

KADOORIE FARM & BOTANIC GARDEN

Annual Report 2018



'To harmonise our relationship with the environment'

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Kadoorie Farm and Botanic Garden Annual Report 2018

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Cover Photo: The butterfly featured is a *Taraka hamada*, or the 'Forest Pierrot', which is not easily seen. The photo, titled 'Rare Guest', was captured by a visitor, Mr Lee Wing Hong, inside KFBG. Mr Lee submitted this stunning photo to KFBG's 'Motion and Still Moments of Nature' Photo Event of 2018, where it was judged to be one of the top ten entries. Well done Mr Lee.

ABOUT US

In a time of severe global crisis - including the inter-related issues of widespread disconnection from nature, each other and self; the ever-increasing exploitation of and unwise over-reliance on the world's dwindling resources to support unsustainable lifestyles; climate change; shrinking of natural habitats and species loss - KFBG raises awareness, undertakes rigorous science-based species conservation and ecosystem restoration, and offers new ways of thinking and living to respond to the world's problems. Hence, our work brings hope and improvement by focusing on nature conservation, sustainable living and holistic education that reconnects people with nature. By working together with the public, governments, academia, NGOs, businesses and volunteers, we can protect our common future.

Kadoorie Farm and Botanic Garden (KFBG) is situated in Hong Kong SAR, China, in the rural New Territories on the northern slopes of Tai Mo Shan - Hong Kong's highest mountain. Two steep spurs enclose its deep-set valley. Within KFBG are streams, woodlands, orchards, vegetable gardens, walking trails, live animal exhibits, floral exhibits, art exhibits, sustainable agriculture demonstration plots, a wild animal rescue centre, a native tree nursery, and other conservation and education facilities.

In the post-war years, Hong Kong was flooded with immigrants. Many had traditional knowledge of crop production and livestock farming but no stock, others had land but no experience. They required support to rebuild their lives. In 1951, in response to these pressing human needs, Lawrence and Horace Kadoorie established the Kadoorie Agricultural Aid Association (KAAA), which became a key partner of the Hong Kong Government in devising and implementing a plan

to help Hong Kong feed itself. The Kadoorie brothers, part of a well-established business family, saw wealth as a sacred trust to benefit mankind. With such aid, thousands of people received agricultural training; thousands of pigs, chickens and ducks were bred and given to farmers or sold to them on credit; thousands received micro-loans; and numerous wells, irrigation channels, roads, footpaths, bridges, pigsties and farm houses were built. The farm site at Pak Ngau Shek was established in 1956 as a base for livestock breeding and distribution, agricultural research, farmers training, public education and recreation. The barren slopes

were terraced and planted with orchards and vegetable gardens. The development of the botanic garden began in 1963 and the plant conservation programme from 1972.

On 20 January 1995, the Legislative Council of Hong Kong passed an Ordinance (KFBG Chapter 1156) incorporating KFBG as a non-profit corporation designated as a conservation and education centre with a new mission. It is a unique public-private partnership, for while the KFBG Corporation is a public corporation, it is, kindly, privately funded to a large extent by the Kadoorie Foundation (over HKD110 million per year). These funds are supplemented by donations from the public and project-related grants from the Hong Kong Government, partner organisations and foundations, enabling us to extend our work.

Since 1995, KFBG has been conducting a wide range of nature education, nature conservation and sustainable living programmes both on-site and throughout Hong Kong, South China and more recently, extending into South-east Asia (Laos and Cambodia).



MISSION & VISION

MISSION To harmonise our relationship with the environment.

VISION A world in which people live sustainably with respect for each other and nature.

Sustainable Living: Appreciating the impact of our actions with regard to current and future generations. Having awareness of our connection with the environment. Valuing simple and responsible lifestyles.

Justice: Being fair and accountable. Valuing socially equitable systems that protect the health of the planet, the people and their way of life. Protecting future generations.

Love: Having self-awareness and understanding of the inter-relationship of all things. Having compassion and respect for all life. Recognising that outer discord is a reflection of inner discord. Striving for inner silence.

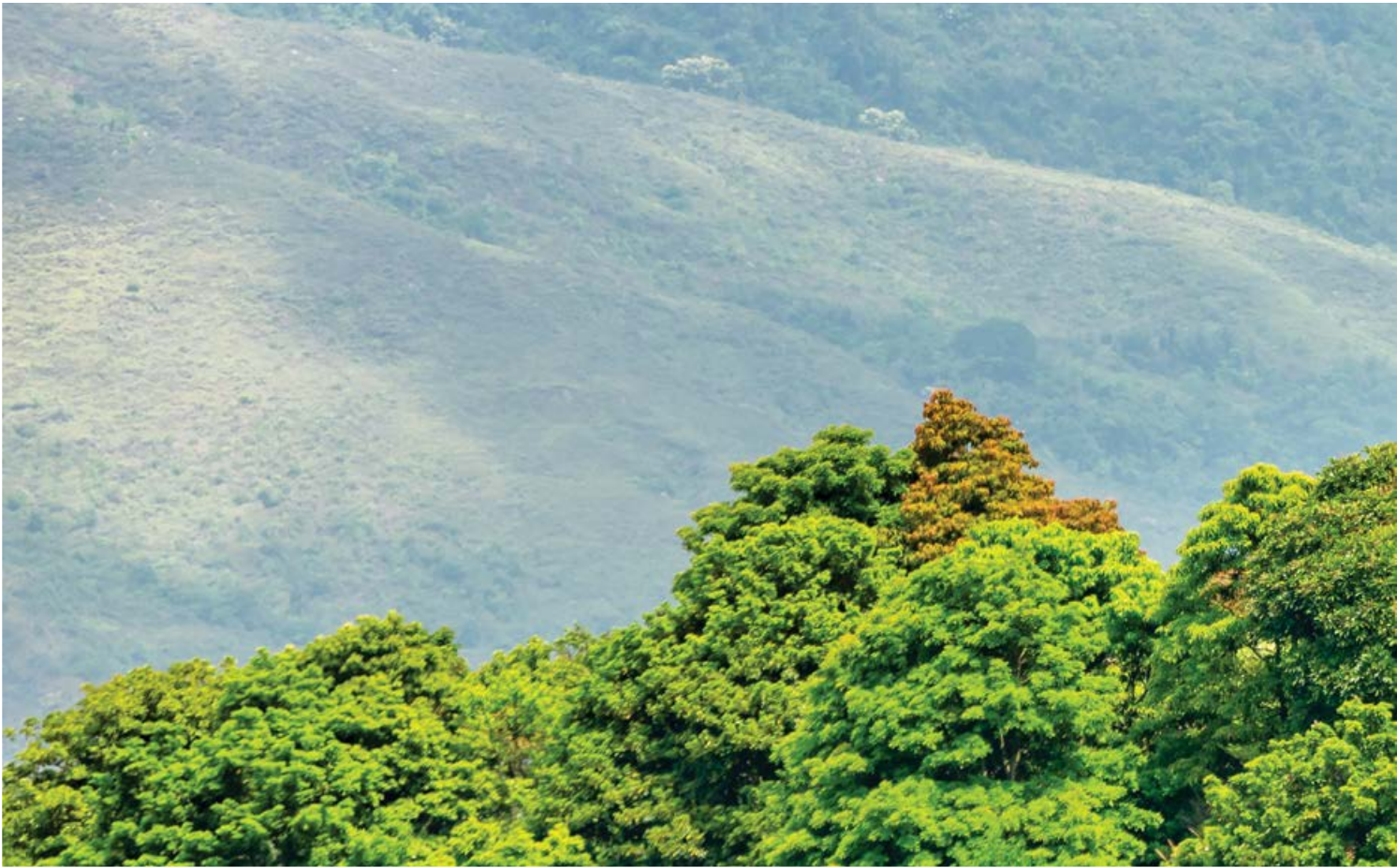
Participation: Engaging mentally, physically, emotionally and spiritually; fostering respect for different viewpoints, openness, dialogue and teamwork.

Professionalism: Being a role model of caring, integrity, commitment, professional standards and best practices for partners, organisations, individuals and communities.

Learning: Being adaptive and flexible to changing circumstances. Having a holistic outlook. Being practical, objective, creative and insightful.

Happiness: Appreciating that our happiness lies in creating and sharing happiness with others.

FOREWORD



Thank you for your interest in the work of Kadoorie Farm and Botanic Garden (KFBG). Thanks also to our professional and dedicated staff, to our loyal volunteers, our Board Members, Kadoorie Foundation Trustees, other partners, supporters and visitors.

2018 saw our documentary film series, 'Garden in the Sky', receive Official Selection status in film festivals in the USA and Europe, and it was also broadcast across Asia.

We hit the milestone of 10,000 stray snakes received to our Wild Animal Rescue Centre since 1999, the majority of which were returned to the wild. Though not a favourite of most humans, these snakes being returned to the wild helps greatly in keeping ecological balance in Hong Kong's natural areas,

and they have intrinsic value as living beings and deserve our care, as much as any other creature.

We have helped the population of an extremely rare oak tree, Hu's Oak, rebound. With only 10 mature individuals known in Hong Kong, it is on the brink of extinction locally. Young trees, grown from wild seeds in our Native Tree Nursery, are now thriving in our forest restoration plot, high on the mountain, and around 10 flowered for the first time this year. This gives hope for the species and the diversity of Hong Kong's forests, which is so important in combatting the effects of climate change.

The Green Hub, our Sustainable Living programme in the Old Tai Po Police Station, completed its first three years of



operation. I am thinking, 'Three years? How time flies, how the programmes develop, how the energy and spirit of the staff grows, and how the menu in the Eat Well Canteen keeps getting better and better!' The Green Hub team continues to be recognised for their work with awards from external bodies; this year for their hardware and human efforts in accessibility.

These are just a few of the highlights that you can find in this Annual Report.

We are very grateful for the long-term support of the Kadoorie Foundation, which has financed our work for decades and is committed to ever-growing contribution long into the future. Many charitable organisations around the world that have had the support of a single major donor, reach a point when

they grow so big that they need to invite other Foundations, Governments and individuals to become partners in the mission and the programme work also. We have reached that point, and we have therefore started to seek funding partnerships in addition to the Kadoorie Foundation. We are very grateful to now have the Hong Kong Jockey Club as a major partner in funding 80% of the cost of our new building, the 'Jockey Club Nature Conservation Centre', which will be a hub for public education and programme management. When it opens in 2021, this building will replace the Conservation Building, built as a school in the 1960's, and begin a new page for our conservation and education endeavours.

Andy Brown
Executive Director

SUSTAINABLE LIVING AND AGRICULTURE





During 2018, the Sustainable Living and Agriculture Department (SLA) was running the Central Farmers' Market for the 11th year, helping organic farmers to have a more reasonable return on their hard work and their commitment to sustainable farming practices. Meanwhile, various farming courses, workshops and apprenticeship schemes such as City-farming Trainings and Farmers Reskilling Workshops were also held to keep promoting sustainable ways of life to the public.

Partnership

Environment Bureau

Idy Wong, head of SLA, was appointed by the Environment Bureau as a new member of the Steering Committee on the Restored Landfill Revitalisation Funding Scheme (RLRFS). Adopting a framework similar to the Partnership for Historic Building Revitalisation Scheme, RLRFS aims to engage NGOs to revitalise restored landfills for public use. Sustainability is a key vetting criterion for funding approval.

The Institute of Chinese Medicine of The Chinese University of Hong Kong (CUHK)

The Institute of Chinese Medicine of CUHK sought SLA's support in the cultivation and provision of samples from our aquaponics system for a research project that compares the active ingredients of medicinal herbs that are cultivated from hydroponics, soil-based organic farming and aquaponics systems.

