

Newsletter No 4 November 2003 ISSN 1176-1245

GUEST EDITORIAL

OUR UNIQUE NEW ZEALAND FORESTS

Gordon Stephenson is Patron of Tane's Tree Trust. He is one of those rare people, being one of our earliest and foremost conservationists. Yet he is also one who recognises the sense of developing some indigenous forests which are managed for a range of products, including timber. Gordon is also involved with Forest and Bird, the Maungatautari Ecological Island Trust, National Wetland Trust, Landcare Trust, Waikato Catchment Ecological Enhancement Trust, Farm Environment Award Trust and is past chair of the Waikato Conservation Board and past deputy-chair QE 11 National Trust. His interest in conservation grew out of tramping, owning a farm with bush on it, and a concern about what would happen to that bush if they sold the farm.

Nature seems to have a very strong urge to clothe the landscape with trees. Except for places of extreme climate or altitude or rockiness, there are few places on earth that, given an absence of grazing animals, would not in time be covered in forest. Trees predated grasses by many millions of years, and grasses thrive on grazing. This is, after all, the whole basis of grazing management, balancing the 'downward' thrust of grazers towards maintaining pasture against the opposite tendency towards reverting to trees and forest.

It is now evident that even our tussock grasslands are fire-induced, and are an ecosystem that had its origins in a forest type tolerant of low rainfall. Repeated firings starting about 700 years ago resulted in an induced landscape which is now admired for its special beauty, such as the tussock typified by central Otago.

Our particular New Zealand circumstances evolved, over tens of millions of years, a forest ecosystem that suited our islands extremely well. We are often tempted to think that exotic tree introductions would swamp our native forests. With very few exceptions (for example, Old Man's Beard, privet, or blackwood) this is simply not true. We tend to assume that because radiata grows so fast, it would become dominant. We should recognise that many of these introductions will not survive, long term, under the shady evergreen native canopies.

The regenerative power of our indigenous species is truly amazing. Who can remember the hills of Wellington 40 years ago? A sea of yellow gorse covered the slopes. Now, hardly any yellow and the natives are bursting through. The steep slopes of the King Country cleared in the days of the Land Development Grants are now reverting into manuka, then into other pioneer species. Our flora is superbly adapted to our environment.

It is our indigenous flora that is such a dominant character of our landscape. We have two juxtaposed scenic elements. One is the youth of our geomorphology. the mountains, rivers, wetlands, plains, where the recent history is clear to even the untrained eye. The other is the ancient origins of the flora. They are our particular ancient monuments and cathedrals. Our magnificent trees, the alpine gardens, the uniquely adapted wetland species, the coastal pingao, Muehlenbeckia and Hebe. These are what set us apart (from a non-human aspect) from the rest of the world.

A generation ago, it was difficult to find a native plant nursery. Apart from a handful of passionate individuals, few people had much appreciation of this side to our national character. It seems a remarkable omission, a legacy perhaps of that deeply felt longing among pakeha for all that was 'home'. The bush was an enemy, to be destroyed, almost feared. Among Maori, the forced separation from their origins

and migration to towns led to much loss of knowledge, and the intimacy that comes from trying to live in harmony with the environment.

Thank goodness there is a change. There is yet to emerge, however, a widespread recognition and love of our flora. Those who are the outspoken advocates are still regarded as "greenies". The shift towards our natives has yet to become mainstream. The change in attitudes has been seriously delayed because our native trees are still regarded as more decorative than useful. This regretful stance originated in the early mistaken studies of speed of growth in the early 19 century. In fact, many of our natives are harvestable

in a rotation as short as some commercial timber species in the northern hemisphere, a fact which needs shouting from the rooftops.

In changing the attitudes, Tane's Tree Trust has a crucial role to play. The Trust has to advocate and demonstrate that our very own and special trees have an important place in the landscape, as timber, as shelter, as erosion control, as part of and habitat for our biodiversity, and as contributors to a landscape that tugs on our heartstrings and tells us 'this is New Zealand'.

Gordon Stephenson

TRUST ACTIVITIES (June to November 2003)

Website:

This is now operational at www.tanestrees.org.nz but we have not yet got much material on to the site. Keep an eye on progress here as we are trying our best to make it more useful.

Sustainable Farming Fund:

The Trust applied to the last round for funding to undertake three projects and were disappointed to be successful with only one. However we will be trying again in the next round which closes on 2 February.

