the forest habitat with the exclusion of big animals, the predator control programme there, and the "crowding effect" of birds in a small isolated bush remnant.

The Waipaua Block stands out because, unlike the other areas, despite being riddled with animal pests and falling apart, it has sufficient diversity and shelter to sustain relatively high populations of small birds and the forest-dwelling red-crowned parakeets and parea. As the largest expanse of forest left on the island, this fact is highly significant for the birdlife on Pitt Island. This confirms that this area is the best forest bird habitat. It also means that we are at a conservation crossroads. If the Waipaua Block is allowed to deteriorate further, there will be a large loss of birdlife; however, if the habitat is nurtured, there will be a spectacular recovery in forest birds. Furthermore, recovery of this forest block may enable the very rare Forbes parakeet (*Cyanoramphus auriceps forbesi*) to re-establish on the island from Mangere and Little Mangere.

It has been proposed to link the Waipaua Block with the southern (Canister Cove and Glory) blocks by a forest corridor. This will be brilliant for birdlife, so long as much better control of the animal pests is done both in the corridor and in the Waipaua Block. Otherwise it will be pointless. Whilst the loss of land from the Canister Cove Block in a grazing lease exchange is rather sad, if it ensures that the corridor will be created and it and the Waipaua Block will be adequately managed, the net result will be excellent for conservation.

2.4 INSECTS AND OTHER INVERTEBRATES

Beetles, spiders, moths, worms, flies. The little creatures of the forests and the herbfields are rarely seen. Because of this we may tend to consider them unworthy of attention, although they are vital parts of the system. They pollinate flowers so that fruit set. They help turn plant and animal material back into organic nutrients, so the system keeps ticking over. They are food for bigger animals such as birds. Some of them are extremely rare. Each type of vegetation has its own invertebrate species, and some invertebrates live on one species of plant only. Invertebrates are important indicators of ecosystem health.

Chatham Islands invertebrates have been studied for as long as naturalists have been visiting. As early as 1877, some were recognised as special, found nowhere else. Recent surveys carried out by Lincoln University entomologists (Early et al. 1991; Emberson et al. 1993) have focused on the rarest species, all big slow beetles:

- Chatham Islands click beetle (*Amychus candezei*), known only on Rangatira, Mangere, Little Mangere and The Sisters;
- Coxella weevil (*Hadramphus spinnipennis*, Figure 20), associated with coxella (soft-leaved speargrass), only on Rangatira and Mangere;
- Pitt Island longhorn (*Xylotoles costatus*, Figure 20).

All were formerly more widespread in the Chathams, but have become restricted in range and very rare because of habitat loss and predation. They are possibly the creatures most sensitive to change in the Chatham Islands. None have been found recently on Pitt Island, although they used to be there. The reason is undoubtedly that the forests and herbfields have been severely damaged, and predators such as pigs, mice and weka have eliminated them.

As the coxella population at Rangiauria recovers, the weevil may be rediscovered or could be reintroduced there. Katrin Schops (pers. comm. July 1997), who is studying the weevil, says that for it to thrive again, however, control of mice and weka would be necessary: not terribly difficult to do, but demanding a well-defined plan, commitment and labour.

The Pitt Island longhorn may still be on the island, too, although in recent years it is only known from eight beetles on Rangatira (Rowan Emberson, Lincoln University, pers. comm. July 1997). In other words, it may be one of the rarest creatures on earth, as endangered as the black robin. The longhorn is apparently reliant on karamrt. Karamu is not rare on Pitt Island, but only occurs in dense stands in the Waipaua Block of Pitt Island Scenic Reserve. That is where the Pitt Island longhorn may still persist, but as we watch, those stands become more and more shredded. They need good control of pigs and sheep to survive, and if they spend any time on the ground (which isn't known) they need control of other predators as well as pigs.

In their 1992 visit to Pitt Island to survey for invertebrates, Emberson et al. (1993) were alarmed at the extent of pig rooting they found in the areas set aside for conservation. They considered it had worsened since their 1990 visit, when they found a new species of flightless beetle in the Glory Block, least affected by pigs (Early et al. 1991). They also noted the lack of tiny parasitic wasps dependent on insects that live in forest litter, and the lack of even such robust ecosystem indicators as carabid (ground) beetles. They concluded that the forest ecosystem had been severely disrupted. In as hard-hitting a statement as has been written regarding conservation on the Chathams, they said:

"Without some real control of the pigs, efforts at arthropod and plant conservation on Pitt Island will be entirely negated, and presently vulnerable species ... will become increasingly rare or completely extirpated from the island."

We believe they have put their finger on it precisely, but we believe the sheep are a major problem, too. We also think that the rapid deterioration of the Waipaua Block forests is potentially disastrous for invertebrates because, as Rowan Emberson (pers. comm. July 1997) says, the Waipaua Block contains the most diverse forest habitats for them left on the island.

The final window to be opened here upon the invertebrate world of Pitt Island concerns the nikau themselves. Dr Emberson is again the initiator. He says (pers. comm. July 1997) that nikau have their own distinctive invertebrate fauna. This includes a community of beetles and moths, and perhaps other insects, that owe their continued existence entirely to that of the palms. What that means is that, if the palms go, they take a chunk of Chathams ani-

mal biodiversity with them, for ever. It is yet another reason to look after the Waipaua Block forests better.

