoke at the Yeha Natural Resource Management Institute Co-ordination Meeting in Addis Ababa, the EDEN Mission to Africa Platform partners in Senegal, West Africa, a BBSRC meeting in Oxford on combating viral diseases, the European Centre for Disease Control (ECDC), Joint Research Centre (JRC), the European Environmental Authority (EEA) and World Health Organisation (WHO) meeting in Stockholm, the NERC Workshop on Infectious Diseases at Liverpool University, a Foresight retrospective meeting in London, the American Society of Microbiology in Toronto, a European Space Authority (ESA) meeting in Brussels and the DEFRA Diseases Research Programme Review in London. Professor Rogers ran seminars at Imperial College, London and Liverpool Department of Veterinary Medicine

Professor Rogers continued to Chair the Steering Committee of the Yeha Natural Resource Management Institute, Ethiopia, with a remit to design a M.Sc. and Ph.D. programme 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. He ran an entomology master class at the University of Derby and hosted a visit of Derby undergraduates to the Hope Entomology Collections.

Mr Mann continued to serve on the editorial board for *The Coleopterist* and for *Cockroach Studies*. He also served as a member of Blattodea Culture Group committee and spoke on cockroaches in Borneo at the Group's AGM. He is a member of the Royal Entomological Society library committee. He completed a three year term as committee member for the British Entomology and Natural History Society and continued to act as the National Organiser for the Scarabaeoidea Recording Scheme. He spoke on museum standard specimen preservation to members of the Society.

Mr Mann hosted the Insect Collections Managers Group meeting in Oxford; the Dipterists Forum Annual Meeting and AGM in Oxford, at which he gave a talk on the work of the Hope Entomological Collections; and the BENHS Members' day. He was a member of the organising committee of the Reunión Latinoamericana de Scarabaeoidología (RELAS) in Bolivia, where he lectured and presented a poster to delegates on experimental studies of biodiversity and ecosystem functioning: dung beetles and logging in Borneo. He attended the ScarabNet annual meeting, also in Bolivia.

Mr Mann co-authored a poster on dung beetle ecology for the British Ecological Society Tropical Ecology Specialist Group Meeting at the University of Leeds. He spent two weeks in Fiji on a Darwin Initiative Funded project to train postgraduate students at the University of the South Pacific in Coleopteran taxonomy. He also trained Jan Freedman from the Plymouth City Museum in curatorial techniques.

Dr Pont continued to serve on the editorial board of *Zoology in the Middle East*, *Fauna of Arabia*, *Studia Dipterologica,* as Secretary/Treasurer of the Council for International Congresses of Dipterology, and on the panel that judges nominees for the Thomas Say Award. He also continued

as a Scientific Associate of the Natural History Museum, London, and an Associate in Science at the B.P. Bishop Museum, Honolulu.

Dr Pont attended the *6th International Congress of Dipterology* in Fukuoka, Japan, with support from the Royal Society where he chaired one workshop, and read two papers. He also attended the *Second International Simuliidae Symposium* in Novi Sad, Serbia where he co-chaired one of the sessions, and read a paper (with Dr D. Werner, Humboldt-Universität zu Berlin, Berlin, Germany) entitled "New results on Diptera predators in the black fly plague areas of Central Europe and the Caucasus".

Dr Pont visited Glasgow to study Diptera in the Hunterian Museum, supported by Glasgow University and acted as a visiting consultant to the Institut National des Recherches Agricoles, Montpellier, France to help set up a Diptera collection, supported by INRA.

Mr O'Toole was an invited participant at the *9th International Pollination Symposium* at Iowa State University, Ames, Iowa.

Dr Ismay, jointly with his wife Mrs B. Ismay, led an insect day at Langley Park in Buckinghamshire. He attended several indoor and outdoor meetings of Dipterists Forum and helped organise the 2006 Annual General Meeting, which was held over three days in the University Museum. He was elected Chairman of Dipterists Forum. Dr Ismay participated in a workshop on Sciomyzidae and Scathophagidae at Preston Montford Field Studies Centre. He participated in several meetings on mosquitoes leading to the formation of the UK Mosquito Association, advising in particular on mosquitoes in urban areas.

Following the installation of airtight metal cabinets in the Swinhoe, Shelford and Carpenter Rooms work has started on the setting up of arranged collections of various major orders such as the Coleoptera and Diptera with the associated transfer and amalgamation of dispersed material.

Professor Rogers prepared an application for CITES exemption for OUMNH and held several meetings concerning a proposal to digitise *Jones' Icones*.

Mr Mann continued his research into un-recognised types in the collections, with 40 types mainly of Coleoptera and Hymenoptera including Fabrician material coming to light in the last 12 months.

Mr Hogan has continued to re-curate and amalgamate the Coleoptera collections.

Ms Simmons has been working on the Wollaston Collection, the Madeiran part of which has now been transferred to new storage, and on material sent by Wollaston to J.C. Dale which has now been amalgamated. Work continues on the Canarian part of the collection. She has also transferred a quarter of the Donisthorpe Windsor Forest collection to new storage and has begun to amalgamate the miscellaneous Coleoptera into an arranged collection.

Two temporary staff were employed; Richard Hunter for six weeks as a curatorial assistant, and Katherine Drayson for six months to re-curate the Afrotropical Sphingidae part of the recently donated McCrae Collection.

Dr Pont completed sorting and identifying the Verrall-Collin duplicate collections of Fanniidae and Muscidae, and has begun to set up a collection of World Muscidae in the newly-acquired metal cabinets.

Mr Cooter continued his curatorial/cataloguing work on the Dale Collection.

Mr O'Toole completed the identification of bees from the Greek Island of Lesvos as part of the EU-funded ALARM project.

Mr Lansbury continued to work on the water bugs, especially the Gerridae and Veliidae from Africa and the Far East.

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. The unidentified Sciomyzidae and Scathophagidae from

the Collections were taken to a Dipterists Forum Workshop at Preston Montford Field Studies Centre and many specimens were identified to species level.

Mr Henshaw continued to maintain the Database of World Agromyzidae, and to curate the Agromyzidae collections, particularly the additions to the collections, and the identification of accession material already held by the department.

Mr Phil Spillane, an Oxford beekeeper, has been appointed to look after the observation hive and will assist in redesigning the display when it is renewed and relocated.

Geological Collections

Dr Seiffert acted as supervisor for two DPhil students and two MEarthSci students in the Department of Earth Sciences, gave lectures in four courses in that department, and co-led the annual 2nd year undergraduate field trip to Dorset. He left Oxford to take up a lectureship at Stony Brook University, New York before the end of the academic year.

Dr Siveter's role as Acting Curator, following the departure of Dr Seiffert, was approved by The Visitors in May. He gave an invited talk on the fossils of the Chengjiang (Cambrian) Konservat-Lagerstätte to the Royal Geographical Society in Hong Kong. He also gave a presentation on the Herefordshire (Silurian) Konservat-Lagerstätte fauna at the Yangtze Conference in Nanjing, a joint meeting combining the 4th International Conference on the Silurian, the *10th International Conference on the Ordovician*, and IGCP project 503. A presentation by the research team working on this Lagerstätte was in addition given at the Annual Meeting of the Palaeontological Association in Sheffield. Dr Siveter gave a tour of the Museum to representatives of the Department of Trade and Industry Office of Science and Innovation. He supervised Stacey Gibb, a postgraduate student from the University of Alberta (Edmonton) who was in the Museum for the academic year; he continued with curation of the Palaeozoic (Devonian and Carboniferous) collections; and he acted as an Assessor for examinations in the Department of Earth Sciences. He was also elected to a Fellowship of St Cross College.

Enquiries have, as ever, occupied a significant amount of Mr Jeffery's time, with over 400 received in person, by letter, email and telephone. A hugely welcome capital investment is being made in new collections furniture, and it has fallen to him to specify requirements in detail and obtain the most competitive tenders. He has also taken a central position in facilitating the loan of one of the Museum's most important and most studied specimens – the so-called 'Red Lady of Paviland' – to the National Museum of Wales. Considerable time and effort has been invested in negotiations to acquire an internationally significant collection of Quaternary mammal remains from local gravel pits; though no agreement has yet been reached, work on behalf of the Museum continues. Work is also underway to identify and curate the important and irreplaceable collection of Middle Jurassic invertebrates from the famous Stonesfield Slate mines. Mr Jeffery 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. He has also acted as referee for numerous papers.

Miss Howlett has spent much of the year getting to grips with documentation backlogs, creating inventories of material stored outside the main collections rooms. She has continued her research on William Buckland, paying a visit to the Royal College of Surgeons in London to examine Frank Buckland's Commonplace Book. With Professor Kennedy and Mr Hall, she put together an exhibition of archival material for the *William Buckland 150th Anniversary Symposium* in August; she also assisted Lauren Gilmour of Abingdon Museum with images for their exhibition on Buckland's wife, Mary Morland. She sorted and reboxed the offprint collections of P.D. Lane and M.R. House, and continues to liaise with Mrs Alton on the cataloguing of House's manuscript material. Following new guidelines from the Subcommission on Carboniferous Stratigraphy, she updated all horizons in the Carboniferous database to conform with modern terminology. She attended an MLA training day on archives

in museums, and an MDA training day on documentation prioritisation, and also completed a 10-week evening course on the geological highlights of the British Isles.