Our successful bid - "Opportunities for Native Trees on Farms"-was put together by Mike Dodd of Agresearch. Also involved and/or contributing funding are Tane's Tree Trust, Environment Waikato, Landcare Trust, Agresearch and a number of farmers around the Waikato.

The objective of the work is to: -

- Collate practical experience and science-based information about planting natives
 on farm sites. This involves carrying out a series of targeted interviews with farmers and
 consultants about the use of natives integrated with current pastoral and other rural land
 uses. A series of general-invite workshops will glean additional practical experience at the
 regional level.
- 2) Engaging small groups of farmers in selected catchments to focus on opportunities for using native trees on farms. The big challenge is to involve land owners in the wider farming community not yet involved with planting native trees. Focus groups within selected catchments will be invited to consider the management practices derived from (1) and develop feasible land-use plans incorporating the use of natives to create options for long-term diversified production.
- 3) Examine the full costs & benefits of options within an ecological and economic framework. In tandem with (2) there will be an assessment of the economic and environmental implications for farmer and catchment systems.
- 4) **Disseminate the information learned to the wider rural community and policy agencies.** The information gained will be disseminated to the wider community by the use of workshops with local branch NZ Landcare Trust and NZFFA and a range of publications (eg. practical guidelines, pamphlets, posters) targeted at land managers.

Renewal of Subscriptions:

Subscription notices for the 2003/04 year were sent out at the end of August. Response so far has been good but a few have still not renewed. If you are one of these there will be reminder slip enclosed with this newsletter.

Kyoto: Mechanism for encouraging permanent (no harvest) forest sinks:

The government is proposing to recompense, with carbon credits, those landowners prepared to retire and replant land with trees that will not be harvested. At a meeting in late September the concept was discussed by MAF and Landcare Research (who put the proposal forward) with a range of industry representatives, including Tane's Tree Trust. We had previously submitted to MAF our response to the proposal and it was gratifying to find that the other groups were in agreement with us.

In essence, the message sent back to the Government via MAF is that it is a good idea but that the costs incurred by the landowner will be too high to encourage a great uptake of the scheme. Our strong recommendation is that the scheme must include the opportunity for landowners to establish forests for production, both indigenous and exotic. The overriding requirement would be that forests established for this purpose must be managed under Continuous Cover principles; i.e., extraction must be by removal of single trees or small groups of trees.

So far we have had no feedback from MAF but hope to have something to report in the next newsletter.

Strategy and Funding:

At the end of September the management committee gathered in Hamilton for a day to discuss the vexing issue of fund raising and to consider our long term strategy which needs to be updated.

We were assisted in our discussion by Daphne Bell of Trust Waikato who provided us with several good ideas which we need to follow up. Several of these are underway and others will be discussed further at Trust meetings. One factor which came though was that it may be easier in the long term to concentrate on many small amounts of funding –for specific projects- rather than continue to seek a major sponsor.

TIMBER TREES OF THE FUTURE

TANEKAHA (Phyllocladus trichomanoides)

HISTORY

The Maori made fairly extensive use of tanekaha. The double pointed spear, koi koi which was about 2 metres long was made of tanekaha, doubtless because it is one of the strongest and most flexible native softwood. Other Maori uses were in canoe and house structure and the bark was used as a source of red dye. Tanekaha was also used medicinally by the Maori, as a liver tonic and treatment of dysentery and vomiting. Early European use was as sleepers, marine piles and pit props. Its strength meant it was also useful for bridge decking and heavy roof timbers. Its properties also made it a useful wood for agricultural machinery like hay sweeps. Occasionally joinery was also made from tanekaha.

DISTRIBUTION

Tanekaha is a warm temperate species mostly confined to the North Island north of a line from Mokau to Mahia Peninsula (latitude 39°). It is also found in isolated locations in northern Nelson and Marlborough. The species grows on a wide range of soils, preferably well drained lowland alluvials or moisture retentive pumice. It is intolerant of poor drainage, especially on flat sites and requires reasonably high moisture level for good growth. On dry ridges in the north tanekaha is a common pioneer species but never grows into large tree. Grows well in scrub with overhead light.

