
BGCI China Programme – training workshops and staff exchanges

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China possesses very rich biodiversity with more than 30,000 species of higher plants accounting for approximately 10 percent of the world's flora. A combination of over 7000 years history of agriculture and China's current rapid economic development have resulted in great pressures on this rich biodiversity. China's botanical gardens, numbering over 130 with more planned or in development, particularly in the last decade have benefited from the growing economy and support from the government. This has led to a growing number of enthusiastic and motivated botanic garden staff engaged in plant conservation. Although most senior botanic garden staff receive traditional scientific university training, they are not readily exposed to relatively new knowledge and expertise in biodiversity conservation, environmental education and horticulture.

BGCI's 5 year *Investing in Nature* (iN) Programme launched in 2002 organised a series of training and staff exchange programmes that have raised capacity of botanic garden staff in China. BGCI, through organising training workshops, to the best of our knowledge have come to be the main organisation playing a major role in biodiversity conservation and education in botanic gardens training. Training workshops were held and hosted by different botanic gardens around China including Beijing, Wuhan, Shanghai, Xishuangbanna, Shenzhen, Hong Kong and Kunming. Training themes of each workshop are chosen based on workshop evaluations inviting participants to suggest the next workshop's theme. Trainers were sourced from botanic gardens internationally and locally, many accepting only airfare and board for the training they provided. Workshop themes have included general topics such as introduction to biodiversity conservation and public education to more specific topics which have included database and information management, education and interpretation at botanic gardens, conservation of Chinese medicinal plants (the role of botanic gardens) and seedbanking.

Feedback from participants has generally been very positive. A great majority of respondents finding the workshops useful or very useful as a significant number of respondents comment that it was the first time that they were exposed to concepts of biodiversity conservation, spurring them to seek more information to help them in their work. As the workshops have been co-organised with individual institutions, a sense of ownership has been built with most botanic gardens contributing matching funds and in-kind support to host the workshop. During the course of running the workshop, some valuable lessons have been learned. Many of the workshops tended to be more formal than originally intended. This was mainly attributed due to the formal education system that still exists in China which will take some time to evolve and the co-hosting institutions who have input in the style of workshop format. Although workshops were planned for a maximum of 40-50 participants, due to popularity and interest, some workshops have seen up to 80 participants, which meant that training was less than optimal.

The exchange scholarship similarly had positive feedback from the 37 participants who received training from four rounds of scholarships in 2004-2006. The exchange has been important in bringing together institutions in mainland China and Hong Kong. Participants gain much from the expertise and specialisation of each host botanic garden, which only an extended exposure can provide, which in this case was 2-3 weeks. In most cases the exchange allowed for mainland Chinese botanic garden staff to be exposed to the conservation and environmental education work that is conducted in Hong Kong botanic gardens, namely, Hong Kong Zoological and Kadoorie Farm and Botanic Garden. Mainland Chinese botanic gardens provide botanic gardens staff from

Hong Kong exposure to scientific research, horticulture and propagation technology of endemic flora unavailable in Hong Kong in botanic gardens in Kunming, Xishuangbanna, South China and Beijing.

Bringing botanic gardens from mainland China and Hong Kong together and creating linkages are usually the highlight for most participants such as this respondent –

“The programme is successful and wonderful. I have learned many experiences of plant conservation from the colleagues of KFBG and other conservation organizations. I will use the information to improve my work. At the same time, the colleagues in Hong Kong also had further understood the conservation activities in mainland through our communication” and “Although the training was quite a short period, it was very effective. Throughout the activities, i.e. seminars and field trips, not only our experiences and knowledge were sharing and exchanging, but also - the most important, a communication network was created that ensure a closer working relations and linkages between us in the future.”

Participants were also exposed to new conservation and horticulture concepts. For example “it was the first time for me to learn about new concepts such as ecological footprint, horticulture therapy, and arboriculture” and “To sum up, this training let me learn a lot. I understood the ecological way of thinking, and I learned to analyse things from an ecological perspective. I will apply the new theories and new methods that I learned in my own work, and I will share my feelings about the training to people around me”

The benefits were not solely reaped by the trainee as the host botanic garden, particularly KFBG felt that the hosting and training of participants was valuable experience for their staff, particularly younger staff at the garden. KFBG felt that benefits included enhancing staff’s training and facilitation skills, team building exercise and creating links with Chinese botanic gardens which lead to future collaborative projects, such as the examples highlighted below. A clear indicator of the success of the programme has been demonstrated by one of the main partners (Kadoorie Farm) who has expressed intention to continue the programme when IiN funding finishes.

