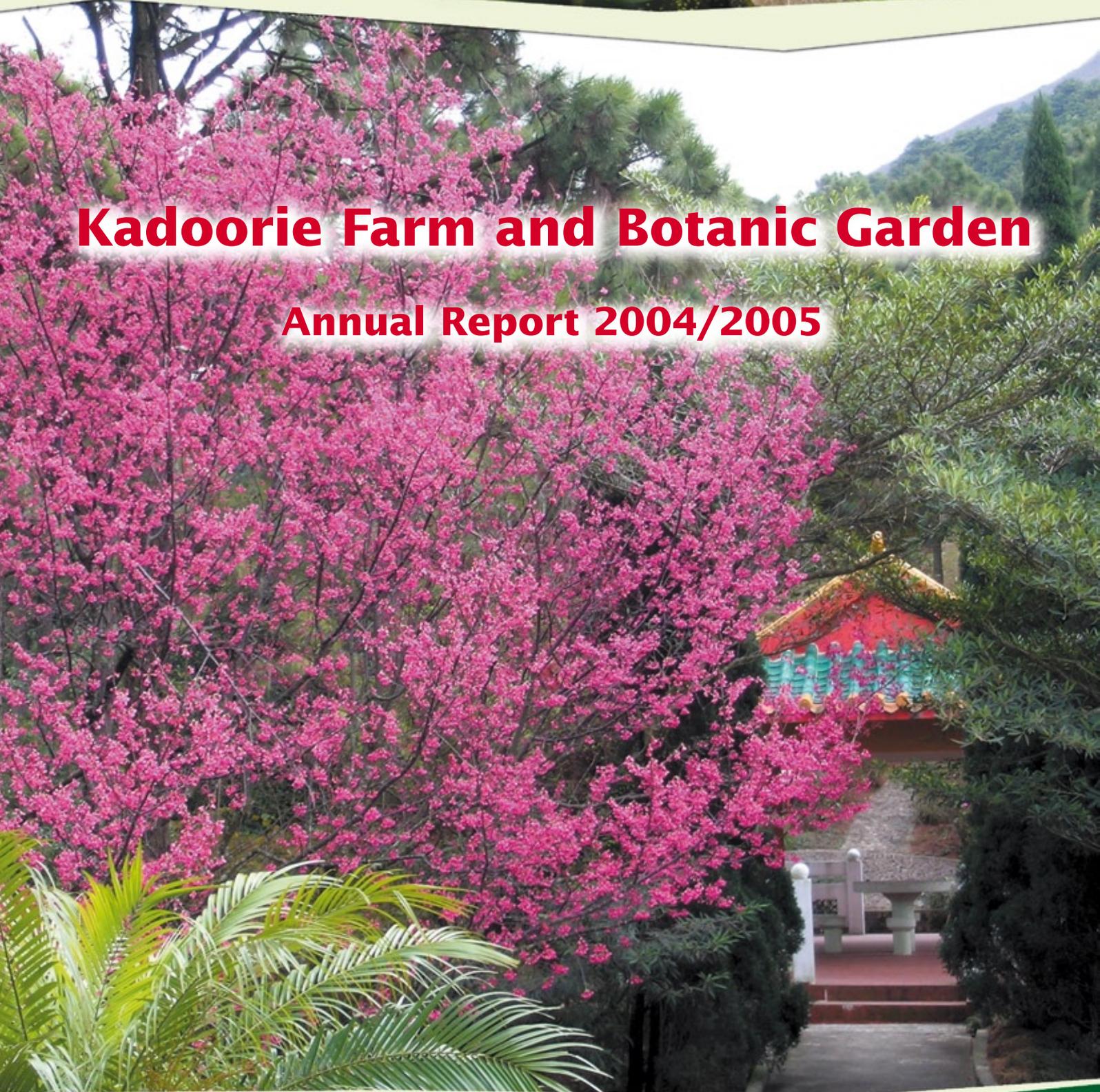




Kadoorie Farm and Botanic Garden

Annual Report 2004/2005



To increase the awareness of our relationship with the environment

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**Kadoorie Farm and Botanic Garden
Annual Report (April 2004–March 2005)**

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Captions for cover photographs

1. Da Hua Bai pig
2. Black Kite
3. Garlic-scented vine
4. Kindergarten students
5. Three-banded box terrapin
6. Taiwan Cherry



About KFBG

Kadoorie Farm and Botanic Garden (KFBG) is situated below the northern slopes of Hong Kong's Tai Mo Shan mountain. Two steep spurs enclose its deep-set valley, which shelters streams, woodlands, orchards and vegetable terraces, together with conservation and education facilities. In the post-war years, Hong Kong was flooded with destitute immigrants. Many had traditional agricultural knowledge of crop production and livestock farming. They required support to rebuild their lives. In response to these pressing human needs, Lord Lawrence and Sir Horace Kadoorie established the Kadoorie Agricultural Aid Association (KAAA) in 1951. The Kadoorie brothers, part of a well-established business family, saw wealth as a sacred trust to benefit mankind. The KAAA provided agricultural input, interest-free loans and training. With such aid, countless families and communities built small wells, irrigation channels, terraces, pathways, pigsties and houses. The success of the KAAA sponsored a self-help movement that brought many laurels, including the Ramon Magasasay award in 1975.

Hong Kong's unparalleled prosperity since the mid-1970s has led to a decline in farming. In the midst of wider social change and rapid economic expansion, a new direction was needed. Growing ecological knowledge indicated that Hong Kong and South China's natural diversity was under much greater threat than previously thought. In January 1995, the Legislative Council of Hong Kong passed an Ordinance (Kadoorie Farm and Botanic Garden Ordinance CAP. 1156) incorporating Kadoorie Farm and Botanic Garden as a non-profit corporation. The new focus was to promote conservation education, environmental sustainability, and the protection of biodiversity in Hong Kong and beyond.

KFBG has a unique public-private partnership. Though KFBG is a public corporation, its funding and management is in private hands. A board of directors appointed by the Trustees of the Kadoorie Foundation independently manages KFBG. The annual budget of KFBG is around HK\$80 million, met through grants from the Kadoorie Foundation. KFBG spreads over 148 hectares on land leased from the government. KFBG runs many collaborative programmes with government agencies, universities and non-government organisations.



Foreword

The Farm's new mission calls for us to acknowledge, explore and address the environmental crisis with which we are faced. But as we investigate the "brutal facts" of industrial civilization, we discover that — as has historically been the case with all civilizations — when expansion is no longer possible, a collapse must occur. Signs that we are reaching this point are all around us — in the rates of human population growth, species extinctions, deforestation, desertification, global warming, "resource" depletion, pollution and so on.

Being unable to change the way we look at ourselves and the world, we remain stuck in our fear and pride, resistant to the radical change that is required for us to meet this collapse gracefully and evolve into a new way of living and being. Clinging to such contradictory notions as "sustainable development", in the hope that technology will miraculously absolve us from the natural effects of the destruction that we have wrought on the Earth, may only make the inevitable transition more painful.

But there is hope — change is a part of life, as is death. When we begin to live more simply and with greater respect for the diversity of life — whether of our own choice or because circumstances force it upon us — we may have the opportunity to enter a higher awareness of who we are and what we are a part of. In the realization of the oneness of all life lies the fulfillment that we dream of — and the power to face any difficulties. And it is this that we are seeking through all our activities — from conservation to education to awareness raising.

The task is immense — but so is the privilege to be able to undertake it! May we all learn to access ever-deeper levels of understanding, that we might move forward in our work with great respect for each other and great joy.

Andrew McAulay

Chairperson



Preface

These are dark times for the world: Accelerating environmental destruction caused by our addiction to energy, rampant consumerism, unwise pursuit of endless growth, overpopulation, selfishness and our general disconnection from nature. The problems seem so deep and widespread that individuals can feel hopeless and powerless.

KFBG's task now is to join the worldwide movement to highlight the brutal facts and the causes of the growing crisis, engage in reducing the negative impact where we can, and to offer realistic lifestyle alternatives that are truly hopeful and joyful.

In September 2004 we began an ongoing process to review and develop our Strategy with the intention of directing our effort and limited resources at the most relevant issues. The four strategic directions are Great People (internally focused); Connection to Nature; Sustainable Living and Conservation Impact. From this participatory Strategy development process a number of new, exciting initiatives are emerging to complement the existing programmes. In the educational work of all departments I feel our main target is connecting young people deeply to nature.

During the year we appointed new Heads of Department of Education, General Administration and Facilities. These appointments have, no doubt, brought fresh ideas and approaches to add to the existing mix of talent and experience. I took over as Executive Director from Manab Chakraborty in June 2004 having acted as a management consultant to the Farm for three years, and bring experience in developmental learning for young people and adults, organisational change, corporate management and a deep connection to nature.

I thank our staff and many partners for their support and collaboration in the great struggle to conserve and restore the planet for current and future generations of people, plants and animals, and hope we can make a meaningful contribution together.

Andy Brown
Executive Director



Mission and Vision

MISSION

We exist to increase the awareness of our relationship with the environment and bring about positive change in the world through conservation and education.

VISION

KFBG will help create a world without environmental crisis, in which conservation of the natural heritage and sustainable living enable people to live in contentment, with respect for each other and nature.

CORE VALUES

Sustainable Living

We believe in simple and responsible lifestyles. We examine the impact of all our actions, and strive to take only what we need, having regard for future generations and the natural environment.

Fairness and Justice

We strive to be fair and accountable in the way we do things. We value socially equitable systems that protect natural and cultural diversity and the interests of all generations.

Love and Happiness

We value love for the environment and awareness of the interrelationship of all things. We recognise the intrinsic worth of people and nature and have compassion and respect for all life. We believe our own happiness lies in creating and sharing happiness with others.

Learning and Openness

We believe in learning, continuous improvement, respecting different viewpoints and participation. We translate environmental principles into practical, holistic solutions, balancing scientific objectivity and creative intuition.

Professionalism

We strive to be caring and committed, and to uphold professional standards and best practices. We value our independence as well as our partnerships with individuals, communities and organisations.