TREE SIZE and GROWTH

Grows to just over 20 metres tall and up to 1 metre in diameter. growth rate in the few trials that have been done suggest that it is slower than kauri, reaching only 14 metres in height and 27 cm in diameter at 50 to 60 years. It is unlikely that the sites on which these plantings were planted are optimum for the species; if so fertile and well watered sites should produce faster growth.

TIMBER

Tanekaha wood is described as having well defined growth rings, whitish sapwood and orange – brown heartwood. The texture is fine and even and the figure lustrous. The timber is easy to air dry and moderately ground durable (10 - 15 years). It saws, machines and turns very well and takes a fine finish. Of all the native softwoods it is the strongest and most flexible. Timber characteristics, with P radiata figures shown in brackets for comparison, are as follows: -

Density:	610 kg/ m ³	(500 kg/m ³)
Moisture content: green	100%	(130%)
Tangential shrinkage -green to 12% m.c	3.6%	(4.7%)
Radial shrinkage	1.4%	(2.2%)
Modulus of rupture	106 Mpa	(90 Mpa)
Modulus of elasticity	11.4 Gpa	(9 Gpa)

POTENTIAL

Tanekaha, because of its high quality, deserves much more attention as a useful New Zealand timber species. In the north it regenerates profusely in association with kauri under manuka/kanuka nurse. Initial growth rates appear to be quite fast. However these sites, usually ridges and spurs, are frequently too dry in summer which appears to restrict growth. In this situation the species reaches little more than 15 metres tall and 30 cm diameter and the timber is prone to shakes. The occasional tanekaha growing in gullies adjacent to ridge sites can reach double the diameter, suggesting that moisture is a governing factor as far as good growth is concerned. If the optimum growth conditions for tanekaha can be determined it is expected that faster growth and better wood quality will result.

RESEARCH REQUIREMENTS

Main effort needs to be directed at determining the correct site conditions for optimum growth.

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THIS PAPER WAS FIRST PUBLISHED IN THE NZ TREE GROWER Aug 2003

Profiting from Biodiversity? - Reducing the impediments to planting native trees.

T ne's Tree Trust, in association with Action Bio-Community, Landcare Research, and the University of Waikato, ran two workshops in May to ask the question: What are the regulatory impediments and tax implications in planting native trees on private land, and how can they be overcome? The two workshops were held at the Academy of Performing Arts at the University of

Waikato, Hamilton, and at the Ministry of Economic Development in Wellington, and attracted a wide cross section of participants including landowners, accountants, local government staff, planners, and representatives from most government departments.

All over New Zealand, landowners are increasingly interested in planting native

trees on farms as they seek ways to use their land both profitably and sustainably. Natives are now being considered in place of exotic trees for erosion control, shelter, improving water quality, to bring native birds and bugs back to the farm environment, and sometimes as long-term, high-value timber sources. But many landowners stop short of planting natives because they think that regulatory hooks exist, for instance in District Plans, that will stop them from managing any native trees planted. They fear they will become more a burden than a benefit. As well, there are tax deductions available on planting pines for forestry that don't seem to apply to natives. So planting pines could benefit their bottom-line immediately whereas natives may not. Our workshops addressed the reality behind these perceptions.

Action Bio-Community's Glen Lauder facilitated the events and started each workshop off by setting the context. He argued that if the New Zealand public was going to make progress in increasing native plants and animals in our landscapes (one of the goals of the government's Biodiversity Strategy), then the economic realities of planting native species experienced by individual landowners needed to be apparent and positive.

Roger MacGibbon (Tne's Tree Trust, Natural Logic Ltd, NZFFA) outlined the problem further and suggested that the biggest problem was the pervading view of government agencies reflected in law and regulations that productive landuse should be separated from that promoting conservation. Instead. sustainable landuse should encourage land management in which both conservation and production could occur. He also summarised a study of the impact that District Plans have on what a landowner can do with planted trees. This was based on responses from 31 North Island District Councils. His conclusions were that few District Plans promoted the planting of native trees on farmland and that the rules in many Plans do not provide landowners with sufficient flexibility for the management of native trees. example, some Plans do not distinguish planted natives from natural vegetation so that the planted trees are effectively included in rules preventing the felling of natural stands. In these cases, any removal of planted trees for farm management purposes would therefore require a resource consent, a process many farmers would prefer to avoid, and one that would not be necessary if pines were planted instead.