'Farming with the Wild' by Kadoorie Conservation China (KCC)

'Farming with the Wild', a sustainable food-system model, was introduced by KCC at Orchid Valley in Yingjiang, Yunnan, which is being developed into an eco-farm targeting eco-tourists. A series of improvement works were implemented in February 2018. One of which was to sow vegetable seeds in the fields that were naturally 'ploughed' by wild boar, maximising land use while minimising conflicts between human and wildlife.

Promoting Sustainable Agriculture

Central Farmers' Market

On every Sunday at Star Ferry Central Pier, the Central Farmers' Market - open for the public - is held to support local organic produce, promote local economy and establish a fair-trade platform for consumers, local farmers, social enterprise and artists. In January and February, public talks and cookery demonstrations were conducted to cope with high public concern about pesticide residues on produce.

Permaculture Design Certificate (PDC)

SLA ran the 72-hour PDC course in Cantonese during the 12 public holidays in March and April. Following the international PDC curriculum, the course is delivered with field visits and practical sessions. 13 people from diverse backgrounds participated.



● Graduates of the Permaculture Design Certificate Course 2018.

Sustainable Agriculture Certificate Course

SLA collaborated with HKU's Academy for Sustainable Communities and School of Professional and Continuing Education (SPACE) to provide a structural 36-hour certificate course to people who are interested in sustainable agriculture. The course will be commenced in Spring 2019.

Organic Farming Course for In-service Farmers

SLA supported the Hong Kong Organic Farming Association to organise a structured Organic Farmers' Training Course for farming beginners. Apart from lectures, the course emphasised on practical field sessions to facilitate skill transfer. 24 people completed the training.

Sustainable Farming Apprenticeship Scheme

The Sustainable Farming Apprenticeship Scheme was launched in November, offering a six-month on-the-job field training at KFBG to local adults who are keen to pursue a career in farming. Among the 57 applicants, four joined as apprentices and two were recruited as full-time farmers, and all of them enrolled to the training.



● Russell Kong, one of the Farming Apprentices, on his first day of on-job training.

Recovering Organic Resources

The one-day Resource Recovery Workshop was held on 3 February with 16 participants. The Workshop introduced various ways to recover food waste and resources at the household level - such as making our own food waste enzyme for cleaning purposes.

A visit to KFBG's organic resource recovery systems was organised on 15 June for a group of 30 people from the local recycling sector led by the Hong Kong Productivity Council. Participants were introduced to the general processes for the composting of plant and animal wastes, management of kitchen waste compost and the production and application of Bokashi.

Learning from Indigenous Culture

On 20 July, our tribal teacher and elder from New Guinea, Jhon Kwano, shared with 34 staff about the gardening practices in his village. It is in fact a celebration of life - incorporating rituals, feasting and other elements that unite and sustain communities. Jhon's sharing illustrated how indigenous farming is not just about farming practices, but also the joyful expression of a culture that is deeply connected to their environment and spirit. Jhon also gave a public talk and a workshop, which are covered in later pages.

Farming Courses and Workshops in 2018

City-farming Training

Date	Programme	No. of Participants	Organiser
10 March, 31 March and 7 April	Introductory Course on Sustainable Agriculture for City Farmers	22	SLA
14 and 15 April	Planting Vegetables in Synchrony with the Seasons of the Year	18	SLA
19 May	Farm tour for graduates of the 'Farmers Training Course 2018'	25	SLA
16 and 17 June	Two-day 'Beekeeping Training Course 2018'	15	SLA
6, 20 and 27 October	Introductory Course on Sustainable Agriculture for City Farmers	24	SLA
28 January	Mini-farm Workshop	25	SLA/The Green Hub
18 March	Herb-growing Workshop	14	SLA/The Green Hub
29 July	Herb Workshop	25	SLA/The Green Hub



● Beekeeping Training Course 2018.



● Introductory Courses on Sustainable Agriculture for City Farmers.

Farmers Reskilling

Date	No. of Participants	Title	Content
8 February	45	Beneficial Animals to Farmers	Presentation by the E-Farm and KFBG on integration of black soldier-fly keeping with aquaponics and the feasibility of beekeeping in urban area.
11 April	65	Green Manure	KFBG staff and technician from AFCD served the experience, techniques and planting tips for integrating different varieties of green manure in farming field.
1 June	40	Rules and Principles of Sustainable Farming System	Talk by staff of KFBG and Hong Kong Organic Resource Centre (one of the organic certification bodies) on principles of sustainable farming.
15 October	65	Fresh Produce Processing	KFBG staff introduced the principles and possible ways for fresh produce processing. Farmers from Herboland, a local organic farm, shared experience and practical tips on processing fresh herb and fruit.
6 December	60	Coffee Growing	KFBG staff shared experience and techniques on incorporating coffee plant to diversify farm production.

THE GREEN HUB FOR SUSTAINABLE LIVING





- Mr B, mascot of the Hong Kong Biodiversity Festival (HKBF) visited the Green Hub in September to promote nature appreciation. The Green Hub was listed as one of the 19 green sites to under the HKBF 2018's theme of City Within Nature.

Under the Sustainable Living and Agriculture Department (SLA), the Green Hub has been a role model in sustainability in Hong Kong. Different awards, collaborations, exposure in various sustainability projects, and the ongoing support and repeat interactions of the community, are the best indications of the effectiveness and passion of the Green Hub team.

Community Engagement

Number of Visitors

In 2018, 57,439 people visited the Green Hub, and the outreach workshops reached out to an additional 3,267 people. A wide range of programmes and activities were organised to convey the sustainable living message to visitors.

Self-guided Visitors	45,351
Heritage Tours	7,648
Eat Well Workshops	2,455
Courses	1,985
Canteen Customers	27,224
Co-op Market	13,410
Guesthouse (excluding course participants)	431
Outreach Workshops	3,267

Eat Well Programme

The Eat Well Programmes guide the participants through the process of food from field to table, such as

planting, cooking and eating together, and honouring the food as well as post-meal waste treatment. This year, over 100 Eat Well Workshops and Cookery Classes of different themes were organised for a wide range of audiences, and over 100 sessions of cookery demonstration were delivered to the Eat Well Canteen customers and self-guided visitors to promote low carbon diet.

The Green Hub continued to run the Eat Well Ambassadors Scheme to offer six-month on-job training of sustainable catering service to adults at the Eat Well Canteen.

Courses and Reskilling Workshop

Apart from supporting the Education Department to run residential courses, the Green Hub organised other residential programmes featuring herbs, tea and plum to facilitate participants to reconnect to our food system and nature. Over 80 workshops of diverse themes ranging from eco-architecture, permaculture, small-scale food growing to natural soap-making

were conducted for community leader capacity-building and reskilling participants for low-carbon living. Highlights include the training workshops on the Transition Town Movement and the eco-architectural talk by Professor Mujun, held in April 2018.

Co-op Markets and Open Days

In 2018, 50 days of Sunday Market and/or Open Day events were organised in collaboration with local craft-makers, musicians and organisations to promote sustainable living. For example, six days of community programmes targeting on waste reduction was funded by Tai Po District Council to engage Tai Po residents to enquire our daily consumption.

The Co-op Shop continues to offer retailing service to help public sourcing sustainable products. Apart from serving as an outlet for local, organic farms, producers were also engaged in consignment schemes.

Projects

Zero Carbon Pioneer Project

SLA concluded the Zero Carbon Pioneer Project, partially funded by the General Chinese Charitable Fund, with a closing ceremony officiated by the Secretary of Environment on the eve of the Earth Day 2018. In total, the participants committed to saving almost 22,000 tonnes of carbon dioxide over the project's period from October 2017 to April 2018.



● The Secretary for the Environment and 300+ Zero Carbon Pioneers.

Tonnes of carbon dioxide saved	Schools engaged	Student-pioneers trained	Teachers trained	Families trained	Zero Carbon Friends engaged	People reached by community events	Participants of the closing ceremony
21,959	14	283	27	61	6,703	14,211	450

Heritage Conservation

The Green Hub acted as one of the supporting parties and set up a workshop booth at the annual event 'Heritage Vogue • Hollywood Road' on 4 November to promote low carbon food programmes. Spearheaded by the Commissioner for Heritage's Office and supported by operators under the Revitalising Historic Buildings Through Partnership Scheme, the event attracted a total of 76,000 people.

The Green Hub was one of the three selected case studies of the Jockey Club Cultural Heritage Project organised by the Fringe Club. On 10 March, a public talk and a round-table discussion on The Green Hub Project with heritage conservationists were organised. Over 80 people attended.

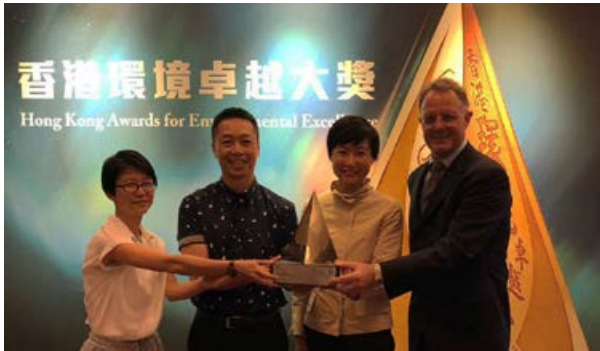


● Coffee roasting was demonstrated to promote the sustainable coffee sourced directly from tribal community in Papua.

Role Model in Sustainability

SPACE X HONG KONG by Hong Kong Green Building Council (HKGBC)

The Green Hub Project was documented in one of the seven chapters of the HKGBC's new publication *SPACE X HONG KONG*. The publication aims to stimulate dialogue and partnership among professionals in the property development industry regarding sustainability of the public realm. It also provides reference to the development of the BEAM Plus' Neighbourhood's new sustainable neighbourhood scheme.



- The Green Hub received the Hong Kong Awards for Environmental Excellence 2017 (Restaurants) - Gold Award.

Hong Kong Awards for Environmental Excellence (HKAEE) 2017 (Restaurants) - Gold Award

Following a series of assessments undertaken by the Hong Kong Productivity Council and a presentation to a judging panel, the Green Hub's Eat Well Canteen (the Canteen) was recognised with the HKAEE 2017 (Restaurants) - Gold Award as a sustainable model of the restaurant sector. The award presentation ceremony was held on 4 May, in which the award was presented by Chief Executive Carrie Lam and received by Andy Brown, KFBG's Executive Director.

The Green Hub project was also highlighted as one of the case studies of the HKAEE Seminar Series that was held at the Central Library on 28 May and the Hong Kong Trade Development Council's Entrepreneur Day 2018 on 17 and 18 May at Hong Kong Convention and Exhibition Centre. A TVB episode featuring the Eat Well Canteen was broadcast on 7 June.

Certificate of Excellence for Friendliness to the Disabled Community

The Green Hub's programmes and facilities were rated as 4.5 stars by Free Guider, an NGO which engages people with disabilities to be the assessors of a certification scheme for barrier-free access of public services. The Green Hub was awarded with a Certificate of Excellence for Friendliness to the Disabled Community on 20 September.



- Free Guider, an NGO serving disabled communities, joined a Green Hub heritage tour to assess the friendliness of the facilities and programmes.

HOLISTIC EDUCATION



The Education Department advocates wholeness and harmony both with oneself and with nature. To achieve this, we design a number of captivating activities and programmes to be delivered to the public.

This year's highlights included the hosting of our Artist-in-Residence Merlyn Chesterman, a woodprint maker from the UK; the facilitation of the much-loved exhibition 'Upside Down - Exploring the World of Bats' and the transformative programmes conducted by visiting speakers such as Dr Satish Kumar, a world-renowned educator from the UK, and Jhon Kwano, a tribal elder from New Guinea.

The new documentary film series on KFBG - 'Garden in the Sky' - was screened at international wildlife film festivals and premiered on television this year. The film series shows our work on sustainable living, nature conservation and holistic education to a much wider international audience.