3. Collapse or recovery - is there a solution?

Anyone reading this report should now be alarmed for the natural heritage of Pitt Island. Clearly, conservation of the indigenous forests, nikau palms, megaherbs, birds and hidden small creatures is incompatible with the maintenance of a large population of pigs and sheep. Protection and enhancement of that heritage is in everyone's interest. So is retaining and improving the goodwill between the island's residents and the Department of Conservation. Recognition of the strength and importance of the hunting tradition on the island is a key to the development of that partnership. But equally vital is the recognition of the impact of the hunted animals on what makes Pitt Island a special place on earth.

The natural heartland of the island, the Waipaua Block of Pitt Island Scenic Reserve, is where the difference in values is centred. Rapid collapse of the indigenous vegetation and loss of the majestic palms is inevitable if the pigs and sheep remain. Recovery relies entirely on radically lowering the pig and sheep numbers. The choice is in our hands, now. If we delay the decision-making, we will lose the chance for recovery.

The question is: can the conflicting aims of conservation and hunting both be served? We think the answer is yes. There are several options. These are listed below, along with their pros and cons.

3.1 BETTER CULLING OF PIGS AND SHEEP

This is the cheapest and easiest option. To be effective for the forests it would require a commitment from both the islanders and the Department of Conservation to keep the numbers of the animals at much lower levels than at present. We think that lowering the numbers to less than one-quarter (preferably around one-tenth) of the present levels would be needed to allow significant forest regeneration. The difficulties of obtaining such a commitment and sticking to it may make this option untenable, but it has the advantages of partnership and ongoing community involvement.

3.2 CONTROL OF PIGS AND SHEEP TO NEAR-ZERO LEVELS

This is by far the best option for conservation of the forests, nikau, and wildlife. It would allow full forest recovery, a benefit that cannot be overemphasised. It would require excellent fences, good maintenance, and a very positive partnership in which the islanders were willing to forego hunting in the Waipaua Block. Achieving these things appears politically unlikely at present, but in terms of financial cost it is cheap and very effective.

Consideration could perhaps be given to the maintenance of pigs and sheep on conservation land currently leased for grazing, and/or on private land, with some sort of incentive or compensation arrangement.

Eliminating only the pigs or only the sheep would defeat the conservation purpose.

3.3 SUBDIVISION TO CONFINE HUNTING TO PART OF THE WAIPAUA BLOCK

This is a workable compromise, in which part of the block would be fenced off and a population of pigs and sheep maintained there, whilst in the rest of the block they would be controlled to near-zero levels. It would be relatively cheap and cost-effective. But it would be politically challenging, requiring the islanders to forego much of their hunting area and requiring the Department of Conservation to agree to the loss of the forests, woodlands and recovery hopes from the area to be retained for hunting. It would need a good understanding between the parties and a genuine commitment to ensure its success.

This option would allow full forest recovery in the protected area, but would only be valuable if the protected area was well over half of the block, included the most intact nikau forests, and was connected by the proposed corridor to the southern blocks.

3.4 SUBDIVISION AND ROTATIONAL STOCKING

We have suggested this option before (Walls & Scheele 1995; Walls & Baird 1995). We envisage the Waipaua Block being fenced into three or four sections. Animal control would be pursued vigorously in each section in turn, with 20 years being a minimum period before control was relaxed. This would in theory allow a burst of forest regeneration in each section, whilst allowing hunting to continue in two-thirds or three-quarters of the block, on a 60-80 year rotational management regime.

This option would seem to allow everyone to have their cake and eat it too. However, we now know the rate of forest and woodland deterioration is too great for this regime to retain forest over the whole area, and the quality of the forest would always be less than healthy because of the pig and sheep impacts. Twenty years may not be long enough to get a population of nikau past the vulnerable stage.

To give this option a chance of viability then, the animals must be confined to less than half the area at any one time, and the rotation time must be consid-

erably lengthened. Fencing and maintenance costs for this option would be quite high.

3.5 FENCING A SERIES OF LITTLE EXCLOSURES

A number of areas throughout the Waipaua Block could be fenced off to exclude pigs and sheep. They could be selected to represent the diversity and special features within the block. Planting could be done within them, for instance nursery-grown nikau and other threatened plants.

The problem with this option is that at best it would create a series of manicured forest patches. It would remove forever the function of the block as a forest tract, and the possibility of revitalising its special wildlife and the connections to the southern blocks of the reserve. It would be expensive to set up and maintain. The fenced patches would finally become islands in a pasture-bracken-tree fern landscape. They would not function as microcosms of the larger forest, as they would always be simpler in structure and more vulnerable to storm damage, weeds, fires, fence failure, and species loss.

There seems little merit in this option, as it would do little for forest or wild-life, would entirely alter the character of the area and would irrevocably close the option of preserving a self-sustaining ecosystem.

