



# BGO NEWSLETTER

THE BOTANICAL GARDEN ORGANIZATION

Ministry of Natural Resources and Environment

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## Director's Message



This year on August 12, 2004 marks a very special occasion as Her Majesty Queen Sirikit sixth Cycle, celebrates her 72<sup>nd</sup> Birthday anniversary and it is also Mother's day. In Thailand, the whole nation has been actively anticipating this auspicious occasion with many special events and will commemorate the whole year and encompass every corner of the country.

On March 1, 2004 the garden received highest honour, in that Her Majesty Queen Sirikit paid a royal visit to see our progress of the Garden and the achievements of the Orchids conservation project. Rare, endangered, and beautiful native orchids were impressively displayed in the Glasshouse complex inside the garden. At present, more than 100 species of rare orchids have been collected from the wilderness and carefully looked after in the garden's orchid nursery. The mass propagation by tissue culture technique's has been carried out at the garden and the appropriate species will be returned to their natural habitats to insure the species will not become extinct.

Increasing numbers of students and tourists visiting the garden to enjoy our green, clean, beautiful, and pleasant atmosphere; there is a plan to develop a scenic view along the roadsides in the garden by the ornamental plants, which hopefully very soon will make the whole garden easier to view by our guests.

For activities, we still have a long way to go for the garden and there are still many challenging projects; especially those dealing with our very young adults. Our garden is attempting to be the type of garden that is able to serve everyone's needs and contributes more in the relevant fields that especially concern research in biodiversity and conservation. Concerning special interest communities, our aims are to use our plants for sustainable benefit that could possibly improve our local residents standard of living and their communities.

For this special auspicious occasion, representing the Botanical Organization, I would like to extend from all the staff members of QSBG our sincere wishes to Her Majesty's good health, prosperity, and happiness, and may Her Majesty remain in the heart and soul of our nation.

**Weerachai Nanakorn, Ph. D.**

### The BGO Executive Board

**Chairman:** Prof. Dr. Thira Sutabutra

**Secretary:** Dr. Weerachai Nanakorn

**Members:** Prof. Dr. Thawatchai Santisuk

Prof. Dr. Pongsak Angkasith

Khunying Suchada Sripen

Mr. Sahas Boonyaviwat

Mr. Pansook Sripolcharoen

Mr. Sompote Nuntapong

Mrs. Ornanong Maneekarn

Miss Supaporn Pitiporn

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## Editorial

On the auspicious occasion of Her Majesty Queen Sirikit's 72<sup>nd</sup> birthday anniversary on 12 August 2004, the BGO staff joined the Newsletter Editorial Team in expressing deepest respect and offering our sincere best wishes to our beloved Queen for a long and happy life.

To mark the auspicious occasion, this special issue compiles Her Majesty the Queen's activities at the Queen Sirikit Botanic Garden during her several royal visits. It also features Her Majesty's initiatives and support for various projects concerning biodiversity conservation undertaken by the Botanical Garden Organization.

We are fortunate and grateful to have Her Majesty Queen Sirikit recognize and support our efforts in biodiversity conservation.

**Suyanee Vessabutr, Ph.D.**

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“LONG LIVE HER MAJESTY THE QUEEN”



## The Most Auspicious Occasion



Her Majesty Queen Sirikit granted a royal permission to the Botanical Garden Organization in 1994 to name the Garden under the BGO administration as “Queen Sirikit Botanic Garden”.

Two years later, on 8 April, 1996, Her Majesty the Queen paid the royal visit to the Queen Sirikit Botanic Garden to preside over the opening ceremony.





8 April 1996

### The BGO Executive Board (1996)

**Chairman:**

Prof. Dr. Sanga Sabhasri

**Secretary:**

Dr. Weerachai Nanakorn

**Members:**

Prof. Dr. Chamlong Phengklae

Prof. Dr. Thawatchai Santisuk

Assoc. Prof. Dr. Nalin Nilubol

Assoc. Prof. Nakhon Nalampang

Assoc. Prof. M.L. Charuphant Thongtham

Assoc. Prof. Ahnon Thiangtrong

Mr. Alai Ingavanij

Mr. Suwit Wangpushkane

Mr. Prasit Ujjin



The 1996 BGO Executive Board received the highest honour of having their picture taken with Her Majesty Queen Sirikit.