Programmes and Talks

Programme	Total Participants
'A Secret World of Wild Animals'	Around 1,800 students from over 30 schools and organisations.
'Wild Animals in Hong Kong and Conservation'	370 students from a kindergarten and a secondary school.
'Talk to Plants'	Over 600 students from over 10 schools and organisations.
'Woodland Ecology'	20 students from a school (IB curriculum).
'Soil and Us'	20 students from a college (IB curriculum).
'Zentangle in Nature'	Over 130 participants from four companies and organisations.
Guided Tours for Students	Over 230 students from universities and tertiary institutions.
Guided Tours for Visitors	Over 4,300 visitors on 140 guided tours.

Schools and Universities

Student Internship

This year KFBG recruited a total of 33 student interns from local universities and tertiary institutions, who helped and learned in the departments of Education, Fauna Conservation and Flora Conservation.

19 of them were with the KFBG Education Department. Apart from the everyday operations, they assisted in two major projects: 'Upside Down', a bat exhibition at the Jockey Club Creative Arts Centre at Shek Kip Mei, and 'In Touch with Nature', a five-day summer camp for children.

The Fauna Conservation Department hosted nine student interns. Four of them were assigned to the Live Education Displays (LED) section and helped with data collection on animal activities; while five intern veterinary nurses from City University of Hong Kong were with the Wild Animal Rescue Centre and LED to acquire knowledge and experience in animal husbandry.

The Flora Conservation Department trained five interns on horticultural techniques and basic knowledge on plants, in which they gained valuable experience and empirical skills in our farm and laboratory.

By involving university students in our programmes and daily operations, we hope to increase their interest in education and conservation and let them have hands-on experience in relevant disciplines.

Three-day Experiential Education Residential Workshop

Professor Colin Beard, one of the world's leading experts on experiential learning, ran this workshop in February at KFBG and the Green Hub. Ways to utilise experiential education and new experience mapping and modelling methods were explored. The 23 participants immersed themselves in meaningful and practical learning experiences such as a silent nature walk, natural wood workshop and the Green Hub cookery workshop, and drew learning from them to enhance their teaching abilities for their own groups.



- From collecting inspiration, sketching, cutting to printing, 25 university students and art practitioners created their own woodblock print and personal journal, recording their memories with nature.

Visitor Experience

Artist-in-Residence: Merlyn Chesterman

The Artist-in Residence Programme of 2018 starred the UK printmaker-artist Merlyn Chesterman, who stayed with us from late October to mid-November.

During her stay, Merlyn facilitated a series of public workshops and demonstration sessions, focusing on creation, education and sharing. Among them was a three-day nature and art residential workshop where the participants created their own woodprints and nature journals, which were put on show in an exhibition in the Art House.

The woodblock print 'Kadoorie's Living Tapestry', inspired by the native plants found in KFBG, was also created by Merlyn. Framed and exhibited in the Art House, the magnificent and textured woodprint helped visitors to learn more about the ecology and diversity of the native plants through an artistic approach.



● 'Play in the Woods: Storytelling in Nature': a half-day programme designed for young children and their parents.



● 'Play in the Woods: Storytelling in Nature': Through story sharing, young children are introduced to the enchanted natural world that they are intrinsically connected to.

'Motion and Still Moments of Nature' Photo Event

The event aimed to promote the beauty of nature and the love of nature through the camera lens. Among the 119 entries received between 11 April and 23 May, 10 were selected as having great merit and were awarded with prizes.

Autumn Festival 2018

Held on 3-4 November at KFBG, the Autumn Festival 'In the Woods, We Connect' helped visitors to appreciate nature's gifts and demonstrate ways to live in harmony with the nature, especially the forest.

The Green Market, experiential activities, art workshops, guided tours and exhibitions added flavour to the festival during the weekend, when a total of over 2,700 visitors enjoyed themselves and went home with nature in their hearts.

Live Animal Displays

This year KFBG welcomed five new live animal displays.

From local confiscations by the authorities, a Brown Wood Owl and two Tawny Owls are now serving at the Raptor Sanctuary North and South respectively as educational ambassadors. While the Brown Wood Owl is a fascinating native species, the three owls were all victims of illegal wildlife trade.

The Sun Garden Exhibits team gladly set up two new displays - the Prickly Stick Insects Display and the Marmoset Display. With the same theme of illegal wildlife trading, the Stick Insects replaced the former Tokay Gecko Display; while the little primates are off-spring from a pair of rescued Marmosets who had been rehomed to Taiping Zoo in Malaysia.

Wild Boar 'Scar'

In March 2018, our last remaining rescued wild boar 'Scar' was humanely 'put to sleep' due to severe health issues related to old age at almost 16 years old. Globally, there are around 800 wild boar in captivity, with only 23 older than 'Scar'. He is now buried next to his brother on the agriculture terrace adjacent to the Fragrant Garden. The vacant enclosure has been redeveloped to accommodate two young, rescued barking deer who have been housed in the African Grey Parrot Aviary.



● Interactive storytelling session at the exhibition.

Community Programmes

'Upside Down - Exploring the World of Bats' Exhibition

Held from 27 July to 14 August at the Jockey Club Creative Arts Centre (JCCAC) at Shek Kip Mei, the exhibition introduced the ecology and conservation of bats via various engaging display panels and experiential activities to urban residents. New and in-depth exploration of these amazing flying mammals were brought to the almost 9,000 visitors who joined the exhibition.

Group Tree Planting 2018

This year's public tree planting was held from 4 May to 21 July on the northern slopes of Tai Mo Shan, the highest peak in Hong Kong. 440 employees from 16 organisations participated and planted a total of around 800 native, usually rare, trees.



● Visitors drawing bats living inside the cave at the art workshop.

Communications

'Garden in the Sky' – A Documentary Film Series about KFBG

Directed by Michael Pitts, Emmy Award winner for cinematography for the acclaimed BBC series 'Blue Planet' and for 'The Private Lives of Plants', KFBG's first documentary 'Garden in the Sky' delves into the everyday work of our ecologists, gardeners and educators, all dedicated to nature conservation and sustainable living.

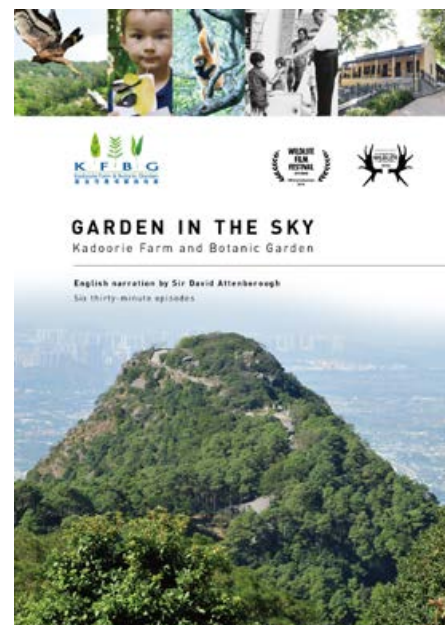
With the narration by Cherie Chung Chor-hung, Sir David Attenborough and Jacky Cheung Hok-yau, this six-episode series reveals a behind-the-scene view of KFBG's work on sustainable living, nature conservation and holistic education in the past 60 years in both Hong Kong and South China.

Two episodes were selected for 'Official Screening' at International Wildlife Film Festivals in the USA and Europe. In the autumn, the series was premiered on the Discovery Asia Channel.

Website

	Unique Visitors	Page Views
January - December 2018	255,775 (2.52% more than 2017)	1,678,892 (0.58% more than 2017)
March 2018	44,272 (30% more than 2017)	267,666 (24% more than 2017)

In March, KFBG's website recorded the highest number of monthly unique visitors and monthly page views. In general, compared to March 2017, it grew by around 30% and 24% respectively.



● 'Garden in the Sky' - A Documentary Film Series about KFBG.

Transformative Programmes

'Resilience: Nature. Culture. Spirit' - A Three-day Residential Workshop with Dr Satish Kumar

During 23-25 March, the world-renowned educator and writer Dr Satish Kumar, who is also a co-founder of UK's Schumacher College, conducted a workshop at KFBG, the Green Hub and Kadoorie Centre of The University of Hong Kong.

During the workshop, Dr Kumar inspired and encouraged participants to embrace sustainable living whole-heartedly, harmonising their relationship with nature. The 26 participants experienced an array of transformative exercises such as meditation, tree planting, the Green Hub cookery workshop and a

Breathwork experience, enhancing the participants' awareness and shift their consciousness towards a sustainable life in harmony both with their inner landscape and the outer environment.

Breathing with Trees

In Dr Claire Elouard's course 'Breathing with Trees', which helps participants to learn about our relationship with trees, Andrew and Claire facilitated a one-day workshop to share with participants the power of breath.

Breathwork Events

Andrew McAulay, a 'Breath of Bliss' facilitator, led nine Breathwork events this year with the support of the Education Department.

In 'Planetary Synchronized - Breath of Bliss Ceremony Hong Kong', an international event in which participants from all over the world were connected with each other, the 32 participants in Hong Kong were infused with rejuvenating aliveness through a series of movement, sound and breath exercises.

In 'Coming to Life' and 'Coming Back to Life' breathwork retreats, Andrew and Jhon Kwano shared their insightful experiences along different paths to awakening. Jhon is a tribal leader and messenger from New Guinea. Nowadays, he and his people still live the way their ancestors had thousands of years ago, in perfect harmony with nature.

NATURE

CONSERVATION

Fauna
Conservation



This year Fauna Conservation Department (FAU) has received an increased number of public enquiries, probably reflecting growing public concern about what happens to rescued wildlife and wider interest in local biodiversity.

Highlights of 2018 included a partnership with the Department of Justice of the Government of Hong Kong, the repatriation of the Japanese national treasure - the endemic 'Okinawan Black-breasted Leaf Turtle' - to Japan and actions following the devastation caused by Typhoon Mangkhut to the birds in Hong Kong.

Partnership for Conservation

● The Government of Hong Kong

○ Department of Justice

On 14 June, FAU hosted four prosecutors from the Department of Justice for a half-day visit to KFBG and the Wild Animal Rescue Centre. This collaboration with The University of Hong Kong's Faculty of Law is aimed at raising awareness and understanding among wildlife crime prosecutors of post-seizure care and improving prosecution outcomes in local wildlife crime and trafficking-related court cases.

○ Animal Welfare Advisory Group (AWAG)

Head of FAU Dr Gary Ades and Senior Conservation Officer Paul Crow attended the meetings of the AWAG, the AWAG Legal Subcommittee and the Wildlife Crime Task Force on 17 January, 25 January and 13 March respectively, bringing their professional insights to the group.

○ Agriculture, Fisheries and Conservation Department (AFCD), Civil Engineering and Development Department (CEDD) and Lands Department

On 12 June, Dr Gary Ades joined AFCD, CEDD and the Lands Department on a visit to Needle Hill Mines in Shing Mun Country Park to evaluate how plans to block all mine entrances, meant to prevent human entry, might affect animal access.

As a result of the onsite meeting, animal-friendly features will be incorporated in all the five tunnels visited, hopefully creating a standard for local mines so that diverse wildlife such as bats, porcupines and pythons can continue to access the tunnel systems.

● China Wildlife Conservation Association (CWCA)

FAU hosted six mainland Chinese participants from CWCA for a week-long capacity building exchange. The participants are staff chosen from the network of government-run rescue centres across China such as Beijing, Guangxi, Hubei, Hunan and Inner Mongolia. Partnering with each team in FAU, they observed husbandry and management techniques related to conservation projects, wildlife rehabilitation, veterinary care and long-term care for animals in captivity.

Ecosystem Conservation

● Artificial Floating Islands

On 17 April, a joint effort between FAU and the Flora Conservation Department (FLO) came to fruition - two artificial floating islands planted with native species were lifted by crane onto the surface of Magnolia Reservoir.

The islands not only enhance the aquatic environment within the reservoir, providing opportunity for fauna colonisation, but more importantly, they serve as a small-scale demonstration of the technology that could be replicated across larger waterbodies in Hong Kong.



