

# FORUM BOTANICUM

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NEWS-LETTER OF THE SOUTH AFRICAN ASSOCIATION OF BOTANISTS  
NUUSBRIEF VAN DIE SUID-AFRIKAANSE GENOOTSAP VAN PLANTKUNDIGES

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INTERNATIONAL BOTANICAL CONGRESS: This, the twelfth congress, was held in Leningrad at the beginning of July and was attended by some 5 000 botanists of which an estimated 3 000 were Russian.

The opening Plenary Session was held in the superb modern Concert Hall, Oktyabrsky, and was opened by Academician Armen Takhtajan. There was a welcome to Leningrad by Mr. Kazakov, Chairman of the Executive of the City Soviet, and words of greeting from the Vice-President of the U.S.S.R. Academy of Sciences and Prof. K.V. Thimann, President of the preceding congress. This was followed by general remarks from Prof. Frans Stafleu on the I.U.B.S. functions at the Congress. The main feature was the scholarly presidential address by Academician Takhtajan in which he dealt with botany today and the problems facing it in the modern world. With this ended the delegates were entertained to an hour of ballet highlights by the Kirov Ballet Company of Leningrad.

The main part of the Congress lasted for five and a half days with eighteen sectional meetings comprising 3 260 delivered papers. The only all-congress symposium was "Conservation of the Plant World" with Prof. Olov Hedberg of Uppsala, Sweden, as the Chairman. The speakers were Prof. E. Corner of Cambridge, England, on Conservation - Purpose, Action, Education and Maintenance and Prof. P. Duvigneaud of Belgium on Noosphere and the future of the earth's vegetation ending with Prof. B. Kolesnikov of U.S.S.R. talking about the conservation of the plant world in his country.

During the Congress numerous excursions were arranged to the various botanical and applied botanical institutes in Leningrad, among them the Komarov Institute with its vast world herbarium and associated botanic garden with one kilometre of glass-houses. There were also several excursions to places of historical, architectural, and artistic interest in and near Leningrad. Like London of a decade ago, Leningrad is renowned for its "poor" weather but delegates were blessed with superb weather said to have been laid on by the Academy.

At the previous congress in Seattle when the Academy of Sciences of U.S.S.R. offered to host the twelfth congress, the offer was accepted on condition that no delegates were barred from attending. This assurance the Academy gave the I.U.B.S. but was unfortunately not able to honour as the issue of visas turned out to be a matter solely for the State and not the Academy. Most of the 2 000 foreign delegates only received their visas 2 weeks before the Congress was due to begin, some in fact the day before they flew to Leningrad!

The Soviet Government decided not to issue visas to South African passport holders thus barring several botanists from attending the Congress. The Editor, Mr. E.G.H. Oliver, was very fortunate in being able to attend. It is understood that Prof. Bornman of Pietermaritzburg was also able to attend. The matter of no visas for South African passport holders was mentioned at the opening session of the Congress as a serious affair and will be dealt with by the I.U.B.S.

The main congress centre was the Tauride Palace. One of the attractions in the main hall of the Palace was a display of South African flora sent over by the National Botanic Gardens, Kirstenbosch. The exhibit was most tastefully displayed by the Congress workers and created a good deal of interest. Unfortunately intentionally or not, no labels or notices were displayed on the plants which most delegates assumed came from Australia. To correct matters the Editor labelled all the species and put up a notice to say they had come from Kirstenbosch, much to the pleasure of the delegates who spoke to him. One Russian botanist in very broken English came forward to say she had been asked by a group to convey to Kirstenbosch their sincere thanks for being able to see the remarkable plants and even if the botanists had not got to Leningrad, the plants had.

Following the Congress there were twenty planned and fully booked tours going to various parts of the Soviet Union. Due to reported internal disagreements between the Intourist Organisers and some local Republican authorities, a few of the tours were cancelled, one of which was the eagerly awaited tour to **Siberia**.

The Editor was fortunate to go on the tour to Armenia to see semi-desert to alpine vegetation, deciduous and juniper forests with 3-5th century churches thrown in. The temperature was between 30-35°C each day. Those who went to Tashkent had to tolerate 45°C in their hotel, while those who went to Tadjikistan cooked down below before slaking their thirsts on glaciers in the Western Himalayas!.

At the end of the Congress a set of resolutions proposed during the sessions was put to the delegates and unanimously accepted. They make very interesting reading and are set out below in full.

1. We, the members of the XIIth International Botanical Congress meeting in

Leningrad, call upon all nations and their governments to give the highest priority to the production of food and its effective distribution and storage, consistent with the principles of conservation and the need to preserve the genetic diversity of the earth's flora and fauna, to the end that the world's people may be adequately supplied with food now and in the future; and we, the members of the Congress, pledge our individual cooperation in the scientific aspects of this endeavour.

2. This Congress recognizing that all food for man is derived directly or indirectly from the plant world,

- that the available food resources of the earth are insufficient to provide adequate nourishment for its rapidly expanding population,
- that prudent land use must be based on rational ecological studies, which require adequate knowledge of the local flora,
- that the flora of many countries is still imperfectly known, that taxonomic handbooks are often lacking, and that competent taxonomic botanists are too few to cope with the tasks and material facing them,
- that a large number of plant species, some of which are yet undescribed or sufficiently known, are threatened by extinction through intensive land use and rapid technological change, and that many of these may be potentially useful to man,

urges all governments, particularly those giving technical assistance to developing countries, to strengthen the training of taxonomic botanists and research in taxonomic botany, so that as much as possible of the richness of our plant world can be explored, saved from extinction where threatened, and utilized for improvements in agriculture, forestry, and rational land use in general.

