



Dawn Chorus

Bulletin 80
ISSN 1171-8595
February 2010



Greg and Chick - Photo: Allison Bray

10 Year Supporters' Goals & Strategy Page 4
The Big Picture: Tawharanui Regional Park Page 10
2010 SoTM Elections Page 12
Three Early Summer Flowers Page 14

Information

Supporters of Tiritiri Matangi

Dawn Chorus is the quarterly newsletter of the Supporters of Tiritiri Matangi (SoTM). We are a volunteer incorporated society working closely with the Department of Conservation to make the most of the wonderful conservation restoration project that is Tiritiri Matangi. Every year volunteers put thousands of hours into the project and raise funds through membership, guiding and also through our island based gift shop.

For further information, visit
www.tiritirimatangi.org.nz

Getting to Tiritiri Matangi

360 Discovery operates daily services every Wednesday through Sunday from Downtown Auckland and Gulf Harbour Marina.

BOOKINGS ARE ESSENTIAL!

Phone 0800 360 347
 or visit
www.360discovery.co.nz

Weather Cancellations: Please call 0800 FANTAIL (0800 326 824) after 7.00 AM on the day to confirm if vessel is running.

School Visits

Schools wishing to visit Tiritiri should first visit our website:

www.tiritirimatangi.org.nz/schoolvisits.htm

Advance bookings are essential

Overnight Visits

Although camping is not permitted on the island, there is limited bunkhouse accommodation available.

For information on booking overnight visits, go to:

www.doc.govt.nz/tiritiribunkhouse

Bookings can also be made by phoning the Warkworth Area Office on 09 425 7812, although an additional booking fee will apply.

Volunteers who are undertaking official SoTM work can obtain accommodation at no charge but this must be booked through the Guiding & Shop Manager (contact details below).

SoTM members who wish to visit in a private capacity can get a discounted rate by booking through the Warkworth Area Office 09 425 7812.

Upcoming Events 2010

Monday March 29th
 AGM / Guest Speaker
 Dr Richard Jakob-Hoff
 (Auckland Zoo)

April 2nd - 5th
 Easter Working Weekend

April 17th - 18th
 Families Weekend

June 5th - 7th
 Queen's Birthday Working Weekend

July 24th - 25th
 Families Weekend

Kowhai Picnic Day
 Sunday August 15th

Bookings for island events can only be made with the Guiding & Shop Manager (contact details below)

360 Discovery kindly offers a discount to SoTM members for special weekends and events.

**Deadline
 May Issue
 Dawn Chorus
 20 April 2010**

Contacts		Phone	Email
Chairman	Peter Lee	418 1332	chairperson@tiritirimatangi.org.nz
Secretary	Helen Cain	634 3375	secretary@tiritirimatangi.org.nz
Treasurer	Kevin Vaughan	817 9262	treasurer@tiritirimatangi.org.nz
Committee	Murray Anderson	(09) 236 0520	teama@xtra.co.nz
	Hester Cooper	473 5695	hester@cybernet.co.nz
	Maria Galbraith	820 7342	mariag@summerland.school.nz
	Melinda Habgood	521 9504	m_habgood@hotmail.com
	Carl Hayson	479 4217	cgpartners@clear.net.nz
	Graham Ussher	355 6046 (bus)	gusser@tonkin.co.nz
	Ray & Barbara Walter	535 6941	rayandbarbarawalter@xtra.co.nz
Guiding & Shop	Mary-Ann Rowland	476 0010	manager@tiritirimatangi.org.nz
Membership	Zhea Warden	940 6739	membership@tiritirimatangi.org.nz
Bookkeeper	David Meldrum	446 1361	davidmeldrum@xtra.co.nz
Dawn Chorus Editor	Simon Fordham	274 1828	editor@tiritirimatangi.org.nz
Island Ranger	Dave Jenkins	476 0920	tiritirimatangifb@doc.govt.nz

As I sit here in the Visitor Centre on a wet and windy Anniversary Monday, a bevy of volunteers is beavering away. Ian and Philippa are replacing lights, Jill is organising the shop, Val is sorting out the guiding, Yvonne is off to clear tracks, Morag and Kay are checking on kokako in the damp bush. Others are elsewhere on the island, despite the wet day.

All could be at home, dry and warm and doing what they please. But all have chosen to give up a three-day weekend, to do their bit to help the Tiritiri Matangi Sanctuary project. Shortly, they will be joined by other volunteers, several guides who will arrive on the ferry, catalysts in illuminating and inspiring our visitors.

This project is critically dependent on the energy, passions, enthusiasm and commitment of many, many volunteers. Over the course of a year, several hundred – many of them

SoTM members – will help in their own way. We have over two hundred guides alone, plus many more people help in the shop, come for working projects, help fold and post Dawn Chorus, and many other things.