Ms Hay has continued her work on the new, permanent displays, completing two more cases ('Evolution of the Horse' and 'Adaptation') in the evolution arcade. She has also spent quite a lot of time on conservation, focussing mainly on Lias material (belemnites, coprolites and fish). She made and painted a cast of the early horse *Hyracotherium* for a touring exhibition entitled 'Museum of the White Horse' by the artist Tania Kovats; she also visited Derby Museum to advise on the possible casting of the so-called 'Allenton Hippo' as part of a sculpture commission by the artist Michael Dan Archer. She has answered various enquiries on conservation matters, from commercial companies and the general public, and has also been involved in a number of research projects, assisting Chris Day (University of Oxford) with the stabilisation of a stalactite sample from south Chile to allow UTh chronology and stable isotope analysis, and working with Stacey Gibb (University of Alberta) on techniques for preserving *Triops* tracks in sand.

For medical reasons, Mrs Irving has spent much time away from work this year. She has, however, managed to keep up with the ongoing maintenance of pyritic and other vulnerable specimens. She has also started a re-organization of the Carboniferous plants, in order to bring together specimens from the same locality that were widely dispersed throughout the Collection, checking and correcting obvious errors and adding further locality information where possible.

Mr Ashington has added a further 4,000 specimens to the geological databases, including Jurassic material from the Isle of Skye and from Stonesfield, Oxfordshire, and Plesistocene mammal material from Kent's Cavern, Devon. He is also involved in an ongoing project to update records in all the geological databases, converting group records into individual records in order to make searching easier. He took part in half-term educational activities on the subjects of 'Dragons and Treasure' and 'The Ice Age', and was responsible for screening the film *Son of Kong* (1933), and episodes from the classic children's television series *Moschops* (1980s), for the 'Festival of Light' 2007.

Mr Francis continued his work on the Palaeozoic collections, and managed to catalogue some 2,100 specimens, despite having time off to complete his Masters dissertation. The cataloguing of the Carboniferous collections is now complete, and a good start has been made on the Permian. Having gained his MSc in Museum Studies (with merit), Mr Francis has moved to a temporary job working at the Dinosaur Farm Museum on the Isle of Wight.

Mr Powell has answered the usual enquiries on building stones, which this year have included consultations on Alcester Roman Fort, Ashbury Manor and Windsor Castle. He contributed to the Ashmolean Museum's *Manuscript catalogues of the early museum collections*, and advised Magdalen College on a mammoth tusk and teeth excavated from their grounds in 1922. From January, he also resumed his role as Programme Secretary for the Oxford Geology Group.

Mrs Alton has continued with the archiving of the papers of M.R. House, working under the auspices of the National Cataloguing Unit for the Archives of Contemporary Scientists (NCUACS). The initial sorting is now complete, and work on the catalogue is progressing well.

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

Ms Lipkin began voluntary work in January, helping to curate the Triassic collections.

Mineralogical Collections

Dr Waters continued with various strands of his petrological and mineralogical research. One of these involves a study of a suite of lower crustal xenoliths discovered in an unusual dyke from south Tibet by DPhil student Gavin Chan. At the 2007 Himalayan Workshop in Hong Kong, Mr Chan presented a talk about how these inform us about processes at depth during Himalayan mountain-building, and a paper is in preparation. Work continues on rocks from the area around Mt Everest, including those collected by Lawrence Wager in 1933. Dr Waters is collaborating with DPhil candidate John Cottle on the microstructure and petrology of a traverse through the South Tibetan Detachment Zone NE of Everest, as a test of the channel-flow hypothesis. A paper is in preparation, and an undergraduate project has been set up for 2007/8. Professor Richard Law (Virginia Tech) made another visit in the past year, and work continues preparing the study on Wager's Everest samples for publication, in parallel with related papers involving Professor Law, his student Micah Jessup, and Oxford collaborators Dr Mike Searle and John Cottle. A detailed interpretation of aerial photographs and expedition photography allowed Dr Waters to contribute revisions to the forthcoming second edition of Dr Searle's geological map of Mt Everest. A poster display featuring Wager's collection and its place in current Himalayan research was prepared for use in the Science open days over the summer of 2006, and is now on permanent display in the lobby of the Department of Earth Sciences. A web version can now be seen at http://www.earth.ox.ac.uk/~davewa/research/himal/everest-lrw.html.

During the year Dr Waters supervised an undergraduate project by Andrew Smye, who participated in the South-West Baffin Integrated Geosciences project, led by Dr Marc St-Onge of Natural Resources Canada. He also began a collaboration with sabbatical visitor Dr Mohammad Zarrinkoub of Birjand University, Iran, on the mineralogy and petrology of chromite deposits from eastern Iran.

During the first part of the year, Miss Price completed her book *Decorative stone, the complete sourcebook* which was published by Thames and Hudson (and in Canada by Firefly Books) in April. It draws together her research on nearly 300 different decorative stones, and is illustrated by samples from the Corsi collection and the museum's decorative rock collections, augmented by a substantial number of new samples obtained from stone merchants and quarrying companies in the UK and overseas. She has made some progress in preparing details of the Corsi collection for the Museum website.

Miss Price has joined the editorial board of the *Journal of the Russell Society*. She has continued routine curatorial work, including the unpacking, cleaning and sorting of Reading University specimens. She also produced small displays on Buckland and the Corsi Collection of decorative stones, and on the Mary Morland Collection, for the *William Buckland 150th Anniversary Symposium.*

Professor Kennedy and Mr Walsh co-ordinated the preparation of new permanent displays on the theme of the rock cycle. The ten table cases contain 203 fine examples of igneous, metamorphic and sedimentary rocks. New cases have been constructed for gemstone displays on the upper gallery. Miss Price has begun the selection of specimens and preparation of the exhibits, and has worked with Mr Burras on the selection of lighting for the cases. Mr Walsh purchased a number of minerals and decorative stones at the Mineralientage in Munich in October. Miss Price attended the Oxford Mineral and Gem Shows in March and July, buying a small number of specimens. Further specimens, intended for the new gemstone displays, were purchased by Miss Price and Mr Walsh at the Ste Marie-aux-Mines mineral show in June.

Mrs Irving was absent for substantial parts of the year during medical treatment, but was still able to maintain the pyrite treatment programme and continue condition reports and identification of associated species, for specimens requiring oxygen-free storage. She has also investigated sulphide specimens which appear to have been 'treated' by various methods in the past. We are glad to have her back in good health again.

Our team of volunteers have made a huge impact on the amount of work we have managed to progress this year, and we are very grateful to them all for their assistance. Professor Vincent

has continued cataloguing the collections archives. His personal knowledge of the history of the Department and many of the personalities associated with it, together with his skills reading, for example, historic French and German correspondence, have enabled him to produce a very informative computer catalogue.

Miss Phipps completed the updating of the meteorite catalogues with details from Grady's Catalogue of Meteorites in the Natural History Museum. She has made substantial progress in the digital imaging of the original labels albums for the mineral collection. These contain specimen labels dating as far back as the 18th century and are an important historical resource. The acidity of the album boards and label papers has rendered them very fragile. Digitisation will make the contents accessible while protecting the originals from accidental damage. Mr James, former data entry clerk, returned to the museum in May to continue checking localities on the mineral database, completing those in Cornwall and progressing to Welsh localities.

Laura Cotton, an undergraduate in Earth Sciences at Oxford, has continued to turn her hand to any curatorial tasks required through the year, working mainly on the documentation and reidentification of mis-identified minerals. She joined Dr Waters in devising and presenting a display entitled 'Microscopic Magic – Tricks of the Light' for this year's *In a Different Light* special Museums' Week opening.

While lack of space has precluded any curatorial work on modern rock collections, progress has been made preparing historic collections for computer cataloguing. Mr Smith has sorted, cleaned, labelled and checked locality data for the W.A.B. Coolidge collection of Alpine rocks. A radiator leak in the Abraham Room resulted in the rescue and reboxing of the Pudsey collection of Karakoram rocks, and brought forward the much-needed reflooring and refurbishment of the Abraham Room. The MacCulloch collection was labelled and boxed by Miss Price and Mr Smith with the help of Chloe Hayes during her work experience placement. This has released drawer space for Buckland, Coolidge and other historic rocks, which will be computer catalogued in 2007/8. Oliver White made huge progress with the computer cataloguing of the Daubeny collection, and with entering new mineral accessions on computer. He left in October to begin his PhD studies in London. The work on the Daubeny collection has been continued by Mrs Randle, who joined the Museum's volunteer team in October. Mrs Cooke has continued her research for a publication on the Corsi Collection catalogue.

Zoological Collections

Dr Kemp presented research papers to three international conferences: the Palaeontological Society of Southern Africa in Grahamstown (September), the Symposium of Vertebrate Palaeontology and Comparative Anatomy in Paris (September), and the Society of Vertebrate Paleontology annual meeting in Ottawa (October). He was invited to give a set of four lectures on the evolution of mammals in Cambridge, and was an invited discussant at a Sophia Europa meeting on Science and Religion, held in Oriel College. He gave his three annual University teaching courses in Honour Mods and the Final Honour School of Biological Sciences, and continued to perform his duties as Biology Tutor at St John's College, and as the College's Keeper of Bagley Wood.

Dr De Grave accepted a post-doctoral research fellowship at St. Anne's College, as well as taking over from Dr A. Parker, as Associate Editor for *Zoologische Anzeigner*, with responsibility for Arthropoda (non-Insecta).

