interpretation. He was a good and wholly professional forester. He was also a very kindly man who looked after his staff well.

He had a distinguished career in the NZ Institute of Foresters, being Vice-President in 1967-68 and President in 1969-70.

After his retirement he became Chairman of the Soil Conservation and Rivers Control Council and a member of the Water and Soil Authority, the second retired Director-General to do so. For this and his Forest Service career, he was awarded the Oueen's Service Order.

Malcolm had been ill for some years and a few months before he died he contracted motor neurone syndrome; it was in some ways a relief to all that he died peacefully without a long period of crippling illness.

A.P. Thomson

Membership **changes 1994-95**

Between July 1, 1994 and June 30, 1995 an additional 72 applications from new or returning members were received and approved by Council. There were 13 resignations or deaths. Members' names are listed below. A number of advancements from Associate to Full member status were also received and approved. These may be published at a later date.

Applications

Adam K., Aitken C., Beech J., Birk E., Brown R., Cadman A.L., Cossens G., Dakin A.J., Davies-Colley P., Derks J., Donaldson B., Estcourt M.J., Falloon J., Farman G., Ford C., Garden E.R.H., Gillett P., Greer A.J., Grimmett R., Guild B., Hollinshead P., Hornby J.V., Houston P.A., Howe R., Inglis M., Keenan S., Kennedy C., Kingi W., Kovacic N., Larcombe R., Lissington P., Lovell R., Manson P., McMiken C., Melhopt P., Merriam M., Nash K., Ogle R.M., Pannell M., Parsons R., Pascoe J., Perry B., Pope B., Reid A.D., Riddell N.A., Rogerson A.G., Rolls S., Sands Professor R., Schipper F., Shearman W., Sherratt R., Slui B., Smith T., Souness J., Speirs J.A., Spiers R., Stafford J., Tapley M.J.L., Tapper R., Te Morenga L.A., Temple S., Thum R., Wakelin S.J., Wakelin M., Walker S., Wealiens K., Webster R., Weterings R., Weytmans K., Winthrop L., Woods N.G., Wybourne M.

Resignations

Clemett N.L., Cowan M.A., Depta D.J., Duff G.C., Eder N., Jacks Dr H., Lewis J.T., McKeesick H.A., Moore T., Nicholls M.C.P., Poole D.J., Smith M.F., Ure J.

Gowan (Pat) Duff

Pat Duff was born in Edievale, South West Otago, in 1910. He died at Rotorua in November 1993. Pat completed a forestry degree in the early 1930s, the deepest years of the Great Depression.

Initially, he assisted his father with a short-lived country newspaper but by the time of the outbreak of war in 1939 he was employed by the Forest Service.

Joining the armed services, he was fated to be captured in the disastrous Greek campaign. Sergeant Duff and a like-minded companion refused to surrender with a large group who were under orders to do so. They slipped away, holding on to their arms in further defiance of instruction. Sadly, they were captured within days, trying to arrange an escape

A long and filthy train journey later Pat commenced four years as a prisoner of war in Germany.

Repatriated in the closing year of the war, he soon renewed his forestry career and in late 1945 was assigned, at Rotorua, to Priestley Thomson. Priestley was then in the field preparation stages of planning the first comprehensive survey of indigenous forests. Headquarters for this enterprise was the fledgling Forestry Training Centre at Whakarewarewa. The centre was a short time later to be the nucleus of the Forest Experiment Station, forerunner

of the present Forest Research Institute.

The first field work for the National Forest Survey was carried out by Forester Duff and Ranger Bob Lawn on the Mamaku plateau. They were pioneers of a project which spanned ten years and became something of a legendary exercise in forestry circles and beyond.

Pat Duff's association with the survey was soon to go from the early field work into the core of the wider scientific endeavour and community which formed the young Forest Research Institute. The necessity to refine volume tables for native tree species and provide statistical work for presentation of the large volume of raw data beginning to be generated by field staff of the survey led Priestley Thomson to initiate a mensuration section. He appointed Pat to lead it.

This move set the course for the following 28 years of Pat's working career. As a senior Scientific Officer he provided lengthy guidance of dedicated people who laid solid foundations for the present era of computer-based forest mensuration.

Pat was a great conversationalist. His interests were wide; his general knowledge and measured opinions commanded respect. Foremost among his outdoor pursuits was deer-stalking. Here he reflected

(Continued on page 44)

Institute AGM and Conference 1996

The 1996 Conference will be hosted by the Otago/Southland Section and will be held in Invercargill.

Dates:

Monday 29th April to Wednesday 1st May, 1996

Venue:

Ascot Park Hotel/Motel, Conference Centre

Theme:

Alternative Approaches to Forestry

e.g. Species, Management, Decision Making, Multi-use

Planning for the conference is well "on track" with a number of sub-committees appointed and working well.

