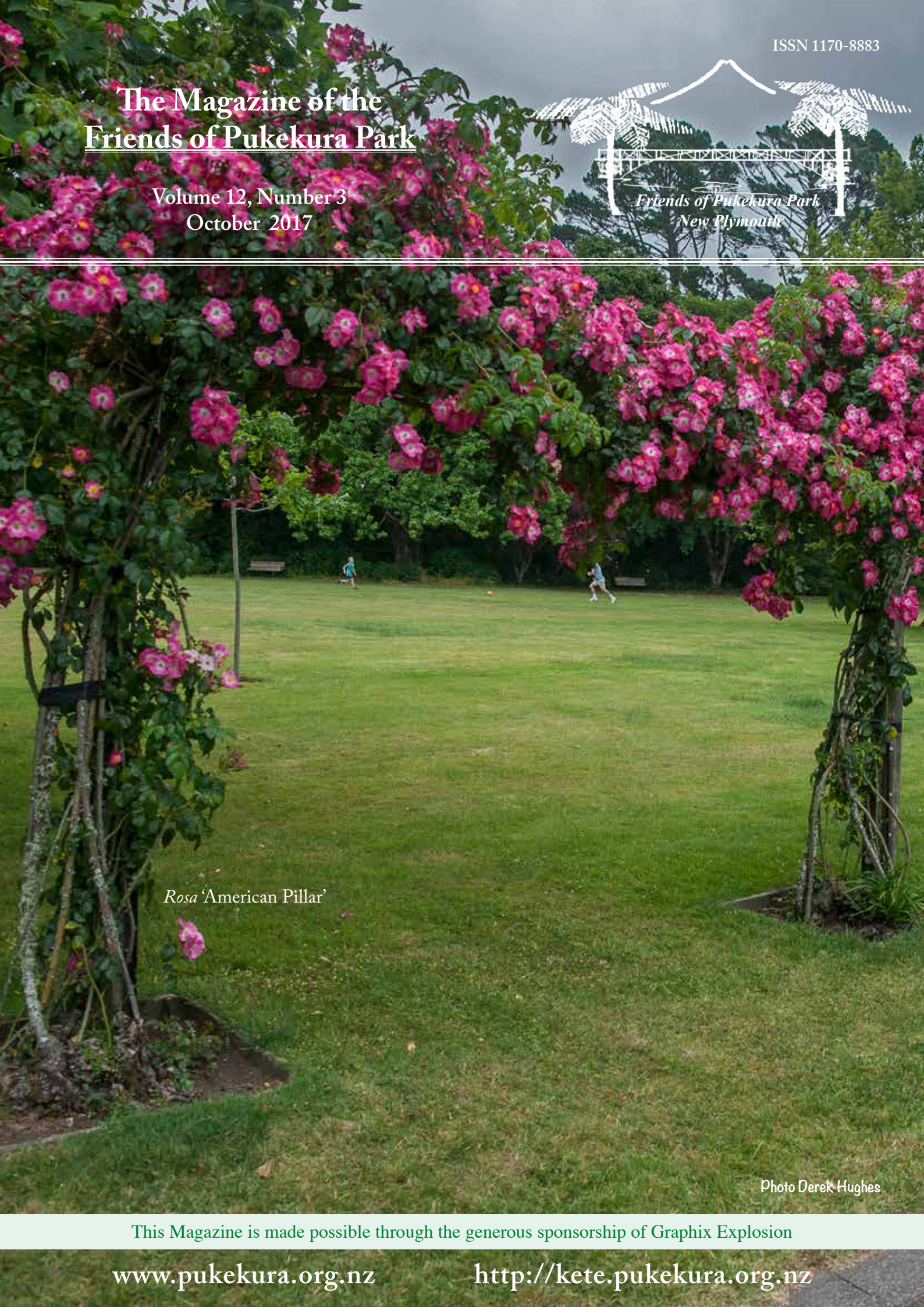


The Magazine of the Friends of Pukekura Park

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*Friends of Pukekura Park
New Plymouth*



Rosa 'American Pillar'

Photo Derek Hughes

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Spring Update

Sheryl Clyma
Field Work Co-ordinator

Preparation is underway for the Garden Festival and Festival of Lights, for the Parks team this is a busy time of ensuring that Pukekura Park is presented well to the garden enthusiasts and park visitors.

A contractor will carry out clearance of foliage from around all the parks lights making sure these are fully visible for our night time park users. We are also planning some track maintenance work to occur around the band rotunda area and from the Gilbert Street Entrance to the Fillis Street Entrance.

