

The Magazine of the Friends of Pukekura Park

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Metrosideros diffusa flowering at the south side of the main lake

Photo Derek Hughes

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More Bark Beauty

Elise Smith

Peering very closely at the trunk of a European Beech tree (*Fagus sylvatica*) [1] in the planting off Upjohn Street, next to the Pukekura Park tennis courts, the presumed boring grey bark appeared in shades of gold and green, a cracknelled landscape of lenticels, furrows, and pits of air passages into the trunk. The grey trunks in the Chinese Garden at the Coronation Avenue entrance (Fuller Walk) showed remarkably specific textural variations, from the ostrich skin of the Chinese Bean Tree (*Catalpa fargesii*) [2], to rice-puff Chinese Tulip Tree (*Liriodendron chinense*) [3]. The Kauri (*Agathis australis*) has a smoother look, with scattered pimples, low ridges, and scars ringing the trunk. This one is on Flagpole Hill, beside Mason Drive [4]. A few metres away is an Incense Cedar (*Calocedrus decurrens*) [5] with reddish stringy bark. It was once thought to be related to the Kawaka (*Libocedrus plumosa*) [6 - Kindergarten Gully], New Zealand Cedar, but genetic testing proved otherwise. In its native United States west coast the Incense Cedar is a timber tree, being very suitable for pencils.

The Totara (*Podocarpus totara*) [7] pictured in Kauri Grove has ripples in the flaking bark, with long strips falling from the trunk, quite distinctive when compared to the jig-saw flakes of the Matai (*Prumnopitys taxifolia*) which reveal raw-looking patches of new bark [8 in Kauri Grove, 9 in Rhododendron Dell]. The name *taxifolia* refers to the *Taxus* Yew tree-like foliage, tough, dark, and spiky. Matai was not only a valuable flooring timber, but provided an antiseptic drink, “matai beer”.



The ghostly trunks of the Puriri (*Vitex lucens*) are easily spotted in the bush, smoothly pale and often with surface roots writhing on the surface [10 - Somerset Street]. Many show scars from the Puriri Moth (*Aenetus virescens*) [11 - in Kauri Grove]. The moths scatter eggs on the forest floor, caterpillars hatch and climb up the tree and tunnel into the trunk, covering the entrance with a strong silk cover, often camouflaged so well that the damage is unnoticed. Caterpillars live for six or more years in a deep tunnel inside the tree, feeding on the callus the tree produces trying to repair the damage. Adult moths live for only a few days. Old holes then provide shelter for other insects - wetas!

#11 *Vitex lucens*
Kauri Grove

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#1 *Fagus sylvatica*
Upjohn Street



#2 *Catalpa fargesii*
Fuller Walk



#3 *Liriodendron chinense*
Fuller Walk



#4 *Agathis australis*
Flagpole Hill



#5 *Calocedrus decurrens*
Flagpole Hill



#6 *Libocedrus plumosa*
Kindergarten Gully



#8 *Prumnopitys taxifolia*
Kauri Grove



#9 *Prumnopitys taxifolia*
Rhododendron Dell



#7 *Podocarpus totara*
Kauri Grove



#10 *Vitex lucens*
Somerset Street

Photos Elise Smith

The planting of Horton Walk

David Medway

Thomas Horton commenced duty as Superintendent of Pukekura Park on 1/7/1924 (*Taranaki Herald* 18/6/1924, p.3). "Prior to his appointment, the back row of pines on the John Street Walk, south of the sportsground, had been authorised for removal, entirely with a view to providing the necessary background and skyline of the future when the front rows of pines have lived their lives" (*Taranaki Herald* 26/2/1936, p.5). John Street Walk was re-named Horton Walk in 1949 (see below).