● Installation of one of the two floating islands at Magnolia Reservoir.

● Snake Disease Monitoring

FAU has collaborated with the Agriculture, Fisheries and Conservation Department (AFCD) to assist with a planned disease monitoring programme for the local wild snake population. Swabs from 50 reptiles received via the Wild Snake Rescue Project are to be screened for a specific snake fungus, which poses a 40% mortality rate and has emerged as a significant conservation concern in global snake populations.

Wildlife Rescue

Reptiles

● Wild Animal Rescue Programme

On 14 August, a Milk Snake received through the Wild Snake Rescue Project was rehomed to the Hong Kong Society of Herpetology Foundation, marking the 10,000th reptile rehomed by the department.

● Okinawan Black-breasted Leaf Turtle

Endemic to the Ryukyu Islands of Japan and considered by the Japanese, both the government and people, as a 'National Natural Monument', 60 Okinawan Black-breasted Leaf Turtles were received in October after interception at the Hong Kong International Airport.

The CITES Management Authority of Japan offered to cover the costs of the turtles' temporary stay at KFBG, and the Japan Broadcasting Corporation (NHK) even sent a crew to KFBG to film them. After liaison with relevant Japanese authorities, we repatriated the 'national treasures' to Japan in March 2019.

● Golden Coin Turtle Conservation Project

During the 2018 breeding season, 80 eggs were laid and a record high of 34 turtles were hatched through this important conservation project.

Due to the growing stock of turtles, the project has commissioned a specialist contractor to build and install an automated aquatic system, which features automated filtration and temperature control, for hatchling rearing.

In addition, the partnership with Hong Kong Wetland Park continues this year, with three juvenile turtles loaned to the park in exchange for two adult females of breeding size.

The knowledge and experience obtained from this project does not only benefit Golden Coin Turtles, but also other turtles such as Beale's Turtle, a locally rare species that Ocean Park Hong Kong is developing an assurance colony programme for.

● Big-headed Turtle

24 Big-headed Turtles were received in September after being confiscated at the Shenzhen border. Isotope testing by a local university collaborator confirmed they were of native origin and were likely to have been caught in the wild in Hong Kong.

● Red-crowned Roofed Turtle

Two Red-crowned Roofed Turtles were rehomed to the New York Bronx Zoo in April. This species is critically endangered, and only one other specimen of this species is recorded as legally held by any zoo in the world outside the country of origin. This placement is a first step in allowing the formation of an assurance colony protected from the poaching risks encountered in its home range.

● Pig-nosed Turtle

Found in a traveller's luggage and intercepted at the Hong Kong International Airport, 658 Pig-nose Turtles were received by our Wild Animal Rescue Centre in January for temporary holding.

With assistance from an Indonesian NGO 'International Animal Rescue' and the governments of both Hong Kong and Indonesia, we repatriated the turtles to West Papua, Indonesia in August. The cost of the freightage from Hong Kong to Jakarta was borne by the Agriculture, Fisheries and Conservation Department, while that from Jakarta to West Papua was borne by KFBG and funding from the Wildlife Conservation Society (Bronx Zoo).



● Big-headed Turtles seized by the Customs at the Hong Kong border. They were poached from the wild in Hong Kong.

Birds

● Black-faced Spoonbill

An endangered species: A total of 10 Black-faced Spoonbills were received this year at KFBG.

Seven were cases of suspected Botulinum toxicity (Botulism), three of which were successfully rehabilitated and released with leg ring identifiers. Two birds have been re-sighted since the release - one in Tainan, Taiwan and the other at Mai Po - both in November.

The additional three cases had sustained trauma-related injuries. Only one bird survived having lost the end of one wing. After six months' care at the Wild Animal Rescue Centre, it was rehomed in October to the Hong Kong Zoological and Botanical Gardens.



● Black-faced Spoonbills exercising and acclimatising prior to release.

● Baby Bird Season

The Baby Bird Season, from April to July this year, was our busiest and most challenging period on record with almost 800 birds received.

As expected, the mortality rate was high amongst young passerines that typically arrive in a weakened state with fall-related injuries. However, the survival rate of young owls was more than 90%.

● Devastation by Typhoon Mangkhut

Following the wrath of super typhoon Mangkhut in September, many birds were received in poor condition. Species included the Sooty Tern, Cattle Egret, House Swift, Spotted Dove, Streaked Shearwater, Red-necked Phalarope, Black-crowned Night Heron and Lesser Sulphur-crested Cockatoo.

Although some of them unfortunately failed to pull through despite our best efforts, a small number, including two Cattle Egrets, two House Swifts, two Spotted Doves and two Black-crowned Night Herons managed to recover and were released.



● Black-crowned Night Heron fledgling received after the super Typhoon Mangkhut in September.

Statistics

Number of animals handled by the Wild Animal Rescue Centre from 1994 to 31 December 2018

	Received
Birds	6,998
Mammals	1,082
Reptiles	27,548
Stray Snakes	12,675
Amphibians	561
Total	48,864



Number of animals held under Fauna Programmes from 1 January to 31 December 2018

	Total no. on 1 Jan	Received/ Captive Bred	Released/ Relocated	Died/ Euthanised	Total no. on 31 Dec
Birds	98	1,292	406	877	107
Mammals	100	105	43	60	102
Reptiles	963	852	661	174	980
Stray Snakes	0	1,465	1,384	81	0
Amphibians	0	39	0	36	3
Fish	270	99	58	85	226
Total	1,431	3,852	2,552	1,313	1,418

NATURE CONSERVATION

Flora
Conservation





This year the Flora Conservation Department (FLO) recorded 35 orchid species found in Laos for the first time and one Lao orchid new to science. In Hong Kong we also discovered *Sinopora hongkongensis*, one of the world's rarest trees, in Shing Mun Country Park.

Apart from documenting new species, we are also dedicated to restoring native species and habitats. Some very rare species have proved difficult to obtain seeds from and propagate under normal nursery conditions, but with our new Mist House, which combines high humidity with good air circulation, even *Ilex dasyphylla*, of which only one lonely male tree is known in Hong Kong, has been successfully propagated.

Discovering Botanic Diversity

Surveying natural areas and documenting the plants they contain are vital aspects of our work, since they help to build a picture of natural distribution and ecological association.

Sometimes our surveys reveal big surprises — species new to science, those not previously known within an area or species once feared extinct, for example. Documenting these discoveries in the scientific literature directs attention to the species in need of conservation and serves as an authoritative reference when we come to rebuild communities through reintroduction and restoration.

Orchids in Laos

For our botanists working in Laos, this work is only just beginning: very few surveys have ever been conducted in the country and so virtually every expedition throws up something new. A report compiled last year on the successful completion of our first three-year agreement with the Lao Ministry of Science and Technology lists 35 orchid species found in the country for the first time. This report will be submitted to the Lao Government to initiate a second phase of our collaborative work there. Our botanists also described a Lao orchid that is new to science — *Cleisostoma schoenorchifolium* — following its discovery in 2016.



● *Cleisostoma schoenorchifolium*, an orchid new to science, discovered in Laos and described by our botanists.

Rare Trees in Hong Kong

Amazing discoveries even happen here on our doorstep, highlighting how patchy our knowledge of Hong Kong's flora remains. A tiny population of the tree *Sinopora hongkongensis* was discovered in Shing Mun Country Park by one of our staff this year. Known only from Hong Kong, this is one of the world's rarest trees and has already been flagged by our team for urgent conservation action.

Another rare tree, the oak *Quercus pachyloma*, was discovered on Lantau by another of our field staff. Seeds collected under permit germinated in our nursery and the seedlings have already been incorporated into our forest restoration programme.

Indeed, previously unrecorded plant is discovered in Hong Kong almost every month, underscoring the need for more thorough exploration of Hong Kong's countryside. These discoveries also highlight the botanical expertise of our staff.

More to Come

It takes years to become familiar with and to be able to identify more than 2,200 plant species in the field. Ten confirmed new records for Hong Kong were found by KFBG staff in 2018, and another ten finds are under review.

Two small populations of the elusive lithophytic orchid *Bulbophyllum affine* were found on Lantau, reconfirming its occurrence in Hong Kong almost 30 years after it was last recorded here.



● Fruits of *Quercus pachyloma*.

Restoring Native Species and Habitats

Given the long history of anthropogenic environmental change in Hong Kong, much of our local plant conservation work goes into restoring what has been lost.

Reintroducing Lost Species

Through careful ecological investigation, it is becoming increasingly clear that the plant species and communities we see regenerating in Hong Kong's wild areas today are a far cry from the natural forests that once occurred here. But reintroducing lost species into secondary forest or even re-establishing a forest on grassland or abandoned agricultural land is not as straightforward as many people think.

The re-establishment of rare species requires confirming where they still exist locally, so that seeds can be collected from healthy mother plants at the right time of year. Often it takes years to find such remnant populations. The resulting seedlings then need to be raised and cared for until they are robust enough for planting out. In 2018, over 92,000 seeds from 289 native trees, shrubs, herbs and climbers were collected and brought into cultivation, and well over 4,000 seedlings representing more than 200 native tree and shrub species were planted on our upper slopes.

Re-establishing Natural Forest

Apart from enhancing biodiversity, this work helps us to identify and optimise methods for restoring natural forest, and we learn how to bring life back to our soils by applying compost, wood chip mulch and biochar. These interventions improve soil nutrient content and water-holding capacity. Many trees underwent structural pruning in June to ensure they maintain a healthy architecture, which will reduce the risk of storm or typhoon damage. The development of a diverse herbaceous understorey is also facilitated by opening up the canopy. Hundreds of native herbaceous plants and shrubs were planted into roadside planters to add ecological value to our public displays, and several hundreds more were supplied to third parties for habitat restoration projects within Country Parks, for urban greening and other research purposes.



● Reintroduction and monitoring of *Phalaenopsis pulcherrima* in Bawangling National Nature Reserve continued through 2018.

Bringing Back Native Orchids

We are also adopting a scientific approach to species restoration for several of our native orchids. Careful monitoring of relic populations of the endangered *Bulbophyllum bicolor* has revealed the sorts of habitat this species can thrive in, paving the way for reintroduction. And lessons learnt from our programme of ecological restoration in Hong Kong are being applied elsewhere in the region: over 1,700 seedlings of the rare lithophytic orchid *Phalaenopsis pulcherrima* were planted out in Bawangling National Nature Reserve in Hainan in 2018, to bolster native populations that have declined after decades of poaching and environmental degradation. Hainan is the only province in China where this elegant and ecologically complex species occurs.



- In its first year of operation, the high humidity environment of the Mist House tunnels has already helped to root and acclimatise many rare species.

Growing Capacity in Ex Situ Conservation

Many plants are rare precisely because they are fussy in their growth requirements or because they possess natural barriers to propagation.

Overcoming these hurdles to secure rare species in an ex-situ living collection requires horticultural expertise, knowledge of each species' ecology and the right tools for the job. For example, providing for many of Hong Kong's upland herbs and shrubs in cultivation demands that we recreate a growing environment that mimics the humid forest understory.

Mist House

For this reason, this year our horticultural staff developed a new growing facility dedicated to the vegetative propagation of tender species. Our state-of-the-art Mist House, which combines high humidity with good air circulation, has quickly become an invaluable resource — and the first of its kind in Hong Kong. Thanks to the Mist House, a number of very rare species that have always proved difficult to obtain seeds from and propagate under normal nursery conditions have already been successfully propagated. These include



- New growth on a rooted cutting of the only known tree of *Ilex dasyphylla* in Hong Kong.

Ilex dasyphylla (of which only one lonely male tree is known in Hong Kong), *Ardisia villosa*, *Lindera metcalfiana*, *Cleidion brevipetiolatum*, *Lomagramma matthewii* and *Buxus cf. megistophylla*, a new record for Hong Kong. A project to propagate protected rare and precious species from cuttings is now underway with permission from the Agriculture, Fisheries and Conservation Department.