It is hoped to make this conference an exciting one with a difference. The theme chosen allows scope to address subjects which it is hoped will encourage some lively discussions.

Please make a note of these dates and endeavour to be there to not only attend an enjoyable conference, but to partake of some real "Southern Hospitality".

After the conference stay awhile and visit some of our scenic attractions such as Stewart Island, Te Anau, or how about Queenstown, and flying home from

Bye for now, and more news in later issues. But remember - Invercargill for '96.

P.F. Parker J.A. Smith Joint Section Secretaries a passion of his distinguished journalist father. It is not difficult to imagine the pleasure wilderness spaces brought to a former long-time prisoner of war. His regular companions on such forays came to value the opportunities they brought for stimulating discussions on many subjects

of import. He was an excellent shot and could hold his own with an armourer on the subject of sporting rifles.

Pat raised a family in Rotorua and his third son, Alan, is a household name.

Pat's love and respect for literature and language, with his father's before him, has created a legacy which has furthered a strong family contribution to New Zealand social history.

And Pat himself played a notable part in the history of research in New Zealand.

Des O'Leary

* NEW INFORMATION &

Research helps to resolve high-country controversy

Researchers from Lincoln University and the New Zealand Forest Research Institute (NZFRI) have developed new techniques for demonstrating the visual impact of forestry in the South Island high country.

Funded by the Foundation for Research, Science and Technology, as part of a programme to determine the impacts of possible scenarios of land-use change in the South Island high country, researchers have aimed to generate visually authentic images of the various scenarios with low-cost computing equipment.

Visualisation is a rapidly growing tool in landscape architecture and the Resource Management Act has increased the demand for accurate and cost-effective techniques. The images are being used to investigate the attitudes of stakeholders towards the effects of different land-use options involving exotic forestry.

The research draws on the NZFRI research into forestry in the high country, geographic information systems, resource forestry and forest economics. Lincoln University contributes expertise in computer visualisation, landscape architecture and rural sociology.

Lincoln's head of Landscape Architecture, Simon Swaffield, says the images enable researchers to present assessments of visual impact which are accurate and defensible. The images have enabled researchers to identify preferences for specific landscape scenarios. Groups surveyed to date include runholders, conservation groups, rural businesses, tangata whenua and local government.

The site chosen for the scenario visualisation is on the western shore of Lake Pukaki. It is currently almost entirely unimproved tussock grassland, with a limited area of improved grazing. The five scenarios modelled were all based upon extensive land uses involving forestry and grazing. All were modelled as they would appear in 50 years' time.

"The techniques that have been developed help us understand better the basis for conflict over the use of exotic species in areas such as the Mackenzie and Waitaki basins," Dr Swaffield said.

"The detail which we are able to show people is enormous. They can see pictures of trees of the exact species, size and condition and in the right perspective on the landscape."

The research began by developing a series of two dimensional "cut and paste" images using a widely used computer program, Adobe Photoshop, that showed different land-use options. In the first stage of the survey, undertaken in 1993, respondents were provided with a limited amount of additional information relating to economic, social and ecological effects and asked to rank the options in order of preference.

The second stage of the research, undertaken by Dr John Fairweather of the Agribusiness Economics Research Unit, identified themes in the responses and the researchers used the information to develop more detailed three-dimensional

images of five distinctly different scenarios preferred by different stakeholders.

The regional economic and social effects of these five scenarios were then modelled in detail, and this information was presented to stakeholders. This enabled researchers to interpret the factors that affect people's preferences and attitudes, and the conflicts that they can cre-

Dr Swaffield said previous approaches to visualisation of forestry options in the Mackenzie had used manual illustrations which required people to make an interpretation of highly subjective images of proposed land-use scenarios.

'While there is still more work to be done to improve the authenticity of the images, with this technique people are able to make a judgement on a scenario such as extensive plantations with confidence that what they are seeing is pretty close to what it will actually look like.

"The response from high-country stakeholders has been very positive. We believe it offers a major step forward in understanding and addressing conflict over high-country land use."

Forestry's contribution to **New Zealand's GDP**

FRI has launched a new research programme to quantify the New Zealand forestry sector's contribution to GDP. The output of this research will be able to be used to develop and promote the planted forest sector's contribution to the economy.

The research (funded by the Foundation for Research Science and Technology) is being carried out by a trio of FRI scientists - David Evison, Bruce Glass and Bruce Manley - and Hugh Bigsby at Lincoln University. It will be completed by June 1997. The first phase of the project is the development of a model for the

Programme manager David Evison says the team essentially needs to add economic data to the FRI/Ministry of Forestry's national supply model. "We are seeking the assistance of NZFOA members in collecting the necessary economic data.

"Broadly speaking, we require indicative costs for the regime categories and the wood supply regions described in the