



## Mihimihi

*Kia ora e nga whanau o te Tuawhenua kia ora ano koutou nga whanau i tu i runga i te atamira o Te Hui Ahurei a Tuhoe, he mihi nui tenei ki a koutou a ki nga kaimahi hoki i mahia te mahi mo tatau i hoki ki te kainga ki te whakanui i te kaupapa...*

## Tuawhenua Timbers

The Trust has just completed a major stage in production of timber from the Tuawhenua region. We focus on dead and down trees for our forestry operation and use heli-lifting for recovery as this is the method that has least impact on the bush. Whilst we have done a number of batches like this over the last year or so, we are still learning about how to refine our operation. Our operation starts with finding the dead and down in our ngahere through to milling, grading and selling of our timber.



*Elvis Miki, Stoogie Ahuriri, Roy Edwards and Raymond Te Kurapa— the logging crew work as a team to process logs in the bush, ready for recovery.*



The operation involves:

- Finding the dead & down podocarps - rimu, matai, totara. We found a lot of dead and down by searching on the ground but took a chopper trip too to help establish the patterns in the bush and to locate the standing dead from the air. Standing dead trees are carefully checked for greenery and left there if we find any. Only completely dead or down trees are taken in this operation.
- Measurements, mapping and data management form a key part of the operation. We need to do this for managing the overall operation as well as to comply with requirements under the Forests Act. Trees and logs are measured and GPSed by the field team. Data on all trees and logs are managed in databases and in mapping systems by the trust office team Brenda Tahī and Wena Morehu.
- Logging is a crucial stage requiring special skill and hard work. A type of chain-sawmill known as a sawfish is used to cut the logs in ways to keep good log length whilst also being the right weight for heli-lifting. Logs are assessed for defect before they are recovered by chopper.
- Heli-lifting dead and down is a challenging stage of the operation, depending on team-work, clear communication and good safety procedures. The heli-lift team did a lot of planning with the chopper crew from Lakelands of Murupara to get their turnarounds to be as quick as the best in the country. Our team of Puke Timoti, Harry Te Kurapa, Roy Edwards, Stogie Ahuriri, Elvis Miki and Te Wha Moon gained a lot of knowledge and skill in a short time and now you could say they have cracked it! Ka pai ke ta ratau mahi!



*Puke Timoti, resourceful as our logging team is, uses a car jack to split open a huge log.*



*Logs after the sawfish has ripped through them. These will be stropped ready for the heli-lift operation.*



Milling of our logs is now well underway. We are using our Peterson Sawmill to produce timber for our buyers and have been working with them to understand their specific requirements.

Producing timber from the Tuawhenua forests is a challenging business, and we

are working hard to make it a viable proposition. We aim to learn from every experience so we can build a solid foundation for the future. We believe timber from our ngahere is precious - not just because it has come from Te Waonui a Tane but also because we put so much into from us here in the Tuawhenua—Te Manawa o Te Ika.



*This is the milling site at Para-o-te-ra, where we have been training some of the locals who are interested in the operation. Kaaho Tawhara, Darrel Svenson, Moata Tawhara and Raymond Te Kurapa are closely observing Taawi Te Kurapa on the sawmill . Heemi Te Rika-Hekerangi on the digger, helps to load the logs up to the mill.*

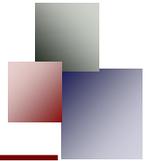


*Nick Mitai known for his wood work skills for hiveware in the beekeeping operation has here also used Tuawhenua timber (tawa in this case) for the wash bench in his bathroom.*

*We are encouraging the use of our timbers locally for a range of applications*

## ***Training & Development***

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One of our goals is to create jobs for the people of the Tuawhenua. In the last year we have created jobs on a full-time or project basis in our beekeeping and forestry businesses, in our projects and in our trust office. As we take on staff we are keen to train and develop our people. We have identified a wide range of training needs through our Oranga mo nga Whanau o Te Tuawhenua Project. We are driven in our programme of training and development for two reasons – so people can be successful in their jobs and so that overall we are contributing to developing the competency of the people of the Tuawhenua. Our training and development programme has been undertaken across our projects and businesses and covers a range of areas as outlined below.