He gave a museum seminar at the Los Angeles County Museum of Natural History, led a full day workshop on the identification of east Pacific Caridea for SCAMIT (Southern California Association of Marine Invertebrate Taxonomists), and gave research seminars at the University of Louisiana at Lafayette and at the United States National Museum.

Mrs Nowak-Kemp continued her research in the University archives of the human material, including the pathological collections, collaborating with colleagues in other Oxford University

museums and the Natural History Museum in London. She visited and inspected the vertebrate collections of museums in South Africa.

In October 2006, she gave a talk about the Dodo to an international meeting of geologists, palaeontologists, ornithologists, ancient DNA researchers and historians working on various research projects in Mauritius. In January she gave her annual talk to the students of the M.Sc course *Nature, Society and Environmental Policy,* run by the Oxford University Centre for the Environment, and in May to the 1st year undergraduates of the Ruskin School of Fine Arts.

She organized seven practical classes in the Zoological Collections Laboratory, with 18 individual sessions, for both Oxford and Oxford Brookes Universities, namely 1st year Archaeology/Anthropology, 2nd year Archaeology/Anthropology, Zooarchaeology, Mammal Evolution, part 1, Mammal Evolution, part 2, Primates and Primates Conservation (Brookes University), and 1st year Biology (Brookes University), a new class, which she taught jointly with Professor Bearder. Altogether over 180 students used the Zoological Collections specimens and facilities in the course of their practical classes.

As in previous years, Mrs Nowak-Kemp co-ordinated and trained new volunteers for their work in the vertebrate collections.

Ms Conyers successfully completed "An Introduction to Collections Preservation" course, an internet based, distance learning course run by the Northern States Conservation Centre (8 January - 2 February 2007).

Mr John Davies continued to visit regularly and identify specimens in the mollusc collections, particularly helicids and annulariids. He paid a second visit to the Natural History Museum in Vienna where he collaborated with Mg. Anita Eschner in the mollusc department. He also assisted Arthur MacGregor and Moira Hook of the Ashmolean Museum in the preparation of their *Manuscript catalogues of the early museum collections*, translating and identifying the molluscan entries.

The Invertebrate Section completed the PRISM-funded curatorial project on the dry Crustacea holdings, largely due to the work of the temporarily appointed Ms Rachel Hale. All the scientifically or historically valuable material is now fully curated and group-accessioned. Other material of no such immediate value is for the moment kept in the original drawers.

Work continued on the invertebrate spirit replacement project, and 1500 individual jars, containing almost 2,000 specimen lots, were assessed, the preservation fluid identified and its concentration and pH measured, and the specimens treated accordingly.

Re-organisation of the mollusc room also continued, with the systematic breakdown of the collection into family groups. The gastropod collections of Bairstow, Napier, Robson and Whiteley, a total in excess of 5,000 specimens, were separated to family level, which completes this phase of the mollusc project. Taxa of molluscs now fully electronically accessioned and curated include Helicidae, Cephalopoda, Scaphopoda, Cypraeidae, Architectonicidae, Angariidae, Cassidae, Tonnidae, Volutidae and Terebridae, totalling almost 2,500 specimens.

Ms Conyers continued to monitor the invertebrate display jars for deterioration of the containers, and was responsible for cleaning the cases as necessary. She was also responsible for environmental monitoring of the invertebrate section areas; providing training, support and advice to Ms Hale during the Crustacea project; supervising Oxford Brookes University students using invertebrate specimens for their course work; supervising an ITV film crew during filming in the Museum; and providing invertebrate specimens for the Zoology Department Open Days.

Within the Vertebrate Section, work progressed on the reorganization of the dry ichthyological material with the help given by our long-standing volunteer, Mrs Joanna Gilmour. So far, all orders and families of classes Myxini, Cephalaspidomorphi, and Chondrichthyes, plus 36 orders and their families of the class Osteichthyes have been curated. A total of 540 specimens have been entered onto the fish electronic database to date.

Mrs Sue Benenson finished the curation of the spirit collection of tuatara, chelonians and lizards.

Mrs Latha Menon undertook the conservation of Dr Kemp's Zambian fossil collection and transferred over half of it into conservation grade boxes. She has created an electronic list of the specimens and their localities, and appropriate labels.

A new volunteer, Mrs Diane Jones-Parry, started the curation and conservation of the birds' nests holding. In July she visited the Hunterian Museum in Glasgow to familiarise herself with collections and databasing of nests.

In April a large number of vertebrate specimens were transferred from the Department of Zoology and human osteological specimens from the Department of Human Anatomy. Mrs Nowak-Kemp completed the curation, conservation and electronic databasing of the Department of Zoology transfer.

Work continued on entering the holdings of the spirit collection of Ophidia, and dry Bell/Hope Chelonia into a new Reptilia database.

This year was the second year of an annual intensive anti-*Anthrenus* programme, involving thorough examination of every bird skin specimen. 53 specimens were deemed to require deep-freezing treatment.

The Hope and Arkell Libraries

New books and journals were catalogued on to OLIS and the retrospective cataloguing continued with substantial monographs and original publications stored in the entomology offprints and pamphlets' collection continuing to be added to the OLIS database.

Work was completed on the manuscripts of C.J. Bayzand (geologist). These were cleaned, sorted and put into new folders in archival storage boxes and catalogued.

Many entomology offprints from the former Classeys booksellers have continued to be added to the collection.

The Museum's projects for the Andrew Mellon Foundation-funded Oxford Digital Library (ODL): *Key 17th, 18th to 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 officially launched by OULS in October (http://www2.odl.ox.ac.uk).

The usual library tasks of acquiring, classifying and cataloguing material were maintained, including keeping journal runs up to date and obtaining material from other libraries for staff of the Museum and supplying photocopies to other libraries. Entomology and mineralogy journals were sent for binding

Library tours for new members of staff were provided on two occasions and a visit of other entomology librarians hosted on 8 January.

Various exhibitions were laid out in the archive room: geological manuscripts on 21 October for Dr Siveter's visitors (from the Leicester Literary and Philosophical Society) and on 29 November for Dr Rickaby's students, also seen by visitors of Professor Kennedy on 30 November, and an exhibition of specifically William Smith manuscripts for a potential benefactor on 9 February. Entomological treasures were on display for members of the Dipterists' Forum, on 24 November, attending their annual meeting. They were also given a tour and a brief history of the Hope Library.

The Librarian attended the *William Buckland 150th Anniversary Symposium* on 12 August, an Oxford University Museums' and Collections' Histories' Group (OUMCHG) meeting at the Pitt Rivers Museum on 19 December and the annual Oxford Librarians' conference, entitled *Value-Added Collections*, on 15 March. She assisted with the *In a Different Light* event of 19 May.

She continued her membership the Entomology Libraries' and Information Network (ELIN) and the History of Geology Group (HOGG).

The Librarian organized a meeting of the OUMCHG on Friday 29 June, hosted by the Museum and held in the lecture theatre. She also gave one of the talks: on the fate of Ernest Westlake's 'eolith' collection. The title of the meeting was *Fakes and mistakes*. The indispensable assistance of members of staff especially Ms Andrews-Speed, Miss Howlett, Mrs Nowak-Kemp, Mr Burras and Mr Archer is gratefully acknowledged. She thanks also Miss Price, Dr McGavin and Mr Powell for their presentations and Mrs Nowak-Kemp and Mr Mann for their collections' tours.

Mr Hall has continued to work on the conservation of the Museum's archives, including ongoing work on the William Buckland and John Phillips collections. The A.H. Green diagrams were conserved and work started on Joseph Prestwich's large lecture diagrams. Some damaged books from the Museum's libraries were repaired.

Mr Hall has acted as exhibition co-ordinator for several artists who have had temporary exhibitions in the upper gallery. Additionally, this year he has prepared an exhibition of early photographs of the Museum under construction from our collections, including copying the original photographs, cutting the mounts and making the frames, ready for the exhibition in August. He has carried out photographic services for other Museum departments.

The environmental monitoring continues in the Museum's display and storage areas and at the off-site store at Nuneham Courtenay. Mr Hall has continued to carry out COSHH assessments for the chemicals used in the Conservation Studio and is Deputy Chemical Officer for the Museum.

Information Technology

Windows XP is now used throughout the Museum, and all staff are connected to the Windows 2003 server. This has proved especially useful for the sharing of files between administrative staff and the education team. The previous Novell server was used primarily for the collections databases. IT staff continue to set up new computers to update anti-virus software directly from the Sophos site in order that virus protection is as immediate as possible.

The overall number of web visitors to the Museum's website for the year from August 2006 to July 2007 was roughly the same as the previous year – approximately 850,000. However, there was a predictable drop in web visits immediately after the launch of the new website in March 2006, followed by a steady increase in visits. The figures for April to July 2007 were significantly higher than for the same months in 2005 and 2006, so the trend is a positive one. The most popular web pages remain those in the Learning Zone with links to the science national curriculum. These pages account for more than half of all visits to the Museum's website.

The site search facility on the website has been significantly changed and improved: instead of existing as a separate page, it is now available on every page of the site. There is also a restricted site search available from anywhere within the Learning Zone. Ms Phibbs set up these searches as part of a pilot project with the Computing Services after the *Google* utility that had been available was withdrawn.

In addition to the collection and analysis of the Museum's web statistics, Ms Phibbs has taken responsibility for the processing of web statistics for the new joint museums' website. Results from these analyses are shared with other museum staff in Oxford. The figures also contribute to a large schools project run by the Natural History Museum in London.