4. Conclusions and recommendations

We have nineteen years of monitoring information and experience, and can now make sound ecological predictions about the fate of the forests on Pitt Island:

- 1. The forests and woodlands of the Waipaua Block, Pitt Island's unique heartland, are in deep trouble. Under the present management regime the woodlands will disappear within 15 years. The forests are crum bling fast too, and by then will have become woodlands, (loomed to surely disappear in turn. With them will go the last remaining stronghold of the Chatham Island nikau palm. The parea (pigeon) and the Pitt Island longhorn beetle will vanish from the island, and Chatham Island tui numbers are likely to be greatly reduced as important winter feeding habitat disappears.
- 2. A simple change in management radically lowering the numbers of feral pigs and sheep will instantly reverse this trend. Spectacular forest recovery will occur, with the production of a wealth of young nikau and a revitalised bird and insect life. But to allow a full recovery of the big birds, cat control will also be required.

- 3. Hunting pigs and sheep in the forests and woodlands of the island is a cherished traditional pursuit. Cats are people's pets. Conservation progress is dependent on good information, good understanding be tween parties, goodwill and the willingness to seek common ground and mutually beneficial solutions to problems.
- 4. We cannot afford to sweep this issue under the carpet. The rate of deterioration is far too great. Even a three-year delay will result in irreversible loss. A decade's dithering would be disastrous.
- 5. The practical options to avert the crisis all have their pros and cons. The cheapest and best for conservation is to control pigs and sheep to near-zero levels in the whole of the Waipaua Block. Anything less will mean that the forests and their wildlife will have a less assured future. The option of confining the animals to part of the block only, say one-third of its area, gives the greatest conservation benefit whilst retaining hunting potential. Options to relocate the animals for hunting outside the reserve should be given active consideration, and be offered genuine incentives.
- 6. We support wholeheartedly the proposal to link the Waipaua Block with the southern blocks of the reserve. We think it is vital for the long-term future of the forests and their wildlife.
- 7. We also strongly support the proposal to predator-proof Caravan Bush (Preece Covenant) with a purpose-built fence and intensive internal control. It is the right place to trial the technique for eventual application on a larger scale if appropriate.
- 8. Rangiauria is a very special place. Megaherbs and coastal daisy forests are making a comeback there. For rare wildlife like the coxella weevil, Chatham Island snipe, and Chatham petrel to re-establish there, control of animal predators (cats, mice, and weka) will be necessary. It is the other logical place to embark on intensive predator control at this time.
- 9. Ecological survey and monitoring have amply demonstrated their worth on Pitt Island. The established monitoring programme should certainly be continued, but is incomplete. The bird counts done by Sandy King should be repeated annually. Invertebrate monitoring, both of common species and threatened species, should be added. Invertebrate survey should also be stimulated, especially for the Pitt Island longhorn in the karamu forests of the Waipaua Block. The invertebrate fauna reliant on the nikau palms should also be researched.

5. Postscript

Following our fieldwork, analysis of results and production of a draft report for discussion, a strong desire arose from Pitt Islanders for a written response indicating their views to be incorporated into the final publication. It has taken nearly two years to obtain that written response (reproduced here in Appendix 1). The elapsed time has allowed plenty of further discussion, more fieldwork and cross-checking of ecological perspectives with others familiar with nikau ecology and management around New Zealand.

We are pleased to see Pitt Islanders' perspectives, as expressed by them, in print. We think the process of compilation has had its own value in furthering discussion, bringing the parties together, identifying common ground, and exploring possible solutions to the problems. It seems clear to us though that the Pitt Island voice is not a particularly united one when it comes to conservation, and that there is a wide spectrum of opinion on what the Waipaua Block of Pitt Island Scenic Reserve should be managed for. Some would like to see much better restoration of the forests and their wildlife, whilst others would be happy with a woodland through which it was easy to ride, picnic and hunt.

On the other hand, on the issue of control over conservation land on the island, the voice is clear: the Pitt Islanders wish for a much greater decision-making and management role. The Department of Conservation appears keen to foster improved relations with the Pitt Island community. The way seems clear then for renegotiation of the relationship between the Department and the Pitt Island Reserves Committee. The Chatham Islands Conservation Board supports that view. In its grappling with the situation, it has expressed overall support for the Pitt Islanders' position and an anxiety to see the nikau protected.

Where does this actually leave the nikau, the forests and the wildlife? We aren't sure. The future course will evidently be charted more by the politics of the situation than by ecological considerations. Some Pitt Islanders have challenged our interpretation of the ecology, suggesting that wind and lack of flax are more important than pigs and sheep in the lack of forest recovery in the Waipaua Block. Our response is that we are sure of our facts, have clone our homework, and stand by our findings. We have used tried and true field techniques, have double-checked our analysis, and have consulted with other professionals familiar with nikau and islands around the country. Everything we have seen since the 1997 work has simply strengthened the original interpretation.

The fact is, when it comes to the Pitt Island palm forests, it's a matter of love them or lose them. Whether that message is willingly received or not is another question.

6. Acknowledgments

By covering on the home front, Sue Scheele and Tony Anderson made this work on Pitt Island possible.