With duty comes joy. To see the delight in a child's face when she sees a takahe, to relish the joy of the birth of a new kokako, to watch a kiwi in the wild by the dim light of a torch, to know we are helping re-create primeval New Zealand - these are our recompenses. Many of our visitors will not have been here before, but we hope all will return home inspired and rejuvenated. And, in turn, that rejuvenates us.

To each and every one of our many volunteers, I can say only one thing.

Thank you!

Behind the Signs

Cathy Catto

Interpretation signs on the Island are continually being upgraded and SoTM has always appreciated the creative talents of our members and designers.

The newest interpretation sign at the Wharf Shelter was drawn by Ruth Corkill, a young Supporter living in Wellington. She undertook this project as part of her community service component of her Bronze Duke of Edinburgh award.



This sign was designed to capture children's interest when visiting the Island by matching the species and their
www.tiritirimatangi.org.nz

features. It is also a good activity for all to do while waiting for the ferry.

Paradigm have been contracted to design the signs and displays for us for many years, with Clint Slogrove's talent evident in the Ray & Barbara Walter Visitor Centre displays. This project took many hours to design, bringing photographs and text together in a way to represent the Tiritiri Matangi story and to highlight the outstanding achievements of the Supporters and DoC. A year on from the installation of the Visitor Centre interpretation the displays have received many comments of appreciation from visitors. We thank Paradigm for their experience and commitment to our projects.

We are continuing to upgrade information signs on the island. The latest signs now include our newest translocated species, the rifleman. DoC is also upgrading the orientation signs, making it easy for our visitors to find their way round the Island.

Subscription Renewal

Subscriptions for the current period (1 January 2010 to 30 June 2011) are now due. If you have received a reminder with this Newsletter, please renew promptly to ensure that you continue to receive the benefits of membership of the Supporters of Tiritiri Matangi.

As I mentioned in the last Dawn Chorus, over the past two years the committee has been determining our goals and strategy for the next ten years. We've talked to many people – guides, volunteers, researchers and DoC staff – and we feel the outcome gives a real, concrete basis for us to make decisions.

So, why do we need to do this? For a number of reasons. The main one, of course, is so we have a clear set of goals – we know what we're doing and why, and we know what the outcome is that we want. In the early days we were simply following the original master plan, but that has largely been achieved, so it's time to create some new goals.

Secondly, we need to have some clear strategies - the main things we want to do to achieve those goals. Not too many, of course, and each one needs to be clear and specific, and make perfect sense for us.

We've also highlighted some key values, things we believe are important along the way.

One of the first decisions we made was that our focus will be on the sanctuary as a whole, not on SoTM. Tiritiri is bigger than us - or DoC, for that matter – and people come here and get involved because of the sanctuary idea. So the goals we set out are really the ones we believe are the most important ones for the island as a whole. DoC has been very supportive, recognising that they have limited resources and time, and many other projects. They have been happy to work with us as we've gone through this process.

When they're boiled down to basics, all good plans really have only three main bits: where are we now? Where do we want to be? How are we going to get there?

Where are we now?

So we started first with the "where we are now" – the things that make Tiritiri Matangi and the Supporters unique and special. These are:

- A wide and increasing range of rare species
- Of national importance in managing rare species
- Close location to NZ's largest population centre
- Easily accessible for a large pool of potential visitors and volunteers, but with control over visitor numbers.
- Our species are easily-observable
- A rich maritime history and structures such as the lighthouse, foghorn & watchtower
- A commitment to education and advocacy
- A role model for other projects and initiatives
- Providing a range of opportunities for visitors and volunteers to participate and
- Self-sustaining, for example the income we generate from our activities funds a number of projects on the island

Where do we want to be?

Through all our discussions, there was a common thread: one of reclaiming our standing and our uniqueness and making the most of everything and everyone. This shared

vision:

The Tiritiri Matangi Sanctuary is the ultimate wildlife sanctuary and healthy ecosystem, a magical place that engages and inspires volunteers, visitors and other New Zealanders to understand our unique heritage and make a difference in their own environment.

So what do we as a supporters' group want to do to make that happen? This is our "mission statement"

To build the Tiritiri Matangi Sanctuary, in conjunction with DoC and other stakeholders, as a model of sustainability and management through:

- research and conservation of New Zealand biodiversity
- educating and inspiring visitors and
- providing participation opportunities for visitors & volunteers.