Safeguarding Genetic Diversity for the Future of Threatened Species

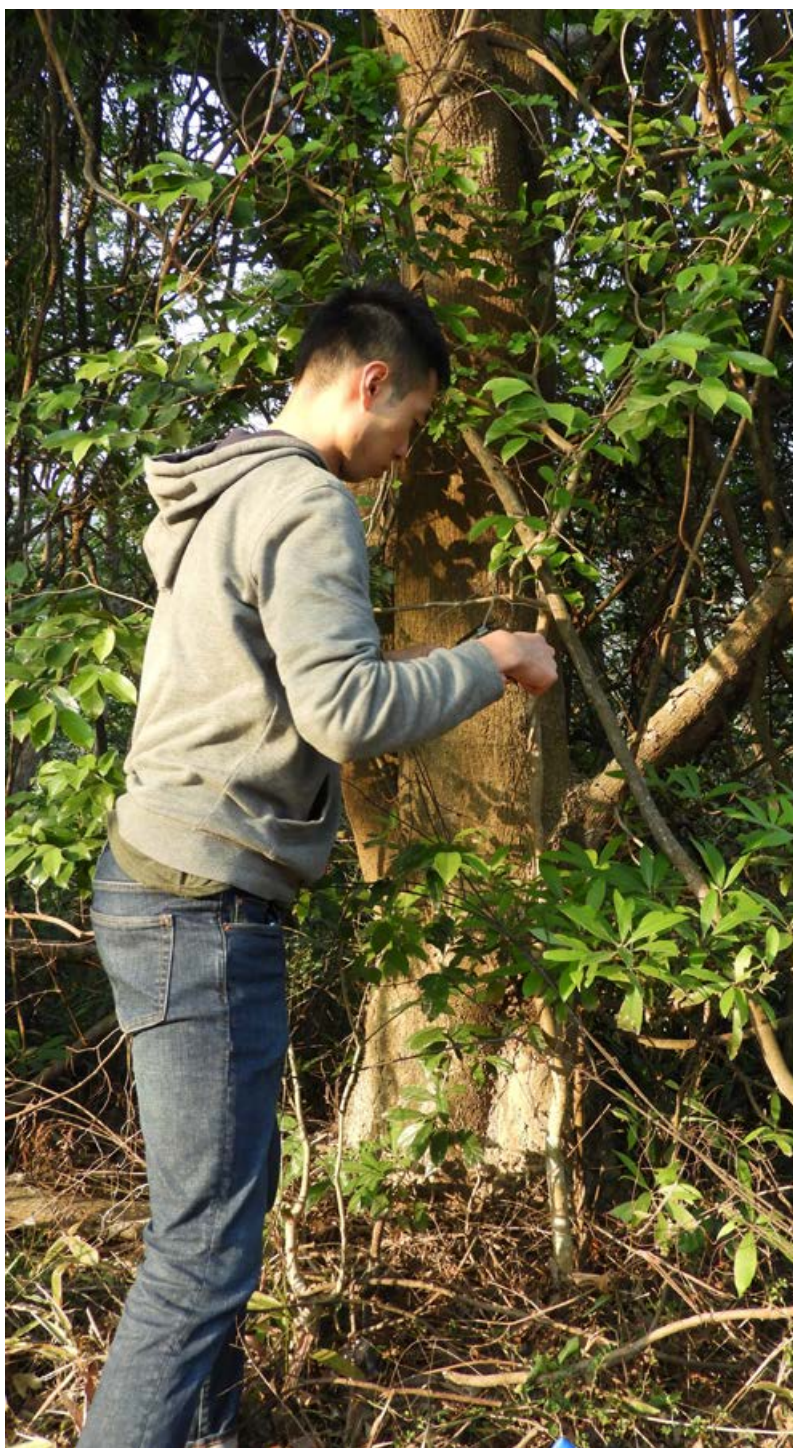
Genes are the building blocks for all life on Earth, and the more diverse a species' gene pool, the greater its potential to evolve and overcome natural challenges. Because of this, conservation biologists are often concerned when they discover a rare species has suffered genetic erosion. In such cases, it may become necessary to undertake conservation management so that gene flow among genetically distinct, but artificially isolated, individuals is rectified.

Conserving Incense Trees with Genetics

The increasingly threatened Incense Tree (*Aquilaria sinensis*) is one such species in Hong Kong. Heavily poached for its fragrant and highly valuable resin, this tree has almost certainly suffered the loss of genetic diversity, impairing its ability for recovery and long-term evolution. To assist with its conservation, KFBG geneticist Dr Huarong Zhang, together with Head of FLO Dr Gunter Fischer, enrolled Edwin Kwok to undertake a PhD study to uncover the remaining patterns of its genetic diversity in the wild. Their findings will contribute to the development of a Species Action Plan and help to inform frontline staff from the Hong Kong Customs, CITES and the State Forestry Administration of mainland China in pushing back against poaching and smuggling.

PhD Co-supervision Scheme

The first postgraduate student to enroll in KFBG's PhD co-supervision scheme, Daisy Ai-Qun Hu, successfully defended her thesis in June. She studied gene flow in the rare orchid *Bulbophyllum bicolor*, the results of which have proved invaluable in supporting the recovery of genetically diverse local populations. She also examined broader patterns of evolution among this and related species in tropical Asia under the supervision of Dr Gunter Fischer and Dr Stephan Gale, our Senior Ecologist. Daisy also passed a special PhD supplement course in Holistic Science with the Schumacher College, UK as part of her studies.



● PhD student Edwin Kwok is studying Hong Kong populations of the incense tree, *Aquilaria sinensis*.

NATURE CONSERVATION

Conservation in China and Overseas



● A roosting site of a Brown Fish Owl *Ketupa zeylonensis* discovered by the KCC team during fieldwork in Cambodia.



Kadoorie Conservation China (KCC) shares our conservation expertise beyond the borders of Hong Kong, helping in the global mission to conserve biodiversity and to promote living in harmony with nature.

After a long journey, we have finally been recognised as an Overseas-NGO in mainland China. Other highlights this year include the important continuing conservation projects for the Hainan Gibbon, Eld's Deer, Otters in mainland China and the biodiversity of Cambodia. They are progressed through regular field visits, surveys, funding and communication with local stakeholders.

We attended several significant events such as The Second World Forum on Ecosystem Governance and co-hosted an international Eld's Deer conservation workshop. KCC's effort has also gained greater affirmation, with the Cambodian Government acknowledging our biodiversity work in Cambodia and several international institutions consulting us on conservation issues in the region.

Registration as an Overseas-NGO in mainland China

After three years of legal work and trust-building, we were finally granted the Overseas-NGO (ONGO) certification in Beijing in December. Andy Brown, Executive Director of KFBG, was invited by the National Forestry and Grassland Administration (NFGA) to give a speech in the ONGO annual dinner. The registration and the KFBG (Hong Kong) Beijing Representative Office (RO) officially commence on 1 January 2019. Dr Bosco Chan, head of KCC, is the Chief Representative of the RO, while NFGA and the Public Security Bureau oversee the RO's operations.

Eld's Deer

Research

KCC supported the ecological studies taking place in the Hainan Bangxi Provincial Nature Reserve (BX) and Datian National Nature Reserve (DT). KCC sponsored eight GPS collars to track the Eld's Deer and developed a 'Fenced Forage Bank Rotational Mowing System' which is to be implemented at BX. The system was inspired by livestock management concepts that restore degraded habitat and increase its carrying capacity for the Eld's Deer.

KCC is also funding and co-ordinating a genetic study for the race in China, Cambodia and Laos. CITES permits were obtained to send tissue samples from parts of China, Laos and Cambodia to KFBG and Sun Yat-sen University in Guangzhou for laboratory analysis. Preliminary results from the study revealed that the Hainan population is genetically very distinct from mainland Asia populations, but more analysis is required to clarify its taxonomic status.

Raising Awareness

Apart from direct support for research, KCC also co-organised the Hainan Eld's Deer awareness-raising activity with DT on 31 May. Educational games were designed for the public to raise awareness on Hainan Eld's Deer through funfairs. In total, 14 volunteers from three universities in Hainan and more than 60 local children took part.



- Dr Michelle Wong of KCC providing training on Hainan Eld's Deer ecology to volunteers from three Hainan universities in preparation for the Hainan Eld's Deer Funfair.



'Fairy of the Rolling Plains'

2,000 copies of the Eld's Deer storybook 'Fairy of the Rolling Plains' have been printed. The targeted readers are school children around Eld's Deer habitats in Hainan, and it is being sold at the Farm Shop and the Green Hub.

Partnership

The International Workshop on Eld's Deer Conservation co-organised by KCC and BirdLife International Cambodia Programme was held between 26 to 29 November in Phnom Penh, Cambodia. 52 participants from Cambodia, China, India, Laos, Myanmar and Thailand shared information on various aspects of Eld's Deer and exchanged ideas for priority conservation actions. The participants nominated KCC as the global co-ordinator of an international network to facilitate information exchange and collaboration among the six range countries. They also hope KFBG can play a leading role in Eld's Deer conservation in the region.



- KCC sponsored and co-hosted an international workshop on Eld's Deer conservation held in Phnom Penh, Cambodia.

Hainan Gibbon

Canopy Bridges

Camera-trap photos collected in March recorded for the first time the usage of the canopy bridges by the Hainan Gibbon. These rope bridges were constructed by KCC in December 2015 to facilitate movement across a forest gap caused by a landslide.



- Camera trap set high in the forest canopy recorded the use of the canopy bridge, constructed by KCC, by the Hainan Gibbon for the first time.

Population Survey

KCC and Hainan Bawangling National Nature Reserve co-organised the annual Hainan Gibbon population survey from 24 to 28 October. 41 people spent five days in the forest recording a total of four groups of gibbons, including three infants born this year. A solitary gibbon was also detected.



- A pregnant female Hainan Gibbon photographed during the annual gibbon survey.

Collaborations

Dr Bosco Chan and Philip Lo attended the 2018 Gibbon Conservation and Population Management Workshop in Guangzhou from 22 to 23 April. Philip delivered a talk on the community outreach work of our Hainan Gibbon conservation project.

In addition, KCC was invited by The Civic and Municipal Affairs Bureau of Macau (IACM) to deliver two talks on gibbon conservation, on 5 September and 6 October, to their staff and school teachers.

KCC also provided the content for the 'Gibbons in China' exhibition held by IACM in Seac Pai Van Park and Garden of Flower City in Macau. Around 6,000 Macau citizens visited the exhibition between October and December.

Otters

International Conferences

KCC was preparing for the IUCN SSC 14th International Otter Congress in collaboration with the IUCN/SSC Otter Specialist Group and Sichuan Tangjiahe National Nature Reserve, to be held in April 2019.

While conducting a camera-trap survey focusing on otters in Hainan Diaoluoshan National Nature Reserve, Li Fei of KCC obtained the first-ever images of live wild otters in Hainan. Li Fei was also invited to participate in the International Conference on Eurasian Otter Conservation and Re-introduction held in Taiwan in July 2018, giving a presentation on our study on the status of otters in China.



- An adult Eurasian Otter *Lutra lutra* was camera-trapped by KCC on Hengqin Island, Zhuhai City. It is currently under immense development threat.

Projects in Yunnan

Yingjiang

Our ongoing conservation efforts in Yunnan are well received. In February, Nemo Zheng of KCC visited the Nabang Wetland in Yingjiang, and was invited to give advice to village representatives and local forestry officers on several proposed wetland restoration sites, as well as suggestions to improve their birdwatching tourism plan.



Three new-to-science frogs and one snake species were discovered during our fieldwork in Yingjiang in the past two years. They have now been formally described and recorded by Yang Jianhuan of KCC.