On Pitt Island, Sandy King treated us like royal guests, even though we invaded her home and were often wet, muddy and clamouring for a brew. Her unstinting practical help ensured that the work was stress-free, interesting and achievable. The opportunities she created for us to interact with island people were a welcome precedent for visiting conservation researchers. Her work in pulling together a written response from Pitt Island residents, whilst operating as a representative of the Department of Conservation, requires special recognition. To the residents who took the time and trouble to record their perspectives, we are grateful.

Ken and Eva Lanauze took real interest in our work, and supplied us with much information. Although we probably didn't help Ken much with his building job, we enjoyed his company and encouragement. John and Bridget Preece, in protecting Caravan Bush and allowing the Department of Conservation field base on their land, have contributed much to this work as well.

Lynnell Greer and Belinda Studholme were enthusiastic helpers in the field, making sure the standards of debate, banter and chocolate supply were of the highest. We all enjoyed Amanda's amazing lunches. Kenneth (Dorse) Lanauze offered welcome transport and mutton at a key moment. Pip and Ged Foley and Eva Gregory-Hunt took the time and trouble to accompany us and assist with our work. The children of Pitt Island School were enthusiastic and welcoming, despite the rain.

On Chatham Island, Dave Lumley, Sal Lanauze, Maria Cotter and Steve Sawyer of the Department of Conservation went out of their way to be helpful.

Rowan Emberson, John Marris and Katrin Sch6ps, all of Lincoln University, were truly generous with information, photos and encouragement in all things to do with the small hidden rare creatures of Pitt Island and their conservation. Richard Suggate, Euan Kennedy and Andy Grant of Department of Conservation in Christchurch made excellent suggestions for the report. Fruitful discussions on nikau ecology and conservation around New Zealand were had with Peter de Lange, John Sawyer, Shannel Courtney and Simon Walls (Department of Conservation), David Given (Christchurch) and Marie Taylor (QE II National Trust, Napier).

To all these good people, thank you.

7. References

Baird, A. 1993. Pitt Island Reserve - Waipaua Block: inspection of reserve condition. Department of Conservation file report, 9 p.

Canterbury University Press/The Contributors. 1996. *The Chatham Islands, Heritage and Conservation*. Canterbury University Press & Department of Conservation, 136 p.

Early, J.W, Emberson, R.M., Muir, C.A. and Barratt, BAT 1991. Lincoln University entomological expedition to Pitt Island, 10-24 January 1990. Report prepared for Lincoln University and Department of Conservation. 18 p.

- Emberson, R.M., Early, J.W, Marris, J.W.M. and Syrett, P 1993. Research into the status and distribution of Chatham Islands endangered invertebrates. Final Report S632, prepared for Department of Conservation. 24 p.
- Molloy, J. and Davis, A. 1994. Setting priorities for the conservation of New Zealand's threatened plants and animals. Second edition, collated by C.Tisdall. Department of Conservation, 64 p.
- Park, G.N. 1980. Summary of botanical survey of nature reserves in Chatham Islands (Pitt and South East Islands). Botany Division, DSIR file report, 11 p.
- Rudge, M.R. 1988. Re-survey of the feral sheep reserve on Pitt Island (Chathams) December 1987. Ecology Division, DSIR file report, 55 p.
- Walls, G.Y. 1988. *Vegetation of Pitt Island reserves, Chatham Islands*. Botany Division, DSIR monograph, 42 p.
- Walls, G.Y. 1999. Forest monitoring on Pitt Island: "Just you ask the plants". *Conservation Advisory Science Notes* 235. Department of Conservation. 58 p.
- Walls, G.Y. and Scheele, S.M. 1995. Collapse or recovery? Pitt Island vegetation 1980-1993, with reference to Chatham Island. *Conservation Advisory Science Notes* 120. Department of Conservation. 68 p.
- Walls, G.Y. and Baird, A. 1995. Winds of change: monitoring vegetation condition and trend in the Chatham Islands. *Conservation Advisor*, *Science Notes 130*. Department of Conservation. 19 p.

Appendix 1: The Waipaua Reserve - the Pitt Island perspective and reply to "Love them or lose them"

INTRODUCTION

Past attempts at conservation by government agencies and departments on Pitt Island have had a chequered history, often dogged by controversy, culminating in some extreme protest actions by individuals. These actions have perhaps led to a perception that the Pitt community's attitude to conservation is unanimously hostile. This is not so.

Rather than being aimed at the concept of conservation, the anger and frustration felt by some members of the community was directed at the way the issues were handled by government departments, and as a reaction to a perceived threat to their unique and treasured lifestyle.

After living and working on Pitt Island for almost three years it is clear to me that the community is very aware of the need for conservation, and concerned about the fate of the Reserves. The community is also concerned about maintaining the unique but limited recreational opportunities and traditions which make life on Pitt special. The community recognises the differences that arise from trying to satisfy both concerns.

In 1991 the Department of Conservation and Pitt Islanders agreed that a wild flock of 250-300 Saxon merino sheep would be managed within the Waipaua block of the Pitt Island Scenic Reserve, and that pigs would be controlled to a level that does not significantly damage the reserves and wildlife. Maintenance and monitoring of this was to be a joint responsibility of the Pitt Island residents, the Pitt Island Reserves Committee (PIRC) and the Department.