We'll know we are achieving what we set out to achieve when:

- Tiritiri Matangi has a healthy and functioning ecosystem representative of pre-human Gulf islands.
- Tiritiri Matangi is a key and effective NZ centre for research, education and management of rare and endangered species in a public environment, proactively commissioning research and providing dedicated research facilities.
- Visitors have a positive and inspiring experience and leave as advocates for conservation. They are inspired to make a difference in their own environment.
- We provide quality education & learning on our flora and fauna, the value of an integrated and complete ecosystem, our unique maritime history and our Maori history. This is done through integrated and effective interpretation and educational activities.
- We provide a range of opportunities and facilities for participation for members, visitors and volunteers, during the day, evening and overnight.
- All our activities leverage off our strengths and unique characteristics and cater for our key stakeholders.
- We are a role model for other groups – management, financial, biodiversity, engagement.

It's a big, bold set of goals – but we as a committee believe it's the right direction for Tiri. Without bold goals, Tiri would never have got to where it is today.

Along the way, we don't want to lose sight of our values. These include building enduring relationships and partnerships; providing opportunities for our supporters and others to be engaged and motivated, and being committed to sustainability & environmental responsibility.

How are we going to get there?

Our four key strategies, areas we want to focus on where we are unique and can make a difference, are Conservation, Insight, Inspiration and Participation. There are three support activities we need to get right: infrastructure, funding and communications.

1. Conservation

Tiritiri Matangi is the ultimate wildlife sanctuary:

Tiritiri Matangi and its waters have a healthy functioning ecosystem representative of pre-human Hauraki Gulf islands, enhanced in four ways:

- *Advocacy role for certain species*
- *A sanctuary for nationally-endangered species*
- *Active intervention in species management*
- *Education & learning*

What this means:

The island has a healthy functioning ecosystem containing a full range of birds, reptiles, mammals, insects and plants and is managed in accordance with a comprehensive species management plan.

It will take into account the following:

- *Advocacy – We will highlight certain key species because they provide excellent PR for the need for conservation, such as takahe and kokako.*
- *Sanctuary – Tiritiri Matangi will take an active part in preserving rare or endangered species possibly not historically present in the Gulf*
- *Species management – where necessary we will actively intervene in species preservation where these species cannot be left to their own devices (e.g. stitchbird),.*
- *Learning – the ecosystem will be managed and modified in particular areas, on a limited basis, to facilitate learning. (An example is Wattle Valley's historic role).*

2. Insight

Tiritiri Matangi is a key centre for biodiversity research and management

What this means:

- *We commission research by students and others, based on where we can make the biggest difference. This will be based on expert input into the key problems and unknowns which, if solved, would make the biggest difference to conservation management.*
- *We provide appropriate accommodation and facilities for researchers, storage space, lounge/dining. It will be built sustainably (e.g. solar powered) and in harmony with other facilities.*
- *We fund, acquire and manage appropriate equipment*
- *The results of all funded research is presented to SoTM and published via articles and seminars.*

3. Inspiration

Every visitor is inspired to become an advocate for NZ's unique biodiversity by making a difference in their own community.

What this means:

- *We provide state-of-the-art and engaging interpretation for all visitors at appropriate places on the island. This includes comprehensive interpretative signage, from the wharf up to the lighthouse area, and additional resources such as maps, pamphlets and books.*
- *We provide high-quality guiding experiences that convey the importance of maintaining NZ's biodiversity, and inspire people to do the same.*
- *We provide appropriate off-island learning opportunities such as seminars and through our website.*
- *Children become engaged and committed conservationists through active support of school visits and provision of quality educational programmes.*

We will succeed when visitors change their behaviour, such as planting trees, donating money or time and understanding our biodiversity.

..... continued over page

Where to for the Supporters?

(continued from page 5)

4. Participation

We provide a range of opportunities for people to participate in the Tiritiri Matangi story, as volunteers, members or visitors.

What this means:

- We provide a range of volunteering opportunities such as guiding and in the shop.
- We have a large, growing and loyal membership base.
- Non-volunteer members feel engaged (seminars, emails etc)
- There are a range of opportunities to donate e.g. via the membership form and website, legacies and bequests.
- We provide visitor experiences at non-peak times, eg afternoon and night.
- There are events that complement or enhance existing attributes (e.g. astronomical events, regular foghorn demonstration, regular concerts) to attract a wider range of people to the island.
- We provide appropriate recognition of the island's maritime and military histories including, as appropriate, signage and reconstruction.
- We provide and manage accommodation for up to 30 SoTM staff, researchers, volunteers and overnight visitors.
- Visitors gain an appreciation of the various histories – Maori, maritime, military & conservation

Fauna Notes

compiled by Morag & Simon Fordham

Takahe

A great season with 4 chicks - 2 for Blackwatch / Mahuika, and 1 each for Montague / Ahikaea & Greg / Cheesecake. 3 will be sent to Burwood Bush before being released into the Murchison Mountains next summer whilst the youngest (Greg & Cheesecake's) will stay on Tiri for the time being.

