



BUSH TELEGRAPH



Tree Top Visitors

A three year study of the damage that defoliating insects inflict on the crowns of jarrah began near Manjimup last month. Ian Abbott and Paul Van Heurck of the Research Branch, Como used a cherrypicker (photograph) to study insects and leaves 11 m above ground level

Some 360 jarrah leaves were tagged at twelve localities within a 50 km radius of Manjimup, and the insect damage on them was traced. This study complements one begun last November with 600 leaves of jarrah ground coppice at twenty localities near Manjimup.

Leaf Miner was of course not yet present but caterpillars of the Gumleaf Skeletonizer (Uraba lugens) were eating jarrah leaves in several stands. In Poorginup, Long and Rocky blocks these caterpillars were so dense in the upper canopy that most of the area of the old

▲ Three in the hand are worth.....?

leaves had been reduced to the midrib. A continuous rain of their faecal pellets was audible.

One new and interesting find was the caterpillars of the Emperor Gum Moth (Antheraea helena, photograph) in Poole and Poorginup blocks. The moths but not their larvae have been collected previously by Steve Curry near Dwellingup and Manjimup.

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FAREWELL F.D.



THERE WILL BE A "FAREWELL - FORESTRY" SUNDOWNER AT THE SHQ FROM 4.30 - 7.30 ON FRIDAY 22 FEBRUARY.

SOCIAL CLUB MEMBERS \$1.00 NON MEMBERS \$4.00 - EVERY BODY IS WELCOME. REFRESHMENTS AND DOOR PRIZES THE ORDER OF THE DAY.

EDITORIAL

Although the effective combination of the National Parks Authority, the Wild Life Division and the Forests Department is still a couple of weeks away some people in the three agencies have already got to know each other well.

They have been involved in planning various sections and regions of the Department of Conservation and Land Management.

In order to expand that communication the last issue of Bush Telegraph was included with the distribution of INDAT No 5 to all staff included in the amalgamation, and you can expect it to arrive every fortnight from now on.

A regular staff newspaper, Bush Telegraph is designed to keep everybody within the Department informed and in contact-to promote a team spirit.

With the pressures of specialization and isolation in an operation designed to conserve and manage the land of Western Australia the paper has an important role to play in the communication process.

As a part of that process I would welcome your participation. Bush Telegraph needs contributions (300 words), original cartoons, photographs with captions, club talk, staff gossip, and letters.

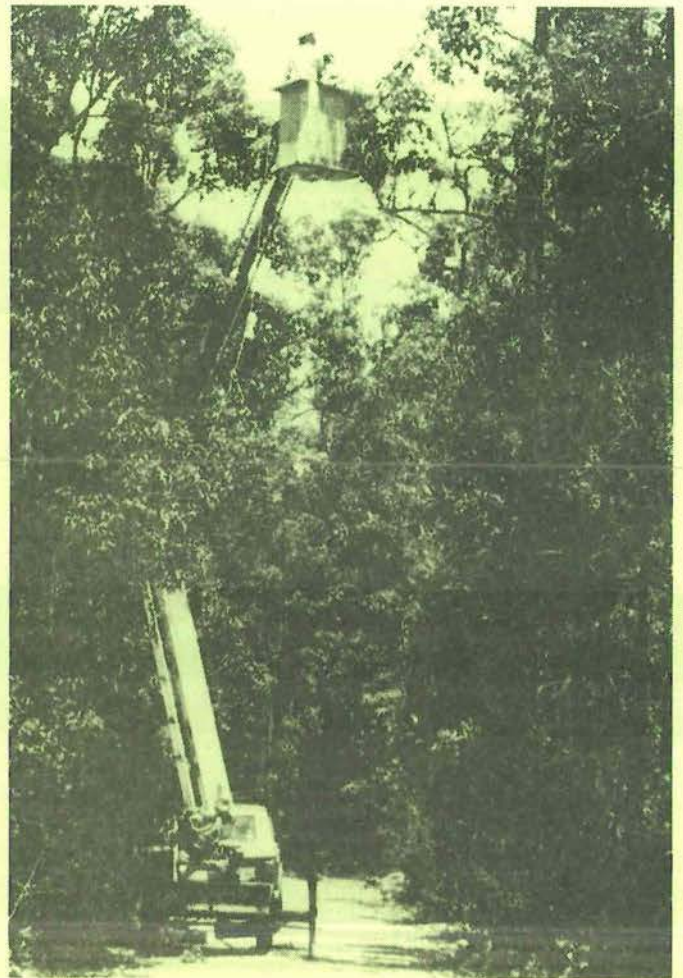
During the weeks and months to come there will be adjustments to make. New faces, new places to work and new jobs to do as the various branches, departments and regions fall into place.