Agriculture

During 2004/2005 the Agriculture Department had two major approaches to promote more sustainable food systems:

- a) To improve the sustainability and demonstrability of the farm as an educational model and utilise the experience to assist farmers and community groups.
- b) To raise public awareness about sustainable food systems by:
 - Promoting local food production for local consumption to reduce food mileage, packaging and ecological footprint.
 - Promoting the concept of integrating food safety and health in our Sustainable Living educational programmes.

1. Demonstration of Sustainable Agricultural Production Practices

To enhance the educational value of our vegetable education terraces several innovative gardening techniques were tried and those that proved effective were incorporated into the Eco Garden Display.

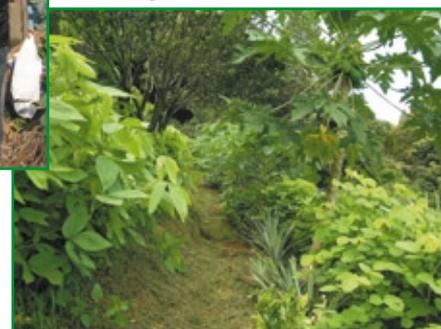
▼ Eco Garden Display



Eco Garden — Compost Baskets ▼▶



▼ Hedgerows



Innovations	Attributes
No-Dig / Mulch Method	Reduces labour, conserves water, greatly reduces weeds, protects soil, increases soil fertility through time
Basket Composting	Composting right in the garden, mimics function of litter in a forest, leached nutrients utilised by plants
No-Dig / Basket Composting	Combination of the above items
Flower Pot Vermi-composting	Ingenious way of composting kitchen waste with earthworms in a flower pot
Square Foot Gardening	Planting plan by square foot provides more diversified vegetable production and maximises limited space
Seedling Nursery	Raising seedlings in the nursery eliminates 'transplanting shock' and allows more cropping per year
Herb Touch Box	Visitors could touch and smell the herbs
Container Gardening	Shows how waste containers can be used to grow food even on rooftops
Solar Seed Dryer	Utilisation of solar energy to dry organic seeds

Within a short time, the two Agro-forestry demonstration sites have reached the stage where they could show the most important features of the system. The slope is now stabilised and soil erosion is very minimal, showing the benefits of the contour hedgerows and cover crops as bio-engineering measures. The workers have reduced their labour input while fruit and vegetable production have been increased by two and eight times, respectively, from the same period in 2003/2004.

To improve the internal production of 'agricultural inputs' we introduced the use of indigenous micro-organisms, to enhance the composting process, and the production of liquid fish fertiliser.

Chicken Houses #9 and #12 were renovated to incorporate natural methods of poultry management. The resulting effects included a very low odour level, the chickens running and feeding freely, whilst doing the composting themselves, and expressing their natural behaviours. The poultry raising system generated much media attention, and, the department was invited to share their experience at the Chicken Amelioration Conference organised by Hong Kong University, which attracted delegates from China, Taiwan, Hong Kong and Macau.



▲ Chicken Unit — renovated housing system

2. Community Outreach, Technical Support & Training

The above models resulted in numerous requests for training and technical support from various groups in Hong Kong, the mainland and Macau. Thirty-four community groups requested training on organic farming, composting, organic poultry and urban community gardening. Technical advice, seeds and educational materials were also provided to different social groups and associations (e.g., schools, community associations, housing estate groups and private companies) to enable them to begin to set up their own community and organic farms.

On 1-2 May 2004, the “Farm in the City” campaign was co-organised with the government-appointed Environmental Campaign Committee (ECC) to promote urban gardening to a wider audience. Our theme was “How to start green living at home”. Our team was invited to be one of the judges in the campaign competition, while our volunteer Organic Ambassadors provided organic food catering in the closing ceremony. Prizes were presented for the best organic garden, best compost, best crops, heaviest crops and longest crops.



▲ Community Gardening Course

The 3rd Community Farming Course started in March 2005. Twenty-two participants from 16 community associations, including representatives from schools, scout groups, elderly and social centres were enrolled in the course. We also actively co-operated with the Hong Kong Organic Farming Association (HOFA) in conducting the Organic Farming Introductory Course 2004. The training programmes included the workshop on ‘Ecological Farm Planning and Design’ for our Hong Kong partner New Life Farm, a charitable organisation for the rehabilitation of psychiatric patients.

To promote the use of organic seeds in local farms we shared our self-saved organic seeds with local organic farms and non-profit associations. The department also put seeds for sale in the Farm Shop and gave 15 varieties of different seeds to farmers.

Regional co-operation was also stepped up and included the ‘Conservation Farming System Design’ Training Workshop, conducted in Guangdong, in collaboration with the South China Agriculture University and Heifer China. Twenty-six participants including farmers, agriculture extension agents from the government, NGOs and university researchers from eight provinces attended the Workshop. We commissioned a study on “Orientation and Strategies of Sustainable Agriculture Development in South China”, and the result was presented to the KFBG management and the Agriculture Team and our sister organisation ‘Partners in Community Development’ (PCD) in March 2005.



▲ Ecological Farming Design Workshop



3. Media & Publications

Community Gardening CD & VCD — To provide the general public with more information about organic farming, we produced a CD and VCD about the benefits of community gardening. The content includes topics on organic farming, composting and other farming techniques. Some successful cases of community organic farms in Hong Kong were also included. These were promoted through various newspapers in November 2004 and generated a good response. Nearly 400 public groups and individuals asked for copies of our community farming publications.

Leaflets on Community Gardening — Seven leaflets were published in July 2004 with our aim being to promote urban gardening (e.g., seed saving, composting and container garden) to schools and other community groups.



Community Supported Agriculture Film — A film on organic farming principles and Community Supported Agriculture (CSA) was produced in September 2004. The 28-minute film was produced in Cantonese, with English and Chinese subtitles. About 800 copies were sent to organic farmers, NGOs, community workers, teachers and individuals.

"Need to Eat Less Meat" Fact Sheet — A fact sheet and a set of eight display panels on the "Need to Eat Less Meat" were produced for the 2005 Organic Festival to highlight the negative impact that excessive meat consumption can have on our health, the environment, our water resources and animal welfare.

Local Production, Local Consumption — A set of panels on the topic 'Local production, Local consumption' was also produced for the 2005 Organic Festival.

Linking Agriculture & Biodiversity Conservation — Two articles: "Agriculture and Biodiversity" and "Forest Gardens" were published in KFBG's *Living Forests* magazine (issue #9).

An article, "**Development on Urban Farm in Hong Kong**" was published in the Professional Teachers' Union Newsletter in January 2005.

Organic Festival Media Coverage — The event was covered in 11 news reports, 8 TV and two radio programmes.

Interviews of officers and our Organic Ambassadors were widely covered in the media on subjects including organic farming & sustainable living; organic poultry raising; and organic food & a healthy diet.

4. Promotion of Sustainable Food Systems, Health & Nutrition

Department staff gave many talks on awareness building related to organic living and sustainable food systems. Talks were given to the "Green Women Current"; participants in HOFA's organic dinner; The Industrial Relations Institute; Catholic Messengers of Green Consciousness; and the HK Environmental Protection Department (EPD). Workshops were held by the Organic Ambassadors. These presentations were all well attended.

The 2005 Organic Festival was successfully held on 22-23 January with the theme "A proper diet benefits all creatures". Almost 7,000 visitors attended the two-day festival, and the event received wide coverage in 11 news reports, 8 TV and two radio programmes. This was followed by the Organic Farmers Market (OFM) initiated on 6 March, which has now become a regular event organised on the first Sunday of every month at Kadoorie Farm to promote local production for local consumption. Local organic farmers and community groups were invited to sell their produce and share information with the visitors on sustainable living. Guided tours of Farm facilities for the public



▲ 2005 Organic Festival — grass knitting



◀ Organic Farmers' Market — Bee Show

▼ Ecological Farming Workshop
— No-Dig Gardening Presentation



were organised. The first Organic Farmers Market attracted 2,138 visitors while the second had 1,053 visitors. Another farmers' market in co-operation with the Federation of Vegetable Marketing Co-operative Society was launched on 9 April 2005 in Tai Wo, New Territories.

In tandem with the Farmer's markets is the Community Supported Agriculture (CSA) activities (direct vegetable subscription) that gained some ground during the period. There are now ten CSA groups in Hong Kong with three groups initiated by KFBG and the other seven groups by various institutions and individuals.

The Organic Ambassadors volunteer group has now grown to 27 members. They carried out training activities for different groups and associations with their goal being to promote organic living, to build the capacity of members, and to recruit more Organic Ambassadors. Topics included organic gardening, organic and traditional cookery, permaculture, setting up co-operatives, practical tips in organic living, organic catering, natural detergents, and setting up of more CSA groups. Their activities were also reported in the media.

During the 2005 Hong Kong Flower Show, we promoted the messages of using less chemicals in the household, and gave practical tips on the use of natural detergents, and different composting models such as a composting bicycle, vermi-composting, and a small scale household composting bin.

To walk the talk on "Producing local, consuming local", we set up the Kadoorie Farm Staff Gardening Scheme. There are now 30 participants growing their own food on site.



▲ Vegetable harvest from staff garden

5. Staff & Capital Projects

With the addition of two new staff in 2004/2005, the department had a workforce of six officers, four supervisors and 37 workers. Most of the officers were new and, because of Hong Kong's declining agriculture industry they did not come with a strong agricultural background. So their training was concentrated on acquiring technical skills and gaining agricultural knowledge. Exposure programmes were also organised to gain new ideas and to promote sustainable living.

The renovation of Chicken Houses #9 and #12 to improve the housing conditions for our chickens was completed. The equipment for chicken husbandry in House #19 was also refurbished. The Cover Crops Demonstration Orchard trail path was paved using local rocks. The fruit tree seedling nursery greenhouse was tendered out and construction is ongoing.

Education

1. Guided Visits



The Farm continued to be a popular destination for both the general public, as well as for environmental and conservation specialists, school groups, and various community organisations. During the year from April 2004 to March 2005 there were a total of 655 guided tours. There was a wide range of special visitors, both local and international.