Kokako

For the first time in 12 seasons, Cloudsley Shovell / Te Koha Waiata failed to fledge any chicks. Her second nest produced 1 chick but this disappeared at 15-20 days old. Her third nest contained 2 infertile eggs.

Both our Taranaki females have done well. Te Rae / Chatters fledged 2 chicks (Kikorangi ♂ OM-YB & Rehu ♀ OM-RJ) as did Pukaha / Moby (Takara ♂ OM-YB & Bariki ♂ OM-RJ).

Te Karanga / Keisha fledged 1 chick (Renge ♂ WB-M).

Parinihi / Punga had 2 failed nests and Crown / Pureora had 1. Despite being only 1 year old, Noel & Skippy also tried to nest but this also failed.

Te Hari has yet to find a new mate.

Rifleman

A minimum of 8 pairs are known to have fledged chicks in their first season on Tiri. Some of the family groups included parents that had not been seen since release last February.

Of around 45 nesting boxes, only one was used, 5m from the release site. It was interesting to note that the male that helped build this nest disappeared and was soon replaced by another. Corresponding colour bands of the original male were found in a nearby morepork nest.

Stitchbird / Hihi

From 106 clutches, 174 chicks have been banded with 17 nests still active. At the end of February, a number of birds will be translocated to Maungatautari, Kapiti Island and Karori Sanctuary and then 20 birds will be flown from Little Barrier Island so as to improve the genetic mix on Tiri.

Blue Penguin

57 chicks were hatched from the first nesting but only 6 survived and these were only about half their normal weight. The adults were also

underweight and second nesting attempts were unsuccessful.

North Island Robin

72 adults have produced around 60 chicks this season.

Common Diving Petrel

Over 3 years, 190 birds have been transferred to nearby Motuora. 178 (93%) have fledged. Already, they have had their first hatching from a returning bird.

10 Years Ago

Takahe Pounamu divorced Greg in favour of Whakama, her son of 5 years previously.

Work began on the construction of the implement shed facility.

Tiri's first known morepork nesting hole was found to contain the bands of 11 stitchbird, as well as a number of robin and saddleback bands.

Flora Notes

Warren Brewer

The last few days of January saw the fading of a colourful parade of pohutukawa blossom.

Early summer had the best pohutukawa flowering for several years. All around Auckland's coastline we have been treated to many variations on the colour red. Each tree has had its own timetable, creating a spectacular and sustained flowering sequence.

Background: Pohutukawa flowers and closed buds



On Tiritiri Matangi there is now an abundance of fruit on display, much of it fully ripened. Visitors are enjoying seeing the bright orange berries on two of our coprosma species, karamu and taupata. Kohekohe fruit is being commented on and mahoe fruit is developing with some already ripening to a bluish-purple.

Inset: Mahoe Fruit

Background: Karamu Berries

Rifleman Ca

In early February, a team of volunteers traveled to the purpose of capturing up to 29 more rifleman population. However, things didn't quite go to plan as they seemed to have dispersed early, probably due to the weather. Furthermore, countless cicadas hatched just as the birds were impossible to hear the su

In the first 8 days, we managed to catch only a few stresses of translocation. However, the next few days were bringing the total number of birds successful

Photo: Luis Lachica



Photo: Luis Lachica



Photo: Peter Langlands

apture 2010

elled to Little Barrier Island with the express
n to increase the genetic diversity of the Tiri
lan. Unlike last year, many of the family groups
o having produced only one clutch this season.
a few days before our arrival, making it near
btle calls of the riflemen.

3 birds. Sadly, one of those succumbed to the
ur days resulted in the capture of a further 11,
ully released over the last 2 seasons to 44.



THE BIG PICTURE

One of the most exciting things in conservation today is the sheer number of emerging volunteer

projects, both local and nationwide, many having been inspired by what has happened on Tiri. Each serves as a reminder that, whilst our project is a leader in many ways, we are but one piece of the jigsaw that forms the Big Picture of conservation in New Zealand.

In the third in this series of articles that highlights some of these other projects, we visit Tawharanui Open Sanctuary, a peninsula immediately to the north of Kawau Island.

Tawharanui Open Sanctuary

Paul Williams

At the end of the Takatu peninsula, east of Matakana, nestled inside the Auckland Regional Council's 588 hectare Tawharanui Regional Park, is New Zealand's first integrated open sanctuary. The park is relatively isolated and was always best known for its pristine surf beaches and stunning coastline; it is now also becoming known as the site of a pioneering and somewhat experimental project that seeks to demonstrate that the often conflicting activities of recreation, conservation and farming can co-exist.