The staff are focusing on weeding and maintaining the high profile areas ready for the Garden Festival visitors and like all gardeners around the region they are playing catch up due to the rain.

This winter's bedding plants have had a struggle against the wet season and have not performed as expected, the summer bedding will be planted from mid to late October. At the Tea house we will be planting potted colour Begonia Mocca mix in the raised beds and Impatiens Expo Super mix. At Brooklands we will be removing the poppies and planting Geranium Maverick mixed in the middle of the beds with an edge of Impatiens Expo White.

Against us this year have been the amount of wet days and the park flooding event which happened on Monday 28th August, where the lakes overflowed and washed newly spread track metal into the lakes and washed out newly planted plants.

One aspect that the challenging wet weather has not affected is the flush of spring growth. Come along and appreciate the Rhododendrons flowering in the Rhododendron Dell and then walk up to Goodwin Dell to see the Azalea mollis that are starting to flower.

The team have undertaken a project up at the Kaimata Street Entrance garden to the right as you come through the entrance. This area has been opened up by removing the Heimia salicifolia hedge and replanting some newly grown plants of this between the neighbours and the park. The garden size has been reduced and new lawn will be sown when the soil dries out enough to be worked with.

We have chosen to replicate the Camellia Fairy Blush that were planted at the entrance on the Kaimata border and plant some of these in this redeveloped area, along with a Rhododendron Kaponga and Camellia Margaret Davis. For some summer colour some Ceanothus Blue Sapphire have been planted as a groundcover. A seat has also been installed in this garden and will make this spot a lovely area to sit and enjoy the bush backdrop and surrounding gardens.

Recent work has been carried out at the Shortland Street Entrance, the plants in an existing garden bed have been removed so that the soil level could be reduced down to the rock edging. This garden had an infestation of convolvulus through it so we will leave the garden bare until autumn 2018 and mulch and spray the area until then.

The Azalea bank below Cannon Hill and next to the end of the Hatchery Lawn has had a revamp, existing Azalea have had a hard prune to open this area up and new azaleas were planted on the lake edge. Further up on the bank more Camellia Moshio were planted along with Aucuba. Just below the pine stump we have planted a Magnolia Iolanthe as a specimen tree. As you move further around the track towards the Fountain Pump shed more ferns have been planted. Each year in the park we plant approximately 300 ferns, here in the park the Hen and Chicken fern, Asplenium bulbiferum is an excellent performer, the park staff harvest the baby plants off the fern and grow these for the following year's planting, an excellent job to do in wet weather. To see an example of these hen and

Contributions should be sent to
Friends of Pukekura Park, P.O. Box 484, New Plymouth 4340.
Magazine content editor: Adrienne Tatham. Photographic editor & designer: Derek Hughes
email: project@pukekura.org.nz web: www.pukekura.org.nz

From the Curators Office cont'd

chicken ferns take a walk and see these growing outside the Fernery office. While in this area take a moment to appreciate the Chatham Island Forget me nots, *Myosotidium hortensia* that are flowering in the raised garden outside the Fernery lower entrance.



The wet day - August 28.

Photos Sheryl Clyma



The History, Design and Construction of the Waterfall, Pukekura Park

George Fuller

Basis of an illustrated talk to Friends of Pukekura Park on 27 April 2009 (Videoed by Elise Smith).

J.W. Goodwin was appointed Superintendent of Pukekura Park in 1949, established a Parks and Reserves Division of which he was made Superintendent and later Director, retiring in 1977.

Upon appointment he was instructed to formulate a plan to bring people back into the Park after wartime neglect. He tabled a list of proposals after three months research. High priority was given to exploiting the significance of water. The introduction of a fountain, waterfall, waterwheel and windmill were strongly advocated.

The visit of Queen Elizabeth II in 1954 was motivation for justifying a spectacular fountain.

Between 1960 and 1965 he appointed three well qualified lieutenants in A.D. Jellyman, C.I. McDowell and G. Fuller. Gaining their respect, trust and loyalty, he allowed them remarkable latitude to pursue their respective aptitudes. As an example G. Fuller to be Organiser of the 1966 Taranaki Floral Festival, assisted by C. I. McDowell. There is little doubt that this stands as the most spectacular and comprehensive horticultural event staged in Taranaki, due mostly to Ian McDowell's innovative talents and great artistic skill.

1967-68. Fred Parker was a well-known horticulturist with a garden open to the public. He was also an influential member of the Pukekura Park Committee of the day and began agitating for a fountain in the Park. His suggestion was that it be sited on the northern face of Cannon Hill, visible from the Main Gate. Practical J.W.G. was concerned that it would create a 'Scotsman's Grandstand' for the Sportsground! He appointed G. Fuller, now Curator, and C.I. McDowell to seek an alternative, preferably in what has become its present site. Subject to removal of a specimen weeping elm it seemed a perfect location.