A. Guided Tours

Unfortunately, due to concerns about avian influenza, many group visits were cancelled for the first three months of 2004, the period just before the subject of this Annual Report. From April 2004 onwards, however, visitor numbers gradually returned to normal.

	1 April 2003 – 31 March 2004	1 April 2004 – 31 March 2005
No. of Guided Tours	490	655
No. of Participants	26,719	34,911

B. Educational Programmes

The Department conducted various ongoing programmes such as the Environmental Interpreter Programme (which provides training to volunteers), the Night Safari, Native Tree Planting, Artist-in-Residence Project, Art Programmes and enhancement of educational displays.

Since March 2005, The Farm's Agriculture Department has been organising the Organic Farmers Market on the first Sunday of each month, and the Education Department has provided volunteers to assist with the public visitors of the Eco-garden and the Organic Chicken section.

The Environmental Interpreter (EI) Programme evolved to a new phase in 2004, and a partnership with the National Geographic Asia Channel and the Environmental Protection Department (EPD) was established. This partnership has enhanced the sharing of expertise

which should further improve the training programme for the volunteers, who help the Farm by providing guided visits and interpretation services to our visitors. More details of this programme are covered later in this report.

A new programme, "Experience Nature Through the Senses", was introduced. It is specially designed for primary school students to use their full senses to understand and appreciate nature as it appears in the surroundings of the Farm.

C. Night Safari

Since its launch in 2003 the Night Safari programme has continued to be highly popular.



▲ Participants were amazed to see a snake release on a Night Safari

From July 2004 to April 2005, a total of 10 Night Safari sessions were organised for over 150 participants to experience the wild side of KFBG's nature at night and to understand more about our conservation and habitat enhancement programmes. Participants included the HK Environmental Campaign Committee, Town Planning Board, HK University, HKSAR Sustainability Development Unit, HK Highways Department, HK Institute of Engineers, HKSAR Environmental Protection Department, Advisory Council on the Environment, HKSAR Environment, Transport and Works Bureau and secondary school teachers.

2. In-house Projects

The Farm's Education Department has been active in providing creative services to cross-departmental projects and display features. Work carried out during the year includes those listed as follows:

A. Farm Features & Educational Displays

Topic	Location
April – June 2004	
Raptor Identification	Raptor Sanctuary
Green-winged Teal, Koi Carp Pond	Waterfowl Walkthrough
Orchid Greenhouse	Orchid Greenhouse
Butterfly Garden	Butterfly Garden
July – September 2004	
Welcome Sign	Pigsties
Lam Tsuen River	Stream Life Display
Reptiles & Amphibians	Reptiles & Amphibian House
Parrot Species	Parrot Cages
Yuen Long Crocodile	Wooden Platform
October – December 2004	
Fanling Flower Show 2004 – "From Field to Table"	Fanling Park
January – March 2005	
Organic Festival 2005	Plaza & various sites
Water Buffalo	Buffalo Display house
Eco-garden	Eco-garden
Wild Boar	Wild Boar Display
Hong Kong Flower Show 2005 – "Oasis in a Concrete Jungle"	Victoria Park, Causeway Bay
Farmers Market	Plaza & various sites

B. Art Programmes

The department conducted a number of art programmes to explore the theme of Art and the Environment. Examples of these programmes include:

Art and the Environment — Phase II (February to May 2004)

This programme was led by a group of artists and art teachers to enable participating students to experience their relationship with the environment through an art journey that included workshops, art camp and detailed tours of the Farm. An exhibition of the students' work was held at the Kadoorie Farm in May 2004.

Art and the Environment Symposium — "Green PlayLab" (October 2004)

This event was co-organised with Hong Kong Arts Centre (HKAC) with talks delivered by guest speakers and workshops led by artists.

Artist-in-Residence — "Garden's Whisper" (December 2004 to March 2005)

This project was co-organised with Tainan Prototype Art (Taiwan), supported by HKAC, HK Para/Site Art Space and Tainan Municipal Cultural Center. It was also partly sponsored by the National Culture and Arts Foundation in Taiwan. Exhibitions were held in Hong Kong and Taiwan. Six artists from Taiwan and Japan and two local artists participated in this project.



C. Publications

Educational resources produced in 2004/2005 include those listed below:

"Wow! It is our Countryside" — Environmental Education Teaching Kit for Pre-school Teachers

Kadoorie Farm 2003/2004 Annual Report

Kadoorie Farm Visitor Guidebook (English & Chinese versions)

Worksheets for Primary School Students

"Experience Nature through Senses" Booklet



D. Volunteer Recruitment & Training Programme

Environmental Interpreter (EI) Certificate Course

In 2004, a new partnership was established with the National Geographic Asia Channel and the HKSAR Environmental Protection Department (EPD) to deliver the programme as a certificate course. An orientation programme was organised in May for those who were interested to volunteer as Environmental Interpreters (EI's) for the Farm. The actual recruitment started in mid-May, and 300 applications were received. Eleven-day training workshops commenced in June and we successfully trained 50 volunteers who began to guide tours in August 2004.

In August 2004 eight EIs joined the Ecological Management Programme (EMP) tree-planting programme at the Farm to learn how to enhance the ecological value of an abandoned orchard by the creation of more natural habitat for wildlife. During the Organic Festival held in January 2005 by our Agriculture Department, more than 60 Environmental Interpreters and other volunteers were recruited. We highly value the involvement of these volunteers and believe that they can benefit greatly from the experience, thus we consider that the scope and scale of the volunteer programmes will be expanded in the future.

3. Outreach Projects, Community Outreach & Partnership

The Education Department has been involved in organising various outreach projects and providing community services. Highlights of 2004/2005 were:

A. Mentorship for New Life Psychiatric Rehabilitation Association (NLPRA)

The Department continued to identify outreach partners. From late 2004 KFBG provided support and mentorship to the New Life Psychiatric Rehabilitation Association (NLPRA) in developing organic farming operations based on sustainability principles. NLPRA is a subvented welfare organisation providing vocational rehabilitation services for recovered mental patients as well as to



▲ Rehabilitation Training at New Life Farm

the mentally and physically handicapped. In 2004, NLPRA was granted use of government land at Tuen Mun for the development of a "New Life Interactive Farm" and the Farm's professional assistance was requested. The Education Department help NLPRA to develop educational features for their visitors, and acted as a co-ordinator for this cross-departmental project which also included the Flora Conservation and Agriculture Departments.

B. Advisor for developing the Warehouse Environmental Resource Centre (WERC)

During June 2004 – July 2005, we worked as a partner with WERC in creating an Integrated Environmental Resources & Youth Centre. We shared our experiences in environmental protection and assisted WERC in the development of a small butterfly garden and an experimental organic farm. We also helped them to develop three education programmes — A nature & heritage trail at Aberdeen, an art & environment programme and an organic ambassador programme.

C. Exotic Coastal Seagrass Clearance

This activity was jointly organised with AFCD in September 2004 at Pak Nai; 64 volunteers participated.

D. BGCI & KFBG Travel Scholarship Programme

In March 2005, our Flora Conservation Department hosted a study course for the Botanic Gardens Conservation International (BGCI) and the Kadoorie Farm Travel Scholarship holders. They attended various environmental education programmes and workshops at the Farm. The Education Department helped to organise one of the education programmes and enabled the scholarship holders to visit other relevant facilities in Hong Kong.

E. External Service

1. Our staff were one of the committee members and judges for the 2nd Annual Green Pre-school Award scheme organised by HK Environmental Campaign Committee in April 2005.
2. We are one of the committee members of the HK Environmental Education Group (HKEEG).
 - a. Teacher seminars were organised at the HK Science Museum on 13 & 20 November 2004. The first seminar was organised for primary and secondary school teachers, with the theme of "Reaching out for the Environment in our Motherland", while the second one was for pre-school and primary school teachers, with the theme of "Reaching out beyond our Classroom". A follow-up workshop was organised at the Farm.
 - b. Another teacher seminar was organised at the HK Heritage Museum and a field visit was held at the Kadoorie Farm on 27 May 2005. The theme was "Hong Kong's Past & Present — Sustainable Lifestyle."

4. Training Programmes & Workshops

Various kinds of educational workshops and seminars were conducted for students and teachers. These included:

1. Early Childhood Environmental Education Seminar for early childhood educators and teachers (May 2004).
2. Environmental Education Training Scheme for the HK Institute of Education (HKIEd).
 - a. HKIEd Environmental Interpreter Certificate Course (October-November 2004).
 - b. HKIEd Environmental Education Training Workshop for In-service Kindergarten Teachers (February-March 2005).



▲ In-service Kindergarten Teachers learn how to make healthy organic salads after harvesting vegetables from our fields

3. Global Information Systems (GIS) Day 2004 Hong Kong for secondary school students (November 2004).
4. Native Tree Planting Scheme (10-year scheme launched in 1998) for secondary school students.
5. Wildlife Habitat Enhancement Scheme (including artificial bird/bat box design and native tree adoption & planting).
 - a. Wildlife Habitat Enhancement Scheme for secondary school teachers (October-November 2004).
 - b. Wildlife Habitat Enhancement Scheme Student Workshop & tree planting day for secondary students (January-April 2005).
6. Forestry Training Programme for Scouts (April 2005).

5. Media Exposure

On the media front, a press conference entitled "Safeguard the Frontier Closed Area, the Last Frontier of Hong Kong Biological Diversity" was organised in May 2004. This proved to be one of the most successful media events organised by the Farm. The event drew major media attention for the findings of KFBG's study of the Frontier Closed Area and highlighted the need to provide environmental safeguards in selected sites. The news was widely reported by local media. The *South China Morning Post* also created an Internet on-line talkback forum about this issue.