We learn from Horton's work diary for 7/7/1924-31/12/1925 (Puke Ariki - ARC 2003-860, Box 1, Item 17) that on 2/9/1924 staff from New Plymouth Sash and Door Factory and Timber Company inspected the pine trees to be felled on John Street Walk. The first of those pines were felled the next day. Over the next three weeks, Horton's staff and extra labour assisted the tree fellers by clearing-up behind them and cutting wood. On 22/9/1924, Horton noted that the bushmen and bullocks had gone. Work on felling and clearing pine trees had advanced sufficiently by 18/9/1924 when Horton ordered trees from Duncan & Davies Ltd for replanting the pine area. On 25/9/1924 he recorded in his work diary that "Kauri, Rimu & other trees arrived. Planted John St walk. Mr Morshead presented Tanekaha (*Phyllocladus alpinus*)". The felling and clearing of pine trees continued. By 28/10/1924, 35 large and 3 smaller pine trees had been felled (Horton's work diary). On that day, Horton advised the Pukekura Park Board that "Firewood left after felling a number of pine trees was being sold to the best advantage and he was hopeful that he would be able to derive income sufficient from this source to pay the greater part of the cost of the extra labour that had been employed.... Anxious not to miss a season he had had as much of the ground as possible where the pines were felled cleared up and suitable trees purchased and planted. About three hundred trees and plants were put in. The main feature of the John Street walk planting was an avenue of kauri, rimu and totara. Mr. F. Morshead, Messrs. Duncan and Davies and Mr. Bridgeman had donated trees and plants". The Board received a cheque from the New Plymouth Sash and Door Factory and Timber Company for £43 1s 6d, being royalty on pinus logs to 30/9/1924 (*Taranaki Herald* 29/10/1924, p.7).

It was not until 4/11/1924, two months after the first pines had been felled, that Horton was able to record that the "Men finished pine job" (Horton's work diary). He reported to the Park Board on 18/11/1924 that "tree-felling authorised by the board had been completed. Seven extra logs were taken delivery of by the Sash and Door Company. These he estimated would produce 2300 superficial feet of timber, making a total of over 30,000 feet taken by the company from trees recently felled. All the branches and other timber unsuitable for milling purposes had

From the Archives cont'd



been cut into firewood and a large proportion sold. He expected no difficulty in disposing of the balance. All that area where tree-felling had been done had been thoroughly cleaned up, and the greater part of it planted in native trees suitable for the position. The season was too far advanced to permit of the whole area being planted now, but he proposed preparing for the early planting of this portion next autumn” (*Taranaki Herald* 19/11/1924, p.4).

The felling of the pine trees on John Street Walk did not go unnoticed. “Giant Pine”, in a letter to the editor of the *Taranaki Herald* (20/10/1924, p. 5), noticed “with regret that the lofty giant pines are being cut down in the park. On many occasions I have stood and looked up at these great trees, more interesting on account of size than any other trees in the park to me.... The park will soon resemble a farm with stumps abounding... It is a great sight from a distance to see these pines and know it is the scene of New Plymouth’s beauty spot. I feel sorry to write on this subject, but feel upset to see these trees coming down....”. Support for this view came from no less a person than R. Clinton Hughes, “Father of the Park”, who wrote that “Giant Pine” deserved “thanks for drawing attention to the wholesale

Horton Walk today



Photos David Medway

destruction of giant pines in the park - the product of nearly 50 years' growth. As a member of the board I wish to disassociate myself from the system of tree-felling that has set in. While recognising that a judicious thinning out here and there of the pinus insignis is desirable, I must say that I have been much pained at the felling of the line of magnificent pines on the north side of John Street and of the avenue of pines leading to John St. from the tea-rooms. It seems to me there is too great a readiness to listen to the suggestions made by interested parties to cut down trees. The board is responsible to the community for the preservation of the trees so far as is consistent with the beautification of the park. It was at the suggestion of a person owning a section on the south side of John Street that the trees on the north side were cut down. Magnificent trees have been felled at the suggestion of the Jockey Club, the Cricket Club, and the Sports Ground Committee. The Tennis Club has had something done for it also, but its demands have been modest, and occasionally a neighbour comes along with a similar request. The park has claimed the admiration of noted visitors from abroad for its forest-like character, its steep slopes and high ground surmounted with magnificent trees - planted by those who doubtless thought they were planting for posterity. Sir Ryder Haggard was one of those who was loud in his praise of the pine avenue leading from the Carrington Road entrance. Any little town can produce its public gardens comprising lawns, well kept paths, flower beds and clumps of trees in a comparatively short time. How different is our park with its hills and gullies, lakes and flowing waters. I regret having to trouble you with this long letter, but I feel bound to record my protest, for one cannot tell to what lengths the present destructive tendency will go. I feel that even the Carrington Road avenue of pines is not safe. In the past I have been alone, or almost alone, in my objections. The future will in the ordinary course of nature - one can never tell how soon - impose a limit on my activities. Therefore while I can I desire to enter this protest." (*Taranaki Herald* 25/10/1924, p.6).