The "Love them or lose them" discussion document presented to the Pitt Island Reserves Committee and Chatham Islands Conservation Board in 1997 sounds a clear warning that the status quo of the past six years is not maintaining the ecological values of the Reserve. This document has indeed generated a lot of discussion, as has its 1998 sequel "Just you ask the plants" (Walls 1998). The PIRC believes that the Reserve can be managed to benefit both locals and flora and fauna - a very positive outlook. The challenge facing the Committee, the Pitt Island community and the Department is to come up with a management regime for the Reserve which can sustain its unique values, both ecological and cultural.

This is by no means an easy task, and one which will take some time to complete. However, we have made a start. The first steps have been to examine the Pitt Island attitude towards the Reserve, its perceived values as a community and public resource, and what the threats to those values might be. Islanders were asked to write a few paragraphs, either signed or unsigned, commenting on the following points:

- The 1997 discussion document "Love them or lose them" and the 1998 report "Just you ask the plants".
- What they believe the Reserve should be there for.
- DOC's involvement on Pitt, and what it should be doing.
- Any general issue involving DOC.

All Islanders were then invited to attend two meetings, at which the written statements were discussed and some conclusions and recommendations were identified.

The Pitt Island perspective is presented in this reply, beginning with the writings from the Islanders and followed by the conclusions and recommendations that arose from those writings and general discussion. Also included are five statements made by the Pitt Island Reserves Committee in March 1998 which sum up community feeling. Although it is intended to be published as part of the "Love them or lose them" discussion document it should also be read in conjunction with "Just you ask the plants". Every attempt has been made to provide Islanders with the opportunity to submit their honest opinion, and I sincerely hope that this is what has resulted. The Pitt Island perspective is fundamental to anything the Department does now or in future.

Sandy King
Department of Conservation
Pitt Island

STATEMENTS FROM PITT ISLANDERS

DIANNE GREGORY-HUNT

I agree that a lot of what is written in both books is broadly speaking reasonably valid. However, these folk are going to be much more intense and enthusiastic in proving their case because that is their life.

The reason for the Reserves: to enhance the beauty of the Island, maintain bush areas which without fenced blocks would very likely over a period disappear (as most unfenced areas on the outside are rapidly going). For the traditional hunting enjoyment. This has been a big part of my own children's enjoyment, as children and as adults, and hopefully my grand-children's. Also part of their father's life before them.

DOC will always be about Pitt owing to the large chunk of territory owned by them.

On Pitt the fences need to be quite regularly checked, and maintained around reserves to take stress off them from outside areas. Planting on the weather sides should be done as I feel a lot of lack of growth could be weather related and not necessarily only stock (cattle, sheep, pigs).

More planting of weather sides especially. Flax outside followed by trees. Get all fences up to scratch especially to stop cattle getting in again (This is happening). Watch out for marijuana plantings!

KENNETH J. LANAUZE

The report says that flax is a leader in the recovery of the forest in the Glory Block yet there is no flax growing or being planted in the Waipaua Block.

The Report says that sheep and pigs are the main reason for the deterioration of the forest at Waipaua but I consider wind to be more of a problem.

I consider the Reserves should be there for the enjoyment of the local people first and general public second.

I consider DOC's current involvement to be reasonable.

I think that DOC should be looking at a planting programme in the Waipaua Block on the South West coast for the purpose of wind break and seed source.

I think the monitoring programme should also continue.

In conclusion my thoughts are that.

- There should be a closer monitoring of stock numbers
- There should be large plantings of flax on the South West coast of the Waipaua Block. (Sheep will only eat flax if they are starving which is not the case here.)
- There should be monitoring of the plots to see if there is a more definite and eye catching result.
- There could perhaps be a larger type plot to protect nikau between Cabbage Tree Hill, Half Chain or Break Bush.

MARTIN & EVA GREGORY-HUNT

Reserves are more important to us as a family as a hunting ground than as an enclosure full of trees and birds.

We believe DOC involvement on Pitt at present is a waste of money due to the amount of money spent on labour yet we see no visual benefits.

We feel DOC should be looking toward planting flax on the windward side of the reserves and more effort spent on making sure the reserve fences are stock proof. How can the experts say there is too much stock when the animals can come in and out as they please?

Perhaps DOC could spend more time curing the problem than getting the experts to study it.

Finally we feel that our reserves and surrounding Islands are here for the benefit of all Chatham Islanders. We feel the Islanders should be allowed to carry out their traditional bird gathering and hunting rights.

LEN & NADINE LANAUZE

We would like to comment on making forest conservation and traditional recreation compatible.

Potential solutions from "Just You Ask The Plants" pages 22-23

That options 2, 3 & 4 are out of the question, and that option 5 makes great sense in the survival of our nikau palm.

We also strongly disagree with having segregated hunting areas within our Reserve as illustrated in scenarios 1, 2 & 3 in "Just You Ask The Plants" pages 45-47.

The Reserve on Pitt holds the only hunting recreational area and for us it means weekend and holiday hunting for wild sheep and pigs with our family. This is very important for us as parents; to show and teach our children things that ourparents taught us and their parents taught them, which has been a way of life on Pitt Island for generations in the bush which is now our Reserve.

We think it essential that Pitt Island maintain having local input into the selection of the permanent DOC officer on Pitt.