Robert Schofield (Boffa Miskell) gave a planner's perspective on this problem and identified some possible solutions to improve the situation particularly with regard to District Plans. He suggested three areas of possible solutions improving the level of understanding about issues. removing unintended impediments in District Plans, and for Councils and communities to work collaboratively to find incentives to plant Improving natives. the level of understanding of Councils, landowners, and advisors could occur by ensuring that this issue is raised and addressed through workshops, newsletters, journal articles, etc. District Plans with rules that cause unintended impediments to planting native trees need to be identified and changed. Robert suggested that research to develop model rules on this issue for District Plans would be useful. Robert also argued that Plans should enable and encourage people to plant natives. There is increasing support for Local Government proactively encourage biodiversity enhancement in their areas.

The workshops also analysed whether planting native trees on farms or elsewhere might have tax implications. This differs whether the landowner is a farmer or a forester.

When a landowner is primarily in the business of farming, they can claim tax deductions for trees (including natives) planted for erosion or shelter. However, they can only claim up to \$7500 of expenditure per year on trees (including natives) planted for any other purpose. These other purposes may include planting for biodiversity values, riparian management, carbon storage, etc. Matt Hannah (Lewis Law, NZFFA) argued that this limit of \$7500 was restrictive and should be removed. particularly the importance considerina recognised for the purposes for which this planting could be directed.

Most forestry-related expenditure on land is tax deductible provided the landowner has declared and demonstrated they are in the business of forestry. However, the IRD has been basing its test of whether a landowner is 'in the business of forestry' according to a pine plantation model. Ron Gleason (IRD) outlined how the IRD determine this. Matt Hannah then argued that the IRD need to accept that indigenous forestry based on planted native trees can be a long term business but may have forestry systems that are different from that used for monocultural forestry. For example, these systems may establish a nurse species on sites into which the native timber species is later planted. Matt suggested that the IRD should broaden its definition of forestry to include indigenous forestry systems, and mentioned a recent case where a landowner had successfully argued this point of view.

An additional tax encumbrance to landowners was identified. Under current IRD interpretations, the value of all standing trees containing timber is taxable when the land is sold, irrespective of

whether those trees were planted or managed for timber. Several speakers questioned whether the IRD interpretation matched the original intent of the law in this regard.

These workshops were an important initiative in asking that the issues surrounding biodiversity on private land get taken seriously by local government and by the taxman. If New Zealand is to weave native plants back into its productive landscapes, then landowners should not feel economically disadvantaged. At the least, landowners need certainty about how regulations affect native plantings, and for tax laws to not discriminate negatively against the planting of natives.

Copies of the workshop presentations are available from Bruce Burns, Landcare Research, Private Bag 3127, Hamilton, burnsb@landcareresearch.co.nz. More information on Tne's Tree Trust is available from the Chairman, Ian Barton, 105 Cowan Rd, Hunua, RD 3, Papakura, ibtrees@ihug.co.nz or on its website www.tanestrees.co.nz

Bruce Burns

Some Early Experiences Establishing a Native Production Forest

Don & Helen Roberts

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Vision: "that in 100 years or more a manufacturer who wants a range of native timbers will be able to select particular trees which will be harvested to their specifications".

Site Description

The site is approximately 7 hectares of retired marginal hill country farmland in eastern Wairarapa. Current cover is a mix of rough pasture, regenerating scrub, and a smaller area of mature kanuka. There is wide variation in natural fertility from quality rich loam to hard yellow clay. The site is within 3 kilometres of the coast but not generally subject to salt effects. Rain usually only falls in useful amounts from the southeasterly quarter. Summer dry periods are normal and severe droughts can happen from time to time. The area periodically suffers extreme westerly winds. Frosts occur only a few times a year and are generally light and confined to the lower valley.

The Plan

The block was divided into smaller areas for planning/planting based on the combination of soil/cover/exposure/moisture factors. For each area optimum species were chosen. Planting was planned at 3 meter spacing, with nurse crop planting in open pasture areas. The 3m spacing is nominal, as more attention is given to getting the right tree in the right spot.

District Regulations

The local District Plan has a blanket ban, with minor exceptions; on cutting any native tree over 3 meters tall. After 12 months of negotiation with the Planning Manager, Chief Executive

and the Council a written commitment has been made that the next District Plan review will include a differentiation between natural and planted native trees.