Gaoligongshan

In January, KCC sponsored Gaoligongshan (GLGS) National Nature Reserve to construct five gibbon monitoring basecamps inside the reserve. From 12 to 14 November, KCC organised a learning trip for 11 wardens of the gibbon monitoring teams of Tengchong-GLGS to GLGS Natural Park in Baoshan City, to share and exchange experience on gibbon monitoring with local wardens and staff.

Sponsorships

KCC developed a sponsorship programme for Chinese NGOs to attend the Global Meeting of the Association for Tropical Biology and Conservation (ATBC) in Kuching, Malaysia in July. Personnel from four Chinese NGOs were selected with the aim to expose them to international best practices in conservation, and to promote their conservation work in China to peers worldwide. KCC also sponsored three senior officials from NFGA and a professor from Beijing Forestry University to attend the meeting for exposure.

On the other hand, KCC sponsored two wardens, Yang Shenpin from Yunnan GLGS and Fu Huiquan from Hainan Yinggeling (YGL), to attend the 2018 Conference of Chinese Herpetological Society held in Lanzhou University in Gansu. Trained and guided by Yang Jianhuan of KCC, Yang Shenpin delivered a presentation during the conference on the breeding ecology of the little-known Tengchong Spadefoot Toad (*Leptobrachium tengchongense*) that KCC discovered in 2016.

Partnerships

KCC members were invited to attend and host some important events this year. Among them is The Second World Forum on Ecosystem Governance organised by the NFGA and the International Union for Conservation of Nature (IUCN) in Hangzhou from 4 to 8 November. Andy Brown, Executive Director of KFBG, and Dr Bosco Chan, head of KCC, were invited to attend.

Eco-farming

Hil Padilla and Joanne Li of KCC were invited to attend the Regional Workshop of 'Sustaining and Enhancing the Momentum for Innovation and Learning Around the System of Rice Intensification (SRI) in Lower Mekong River Basin' in Bangkok,

Thailand from 1 to 2 November. Hil delivered a talk on Organic Plastic-Covered Rice-Rapeseed and Potato Crop Rotation System, developed with the Sichuan Academy of Agricultural Sciences, that have now been adopted for use on 1 million hectares of land.

Projects in Cambodia

KCC has continued to share our knowledge on biodiversity conservation in Cambodia, focusing specifically in a major project site located in Kratie Province.



In January and March, KCC conducted two field surveys there and captured photos proving the breeding of Banteng (*Bos javanicus*) and Sun Bear (*Helarctos malayanus*), two globally threatened large mammals. This further demonstrates how important it is to protect this site.

On 28 January, Yang Jianhuan of KCC delivered a talk on biodiversity conservation to over 200 farm workers and staff in the project site, hoping to arouse pride among Cambodians for their amazing biodiversity.

Recognition by Cambodia

Our work has been recognised by the Cambodian Government. On 13 June, Yang Jianhuan and Li Fei of KCC presented our on-site conservation work to Mr Prum Somany, Director of the Department of International Cooperation under the Ministry of Agriculture, Forestry and Fisheries (MAFF) at our project site in Kratie Province. On 28 June, Dr Bosco Chan and Yang Jianhuan of KCC received H. E. Veng Sakhon, Minister of MAFF, and his delegates at KFBG, who praised our work in Cambodia.

Global Conservation Contribution

KCC and its representatives have been approached by international bodies such as the IUCN to give advice or attend meetings on many conservation issues in the region.

IUCN/SSC Otter Specialist Group (OSG)

As members of the OSG, Dr Bosco Chan and Li Fei of KCC provided input in drafting the global conservation strategies on the three otter species native to China. Dr Bosco Chan, also the Continental Co-ordinator for East Asia of the OSG, was invited to attend the OSG Southeast Asian Otter Conservation Planning Meeting in Singapore from 9 to 12 September.

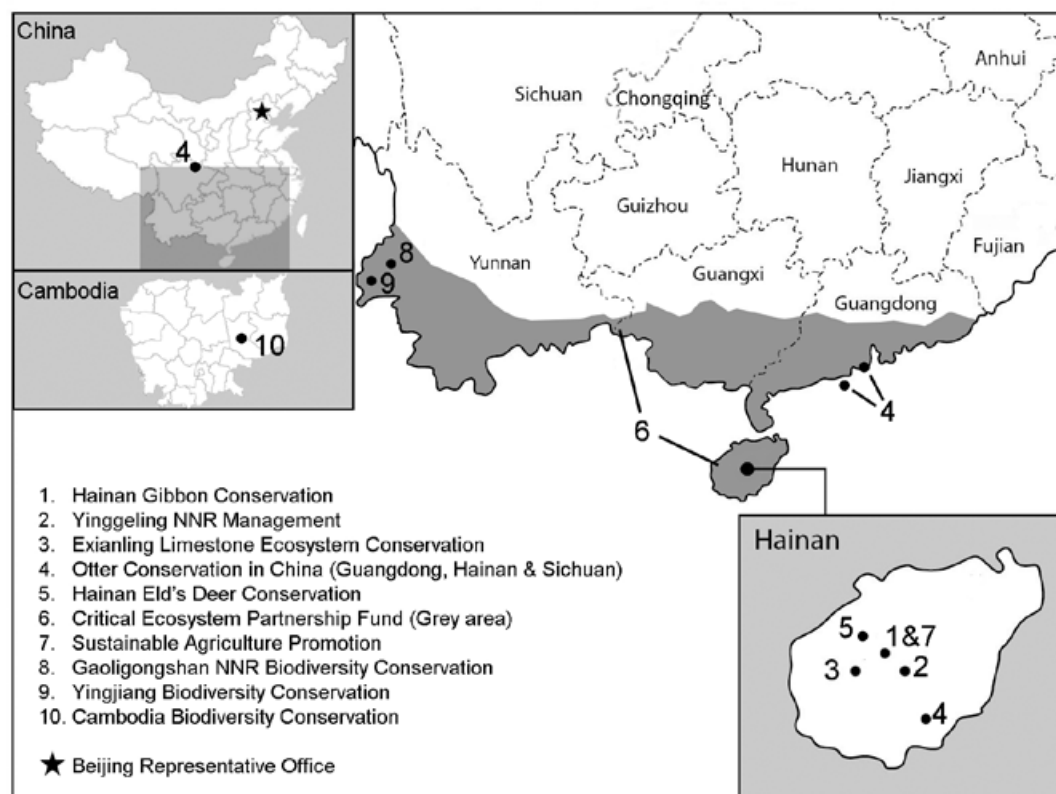
Other IUCN Initiatives

- Philip Lo of KCC was invited to be an assessor for the IUCN Red List Reassessment for Birdwing Butterflies (*Troides* spp.) in China.
 - Dr Bosco Chan, Philip Lo and Nemo Zheng of KCC were invited to be members of the recently re-established IUCN/SSC Hornbill Specialist Group.
- Invited by the IUCN Biodiversity Assessment Unit, Yang Jianhuan of KCC attended the IUCN Red List Workshop for Chinese Lizards Species held in Chengdu from 8 to 12 May, contributing to the assessments for over 200 lizard species in China.

Collaborations with Other Institutions

- In early July, the KCC team attended the Global Meeting of the Association for Tropical Biology and Conservation (ATBC) and presented seven conservation projects. Nearly 900 participants from over 65 countries attended the meeting.
- Invited by the China Mammal Red List Assessment Unit, Dr Bosco Chan and Li Fei of KCC conducted national red listing assessments for 34 mammal species native to southern China.

KCC's Major Project Sites (as at December 2018)



HOLISTIC ESTATE MANAGEMENT



General estate management was challenged by Typhoon Mangkhut in September, Hong Kong's most intense typhoon since records began. More than half of the total 302 dead, hazardous or diseased trees, which were removed this year from path-sides and road-sides, and the majority of the 272 pruned trees, were victims of this typhoon. Perhaps 2,000 more trees, deeper in the forest, were felled by the storm and will need to be cleared over several years.

Using many native species, planting projects around KFBG helped to enhance the diversity of the forest to enhance resilience and the wildlife habitat. Felled timber was used to create biochar, enriching the soil quality on the farmland and forest restoration plot.



The Jockey Club Nature Conservation Centre

The Conservation Building Re-development Project moved forward significantly this year. Plans and testing of the building site have been done and the construction will begin soon after government approvals are granted in the spring of 2019.

Our application for The Hong Kong Jockey Club Charities Trust funding was successful and we will receive a HKD130 million financial grant, representing 80% of the total project cost. The Kadoorie Foundation has kindly committed to making up the balance. The building will be named the 'Jockey Club Nature Conservation Centre'. According to the Revised Master Programme that incorporates the pursuit of BEAM Plus (Gold) Accreditation, the anticipated time of moving into the new office will be May 2021. Meta4 architects provide consultancy services for the project.



● Illustrative concept for the new conservation building.

Stabilisation of Old Altar at Kwun Yum Shan Summit

The second phase of stabilisation of the old altar at Kwun Yum Shan Summit was completed this year. The altar is estimated to be 1,000 years old.

Botanic Garden Exhibits

A total of 1,409 pots of plants were used to enhance the aesthetics of areas outside the General Administration Department office, reception, greenhouse and in the Plants & Us Greenhouse. In order to improve the environment and attract more wildlife, about 80 native plants were used in the planting along the Butterfly Path. The Education Department and the Fauna Conservation Department (FAU) helped to collect pots for decoration and animal displays.

'Epiweb' was used for the first time in the orchid nursery in August. This novel growing medium for epiphytes was purchased from Sweden earlier this year. The product makes use of recycled plastics and is a durable alternative to wood. Wooden mounts rot quickly in the nursery, requiring the orchids to be removed periodically for remounting, which inevitably causes root damage.

To enrich the display in the Fern Walk area, ferns and flowering plants were added in new planters in August. After the removal of damaged trees and ferns post Typhoon Mangkhut, the previous damaged ferns were replaced with species such as *Adiantum capillus-veneris*, *Adiantum tenerum*, *Colysis digitata* and *Pleocnemia winitii*.

Waste Reduction and Energy Saving

Biochar

The biochar machine was operated 35 times this year, processing a total of 238 tonnes of wood from tree work to produce approximately 40 tonnes of biochar. The biochar was applied to various terraces in the Upper Area for soil fertility enrichment. In order to ensure the biochar machine continues to run smoothly, maintenance and upgrade work was provided by two engineers in December.

Mules

The Mule Team transported 6,912 kg of cargo, mostly compost, and collected rubbish from the bins in the Upper Area.

Sadly, in late June, Dennie the male Mule was diagnosed with terminal cancer and the mule service programme is now down to one working animal. While Dennie is now resting, he is still bright and does not appear to be suffering. This was also confirmed by The Hong Kong Jockey Club vets who are working with FAU.

The 'Future of Mule Services' is presently developing as Duffi, the remaining working mule, probably has two to three working years left.



● The working mule Duffi.

Ecological Integrity Restoration

To restore the ecological integrity at KFBG, staff from the Flora Conservation Department used 30 native riparian (river) species, all propagated from native stock, to complete the planting of the two floating islands for the FAU project to create a habitat within Reservoir No. 3.

A further 580 seedlings from 58 different native tree species were planted along the 'Never Never Trail' by contractors in August. The aim of the planting is to replace the frost-damaged exotic trees and to rebuild a patch of native montane forest.

21 native species were introduced to the Lower Farm landscape, including five counted among the Rare and Precious Plants of Hong Kong (*Angiopteris fokiensis*, *Paris polyphylla*, *Cyathea spinulosa*, *Cyathea podophylla* and *Begonia hongkongensis*), and one newly added to Hong Kong flora in 2017 (*Pothos repens*).

Tree Management

A total of 302 dead, hazardous or diseased trees were removed and 272 were pruned. Of these, 192 were removed and 213 were pruned as a result of the Typhoon Mangkhut which struck on 16 September. Detailed tree risk assessment was conducted on a further 29 potential hazardous trees during the year. Apart from pruning hazardous tree branches, 18 trees in the Tree Planting Site were also pruned during the reporting period to improve their structures.