### ***Skills in Honey Production***

As you would have seen in our last newsletter, we organised training for those who were interested in honey extraction. Of these, two trainees went into a short stint of work to do the extraction of 120 boxes of honey for the trust at a plant in Rotorua.

We are pleased that Te Uamairangi Rangihau and Bonney Smith will begin their 12-month Apiculture Course with Telford Polytechnic, with the support of the trust, starting on the first of May. Te Ua has worked the season as our assistant beekeeper and both he and Bonney are keen to increase their knowledge in beekeeping in readiness for the next season. They are also included in training

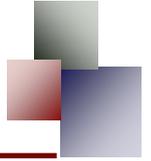
### ***Skills in Timber Production***

We have a number of people interested in learning about the production of timber – logging, heli-lifting, saw-milling and grading, etc. We have drawn on the knowledge of experts in this field and other resources to provide training in this area. Our own local experts have been passing on their knowledge and experience to lift the competency of our people in this area. We also supported our forestry workers to be trained and certified in first aid.

### ***Planning and Other Skills***

Our trust office staff have undertaken a number of courses ranging from Maori business development, project management, business strategy and GIS mapping. It's been a time for learning that has brought so much to what we do for our trust, as well as what we do for our hapu, whanau and other organisations in Ruatahuna.

We are also organizing training in business planning where we will take those whanau of the Tuawhenua who aim to set up a business through the process for developing their own business plan. This programme will start in May 2013.



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## ***Advanced Microsoft Office Skills***

Earlier in the year we met with Margy Biddle and Christina Kingi of the Waiariki Polytechnic and come up with a strategy for training and development in a number of areas for Ruatahuna. We have kicked it off by starting with advanced training in the Microsoft Office 2010 package which covers Word, Excel, Publisher, Power Point, Access and Outlook. We found that although we have this technology here in Ruatahuna, we don't necessarily know how to use it to its full potential.

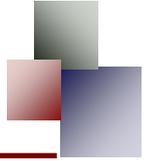
So far we have had 2 training sessions in Word with Margy Biddle who has shown us how to use the new features in 2010. Most of the local organisations had staff attending these sessions - the kura, Hinepukohurangi Trust, Tuhoe Tuawhenua Trust and the shop - as well as trustees from our local trusts.

We have been getting positive feedback from those attending and also interest from other people who would like to join in on the training. Unfortunately our facilities could not accommodate everyone at once. We just ask that you be patient whanau, we will be coming back around later in the year for those who are interested.



*Taima Teepu and Hinauri Roberts concentrating very hard while Margy Biddle monitors their progress and gives them tips.*

## *Did you know about Rata...*



There are two types of rata—northern and southern. Northern rata (*Metrosideros robusta*) is well known throughout North Island's coastal to lower montane forests and extends southwards as far as Hokitika. It is most common in the wetter hills of the King Country and Urewera ranges and is often still a chief component of the Taranaki forests. Records indicate that northern rata was once much more common in the southern North Island than it is now, but land clearing and depredations by introduced possums have resulted in its virtual extinction over large areas including the southern Ruahine ranges.

Northern rata is more frost resistant than pohutukawa but not nearly as tough as southern rata. It can be grown on infertile and dry soils, and will stand a fair degree of exposure to wind, but it is strongly light demanding and needs an open site devoid of competition for establishment and early survival.