Nurse Crop Planting

The first planting of nurse crop species, in 1998, consisted of five finger, lemonwood and tree lucerne. Six months later only 2 lemonwoods had survived! The devastation was caused by hares, deer, and a (normal) dry summer. From this the lessons learnt were (i)the need to protect against hares, (ii) the incredible devastation that deer can cause, and (iii) the need to use seedlings with a considerably greater root development to get through the summer. Some plantings of amenity seedlings confirmed that browsing animals would not damage ngaio. The ngaio also survived that first dry summer satisfactorily and grew quite vigorously. Subsequent nurse crop plantings have been largely of ngaio. The only disadvantages are that it tends to bush out for the first 2-3 years before gaining much height, it is somewhat subject to wind throw in exposed sites, is slightly frost tender.

Pests

Hares, rabbits, possums, deer are all present. Since the release of the rabbit virus browsing has been reduced considerably, while the Regional Council controls possums. The use of brodificum bait stations pulsed at two monthly intervals deals to any stragglers. Hares have proved difficult and expensive. After experience we have standardised mesh protectors to 900mm wide 50mm chicken mesh and 3 bamboo stakes for areas and species most at risk. These need only stay on for a few months. Both red and fallow deer are present. Whole areas have been wiped out overnight. We have tried three solutions. Encouraging local hunters has had minimal effect as the deer simply move in and out from neighbouring properties. We have used "Treepel", an egg powder/resin mixture sprayed on seedlings at planting. It does seem to stop the deer eating browse sensitive species and as a bonus also stops hares, although it does nothing for antler thrashing. It also has a tendency to burn young leaves on sensitive species such as kohekohe, rewarewa, puriri, and only lasts for 6 months and new growth is not protected. We have also tried 1.8m high chicken mesh to surround trees, like a larger version of the hare protectors. This works well. However it is expensive and very time consuming to install around every tree. After several years of frustration we are now building a 1.5 km deer fence around the whole block. A major expense not planned for but which if the project was to continue and succeed simply had to be swallowed. Of the species we have planted to date, by far the most resistant to any form of damage is rimu.

Insect pests have had a significant effect on only three species; kohekohe, totara, and titoki. Kohekohe seem to get attacked by slugs and snails but not to the point of killing the seedling. Titoki leaves seem to be eaten by a range of insects, which can virtually strip them and cause significant deformation, stunting and height reduction when the leading shoots are damaged. Totara have suffered major attacks in two years from stick insects with a major setback to its growth and form. We have been attempting control using daily digital techniques (thumbforefinger). Cicadas also attack young totara bark in the summer (laying eggs). It does not seem to happen to bark over 4 years old. Many trees have suffered directly from this but the worst situation occurs when stem boring insects enter the wound and ring girdle the tree under the bark causing death above that point. As form is badly compromised some pruning to encourage and develop a new leader will be required. About 5% of planted totara have been affected and there is apparently no easy effective treatment.

Planting

Planting of timber species includes totara(200), matai(200), rimu(200), rewarewa(100), puriri(30), kohekohe(15), titoki(20), miro(60), kahikatea(100), black beech(20), tawa(4), kauri(20). Of the 3 species whose planting started 4 years ago the best totara and rimu have grown 400mm in height per year and matai 300mm. Three year old specimens of these have just been pruned of split trunks and steep angled branches in the lower third while they are of a size to be handled by secateurs. Of the species started in the last year puriri are making the most spectacular progress of up to 1m. Black beech, tawa and kauri have just small numbers of test planting this year. In open areas rank grass and weeds have been hand released 1-2 times per year, except kahikatea, titoki and rewarewa which have been spray released. We expect to continue planting of most species for several more years, assuming they continue to do well. The only additional species planned at this stage is tanekaha. After the early disasters with root trainer stock we have experimented with various size seedlings and have

settled on using PB5 stock. Losses through the first summer have been very low using PB5s, with virtually none for all species except about 5% for rimu. It may well be that this is not even due to drought as we have found that rimu seems to have great genetic variations and even apparently identical seedlings in identical situations grow very differently.