However, the media sensation of the year was undoubtedly the arrival of Pui Pui, the Yuen Long Crocodile who was transferred to the Farm in July 2004. After more than three months of quarantine indoors, she was moved to her outdoor enclosure. A press conference was held on her coming-out day (6 October 2004) which led to widespread media coverage. Following her arrival she was the subject of numerous profile stories in the print and TV media. More than 250 news reports and feature articles on Pui Pui were generated during the year. One of our colleagues, Regina Chow, Senior Education Officer, was invited to join the judging panel of the "Croc Naming



▲ Press conference announcing Pui Pui's completion of the over 3-month quarantine drew dozens of reporters

Contest" that was co-organised by AFCD and RTHK. The winning name for the celebrated crocodile, Pui Pui, was selected in August 2004.

There were over 650 news reports about the Kadoorie Farm between 1 April 2004 and 31 March 2005. A total of 25 press releases / press invitations / web announcements were issued by the Farm during the period.

6. Staff News

Staff Movement

There were various staff changes in the Education Department during 2004/2005. In July 2004, Manager Idy Wong was officially transferred to the China Programme Department. During the absence of a manager, Senior Officer Regina Chow was appointed as the Acting Head. In September 2004 Dr. Chiu Sein Tuck was recruited as the Senior Manager. In addition, three new staff also joined the department: Ms. Ann Houg (Education Officer), Ms. Rosa Ngai (Communications Officer) and Mr. Amos Chung (Graphic Designer).



Fauna Conservation

This period saw the tragic death on 29th November 2004 of one of our staff, Preston Chow, in a car accident. Preston had been head of the raptor section since joining the department in April 2004. Apart from rehabilitating and releasing birds during this period, he was in the process of developing more interactions between the public and birds of prey. Preston made an important contribution to the public awareness of bird conservation in Hong Kong and he is sadly missed by all.

On 21st April 2004 a large government seizure of 851 Freshwater turtles was delivered to our Wild Animal Rescue Centre (WARC) for rehabilitation. Following our rescue acceptance protocol, we agreed to hold the turtles for one week to give the Agriculture, Fisheries and Conservation Department (AFCD), and the Customs and Excise Department time to pursue prosecutions and to determine the long-term option for the animals. At the same time we contacted the Turtle Survival Alliance (TSA) in the United States to begin searching for placement options. We ended up holding 180 turtles, which received more intensive care; the remainder were cared for by the AFCD. Ultimately, 110 turtles were sent to centres in USA and Europe.

In early 2005, the Farm decided to adopt two mules. These were previously employed as transport animals by the MTR cable car project on Lantau Island. The mules will be used as working animals transporting materials around the hillside, to reduce the use of motor vehicles, thus reducing our Eco-footprint (resource use). They will also carry tree seedlings to the planting sites during hillside reforestation projects. Initially, the Fauna Conservation Department will be responsible for their care.



▲ Dennie (left) and Duffy

Some restructuring of sections took place. Part of the exotics section has been combined with the raptor section to form the Raptor and Bird Rehabilitation Section which will be headed by a very experienced Conservation Officer.

To streamline our voluminous animal record card system and to facilitate data retrieval and analysis, we joined the International Species Information System (www.isis.org) in September 2004. The ISIS is an NGO and a member of the International Union for the Conservation of Nature and Natural Resources (IUCN) funded by membership subscription. There are currently 600 ISIS institutional members, consisting of zoos and animal rescue centres.

1. Important Developments

A. Staff Training

The TSA Turtle Husbandry & Veterinary Care Workshop took place from 29 March to 2 April 2004 in Singapore and was attended by the department head and the veterinarian. The workshop focused on Asian turtles, and was attended by many people working on these species from Asian countries. Attendance by Fauna conservation staff was good preparation for the organisation of another workshop in the series that was hosted by the Farm in May 2005. This workshop in Hong Kong targeted vets and zookeepers primarily from China.

In September 2004 representatives from all departments attended a refresher workshop on "Wasp and Bee handling protocols" at the Farm. Our pest management officer provided a brief background about the risks and benefits of this group of insects, and provided guidelines on how to assess and handle various cases.

Since January 2005 we have undertaken a training attachment exercise with the Singapore Zoo. We sent groups that included supervisors, foremen and worker level staff to work alongside the Singapore Zoo staff for two-week periods. From feedback this appears to have been an extremely worthwhile project, not only allowing new experiences and techniques to be learnt in new and different surroundings, but it has led to a mutually productive partnership with Singapore Zoo.

B. Capital Projects

A new Wild Boar Display was completed which presently houses two male boars. The animals, orphaned and unable to be put back into the wild, have settled in well and are now a popular attraction with visitors.

Works were completed in 2004 to transform our old Koi Carp pond into an enhanced wetland displaying native wildlife. Boulders have been placed around the pond's edges to ease passage in and out of the pond for frogs and toads. An island has been created to provide a landing site for visiting birds. Native wetland plants and native freshwater fish have also been introduced to the pond.



Construction works on the new Deer Haven site have commenced and are moving ahead quickly. We hope that the deer can be moved to their new home during 2005.

2. Programme Activities

A daily report system was implemented in January 2005. The system is well received by everyone involved, and allows close monitoring of all animal care and department activities. It also provides records which can be uploaded to the new computer record keeping system.

A. Wild Animal Rescue Centre

An orphaned Barking Deer fawn discovered on the Farm's grounds in March 2004 has adapted well to captivity and is expected to become a long-term resident joining the existing male deer on public display in late 2005.

In March 2004 12 Spectacled Caiman and 15 Saltwater Crocodiles were confiscated by the AFCD and transferred to the WARC for temporary holding. On 16 December 2004, a shipment which included 32 head of Eurasian Squirrels, Snapping turtles, juvenile Spectacled Caimen and Saltwater Crocodiles was sent to the Chinese CITES authority to be placed with zoos in China.

On 16 April 2004 the radio transmitter attached to a released Brown Fish Owl "Sam" finally dropped off as planned and was located. During the radio-tracking period Sam was followed to several daytime roosting

sites, and was observed flying on a few occasions. This exercise has provided proof of the successful survival after rehabilitation and release of this bird.



On 21st April 2004 851 Asian turtles were seized by the Customs and Excise Department. The Farm received 180 of these for temporary holding, the remainder were held by the AFCD. Fifty-five turtles were successfully transferred to America's Turtle Survival Alliance (TSA) on 27th October 2004. The turtles will be included in their endangered species assurance colonies. An additional 55 confiscated turtles were shipped to TSA Europe to enter conservation programmes there.



The famous Yuen Long Crocodile "Pui Pui" finished her quarantine and was moved to her outdoor pond in October 2004 for public viewing. She will be transferred to the AFCD's future Wetland Park in early 2006.

On the morning of 13th October 2004 five Cockatoos were discovered missing after their enclosure was found broken into. The event was reported to the Police. During the following weeks, several other cases of parrot theft elsewhere in Hong Kong, mainly of Cockatoo species, were reported in the media.

On 14th October 2004, the AFCD confiscated approximately 800 Fly River Turtles (*Carettochelys insculpta*). Four hundred were passed to the Farm for treatment and temporary holding. In February 2005, 203 turtles were moved to the Taman Fresh Water Aquarium in their native Indonesia.

Two African Spur Tortoises (*Geochelone sulcata*) and one Aldabra Tortoise (*Geochelone gigantea*), which had been rescued and kept in captive care at the Farm for several years, joined the reptile section of Singapore's Zoological Gardens on 19th October 2004.

A critically endangered Black-faced Spoonbill (*Platalea minor*) was received by the WARC in January 2004 and had to have a wing amputated. On 1st December 2004, Mr. Cornelius Swennen, a renowned bird expert and marine ecologist from the Netherlands, and Mr. Yu Yat Dung, a local ornithologist, visited the spoonbill as

both researchers are keen to carry out non-invasive feeding trial studies with this rare bird.

During the last week of November and the first week of December 2004, the WARC received three Wrinkle Lipped Bats (*Chaerephon plicata*). This is significant as in the 10-year operation of the WARC, only one specimen of this species had ever been received and the AFCD Bat Study group has been unable to confirm the existence of this species in Hong Kong. Two of the three bats were successfully returned to the wild.

November 2004 brought to conclusion the 12-month monitoring programme for avian influenza (AI). This was part of a Hong Kong wide survey conducted by the Hong Kong University's Department of Microbiology on behalf of the AFCD. All samples collected at the Farm during the study proved negative for AI.



In January 2005 the WARC successfully rehabilitated and released a Chinese Porcupine that had been received with signs of having been hit by a motor vehicle. After initial stabilisation it underwent surgery to close a large wound. On recovery, the porcupine was released onto a hillside outside the farm.

In February 2005 a new bird species for the rescue centre was received; the Grey Headed Lapwing (*Vanel- lus cinerera*) had been found in the Kam Tin area. It was weak but fortunately with supportive care the bird recovered quickly and was returned to Kam Tin where this species naturally flocks.

B. Conservation

Ongoing moth surveys on our hillside recorded 292 species during 2004, of which 14 are new to the Farm, bringing the total to 1,171 species identified on the Farm.

In January 2004 visiting Chelonian researchers Kristine Grayson (Fellowship student) and Dr. Kurt Buhlmann (Savannah River Ecology Labs) collaborated with the Farm to initiate a long-term radio-tracking project as a first step to uncover, perhaps for the first time, the little known ecology of the Big Headed terrapin in Hong Kong. The researchers and Farm staff spent six weeks cataloguing the Farm's stream characteristics and searching onsite for suitable radio tracking animals.

The Chelonian conservation project achieved a major landmark on 27th October 2004 when the first ever *Cuora trifasciata* of known wild Hong Kong parentage hatched.



C. Education



▲ Night Safari — KFBG staff introducing a moth trap

The Farm's Night Safari continues to introduce target groups of 15-20 persons to the night-time world on our protected hillside, which helps raise awareness of our conservation responsibilities in Hong Kong. Many sightings of nocturnal animals, including Wild Boar, Porcupines, Scops Owl and Barking Deer, have been made. Wild sightings raise great excitement among the visiting groups and help to enhance their connection to nature.

On 19th January 2005 Asiatic Marine Ltd carried out filming of our raptors for the promotional film "Explore Hong Kong" being produced on behalf of Cathay Pacific.