Horton reported to the Park Board at its meeting on 11/8/1931 that "Special attention had been given to the avenue of permanent trees on the John Street walk, and by the removal of growth these trees had every chance of developing into very fine specimens" (*Taranaki Herald* 12/8/1931, p.4). Five years later, in a report prepared for the Chairman of the Park Board, Horton mentioned the specific number and identity of the trees that had been planted on John Street Walk and nearby - "In order to fortify the hill behind the southern terraces of the sportsground, and behind the front line of pines, there have been planted 75 pohutukawas, 18 kauri, 20 rimu, 22 totara, 6 hoheria, 6 rewa-rewa, 8 libocedrus, 4 lawsonia, 3 Norfolk pine, 1 Wellingtonia, and 70 natives assorted for dense skyline, a total of 233 major and dense foliage trees ... An inspection of that portion of the park today, with its surprisingly vigorous growth of kauri, rimu, totara, pohutukawas, rewa-rewa, Norfolk pine, Wellingtonia, libocedrus, etc., with the dense new undergrowth is the subject of most favourable comment by competent authorities" (*Taranaki Herald* 26/2/1936, p.5). On 24/2/1947, Horton showed members of the New Plymouth Rotary Club the planting of kauri, rimu, and totara along the John Street Walk. He told the party that when he started working at the Park "the area was covered with Pinus insignis. When these were cut down, nothing was left but the stumps and rubbish, and the land was exhausted. Within a month, he started planting the new trees. The kauris were pot-grown plants, about nine inches high. Now they are about 30 feet high and thriving. As to their rate of growth, they are keeping up with, if not out-pacing, the rimus and totaras" (*Taranaki Herald* 25/2/1947, p.2).

John Street Walk was renamed Horton Walk at a ceremony in the Park on 24/5/1949 when Horton is reported as saying that he was "the proudest man in New Plymouth that he had suggested and carried out the planting of Horton Walk, where the kauri, totara and rimu would grow side by side" (*Taranaki Herald* 25/5/1949, p.3).

The accompanying photograph from George Fuller's collection, taken from the western side of the main lake, shows the pine trees on John Street (later Horton) Walk that were felled in 1924. The photograph is not dated, but it was probably taken between mid-1905 when construction of the original Tea Kiosk (shown in the photograph) was completed, and late-1907 when the name of the Park was officially changed from Recreation Grounds (the name on the photograph) to Pukekura Park. No doubt the pine trees depicted in the photograph were considerably larger by the time they were felled.

Some summer highlights in the Park

Ian Hutchinson

Technical Officer Pukekura Park

The herbaceous border at Brooklands is currently proving to be very colourful. Dahlias planted a few years ago continue to go from strength to strength and are producing plenty of flowers as the clumps have increased in size, but they have not appreciated the strong winds we have had lately. The *Canna* lilies seem to be doing particularly well this summer having responded to division and compost feeding last winter. One of the varieties is called 'Panache' and we have set this against the dark-plum coloured foliage of the Eastern Redbud (*Cercis canadensis* 'Forest Pansy') which helps to show off the pale apricot-pink blooms very well. The Cardoons (*Cynara cardunculus*) have flowered very well again this year with their two-metre tall spikes of purple thistle-like flowers. *Phlox paniculata* varieties are flowering very well at present and we now have several varieties ranging from white, mauve, and magenta to pink shades. The Catmint (*Nepeta x faassenii* 'Six Hills Giant'), which is about half-way along the border, is flowering very heavily with masses of purple-blue flowers and is proving to be a real hit with the honeybees and bumblebees.

Last year we planted a specimen of the Pacific Islands Kauri (*Agathis macrophylla*) at the north-eastern end of the *Aloe* beds. This will become a significant feature tree in the future, possibly growing to a height of 45 metres and having a spread of 12 metres. It has responded well to its new home putting on about 30cm of growth so far this season. While speaking of Kauri, it is worth noting that this year is the 100-year anniversary of the permanent planting of the first New Zealand Kauri tree (*Agathis australis*) in the Park. It was planted in its present position in March 1911 by W. W. Smith who was curator of the Park from 1908-1920. This tree is the second Kauri tree from the boatshed bridge lawn on the metal path leading to Rhododendron Dell.