Dr. Weerachai Nanakorn, QSBG Director attending HM Queen Sirikit upon arrival.



HM the Queen planting *Ficus microcarpa* to mark the occasion of the Opening Ceremony of the QSBG.



QSBG staff awaiting for the arrival of HM Queen Sirikit.

**11 February 1997**



Mr. Likit Therdsteerasukdi, then Executive Board Chairman, attending Her Majesty Queen Sirikit upon arrival.



The Arboretum Trail was among places of interest where Her Majesty the Queen paid a visit to observe the progress of QSBG development.

#### **The BGO Executive Board (1997)**

##### **Chairman:**

Mr. Likit Therdsteerasukdi

##### **Secretary:**

Dr. Weerachai Nanakorn

##### **Members:**

Khunying Suchada Sripin

Prof. Dr. Thawatchai Santisuk

Assoc. Prof. Dr. Nalin Nilubol

Assoc. Prof. Ahnon Thiangtrong

Assoc. Prof. Dr. Pongsak Angkasith

Mr. Alai Ingavani

Mr. Wichai Suwanratana

Mr. Prasit Ujjin

Pol.Gen. Visut Kiitivatana



*At the Arboretum Trail*



11 February 1997



QSBG staff receiving Her Majesty the Queen at the Visitor Center.



Dr. Manus Titayavan, Committee Member of the Firefly Research Project from Chiang Mai University, presenting the progress report on firefly research in northern Thailand to Her Majesty Queen Sirikit.



Her Majesty granted an audience to the students from Chiang Mai College of Dramatic Arts who performed various northern cultural dances during the dinner party.



**29 January 1998**



Mr. Chaiyot Sasomsub, then Minister to the Prime Minister's Office, and members of the BGO Executive Board receiving Her Majesty Queen Sirikit.

#### **The BGO Executive Board (1998)**

##### **Chairman:**

Mr. Likit Therdsteerasukdi

##### **Secretary:**

Dr. Weerachai Nanakorn

##### **Members:**

Khunying Suchada Sripen

Prof. Dr. Thawatchai Santisuk

Assoc. Prof. Dr. Nalin Nilubol

Assoc. Prof. Ahnon Thiangtrong

Assoc. Prof. Dr. Pongsak Angkasith

Mr. Alai Ingavanij

Mr. Wichai Suwanratana

Dr. Charnchai Musignisakorn

Dr. Wongsatit Chuakul



HM the Queen observed the development of the Rock Garden Trail



*At the Native Orchid Nursery*



29 January 1998



Mrs. Sommai Choenram, Firefly Project Committee Member from the Department of Agriculture, Ministry of Agriculture and Co-operatives presenting the progress report on firefly research to HM Queen Sirikit.



During Her Majesty's visit to observe the research exhibitions at the Visitor Center, Prof. Kai Larsen, Emeritus Professor of Botany, Aarhus University, Denmark, presenting an exhibition on *Bauhinia sirindhorniae*, a new species of Caesalpinioideae with the name dedicated to HRH Princess Maha Chakri Sirindhorn in honor of her great efforts to conserve Thailand plant resources.



Dr. Yupa Hanboonsong, Project Committee Member from Khon Kaen University, explaining results of the firefly research presented on the poster exhibitions.



HM Queen Sirikit being greeted by invited guests at the party.



Students of the Chiang Mai College of Dramatic Arts performing in front of the dining pavilion.



**2 February 1999**



Upon her royal arrival, HM Queen Sirikit was attended by Mr. Jurintr Laksanavisith, then Minister to the Prime Minister's Office, Mrs. Panit Nitithanprapas, BGO Chairman; and Dr. Weerachai Nanakorn, QSBG Director.



The Garden development for the year 1999 was the 'Climber Trail' where HM the Queen was pleased with the platform overlooking the natural forest and creeks.