In time, we will all get to know each other-as we work together. In the mean time, Bush Telegraph can help with the introductions.

Ian Kay Editor

"Bush Telegraph" is the staff journal of the Forests Department in Western Australia. Any views or opinions expressed do not necessarily reflect those of the Department and articles published should not be taken as statements by the Department or the West Australian Government.

All enquiries and comments should be directed to Ian Kay, the editor, phone Como HQ ext. 327.



▲ Ian and Paul with their heads in clouds.

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In Poorginup block there were four or five caterpillars on each advance growth of jarrah. They were beginning to cause a dramatic reduction in leaf area.

Damage caused by Leaf Miner (*Perthida glyphopa*) occurs between May and October.

Ian Abbott.

IN FOCUS

Fifty three officers who regularly use computer equipment attended an eyesight screening test on 23 January, 1985. Seven of these officers will now have to attend a full clinical examination on Thursday 7 March, 1985 in the SHQ Training Centre.

If, as a result of this examination, new spectacles are prescribed for use with screenbased equipment, the Department will cover the cost of basic lenses and frames.

WHO HAD THE BIGGEST ?

In the early years of forest exploration there was fierce competition between American and Australian foresters (and indeed between Australian States) concerning the 'ownership' of the tallest tree

In the April 1925 issue of Australian Forestry Journal, reference was made to giant flowering eucalypts discovered about 1896 on and near the shores of Lake Alexander in Western Australia. Chief-Surveyor F.S. Brockman of the W.A. Lands Department was said to have brought back some of their splendid scarlet flowers. Seen from a distance, these trees "looked like a scarlet tapestry spread below the hills".

"He took accurate measurements also, and found one tree, the King of the Forest, going 147 feet up sheer, without a bough, and 537 feet to the topmost boughs and crown!"

This would indeed be the King of the Forest

Not so, it seems. In the July issue of the journal that same year the claims were refuted after the W.A. Conservator of Forests, S.L. Kessell, had been consulted. He obviously found the article quote mystifying.

For a start, the description matched that of the scarlet flowering gum (*E. ficifolia*) but Kessell pointed out that, unfortunately for the contributor's thesis, this species reaches only 20 to 30 feet. Secondly, Kessell pointed out, the real giants of the W.A. forests are karri (*E. diversicolor*) and red tingle (*E. Jacksonii*), neither of which achieve the height that was given.

"No authenticated records are available in the Forests Department, Perth, concerning any trees higher than 300 feet."

Kessell was kind enough to suggest that "537" might be a misprint!

The tallest Victorian tree accepted as authentic was the Thorpdale Tree, which stood near McDonald's Track in the Parish of Narracan South. In 1884 a licensed surveyor, George Cornthwaite, measured it with clinometer and chain, then with theodolite, and found it to be 370 feet (113m) high. Some months later the tree was cut down for palings. "I measured it on the ground, 375 feet", said Cornthwaite, "the difference from the theodolite measurements being caused by the straightening out of the branches when the tree struck the ground".

It was many years later before Cornthwaite published his measurements. He saw no purpose in recording his measurement at the time, because he was told that others had measured trees 400 and 500 feet in height!

