EuroGard 2000 - 2nd European Botanic Gardens Congress

The 2nd European Botanic Gardens Congress was held in Las Palmas de Gran Canaria, Spain from 10-15 April, 2000. The Congress, organised by the Jardín Botánico Canario 'Viera y Clavijo', the Cabildo de Gran Canario and Botanic Gardens Conservation International (BGCI) under the auspices of the BGCI/IABG (International Association of Botanic Gardens) European Botanic Gardens Consortium, was attended by more than 120 people from botanic gardens throughout Europe and held in the strikingly modern 'Alfredo Kraus' Convention Centre on the seafront in Las Palmas.

On the opening day, the Action Plan for Botanic Gardens in the European Union was launched by Peter Wyse Jackson of BGCI and Esteban Hernández Bermejo of IABG and Córdoba Botanic Garden (see Box). Throughout the week, delegates were encouraged to consider the issues raised in their discussions in relation to implementing the 35 objectives listed in the Action Plan. Time was set aside for meetings of the many national networks of botanic gardens in Europe to consider how each would implement the Action Plan. Copies are being sent to all institutional members of BGCI.

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Objectives of the Action Plan for Botanic Gardens in the European Union:

A Science and Horticulture

- A1 Promote botanic gardens as resource centres for scientific research
- A2 Facilitate access to scientific and horticultural information in botanic gardens
- A3 Consolidate botanic gardens as major centres of taxonomy
- A4 Consolidate botanic gardens as centres for research on identification, biodiversity conservation and sustainable use
- A5 Promote and consolidate botanic gardens as major centres of specialised horticulture

B Heritage, Culture and Tourism

- B1 Seek recognition of the heritage value of botanic gardens

- B2 Raise awareness of the roles of botanic gardens in European history, development of botany, history of science and plant introduction
- B3 Promote the importance of the architectural heritage in European botanic gardens
- B4 Promote an appreciation of landscape and garden styles in botanic gardens
- B5 Recognise and promote botanic garden libraries, herbaria, museums, art and other collections as an important part of European culture and heritage
- B6 Safeguard and document important artefacts, structures and collections of historical and cultural importance
- B7 Promote botanic gardens as tourist attractions

C Conservation of Biodiversity

- C1 Ensure in situ conservation and assessment
- C2 Develop management of ex situ collections
- C3 Develop management and analysis of data and information
- C4 Ensure garden management that promotes biodiversity conservation and sustainable use of plant resources
- C5 Implement and influence national and international biodiversity policies

D Education, Training and Awareness

- D1 Develop botanic gardens as centres for environmental education
- D2 Promote botanic gardens to schools as centres for environmental education
- D3 Promote botanic gardens as resources for higher education and training
- D4 Present information to the public in a variety of ways
- D5 Promote botanic gardens to the public as centres for information on plants
- D6 Encourage public debate about issues relating to plants
- D7 Ensure that the garden's message is clear and consistent
- D8 Raise the status of education

E Networking and Co-operation

- E1 Develop a network for scientific research and horticultural activities
- E2 Develop and strengthen networks to improve conservation of biodiversity
- E3 Develop and strengthen national networks to improve education by botanic gardens
- E4 Develop closer networking to promote staff training in botanic gardens
- E5 Participate in and form local networks
- E6 Work together internationally
- E7 Develop an efficient network

F Capacity Building

- F1 Build effective management of resources
- F2 Improve and develop staff skills and training
- F3 Build and implement a policy on collaboration to assist capacity building for botanic gardens and other partner organisations and institutions throughout the world

Keynote addresses were given on:

- European botanic gardens and the world conservation movement
- European botanic gardens and relationships with gardens in the rest of the world
- Science, horticulture and conservation – establishing a workable interface for botanic gardens
- Botanic garden roles in food and agriculture
- A focus on systematics in botanic gardens
- Innovation and renovation in botanic garden approaches to environmental education
- Historic botanic gardens and their modern roles
- Sustainability into the twenty-first century

Simultaneous sessions, workshops, panel discussion and symposia included the following:

- Implementing the Action Plan for Botanic Gardens in the European Union
- New projects and developments in botanic gardens
- Teaching sustainability using plant-based stories
- Networking beyond the botanic garden: creating local alliances for rare-plant conservation in Europe
- Horticultural research
- Information management: developing your collections database
- Undertaking an audit of your garden for the Convention on Biological Diversity
- Conservation of lower plants: developing the role of botanic gardens
- Genebanking: priorities and policies for European botanic gardens
- Conserving the fragments: conservation of remnants of European species
- Business planning and fund-raising for botanic gardens
- Addressing science through education
- Phytogenetic resources conservation and utilisation through botanic gardens, with examples from Latvia, Poland, Lithuania and France
- Future roles of European plant collections in systematics
- Managing historic botanic gardens: reconciling historic and modern roles

A special meeting was included on 'Common policy guidelines on access and benefit-sharing for botanic gardens'.

Amongst the many keynote addresses, sessions, workshops and symposia were several of particular relevance for plant genetic resources.