#### **The BGO Executive Board (1999)**

##### **Chairperson:**

Mrs. Panit Nitithanprapas

##### **Secretary:**

Dr. Weerachai Nanakorn

##### **Members:**

Prof. Dr. Thawatchai Santisuk

Assoc. Prof. Dr. Pongsak Angkasith

Assoc. Dr. Suree Bhumibhamorn

Assoc. Prof. Dr. Pathom Manirojana

Asst. Prof. Dr. Pakorn Priyakorn

Dr. Pichit Akrathit

Mr. Prapart Niyom

Mr. Sunit Teevavej



**2 February 1999**



Her Majesty Queen Sirikit viewing the Firefly Project exhibitions on genera of firefly and their distribution in Thailand.



Vetiver grass handicraft production was among Her Majesty's royal initiative projects.



Her Majesty Queen Sirikit graciously hosted a dinner party for the then Minister, the BGO Executive Board, QSBG staff and invited guests.



Cultural shows were performed by the students of the Chiang Mai College of Dramatic Arts.



30 January 2000



The presentation of local vegetables used in daily cooking or as medicinal herbs prepared by QSBG female workers who are native to Chiang Mai and have carried on their Lanna culture.

#### The BGO Executive Board (2000)

##### Chairperson:

Mrs. Panit Nitithanprapas

##### Secretary:

Dr. Weerachai Nanakorn

##### Members:

Prof. Dr. Thawatchai Santisuk

Assoc. Prof. Dr. Pongsak Angkasith

Assoc. Dr. Suree Bhumibhamorn

Assoc. Prof. Dr. Pathom Manirojana

Dr. Pichit Akrathit

Mr. Prapart Niyom

Mr. Sunit Teevavej

Asst. Prof. Dr. Surawit Wannakrairoj



*Ingredients for healthy dishes*



Female homekeepers play an important role in passing down traditional knowledge and local wisdom to the next generation.



30 January 2000



Her Majesty Queen Sirikit enjoying the music performed by a musical band from the Dara Academy College during the royal afternoon tea.

#### In the evening at the Visitor Center:

HM Queen Sirikit granted audience to Dr. Peter Kurt Hansen, Chief Technical Advisor of a Danish support project to the BGO. The project entitled: **'Capacity Building in the Field of Biodiversity at Queen Sirikit Botanic Garden'** was commenced in early 1999, and the CTA took up his position in May the same year.



QSBG staff receiving HM the Queen at the royal dinner in front of the Herbarium building.



Invited guests at the royal table were BGO Chairman and Executive Board, Chiang Mai Governor, and Regional Chief Military Officer.

26 January 2001

**‘Ueang Sae’ *Dendrobium scabrilingue* Lindl.**



*Dendrobium scabrilingue* Lindl., or locally known as ‘Ueang Sae’ is native to high altitudes of Myanmar, Laos and northern Thailand. In 1859, Lindley described the species priorly collected in Burma by T. Lobb, and Rev. C. Parish.

Ueang Sae is a small epiphytic orchid with very fragrant longlasting flowers. The flower is about 2 cm in width. Young flowers are ivory-white, with greenish-yellow center lip. The lip may turn to orange-yellow when getting older. Blooming period is from November to February.

In the old Lanna and Burmese tradition, Ueang Sae was a symbol of loyalty and respect, commonly used in the palace.



QSBG Tissue Culture Laboratory



Her Majesty Queen Sirikit spraying Ueang Sae plantlets after placing them in a peatmoss pocket attached to the tree.



Dr. Suyanee Vessabutr, Head of Technical and Research Department, reporting to HM the Queen on *in vitro* conservation of native orchids.

Ueang Sae is one of Her Majesty’s favorite orchids due to its beautiful fragrance. As part of QSBG’s *ex situ* conservation of native orchids carried out by the Technical and Research Department, *Dendrobium scabrilingue* has been micropropagated by tissue culture techniques. Some plantlets have been incorporated into ‘reintroduction’ program to restore the population in the natural habitats.





26 January 2001



Dr. Rongphol Charoenphandu, Chairman of the BGO Executive Board presenting a botanical book to Her Majesty.



HM Queen Sirikit being informed of the progress on the "Hemp Project" by Dr. Weerachai Nanakorn, QSBG Director.



HM the Queen taking a look at hemp fabrics.