### *Growth Habit & Bark*

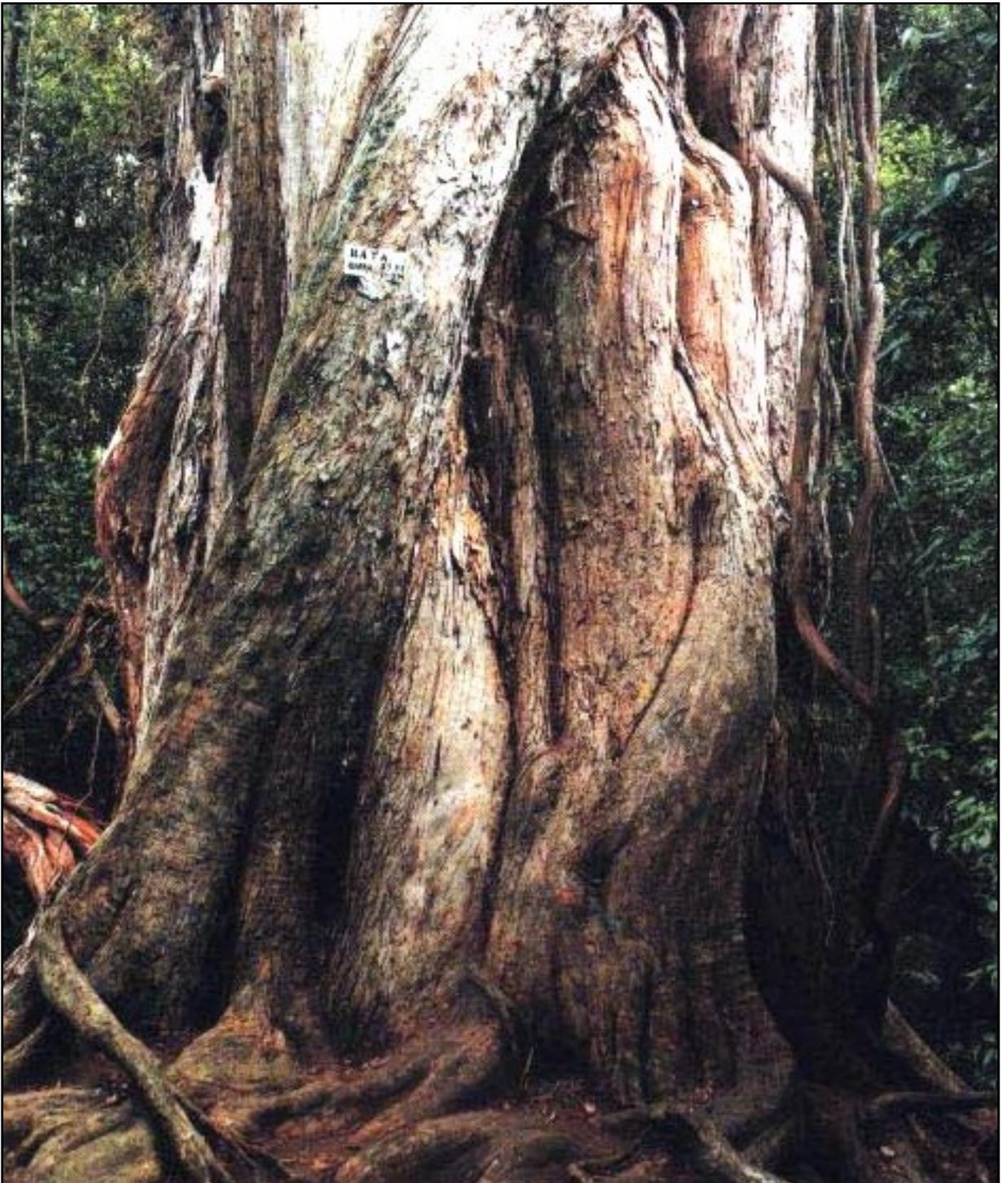
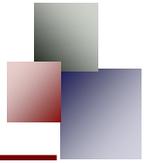
The unique growth habit of northern rata relates to the plant requiring a lot of light. It can establish directly on the ground provided the site is open and devoid of significant vegetation. Most often it begins life as an epiphyte (a perching plant). Being so strongly light demanding, its only option for survival in existing forest is to become established high up in the canopy of a suitable host tree. However it can also grow from the ground. In secondary successions this may mean becoming established on the trunks of tree ferns, but more often it commences life on the horizontal branches and primary branch forks of large forest trees. Rimu is the main host but kahikatea, and the hardwoods, tawa, pukatea, puriri and hinau, are frequent hosts as well.