- From THE VICTORIAN FORESTERS NEWSLETTER. June 1984.

Ed: Californian Redwoods (*Sequoia sempervirens*) are reputed to grow taller than 400ft., but I haven't found a documented measurement to better 370 feet.

◀◀ ON THE MOVE ▶▶

Jan Sutton has returned from her stint with the Public Service Board. She will resume her duties in the staff office and Nadia Clark returns to accounts.

There have been a lot of staff changes in the Southern Region lately. Russell Walter has moved into the Manjimup Regional office from Kirup; Scott Wood arrived as a new A.D.F.O.; Sharon Moloney and Sharon Jones are now giving the boys a hand in I&P, and John Kain has arrived to take Jamie Ridley's (Mundaring) place.

Liz Bartuccio, Fiona Ward and John Serventy have all resigned from Manjimup research; Peter Walsh has been transferred to Nannup; Tim Bowra has moved to Kirup and Ian Wheeler (Mundaring) and Dave Lathwell (Dwellingup) have arrived at Research to take their places.

Last, but not least at Manjimup, Humphrey Herington has moved to Bunbury A.P.&I. and Barry Hooper has taken up his appointment as a first year ranger.

PARKS ON DISPLAY

Two identical graphic displays explaining zones of proposed land use are being exhibited in the South West this month.

One display has been mounted in the Government Information Centre, 32 Saint Georges Terrace, and the other is touring the communities of Manjimup, Pemberton, Northcliff and Walpole.

From 5 March the Perth display will be located in the Environment Centre, 794 Hay Street, West Perth.

Using maps, photographs and brief text, the displays visually expand the details of the Strategy for Management Planning released in December last year. They were organized by Cliff Winfield (Como).

The deadline for public submissions concerning the parks' management is 31 March, 1985. After the initial submissions have been investigated, a more detailed management plan covering all aspects of park use will be published for further comment.



▲ Gordon Chester with trial cuttings of radiata (left) and pinaster (foreground)

Bill Guest of Riverton examines the Shannon Forest / D'Entrecasteaux National Park display in the Government Information Centre, 32 St. Georges Terrace, Perth.



CUTTINGS FOR AGROFORESTRY

Growing radiata pine from cuttings has the potential to make enormous improvements in forestry in general and in agroforestry in particular. The process could save nearly fifteen years required to produce the same young plants from seeds.

Radiata grown under the widely-spaced conditions of agroforestry needs special features such as straight stems, fine branches and wood of comparatively high density. Pine families with these characteristics have been identified in progeny trials and improved techniques for raising cuttings now enable identical trees to be produced in large numbers at reasonable cost.

Eminent New Zealand farm forester, Neil Barr, suggests that even though cuttings cost much more than seedlings, they would save \$1200 per hectare within six years of establishment through reduced planting, culling and pruning work.

The amount of debris from culling and pruning would also be less, because only three trees need to be planted (instead of seven) to produce one crop tree.

There would be big gains in timber production too. Superior trees from cuttings will be more valuable because they are straighter, have smaller knots and produce a greater volume of wood than today's seedlings.

It is planned to introduce these improvements into agroforestry in Western Australia immediately. The level of interest is high (one hundred people took part in a field day of agroforestry trials near Mundaring recently), and several operational agroforestry areas are being planned by the Department in the Sunkland and on recently purchased farmland near Balingup.

The Government also seems likely to encourage farmers in the Manjimup region to try agroforestry. A 'farm' trial, run in conjunction with the Agricultural Department, is being planned for the area.

There are two main reasons why the Forests Department is involving itself with the new propagating techniques. Firstly, the C.S.I.R.O Division of Forest Research (Canberra) is terminating its work in this field, and secondly, we can't import cuttings from eastern Australia (because of the risk of introducing Dothistroma) unless stringent quarantine procedures are followed.

Both major requirements needed to commence the programme - the availability of suitable material from selected families and a practical technique for striking cuttings - have been organized.