Work was to proceed as time/opportunity permitted. I had a team from the Park staff and Ian was in charge of a roving team of gardeners and maintenance crew servicing all other Parks and Reserves in New Plymouth.

The weeping elm transplanting embodied a strange coincidence. The site of the present Band room had been a private residence with a large weeping elm in the garden. When the house was demolished, the tree was re-sited beside the Fountain Lake. We now took the obstructing specimen from the newly chosen Waterfall site and relocated it in, of all places, close proximity to the newly constructed Band room! This cleared the site for action.

After the contribution of ideas from many sources had been considered, Ian McDowell with the uncanny skill for which he was noted came forth with what could be called 'an artists impression'. Alex Brodie, a retired civil engineer on the Pukekura Park committee checked mechanical details and approved. No other documentation was made!

The fall was to be constructed of boulders set in concrete as naturally and as unobtrusively as possible. The bank allowed for a total drop of about ten metres, but this was to be broken up into four separate cascades, the uppermost violently turbulent, the lowest a broad tranquil water curtain.

Vertical reinforcement of the structure was to rely on placement of three eleven metre power poles provided by the New Plymouth District Council Electricity Department forming a strong backbone. These would be set, slightly reclining into the bank with the tops tapering in towards the centre, then each projection for the cascades later would be secured to that tripod with hoops of steel as work progressed upward. The placement of the poles was the start of construction on 13 August 1969.

When the poles had been seated in recesses in the almost vertical bank a depression was excavated in front of, and beneath them to form what would become the pool. Several cubic metres of concrete was poured into the depression to stabilise the bases of the suspended poles and form the bottom of the pool.

One hundred tons of boulders was donated and delivered on site when the parameters of the pond were defined, but before a start was made on incorporating these a relatively formal base of squared blocks hewn by prison labour was laid in the area below the full width of the lowermost water-curtain cascade. This zone is devoid of water during operation, unlike all cascades above it. Each block/boulder was individually selected visually for specific placement by Ian or myself and I recall that we wore the skin off our fingers in our early enthusiasm.

Before being bedded in concrete, each had to be rolled or slid by hand across the heavy plank spanning the pool

cavity. This involved intense 'hands-on' activity.

The fluidity of un-set concrete meant that we could only complete about two rows of boulders in a day and because this work could only be carried out sporadically when free of our normal commitments, progress was slow. The plank method was practical up to about the level of the third cascade from the top then I think we had the assistance of a crane. A selection of boulders was saved for the top section and carted to the top of the bank from where they were rolled down into place as required.

Lighting was to be totally concealed by location beneath each cascade, shining down onto the wet rocks below. This is a unique and very special feature. Not least, it avoids the need for floodlighting. Fluorescent lighting was chosen because of low maintenance and high light efficiency, the colour integral to each tube as distinct from colour filters customary with incandescent lighting.

The pumping machinery was to be the same as for the fountain, a fifteen horsepower electric motor driving a 4 inch (100 mm) centrifugal pump supplying about 200,000 litres per hour.

As the new feature began to grow and assume the proportions of a spectacle and gain credibility the NZ Insurance Company contributed a gift of \$1700 toward the waterfall costs in commemoration of opening a new building

in New Plymouth. The unveiling of a plaque recording this took place on 21 October 1970. The Mayor, D.V. Sutherland officiated.

I'm not sure if it was our original concept, but it became clear as we progressed that this waterfall would simulate the dynamics of the passage of water from the source of the Waiwakaiho River on Mount Taranaki where it crashes and tumbles over boulders then the turbulence is diminished as it approaches its confluence with the sea.



Lapageria rosea

Val Smith

Living in Whiteley Street, New Plymouth in the 1980s, I was captivated by a neighbour’s beautiful red-flowered climber entwining a wooden trellis on the cool side of his house. The plant was the Chilean bellflower, *Lapageria rosea*, and I wanted one! Although listed in old Duncan & Davies plant catalogues for 7/6 to 12/6 (1952) and from 16/- some years later, it was seldom available, but eventually in 1991 I found one for sale at a Hawera garden centre. I paid the then exorbitant price of \$18.20 for my prize, took it home, planted and tended it in a carefully chosen site – and it died! Years later I became reacquainted with the species on one of David Medway’s guided walks in Pukekura Park, in an easily missed, less than salubrious setting, on a chain-mesh netting fence below the car-parking area at the top of Brooklands Drive. I have seen it occasionally in one of the display houses as well, but there its beauty tends to be overwhelmed by the kaleidoscope of other colourful plants on show.