The WARC played host to "Crocodile hunter" and Australian TV personality Steve Irwin in February 2005 when a short film segment was put together for a new programme intended for international audiences about veterinarians with unusual jobs.

In February 2005 staff of the Hong Kong Park animal exhibits were given a guided tour of some animal facilities in order to familiarise themselves with the variety of winter heating options available to animal keepers in Hong Kong.

On 22nd March the filming of our Chinese Leopard Cats and Hong Kong Newts was carried out by international wildlife cameraman Michael Pitts; the material is to be used in the AFCD Wetland Park educational programme.

D. Media & Publications

In March-April 2004 a series of articles were produced by Fauna Conservation staff, titled: "Animal Rescue and Environmental Education" for HK Discovery Magazine.

"The Hong Kong Fauna — A Checklist of Selected Taxa" and the Chinese edition of the department's Operational Guidelines were printed in April 2004.

In 2004 several Fauna Conservation staff were involved in the filming of a series of RTHK educational TV programmes. The programme theme not only introduced various wildlife species to audiences but also stressed the need for more conservation efforts and environmental awareness.

In January 2005 our staff also assisted RTHK in the production of an Education TV programme about native freshwater turtles and threats to their conservation.

Ongoing filming of bats in Hong Kong by the RTHK Geographic for an educational TV programme was facilitated by Fauna Conservation staff.

E. Advisory & Outreach



▲ Members of the Fauna team attended and gave presentations at the 2004 Joint SEAZA / IZE Workshop

Four events during the year utilised the donated entomological collections of J.J.Young and Dr. Roger Kendrick that are housed in the Fauna Dry Specimen Room. For some species the Farm has the most complete collection in Hong Kong and this is a precious resource for research studies.

The South East Asian Zoo Association (SEAZA) & International Zoos Educators (IZE) Conference was hosted by Hong Kong's Ocean Park Corporation in 2004. Fauna staff presented talks as well as organised a poster display.

A snake identification and training workshop was arranged and held for the Hong Kong Police on 27th September 2004.



▲ KFBG vet with BRRC staff attending a veterinary workshop organised by the Fauna Department

Two workshops were conducted by the veterinarian and rescue team for staff of the Beijing Raptor Rescue Center (BRRC). The training focused on several aspects of avian medicine, but also included some falconry training and a field trip to Mai Po Marshes. Each workshop lasted four days and was attended by three BRRC staff.

Volunteers

A number of volunteers have assisted in our daily operations.

Name	Background	Area of Work
Jemima Arnold	Studying zoology	WARC duties
Laura McKirdy	Teaching English, research, Science graduate	Vet Hospital
Sam Lau	Ecologist with HK Wetland Park	Turtle care & radio tracking
Kris Watson	Landscape gardener	Turtle radio tracking & data management
Cecily, Law Chi Ling	MSc in Environment Management; BSc in Biology	Moth survey & Night Safari
Jenny, Tsoi Wai Shan	Massey University (New Zealand)	Animal feeding & wounds cleaning
Anna, Lee Ka Yin	Under Graduate from HKU	An observer

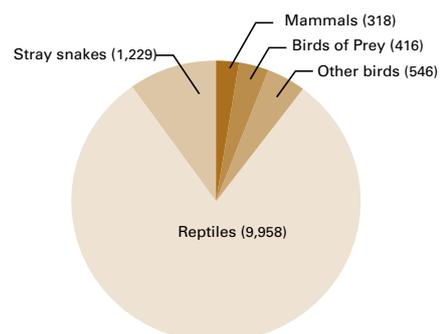
F. Fauna Statistics

WARC

The below table shows animal movement during the period (1 December 2003 – 1 March 2005), and, the number of animals being held under holding license from the AFCD.

	Received/ Captive Bred	Released/ Relocated	Died/ Euthanised	Under Holding License 1/5/04
Mammals	29	5	28	238
Reptiles/Amphibian*	1,278	337	253**	1,469
Birds of Prey	40	32	18	95
Other Birds	55	31	39	161
Total	1,402	405	338	1,963

* Excluding stray snakes received from the HKSAR Police on a daily basis
** Mostly freshwater turtles



Total number of animals received at WARC from June 1994 – March 2005

Flora Conservation

While conserving rare and endangered plant species, and halting the degradation of habitats has long been the focus of our work, in recent years we have been taking a more assertive approach to bring our conservation messages to the community. In 2004/2005 we were actively involved in several topical issues such as the Buddhist Pines, Red Imported Fire Ants, the 'Wishing Tree' in Lam Tsuen and the North Lantau Afforestation Project. Through these issues we not only addressed quite specific threats to plant species or habitats but also presented our concerns on a wider range of conservation issues to the public.

1. Landscaping Section

The Kadoorie Farm took part in two popular local flower shows this year. In December 2004, the theme of our display in the North District Flower, Bird, Insect and Fish Show was "From Field to Table". In the Hong Kong Flower Show 2005, our display "Oasis in a Concrete Jungle" which depicted sustainable living techniques and the effects of an ecological footprint. These displays received awards.



▲ North District Flower, Bird, Insect and Fish Show 2004 officiated by Mrs. Betty Tung on 23 December

Lam Kong-Hing, head of the Landscaping Section, left the Farm after serving for almost 10 years.

The new position of Community Outreach Supervisor initiated quite a momentum for various outreach projects in a relatively short period.

For landscaping internally and externally:

Plants donated	Plants sold	Plants planted in the KFBG	Flowers cut and foliage to Kadoorie family and friends
7,466 Pots	3,017 Pots	35,057 Pots	4,802 Nos.



▲ Fire Ant nest

Red Imported Fire Ant (RIFA) — In the wake of the discovery of RIFA in Hong Kong the Flora Conservation Department immediately collected reference specimens and studied the issue to prevent the invasion or introduction of RIFA at the Farm by implementing an internal plant and planting material quarantine protocol, this remains in place.

2. Tree Conservation & Management

During 2004/2005 54 hazardous trees were felled or pruned and in June a farm-wide hazardous tree survey was conducted to update tree conditions and to prioritise operations.



In February two arborists from Australia's Melbourne University presented a two-week long arboricultural training course for our in-house Tree Management Team. Ten new members from different departments, including four from Flora, attended the course. As a preventive measure, weekly tree-management operations were conducted and these helped the new staff members to consolidate their skills.

On 18th February 2005 the Farm's Tree Management Team, led by the Australian arborists, helped in pruning the Lam Tsuen Wishing Tree after its branches collapsed during Chinese New Year. The Farm also helped to advise and monitor the health condition of the Tree.

In June Terry Fung joined as an Assistant Conservation Officer, to help with the daily operation, research and education projects of the Nursery.

In July and again in December, Ken So joined the China Programme Department on a trip to Hainan Island's Bangwangling National Nature Reserve where he trained the local forestry staff in native tree seedling production, in an effort to improve the habitat for the Hainan Gibbon.

For greening internally and externally:

Organisation	No. of seedlings donated/provided	No. of seedlings sold
NGOs	640	1,800
Schools	280	3,414
Government departments	—	1,275
Business sector	—	2,340

3. Buddhist Pines (*Podocarpus macrophyllus*) Conservation

In Hong Kong, there have been repeated cases of illegal tree-felling and the smuggling of Buddhist Pines which threaten the species in the Territory. Appearing in court, Senior Manager Dr. Lawrence Chau testified that heavier penalties against offenders will act as a greater deterrent to illegal damage of this species.



▲ Participants of the Workshop on "Conservation of Wild Buddhist Pines in Hong Kong", with a site visit to Sai Kung, which was also reported by local media

▼ *Podocarpus* media reports



We also organised a Workshop on Conservation of Wild Buddhist Pines in Hong Kong on 20th October 2004 to bring stakeholders including botanists, NGOs, and officials from Beijing, Shenzhen and Hong Kong together to raise concerns and generate ideas, solutions and follow-up actions.

4. North Lantau Afforestation Project

The Farm donated 20,000 native tree seedlings and was actively involved in the North Lantau Afforestation Project at various locations which had been devastated by fires. In advocating the use of native species for ecological rehabilitation we took this issue as an opportunity to initiate a long-term policy and strategy for the afforestation in Hong Kong. Sadly a much higher number of exotic trees were planted at the site.

5. Hill Fire Prevention



Dry weather and human activities impose immense hill fire hazards in the dry season. The in-house Hill Fire Prevention Team was restructured as a result of personnel changes. The clearing of grasses along the Firebreak in upper Farm by a contractor was completed and a formal fire drill with the Pat Heung Fire Station was conducted in November 2004.

On December 5th 2004 a hill fire ravaging Tai Mo Shan threatened the Farm, but with a quick response and the combined hard work of the Fire Brigade, Civil Aid Service, Country Park and KFBG staff the blaze was kept under control before spreading far across the Farm's boundary.

Since that incident, and in view of the very real dangers that other fires could have on the Farm's ecosystem, Lawrence Chau has been advising the local district administration office on measures to prevent hill fires.

6. Orchid Conservation Section

While mass propagation of rare and endangered species remains an effective tactic of *ex-situ* conservation, which forms a major part of our in-house work, the Orchid Conservation Section (OCS) also has placed great emphasis on the need to work with different stakeholders, both locally as well as on the mainland and abroad. Since 2004 the OCS had become a more self-administered section. With the arrival of Amy Poon as an Assistant Conservation Officer in January 2005 the OCS now has eight full-time staff.

A. South and Southwest China Orchid Conservation Programme

After several years of field studies the Farm has begun to offer workshops as a way to bring scientists, officials, reserve managers and wardens together. In April 2004 the 'Workshop on Orchid Conservation in the famous limestone regions of Yunnan, Guizhou and Guangxi', held in Guizhou, was jointly organised by KFBG, CITES Management Authority and Institute of Botany, Chinese Academy of Sciences (CAS). This workshop has apparently raised the awareness of the officials at the central government level and as a result, wild orchid conservation efforts were subsequently stepped up in the mainland.