Trevor Butcher (Como Research) has about 20 families of radiata with agroforestry potential in progeny trials and has access to seed of selected families in eastern Australia. Gordon Chester (Wanneroo Research) has developed a successful technique for raising cuttings and is confident that the technique will work on a large scale. The first 'commercial' cuttings will be taken this April.

Manjimup nursery has been chosen as a suitable location to raise the new trees. The area is cool, the Department's equipment is modern and it is fairly central to where agroforestry is likely to be practised. The number of cuttings required initially is 30,000 per year but it seems likely that the demand will be on-going and increasing. The work will be done by the Operations Section, in liaison with the Research Section during the early stages.

Two methods need to be used for raising the cuttings; one using stem cuttings and a second using fascicle shoots. In the first year of operation however only the stem cutting method will be used. The equipment for the fascicle shoot method will not need to be setup until 1987.

- Richard Moore.

EUROPE IN A NUTSHELL

The following article is an extract from a recent issue of 'Green Europe' - the newsletter published by the Agricultural Information Service of the Directorate - General for Information, European Community Commission.

It gives a thumbnail sketch of European forestry - its objectives and problems - and clearly indicates Australia is moving in the right direction with its initiatives in agroforestry, improved self sufficiency and the 'Green Australia' campaign.

Copies of the full report are available from Alan Hill on request. Ph. SHQ 218.

World context

Europe is less well endowed with forests than the world in general. Global forest cover is about 30 % of the land surface, whereas the Community's forest mantle is a little over 20%. Of a world total of some 4,100 million hectares of forest, the Community has only 0.85%, and its population of 270 million people have only 0.13 ha of forest per head. There is however a higher percentage in Europe of what is known as closed or dense forest.

North and South

What might be termed the 'Northern forest' type can be typified as being high forest, often even-aged, consisting of one or few species, managed largely to maintain a high growing stock volume. Its chief purpose is to maintain a supply of timber, especially for sawnwood, paper and board products. The management of this type of forest is usually an entirely separate activity from agriculture.

The 'Southern forest' type differs in form, purpose and management. Whilst the 'Northern' type exists even in small quantities in all member states, the 'Southern' type is limited to parts of France, much of Italy and most of Greece. It will become more important on the

accession of Spain and Portugal to the Community.

Seldom consisting of high forest in the accepted sense, the 'Southern forest' type usually serves as protection, conserving water and preventing soil erosion. It provides forage and shelter to grazing herds and throughout its extent suffers greatly from the risk of fire. In contrast to the 'Northern' type it is inextricably bound up in the agricultural life of the Mediterranean zone, so is seldom viewed as exploitable resource in the traditional 'Northern' sense.

Forestry is important

Forestry and the forest industries are important to the European Community. In economic terms the demand for forest products in the EEC constitutes a debit on the balance of payment through the drain on foreign currency. It also contributes to the depletion of natural resources elsewhere in the world, and these cannot easily be replaced. Demand continues to rise in the long-term and overseas supplies will become increasingly scarce and expensive as country after country bans log export in favour of processed timber, and the percentage of timber used as fuel remains high.

Europe must look to itself to produce more timber. It has long forestry traditions, and the physical and human resources to increase its forest estate and ultimately its timber production.

Some countries such as France and the U.K. already have policies to ensure improved self-sufficiency in wood. The Netherlands too has just amended its forestry policy to increase wood production from 10 to 25% of self-sufficiency after the year 2010. Greece has begun a similar expansion and other member states must do likewise whilst increasing the efficiency of present utilization and recycling of used and waste paper. Meanwhile, the science of genetics can also help.