### The BGO Executive Board (2001)

#### Chairperson:

Dr. Rongphol Charoenphandu

#### Secretary:

Dr. Weerachai Nanakorn

#### Members:

Prof. Dr. Thawatchai Santisuk

Assoc. Prof. Dr. Pongsak Angkasith

Assoc. Prof. Dr. Suree Bhumibhamorn

Assoc. Prof. Dr. Pathom Manirojana

Dr. Pichit Akrathit

Mr. Prapart Niyom

Mr. Sunit Teevavej

Asst. Prof. Dr. Surawit Wannakrairoj



Mr. Vichai Malikul and Dr. Manus Titayavan, Firefly Project Members receiving HM Queen Sirikit and HRH Crown Prince Vajiralongkorn at the Visitor Center.



HM Queen Sirikit having a conversation with members of the "Sha-ra Doe (old age) Band" who performed songs from the Oldies during the royal dinner party.

**30 January 2002**



The QSBG Glasshouse Complex was officially opened on 26 January 2001 by HRH Crown Prince Vajiralongkorn. It comprises 5 conservatories for plant displays, namely 'The Tropical Rainforest', 'The Aquatic House', 'The Cacti House', 'The Succulent House', and 'The Orchids and Ferns House'. The neighboring 8 greenhouses are for various plant collections, grouped by plant usage and their economic importance, such as medicinal plants, ornamental foliage, and ethnobotanical collections, etc.

#### **The BGO Executive Board (2002)**

##### **Chairperson:**

General Montri Supaporn

##### **Secretary:**

Dr. Weerachai Nanakorn

##### **Members:**

M.L. Charuphant Thongtham

Prof. Decha Boonkham

Mr. Somkiate Sethabandhu

Mr. Surin Dunnvatanachit

Mr. Therdsak Kosaiyakanont

Maj. Gen. Vivat Visanuvimol

Dr. Chantravipha Dhanasobhon

Mrs. Ornanong Maneekarn



General Montri Supaporn, Executive Board Chairman attending to HM the Queen upon arrival.



30 January 2002



At the 'Tropical Rainforest Conservatory' HM the Queen planting an *Arenga pinnata* Merr.



Her Majesty the Queen, accompanied by HRH Crown Prince Vajiralongkorn visiting the Arid Plant Conservatory, housing cacti and succulents.



HM the Queen having a discussion with Prof. Dr. Thawatchai Santisuk on golden Butea (*Butea monosperma*, Family Fabaceae), considered as rare since most trees of the species bear orange-red flowers not yellow flowers as seen in the Golden variety.



Common Butea



Golden Butea



Students Chorus Group from the Prince Royal College being greeted by HM the Queen after their performance during the tea party.

**1 March 2004**



Mr. Prapat Panyachatraksa, Minister, the Natural Resources and Environment Ministry, receiving Her Majesty upon arrival.



Prof. Dr. Thawatchai Santisuk, Chairman of the BGO Executive Board, and Dr. Weerachai Nanakorn, QSBG Director attending to Her Majesty's interest in native orchids.



*Inside the Orchids and Ferns Conservatory*



At the Visitor Center, HM Queen Sirikit graciously granted an audience and awarded a token to a UNOCAL Representative, as a recognition for the company's support of the Queen Sirikit Botanic Garden.

The UNOCAL Thailand, Ltd., donated 5,000,000 baht to the Queen Sirikit Botanic Garden, part of which contributed to support the construction of the garden's new souvenir shop "Golden Gardenia".



## The 'Golden Gardenia' Souvenir Shop



The Golden Gardenia Souvenir Shop is located behind the Glasshouse Complex, featuring various gift items produced by local communities. Orchid lovers will find a variety of native orchids which are products of QSBG Laboratories.



The GG Coffee Shop adjacent to the Golden Gardenia has been set in a beautiful surrounding where visitors can relax and enjoy freshly brewed coffee, herbal tea or soft drink.

Please visit us next time you come to QSBG.



Officially opened on 3 April 2004, the 'Golden Gardenia' is named after *Gardenia soothepensis* an endemic species to Doi Soothep (or Doi Suthep) where the QSBG is located.