We believe DOC should be planting trees in the Southend reserve (Glory & Canister Cove Reserve Blocks) and maintaining their survival by regular weeding. We also believe the planting of flax in the south west end of Waipaua Reserve, forming a shelter belt for future tree planting, should be done.

We also believe the taking of traditional Chatham Island food, e.g. mutton birds for local consumption, should be allowed at certain times of the year, as has been done for many generations before DOC's presence on Chathams.

We think that the Chatham Island public have a right to visit South East Island and see and experience the natural beauty it holds. In past years there have been open days, we think these should take place yearly.

The preservation of our Reserve is essential for the enjoyment of future generations of Pitt Islanders, therefore it is important to us to maintain stock numbers to sustainable levels and protect the nikau palm with the fencing of small enclosures.

JOHN & BRIDGET PREECE

Our thoughts and views on DOC involvement on Pitt Island 1998.

- 1. Conclusions and Recommendations from "LOVE THEM OR LOSE THEM" and "JUST YOU ASK THE PLANTS".
- a) We agree that any decision making must work through the PIRC, CICB and DOC. Open communication and honesty from both parties is essential in keeping relations working together.
- b) HUNTING -After having wandered around the reserve with the DOC party our views have changed. Hunting has been and still is a very important part of each Pitt Islanders life. Pitt Islanders respect the conservation value of the reserve, doing so by keeping stock numbers down. This allows the vegetation to regenerate.
- *c)* We feel the Nikaus should be fenced off as soon as possible.
- d) The Fredrick & Mary Hunt Reserve is privately owned. We would be keen to have this area fenced off from the rest of the Waipaua Block, and keep sheep and pigs out.
- *We agree to the monitoring programme as long as is required, in the reserves, keeping Pitt Island residents informed.*
- f) We agree to go ahead with the planting of flax in the south and west boundaries of the Waipaua Block and elsewhere.
- g) The Corridor is a good idea, but we feel the decision making is more between the lessee and DOC.
- What do we believe the Reserve should be therefor?
 We want to see the reserve continue as a Scenic Reserve while still being available for the traditional recreational uses of Pitt Islanders.
- 3 DOC's current involvement on Pitt.
 We want to see DOC involved on a permanent basis, working alongside Pitt Islanders in managing the reserves. DOC own land on Pitt
 so its their right to be on Pitt. Being involved on Pitt is good for
 public relations, and essential for keeping communications flowing
 between both parties.
- Where DOC should be going in the future.

 While they own land on Pitt DOC will always be involved in life on Pitt. DOC will be busy maintaining and monitoring their Reserves for years to come, in conjunction with the families that farm, fish and hunt on Pitt. We would like to see the black robin and many other birds back thriving on Pitt Island everywhere.
- 5. Comments about any DOC issue.

 We want to see the bush stay but also the hunting must stay for the families on Pitt. As long as families can have domestic cats, the wild cats and wekas can be eradicated. We would be quite happy for both our private reserves to be predator-proof.

6 Our conclusions and recommendations about the Waipaua Reserve. We must all agree to take action, minimise the numbers of sheep and pigs, continue to exclude all cattle, look after the bush so there is something for the next generation to appreciate and enjoy.

It is a PRIVILEGE for Pitt Islanders to hunt in the Waipaua Block.

JAMES MOFFETT

"I appreciate the chance to attempt to address the appalling lack of understanding out there concerning the issues between DOC & Pitt Islanders, and try to contribute to an achievable and workable solution to a way forward for conservation gains on Pitt.

This whole exercise should be hugely valuable to those who make decisions on our behalf. From our point of view this should avoid the usual consultation process where various entities consult with us and eventually do exactly what they like.

- 1. "Love Them Or Lose Them " & "Just You Ask The Plants "prove that in most cases the trees will regenerate faster with the stock removed.
- 2. Ian Atkinson has basically said that the amount of animals required to sustain hunting will not allow the vegetation to regenerate at a rate acceptable to DOC.
- 3. DOC have a statutory obligation to remove all the animals from all the Reserves.
- 4 Locals have an agreement to keep 250-300 sheep in the Waipaua Reserve, and an expectation that pigs will roam there and everywhere else.
- 5. If DOC were to fulfil their obligations to the letter it would bring it into serious conflict with many locals which isn't in the interests of overall conservation.
- 6 The PIRC has stated while it doesn't want the environment within the Reserve destroyed the animals must stay within the reserve.

This situation is obviously very difficult but is only part of a wider problem. In looking for solutions we can't examine it in isolation because every DOC issue and action on Pitt is directly inter-related to central issues.

- 1. Locals realise they have absolutely no legal standing to influence anything DOC or outside entities wish to do on Pitt. This is especially relevant because DOC already owns half the Island.
- 2. Pitt is small and vulnerable socially and economically and people know that if we lose any of our economic base some remaining people will not survive and a "critical mass" situation could be very near.