AN EVOLVING ORGANISATION





Looking back this year, KFBG celebrated many firsts. Not only were new records set by the runners participating in the 24th Kadoorie Brothers Memorial Race, KFBG's PhD Sponsorship Scheme also saw its first graduate, and KFBG's first documentary 'Garden in the Sky' premiered on television.

The upcoming year also sees some significant milestones in store. Firstly, KFBG is initiating an inter-departmental effort to gain CITES registration. This could simplify the logistical processes needed for our regular programmes which involve CITES-listed organisms. Secondly, we accepted a grant of around HKD130 million from The Hong Kong Jockey Club Charities Trust towards the construction of the new Conservation Building. The building will address problems that KFBG has been facing with a limited number of adequate weather-proof function rooms. It will also provide much needed space for the large volunteer and intern programmes that provide learning and development opportunities.

Fundraising

We are very grateful to the Kadoorie Foundation for their long-term support, which we can rely on far into the future for most of our funding needs; however we have outgrown our substantial allocation and now need to top up with fundraising.

We established a very good understanding of how we may fundraise, and our strategic options, by hiring Carly Mortiboys of Daryl Upsall and Associates to give us advice.

Vibrant Culture Experience

A Vibrant Culture Experience programme 'Breath of Bliss' was held on 5 July in the Kadoorie Centre, attended by 26 staff members. Facilitated by Andrew McAulay and Jhon Kwano, this programme is a transformational practice that infuses oneself with aliveness using breath, movement and sound.

The 24th Kadoorie Brothers Memorial Race



- 151 participants took part in the 24th Kadoorie Brothers Memorial Race to commemorate the Kadoorie Brothers.

This year marked the 24th Kadoorie Brothers Memorial Race to commemorate the Kadoorie Brothers, Lord Lawrence and Sir Horace Kadoorie, the founders of KFBG. The race received slightly more engagement than the previous year with 240 applications and 151 participants. The route was modified from last year's.

New records were set in both the men's and the women's sections, at 28 mins 58 secs by Chan Kwok Hang and 39 mins 22 secs by Tsang Ka Hung respectively.

Race Results

	Men's	Women's
Champion	Chan Kwok Hang 28 mins 58 secs (new record)	Tsang Ka Hung 39 mins 22 secs (new record)
1st Runner-up	Chau Wai Po 30 mins 15 secs	Heung Suet Ling 44 mins 23 secs
2nd Runner-up	Kwok Yiu Hin 31 mins 26 secs	McNae Hane 44 mins 47 secs



- Men's Champion Chan Kwok Hang, awarded by Bettina Kadoorie.

Governance

Number of Visitors to KFBG over the Past Five Years

	2014	2015	2016	2017	2018
School Groups	44,611	35,749	34,056	39,815	35,355
Commercial Groups	10,347	7,616	4,004	7,806	6,905
NGO Groups	16,748	8,868	11,474	10,688	12,007
Individuals/ Walk-in	94,964	107,786	95,509	82,843	89,914
Total	166,670	160,019	145,043	141,152	144,181

Number of Visitors to the Green Hub

	2017	2018
Self-guided Visitors	51,285	45,351
Eat Well Workshop Participants	2,777	2,455
Course Participants	2,156	1,985
Heritage Tour Participants	8,025	7,648
Total	64,243	57,439*

Number of Visitors to the 'Upside Down - Exploring the World of Bats' Exhibition at JCCAC: **9,000**

Total number of visitors to KFBG sites and exhibition in 2018: **210,620**

Note: From 2018, we have closed the Green Hub on Tuesdays to enable staff days off and maintenance work. This directly led to a reduction in the Green Hub's visitor numbers.

Financial Figures (excluding depreciation)

Expenditure (HK\$) (see Breakdown 4)	*Year Ended 31.3.18 (audited)	**Year Ended 31.3.19 (unaudited)
Capital	24,212,638	16,300,000
Operating	98,965,304	107,902,000
Total	123,177,942	124,202,000

Income (HK\$)	Year Ended 31.3.18 (audited)	Year Ended 31.3.19 (unaudited)
The New Kadoorie Foundation	105,500,000	119,000,000
The Green Hub	6,323,676	6,943,000
Shop Sales	1,807,798	1,651,408
Government and Other Funding (see below)	165,271	836,436
Entrance Fees	2,484,460	1,722,335
Workshop and Guided Tour Fees	1,219,027	1,008,193
Public Donations (see Breakdown 3)	74,890	111,495
Total	117,575,122	131,272,867

* From Audited Accounts (expenditure includes commitments accrued and not yet settled).

** From Management Accounts (expenditure includes commitments accrued and not yet settled).

Note: Expenditure includes the commitments of previous years which are settled during the year.

Breakdown 1 - Government Funding

Government Funding	Year Ended 31.3.18	Utilised by KFBG to provide:	Year Ended 31.3.19	Utilised by KFBG to provide:
Tai Po District Council	43,286	Simple Living Workshop Series	45,558	Low Carbon Living promotion
Development Bureau (The Green Hub)	Nil	Nil	540,000	Old Tai Po Police Station revitalisation

Breakdown 2 - Other Funding

Other Funding	Year Ended 31.3.18	Utilised by KFBG to provide:	Year Ended 31.3.19	Utilised by KFBG to provide:
Critical Ecosystems Partnership Fund	121,985	In-country administration of small grants for conservation projects	98,008	In-country administration of small grants for conservation projects
Hong Kong Jockey Club Charities Trust	Nil	Nil	138,000	Jockey Club Nature Conservation Centre
Oriental Bird Club	Nil	Nil	14,870	Yingjiang biodiversity conservation

Breakdown 3 - Public Donations to our General Conservation Fund and Usage

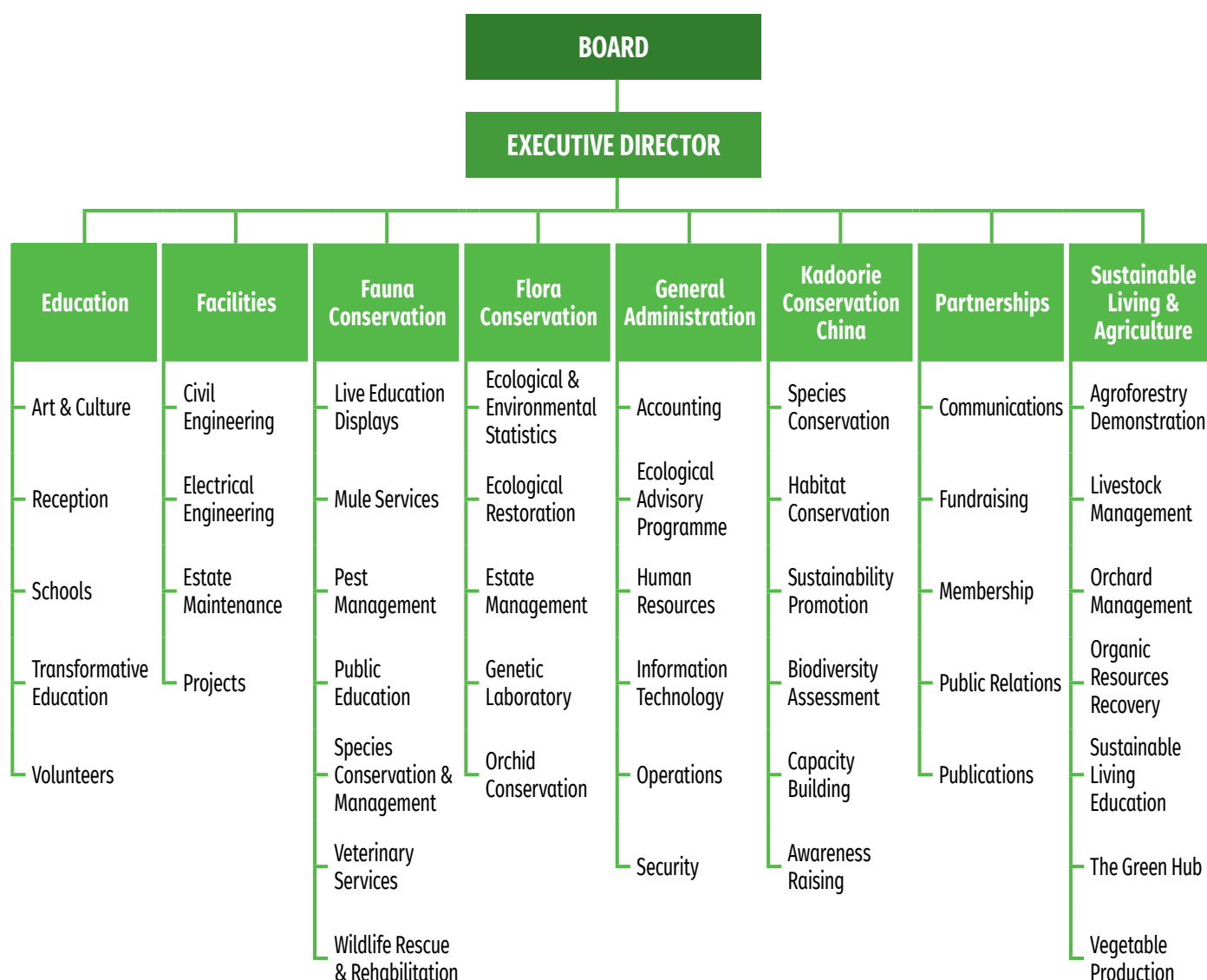
General Conservation Fund	Year Ended 31.3.18 (audited)	Year Ended 31.3.19 (unaudited)
Opening Balance B/F	124,318	153,365
Utilised Funds		
- Transportation of frogs to Los Angeles	(5,663)	Nil
- Volunteers supporting programme	(40,180)	(94,962)
- Pig-nosed Turtle repatriation	Nil	(8,195)
- Eye surgery fee for captive Black Kite Ella	Nil	Nil
Public Donations	74,890	111,495
Closing Balance C/F	153,365	161,703

Breakdown 4 - Expenditure

Expenditure (HK\$) (see Breakdown 4)	*Year Ended 31.3.18 (audited)	**Year Ended 31.3.19 (unaudited)
Capital		
Kadoorie Conservation China	63,604	26,000
General Administration	3,612,576	2,445,000
Education	297,027	1,003,000
Facilities	13,801,956	9,634,000
Fauna Conservation	1,315,655	650,000
Flora Conservation	2,090,070	1,519,000
Sustainable Living & Agriculture	1,418,625	702,000
The Green Hub	130,197	30,000
Jockey Club Nature Conservation Centre	1,482,928	291,000
Total	24,212,638	16,300,000
Operating		
Kadoorie Conservation China	6,839,381	5,048,000
KFBG Mainland China	-	2,090,000
General Administration	18,398,474	19,327,000
Education	11,295,047	12,712,000
Facilities	8,404,637	9,769,000
Fauna Conservation	10,780,560	11,682,000
Flora Conservation	21,942,439	24,725,000
Sustainable Living & Agriculture	14,806,717	15,806,000
The Green Hub	6,498,049	6,743,000
Total	98,965,304	107,902,000
Grand Total	123,177,942	124,202,000

Note: The Green Hub's expenditures were covered by its income and the government's funding upon claims made and the government approved.

ORGANISATION CHART



Number of Staff as at 30 June 2019

Department	Number of Staff
Executive Director's Office	2
Education	11
Facilities	20
Fauna Conservation	28.5 (one part-time staff)
Flora Conservation	73
General Administration	29.5 (one part-time staff)
Kadoorie Conservation China	11
Partnerships	3
Sustainable Living and Agriculture & The Green Hub	58
Total	236

BOARD MEMBERS

Andrew McAulay

(Chairperson)

Andrew Brandler

Christine Chau

Daniel R. Bradshaw

Deborah McAulay

Dr Lawrence Lee

Ruy Barretto, S.C.

