

ESTOR Notabilis

Newsletter of the Kea Conservation Trust

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*Education and Advocacy
in Conservation –
What's the measure?*

*Kea cognition – a remarkable case
of convergence with primates*

*Supporting Kea Conservation
from 14,000 Kilometres Away*



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2012 Summer Survey

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Nest monitoring – Arthurs Pass and Nelson Lakes

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Te Wao Nui's home for kea a win for both birds and visitors
State of our Planet : After 7 billion – a challenge for conservationists

June 2012 : Vol 6

www.keaconservation.co.nz



THE KEA CONSERVATION TRUST

Inspiring people and their communities to protect kea

Founded in 2006. Registered as a charitable trust under the Charities Act 2005.
Registration No. CC29701.

The Kea Conservation Trust (KCT) was set up in 2006 to assist in conservation of wild kea (*Nestor notabilis*) in their natural habitat and to increase the husbandry standards and advocacy potential of those kea held in captive facilities within New Zealand.

Aims

The Kea Conservation Trust aims to assist in conservation of wild kea in their natural habitat through:

- Establishing positive working relationships with associated conservation groups/individuals;
- Raising of funds to allow research on kea issues;
- Provision of an easily accessible information resource on kea.

The Kea Conservation Trust also aims to increase the husbandry standards and advocacy potential of those kea held in captive facilities within New Zealand through;

- Provision of information on best practice management;
- Raising funds to conduct research into:
 - Advocacy strategies
 - Optimum enclosure design
 - How best to maintain the physical/psychological health of captive kea;
- Provision of a support network for all kea holders.

Vision

To ensure an enriched and sustainable future for both wild and captive kea populations.

Mission

To develop and coordinate a coordinated support system through local and national affiliations for conservation of kea in the wild and their best practice management in captivity.

Working Together

Protection of endangered wildlife and their sensitive environments can only be achieved through collaboration – communities working together on local, regional, national and global scales to save charismatic and interactive species such as kea.



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Photo: Corey Mosen



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The KCT Team

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Tamsin Orr-Walker Peter Fraser Andrew Newman Kevin Plowright Dr Nigel Adams Dr Lorne Roberts Josh Kemp Andrew Fidler Sir Hugh Williams Melanie White



LETTER FROM THE CHAIR

2011 has been a challenging year – although there has been a significant increase in interest being shown for kea by media, individuals and organisations here and overseas, this has been tempered by a number of extreme lows – kea shot in Arthurs Pass, minimal nesting success at two key study sites and pest control related deaths on the West Coast.

On a positive note, we saw a number of success stories highlighted in the media; Keas 'George' and 'Jake' – casualties of lead and leg hold traps respectively, saved from certain death by dedicated carers and,

the collaborative efforts of communities and Department of Conservation (DOC) to ensure old alpine huts throughout conservation areas were made lead-free. In each case the commitment of DOC, local vets, captive facilities and people young and old working together to ensure the species survival was highlighted. Donations for research and advocacy were also forthcoming – many from new members and individuals as well as zoos holding kea here and overseas. It's great to see captive holders of this species continuing to get behind conservation of kea in the wild, one such zoo in this edition showing distance to be no object.

Unfortunately, we continue to receive reports of kea deaths, many of these directly attributable to human interference – the illegal shooting and dumping of birds

at Arthurs Pass and the West Coast, the suspicious death of two of our research birds, and a significant number of West Coast kea dead after a monitored 1080 drop. Although we feel that the 1080 issue will soon be laid to rest with the 2013 introduction of bird repellents in baits, persecution of kea continues to be a very real problem. The challenge now is finding practical solutions to these complex issues without letting their magnitude or pervasiveness daunt us. Working together to ensure the future of this most extraordinary and enchanting mountain parrot is our on-going goal for 2012 and beyond.

“Coming together is a beginning; keeping together is progress; working together is success.”
Henry Ford

Whare Kea Lodge & Chalet



Martyn and Louise Myer have always had a passion for the mountains.