In some ways TOS is similar to earlier, trail-blazing conservation projects like Tiritiri Matangi – pest control, revegetation, bird reintroductions – but there are also differences. Tiri has the sea as a pest control barrier whereas TOS is only partially bounded by the sea and also relies on a purpose-built pest proof fence across the neck of the peninsula. Tiri has to deal with the logistical difficulties associated with an island sanctuary whereas TOS has to contend with potential biosecurity problems that can arise from unrestricted access by beachgoers (160,000 each year), campers and vehicles.

The TOS project got underway in earnest in 2002, the same year that the Tawharanui Open Sanctuary Society Inc (TOSSI) was formed. The park was selected by the ARC for several reasons. Firstly because of the relative ease of fencing a peninsula, secondly because the location serves as a stepping stone for birds moving to and from the existing island sanctuaries located in the Hauraki Gulf (Little Barrier Island/Hauturu, Motuora Island, Tiritiri Matangi Island) and thirdly because it contains a wide range of coastal lowland features, including dunelands, wetlands, streams, coastal forest and open grassland.

Jo Ritchie, the ARC's original TOS project director, and Rhys Thompson, TOSSI's inaugural secretary/treasurer, quickly shaped TOSSI's character by applying themselves with great enthusiasm and energy. Today, because we are still in the early stages of developing the sanctuary, TOSSI's approach continues to be hands-on with an emphasis on doing rather than advocating and educating. The balance between those activities will no doubt change over time as the project evolves.

Construction of the two and a half kilometre, coast-to-coast, pest proof fence was completed in 2004 at a cost of \$636,800 plus GST, after complex design and consenting processes for the building structure and the bait drops were carried out. The fence was funded by the ARC (\$230,000), Lotteries Commission (\$200,000), Gallaghers (\$40,000), Lion Foundation (\$35,000), Pub Charity (\$26,500), TOSSI's Art in the Woolshed 2003 exhibition (\$25,000), WWF-NZ (\$12,000), Scottwood Trust (\$10,000) with the remaining \$58,300 being donated by various trusts, clubs and the general public. The next stage was two aerial drops of brodifacoum targeting Norway rats, ship rats, stoats, ferrets, weasels, possums, feral cats, hedgehogs, mice and rabbits. Following on from the bait drops, TOSSI volunteers were given the task of monitoring approximately 500 bait stations on a monthly basis.

Seven out of the ten pests were quickly eradicated and we





Jones Bay Fence End

have learned to live with the three that remain - hedgehogs, mice and rabbits. Nowadays pest control measures are heavily concentrated on the buffer zone immediately outside the fence and the fence ends. The latter have also had additional wings added to improve security at the most vulnerable points of the sanctuary. Over the last five years we have detected ten individual pest incursion events inside the sanctuary (mainly rats and possums) which have all been dealt with effectively.

The gains accruing from TOS have been enormous and started to become evident very quickly. In 2005, one year after the fence completion and bait drops, bellbirds took up residence in the sanctuary, a nice easy self-introduction requiring no paperwork, consents or financial inputs. Then followed a steady stream of organised reintroductions – forest gecko and green gecko (2005), North Island brown kiwi (2006, 2007 and 2008), North Island robin (2007),



Ocean Beach Fence End

whitehead (2007), pateke (2008, 2009 and 2010) and red-crowned kakariki (2009).

After several years of nest prospecting, grey-faced petrel and kaka successfully bred in 2009. Recently there have been sightings of stitchbird and tomtit, but no evidence yet that either has taken up permanent residence. So far TOS has been a net receiver of translocated fauna, as is to be expected from a young project, however we have been pleased to supply shore skink to both Tiri (2008) and Motuora (2009). Breeding by the bird species that were previously resident in the sanctuary (for example NZ dotterel and variable oystercatcher) has benefited from the new pest controlled environment. Additionally bellbird, kiwi, robin, whitehead and pateke are now all breeding very successfully. As an example, only a very small number of kiwi have transmitters attached, but two monitored male kiwi have each incubated multiple eggs on two separate nests in one season, effectively double breeding!



Mangatawhiri Valley Wetland Restoration

Hand in hand with the pest control tasks and fauna reintroductions is Tawharanui Open Sanctuary's revegetation programme, a substantial one that involves growing 20,000 trees per year in TOSSI's onsite nursery, and planting wetlands and steep hillsides that have been deemed unsuitable for pastoral farming. Our species selection is appropriate to the coastal lowland with a predominance of manuka, kanuka, cordyline and flax but with a significant representation of coprosma, mahoe, puriri, kowhai, taraire and tawapou that will provide a valuable food source for the increasing bird and reptile populations.

What have we learned so far? Creating our integrated open sanctuary hasn't been as simple as building a fence, killing pests and watching nature do the rest, but then worthwhile things often require long term commitment and patience. The partnership between the ARC and TOSSI has been successful and demonstrates that a regional government body and an enthusiastic community group can together achieve more than either could individually.