- 3 We realise and understand why many influential people look at Pitt and think that the Island would make a great reserve and see how easy it would be to achieve over time, and we know that as a community realistically we don't have a chance against the resources, fanaticism and single mindedness of these people.
- 4 Each action and conservation gain made by DOC is perceived to enable DOC to access still more seemingly unlimited resources which increases their influence and power which in turn puts pressure on our way of life and economic base.
- 5. We have all seen many situations where land becomes more valuable to other interests than what the people on the land can make off it. If eradication of all introduced predators was achievable or imminent every square metre of Pitt would be way out of reach of young couples or average contributing locals.
- 6 Upgrading Pitt's conservation value means increased tourism. Underpresent circumstances we have no power/structure/plan to influence how tourism is carried out. Uncontrolled tourism takes away some of the most valuable fundamental freedoms that locals cherish and which make Pitt unique in most of the world.
- 7. For those people who wish (or may be forced to in the future) to make an income from tourism, being unable to manage it means they will have to compete directly with outside operators who can pay a minimum wage and take their money offshore.

So for instance, for these reasons many people may not object too much to getting rid of cats or other conservation gains, but believe if these things happened we would completely lose what little control we have over our future and the way we live.

The unfortunate and ironic truth is that this situation relentlessly (and in some cases knowingly) perpetuated by DOC is the biggest stumbling block to conservation on Pitt.

After reading the revised version of the CMS, I realise little has changed since DOC outlined the situation in the District Conservators letter to the Pitt Is Residents Association dated 21 September 1992.

I believe DOC has 4 options.

1. Explain to locals that the reserves are public land and that it is illegal for the stock to be there and their agreement is invalid and that overwhelming public opinion says take the stock out. Remove the stock, begin cat and weka control within the reserves and on private land where negotiable. Close up and plant the lease in 2011, step up eradication on this area and any other. Consider favourably any land offered for purchase or covenant. Advocate the involvement of any entity/individual who may wish to be involved in increasing the predator-free area.

- 2 Make some temporary agreement to keep the stock in part of the reserve. Keep monitoring the vegetation and discovering the stock are doing too much damage to the vegetation. Shift the sheep and pigs to part of the leasehold in 2011. Give short term market rental leases for the remainder. Treat the Island community as a collection of individuals. Use all natural problems/changes in a small community over time as opportunities to increase DOC's influence and presence on Pitt until eventually a predator-free environment is achieved.
- 3 Decide that for the environment on Pitt to reach its potential on Pitt locals must have a genuine long term interest in seeing this situation come about and that under present circumstances or under 1 & 2 above this is not the case. Ensure DOC protects various representative habitat types and has a remote hands off support role in conservation slowly developing a situation where locals can see that we can have these conservation gains without losing many of the freedoms and assets we enjoy already.

Set up the situation whereby land and influence aggressors within and without DOC know legally and clearly that for conservation to be continually successful locals must be supported but left alone and not worked on as individuals because land owners over time can be easily enticed or persuaded to place land out of control of the community (in varying degrees). This affects present locals and hundreds that come after and will have a net negative effect on conservation. I believe if this situation was genuinely achieved locals would see the benefits for themselves and future generations and ask DOC to help them create a predatorfree environment managed by themselves supported by DOC. Under this situation locals would actually be the protectors of the environment which of course is totally different to the present situation or a crown controlled situation.

4. Do nothing.

People will say we shouldn't make decisions for future generations because "it's their business, we don't know how they will think or what they will want or people change, priorities change, attitudes change" etc.

Making no decisions or taking no action is the same as making the decision to allow other entities to carry on with their agenda. Which of course is the biggest decision we can make regarding future generations.

We should do our best to give future locals the freedoms we have enjoyed and as much control over their environment as possible which will in turn give them options to make their own decisions. While the thoughts and opinions of current locals are relevant we should do some logical objective reasoning into what will be the best for future contributing locals and take this into account when making decisions.

To summarise:

I don't think we can come to a satisfactory solution to the problem in the Waipaua Reserve without taking unusual steps to treat the underlying issues.

DOC and locals should cooperate-operate to create a situation whereby our environment is managed by contributing locals supported by DOC.

DOC should ensure small representative environments are completely protected and work towards eradication by genuinely making it in locals short and long term interests.

Locals should keep their individual freedoms, put aside their personal differences, realise actions we take now affect everyone else and future generations, and that we must work together for our future mutual benefit.

Pitt could be developed into the most amazing range of environments interspersed with bush and farmland with families being staunch supporters of their own sustainable conservation quietly enjoying their unique fauna and flora but also having the ability to influence the circumstances and society in which they live and bring up their children.

I realise this situation is just a ridiculous dream and has almost no chance against the bureaucrats, land and influence aggressors, but I believe it is the only option that will actually work.

I challenge the people behind the desks who hold all the power and profess to being interested in conservation and not creating a larger, stronger self-perpetuating bureaucratic set up to show some of the dedication shown in the field (saving robins etc) and actually step out, make waves and help create a unique and valuable environment.

ANONYMOUS PARAGRAPHS

The following paragraphs were contributed anonymously. It should be noted that not everybody agreed with the sentiments expressed, or with these paragraphs being included in this text. Some people felt strongly that their inclusion would undermine the positive statements and the progress that has been made towards partnership and finding a mutually acceptable solution. However the purpose of this reply is to present the entire spectrum of feeling on Pitt; it would be incomplete if these paragraphs were not included. Thus they have been included, with the proviso that this disagreement is noted, to give the reader an idea of some of the present underlying emotion and difficulties which must be overcome.