“They provide us with both a physical and an emotional renewal from the stresses of a hectic urban life that no other environment can. This renewal is drawn from a multitude of sources. They include the beauty of the alpine environment, the thrill of the climate's four seasons, the physical challenge of outdoor activities, the mental challenge of mastering sports like mountaineering, and the satisfaction of successfully planning and executing a trip. Just as important to us is the pleasure of sharing these experiences with good friends, particularly those who have never enjoyed them

before. Whether standing on some spectacular peak or in the bottom of an exquisite gorge we have a saying that, in a quirky way, sums it all up: we are 'gathering the energy of the universe'. The weather, the lake and the mountains provide a constantly changing visual feast. We named the lodge Whare Kea Lodge, after the kea, the cheeky and intelligent native mountain parrot. We understand that the kea were considered guardians of the mountains for the Waitaha Maori during their search for pounamu (greenstone). We are fascinated by the alpine parrots who often share their mountains with us on our journeys of exploration”. (quoted from their recent book, *Wanaka: Earth to Heaven at Whare Kea*)

Martyn Myer explains their support for the Kea Conservation Trust as being part of their commitment to conservation. We have been seeking opportunities to support projects in New Zealand. To be part of the Kea Conservation Trust is a perfect fit with our lodge – Whare Kea Lodge, located on the shores of Lake Wanaka and the Whare Kea Chalet based in the Albert Saddle at 1750 metres. In 2010 the Myers added a web camera to the mountain chalet. This operates by solar power and plays live image via the Lodge and Chalet website www.wharekealodge.com. Through the webcam we can monitor kea and bird activity at the chalet in the Albert Burn saddle.

A tribute to kea conservationists: Helen Schofield and Barry Lawrence

Tamsin Orr-Walker, Kea Conservation Trust

Photo: Courtesy Franklin Zoo and Wildlife Sanctuary



Helen Schofield : 1962 – 25 April 2012

Helen was one in a million; a passionate conservator, advocate for animal welfare, vet, zookeeper and Director at Franklin Wildlife Sanctuary in Tuakau. She spent 24/7 looking after old, infirm and homeless animals needing care and shelter and as a vet also became intrinsically involved in research and care of kea. It was Helen's objective to increase the sanctuary's role in protection of endemic wildlife. Helen was instrumental in supporting the Kea Conservation Trust's initial bait repellent captive trials in 2009 and worked closely with Tamsin, the trust chair, during the first of the behavioural trials. Helen also took in a number of wild and captive kea over the years needing medical attention and devoted her time to both their physical and psychological care. Helen and Tamsin, with Trust advisor Dr Lorne Roberts, also spent many hours discussing the building of a new walk-through kea enclosure and rehabilitation centre at the Sanctuary, to better care for physically and behaviourally challenged kea and to provide an interactive environment for people, families and children to learn more about this fascinating native parrot. She also helped with nutritional information in the 2010 Kea Husbandry Manual.

Tragically and prematurely, Helen lost her life at the zoo – the animals and family whom she loved, with her at the end. Thank you for your gifts of friendship, support, and knowledge – you inspired many and will be sorely missed by us all. Rest in peace Helen.

Barry Lawrence

Department of Conservation Biodiversity assets manager, Barry Lawrence died 7 December 2011 after a short battle with cancer. Barry was a passionate and respected conservationist with enormous knowledge of the field he worked in for over 30 years. A major part of Barry's conservation efforts was to legislate for protection of the landscape around the Wakatipu area; an important resource for many threatened native birds. In 2008 Barry was given the Queen's Service Medal for his services to local body affairs and the environment. Barry first became involved with the Kea Conservation Trust in 2008 at a CMaG conference in Invercargill. At that time he expressed concern at conflict situations between kea and farmers in the Queenstown area. Over the years he spent significant time with the trust providing a wealth of information to try and better understand this historical issue; historical data, maps and personal information he had gleaned during his 30 years in the area. This information will form the basis of new KCT projects which we will look to develop in collaboration with other organisations in an effort to protect the future of the Queenstown kea that Barry loved so well.



Photo: Courtesy Department of Conservation

Education and Advocacy in Conservation – What’s the measure?

*Dr Lorne Roberts, Senior Lecturer and Programme Leader,
Unitec Institute of Technology, Auckland*



*Dr Lorne Roberts (Unitec, NZ) and
Tamsin Orr-Walker (KCT) talking to
Twizel locals during the 2010 Kea
Winter Advocacy Tour.
Photo: Kevin Moore*

If you scan the websites and mission statements of many conservation organisations, you will find most, if not all, will advertise education and/or advocacy as an important role or objective as one of the means to achieve their ultimate goal of sustainable conservation. And indeed, many will offer varied programmes and strategies for delivering information to visitors and the general public. The question that is rarely answered is “what effect does the education or advocacy programme actually have?” It is easy to provide statistics referring to how many education sessions are delivered, the number of visitors/customers that are present over a time period, and even visitor/customer satisfaction feedback. But what is the measure of education?