In Pukekura, the White Rata Vine (*Metrosideros perforata*) is flowering heavily this year. Perhaps it appreciated last year's wet winter. It can be found growing on many of the pongas and trees around the lakes and also on some of the banks as well. The flowers, though small, are a favourite with bees. Also looking very spectacular recently is a small tree from Australia called the Dorrigo Waratah (*Alloxylon pinnatum*) with its numerous red flowers. There are two locations where it can be seen - on the terraces on the Fillis Street frontage of the Park and among the plantings near the top of Racecourse Walk.



Photo Derek Hughes

From the Garden



Canna lily 'Panache' set against *Cercis canadensis* 'Forest Pansy' in the Brooklands herbaceous border.



Resting on *Dahlia* 'Rococo', one of the many Monarch butterflies enjoying the herbaceous border.

Photos Derek Hughes

From the Fernery



Photos Derek Hughes

A selection of colours and textures from the begonia collection.

The Summer season

Judi Harre

Horticulture Officer Fernery and Display Houses

61,652 people visited the Fernery and Display Houses in 2010, 19,511 of whom were night-time visitors to the Festival of Lights in January. The year's daytime visitors totalled 42,141, up by 9134 on the previous year.

The 2010/2011 summer season has been very erratic as far as growing conditions go, and very challenging for all gardeners/horticulturists. A very warm spring with temperatures averaging from 18C maximum to 5C minimum, to drought conditions and very hot temperatures up to 30C in November, then 10 days of very wet weather and no sunshine played havoc with our plants. The *Begonia sempervirens* and *Bacopa* sp. we used to decorate the Christmas display were badly affected with *Botrytis* and had to be replaced with Fuchsias, *Liatris*, and *Amaranthus* to keep with the red and white theme. No watering was done in the houses for five consecutive days, which is very rare for this time of the year. The total rainfall recorded at the Fernery for December was 201 mm – a lot!!

The Japanese garden we have been displaying since last October still produces many positive comments, with people appreciating the simplicity and serenity it provides, and its point of difference from all other displays throughout the houses. "Less is more" contrasts with the eclectic collections of plants on display, arranged together so closely that it forms a mosaic of colour and texture with not many spaces between. We intend to keep this garden in for all the seasons to enjoy the changes of colour in the fruit and leaves.



Photo Derek Hughes

The usual displays of tuberous Begonias in hanging baskets and throughout House 4 have been blatantly late this year. The season is at least a month late, and we are hoping that this will mean they will flower long into late autumn. We have raised some Blackmore and Langdon seedlings over the last couple of years to refresh the collection with a bigger variety of colour and form and they are just beautiful and very vigorous.

Integrated pest management is part of our pest and disease control system in the Display Houses and nursery over summer/autumn. This involves the use of predator mites and biocide sprays to combat spider mites and thrips, aphids, caterpillars, and powdery mildew and *Botrytis*. It requires staff to monitor the pest and disease levels and to only use less toxic sprays that are compatible with the beneficial insects, or to do spot spraying of the infested plants after isolating them outside away from the colonies of beneficial predator mites. Integrated pest management is a more sustainable option and works very well throughout the summer months, but the predator mites do not survive so prolifically through the colder months.

This leads on to mentioning how the health and nutrient levels of the soil/growing medium also contribute to enhancing plant health which builds better resistance to pests and disease. We liquid fertilise our plants and fern banks once a month with seaweed extract which has been brewed. It acts as a growth enhancer by feeding and increasing the soil microbial population which builds the humus layer and provides the natural plant hormones - auxins, gibberellins, and cytokinins - which aids root growth which in turn accelerates nutrient and water uptake. But foliar feeding also has been shown to be 95% efficient - within an hour or so most of the nutrients have been translocated to the roots. It also toughens up the leaf cuticle (the waxy protective coating) which provides a better resistance to leaf-borne disease and insect attack. We have noticed improvements in the resistance of ferns to eelworm infestations in the fern banks, and also to *Botrytis* and powdery mildew in Begonias and other susceptible plants.

The Mary Morris Memorial Walk

John O'Sullivan

The sun shone bright on 11 November 2010 as The Friends held a commemorative morning in remembrance of Mary Morris (1942-2009). In attendance were Neville her husband, family members, personal friends, and a significant representation from The Friends.

