

missed: if it had been taken it would have attracted wood-processing plants to utilize what would have become a huge timber resource, and in so doing farmers would have been stimulated to manage their wind-breaks for the dual and compatible objectives of shelter and timber.

Other points to emerge from the meeting and worth emphasizing were:

- (1) There is universal appreciation of the complexities of shelter research, the requirement to apply existing knowledge more fully, and the need for further research on many topics.
- (2) The latter include optimizing design criteria for intensive systems of shelter, more specific information on individual crop and cultivar responses to wind protection, and determining the contribution

of wear and tear on leaf surfaces from mechanical abrasion by wind to lowered plant productivity.

- (3) Variability of crop response to shelter highlights the need for experimental approaches to be more systematic.
- (4) However, prediction of shelter effect on crops depends on understanding the interacting roles of elevated leaf temperatures, altered plant water relations, wind-induced abrasion of leaf surfaces, and mechanical excitation of plant parts from wind action.
- (5) Progress has been made in the USA on genetic selection and improvement of tree species and provenances with better shelter attributes, including growth rate, crown form, drought tolerance, cold hardiness, and adaptability to poor soils.
- (6) There is increasing awareness of the need for informed, co-ordinated extension and

improved shelter standards. Denmark appears to be the best example of a country with a well co-ordinated and well managed national shelterbelt scheme integrated with the country's agriculture.

- (7) General agreement on the need for an international journal as a forum for publishing papers on diverse aspects of shelter.

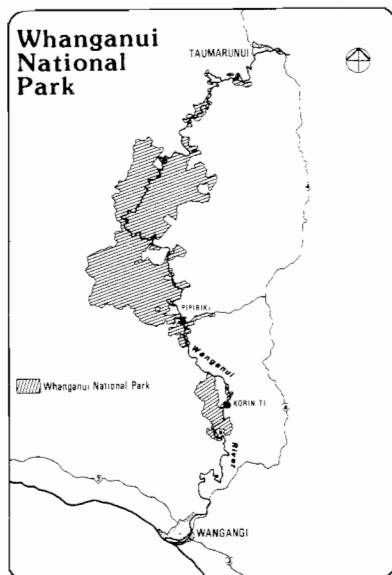
The value of such gatherings lies at least as much in individual contacts and discussions as in the formal sessions. The meeting was the first to have so many scientists and extension workers with common interests in shelter in the one place. Overall, it was judged a success and another meeting is proposed for 1990. A book of edited papers from among the invited contributions is to be published later this year by Elsevier Science Publishers, Amsterdam.

**J.W. Sturrock**

## THE WHANGANUI NATIONAL PARK

New Zealand's newest National Park was created by Order in Council on December 6, 1986, and officially opened on February 7, 1987. The Whanganui National Park is centred on the Wanganui River (see map) although the Wanganui River bed is excluded from the Park. However the river is a major access route, being heavily used by canoeists and other boats. Land for the Park came from scenic reserves (46%), inalienated Crown land (50%), and State forest (4%). The park has an area of 74,231 hectares.

The new Park is a fitting tribute to this centennial year for National Parks in New Zealand and also to the formation of the Department of Conservation. It is also a reward to the efforts of many people interested in the beauty of the river and who have been associated with the earlier efforts to preserve its scenery.



From Centennial Contact March 1987.

## LETTERS

### Forestry education

Sir,

A recent contributor to your Journal (G.B. Sweet, November 1986) in an article entitled 'Technical Forestry — A Chance for Change' suggests the disestablishment of the New Zealand Forest Service represents a chance for change within forestry education in New Zealand. I would like to suggest the facility for change should always remain with us and moreover that change once embarked upon should be protected from chance.

Considering the disestablishment of the Forest Service to be an event involving both change and chance I find the recent expansions in both teaching staff and buildings to the School of Forestry at Canterbury to permit around 45 graduates a year compared with the previous capacity of 30 graduates to be inopportune and probably unwarranted. I base this conclusion on the NZIF Education and Training Working Party's figures for graduate and ranger/technicians (respectively 15 and 26 per year) and that the current curricula offered by the School are obviously more suited to the production of Foresters than Rangers/Technicians.

Addressing the wider issue as to what form of technical forestry education should take and the related issue of where in New Zealand that education should be provided, I find that in terms of their respective curricula, teaching staff, and teaching environments neither the School of Forestry offering B. For. Sc. nor the Forestry Training Centre offering N.Z.C.F. currently has the facility to provide the single technical forestry training indicated by your correspondent. If a

search for a single technical training system were to be undertaken then perhaps a survey of potential employers conducted by NZIF or some other unaffiliated body could be used to determine requirements concerning technically trained personnel. This suggestion is made since both educational facilities have the ability to pre-empt the actions of the other.

The non issue as to where tertiary forestry education should take place in New Zealand should have been resolved prior to 1968 (the year of reopening of Forestry School at Canterbury) by following the planters rather than historical precedence. The then principals of Canterbury University are to be commended for their anticipation of the need for tertiary training in forestry; greater however would be the commendation had they recommended Waikato as the most suitable location.

**L.R. Broad**

### Focus on skills

Sir,

It is my sincere hope that everyone remotely concerned with the profession of forestry carefully read the recent article on education in forestry by Dr Geoff Sweet. Given the accelerating rate of State and private industry resource management reorganization, it is timely and vital that we focus on the skills that both new graduate apprentices and existing staff require during this evolution.

Surely if the Institute is to currently put energy and money into addressing any 'national' issue it should be to widely canvass its members on the issues of:

- The standards and achievement levels to recognize of available tertiary forestry education in New Zealand.