**Golden Gardenia**

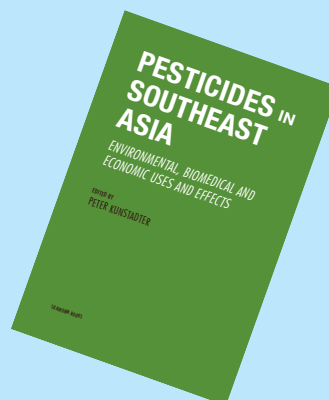
**Botanical Name:** *Gardenia sootepensis* Hutch.  
**Thai Name:** Kham Mok Luang  
**Family:** RUBIACEAE

**General Description:** Deciduous shrubby tree, 5 to 15 m high. Leaves are mostly shed during flowering season (March-July). Commonly found in semi-open and dry dipterocarp forest. Single large flower has color changes from rich yellow-orange when young to pale green or white when old. Mild sweet fragrant flowers are used in traditional ceremony in northern Thailand. Seeds are boiled and used as miticide for head lice.

### International Symposium to celebrate HM the Queen's sixth cycle birthday anniversary

In commemoration of the 72<sup>nd</sup> Birthday Anniversary of HM Queen Sirikit, the Sanga Sabhasri Foundation in cooperation with the Royal Project Foundation, the Botanical Garden Organization, and the University of California, San Francisco organized an International Symposium on **Uses and Effects of Pesticides in Southeast Asia: ecological, Biomedical and Economic** during 11-13 December 2003 at the Botanic Residence, QSBG.

The successful symposium was funded by the Rockefeller Foundation with travel support from the Thai Airways International.



Proceedings of the symposium will be available soon.  
 Contact: the SSRF Office c/o Suyanee Vessabutr  
 at (66 53) 268-332, or vessabutr@yahoo.com.

## A Study on Diversity and Ecology of Fireflies in Thailand

***“Firefly is an indicator of non-disturbed ecological systems.  
The Garden should conduct studies on the relationship between fireflies and  
plants in their natural habitats to know more about their life cycle.”***

Her Majesty Queen Sirikit graciously gave the above remark during the occasion of HM's royal presiding in the opening ceremony of the Queen Sirikit Botanic Garden on 8 April 1996.



Her Majesty Queen Sirikit has long been committed to the conservation of biological diversity. On her first royal visit to QSBG on 8 April 1996, Her Majesty expressed the concern about the loss of fireflies due to the destruction of their habitats. HM the Queen indicated to Professor Sangha Sabhasri, then Chairman of the BGO Executive Board, that a research on diversity of firefly in Thailand and their relation to ecosystems should be conducted.

From her royal initiative, a research project entitled “Diversity and Ecology of Fireflies in Thailand” thus began.

Since early 1997, the Botanical Garden Organization has coordinated with entomologists and specialists from academic and government institutes in various parts of the country, namely Chiang Mai University, Khon Kaen University, Department of Agriculture, Department of National Parks, Wildlife and Plant Conservation, and the National Biological Control Research Center.



*A study site in Queen Sirikit Botanic Garden where several species of fireflies were found.*

The objectives of the project are:

1. To study the diversity of fireflies in Thailand and their natural habitats.
2. To study the population dynamics of fireflies in each region of the country.
3. To study the relations between fireflies and ecosystems including factors affecting their life cycle.
4. To study fireflies rearing techniques to increase the population for conservation purposes.





Naturally, fireflies live in undisturbed wet areas where prey such as earthworms and snails are abundant.



*Firefly adult*

*Firefly prey*



*Firefly eggs*



*Firefly pupa*



Ten genera of fireflies in Thailand have been identified, namely, *Diaphanes*, *Lamprigera*, *Lucidina*, *Luciola*, *Pteroptyx*, *Pyrocoelia*, *Pyrophanes*, *Rhagophthalmus*, *Stenocladus*, and *Vesta*. Over a hundred species have been estimated.

The project has progressed with strong support from Her Majesty Queen Sirikit. Not only Her Majesty has been giving encouragement to the research team, but also financial support of 2 million baht to help with the project expenses.