In October 2006 the Cenozoic databases for the Geological Collections were completed and converted for the web. Records for the entire Geological Collections, over 100,000 in all, are now available online as searchable databases. In the Zoological Collections a new database has been set up for recording the details of human remains held by the Museum.

The Museum has an ongoing commitment to making its digital collections more widely available, and in November 2006 IT staff began contributing information to the MICHAEL project. MICHAEL is a multilingual online catalogue that aims to provide quick and simple access to the digital collections of museums, libraries and archives from European countries.

Education Department

The Education Department has worked hard to embed recent initiatives into its ongoing programmes and has consolidated its growth over the last 3 years. It has continued to work in close partnership with the education teams in the other University museums and collections, and over the last year emphasis has been placed on members of the department sharing their experience within the wider museum education community.

Whilst the core education team has remained stable there have been changes in the cross-museum posts. Mr Adrian Brookes took up the post of Art Education Officer in August and is working to develop a service to secondary art groups across the four museums. Within this museum he has devised resources for art teachers relating to the collections.

Over the last year Education Department staff have spent an increasing amount of time involved in training days and working with the wider museum education community, including fulfilling the Museum's responsibilities as a SE Hub lead member.

All members of the department have been involved in the setting up of a special interest group; SLIME (Science Links in Museum Education), to foster interest within the museum education community in delivering science programmes and to offer support in developing sessions. The first SLIME training day was held in January; Mr Jarvis, Ms Lloyd and Mrs Todd all ran very popular workshop sessions.

In March Ms Lloyd ran a training day on developing programmes for secondary schools, which was well attended. In addition to her presentations, Dr McGavin and Mr Mann ran sessions to show how collections can work with secondary groups.

Mrs Stott gave presentations on the Museum's Family Friendly activities to a Group for Education in Museums national training day, a Botanic Garden Education Network training day and a National Trust education conference. In May she gave a presentation on secondary science programmes at the ECSITE annual conference in Lisbon on behalf of the strategic commissioning partnership.

In order to fulfil the increased administrative requirements of the SE Hub, the lead education officers of the university museums have weekly meetings, together with the curator of the Botanic Garden, Louise Allen and the Hub manager, John Hobart. Mrs Stott currently chairs this group and also represents the Oxford University Museums at some Hub management, MLA and MLA SE meetings.

The Education Department has continued its association with the University Department of Education and Oxford Brookes University, teaching over 300 PGCE students, both primary and secondary. In July Chris Jarvis was invited to talk about dinosaurs at the LEA primary science conference.

With 300 registered volunteers helping across the museums and two large events to organise, it has been another busy year for the Volunteer Service. As a result of the growth in the number of volunteers working across the collections, a new post of volunteer and outreach assistant was created. Ms Lorna Stephenson was appointed to the post. Amongst her many responsibilities she has taken on the co-ordination of the volunteers for the Family Friendly Sunday activities.

The Volunteer Service continued to support volunteers across the museums. Volunteers at family friendly events gave 1,002 hours to the Museum over the year. 'Wow! How?', the hands-on science fair for children and their families, hosted by the OUM and Pitt Rivers Museum, featured 28 activities, all designed and run by volunteers. Many hours were generously given by volunteers behind the scenes, to the credit of the Entomology, Geology, Mineralogy and Zoology collections, who put thought and time into supporting these volunteers.

The Museums and Education Course ran in Hilary Term with 16 of our most committed volunteers attending the course. Education Officers from five of the museums led sessions on the six week course. Attendance was excellent and feedback very positive.

Ms Bain has researched and developed a Policy on the Protection of Children and Vulnerable Adults for the museums. This comes into force in the OUM in the new academic year. It aims to safeguard children and vulnerable adults visiting the museums, and enable staff to feel confident working with these groups. To ensure a consistent high quality service to the volunteers, current practice on recruiting and supporting volunteers was reviewed with helpful input from volunteers, and a Volunteer Policy has been developed.

Mrs Todd went on maternity leave in January and we were delighted to hear of the safe arrival of Harvey. Ms Flora Bain was recruited as volunteer co-ordinator for Joy's maternity leave and was plunged straight into organizing our science fair 'Wow! How?'.

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

Museum Shop

Till sales reached £130,561 this year, 0.14% down on the previous financial year. Visitor numbers and shop sales this year have been greatly affected by the changing weather conditions. The beautiful weather in April saw a drop in visitor figures and shop takings. The months of June and July where extremely busy bringing in more visitors and a combined total of £27,500, possibly due to the poor weather.

Ms Smith continued to manage the shop on a full time basis and was joined in February by Ms Boughton as Senior Sales Assistant. Their aim has been to continue to introduce new and exciting products into the shop and to develop the museum's bespoke range of products. This year there has been an emphasis on trialling new stock lines in an attempt to increase sales.

During the year a business plan was produced at the request of the Visitors Committee, who required further justification of the proposed refurbishment of the shop. The plans for the refurbishment of the shop were developed over the year in consultation with both external suppliers and the Estate Directorate. The redesign would provide much needed additional display and storage space on the shop floor. It was decided to monitor sales over a further eight-month period to justify the investment.

Ms Smith met with Oxford Limited, to explore the possibility of finding commercially viable images suitable for licensing in the museum archives and collections. This should begin in September and could be a good source of revenue for the museum.

The change of the Museum's opening hours has seen the shop open from 10am-5pm from the 1st April. It is hoped that this will increase sales, particularly during school holidays. Early signs show that it will be extremely successful.

The weekends continue to be staffed by an able team of part time staff, one of which Mr Trevor Hambidge left at the end of July after five years. He is thanked for all his help and hard work during this time.

The shop sales committee is thanked for their continuing support and encouragement.

Environmental Archaeology Unit

Excavations were completed in the garden of the House of the Greek Epigrams at Pompeii. An interesting discovery was made of ostrich egg shell fragments. It is possible that the eggs had been imported from North Africa for ornamental purposes. A popular account of the work in gardens at Pompeii was given in the Trinity edition of *Oxford Today*. A paper was given to a conference in Rome in January on the stratigraphy of prehistoric archaeology at Pompeii focusing on the discoveries of the Environmental Archaeology Unit.

The preliminary work on the contents of a sewer at Herculaneum continues to attract media interest and a contribution was made to a German television series on ancient civilisations. Preparations are being made for detailed analysis of the biological remains from the sewer in September 2007.

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.

Henry Wellcome Ancient Biomolecules Centre

This year saw a few endings and several new beginnings, both in the tenure of staff and in specific research projects underway at the Ancient Biomolecules Centre. Ross Barnett, who has been in the centre since 2003, completed and was awarded his DPhil for his research into the evolutionary history of and phylogenetic relationships between the large cats, and has gone to the University of Durham to take a postdoctoral post working on voles in Scotland. Short-term visiting scientists included Ana Abecasis, Koen Deforche and Gkikas Magiorkinis, who are all interested in applying computational models of DNA evolution through time to serially-sampled data sets; Tyler Kuhn, who was interested in extracting DNA from ancient caribou specimens collected in the Canadian arctic, and Hanneke Meier, who used the facilities at the ABC to attempt to extract DNA from several bird specimens collected from caves in Flores. The year saw a continued emphasis on bovid research, focusing in particular on questions about the timing and location of bovid domestication in Europe. One publication (Edwards, *et al,* 2007) has already resulted from this work, and at least two more will follow within the next 12 months.

Centre researchers have concentrated this year on improving techniques for isolating DNA directly from soil and similar materials, and it is in this direction that the majority of work in the Centre is likely to go over the next several years. Two manuscripts on this subject were published this year (Haile, *et al,* 2006 and Willerslev, *et al,* 2007), and several more are in the pipeline. Of particular interest is the possibility of recovering DNA from Neanderthal and commensal species from known sites that these populations are known or believed to have used. To this end, they are working on sediment and bone collected from sites in Portugal, Spain, Siberia and southwestern England (Kents Cavern).

Finally, they are continuing to work on gaining a better understanding of the evolution and history of the Dodo, with the ultimate goal of adding this information to genetic data already uncovered from the specimen held at the Museum. To this end, the ABC, with the invaluable guidance of Mrs Nowak-Kemp, hosted a two-day workshop for an international group of researchers (the Dodo Research Programme, DRP) in Autumn 2006, in which academic visitors with research interests in the history of the Dodo and Mauritius were given a tour of the Museum and the opportunity to see the prized Dodo specimen. The workshop was a success, leading to the official incorporation of the DRP on Mauritius and a 5-year research plan for work on the island.

Simonyi Professor for the Understanding of Science

The Simonyi Professorship has continued to command a high profile in all areas promoting the public understanding of science. Professor Richard Dawkins has addressed a wide variety of audiences around the world including the European Parliament in Brussels, becoming a William J Clinton Distinguished Lecturer in Little Rock, Arkansas, a participant in the Forbes iMEME conference in San Francisco, a keynote speaker at the University of Hawaii, and the Ideas City Conference in Toronto. He has been active in various events including literary festivals in Oxford, Edinburgh, Cheltenham, chairing the Darwin Day lecture at UCL, as well as many University and science conferences. In late summer of 2007 Channel 4 showed the two-part documentary by Professor Dawkins, "The Enemies of Reason" which had record number of viewers. Numerous radio interviews followed including Radio London, Radio 4, National Public Radio New York, Los Angeles and Washington and ABC in Australia. Articles have been published in the major broadsheets including *The Independent, The Guardian, The New York Times, LA Herald* and journals such as *The Skeptic* and *Free Inquiry*.

