XI World Forestry Congress in Turkey

Ian Armitage

Set beside the glittering blue of the eastern Mediterranean Sea, and against a backdrop of the stark yet dramatic Toros Mountains, the XI World Forestry Congress was held at Antalya, Turkey between October 13 and 22, 1997. In keeping with the broad theme of sustainable development of natural resources stemming from the United Nations Conference on the Environment (UNCED) in 1992, the theme of the XI World Forestry Congress was "Forestry for Sustainable Development: Towards the 21st Century". The World Forestry Congress is held every six years and this assembly, hosted by the Government of Turkey, was the largest ever held with about 4000 people attending from 140 countries. It provided an unsurpassed opportunity for anyone having an interest in any aspect of forestry, from Ministers to students, to meet and share their knowledge and experience in all aspects of the profession. New Zealand was represented by six people from the Ministry of Forestry, FRI, Lincoln University and a consultant, all members of our Institute.

The congress was organised into eight main programme areas and 38 topics of interest, dealing with all major current issues facing world forestry, including all aspects forest development, management, silviculture, protection, utilisation, forest industries and trade, research, community forestry, conservation of forest ecosystems, non-wood forest products, agroforestry, wood for energy and privatisation issues. The congress also took stock of the various sustainable forest management processes (Montreal, Helsinki, dry Africa, Tarapoto, ITTO, the Near East and Lepaterique) that are aiming to reach broad international agreement on relevant and appropriate criteria and indicators of sustainable management of forests. A feature of this congress was a large number of side meetings covering a wide range of topics having linkages with the congress theme of sustainable forest development. These included discussions on the future roles of youth and women in forestry, forestry in Turkey, forestry information systems and the management of secondary forests. There were also presentations by a number of specialist groups on their work and achievements, amongst them the International Poplar Commission, several IUFRO working groups, the Commonwealth Forestry Association, the Committee on Mediterranean Forestry, CIFOR and the World Commission on Forests.

New Zealand representatives played a small but constructive role at the congress; we presented two special papers and one voluntary paper and we assisted with some of the many meetings that were held, including moderation of technical discussions, and summarising some proceedings. A commemorative tree-planting ceremony was held on October 16 – World Food Day – in the grounds of the nearby University of the Mediterranean in Antalya, to establish XI WFC Arboretum and Memorial Park. Don Wijewardana, Don Mead and Ian Armitage shared in this, planting a *Robinia pseudoacacia*, a *Cedrus libani* and a *Cupressus sempervirens*. It was a marvellous experience to be able to do this, to be able to put a small New Zealand identity in this beautiful part of Turkey.

There were times to relax and away from the congress we enjoyed the Turkish cuisine at some of the many restaurants in the picturesque old port of Antalya – dating from Greek and Roman times – local field trips to the nearby *Pinus brutia* forests and to see the ruins of some of the many Roman cities that were once common along the Anatolian coast. A highlight of the warm Turkish hospitality was to be able to enjoy a magnificent concert of traditional and modern Turkish dance and music in the 2200-year-old Roman theatre at Aspendos, one of the best-preserved theatres anywhere and still able to be used. It was a thrilling and truly unique experience and along with the enjoyment of being able to participate in the congress will be one of the lasting memories of visiting this fascinating part of Turkey.

New Zealand research links with the UK

John Moore
FRI

During 1997, the British High Commission and The British Council in New Zealand, currently celebrating its 50th anniversary, have devised a year-long programme of events to celebrate and explore the relationship between New Zealand and Britain. The British Council has been supporting collaboration between FRI and organisations in the UK since 1993 through its Higher Education Link Scheme. As part of the Link Programme, there has been an exchange of researchers from the New Zealand Forest Research Institute (FRI) and organisations in the United Kingdom to work on collaborative projects. These organisations include Aston University (Birmingham), the Forestry Commission and the Forestry Commission Research Agency. Each Link normally runs for a period of three years and makes provision for two visits per year; one from a member of each of the organisations involved. Collaborative research has taken in the areas of evaluating biomass energy systems, wood supply forecasting and forest wind risk modelling.

Biomass energy systems

One of the problems with exploiting biomass for electricity is that the conventional means of generation, combustion and a steam turbine, suffers from low efficiency and high capital costs. Collaboration between FRI and Aston University is evaluating the most appropriate ways of integrating wood supply, wood conversion and electricity generation. Both research centres are contributing to a computer model that combines their specialist knowledge into a user-friendly package that allows various system options to be investigated. The completed model will be a useful decision support tool, which can assist industries and policy makers in evaluating new technology. It can also be used as an educational tool to help identify vital components in bioenergy systems.

Wood supply forecasting
Small, privately-owned forests account for a significant proportion of the national estate in both New Zealand and the United Kingdom. As the private forest area is expanding, it is becoming increasingly important to be able to forecast future wood volumes from this resource. Collaboration is being carried out between the Forest Enterprise, the Forestry Authority and FRI to address the difficulties imposed by the nature of this resource. The forests are scattered, vary widely in size and growth rate, and information is often incomplete. In addition, the decision to harvest is based on the personal circumstances of the owner and is often influenced by non-economic factors, and landscape or conservation considerations can greatly influence harvesting decisions.

Forest wind risk modelling
Wind damage is a major natural hazard to plantation forestry in both New Zealand and the UK. The collaboration between FRI and the Forestry Commission Research Agency has focused on developing a fundamentally-based wind risk model to replace existing hazard-based schemes. The completed model will predict both the site wind speed at which a stand will fail, and the probability of that or greater wind speeds occurring. Forest managers will be able to use the model to evaluate site, species and management actions in terms of the risk of wind damage to forests.

TECHNICAL NOTE

A fly in the willows

Chris van Kraayenoord

Willows in the Auckland area have been stripped of foliage by an insect pest hitherto not known in New Zealand. It has been identified by Landcare Research as *Nematus oligospilus*, a willow sawfly.

The sawfly was first noticed defoliating a weeping willow and a tortured willow in South Auckland in mid-February, and a subsequent survey by the Ministry of Agriculture showed that it was present throughout the greater Auckland region, from Albany to Mangere. In early April, an infestation was discovered on golden willow in Rotorua. It is not known how and when the sawfly arrived in New Zealand, but its widespread occurrence indicates that it has been present in the country for at least two years. It is therefore regarded as being established and that it cannot be eradicated anymore. It is here to stay!

Nematus oligospilus is native in Europe and North America, but has now spread to the Southern Hemisphere. In 1992 it was recorded for the first time in South Africa where it attacked weeping willow and crack willow. The same sawfly or one very closely related appeared in 1980-81 in Argentina, and in 1984 in Chile. It showed extensive and rapid spread in Argentina, moving 3000 km in 10 years, or 300 km a year.

A female sawfly can deposit up to 60 eggs in tiny slits on the underside of leaves. The emerging larvae, which resemble but are not true caterpillars, concentrate in large numbers on the leaf margin, from where they feed inwards, afterwards leaving only the midrib. The larvae pupate in the soil. Depending on climatic conditions, the average life cycle is one month. There are generally up to four generations a year.

The fact that there are several generations a year, and there are no natural biological control agents, will mean that population build up can be extremely rapid, and severe infestations can be expected in the future. An impact assessment report by the Ministry of Agriculture suggests that the insect is well adapted to New Zealand conditions and could have a major impact on willows.

Allan Wilkinson, a HortResearch poplar and willow scientist, has emphasised the national importance of willows. They are used for river and stream bank protection (many thousands of km), for hill-country erosion control (500,000