ON THE SHELF



Aid to agriculture

Forestry can offer part-solution to some of the Community's agricultural problems too. The on-going dilemma over surplus products such as milk and beef, could partly be resolved by bringing trees on to the farm. This would provide much needed high-value wood which will ultimately be unobtainable elsewhere, while taking small areas of land out of agricultural production and, at the same time, provide useful employment for the work-hungry rural population. It must be stressed, however, that these are not instant answers and some research and experimentation will be necessary into :

- a) the lack of forestry tradition amongst farmers,
- b) the frequent antipathy of the agricultural population to forestry,
- c) how to finance the tree investment until the crops become productive, and
- d) how to organize the planning and execution of the work and the ultimate harvesting and marketing of the produce.

Public awareness

All this will of course be in vain if forests are allowed to go on dying from such causes as acid deposition. One effect of "Acid Rain" has been to focus public attention on forestry and make people begin to realise how important forests and their heritage are.

Forests, along with other green space, contribute greatly to maintaining our physical environment and the quality of our atmosphere. They supply large quantities of much-needed forest products, give space for physical and mental recreation for urban and rural populations alike, and add richness to the quality of the life in a myriad of ways. They should be safe-guarded, increased, and husbanded in order that we may utilize and enjoy them and their products in the future.

Latest release from the Publications branch is Technical Paper No 12 - Predicting Blow-up fires in Jarrah Forest - by Neil Burrows.

The paper discusses a number of characteristics of fire and the fire environment which may cause unexpectedly severe fire behaviour (blow-up) in the jarrah forest, and provides guidelines for fire fighters to evaluate potentially dangerous fire situations.

Over the years, fuel reduction burning in the forest has dramatically reduced the incidence of severe wildfires. Modern forest fire fighters in Western Australia are rarely confronted with explosive fires associated with very heavy fuels and severe fire weather conditions. However, any fire burning in dry conditions has the potential for rapid and violent build-up in intensity, or rate of spread, threatening the lives of unwary fire fighters.

Forest fires behave according to reasonably well understood physical laws. If fire fighters understand these interactions they will be better able to anticipate lethal situations.

Contact Robyn on ext. 329, S.H.Q. Como, if you need copies of any publications.

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The Western Australian Chamber of Commerce featured a delightful woodland scene on the cover of their 1985 Directory/Desk Diary.

The scene is a reproduction of the centrefold which appeared in Forest Focus No.25 and was the special choice of the Executive Director, Brian Kusel.

More than 2,000 copies of the Directory have been distributed to businesses in Western Australia and a number of copies have been sent overseas.



Departmental Headquarters at Como is getting a new neighbour. The W.A. Bush Fires Board will be located in a new building on the slope N.E. of the main group.

A small clearing in the pinaster pines has already been made and work is expected to start in early March.

The thirty staff members now housed in Victoria Avenue, Perth city, plan to move to Como by September, in time for the 1985-86 fire season.

John Deligeorges, the project architect (BMA), has worked closely with Wayne Schmidt (Landscape) to site the new building.

"The actual construction will be in the same modular/courtyard style as the existing headquarters", he said, "and it should blend in very well."

Four modules will house administration, operations, training and amenities.

The slope of the hill will allow for basement storage in the module adjacent to the road.

▲ Site of the new Bush Fires Board Headquarters.

W.I.R.E.d for women

The Women's Information and Referral Exchange in Perth provides ready access to knowledge and information of special relevance to women.

It aims to bridge the gap between the source of knowledge, the help and support available within the community and that offered by Government on the one hand, and women requiring the services but who lack the ready means to locate and use them, on the other.

Situated on the ground floor of the Superannuation Building, 32 St. Georges Terrace, the Exchange forms part of a network of similar centres in other major Australian cities.

The Exchange area includes space for seminars, conferences and office accommodation for women's groups, and these facilities are available free of charge on a first come, first served basis.

The Co-ordinator of the Exchange is Val Marsden. The Exchange's telephone numbers are 325 7777 (city) and (008) 199 174 for country calls.

Any woman can phone "W.I.R.E." from anywhere in Western Australia for the cost of a local call.

OOPS!!

Last issue there was a small slip in our lead story.

The karri thinning operation last year was valued at \$1 million in royalties and logging income. Sorry about that!