2010 Election of Officers

In accordance with the SoTM Constitution, the following nominations were received as of the closing date, 31 January 2010.

Chairperson – Peter Lee (nominated Jill Courteaud / seconded Barbara Walter)

Treasurer – Kevin Vaughan (nominated Peter Lee / seconded Helen Cain)

Secretary – Helen Cain (nominated Jill Courteaud / seconded Barbara Walter)

Committee members:

Hester Cooper (nominated Peter Lee / seconded Helen Cain)
Maria Galbraith (nominated Mel Galbraith / seconded Cathy Catto)
Melinda Habgood (nominated Peter Lee / seconded Helen Cain)
Carl Hayson (nominated Peter Lee / seconded Helen Cain)
John Stewart (nominated Mel Galbraith / seconded Olga Brochner)
Barbara Walter (nominated Peter Lee / seconded Helen Cain)
Ray Walter (nominated Peter Lee / seconded Helen Cain)

In accordance with the change in financial year, elections will be for an 18-month term to 30 June 2011.

Peter Lee (Chairperson)

Peter is the current Chairperson. He is keen to carry on, believing the Supporters is entering an important new phase with great opportunities and challenges ahead. He wants to use the experiences gained in his 13 years on the committee, as well as those acquired as chair in the past two years, to help the Supporters meet these challenges and to make the most of opportunities as they present themselves. He believes his business life as a manager and a senior marketer is also useful and that the relationships we're building with DoC and others, through regular meetings, are now really important.

In the past two years Peter initiated a bold strategic planning initiative which will set out SoTM's path for the next ten years and brought in a new budgetary process. He wants to see these really take root in 2010 and beyond to form the basis for some exciting developments in future years.

Helen Cain (Secretary)

I first went to Tiri in 1989 and can still remember standing on Coronary Hill looking down the island towards the Pa and seeing mostly grass. I have been visiting Tiri ever since and have been a member of SoTM for a number of years. About 4 years ago I became a shop volunteer and I am currently training as a guide. I joined

the Committee as Secretary in July last year and my first task, with Maria Galbraith, was to organise SoTM's 21st birthday dinner. Since then I've taken on organising our "knowledge base" of everything we do, and have been asked to coordinate upgrading our website. To me Tiri is such an important place as it provides a way of exposing ordinary New Zealanders to the importance of conservation in an accessible way. I hope to use my business and organisation skills to help us achieve the many projects we have in our strategic plan.

Kevin Vaughan (Treasurer)

Kevin is the current Treasurer and has a background in accounting and management. He has spent many years overseas before returning to retire in New Zealand.

Hester Cooper

Hester has a strong science background, has been a guide for over eight years. Projects to enhance and diversify the vegetation on Tiritiri Matangi are a key interest because of their potential to increase the habitat available for many species. She currently chairs the Biodiversity subcommittee, which oversees and makes recommendations on all translocations, biodiversity and research matters.

Maria Galbraith

I am lucky enough to have been on the

committee for the past 3 years, helping with major events such as the Visitor Centre interpretation and organising our 21st dinner celebration. Apart from my own lifetime involvement with the island, I bring my background and experience as a teacher and educator. I wish to continue contributing to the Tiri project through the main committee, and also through the education subcommittee.

Melinda Habgood.

Melinda has a long involvement with Tiri. She completed her Master's thesis on copper and moko skins (2002/03), joined the weed team (03/04) and has been a volunteer guide since 2003. She is currently an ecologist at Te Ngahere where she works in the field of ecological restoration. Melinda believes this combination of a scientific and research background combined with her restoration experience in a commercial background is of great assistance to the Supporters. Her particular interest is bio-diversity.

Carl Hayson.

Carl has had over 16 years of experience on the committee including taking on the roles of treasurer, secretary and chairperson. He retains a strong interest in all aspects of the island, with a particular interest in promoting the historical side.

John Stewart

I came to New Zealand 16 months ago from Northern Ireland, where I volunteered for several environmental organisations. I conducted surveys for the RSPB and the British Trust for Ornithology, and served on committees for the Northern Ireland Birdwatchers' Association and the Ulster Wildlife Trust. My closest involvement was with Copeland Bird Observatory (CBO), situated on a small offshore island. I chaired their committee, edited and wrote for their annual report and managed their website. I helped in monitoring the island's breeding colony of Manx shearwaters and frequently visited the island to band migrant

passerines (I have been a bird bander for 25 years and served on the trainers' panel of the UK's national ringing scheme). I have a keen interest in habitat restoration, having created and managed woodland and wetland on my own property. Professionally, I trained as an engineer and computer scientist and have worked most recently for Queen's University Belfast, where I managed a small team of researchers working on the environmental effects of industrial processes.