◀ Donation of highly threatened aseptic orchid seedling from KFBG to Hainan Forestry Department for conservation

Another Workshop on 'Conservation and Sustainable Uses of Orchids in China' was jointly organised by KFBG, State Forestry Administration (SFA), Hainan Forestry Department (HNFD), China Wild Plant Conservation Association and East Asia Regional Orchid Specialist Group SSC/IUCN was held in Hainan from 31 March to 3 April 2005.

These workshops provided both exposure and practical training for nature reserve wardens and orchid scientists by means of interactive seminars and other activities. Both workshops attracted media coverage from mainland outlets such as National Radio, CCTV, Hsin Hua News Agency and the local media.

B. *Doritis* Project

The "Conservation and Reintroduction of an Endangered Orchid, *Doritis pulcherrima*, in Hainan" is a China Programme-Flora joint project, in collaboration with the SFA, Hainan Forestry Department and the Wuhan Botanic Garden. The latter organisation is responsible for population genetics studies. Field surveys had been conducted, specifically for this project by mainland collaborators and Flora members.

C. World Orchid Conference

Senior Officer Gloria Siu attended the World Orchid Conference (10th-15th March 2005) in France, where she presented a report on Orchid Conservation in China during the General Meeting of the Orchid Specialist Group. Gloria also visited Royal Botanic Gardens, Kew England (16th-17th March) and helped the Chinese Medicinal Plant Department identify all their orchid specimens.

7. Fern Conservation

A. Fern Walk Facility

In the wake of increasing wildlife damage, we set up solar electric fencing around the site and three wooden gates were installed at access points around Fern Walk.

B. Field Work in South China

In October 2004 Officer Wicky Lee made a trip to Hainan for the South China Fern Conservation Programme, where some new fern species were collected

for South China Botanical Gardens (SCBG) identification, e.g., *Bolbitis hekouensis*. It turned out to be a new fern record for Hainan. During Wicky's other trips to Nanling and Guangdong, in January, additional fern specimens were also collected for identification.

8. Seed Bank

During this period about 90 species of newly collected seeds were under germination test, and 70 species of seeds were stored in the Seed Bank. The matured seedlings of 220 individuals of 17 species germinated in the Seed Bank were transferred to the Native Tree Nursery for planting.



▲ Seeds of *Archidendron utile*, a rare native plant, were collected in September 2004

▲ *Paris polyphylla* var. *chinensis*, a rare native plant, first flowered in April 2004 after nursing for 4½ years at Seed Bank

9. Collaborative projects with the Botanic Gardens Conservation International (BGCI)

We expect to further aid numerous botanic gardens' efforts to conserve plants regionally and globally through sharing of knowledge and closer collaboration with the internationally renowned BGCI.

A. Training Provided



◀ Participants and KFBG trainers of the BGCI Travel Scholarship training programme 2004/2005

KFBG organised the BGCI Travel Scholarship Programme for the second time. In March 2005, we hosted a two-phase study course for six promising mainland botanists. The first two weeks covered general native plant conservation, while the last week focused on an in-depth study of three optional topics namely: 1. Afforestation by Framework Species, 2. Genetic Population Studies of Orchids and Education, and 3. Interpretation in Botanic Gardens (by Education Department).

B. Staff Development with BGCI

In December 2004 two staff from this Department were awarded the BGCI Travel Scholarship and joined a two-week study tour: Joanne Loi on ethnobotany at Xishuangbanna Tropical Botanical Garden, and Terry Fung on ecological restoration at South China Botanical Garden.

10. Special Visitors

We have received many visitors from all over the world. Some of the notable visitors in this year included:

Baroness Walmsley	Chairperson of BGCI
Professor David Dilcher	Fellow of National Academy of Sciences (USA), a renowned palaeobotanist from the University of Florida
Professor Hong Da-yuan	Academician of Chinese Academy of Science (CAS)
Professor Lu An-men	Institute of Botany, CAS
Professor Morawegz and colleagues	Director of Institute of the Botanic Garden of the University of Leipzig, Germany
Professor He Sin-an	Retired director of Nanjing Botanical Garden
Mr. Chen Run-seng and colleagues	Director of China's Wild Plant Conservation Association
Dr. T.W. Yam	Orchid specialist from the Singapore Botanical Gardens
Dr. Aleck Yang	National History Museum, Taiwan
Mr. Louis Putzel	People and Plant International

11. Community Education Services

Over the past year we have provided many plant propagation lectures, practical training sessions, tree planting lectures and exercises, and talks on local ecology and conservation to schools and community organisations. Some notable examples:

1. Hong Chi Fanling Integrative Rehabilitation Complex — five sessions of gardening training on five Saturdays (August to December)
2. Two guided visits with a gardening lecture and a firefly tour were offered to a local primary school (July)



12. Advisory Services & Collaboration



We also offered help and advice to many government departments, business corporations, NGOs and schools on a range of issues including tree planting, slope planting, orchid garden and nursery management, gardening and greening, fire prevention and butterfly garden planting.

13. Capacity Building

The Farm conducted a survey on training needs among Flora frontline work teams by sending anonymous questionnaires to identify their expectations for training programmes. Fourteen Flora ground staff attended hands-on skills-improvement training in propagation, nursery and pest control run by a local agent in August and October. In October, Gloria Siu delivered a talk on "Landscaping, Management and Design of Flower Beds" for about 50 frontline Flora staff.

Flora members also took up other work-related training. Seven officers joined Mandarin classes and 25 of Flora's Fire Marshals received "Fire Safety Ambassador" training at a local fire station.

14. Workshops, Conference & Visits

Members of the Department actively participated in a wide variety of events, such as:

Event	Person involved
The 2nd World Botanic Gardens Congress in Barcelona, in April.	Lawrence Chau
The Workshop on Botanical Nomenclature in Guangzhou, in July.	Wicky Lee
The Annual Academic Congress of the China Botanical Gardens at Lushan Botanical Garden, Jiangxi, in September.	Gloria Siu and Charlotte Shiu (while there, Gloria gave a talk on Plant Conservation at the Farm)
The 5th National Workshop on Biodiversity Conservation for Botanic Gardens in China at Shenzhen's FairyLake Botanical Garden in November.	Ten Flora office staff selectively joined parts of the workshop (while there Lawrence gave a talk on project funding)
In January, Lawrence also joined a self-financed visit to Singapore with the Green Fun Committee to learn about urban greening policy, practices and facilities in Singapore.	Lawrence Chau

15. Media

This year Lawrence, Ken, Terry and Gloria, have been interviewed by various local and mainland media including RTHK (TV and radio), ATV, Cable TV, Star (Phoenix) TV, *South China Morning Post*, *Ming Pao*, *Hong Kong Economic Times*, *Wen Wei Po*, *Tai Kung Pao*, *Sing Pao*, *Hong Kong Daily News*, *Sing Tao*, *The Sun*, *Apple Daily*, *Macau Daily*, *People's Daily*, *China Flower & Gardening News* (mainland) and National Radio on issues ranging from Wishing Tree (19 reports), tree management and protection (5), NE Lantau tree planting (5), RIFA (5), hill fire ecology and prevention (4), orchid conservation (4), flower show and gardening (3), and Buddhist Pine conservation (2).

16. Publications

A number of articles and publications were produced by the Department. These are listed in the following table:

Title	Author
"Check list of Plants at KFBG" was published, with a book launch held on 9 July 2004.	Mrs. Gloria Barretto
A scientific paper, "Using native tree species to restore degraded hillsides in Hong Kong, China" was published in p. 179-189 of the Proceedings of the conference "Bringing back the Forests."	Ken K. Y. So with Billy C. H. Hau
A new-to-science species was published: <i>Trichostema dongfangensis</i> (Orchidaceae) a new species from China, in <i>Annales Botanici Fennici</i> Vol. 41 No.6 2004; p. 465-466.	Gloria Siu Lai Ping with Jin Xiao-hua
An article entitled "Native Orchids of Hong Kong" was published in a SFA magazine <i>Forest and Humankind</i> , vol.168, in May 2004.	Siu Lai Ping
The article, entitled "Ferns-the Living Dinosaur of The Plant Kingdom" was published on vol. 25, Issue Nov-Dec 2004 of <i>Hong Kong Discovery</i> .	Wicky Lee
Lawrence wrote a feature article titled "Ecological Footprint" (in Chinese) for <i>Sing Pao</i> (26 March).	Lawrence Chau



China Programme

The China Programme continues to develop projects on the Chinese mainland, which include conducting biodiversity surveys, disseminating the latest biological and scientific information, the conservation of Hainan Gibbons and the overall promotion of sustainable living.

1. Biodiversity Surveys

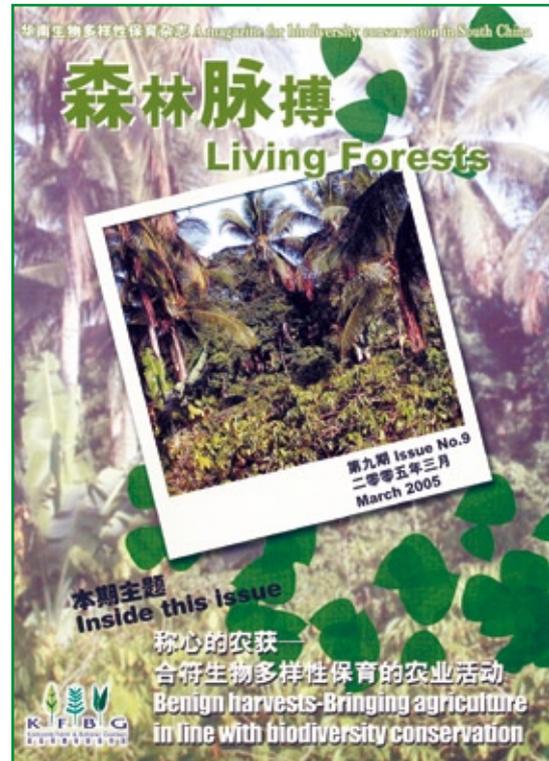
In early January 2005 the China Programme in partnership with Hainan Normal University and WWF Hong Kong, led the survey team in the second island-wide water bird survey in Hainan. A record number of 77 (critically endangered) Black-faced Spoonbills were observed.