MANAGEMENT TEAM

Andy Brown

(Executive Director)

HEADS OF DEPARTMENT

Dr Bosco Chan — Kadoorie Conservation China

Denis Ng — Facilities

Florence Au — General Administration

Dr Gary Ades — Fauna Conservation

Dr Gunter Fischer — Flora Conservation

Idy Wong — Sustainable Living & Agriculture

Joshua Chan — Education

APPENDIX 1

KFBG Activities Aimed at Building Capacity in Community Organisations and Partnerships for Sustainable Living

Partner Organisation	Date	Location	Content
Fringe Club - Jockey Club Cultural Heritage Project	10 March	Fringe Club	Delivered a public talk and attended a round table discussion with heritage conservationists.
Shanghai Dongtan Wetland Park	17 May	KFBG	Organised a farm tour to help them to plan improvement strategies for their Park.
Construction Industry Council	7, 8, 16 and 20 June	The Green Hub	Organised special tours featuring heritage restoration.
CLP-China Team	31 July	KFBG	Exchanged experience on sustainability, sustainable agriculture and solar farm designs.
Guangzhou's Association for Advancement of Environmental Education	13 August	KFBG & The Green Hub	Exchanged experience on education programme design for low carbon living with a special focus on the Zero Carbon Pioneer project.
YMCA	November	The Green Hub	Offered advice to YMCA consultants on implementation of Sustainable Development Goals in Hong Kong.
AFCD	12 November	The Green Hub	Offered public education activities for the Hong Kong Biodiversity Festival 2018.
Daesan Agriculture Foundation	4 December	KFBG	Organised a farm tour and sharing session to facilitate their planning of training programme for Korean farmers and students.
Passive and Low Energy Architecture (PLEA) 2018 Conference	13 December	The Green Hub	Organised post-conference tour for delegates to visit the PLEA design of the Green Hub project.

APPENDIX 2

Technical and Scientific Publications

Specialist scientific publications from **KFBG staff** and collaborations/ project executants for 2018 are listed as follows.

Title	Authors	Journal/Publication
Additions to the orchid flora of Laos and taxonomic notes on orchids of the Indo-Burma region.	Kumar, P., S.W.Gale , H.Æ.Pedersen, T.Phaxaysombath, S.Bouamanivong & G.A.Fischer . (2018).	Taiwania 63 (1): 61–83.
Orchid Conservation – Science and Practice.	Gale SW , Fay MF (Eds.). (2018).	Botanical Journal of the Linnean Society 186: 425–590.
Orchid conservation: bridging the gap between science and practice.	Gale SW, Fischer GA , Cribb PJ, Fay MF. (2018).	Botanical Journal of the Linnean Society 186: 425–434.
A review of the trade in orchids and its implications for conservation.	Hinsley A, de Boer HJ, Fay MF, Gale SW , Gardiner LM, Gunasekara RS, Kumar P , Masters S, Metusala D, Roberts DL, Veldman S, Wong S, Phelps J. (2018).	Botanical Journal of the Linnean Society 186: 435–455.
Prioritizing the orchids of a biodiversity hotspot for conservation based on phylogenetic history and extinction risk.	Li JH, Gale SW, Kumar P, Zhang JL, Fischer GA . (2018).	Botanical Journal of the Linnean Society 186: 473–497.
Integrative analyses of <i>Nervilia</i> (Orchidaceae) section <i>Linervia</i> reveal further undescribed cryptic diversity in Thailand.	Gale SW , Duangjai S, Li JH , Ito Y, Watthana S, Termwutthipreecha P, Cheuk ML , Suddee S. (2018).	Systematics and Biodiversity DOI: 10.1080/14772000.2017.1415233.
Genetic diversity in the endangered terrestrial orchid <i>Cypripedium japonicum</i> in East Asia: Insights into population history and implications for conservation.	Tian HZ, Han LX, Zhang JL, Li XL, Kawahara T, Yukawa T, López-Pujol J, Kumar P , Chung MG, Chung MY. (2018).	Scientific Reports 8: 6467.
Using consumer preferences to characterize the trade of wild-collected ornamental orchids in China.	Williams SJ, Gale SW , Hinsley A, Gao J, St. John FAV. (2018).	Conservation Letters DOI: 10.1111/conl.12569.
<i>Cleisostoma schoenorchaeifolium</i> (Orchidaceae: Vandeae: Aeridinae), a new species from Lao.	Kumar, P., Gale, S.W. , Phaxaysombath, T., Fischer, G.A. (2018).	PDR. Phytotaxa 374: 155-161.
A Guide to Orchids of Laos.	Gale, S., Kumar, P. , Phaxaysombath, T. (2018).	Natural History Publications (Borneo), Kota Kinabalu and Kadoorie Farm & Botanic Garden, Hong Kong.
Conservation impacts of commercial cultivation of endangered and overharvested plants.	Liu, H., Gale, S.W. , Cheuk, M.L., Fischer, G.A. (2018).	Conservation Biology DOI: 10.1111/cobi.13216.
Ten newly recorded taxa to the flora of Hong Kong, China.	Zhu H.L., Liu J.G., Zhang J.L., Hang K.Y. , Yeung W.K., Fischer G.A. (2018).	Guihaia, 38(9): 1221-1228.
CITES-Listed sharks remain among the top species in the contemporary fin trade.	Cardeñosa, D., Fields, A. T., Babcock, E. A., Zhang, H. , Feldheim, K., Shea, S. K. H., Fischer, G.A. Chapman, D. D. (2018).	Conservation Letters DOI: 10.1111/conl.12457.
Wildlife Crime: Case Study – Post seizure care and repatriation costs for a consignment of Indonesian Pig-nosed Turtles (<i>Carettochelys insculpta</i>).	Dr. Gary W.J. Ades, Mr. Paul Crow, Mr. Wong Yu Ki, Ms. Fok Wing Lam, Ms. Liz Rose-Jeffreys.	Publication Series No. 17, Kadoorie Farm & Botanic Garden, Hong Kong SAR.
A New Locality Record for the Asian Serotine Bat, <i>Eptesicus pachyomus</i> .	Kadoorie Farm and Botanic Garden 2018. Contributors and Editors: Dr. Gary W.J. Ades, Dr. Huarong Zhang, Mr. Paul Crow, Mr. Wong Yu Ki, Ms. Fok Wing Lam	Publication Series No. 15, Kadoorie Farm & Botanic Garden, Hong Kong SAR.
Post mortem and genetic study of an Eurasian Otter (<i>Lutra lutra</i>) carcass collected in Hong Kong SAR China.	Kadoorie Farm and Botanic Garden 2018. Authors and Editors: Ms. Fok Wing Lam, Dr. Gary W.J. Ades, Mr. Paul Crow, Dr. Huarong Zhang, Dr. Alessandro Grioni, Mr. Wong Yu Ki	Publication Series No. 16, Kadoorie Farm & Botanic Garden, Hong Kong SAR. 13pp

Technical and Scientific Publications

Title	Authors	Journal/Publication
Trading in Extinction: The Dark Side of Hong Kong's Wildlife Trade	ADMcF Contributors and Editors: Dr. Gary W.J. Ades, Mr. Paul Crow, et al. (2018)	Published Report
Significant records of three bunting species from Cambodia, including a first country record	B.P.L. Chan & F. Li (2018)	<i>BirdingASIA</i> 28 (2017): 54-55
A new phytotelm-breeding treefrog of the genus <i>Nasutixalus</i> (Rhacophoridae) from western Yunnan of China	Yang, J.H. & B.P.L. Chan (2018)	<i>Zootaxa</i> 4388 (2): 191-206.
A new species of <i>Hemiphyllodactylus</i> (Squamata: Gekkonidae) from Hong Kong	Sung, Y.H., Lee, W.H., Ng, H.N., Zhang, Y. & Yang, J.H. (2018)	<i>Zootaxa</i> , 4392 (2): 361-373.
Harmonizing conservation and development: a tale from Cambodia	Yang, J.H. & Chan, B.P.L (2018)	<i>ATBC 2018 Abstract Book</i> : 211
The little-known stingless bees: diversity, peculiarities and it's potentials for community- based forest conservation	Padilla, H. & Li, J. (2018)	<i>ATBC 2018 Abstract Book</i> : 265
Creating wildlife-friendly water retention systems in dry forest ecosystems	Li, J. & Padilla, H. (2018)	<i>ATBC 2018 Abstract Book</i> : 274
An alternative approach to salvage a highly threatened ungulate population – a case study on Hainan Eld's Deer (<i>Rucervus eldii</i>)	Wong, M.H.G. (2018)	<i>ATBC 2018 Abstract Book</i> : 296
15 years of wintering waterbird survey in Hainan: so much land, so little bird...	Zheng, X. Li. F. & Chan, B.P.L. (2018)	<i>ATBC 2018 Abstract Book</i> : 314
Assessment of community-based initiatives in conservation project for the world's most critically endangered primate	Fok, W.Y., Hui, M.K.Y. & Chan, B.P.L. (2018)	<i>ATBC 2018 Abstract Book</i> : 472
Current diversity and status of tree squirrels and flying squirrels in Yunnan Gaoligongshan, China: a mega-hotspot for sciurid diversity	Li, F., Li, S. & Chan, B.P.L. (2018)	<i>ATBC 2018 Abstract Book</i> : 887
Description of two new sympatric species of the genus <i>Leptolalax</i> (Anura: Megophryidae) from western Yunnan of China.	Yang, J.H., Zeng, Z.C. & Wang, Y.Y. (2018)	PeerJ 6:e4586
A new species of the genus <i>Megophrys</i> (Anura: Megophryidae) from Yunnan Province, China.	Yang, J.H., Wang, J. & Wang, Y.Y. (2018)	<i>Zootaxa</i> , 4413(2):325-338.
Morphology and molecular genetics reveal two new <i>Leptobrachella</i> species in southern China (Anura, Megophryidae)	Wang, J., Yang, J.H., Li, Y., Lyu, Z.T., Zeng, Z.C., Liu, Z.Y., Ye, Y.H. & Wang, Y.Y. (2018)	<i>ZooKeys</i> 776: 105-137.
A New Species of the Genus <i>Calamaria</i> (Squamata: Colubridae) from Yunnan Province, China	Yang, J.H. & Zheng, X. (2018)	<i>Copeia</i> , 106 (3): 485-491.
Recent amphibians and reptiles observed at Bako National Park, Sarawak, Borneo	Yang, J.H., Li, J. & Chan, B.P.L. (2018)	<i>Southeast Asia Vertebrate Records</i> , 2018: 071-073.
Recent amphibians and reptiles observed at Matang Wildlife Centre, Sarawak, Borneo	Yang, J.H., Li, J., Li, F. & Chan, B.P.L. (2018)	<i>Southeast Asia Vertebrate Records</i> , 2018: 062-068.
A new limestone-dwelling species of <i>Micryletta</i> (Amphibia: Anura: Microhylidae) from northern Vietnam	Poyarkov, N.A., Nguyen, T.V., Duong, T.V., Gorin, V.A. & Yang, J.H. (2018)	PeerJ 6: e5771
Butterflies of Tengchong Section of Gaoligongshan	Lo Yik Fui Philip (2018)	<i>The Nature and Insect</i> 53(10): 9-11
The neglected otters in China: Distribution change in the past 400 years and current conservation status	Zhang, L., Wang, Q., Yang, L., Li, F., Chan, B.P.L., Xiao, Z., Li, S., Song, D., Piao, Z. and Fan, P. (2018)	<i>Biological Conservation</i> 228: 259-267
A new subspecies of <i>Delias agostina</i> Hewitson (Lepidoptera: Pieridae: Pierinae) from Hainan Island	Lo, Y.F.P. (2018)	<i>Zootaxa</i> , 4532 (4): 553-560

Peer's review

In 2018, 21 scientific articles were reviewed by KFBG staff.



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