This year also saw the publication of *The God Delusion* becoming a number one bestseller and is currently printed in over 40 languages. Professor Dawkins was named as one of Time Life's 100 most influential people. He won the Galaxy Book Award for Book of the Year for *The God Delusion*, and the Lewis Thomas Prize from Rockefeller University in New York. 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.

In April, Professor Dawkins set up the charity, The Richard Dawkins Foundation for Reason and Science, which now has chapters in both the United States and the United Kingdom. His website, www.richarddawkins.net continues to grow and has over one million hits since its inception.

Part III Appendices

Appendix 1: Visitors of the Oxford University Museum of Natural History at 31 July 2007

The Vice-Chancellor J.A. Hood, BE, M.Phil., Ph.D.
Lord Krebs, MA, D.Phil., FRS (Chairman)
The Assessor P. Coones, MA, D.Phil.
The Proctors J. Forder, MA, D.Phil.
Professor M.J. Banks, MA, Ph.D.
Professor L.R.M. Cocks, OBE, TD, MA, D.Phil., D.Sc., FGS
Professor P.C. England, MA, D.Phil., FRS
Dr L. Gilmour, MA, Ph.D., FSA, AMA
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 D.J. Siveter, MA (status), B.Sc., Ph.D., FGS (in attendance)
Dr D.J. Waters, MA, D.Phil. (in attendance)

Appendix 2: Staff of the Museum at 31 July 2007

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
Curatorial Officer: Mr D. Mann, B.Tec.
University Support Staff: Mr J. Hogan, B.Sc.; Ms Z. Simmons, B.Sc.

Geological Collections

Acting Curator: Dr D.J. Siveter, MA (status), B.Sc., Ph.D., FGS
Assistant Curator: Mr P.A. Jeffery
Curatorial Officer: Miss E.A. Howlett, BN
University Support Staff: Mr A. Ashington; Ms J. Hay, BA; Mrs E.J. Irving, BA, M.Sc.

Mineralogical Collections

Curator: Dr D.J. Waters, MA, D.Phil.
Assistant Curator: Miss M.T. Price, MA (status), B.Sc., M.Sc., AMA
University Support Staff: Mrs E.J. Irving, BA, M.Sc.

Zoological Collections

Curator: Dr T.S. Kemp, MA, Ph.D.
Assistant Curator: Dr S. De Grave, B.Sc., M.Sc., Ph.D.
Curatorial Officer: Mrs M. Nowak-Kemp, B.Sc., M.Sc.
University Support Staff: Ms L. Conyers

Information Technologists

Officer: Ms S. Phibbs, BA
Assistant: Dr R. Painter, BA, M.Sc., D.Phil.

Education Officers

Head of Education: 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. (maternity leave)
Volunteers Co-ordinator: Ms F. Bain, BA
Volunteer and Outreach Assistant: Ms L. Stevenson, B.Sc.
Education Assistant: Ms A. Crook, BA

Librarian

Ms S.M. Brecknell, BA, ALA

University Support Staff: Building

Head of Technical Services: Mr C. Burras
Cabinet-maker: Mr W. Richey
Workshop and maintenance: Mr P. Johnson
Cleaners: Mr C. Abinett; Mr G. Coates

University Support Staff: Central Services

Head Porter: Mr A. Archer
Deputy Porters: Mr I. Hussain; Mr S. James, MA; Mr A. Lesnik, BA; Mr D. Torstensson, MA
Administrator's Assistant and Director's Secretary: Ms K.A. Andrews-Speed
Accounts Clerk: Mrs K. King
Conservator: Mr R. Hall, NDD, B.Tec.;
Shop Manager: Ms N. Smith, BA
Shop Assistants: Ms R. Boughton, BA; Ms K. Barnard, BA; Ms J. Petersen

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, BA
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.

Associated Units

Environmental Archaeology Unit

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

Henry Wellcome Ancient Biomolecules Centre

Director: Dr B. Shapiro, B.Sc., M.Sc., MA, D.Phil. (Royal Society Research Fellow)
Mr S. Ho, B.Sc., M.Sc. (Leverhulme Trust Postdoctoral Researcher)
Mr J. Haile, BA, MA (DPhil student)

Simonyi Professor for the Public Understanding of Science

Professor R. Dawkins, MA, D.Sc., FRS, FRSI
Personal Assistant: Mrs C. DeBlase, BA

Volunteers and temporary staff

We would also like to thank the many volunteers who have support family activities at the Museum this year. Their support is vital to the Education Service's family programme. The Volunteer Service would like to make special mention of the Sunday Volunteers Team whose loyalty has ensured that the museum has been able to continue to offer this important weekly activity throughout this year.

A number of volunteers, temporary workers and work experience students have assisted in the collections and they are listed below.

The Hope Entomological Collections

Steve Backshall, Gill Bannerman, Emily Bell (The Convent School Abingdon), James Blundell, Leonidas Davranoglou (Lycée Franco-Héllenique, Athens), Katherine Drayson, James Fullarton (Cokethorpe School), Samantha Hayes, Peter Hughes, Richard Hunter, Julie Jo (Roedean School), Hannah MacGregor, and Fidelis Mannack (The European School, Culham).

Geological Collections

Mrs Jeannine Alton, Nick Francis, Jessica Donaldson (University of Birmingham), Christine Lipkin (University of Bonn), James Fleming (Bishop Walsh Catholic School, Sutton Coalfield).

Mineralogical Collections

Miss Laura Cotton, Chloe Hayes (Burford School), Mr Seymour James, Miss Nina Phipps, Mrs Jane Randle, Mr Ted Smith, Professor E.A. Vincent, Mr Oliver White.

Zoological Collections

Jo Gilmour; Sue Benenson; Latha Menon; Diana Jones-Parr; Katy Barnard (Oxford University); Sarah Hodjkiss (Oxford Brookes University); Jennifer Miller (Oxford Brookes University); Isobel Stephenson (Oxford Brookes University); Josephine Msindai (Oxford Brookes University); Nasreen Aziz (Oxford Brookes University); Caitlin Eschmann (Oxford Brookes University); Sarah Fowkes (Oxford Brookes University); Tallulah Bygraves (Oxford Brookes University); Morwena Moore (Oxford Brookes University); Trisha Gilmore (Oxford Brookes University); Joanna Strumilowska (Oxford Brookes University); Katie Gutcher (Oxford Brookes University).

Appendix 3: Finance

The University's General Board made a grant towards recurrent costs totalling £600,788 with an additional amount of £15,748 from the HR Strategy Fund for the financial year ending 31 July 2007.

In addition we received this year's instalment towards recurrent costs from AHRC amounting to £312,000.

Grants awarded and donations received

During the year 2006/07 we were again very successful in raising external funds from variety of sources for many different projects. DCMS Wolfson awarded a total of £130,000 for two permanent display projects, £75,000 for the mammal and bird displays and £55,000 for the local geology displays. The display programme was also supported by WREN (Waste Recycling Environmental Limited) who awarded £48,998 for the completion of the local geology displays. Turning towards conservation grants, EPA Cephalosphorin gave £100,000 for the conservation of the Vertebrate Spirit Collection and the project will be completed with additional funds of £20,000 from the PRISM fund and £2,000 from St John's College. The PRISM fund also made an award of £6,936 for the conservation of the dry crustacean collection.

The Oxford University Estates Directorate budget provided funding of £36,000 to refurbish the male visitor toilets and ASUC Contingency Fund also helped out with £6,200 to support a feasibility study for the joint Visitor Reception Area and £3,800 to rehouse human remains. Within the Education Department £85,000 was made available through HUB *Renaissance in the*

regions to support the Education Service and the OUMNH/NHM strategic commissioning project continued with support of £15,000. And finally, the Negaunee Foundation awarded $40,000 toward the running costs of the Museum, an annual gift that has provided much needed leverage funds to enable the Museum to accept other external grants that require matching funding. We are grateful to all our benefactors and grant awarding bodies for their continued support.

Hope Entomological Collections

Dr Pont together with Dr D. Werner (Humboldt-Universität zu Berlin, Berlin, Germany), received grants from the Percy Sladen Memorial Fund (Linnean Society) and the British Ecological Society for fieldwork on the dipteran predators of biting black flies in the Drakensberg Mountains, South Africa. Mr Mann received funding from the Darwin Initiative to visit Fiji.

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 continued until the end of 2006.

Dr Siveter was funded 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 Herefordshire Lagerstatte (Silurian) fossils came to an end.

Zoological Collections

Dr De Grave received several external grants (Astor Fund, Los Angeles County Museum study grant, University of Louisiana at Lafayette study grant, Brigham Young University study grant) to defray costs of study visits to the USA, as well as a substantial grant from Operation Wallacea to carry out fieldwork in Utila (Honduras).

Environmental Archaeology Unit

Professor Robinson received a grant of £2,530 from the Svenska Institutet Rom towards the cost of fieldwork at Pompeii.

Appendix 4: Research Projects

The Hope Entomological Collections

Professor Rogers continued his research on infectious disease risk mapping and prepared a large scale environmental analysis of the bluetongue virus outbreak in NW Europe in 2006.