Since coming to New Zealand, I have volunteered for Motuora Island (planting trees and feeding diving petrels), Ark in the Park (monitoring kokako and robins) and the Native

Forests Restoration Trust (on their reserve at Tupare). I have also become increasingly involved with Tiri. During this spring and summer I have been helping Morag and Simon Fordham with work on kokako, saddleback and rifleman, and have started training as a visitor guide.

Barbara and Ray Walter.

Barbara and Ray are well-known to everyone as ex-rangers on the island and are keen to see the Tiritiri project continue. They have a keen interest in the flora and fauna of the island and the volunteer input.

Tiri Gift Shop

Dear Supporters

What a summer!!

A few new (and old) things to tempt you – remember, we still carry stock of most items shown in previous copies of the Dawn Chorus.



Jo May prints (frame size 10x8in) including Takahe, Fantail, Pukeko, Tui, Kakariki, Forest Birds, Islands and Ruru
\$23 each



Tiri Water Bottles
only \$7.50



Cheese Boards with Cheese Knife
\$42 and \$44



Beautiful hand printed tea towels by Ingrid Anderson
\$20
Tiri tea towels
\$10



Paraben and Palm Oil Free
Soap \$6.50
Hand cream \$7.50
Soap and Wooden Dish \$12.50



Fair Trade Finger Puppets
\$3.50 each or 3 for \$10

Orders can be emailed or phoned
manager@tiritirimatangi.org.nz
phone/fax 09 476 0010.

With best wishes from your shop team!

Flowers function as the plant's reproductive organs. They appear in a vast range of size, shape and colour. A typical flower can be divided into four parts arranged in a series of concentric circles.

Firstly an outer circle of green sepals which have protected the unopened flower bud. Then a circle of usually bright coloured petals whose main function is to attract pollinators. Next follows one or more circles of male parts, the stamens. Each stamen consists of a supporting filament tipped with a pollen-bearing anther. Finally there is an inner circle of female parts, often fused into a single structure, containing a central ovary with a projecting style bearing a stigma at its tip. The stigma's role is to receive pollen.

Nature has produced many variations on this theme, including plants that do not have both male and female parts in their flowers. These can have sexes in separate flowers or even on separate plants.

Let us take a closer look at three of our early summer flowers.

Pohutukawa (*Metrosideros excelsa*) The sight of massed crimson pohutukawa blossom displayed against a green background signals the beginning of our northern summer.

Pohutukawa flower buds usually develop on shoots that have been growing for one year. These have a green woolly protective covering formed from the sepals.

As each flower develops it initially passes through a female phase when the sepals and petals unfold and a single style, tipped by a pollen-receiving stigma, protrudes. The numerous stamens, coiled tightly within the bud, now begin gradually to expand. This is the male phase. The stamens eventually become erect and 3 – 5 cm tall. At this point pollen is released.

Individual flowers are only 3 – 5 mm across, but by grouping together in broad clusters they effectively create a mass of crimson stamens. Each flower has 5 small red petals, 3 – 5 mm long, enclosing a green glandular disc which secretes a steady flow of nectar. The much taller stamens are attached in

a ring just to the outside of the disc, giving each flower its colour. The central style leads down to the ovary below.

Visiting birds, geckos and insects effectively pollinate the flowers.



Pohutukawa Buds Opening

Rewarewa (*Knightsia excelsa*) Rewarewa belongs in the protea family. A feature of this family is that petals are absent from their flowers, the sepals taking over this role.

Each rewarewa flower has 4 velvety sepals joined to form a 3 – 4 cm tube. As the flower opens at the tip 4 pollen-containing anthers are exposed. They are each attached to a sepal segment. The sepals and stamens curl backwards, leaving pollen deposited on the projecting style which is yellow tipped and needle-like. Four small glands at the base of the ovary secrete nectar. Visiting birds are brushed by the pollen placed on the style. Later, the stigma at the tip becomes receptive to any pollen brought by new birds seeking nectar.



Rewarewa Flower Showing Various Phases

Taurepo (*Rhabdothamnus solandri*) Taurepo has orange-red gloxinia-like, bell-shaped flowers. They are produced singly and are bisexual but not self fertile. A clever mechanism avoids this. The anther (male) ripens first and moves forward to the edge of the flower tube, ensuring that birds pushing their heads into the flower seeking nectar are dusted with pollen. Later, as the flower matures, the anther bends back again, letting the stigma (female) take its place. It can then be dusted by birds carrying pollen from younger flowers.