The seed is minute and dust-like, and produced in great quantities. It is carried by air currents into the crowns of surrounding trees where it germinates in the litter produced by ferns and other abundant epiphytes characteristic of forest in which northern rata usually occurs. Nutrient and water supplies in the niche are limited and in time the rata sends aerial roots down the trunk of the supporting tree to reach ground level. Lateral girdling roots are given off the main roots as well and these have the ability to fuse and coalesce with other roots until eventually a cylinder is formed surrounding the host trunk.

When the host tree dies and its trunk decomposes, the aerial roots of northern rata form a hollow irregular, and often very large, pseudo-trunk which supports the massive elevated crown projecting above the surrounding forest. The crown of rata in turn is festooned with epiphytic plants adding to the weight of it so that it eventually collapses to the forest floor. Rata, like its relative, pohutukawa, have the ability to sprout root systems as and where needed.

The unusual growth habit contributes to northern rata being one of the largest trees in New Zealand flora. It commonly reaches 20-30m in height with the diameter of the pseudo-trunk often exceeding 3 m. Rata are very slow growing, and an aged one can be as old as 1000 years old.

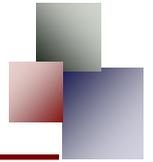
The bark of the pseudo-trunk and major branches is a rich brown to reddish-brown colour. The outer layers of the bark fall away in small flakes. The crown is dense, rounded in shape and appears vivid green in colour. Branchlets are short, somewhat angular in cross section and clothed in a thick mat of very short downy hairs. Rough and stringy forming a medium-thick, dry covering capable of protecting the tree from drought. The gnarled bark of the rata allows many other plants to cling to and perch on its branches throughout its long life.



*The rata tree has formed here from sending roots down from the top of a host tree and forming the massive pseudo-trunk over the join up of roots over time.*

## *Did you know about Rata*

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### *Flower*

The flowers, although smaller than its cousin the pohutukawa, are possibly more vibrant in colour. They range from rich brownish-red to dark scarlet. The petals are small, and the stamens, responsible for the magnificent floral display, are about 2-3 cm long.

Flowering occurs from late November to January, and the prolific production of nectar provides a food source for nectivorous birds such as tui, bellbird and kaka, which aid in pollination. The nectar also provides food for bats, lizards and a host of insects including the introduced honeybee. It is the rata that has given us bumper crops in Tuawhenua hives in a couple of seasons

### *Wood and Uses*

The timber is close grained, very hard and heavy and of great strength and durability, but totally destitute of figure. It is red in colour but shows considerable variation in intensity ranging from pink to brilliant reddish-brown. The large crooked limbs and roots were often used in the past for shipbuilding but it was not regarded as being as suitable for this purpose as pohutukawa. It proved to be an excellent timber for the heavy framework of railway and other carriages and for machine beds and bearings. Kirk, 1886 considered that its strength, toughness and durability made it vastly superior to the imported *Eucalyptus* timber for bridges, wharfs and other construction work. It is of note that the original Manawatu Gorge bridge, constructed in 1873, was partly from northern rata sourced in the vicinity.

It has also been used for fence posts, stock gates and yards, and it is well known for providing excellent firewood. It will burn green, because of its density, and green rata trees once kindled in the bush will sometimes smoulder for months. The timber has been used by modern-day craftsmen for turning but it is difficult to turn, especially across end grain. It cracks badly in seasoning but the colour holds well for years.

Northern rata was of great significance to our tipuna. Elsdon Best, 1942, records an important chief was often referred to as a rata whakatau or rata whakamarumarū. That means a shade giving or sheltering rata, alluding to the chief as the protector of his people. It is also provided medicinal benefits. A lotion made from the bark was used to treat wounds, fractured limbs and various aches and pains and together with rimu bark provided a very effective remedy for all sores on horses. A lotion from the bark was also used to treat ringworm and venereal diseases, and the fruit was taken for dysmenorrhoea. It is probable that, as for pohutukawa, the nectar was collected both as a food and for the relief of sore throats, and young leaves chewed for toothache.

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We would like to thank John Wardle, Wardle's Native Trees of New Zealand and their story and McKesser, K. and Sawyer, J. 1999 Northern Rata Fact Sheet, Wellington Conservancy for their interesting facts on the rata and Trees of Valley for their beautiful photos.