Photo Val Smith

In 1802 Hyppólita Ruiz López and José Antonio Pavón, Spanish plant collectors in South America, published their *Flora Peruviana et Chilensis*, describing *Lapageria rosea* as “the most beautiful flower in our flora. The intense red of its hanging flowers sparkle amid the dark leaves of the forests, making it a proud adornment to our woods; it is for this reason that it has been given the honour of being our national flower”. A member of the Liliaceae family, the genus of one species only was named after Napoleon’s Empress Josephine, for her maiden name of Tascher de la Lapagerie, in compliment to her for her many services in botany – she encouraged the cultivation of exotic plants by growing them herself in her beautiful garden at Malmaison, near Paris.

An evergreen monocot, *Lapageria rosea* is basically a terrestrial plant with a deep horizontal rhizome with knots and small roots. From the knots grow soft aerial shoots that later harden, vertically at first, and then laterally as a vine, the free end circling as it looks for support, ever upwards towards the sun. Interestingly, the vines twine anti-clockwise in the southern hemisphere and clockwise when grown in the northern

hemisphere. The leaves are alternate and vary in size and thickness according to soil and exposure to sun and wind. The plant blooms from late summer into autumn, the bell-shaped waxy flowers most commonly red, sometimes milky white and occasional hybrids in shades of pink and burgundy. In the wild they are pollinated by humming birds. Primarily decorative, they are also eaten in salads and used medicinally in their native land, and are a source of revenue for rural and indigenous communities. The fruits, too, are edible and have been sold in great quantities in the south, and the roots used as a substitute for sarsaparilla. Once called copto, and now known locally by its indigenous name copihue, the plant has become rare through over-collection and forest clearance. It was given legal protection in Chile in 1977.

A plant of *Lapageria rosea* was obtained by Kew in 1847; the next year Cornish collector Thomas Lobb was supplying nurserymen, and later it gained the Royal Horticultural Society’s Award of Garden Merit. It can be propagated from cuttings (usually under mist), layering and fresh seeds, the cutting-grown plants tending to

flower earlier than seedlings. It may be challenging, but we know they can grow and flower well in New Plymouth. Wouldn't it be great to see further specimens established in aesthetic situations in Pukekura Park where visitors could become acquainted with and admire the national flower of one of our botanical neighbours?

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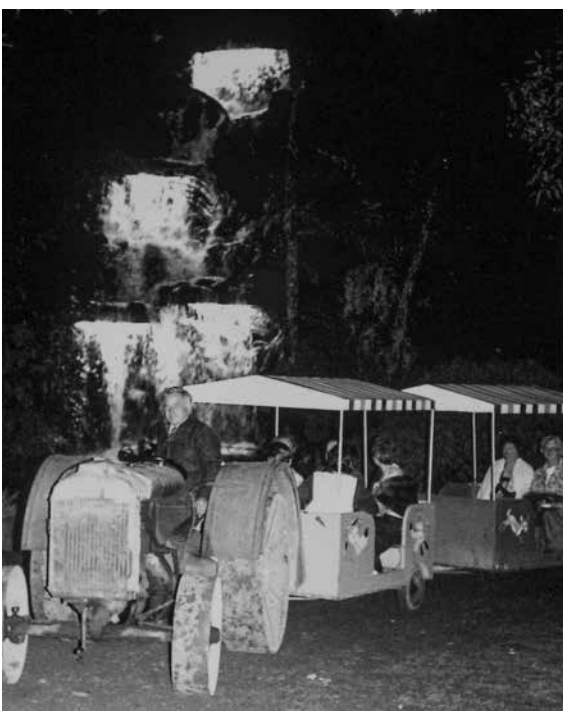
Photographs from a recent walk. Any day is a good for a walk in The Park.



Photos Val Smith



Construction and switching on the waterfall.



New Plymouth, Thursday, October 22, 1970

Price 4c (undelivered)



The waterfall was christened in unusual fashion - three members of the New Plymouth City Council's staff who helped to build it were tossed into the pool at the bottom of the waterfall.

City Council and New Zealand Insurance Co. officials watch the fall being switched on.



The Bodhi Tree

Shirani Smith

Scientific name Ficus Religiosa

Other names Bo Tree, Sacred Fig, Bodhi tree, Pipal, Pipal Tree, Peepul.

Cultivation.

Ficus Religiosa. Native to India and thrives in the hot, humid weather. The tree prefers full sunlight and grows in most soil types though loam is best. It prefers soil with a ph of 7 or lower. It grows best outside. The young tree needs proper nourishment and watering. It is a very strong tree once grown and does not require fertiliser to thrive if planted in the ground.