Mr Mann continued work on historic Types and on the distribution, ecology and taxonomy of British Meloidae and Scarabaeoidea as well as Bolivian, Honduran and Bornean Scarabaeinae and visited several museums including the Natural History Museum, Cardiff, Plymouth and Manchester museums.

Mr Hogan continued his part-time Ph.D. studies on the systematics of ground beetles and supervised a research project on taxonomy of Bolivian tiger beetles undertaken by Richard Hunter (Oxford Brookes University).

Ms Simmons continued her research on the Erotylidae and continued an Oxfordshire vice-county survey of dung beetles. She also visited the Natural History Museum in London and the Hunterian Museum in Glasgow.

Dr Pont neared completion on a number of Diptera projects: a revision of the Muscidae described by J.W. Zetterstedt (some 200 species), a review of the types of Anthomyiidae in the Museum für Naturkunde, Berlin, the Fanniidae of New Zealand, the Muscidae of the Fiji Islands, a review of the hunter-flies (genus *Coenosia*) of Spain, and the Muscidae for the *Diptera Stelviana* project.

Mr Ackland has been involved with identifying and describing Anthomyiidae from the Stilsfer Joch Project (Diptera Stelviana) a project by the Humboldt University, Berlin, to collect with Malaise traps Diptera from high altitude in the Italian Alps. He continued to work on a revision of Afrotropical *Delia* and on anthomyiids collected by OUMNH staff in Pakistan. He also edited and brought up to date a database of phytophagous Anthomyiidae.

Dr Ismay continues his collaborative research on Palaearctic, Australian and African Chloropidae as well as the surveys, with Mrs B. Ismay, of Diptera in Burnham Beeches NNR. Dr Ismay and Mrs B. 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 Mrs B. Ismay, 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, together with Mrs 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 Cooter was invited by the Institute of Animal Systematics and Ecology, Siberian Branch of the Russian Academy of Sciences, Novosibirsk, to join their collaborative field expedition to East Kazakhstan.

Mr Henshaw continued to maintain contact with South Korea by providing identifications of Agromyzidae and advice to members of the National Institute of Agriculture and Technology and the University of Suwon. He was invited to the Institute, by Dr Yong Heon Kim, Head of "Natural Enemies" Department to advise on a mass breeding programme of parasitica and to give a talk on the same subject. He also had contacts in India, France and Spain and much of the year was spent preparing for the publication of *List of World Agromyzidae* in 2008. He attended the *6th International Congress of Dipterology* at Fukuoka in Japan, the first attended without Office as Vice-Chairman. Field work and identifications continued in Epping Forest.

Mr O'Toole directed a large-scale pollination trial on almonds this spring in California, using the Blue Orchard Bee, *Osmia lignaria,* in an 86 acre orchard isolated from honeybees. Preliminary results are very encouraging. *O. lignaria* is a native North American solitary bee, with great potential as an alternative to the honeybee as a managed pollinator of orchard crops. He also directed a further year's research on the mass rearing of the bee under cover.

Geological Collections

Dr Seiffert spent four weeks collecting vertebrate fossils in Cretaceous, Eocene, and Oligocene beds of Egypt. He co-authored two papers in the *Proceedings of the National Academy of Sciences, U.S.A.*, one on the Miocene mammal *Kelba*, and one on a new cranium of the Oligocene anthropoid *Aegyptopithecus*; published a paper on lorisiform evolution in *American Journal of Primatology*, and, with David Macdonald, co-authored the introductory chapter to *The Encyclopedia of Mammals.*

Dr Siveter continued to research the Welsh Borderland Silurian fossils of the Herefordshire Konservat-Lagerstätte. A total of thirteen publications resulted from the four-year Leverhulme Grant on this exceptional preservation horizon, including papers in *Nature*, *Science* and the *Proceedings of the Royal Society*. Postdoctoral Research Associate Kate Saunders (Oxford) and colleagues from the universities of Leicester, London (Imperial College) and Yale collaborated

on this research, which is ongoing. Dr Siveter's work on the Lower Cambrian biota of the Chengjiang Lagerstätte, China, funded by the Royal Society and with colleagues from Kunming and Leicester universities, also continues. Fieldwork in Herefordshire and in Yunnan was undertaken in connection with both these research projects, and publications produced on ostracods and radiolarians, and vetulicolians, respectively. Three other papers were completed, two on Herefordshire (Silurian) arthropods, and one on the documentation of non-trilobite arthropod sites in the UK for the Joint Nature Conservation Committee.

Mr Jeffery continued his work on a first record of marine bivalves in terrestrial amber from the Miocene of Mexico. His long-term project to document the mollusc fauna of the Eocene Barton Group of southern England is progressing well, with bivalves, scaphopods and cephalopods having undergone primary revision, and work on the gastropods underway. Study of the controversial Purbeck ichthyosaur is nearing completion and Mr Jeffery will be a co-author on the final paper.

Professor Kennedy, with colleagues in other universities, completed final drafts of manuscripts on the bases of the Santonian Stage and the Campanian Stage in the Dallas area of Texas, Albian faunas from Belgium and SE France, and an integrated alpha taxonomy/morphometric analysis of ammonites of the genus *Knemiceras*, based on material from Iran and Lebanon. Ongoing projects are on Turonian ammonite faunas of the Münsterland basin, Germany, sea levels and isotopes in the Middle Cenomanian of Western Europe and the US Western Interior, new heteromorph ammonites from Madagascar, and an integrated study (nannofossils, planktonic foraminifera, inoceramid bivalves, ammonites, isotopes, geochemistry, and Milankovitch cycles) of the Upper Albian of the Vocontian Basin (SE France).

Mineralogical Collections

Dr Waters was engaged in a number of continuing research projects with local and external collaborators:

Metamorphic and microstructural history of the South Tibetan Detachment system in the Everest area, with M.P. Searle, J.M. Cottle (Oxford), R.D. Law, M.J. Jessup (Virginia Tech); Petrology of a lower crustal nodule suite from Miocene ultrapotassic dykes, southern Tibet, with Gavin H-N Chan (Oxford); Tectonic evolution of the Mogok metamorphic belt, Burma (Myanmar), with MP Searle, JM Cottle, S.R. Noble, A.H.G.Mitchell; Petrology of eclogites from the Tso Morari complex, Ladakh Himalaya, India, with M.P. Searle, H.K. Sachan, R.R. Parrish; Metamorphism and tectonic evolution of high-grade gneisses from SW Baffin Island, Nunavut, Canada, with Andrew Smye (Oxford) and Dr M St-Onge (NRC Canada); and Mineralogy and setting of podiform chromitites from eastern Iran, with Dr M. Zarrinkoub (Birjand, Iran).

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

Zoological Collections

Dr Kemp collaborated with the staff of the John Radcliffe hospital to have two specimens of therapsid skulls CT scanned, revealing much new information. He continued his work on the functional anatomy of the skull and ear region of therapsids, and also on the theoretical understanding of major evolutionary transitions as inferred from the fossil record.

Dr De Grave continued his research program on alpha level taxonomy, biogeography and phylogeny of Caridea, as well as macroecological studies on Crustacea.

The Invertebrates Section is leading a study on the invasive prawn, *Palaemon macrodactylus* in co-operation with the Zoological Society of London, as well as being the lead organization in the international CACA (Caribbean Caridea) project, which aims at making all regional literature electronically available to Central and South American scientists.

Mrs Nowak-Kemp continued her research into the history of comparative anatomy and the human pathological collections in Oxford University. Thanks to the University archives and the Ashmolean Rolleston archives loaned to the Zoological Collections, a fuller picture of the collecting, research on and teaching of these subjects in the 19th and 20th centuries is emerging. She was also researching the collection and preservation of zoological specimens in the 17th century, particularly the Tradescant specimens.

She collaborated with ancient DNA workers on the molecular evidence for the relationships of mammoths.

Environmental Archaeology Unit

The review of the environmental archaeology of the Middle and Upper Thames Valley by Professor Robinson as part of a project with Oxford Archaeology under the general theme of *Thames through Time* is well under way. The first volume, covering the Roman and Saxon periods, has been published.

Work progresses in co-operation with the Research Laboratory for Archaeology and the History of Art to attribute the tephra layers beneath the Roman town of Pompeii. In addition to prehistoric eruptions of Vesuvius, the sequence also includes ash from the Campi Flegrei and possibly Ischia.

Detailed sorting of samples has begun for the mid Roman phase of the town of Silchester. These deposits present the opportunity to compare the biases inherent in different means of fossilisation, there being material preserved by phosphatic mineralisation, carbonisation and waterlogging.

Appendix 5: New Acquisitions

The Hope Entomological Collections

There have been 115 separate donations totalling 80,000 specimens. Of particular note is the donation by Professor M. Chvála of the Czech Republic of 10,000 identified Diptera. Mr Mann, Mr Hogan and Dr Pont travelled to Prague to bring the Collection back to Oxford. The material, comprising Palearctic Empidoidea, Conopididae and other families, includes the types of many species.

P. Bragg, 6 Paratypes of Borneo Phasmatodea. 1 male *Lonchodes malleti* Bragg paratype. 1 female *Lonchodes malleti* Bragg paratype. 1 female *Orthomeria cuprinus* Bragg paratype. 1 male *Orthomeria cuprinus* Bragg paratype. 1 male *Presbistus marshallae* Bragg paratype. 1 female *Dinophasma kinabaluensis* paratype.

D.J. Mann, circa 3,000 World Scarabaeidae collection. Various specimens purchased and exchanged.