In open areas with rank grass it makes planting easier if spot spraying is done 6-8 weeks before planting. As the topsoil layer tends to be compacted from years of grazing by bulls, planting involves breaking up that layer to a width of up to a meter. The planting hole is also slightly overdug and the surrounding grass screef placed in the bottom and covered with soil. Our strategy is to put a bit of extra work in initially and get them off to a good secure start. Over a ten year period there is a fair chance that one year a severe drought will kill a lot of that years plantings, but that is better than planting everything in one year and taking the chance of losing the lot. It also spreads the workload if, as in our case, you are doing it yourself. Planting at various times during autumn/winter/spring showed a much better survival rate on our early test plantings if we planted as early in autumn as there is sufficient moisture in the ground. This then gives the autumn and spring growth periods for the seedlings to get established before the first summer arrives. This strategy will be different for different areas.

General Thoughts

I am sure most people will say that the following comments are common sense. Unfortunately not being blessed with a lot of that commodity we made lots of mistakes, often ignoring advice from experienced people.

- We were advised to put marker stakes with our planting. We didn't. After hours of searching for seedlings in rank grass and scrub we now put bamboo marker stakes with every tree.
- Planting season is short and hard work. Anything that can be done beforehand is
 worthwhile. We now stake out our planting spots and spot spray 6-8 weeks before
 planting. Don't underestimate the amount of work in planting and caring for natives.
 Having planted pines previously we thought it would be a similar workload. Getting the
 trees on site is hard work. Planting is hard work. Protecting from browsing animals is hard
 work. Releasing is hard work. And it is all time consuming.
- If you have deer (especially fallow) on your property, sell it and buy somewhere else without deer before you embark on the project! Seriously, understand what pests are present and plan species/protection to deal with them <u>before</u> you lose seedlings.
- Get stock sourced from local seed if you can it may have a genetic advantage to survive local conditions better. Some nurseries do not properly harden-off seedlings. Consider taking delivery early and hardening them off yourself, especially if planting into open sites. Give your nurseryman your multi year requirements. He will appreciate this and grow them to your requirements and give you a better price. Our nurseryman now understands that we are planting for production not amenity and selects better form seedlings for us. With experience, develop your own guidelines for seedling quality from your nurseryman and be prepared to stick to them, don't accept or pay for inferior stock.
- If you are growing your own seedlings, as we are for all nursery and amenity trees and for about 50% of our timber species, be prepared for domestic violence as you gradually take over the garden and lawn with seed trays and PBs.
- Seek out and LISTEN to the experts. It is difficult to find much consistent literature on growing natives for production as most of what is known is in research papers and a few peoples heads. Be realistic what you can undertake in any one year, expect some setbacks, learn, share your experiences and developing expertise, but mostly step back every so often and admire and enjoy your efforts.

Acknowledgment

Without the encouragement and depth of knowledge of Greg Steward of Forest Research Institute this project may never have got off the ground.

PUBLICATIONS AVAILABLE

The following are available from Ian Barton

Back numbers of Newsletters 1, 2 & 3	\$1.00 ea	
Proceedings of the launch of Tane's Tree Trust (first copy free)	\$6.00	
Trees, Timber and Tranquillity Lindsay Poole's autobiographical book	\$20.00	
Tane's Tree Trust brochures (free copies to pass to others)	No charge	
Totara: Establishment, growth and Management by David Bergin	\$10.00 ####	
(first copy free to members)		
Indigenous Forestry: Sustainable Management. MoF & NZFFA (212p)	\$25.00	

Return Address: -Ian Barton, 105 Cowan Road Hunua R D 3, PAPAKURA

TANE'S TREE TRUST VISION

To see the majority of New Zealand landowners successfully planting and sustainably managing indigenous trees for multiple uses by 2020.

OUR OBJECTIVES

In order to realise the vision; the foundational objectives of the Trust are to promote indigenous forestry as an attractive land use option by:

- Consolidating and advancing the state of knowledge of an increasing range of indigenous tree species their establishment, growth, and productive use;
- 2. Maximising the economic incentives for establishing indigenous trees by reducing establishment costs;
- 3. Resolving legal and political obstacles currently serving as disincentives to the planting of indigenous trees;
- **4.** Building a network of knowledge-sharing amongst stakeholders.



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MEMBERSHIP OF THE NETWORK GROUP

If you become a network member then you will receive quite a number of benefits: -

- 2 newsletters annually
- Notices of all workshops/seminars
- Copy of the Trust's annual report
- Input into research directions
- Copies of free publications
- Discounted price for priced publications

<u>Subscriptions:</u> Ordinary members Family members

Corporate members



Subscriptions for the year April 1 2003 – 31 March 2004 are now due.