## The Lower North Plant Collection Center

### Ban Romklao, Phitsanulok Province

Her Majesty Queen Sirikit has always been interested in conservation of natural resources and the well being of the local people who depend on the natural resources for their livelihood. HM the Queen addressed the problem of forest and wildlife exploitation and successfully raised awareness for sustainable utilization of natural resources through various royal initiative projects in the northern and northeastern provinces.

The Lower North Plant Collection Center was developed in 1999 at Ban Romklao, Amphur Chatrakarn, Phitsanulok Province where degraded forests were evident. The Ban Romklao Plant Collection Center objectives include conservation of native plants, particularly the endangered species; as well as traditional knowledge, especially in the field of ethnobotany. The center will also serve as a training station to the local communities in sustainable uses of the forest resources.



On 24 February 2000, HM Queen Sirikit paid a royal visit to Ban Romklao. Mr. Pinyo Niroj, then Minister to the PM's Office reporting to Her Majesty the Queen on the progress of the Ban Romklao Plant Collection Center development.



The villagers, mostly the Hmong ethnic group, awaiting HM the Queen's arrival.



Mr. Danai Sabhasri, Head, Ban Romklao Plant Collection Center reporting to HM the Queen on the occasion of HM's royal visit on 14 March 2001.



## HM the Queen Royal Initiative “Kanchong” Project

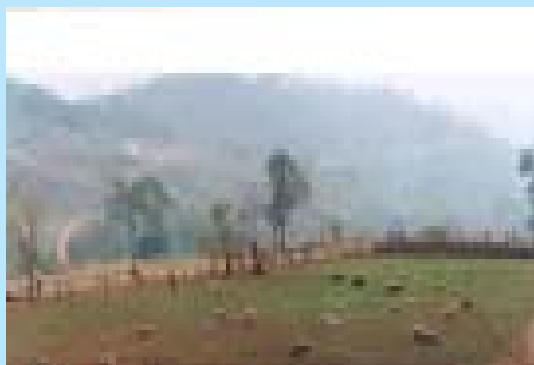
Hemp (*Cannabis sativa* L. var. *sativa*), is an annual herbaceous plant native to Caucasus, China, Iran and northern India, and flourishes in temperate regions. Hemp known as “Kanchong” in Thai, is a close relative of marijuana (*C. sativa* var. *indica*) or “Kancha”. Both Kanchong and Kancha contain delta 9-tetrahydrocannabinol (THC), the main psychoactive constituents. Hence, growing *Cannabis* is illegal in many countries including Thailand.

Much of industrial hemp was derived from cultivars selected for growing in temperate countries. About a decade ago, selected non-psychoactive cultivars suitable for legal production were obtained in Alberta, Canada. These cultivars have low delta-9-tetrahydrocannabinol, i.e., 0.3% THC, a standard concentration which separates non-psychoactive strains from those with their properties of intoxication.

The “Kanchong Project” was launched in the year 2000 under Her Majesty’s initiatives with the aim to find suitable cultivation techniques for local people in northern Thailand to produce hemp for fiber and seeds. The research has been conducted at Ban Pak Sam, Amphur Wiang Haeng; and Huay Mae Giang, Amphur Chiang Dao, Chiang Mai province under the approval of the Office of Narcotic Control Board and under the supervision of Dr. Weerachai Nanakorn, QSBG Director.



HM Queen Sirikit and HRH Princess Chulaborn  
at the hemp plantation in Ban Pak Sam  
on 18 January 2001



Ban Pak Sam, Amphur Wiang Haeng, Chiang Mai



Exhibitions on products from the Hemp project included bulletproof vests made of hemp fiber by a research team from the Royal Thai Air Force.



HM Queen Sirikit visited Huay Mae Giang on 16 February 2004.

HM Queen Sirikit has been working tirelessly in the efforts to alleviate poverty of her subjects in the remote areas of the country, as well as to protect natural resources and environment. As an outcome, local villagers have realized the importance of conservation and sustainable use of natural resources. Indeed, Her Majesty’s initiative projects have been proof that people can live in harmony with nature.



*Wrightia sirikitiae* D.J.  
Middleton & Santisuk



Queen Sirikit Rose



*Mitrephora sirikitiae* Weerasooriya, Chalermglin & R.M.K. Saunders



Queen Sirikit Cattleya



Queen Sirikit Don'a