Some lessons were learned during the running of the exchange programme. With each new round of scholarships, these lessons were built into the programme to continually improve its content and organisation. It was always the goal of the programme to target young trainees from less prominent and less established botanic garden staff who required the capacity building the most. Thus advertising the scholarship needed to be distributed as widely as possible through as many mediums as possible, including botanic gardens journals, BGCI website and email lists. Once a national network of Chinese botanic gardens is fully established, the dissemination of opportunities such as this scholarship will be made easier and accessible by a wide range of institutions. English proficiency is certainly growing in China, but Chinese remains the main language, so communications still needs to be conducted in Chinese. Botanic gardens in some remote areas of China do not have extensive internet access, so it is important to note that not all communications can be conducted by email. Visa application for Chinese nationals entering Hong Kong can be a bureaucratic and time consuming process, so it is important to allow for at least 4 months for the preparation of appropriate travel documents.

For a significant number of participants in the first round of scholarships, the exchange was considered too short (2 weeks) and generalist. KFBG addressed this by incorporating a third week focusing on 3 streams depending on the participant’s field and KFBG key focus areas. These being environmental education, orchid conservation and conservation techniques. Participants also wanted more hands on activities, learning in the field and some suggested on going small research projects on specific topics. Comments along these lines included “Offer more “do-it-yourself” programs. Increase the time for training on topical research”, “Hand-on experiments should be included, e.g. assisting the on-going forest researches, specimen collection and preserve treatment techniques” and “I would like to have included / extended the outdoor activities. Site inspection to the tropical rainforest could enhance participants knowledge on the natural growth of plants, their adaptation to the environment and their uniqueness”. These constructive comments can be incorporated in future training programmes.

It is often accepted that training workshops and staff exchange are worthwhile activities as it brings people with common goals together, creating linkages and exchange of knowledge and so on. However the true measure of success of workshops and staff exchange is what the participants do after the workshop and the staff exchange. Below are some examples illustrating the positive and tangible outcomes resulting from training workshops and staff exchanges from BGCI China programme.

Plant conservation is now considered a key role for Chinese botanic gardens but gaps in knowledge do exist. At the first training workshop in 2002 in Beijing Botanic Garden, many young botanic garden staff were exposed to the concepts and techniques of plant conservation for the first time. Dr Genlin Jiao from Fairy Lakes Botanical Garden was one of them. Through this introduction, self research and attending an international plant conservation congress, Dr Jiao was inspired to put in practice the science of plant conservation. He embarked on a major conservation project of his own, focusing on the conservation of rare and endangered species of Magnoliaceae including a reintroduction and cultivation programme. At the third training workshop at Wuhan Botanical Gardens, young, up and coming Chinese botanic garden staff met and communicated with international experts who provided the training at the workshop expressing interest in initiating collaborative plant conservation projects. From this initial contact, three staff from Wuhan, South China Botanic Garden and Macau were hosted and trained at Kings Park and Botanic Garden, Perth, Western Australia on short sabbaticals (1 month) to placements (1 year). This has provided the kind of international exposure much sought-after in China at present.

The exchange scholarship has similarly inspired participants to put into practice what they have seen and learned from their experience at their host garden. Two participants from the 2005 exchange programme, Duan Qi-wu and Yan Tao – from Xishuangbanna Tropical Botanic Garden (XTBG) were given training in plant conservation and environmental education at KFBG. At the same time, they also observed KFBG's annual artist-in-residence programme to help staff understand how scientific education can engage the general public. As well as workshops, seminars and talks, a travelling photo exhibition to complement the work was also organised. This innovative approach in promoting environmental conservation inspired Duan Qi-wu and Yan Tao to propose adopting a similar educational approach at XTBG. They initiated a collaborative photo exhibition that would combine material collected by both botanic gardens. The collaborative exhibition was held in 2006 and in addition to learning through the process of developing the exhibition, 50 XTBG staff were trained in creating exhibitions when KFBG education staff visited the XTBG. As well as collaborating in plant conservation research, the two gardens are also looking to embark on other joint educational opportunities. KFBG's head of Education, Dr Chiu Sein Tuck also felt that the programme was beneficial exercise - "The success of the joint exhibition was very meaningful," and "It provided a good opportunity for the two parties for more exchange and collaboration. Also, the process of organising the exhibition reinforced the co-operation and exchange among the gardens' professionals."

Conclusions

The experience of BGCI's China Programme training workshop and scholarship exchange demonstrates that capacity can be effectively built and can lead to tangible plant conservation outcomes. The strong enthusiasm and support of participating partner botanic gardens has been key in the success of the programmes. So much so that at least one programme will be supported and continued by a partner botanic garden. There is definitely scope for expansion involving more botanic gardens in China who have much to offer in terms of rich plant diversity, extensive knowledge and research.