D.J. Mann and E. Slade, circa 4,000 insects collected from Danum Valley, Borneo. Mostly coprophagic Scarabaeidae collected using baited pitfall traps as part of research on dung beetle ecology.

D.J. Mann, circa 4,000 insects of various orders from Danum Valley, Borneo, collected in 2005.

J. Cooter, 14 paratypes of Japanese *Pella* (Coleoptera, Staphylinidae, Aleocharinae) described by M. Maruyama in 2003. 2 *P.masakoae*, 7 *P. kidaorum*, 3 *P.horii* and 2 *P. kinomurai*.

J. Cooter, 2 paratypes of *Aphodius tryznai* Cervenka, 1998 (Coleoptera, Scarabaeidae).

O.N. Kabakov, 6 paratypes of *Onthophagus comottoides* Kabakov, 1998.

M. Ackland, collection of circa 2,000 of Palearctic Anthomyiidae (Diptera) named by Ackland.

M. Ackland, collection of circa 300 Palearctic Scathophagidae (Diptera) named by Ackland.

P.L. Miller, collection of circa 300 of World Lepidoptera.

A.C. Hamel, circa 4,000 insects from various localities in Bolivia. Spirit material from dung beetle research project, mostly non Scarabaeidae.

D.J Mann, circa 4,000 insects of various orders from the Cape Region, Republic of South Africa.

D.J. Mann, circa 2,000 insects from the Ho Chi Minh area, South Vietnam.

A. McCrae, collection of circa 1,100 of World Saturniidae (Lepidoptera) with associated collecting diaries and notes. Collection of African insects of various orders, mostly from Uganda and Kenya.

J. Cooter, collection of 563 Palearctic, Afrotropical and Oriental Coleoptera. Specimens from China, Spain, India, Russia, Turkey, Madagascar, Slovenia and Tadjikistan.

P. Boston, circa 450 butterflies from Budongo Forest, Uganda.

J. Nunez-Mino, circa 4,000 insects from Parque Nacional Cusuco and El Paraiso, Honduras, collected in 2006 as part of a D.Phil project.

C. Holzschuh, 1 paratype *Demonax rosae* Holzschuh, 1 paratype *Demonax josefinae* Holzschuh, 1 paratype *Ischnodora separanda* Holzschuh.

D.J. Mann, circa 5,000 insects collected in Namibia, December-January 1998-1999.

D.J. Mann, circa 5,000 insects collected in Namibia, December-January 1999-2000.

D.J. Mann, 2,000 insects collected in Namibia, March 2002.

W. Jetz, circa 2,000 insects from Ivory Coast

A.C. Hamel, circa 2,000 Scarabaeidae from Bolivia. Part of the HEC-Bolivia research project with D.J. Mann.

D.J. Mann and A.C. Hamel, circa 5,000 insects sampled during dung beetle project. Mostly from around Santa Cruz de la Sierra, Bolivia. Collected in November 2006.

J. Zidek, 762 Scarabaeidae.

J. Cooter, 2 paratypeS of *Leistus sogdianus* Putchkov and Dolin (Coleoptera, Carabidae).

D.S. Smith, circa 2,000 Lepidoptera from the Caribbean Islands, various expeditions.

J. Cooter, 1 *Dyschirius pacificus* Lindroth, paratype.

J. Cooter, 1 *Laemostenus rimmae* Deuve, 1993 paratype.

J. Cooter, 1 *Pterostichus muellermotzfeidi* Wrase and Schmidt, 2006 paratype.

J. Cooter, 1 *Duvalius transcarpathicus* Shilenkov and Rizun, 1989 holotype.

D. Edmonds, 767 Scarabaeidae collected in Brunei.

A. Morris, circa 2,000 malaise trap and pitfall trap samples from British Virgin Islands.

E. Lindsay, circa 2,000 material from undergraduate project in Jamaica, Blue Mountains National Park.

FSCA, circa 4,000 Coleoptera from the United States of America and Canada, mostly from Indiana and Texas. Originally from the collection of N.M.Downie.

M. Chvála, circa 10,000 specimens of identified Palearctic Empididae, Conopididae and other families including many types.

M.V.L. Barclay, circa 1,000 insects from Peru.

D.H. Walker, circa 2,000 insects, mostly from Saudi Arabia, Oman and Jordan with a smaller number from Spain, UK, USA and Vanuatu.

J.A. Bullock, circa 2,000 specimens of world Coleoptera.

Geological Collections

By purchase

Dimetrodon, cast of skull, Permian, Texas

Dimetrodon, tooth, Permian, Oklahoma

Ammonites, Cretaceous, Morocco

Starfish assemblage, Cretaceous, Morocco

Glyptodon, cast of skull, Pleistocene, Uruguay

By donation

Silurian trilobite from Powys, Wales (Lisa Howells)

Jurassic seed from Naunton, Gloucestershire (Lucy Martin)

Cretaceous sponge from Faringdon, Oxfordshire (Mr L.C. Watson)

Various Cretaceous invertebrates from Dorset, the Isle of Wight, Sussex, Kent, Bedfordshire and France; Cretaceous traces from the Isle of Wight and Surrey (Professor A.S. Gale)

Cretaceous ammonites from Morocco (Professor A.S. Gale and Mr David Ward)

A large collection of Mesozoic invertebrates and vertebrates, chiefly from Dorset (Dr D.J. Kemp)

Skull and femur of a Woolly Rhinoceros, dredged from the North Sea (Mr Steven Dutch)

By fieldwork

Cambrian trilobites and brachiopods from Morocco

Jurassic and Cretaceous invertebrates from Oxfordshire and Gloucestershire

Eocene invertebrates from Barton-on-Sea, Hampshire

Mineralogical Collections

(Minerals marked * are new to the collections)

By donation

Minerals

Graphite var. schungite from Russia (Dr J. Arden)

Aragonite, dolomite, hematite and quartz from Cumbria; apophyllite, heulandite, mordenite, mesolite, quartz var. agate and stilbite from India, and unlocalised quartz (Dr A. Fraser, via Dr D.J. Siveter)

Liskeardite from Cornwall (Mr P. Lowe)

Laumontite from Argyll & Bute (Mr R.E. Starkey)

Calcite, dolomite and malachite from Conwy; quartz, calcite, fluorite with baryte, and pyromorphite with galena and cerussite, from Derbyshire; aurichalcite and pyromorphite from Cheshire, Fluorite and smithsonite from Yorkshire; ankerite, chalcopyrite, galena, pyrite and quartz from Cumbria (Mr R.E. Starkey, from the collection of the late Mr J. Cooper)

Astrophyllite, eudialyte, natrolite, talc and titanite from Russia (Dr S. Strekopytov)

Fornacite* from Somerset (Professor R. Turner)

Melanterite from Dorset (Mr N.J. Verge)

Quartz 'Ohio flint' from USA (Mr and Mrs D. Rich)

Rocks

Samples of polished Finnish granites Baltic brown and Balmoral; blocks showing the different finishes applied to decorative stone (Mr F. Bernacca, Finska Stenindustri Ab.)

2 inlaid Ashford black marble vases (Mrs E. Clifford)

Samples of polished Vratza from Bulgaria (Gerald Culliford Ltd)

7 samples of polished decorative stone including Bon Accord from South Africa and Verde Patrizia from Italy (Mr.M.Harris, Abingdon Stone and Marble Ltd)

15 samples of polished decorative stone, including rozalit from Croatia, Dakota mahogany from USA, and azul Macaubas, verde marinace and verde tropicale from Brazil (Mr I. MacDonald, McMarmilloyd Ltd)

8 Artefacts made from decorative stone including Connemara marble from Ireland, Siena marble from Italy and onyx marble from Pakistan (Miss M.T. Price)

Samples of polished Tennessee marbles Lambert cedar, Andies grey, imperial black and royal pink (Mrs M. White, Tennessee Valley Marble Co.)

By purchase

Ganophyllite* from Wales; garnet in eclogite, probably from Norway; corundum var. ruby from Russia; andradite var. demantoid, spodumene var. hiddenite and spodumene var. kunzite from Afghanistan; 'teakwood' marble (carved), olivine var. peridot, spinel and topaz from Pakistan; arsenopyrite, serpentinite 'ophiolite', landscape marble, fluorite (carved), garnet and plumbogummite from China; jadeite (carved) and spinel from Myanmar (Burma); corundum var. ruby in zoisite from Kenya; corundum var. ruby in zoisite and zoisite var. tanzanite from Tanzania; dumortierite, quartz var. ocean jasper, and spinel from Madagascar; andradite var. demantoid from Namibia; sugilite (carved) from South Africa; aragonite 'ammolite' and eudialyte from Canada; olivine, quartz var. fossil wood (carved), quartz 'canyonland wonderstone', and turquoise from USA; pectolite var. larimar (carved) from the Dominican Republic; quartz var. rock crystal, quartz with rutile inclusions, and sodalite (carved) from Brazil; arhbarite* and zalesiite* from Chile; quartz var. chrysoprase from Australia, and leopardskin rhyolite, scapolite, snowflake obsidian and unakite (carved), all localities unknown.