Our native honeyeaters, tui and bellbird, plus the stitchbird, play an important role in its pollination. On the mainland, with poor numbers of these birds present, visits from silvereyes are more common. These birds have a small beak and rupture the flower from the side to get nectar, missing the anthers in the process. It follows that island-situated taurepo gets good pollination, resulting in large seed capsules. Mainland taurepo gets poor pollination (silvereye robbing), leading to few seed capsules.



Taurepo Flowers

Taurepo occurs naturally only in the North Island. *Rhabdothamnus* (meaning twiggy shrub) is an endemic genus with just the single species. It belongs in Gesneraceae (African violet family) which consists of mainly herbs with a few shrubs and vines, mostly tropical and subtropical.

Taurepo is well represented along the Wattle Track and a fine example is opposite the stitchbird feeder.

Hey everyone!

It's not just the birds and trees that help Tiri's island ecosystem run. Invertebrates, or creepy crawlies, are a very important part too. Beetles, bugs, snails, bees, weta – all of these cool creatures help make Tiri special.

Enjoy! Jo

J	F	H	C	X	A	R	O	H	T	A	B	D	O	T	S	U
E	U	D	L	P	B	D	E	L	A	Z	A	H	G	Y	L	E
P	R	O	U	Z	I	L	S	C	N	A	U	S	L	I	M	Y
I	R	P	A	E	N	C	T	P	Y	K	I	P	S	N	E	C
N	Y	S	O	A	V	F	O	M	B	C	A	U	D	K	Y	H
W	E	T	A	V	E	X	O	S	K	E	L	E	T	O	N	R
A	N	N	Y	I	R	E	G	Z	I	L	R	E	S	H	G	Y
B	V	E	S	K	T	C	X	I	J	D	R	G	R	I	W	S
I	Y	M	O	D	E	C	O	M	P	O	S	E	R	S	E	A
R	X	G	R	U	B	S	D	S	L	O	S	W	F	A	X	L
G	M	E	G	T	R	Y	A	R	U	F	X	I	P	I	S	I
E	P	S	Q	H	A	N	P	A	B	D	O	M	E	N	H	S
A	S	O	H	O	T	H	A	R	M	R	S	E	F	L	T	O
V	O	G	R	E	E	R	I	W	E	I	H	W	J	P	O	V
R	M	I	N	Y	S	G	S	E	L	B	I	D	N	A	M	T
A	K	N	Q	I	L	T	E	G	I	T	N	Z	E	R	Y	C
L	A	C	R	M	W	E	L	S	O	G	Y	R	C	Q	I	U



Find the underlined words in the WORDFIND above

Invertebrates do not have a skeleton inside their bodies. Many have a hard layer on the outside instead, called an exoskeleton.



They are important in lots of ways, including being bird food, pollinators, decomposers, & recyclers of dead material.

They come in an enormous variety of shapes, sizes, and textures. Some are spiky, some slimy, some furry, some shiny.



Many invertebrates begin life as larvae or grubs.



Some come out during the day like butterflies. Others come out at night like moths & weta.

Invertebrates might have wings, body segments, antenna or feelers, mandibles or jaws, a thorax & abdomen.



Some must make a pupa or chrysalis to change into their adult form.

Match these creatures with the right number of legs

Centipede	
Worm	
Beetle	0
Spider	
Fly	6
Millipede	
Snail	8
Weta	
Cockroach	Heaps!
Praying mantis	
Bee	
Mite	



Supporters of Tiritiri Matangi Inc.

Notice of Annual General Meeting

Notice is hereby given that the Annual General Meeting of the
Supporters of Tiritiri Matangi will be held as follows:

7.30pm Monday 29th March 2010

Kohia Teachers' Centre, 74 Epsom Ave, Epsom

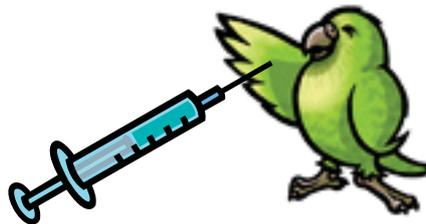
(Enter Gate 2 on Epsom Ave, down slope and right, into middle level of parking building.
Kohia is on the far side of the carpark accessed via covered walkway. Ample safe parking.)

At this meeting, the following items of business will be included:

Welcome, Apologies Peter Lee
Minutes of Previous AGM Helen Cain
Chairperson's Report Peter Lee
Financial Report Kevin Vaughan
Election of Officers (see page 12 for details of candidates)
General Business

Following the formalities, the guest speaker will be:

Dr Richard Jakob-Hoff
*New Zealand Centre for Conservation Medicine
Auckland Zoo*



Following the meeting, there will be time to socialize with other members over a cup of
tea / coffee / fruit juice

Supporters of Tiritiri Matangi Inc. PO Box 90 814, Victoria Street West, Auckland 1142



Dawn Chorus