The Bo Tree is a large dry seasonal deciduous or semi-evergreen tree which can grow to 30 metres tall. The tree prefers high temperatures, 20 – 32 C. Lowest temperature to sustain it over winter is 10C. Too low temperatures will result in rotting of the roots. It likes high humidity and good drainage. When the tree is young the roots are shallow making it susceptible to high winds.



How did the tree get to Pukekura Park?

The tree was presented by the Chief Monk in New Zealand, Venerable Walgama Munindrawansa Nayaka Thero, in October 2012.

First planted in Urenui , Ian Hutchinson, botanical records officer at the New Plymouth District Council, was approached with the thought of finding a home closer to the community and Buddhist followers. It is planted on the south end of the hillside accessed via the Racecourse Entrance then the first track on the left.

The significance of the Bo Tree.

This tree plays a most important role in the culture and spiritual life of Buddhism of Sri Lanka. A Bodhi Tree is born, Buddhists believe, on the same day as that which marks the birth of Buddha.

It does not die on the day that Buddha passed away, instead it remains until the very end of the Kalpa, a mythological period of time that is almost beyond measure.

The oldest living human planted tree in the world with a known planting date is in Sri Lanka in Anuradhapura. It is said to be the right wing branch (southern branch) from the historical Sri Lankan Bodhi of Buddha Gaya in India under which Lord Buddha attained enlightenment.

I would like to finish off by saying “like any good tree that one would hope to grow, we must set our roots deep into the ground so that what is real will prosper in the light of love.”

Understanding duck dynamics is fairly straightforward.

George Fuller

They are free-ranging wild creatures with high mobility and excellent flight, navigational and survival skills. At any given time their movements and presence are dictated by food sources, security, breeding site potential and presence of slack water, somewhat similar to rats and sparrows except for the water. All exploit the extravagances and caprices of human behaviour.

When swamps were submerged to form Brooklands, Main and Fountain lakes, so also was Duck Paradise founded. Residents moved in on day one and it has simply got better and better. Humans came and insisted on loving and feeding them. Perfect vegetation for breeding cover was encouraged and ducks from far and wide flew in to share the magnanimity.

Several restaurant stars were added to the accommodation ranking when a zoo with free access was opened nearby. This feature was the icing on the cake and escalated in popularity with the increasing influx of domesticated animals contained in open-topped cages. This also extended the range of foods on the menu, much in line with human eating establishments.

If anyone has any doubts about the veracity of these observations it is only necessary to spend a few minutes at dusk in the zoo car park with eyes on the horizon and heads ducked low.

Deporting ducks to rehabilitation areas in my experience will not stem the natural migration which at any given time is consistent with food availability.

Who suggested that ducks are not intelligent?



What's new at Brooklands Zoo?

Eve Cozzi

Coordinator/Assistant Curator Brooklands Zoo

The past couple of months have been extra busy for staff preparing for Brooklands Zoo's first ever Animal Art Exhibition and the little blue penguin nest box display.

The little blue penguin nest box display is an extension of the backyard wildlife displays already at Brooklands Zoo, which includes the weta and bug hotels, the native plant garden and the butterfly garden. This new display (which doesn't display live penguins) raises awareness of and gives visitors the opportunity to learn more about our local penguins. The display involved input from staff at Department of Conservation (who also donated some used penguin nest boxes and a marine reserve buoy) and Ngamotu Marine Reserve Society committee members (who assisted with the penguin prints you see on display - they are taken from casts using penguin prints from along the Taranaki coastline). The background was painted by one of the very talented Keepers, Kelly Green. So far, a lot of positive feedback has been received on the display.

Getting arty

Just prior to opening the new display, the zoo animals got a little creative and had their first ever art exhibition (held at Brooklands Zoo and Puke Ariki). Painting is a form of enrichment for our animals, where animals are given stimulating and challenging environments, objects and activities to improve their activity and stimulate their minds. Some animals use a paint brush, while others work the animal-friendly paint with their paws, claws, tails and scales!

Brooklands Zoo staff always respect the animals' choice to either participate (or not) in a painting session, with staff focusing on positive animal welfare. Brooklands Zoo is welfare accredited through the Zoo and Aquarium Association Australasia and rather than simply ensuring that animals do not experience bad effects on their welfare, this programme goes a step further by focusing on delivering positive welfare outcomes based on five welfare domains: nutrition, environment, health, behaviour and mental effective state.

The exhibition process has been hugely supported by the fantastic team at Puke Ariki.