We commenced with a leisurely ramble through Brooklands. Mary had enjoyed organising and leading the much-appreciated monthly "Wanderers" ramble through the Park and this seemed an appropriate beginning. We also had the Buggy in attendance, not only to offer rides to the ramblers but as a reminder of Mary's involvement in its organisation and running. One hour after our start, with a short detour through the bush to the notable old Puriri tree and a visit to view the Swan Plant project in the Zoo, we arrived at The Gables.

As we gathered near the seat purchased by The Friends in memory of Mary, President David Medway led the group in some informal reminiscences and many of the group were able to add to the light and loving banter. The Taranaki Society of Arts had once again been very generous in allowing us access to The Gables and The Friends had been able to set out an appetising morning buffet in The Gables kitchen. Our ramblers having filled their plates and cups now sat around the garden sharing fellowship in the warmth of the sun.

As proceedings came to a close Neville quietly remarked that, pleasing though the morning had been, "Mary would not have approved of all the fuss." Mary certainly did not like "fuss", but she was a friend and a "Friend" and as such we had need to value, celebrate, and remember her.



Photos David Medway

The Swan Plant Project

John O' Sullivan

Early in 2010, The Friends purchased 50 Swan Plants (*Asclepias fruticosa*) to help establish an educational area at Brooklands Zoo relating to insect life-cycles and habitat, in particular that of the Monarch butterfly (*Danaus plexippus*). The necessary preparation and planting of the selected area was undertaken by The Volunteers on 28 October 2010.

The initial preparation required moving existing plantings, which were mainly *Griselinia* and flaxes, and then preparing the planting site. The linear bed created was divided into three sections. To the left, 25 *Asclepias* were planted. The remaining 25 are stored as reserve stock. The right side of the bed already had signage detailing the habitat of a variety of insects and this was planted with material saved from the initial clearance. Stones and broken paving were added to support the habitat descriptions. The middle section specifically detailed the habitat of the Weta (*Hemideina* sp.) and this required the barrowing-in of logs located from other areas plus some more rubble and the planting of a few more salvaged plants. The highlight came when a Weta nest was discovered in the search for logs. Its contents ranged from babies to a very feisty adult, and these were very carefully relocated to their new home.



Photo David Medway

Inspecting the site

Representatives of the *Taranaki Daily News* arrived to cover the project. After brief interviews, the photographer asked for "some shots". The Volunteers followed instructions. They posed with gardening tools, watered plants, and replanted one Swan Plant six times. The photographer then took several shots of the Weta and departed. At the end of the morning The Volunteers walked away very content with their contribution to make insect ecology more accessible to children by having created practical exhibits. Looking in the *Taranaki Daily News* the following day, there was only one photo to illustrate the previous day's efforts. It was a large close-up of a very pugnacious Weta. You certainly could not see where we had been.



Photo Adrienne Tatham

Preparing the site

A novel nest site for Starlings

David Medway

The introduced Common Starling (*Sturnus vulgaris*) is ubiquitous over much of New Zealand. It is locally abundant, and is probably one of New Zealand's most numerous birds. Starlings nest from October-December, usually in the hole of a tree, cliff, or building. They also readily use man-made nest boxes for that purpose.

When I was at the Kunming Garden at Brooklands on 17 November 2010, I noticed an adult Starling go into the open mouth of one of the six dragon heads on the top of the Chinese pagoda. I heard young birds call noisily from within when it did so. The hollow dragon head was obviously being used as a nest site. Over the next half-hour an adult Starling visited the nest on several more occasions to feed the young. On later visits, I saw an adult Starling frequently visit the nest with food obtained mostly from the grassed areas in the general vicinity of The Gables. Noisy chicks in the nest were still being fed when I last checked the site on 29 November 2010. There is no reason to doubt that these chicks subsequently fledged successfully.

Because Starlings often nest in holes in buildings and in nest-boxes, it is not at all surprising that this pair should nest in one of the hollow dragon heads on the pagoda at Kunming Garden. Nevertheless, this would appear to be the first record of Starlings using such a novel site for that purpose!



Right: Starling emerging from head of dragon on Chinese pagoda
Below: Chinese pagoda at Kunming Garden



Photos David Medway