By Transfer

Further sections of the former Accrington Museum and other reserve mineral collections numbering several thousand specimens (from the University of Reading)

Thin section collection corresponding to the West Greenland petrological collection transferred in 2001/2 from Portsmouth University (Dr B. Walton)

Zoological Collections

Various small collections of Crustacea from the Gulf of Mexico (Prof. D. Felder), Baja California (Dr. M. Porter), Lake Tanganyika (Dr. J. O'Brien), Panama (Dr. A. Anker) and the Persian Gulf (Dr. P Dworschak)

A large collection of over 150 specimens of mammalian osteological material returned from the Zoology Department.

Human osteological material from the Department of Human Anatomy.

The Hope and Arkell Libraries

Library accessions, by purchase and donation, totalled: 78 books, 1081 pamphlets/offprints, 44 periodical volumes, and 418 periodical parts. There are 117 current journal titles. This brings the total number of bibliographic items (*i.e.* titles) in the libraries to 13,130, excluding offprints.

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

Manuscripts

J.E. Collin archive. Letters to J.E. Collin by fellow entomologists, 1897-1901. (from Professor M. Pointon, Collin's grand-daughter)

Books and journals

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Pulawski, W.J. (2007) The wasp genus *Tachysphex* Kohl, 1883 ... (Hymenoptera: Apoidea: Crabronidae). (*Proceedings of the California Academy of Sciences*, (4), **58**, suppl. 1) California Academy of Sciences, San Francisco. (from the author)

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(from the estate of the late Dr A. McCrae, with various other Lepidoptera books and reprints)

Studia dipterologica, **12**(2) (2005) and **13**(1) (2006) (from Dr A. Pont)

Zahradník, J. (1985) *Käfer Mittel- und Nordwesteuropas : ein Bestimmungsbuch für Biologen und Naturfreunde*. Verlag Paul Parey, Hamburg; Berlin. (from Mr D. Mann)

Zerova, M.D. [et al.] (2006) *Komakhi - prirodni vorogi poodinokikh bdzholinikh fauni Ukraïni = Natural insect enemies of solitary bees of the fauna of Ukraine*. NAN Ukraïni, Institut zoologii, Kiïv. (from Dr A. Pont)

Zoology in the Middle East, **38, 39, 40** (2006-2007) (from Dr A. Pont)

Appendix 6: Loans

The Hope Entomological Collections

A total of 84 loans were issued during the year to researchers worldwide. The loans comprised 14,361 specimens of which 966 were arachnids (224 types) and 13,365 were insects (130 types).

Geological Collections

Eleven loans were sent out, to researchers in the UK, Poland, the USA, Canada, and New Zealand. A total of 131 specimens were sent, including slides of Precambrian sponge spicules, Ordovician graptolites and cephalopods, two ilia of Jurassic dinosaurs (*Megalosaurus* and an unidentified therapod), plus a collection of Cretaceous inoceramids.

Mineralogical Collections

Ten specimens from the George Allen collection of minerals were loaned to the Ruskin Library, University of Lancaster for an exhibition 'George Allen of Sunnyside', commemorating the centenary of the publisher's death. Six specimens of smithsonite and historical apparatus were also loaned to Pembroke College for the launch of Heather Ewing's book *The lost world of James Smithson*.

There were 14 other loans of minerals and meteorites administered in the past year, supplying a total of 85 specimens for purposes including research, University tutorials, and educational activities. Two samples were supplied for destructive research.

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).

Zoological Collections

The invertebrate section made 25 loans of specimens.

The vertebrate section loaned 112 specimens to individual researchers and a number of mammalian skulls for the Biology Open Day. Additionally, a large number of specimens were made available for the practical classes taking place in the Zoological Collections Laboratory. They included specimens from the Human Remains Collection, from paleontological holdings, and various osteological specimens from the primate, domestic animal, bird, reptile and fish collections.

As in previous years, the vertebrate section continued to offer the specialised service of extraction of samples for DNA testing for researchers unable to visit Oxford in person. Six such samples were taken during the year

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 and advice. Dr McGavin continued to provide pest control advice for various Oxford College

libraries and museums. In total there were 177 enquiries requiring an estimated 200 hours of staff time. The majority of enquiries (119) came from researchers (40 of which concerned type material); the remainder (58) came from members of the public.

Geological Collections

This year, staff dealt with total of 477 enquiries. Among the many interesting specimens brought in for identification were the incomplete skull and partial femur of an exceptionally large Woolly Rhinoceros (*Coelodonta antiquitatis*), dredged from the North Sea off Harwich during a fishing expedition, and very kindly donated to the Museum by the owner, Mr Steven Dutch. Most challenging was a large rib, collected in the phosphate deposits of Morocco, which bore characters suggestive of both dinosaurs and whales. Though such animals could not be contemporary, the age of the rocks from which it was collected spanned both the age of the dinosaurs and the later periods in which sea mammals appeared; it was eventually identified as a whale rib, a rare and unusual find.

Mineralogical Collections

There were 14 requests for identifications of specimens brought to the Museum, a total of 16 specimens. There are now a growing number of requests for specimens to be identified from photographs, sent from countries worldwide, although this is not always possible. There were 92 non-identification enquiries.

Zoological Collections

As usual, in excess of 500 enquiries concerning invertebrates were answered.

The vertebrate section received over 350 official 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 38 vertebrate specimens identified. The majority were osteological specimens brought to the Museum by the general public; others were identifications based on photographic images and oral descriptions.

Appendix 8: Official Visitors

The Hope Entomological Collections

Three hundred and fifty visits were made to the Collections by entomological researchers, students and artists from the United Kingdom and a number of other countries including Australia, Czech Republic, France, Holland, India, Iraq, Taiwan, USA, and Sweden.

Geological Collections

There were 68 scientific visits, involving researchers from the UK, Ireland, the Netherlands, Russia, China, South Africa, the USA and Canada. Material examined included Precambrian, Cambrian and Silurian invertebrates; Devonian fish; Silurian and Devonian plants; Jurassic and Cretaceous invertebrates; chimaeroid fish; turtles and plesiosaurs; dinosaurs, including *Eustreptospondylus*, *Cetiosaurus* and *Iguanodon*; and the Red Lady of Paviland. There were also 27 other visitors, including large parties from the Geology Section of the Leicester Literary

and Philosophical Society and from the Department of Trade and Industry Office of Science and Innovation.

Mineralogical Collections

Academic visitors to the Collections included Professor R.D Law of Virginia Tech, USA; Professor D.R.M. Pattison of the University of Calgary, Canada, Professor D.L. Reid of the University of Cape Town, South Africa, and Professor Peter Warren of the University of Bristol. In addition, there were short visits 'behind the scenes' by members of the public wishing to see specific specimens, and a visit by a party of art students with their tutor, botanical illustrator Rosemary Wise.

Zoological Collections

There were 16 visitors to the invertebrate section.

A total of 201 visits were made to the vertebrate section by visitors from a number of countries including Japan, USA, Germany, Italy, and organised group visits, like the annual visit of Harvard University students and their teachers, students of the Said School MSc course, *Nature, Society and Environmental Policy*, students from the Ruskin School of Drawing, and a visit by Earthwatch staff. Additionally, not included in this count, were 180 students from Oxford and Brookes Universities who took part in practical classes held in the Zoological Collections.

Appendix 9: Statistics of libraries' use*

There were 285 visits made to the libraries. These break down as follows: 28 by undergraduates, 22 by postgraduates, 14 by members of OU staff or research fellows, 27 by Honorary Associate Curators and Honorary Research Associates, and 194 by visitors; 72 visits involved using archives. There were 87 recorded queries from remote 'users', some involving lengthy exchanges of correspondence or e-mails and making photocopies or photographs; of these 40 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 20, of which 4 were unsuccessful. Loans made by the RSL to the Librarian for staff numbered 9 items.

Loan/photocopy requests by other libraries totalled 30, of which 8 were unfulfilled, either because we didn't have the item or because we do not make loans.

** Figures exclude use by Museum staff.*

Appendix 10: Publications

The Hope Entomological Collections

Ackland, D.M. and Werner, D. (2006). Description of a new species of *Alliopsis* Schnabl & Dziedzicki (Diptera, Anthomyiidae) from Armenia and Georgia that is predaceous on black fly larvae (Diptera, Simuliidae). *Zoology of the Middle East*, **39**, 81–88.

Ackland, D.M., Bratton, J. H. and Harold, J. (2007). *Anthomyia bazini* Séguy (Diptera, Anthomyiidae) rediscovered in Britain after 65 years. *Dipterists Digest*, **13**, 97–100.

Angus, R.B., Wilson, C.J. and **Mann, D.J.** (2007). A chromosomal analysis of 15 species of Gymnopleurini, Scarabaeini and Coprini (Coleoptera: Scarabaeidae). *Tijdschrift voor Entomologie*, **150**, 201-211.

Couri, M.S., Carvalho, C.J.B. de and **Pont, A.C.** (2006). *Cordiluroides* Albuquerque from Costa Rica: first records, descriptions and taxonomic changes (Diptera, Muscidae, Coenosiinae). *Revista brasileira de Entomologia*, **50**, 341-346.

Couri, M.S., Carvalho, C.J.B. de and **Pont, A.C.** (2007). A new species of *Brachygasterina* Macquart from Chile (Diptera: Muscidae). *Neotropical Entomology*, **36**, 229-232.

Couri, M.S. and **Pont, A.C.** (2006). Eggs of *Stylogaster* Macquart (Diptera: Conopidae) on Madagascan muscids (Diptera: Muscidae). *Proceedings of the California Academy of Sciences* (4), **57,** 473-478.

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Henry Wellcome Ancient Biomolecules Centre

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