However, the number of other bird species has dropped considerably when compared with last year's figure due to the destruction of the island's wetland habitat.

2. Publications

To continue the effort in disseminating the latest scientific information on the biodiversity in forest nature reserves in South China, and to recommend appropriate conservation measures, 17 Chinese rapid biodiversity assessment reports (South China Forest Biodiversity Survey Reports series) were printed.

To ensure the *Living Forests* magazine is performing its intended functions of informing, serving and inspiring partners engaged in forests conservation, a readership survey was conducted in 2004 and findings were acted



▲ *Living Forests* issue #9

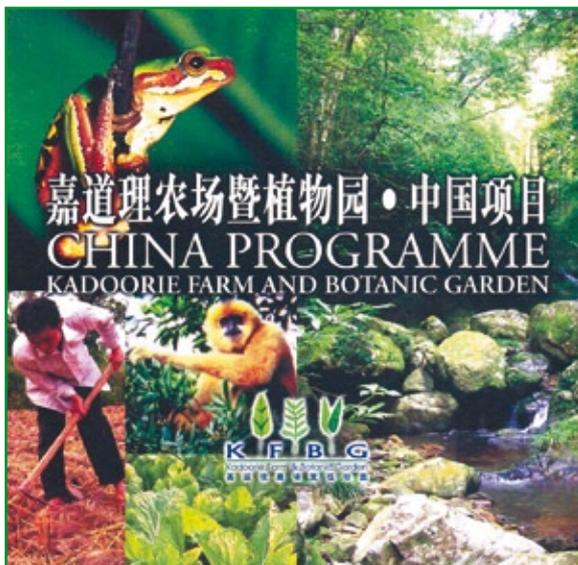
upon. Three thematic issues (#7 - #9), on Hainan's forest biodiversity, forest ecosystems integrity and sustainable agriculture, were published during the year.

With the expansion of focal areas in our China Programme a new pamphlet introducing our work was produced.

3. Studentships

Four mainland Chinese postgraduate students were awarded studentships in 2004/2005.

Name	Institution	Project
Wang Jichao (MPhil)	Department of Biology, Hainan Normal University	Study on ecology & conservation biology of Indochinese Box Turtle <i>Cuora galbinifrons</i>
Jiang Aiwu (MPhil)	College of Animal Science & Technology, Guangxi University	Comparison of bird communities in karst forests in southwest Guangxi
Zhang Mingxia (PhD)	Kunming Institute of Zoology, Chinese Academy of Science	Analysis of habitat selection & potential distribution of Hainan Gibbon
Lin Jiayi (PhD)	College of Forestry, South China Agricultural University	Phenology & ecology of the main feeding plants of Hainan Gibbon



▲ A new pamphlet introducing China Programme



▲ Indochinese Box Turtle *Cuora galbinifrons*, an endangered species known from Hainan and Vietnam

▼ Nature reserve staff distributing *Fai-chun* to children in Bawangling villages



4. Projects

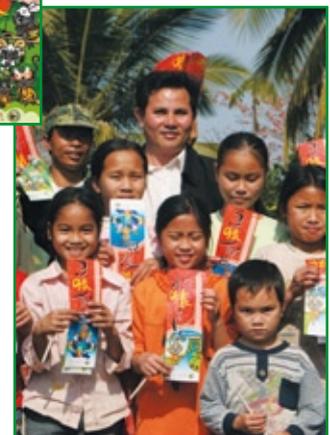
The China Programme also initiated and supported the following new projects in collaboration with local partners in South China while other committed projects were ongoing.

Project Title	Project Partner
Survey & conservation of Hainan Limestone forest snails	Hebei University, Hainan Wildlife Conservation Centre
Study on the distribution of <i>Cuora yunnanensis</i> & its habitats in the wild	Kunming Institute of Zoology
A demonstration environmental and sustainable village primary school in Gansu province, China	Architecture Department of Chinese University of Hong Kong, Architecture Department & Civil Engineering Departments of Xi'an Jiaotong University, Xifeng County
Evaluation & strategy in formulation of Yunnan organic & sustainable agriculture	Pesticide Eco-Alternatives Center, Thoughtful Action development in Yunnan province, China

▼ *Fai-chun* banners with Hainan Gibbon conservation messages



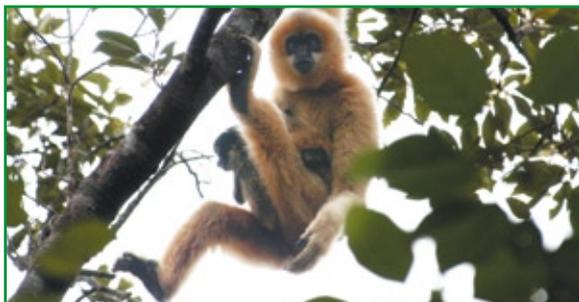
▲ A native tree nursery in Bawangling National Nature Reserve



▲ Let our future generations live in harmony with Hainan Gibbon

Special Project Highlights:

Conservation of Hainan Gibbon



In July 2004 a training workshop on gibbon monitoring, plant phenology and nursery techniques was given to Bawangling National Nature Reserve staff with the assistance of Dr. Zhou Jiang from Guizhou Normal University who had been undertaking long-term research on this gibbon and its habitat. In October 2004 Dr. Ramesh Boonratana, a member of the IUCN SSC Primate Specialists Group from Malaysia with vast experience on community-based conservation projects in Indochina, was invited to give advice on our work. An island-wide publicity campaign was jointly organised with the province's most popular newspaper, the *Hainan Daily* and Bawangling National Nature Reserve in January 2005. A total of 180,000 fai-chun banners with gibbon conservation messages were printed. About 10,000 were distributed to surrounding villages and schools by reserve staff and our team members, while the rest went to the residents of Hainan as an insert in the local newspaper. Many electronic versions of the fai-chun were sent using a specially-designed web page. A gibbon monitoring team and two native tree nurseries have been established. The first aims to enhance patrolling effort and our understanding of the gibbons, the second aims to produce over 150,000 seedlings, annually, of gibbon food trees for habitat restoration.

5. Others

Kadoorie Farm's Ecological Footprint Study

Simply put, sustainability means living well, but within the Earth's biological capacity. Yet, how much nature do we use, and how much do we have? The Ecological Footprint is a science-based methodology that addresses this question by comparing the ecosystem services used each year by humanity with the biosphere's annual regenerative capacity for these same services. This tool makes it easy to assess and benchmark the overall ecological demand associated with any human activity, from a single project to the operation of an entire organisation, community or country.

In an effort to assess Kadoorie Farm's status of sustainability and to monitor its progress toward a sustainable future, we commissioned WSP Environment and the Global Footprint Network (GFN) to conduct an organisational ecological footprint study from July 2004 to February 2005. With continuous engagement of the experts from the GFN the Farm has been developing targeted strategies to maximise footprint savings by improving our internal performance and mobilising wider community participation to live lightly on the Earth.

A one-day workshop organised jointly by the GFN and the Farm, supported by the Business Environment Council, was held in November 2004. Eighty people from the business sector, non-profit organisations, environmental consultants, academia and educators, attended the event to learn about the basic principles and concepts of this science-based methodology and its application in their own business and organisations.

EAP and EMP



Our ecological programmes continue their advisory and monitoring role: the EAP monitors local environmental policy and activities, while the EMP looks into areas of on-site land use and pest management.

ECOLOGICAL ADVISORY PROGRAMME (EAP)

EAP continues to formerly provide comment to the authorities on projects that are potentially detrimental to the environment. This involves carrying out ongoing monitoring of at risk sites around HK and acting as a watchdog. In 2004 EAP ran a workshop for NGOs that outlined operational procedures for reporting suspected illegal developments. We have also contributed to a government initiative to develop ecological corridors. We executed several training workshops for Government engineers and NGOs to facilitate transparency and



▲ Dead Tree Sparrows — victims of inappropriate wild releases

collaboration between the public, private and NGO sectors, particularly on the issue of stream channelization, and this has had positive results. We initiated a project in 2005 to raise awareness among local Buddhists of the potential damage caused by their customary 'wild release' of previously captive, non-native bird species.

Relevant government departments were consulted on the following cases of concern:

A. Planning, EIA & Land Use

- * Disturbance to White-bellied Sea Eagle nest by pier construction at Sham Chung.
- * Bird collision with transparent noise barriers along highways — issue raised with Environmental Protection Department.
- * Dumping on farmland and the trip ticket system for construction and demolition wastes — a brochure on the proposed Legislative amendment was produced in co-operation with Civic Exchange.



▲ White-bellied Sea Eagle

B. Consultation & Policies

Hei Ling Chau super prison — The lack of transparency of the site selection process and the presence of the endemic Bogadek's Burrowing Lizard were expressed during a consultation meeting with environmental groups in June 2004. The government later suspended the project.

Drainage Services Department (DSD) drainage package in northern New Territories and Lantau — EAP attended four consultation meetings held between DSD and environmental NGOs from June 2004 to February 2005.

Conservation Policy — The new Nature Conservation Policy released in November 2004 proved to be a disappointment, failing to address any issues except sites of high ecological value on private lands. An initial response was sent to the LegCo Panel on the Environment.

Lantau Development Concept Plan and Sustainable Development strategy consultation — EAP attended briefing sessions and formal submissions were subsequently sent to the government.

Other Use (Rural Use) [OU (RU)] guidelines consultation — As a result of comments presented by the Kadoorie Farm during the drafting of the OU (RU) guidelines, the Town Planning Board (TPB) agreed to publish the planning intentions for each zoning listed in the Master Schedule of Notes on the TPB website.