"DOC has forever to take Pitt off us bit by bit, but we're used to tricks and the divide and rule idea."

"The reserves wouldn't be there except for Islanders being generous. Now DOC wants to take everything and get us to live like people in New Zealand think we should."

"I have bush I would like to fence but can't afford to. I wouldn't let DOC or the government near it with a barge pole. Give us the money DOC wastes on Pitt and in a couple of years we could have heaps of bush and coastline fenced. This would easily makeup for the difference the sheep make in the reserve."

"Pitt is stuffed if we lose any more land, especially Glory. People have to live there, build their houses, raise families without being rented off the land. DOC is never going to allow that."

"If DOC is unprepared to cooperate with us and actually do something, we don't see DOC getting anywhere with the things it wants to do on Pitt."

"If we had to choose between living with a rat or having the island overrun by tourists, DOC people, government and reserves, I d choose the rat."

"If DOC were really interested in saving the trees, not their fobs, they wouldn't waste hundreds of thousands achieving absolutely nothing. They'd have a permanent local employee and contract workers who achieved things for their money."

"It will be DOC's fault completely if they push Islanders too far and someone lights afire or releases rats here or on the islands and ruins OUR environment."

'DOC's actions won't hurt them personally. Some locals will side with DOC for all sorts of personal reasons and selfish short term reasons. Spare a thought for the kids.

"You've got your reserves fenced. Get us to look after them."

Pitt Island is the best place. I don't care what I have to do to stop people ruining it."

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

- All parties (Pitt Islanders, DOC and associates) have an interest in the welfare of the Reserve, but their values differ.
- All Pitt residents value the recreational opportunities the Reserve offers them, especially the hunting, and want these recreational values to be recognised in the management of the Reserve. The various scenarios for creating an enclosed hunting area, suggested by Geoff Walls in "Just You Ask The Plants", are considered to be a last resort. Confining the feral sheep to a relatively small area will inevitably result in the total destruction of remaining forest in that area, which in turn will expose adjacent forest to the cutting edge of the wind. This would be especially so on the southwestern side.

- Pitt Islanders would like to see the Waipaua Reserve managed in such a way that the woodland areas, which provide most of the recreational opportunities, are sustainable.
- Islanders want to ensure that the stock remain in and are a feature of the Reserve for ever more. There is concern that DOC's obligations under the Reserves Act to eradicate feral stock may over ride any previous agreement and statements in the CMS.
- Islanders realise that the continuation of their traditional hunting rights should not over ride an obligation to preserve the ecological values of the Reserve. They believe that hunting and ecological values can "coexist" Island wide when other protected areas on Pitt are taken into consideration.
- Wind is a major factor in preventing forest regeneration.
- Obviously the survival of the Chatham Island nikau is an issue, but the reason for the lack of regeneration is not as clear as first thought. There are many observations that are inconsistent with the theory that pigs are to blame.
- Good communication between Pitt Is residents, PIRC, DOC and the CICB is essential.

Recommendations

- After identifying and protecting small representative habitat areas, both
 public and private Island wide, the management focus for the Waipaua
 Reserve should be to maintain the woodland environment small clearings interspersed with stands of trees and pongas, protected areas and
 natural animal tracks.
- Work should begin on identifying a way of ensuring that the stock have a legal right to remain and are managed as a permanent feature of the Reserve.
- Planting on the exposed south western side in particular should be a key component of active management within the Reserve.
- A small area of nikau should be protected, and more work done to determine exactly what is happening.
- The vegetation monitoring should continue.
- There should be better monitoring of stock numbers.
- Existing fences should be better maintained.
- The PIRC should have a more active role in the management of the Waipaua reserve, with assistance from DOC specialists.

 To this end there should be a task force of relevant motivated people from Pitt Island and DOC working towards creating this situation, and a management plan which ensures that the cultural and ecological values of the Reserve are maintained.

Key recommendation

In the long term the Department and Pitt Island should work towards a situation where Islanders can sustainably control and manage the Pitt Island Scenic Reserve.

STATEMENT FROM THE PIRC

- A The Pitt Island community does not want to see the bush or environment within the Reserve destroyed.
- B. The stock (Saxon merino sheep and feral pigs) must stay in the Reserve to maintain an area that is a huge and invaluable part of our community way of life.
- C. While obviously the stock in the Reserve modify it considerably (as opposed to it being completely stock free) the Reserve can be managed on a long term sustainable basis to be an asset to locals and flora and fauna, especially in conjunction with other private and Crown reserves.
- D. This and other issues will always cause disagreements between locals and the Crown. Work needs to start immediately on lasting solutions to these issues, i.e. legislation.
- E. Active management should begin immediately to save the nikau within the Reserve.

Pitt Island Reserves Committee, March 1998.



FIGURE 4
Plot 11 exclosure, May 1997, showing cletails of forest regeneration after only two years' relief from browsing and rooting: seedlings of mahoe and nikau palm; epicormic shoots and a young tree fern at the base of a matipo tree. Photos Geoff Walls.