3. This Congress, recognizing that in many parts of the world man's activities have caused:

1. a substantial decrease in productive natural ecosystems, with an associated loss of non-renewable plant resources;
2. the extinction or severe reduction in the numbers of many plant species; and
3. an increase in the area of man-made wastelands, bearing in mind that as long as the world's population grows and life-styles change, these trends will continue, resulting in progressive degradation of the vegetational cover of the earth which could lead to instability in the biosphere and ultimately affect adversely man's capacity to produce food and other commodities essential for his existence,

recommends that research be expanded throughout the world:

1. on natural ecosystems and the changes brought about in them by the impact of man;
  2. on methods of protecting ecosystems from further degradation by man;
  3. on the problems of rehabilitating ecosystems that have already suffered damage where this is desirable in the interests of man's well-being.
4. This Congress, emphasising the ultimate dependence of man on the plant world, noting the increasing speed with which species and ecosystems are still being destroyed by man, urges governments of all countries, particularly those situated in the tropics, to act rapidly and effectively:
1. to conserve wild plants in every way possible by the establishment and maintenance of ecosystem reserves and national parks, by the development of botanic gardens and other plant resource centres and,
  2. to instigate and encourage the exploration of and research on the plant resources of the world, upon which future beneficial developments in agriculture, forestry, and other plant usage depend.
5. The Congress, recognizing that only relatively few plant species are used by mankind, calls to the attention of all governments the importance of supporting new or expanded research that would enable man to exploit the productivity of additional plant species from all environments, for example desert and marine plants of potential economic importance which have hitherto been largely ignored.
6. This Congress, aware of the serious threat to the continued survival of many plant species arising from more intensive land use and the expansion and development of agriculture and forestry in all continents, yet deeply conscious of the need to preserve as much as possible the genetic diversity of the plant kingdom for the future economic, cultural and aesthetic benefit of mankind, welcomes the setting up by the International Union for Conservation of Nature and Natural Resources of an International Threatened Plants Committee and pledges support for its work throughout the world.
7. This Congress, mindful of the general lack of understanding on the part of the public of the natural laws governing our biosphere, urges those concerned with curriculum development in schools and universities throughout the world to extend and encourage the study of ecological principles and nature conservation.
8. This Congress resolves that the decisions of the Nomenclature Section with respect to the International Code of Botanical Nomenclature as well as the appointments of the officers of the Nomenclature Committees made by that Section in its plenary meeting of July 4th, 1975 be accepted.

9. This Congress, recognizing the possibility that there may be plants with constituents capable of inhibiting the growth of some kinds of cancer, and knowing that laboratories over the world are conducting a search for such plants, proposes the creation of an international committee to:

1. coordinate the search for anticancer plants so as to prevent duplication of effort;
2. encourage development of standard sampling and testing methods;
3. develop a systematic inventory of plants tested and the resulting data; and
4. promote the exchange of information concerning clinical testing and/or chemical screening.

10. This Congress, recognizing the world wide growth of interest in and research on plant anatomy welcome the establishment by the International Union of Biological Sciences of an International Association of Plant Anatomists.

11. This Congress, noting the increasing use and need of electronic data processing in storing and retrieving information contained in the plant taxonomic collections of the world, aware of the importance of this information to many disciplines of biology, knowing the complexity of the technology involved, yet anxious that this stored information should be readily available internationally, recommends the setting up of a standing international commission to advise on, coordinate and monitor progress in the introduction and application of electronic data processing in plant taxonomic collections.

12. This Congress urges botanists to make every effort to find and to improve plant species that will be helpful in protecting soils from erosion.

13. This Congress, recognizing that the wild relatives of cultivated plants are an important source of genetic diversity for the continuing improvement of agricultural crops, and that they should be carefully preserved for the future, endorses the steps already taken, or now proposed, to ensure the protection of wild species that are potential donors to the gene pools of plants useful to man, and urges governments to acknowledge the importance of this work and give it every possible support throughout the world.

14. This Congress recommends the setting up of a working group within the framework of the International Union of Biological Sciences to coordinate the methods of phenological research in the different countries of the world, and to promote the exchange of such information among scientists interested in the seasonal rhythms of plants.

15. This Congress, drawing attention to the importance of the history of botany to a comprehensive understanding of our science, suggests to administrators of botanical institutions and organizers of future congresses that due emphasis be placed on this subject.

16. This Congress, recognizing the growth of research on remote sensing of vegetation, and noting the need to coordinate the work in this field, recommends the setting up within the framework of the International Union of Biological Sciences of a working group on remote sensing, the objectives of which would be to promote the exchange of information, to compile reviews of current research, and to discuss problems of the analysis and application of remote-sensing data.

17. This Congress, considering that the production of a comprehensive pan-arctic vascular plant flora is an urgent need, recommends the setting up of an international Committee to examine the feasibility.

18. This Congress, appreciating the admirable organization of the meetings and having enjoyed the great hospitality extended to its members, warmly thanks the Academy of Sciences of the USSR, the City of Leningrad, the botanists of the USSR and the Organizing Committee for having made this Congress possible and for having so graciously and conspicuously served botany by bringing together so large a number of the botanists of the world to discuss so many aspects of their science in this beautiful city.

XIIIITH INTERNATIONAL CONGRESS: It was unanimously agreed to accept the offer of the Australian Academy of Sciences to hold the next congress in Sydney in August 1981, subject of course to a more watertight assurance that no delegates would be refused entry into Australia! Delegates reeled somewhat at the thought of the expense of getting to Sydney. Are South Africans superstitious about 13?

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