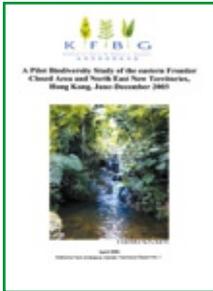
C. Other Activities

Seminars & Workshops

1. On 18th May 2004 49 planning and engineering professionals attended an ecological training workshop co-organised with the Business Environment Council. Speakers from Kadoorie Farm, World Wide Fund for Nature Hong Kong and Hong Kong University presented talks.
2. Over 60 people attended a workshop, which was co-organised with Green Power on 4th December 2004, for facilitating the government environmental monitoring by encouraging the public to report any environmental degradation. Speakers represented three government departments and the Mau Ping Conservation Group.

Standard operating procedure for monitoring ecological hotspots — A bilingual procedure with case studies and contacts was produced, with copies sent to relevant environmental groups for their reference.

D. Conservation Actions



A report on "Pilot Biodiversity Survey of the Frontier Closed Area (FCA) and Northeast New Territories" was published in April 2004. Recommendations including the green corridor between Robin's Nest, in the FCA, and Wutongshan National Forest Park, in Shenzhen, were subsequently discussed in the Planning Department HK 2030 consultation meetings.

Exotic invasive weed clearance at Pak Nai — A clearance of exotic invasive weed, *Spartina*, was jointly conducted by the AFCD and the Farm on 26 September 2004 at Pak Nai, Yuen Long.



▲ Frontier Closed Area Biodiversity Survey — a surveyor scanning for aquatic wildlife in a waterfall at Kuk Po

ECOLOGICAL MANAGEMENT PROGRAMME (EMP)

The EMP has no full-time dedicated staff and acts as a cross-departmental body. The programme presently performs two main activities, dealing with pest management issues and organising annual tree-planting activity on unmanaged hillsides.

Conflicts exist between having a nature reserve, which we aim to keep as wild as possible, nestled amongst agricultural and botanic garden activities. In late 2004 the senior management of two local golf clubs sought and acted upon our advice regarding their pest management problems, in particular wild boar.

A. Pest Management

The bulk of the reports submitted regarding pest issues are from the Agriculture and Flora departments. Issues are diverse: rat damage to orchids under conservation cultivation programmes (for which advice was sought from experts at Kew Gardens UK), heavy wild boar traffic causing hillside erosion and land slip, wasp management and nest removal, and, a more sinister development concerning the feral dog community visiting the hillside and causing predation deaths to native wildlife.

B. Land Use

Two unmanaged, unproductive orchard sites were earmarked for planting of native tree species to promote the regeneration of our hillside forest and to prevent soil erosion. Each department provided staff and volunteers to assist with ground clearing and tree planting. Led by an expert from the Flora Conservation Department, 406 seedlings of 16 species were planted in August 2004. Tree growth over the next few years should help to connect the currently fragmented patches of woodland on the hillside. The plan is to conduct planting on a yearly basis. This project could span the next few years, until wildlife corridors are created.



▲ Tree planting to rejuvenate native forest on the abandoned orchard area at KFBG hillside

General Administration



For the year 2004/2005, the total Farm expenditure increased by 11.5% in comparison to the previous financial year.

The number of visitors to the Farm has increased by a very significant 70%. What's more, donations received had more than doubled due no doubt to contributions inspired by *Pui Pui*, the now-famous Yuen Long crocodile who joined us in October.

In December 2004, a new Procurement Section was established to better control all purchasing functions in the Farm. In terms of staff turnover, we had 41 new staff, 24 resignations and three retirements. With regard to capacity building, 92 staff members attended 38 external training courses in Hong Kong and various overseas locations. Four major capital projects were undertaken by the Facilities Department and various safety measures were also implemented. Five new General Administration policies were launched on a farm-wide basis.

1. Accounting & Finance

Financial data from 2003/2004 and 2004/2005:

	Year ending 31 March 2004	Year ending 31 March 2005
Capital expenditure (HK\$)	6,551,476.00	8,112,726.00
Operating expenditure (HK\$)	49,542,491.00	54,434,885.00
Total expenditure (HK\$)	56,093,967.00	62,547,611.00

2. Administration

A. Number of Farm Visitors

April 2003 - March 2004		April 2004 - March 2005	
Group visitors	Individual visitors	Group visitors	Individual visitors
72,152	33,328	128,260	51,589
TOTAL: 105,480		TOTAL: 179,849	

B. Enhancement of Driving Safety

From January 2005 each authorised driver on the Farm staff was assessed for their driving skills in an *Alert Driving* test conducted by the Hong Kong School of Motoring. This was to further enhance the safety of the Farm's staff and visitors.

Speed limits for driving inside the Farm were revised and enforced in January 2005 (20 km/hr in

the Lower Farm area; 25 km/hr in areas above the Raptor Sanctuary, and 15 km/hr at major road bends) and visitors were temporarily prevented from driving on our roads.

C. First-aid Support

On Sundays and Public Holidays, the Red Cross started to send their volunteers to the Farm to provide first aid services. 50 staff obtained a First Aid qualification and 8 internal staff were trained to act as an Emergency Response Team.

3. Human Resources

A. Staff

41 new staff, 24 resignations and three retirements. Key management staff movements this year include the appointment of Andy Brown as Executive Director, Dr. Chiu Sein Tuck as Head of the Education Department, Florence Au as Head of Administration and Denis Ng as Head of Facilities.

B. External Training

92 staff members attended 38 training courses for professional development in Hong Kong and various overseas locations.

4. Procurement Management

This new section was set up in December 2004 to manage the procurement activities in accordance with the new procurement policy. The following work was carried out:

1. Qualifying procedures for contractors, consultants and suppliers was established.
2. A Supplier List of more than 100 contractors, consultants and suppliers was compiled and updated.
3. Tender assessment methodologies including the 'Balanced Scoring System' was developed and agreed with the Facilities Department for the tendering of construction projects. This system ensures fairness and transparency in the awarding of contracts.
4. The Procurement Section managed more than 60 tender candidates for 15 projects with contract sums exceeding HK\$6 million.

5. Facilities

1. From December 2004 the Facilities function was restructured from being a section under General Administration to being a Department in its own right. Major capital projects undertaken in 2004/2005 were mainly in relation to the following areas:

- Assessment of slope stability
- Renovations and improvements to buildings
- Improvements to water quality and supply
- Enhancement of the wastewater disposal system

2. Facilities Safety Issues

Fire services facilities were installed in the Conservation Building including new exit signs, emergency lights



▲ Water-sterilisation System

and alarm systems. Lightning protection systems were installed to protect 15 buildings throughout the Farm. On December 5th 2004 a hill fire started near to the upper boundary of the Farm and crossed the boundary into the Farm in places. The facilities team prepared and maintained the fire fighting equipment and helped co-ordinate the Fire Services and Civil Aid Service as they successfully extinguished the fire.



6. New Farm-Wide Policies

1. Compensation for Extra Hours Worked Policy
2. Common Leave Year Policy
3. Driving Policy
4. Procurement Policy
5. Staff Complaints Procedure

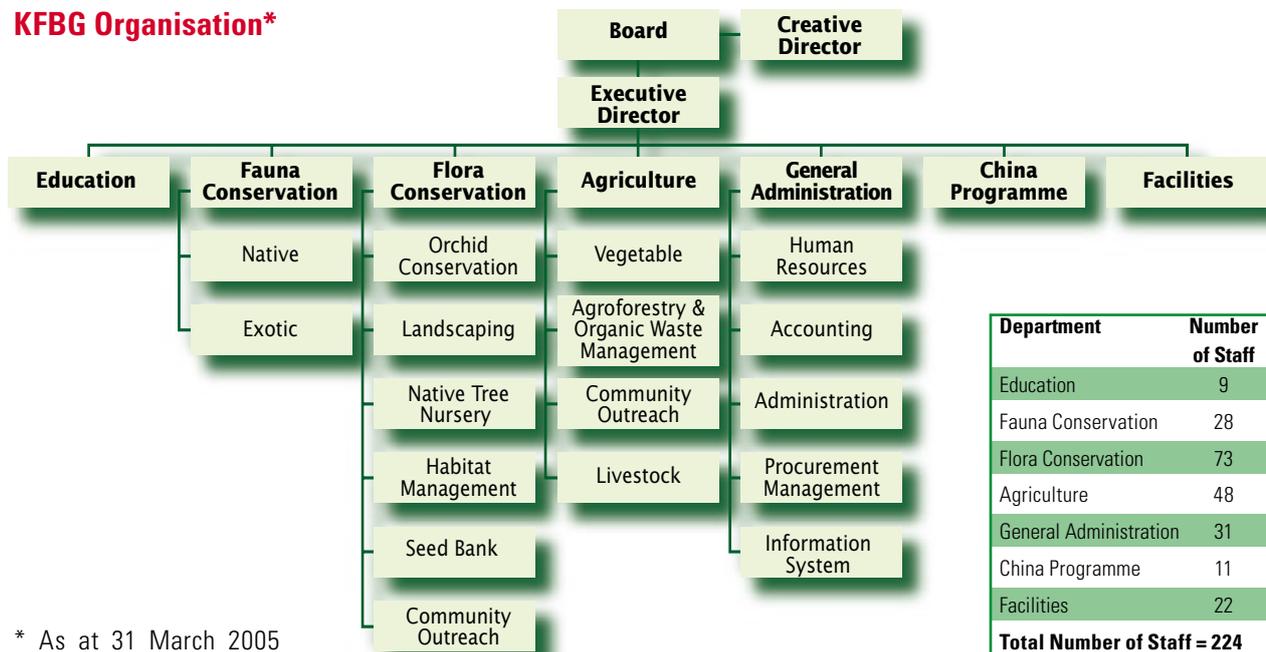


▲ KFBG Annual Dinner



▲ The 10th Kadoorie Brothers Memorial Race

KFBG Organisation*



Department	Number of Staff
Education	9
Fauna Conservation	28
Flora Conservation	73
Agriculture	48
General Administration	31
China Programme	11
Facilities	22
Total Number of Staff	= 224

* As at 31 March 2005

**Members of the Board of the
Kadoorie Farm and Botanic Garden Corporation**

Andrew McAulay (Chairperson)

Ian D. Boyce

Professor Lawrence Lee

Deborah Whittle

Ruy Barretto, Senior Counsel

Ho Wai Chi



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