Many of the gene banks in European botanic gardens seek to conserve the endangered regional flora (such as the Canarian and Córdoba Gene Banks, described during the session). Others, such as Trinity College Dublin Botanic Garden, also work with a wide range of wild species and local crop varieties. Seed banks are the most frequent technique used, but the maintenance of field collections or in vitro banks are also important. It was recommended that botanic gardens should:

- develop a strategic plan and network for gene banks in Europe with close cooperative links and clear objectives;
- implement up-to-date conservation and management methods for gene banks and compile a comprehensive checklist of gene banks, accessions, species and methods involved or conserved by them for Europe;
- review the Index Seminum system in the framework of the Convention on Biological Diversity (CBD);
- strengthen links with other bodies holding gene banks;
- provide technical assistance in appropriate areas of botanic garden expertise, such as plant taxonomy, to other bodies maintaining gene-bank collections.

Yuri Gorbunov, of the Moscow Main Botanic Garden, outlined the role of Russian botanic gardens in the study and cultivation of economic plants. Most of the 82 botanic gardens have large collections of ornamental, food, medicinal, aromatic and forage plants. Some of the breeding and selection work in such crops carried out in botanic gardens was described in relation to adaptation to climatic conditions.

In a session on the conservation and use of phytogentic resources in botanic gardens, Karlis Buivids gave an account of breeding new cultivars and increasing genotypic variability of economic plants in Latvia, using the rich plant collections, paricularly of ornamentals, turf grasses and fruit crops, taking account of the prevailing short days and expense of heating and lighting. Marcin Zych described a dendrological survey being undertaken by Warsaw University Botanic Garden of forgotten cultivars of woody plants, especially those of Polish origin, in old parks and estates; these are preserved as part of the Garden's collection and propagated and used to restore old parks, re-establishing a fashion for these resistant cultivars. Remegijus Daubaras gave a perspctive on non-traditional berry species in Lithuanian horticulture carried out at the Kaunas Botanic Garden of Vytautas Magnas University; resarch work is concentrated particularly on cultivars of species of Vaccinium, Cydonia, Lonicera, Hippophae and Actinidia. Romaric Pierrel gave an account of the participation of the Conservatory and Botanic Gardens of Nancy in the conservation of old fruit varities from the Lorraine region of France, particularly apples and other orchard fruits.

It was recognized that botanic gardens play an essential role in breeding and introducing new plant cultivars and recommended that they should:

- act as centres of scientific horticulture and provide the public with relevant and necessary information on conservation and use of phytogenetic resources;
- create collections of economically important varieties, ideally in cooperation with local horticultural societies and genetic-resource institutions;
- record and protect the existing biodiversity of useful plants, not limiting themselves only to wild plant protection but increasingly being involved in conservation and use of economic plants.

In a keynote address, Jan Engels of International Plant Genetic Resources Institute (IPGRI) considered the possible contributions of botanic gardens to the conservation of plant genetic resources, particularly in relation to effective and cost-efficient conservation and use of plant genetic resources for food and agriculture (PGRFA). The factors that, directly or indirectly, threaten these resources necessitate a concerted effort to halt on-going genetic erosion but with long-lasting and broadly supported solutions for their sustainable use. Comparison of the past and potential holdings and management of agricultural genebanks and botanic gardens revealed numerous ways in which botanic gardens could contribute to PGRFA conservation in terms of collecting, characterisation and evaluation, documentation and management policy. The aim would be to allow a better coverage of threatened genetic resources in conservation activities and to improve the integration of the current, rather fragmented, conservation efforts at national and international levels. It was recommended that botanic gardens should participate with agricultural genebanks in:

- meetings of common interest;
- the production of joint strategic publications;
- targeting information to those at a national level, sharing mailing lists more effectively;
- compiling a special issue of Gene Flow.

During the closing ceremony, a memorandum of understanding between the International Plant Genetic Resources Institute (IPGRI) and Botanic Gardens Conservation International was signed by Jan Engels for IPGRI and Peter Wyse Jackson for BGCI – another sign of welcome collaboration.

The recurring themes throughout the conference were (i) the benefits of improving collaboration, partnership and communication not only within the botanic garden community but also with a wide range of other organisations, such as conservation groups, research institutes, government agencies, museums, education institutes and heritage groups; (ii) the urgency and responsibility to take effective action on integrated ex situ and in situ conservation initiatives; and (iii) the importance of botanic gardens in providing information and education on a range of topics related to plants, the environment, conservation and sustainability. By working together, botanic gardens can raise their profile and play a more effective part in scientific research, conservation and education and in providing inspiration and information for their many visitors.

A special session on research on the Macaronesian flora included genetic variation, diversity and conservation of Dorycnium spectabile, Isoplexis chalcantha, Viola palmensis and

Canarian endemics. During the week , delegates were shown some of the many plants endemic to Gran Canaria: first in the Jardín Botánico Canario 'Viera y Clavijo', the spectacular botanic garden in Las Palmas with many cacti and succulents and Dracaena draco, and later on an excursion to the forests of Pinus canariensis in the mountains, where the understorey of Cistus monspeliensis and C. symphytifolius was in flower.

A meeting of the BGCI/IABG European Botanic Gardens Consortium was held during the Congress. The Consortium includes nominated representatives from each of the national botanic garden networks of the European Union.

Conclusions from the sessions and recommendations for action were reported at the end of the congress. The proceedings will be posted on the congress web site, which can be accessed through the the BGCI website

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