I have been involved in education in one form or

another most of my life and there is one unerring factor that determines how successful I am in my pedagogical pursuits – the extent to which I institute positive change in the behaviour of my students or audience? Whilst students and audiences may applaud my delivery skills, returning comments of enjoyment, interest, engagement and even heightened awareness of the subject matter, this is no direct measure of what I had initially set out to do. Furthermore, it is just as important for me to ascertain the magnitude of the changes in student behaviour and their durability over time. For a student to be able to recount the times tables up to twenty is no mean feat, but I question its usefulness in the greater scheme of things. How will it help them get a job? Will it better their performance in a job? Will it provide some

benefits to their lives in some other way and how long will those effects last? Further, are these benefits clearly and unequivocally attributable to their learning of the times table specifically, and is the cost of teaching and learning these mental arithmetic skills balanced with the benefits? And so it is with conservation education. Imparting current and interesting information regarding the plight of species and the environment, and even providing clear action pathways for audience members to take in order to support conservation initiatives, does not (and rarely does) provide for lasting beneficial behavioural changes. Of course there is the further awkward question, “even if audiences’ behaviour changes for the positive, what effect is it having on the overall cause”?

Similarly, advocating for particular causes faces similar

challenges in proving their success via outcome-based evidence. Here, whilst one might feel content with an increase in number of followers for a given cause, this has little intrinsic value if the followers do not participate actively in support of the cause. As such, growing and gathering numbers of people who support a particular venture is a good start and may certainly show that your message is getting across to a particular sector of the public, however, more robust and longitudinal evidence must be sought before concluding the advocacy strategy a success.

To use a simple and relevant example – the numerous signs found around the South Island telling visitors (tourists and New Zealanders alike) to refrain from feeding kea because it causes harm to the birds. We may gather statistics regarding how many signs there are across the South Island, how many visitors pass the signs and even what designs are more attractive to the passer-by. Yet these are not outcome-driven questions that allow us to determine the success of the signage

campaign. The pertinent questions are; do visitors read the signs AND understand the information/directive AND subsequently alter their behaviour accordingly? This would be further supported by data showing how many kea die from ingesting human foodstuffs (although this is difficult to determine and harder still to attribute directly to intentional feeding of wild kea) and whether this number has decreased around the areas where signs are prevalent. For those of us lucky enough to visit the South Island frequently or live there, there is very clear anecdotal evidence to suggest that visitors still feed kea, sometimes directly in front of the very signs that tell them not to. It is therefore clear that, although the signs may have a positive impact in reducing the number of incidences of humans feeding kea, quite what that impact is, nobody knows, and whether it is worth all the time and effort in resourcing signage development, construction and maintenance is near impossible to evaluate.

Clearly, the challenges of proving the success of

education and advocacy-based conservation strategies apply to the full range of governmental and non-governmental bodies, including ministries, zoos, school and tertiary institutions, trusts and private concerns. For until there is a credible attempt to evidence successful conservation education outcomes, the claims of conservation benefit are naïve at best, and deceptive at worst.

The Kea Conservation Trust recognises that whilst providing a very extensive and current resource centre that can be used freely by interested parties, its research and mitigation work, as well as its wealth of continued partnerships, have positioned the trust such that it may provide for more direct education on and advocacy for kea conservation (and possibly New Zealand conservation in general). As such, it will be crucial for the trust to invest time and resources into establishing the effectiveness of any education or advocacy programme to ensure that they benefit the trust's primary goal; that of kea conservation. After all, having many people talk wistfully and knowledgeably about the beauty and intelligence of kea, their cultural and ecological importance to New Zealand, and their uniqueness within the world, is of little comfort if there are no more.

“The great aim of education is not knowledge but action”.

Herbert Spencer (1820-1903)



Photo: Corey Mosen

2011 – THE HIGHS AND LOWS IN BRIEF

Edited by Tamsin Orr-Walker, Kea Conservation Trust

JANUARY – FEBRUARY

The 2011
Kea Summer
Survey field

work was completed by an enthusiastic team of 40 experienced kea handlers and volunteers at three study sites this January. Results of the three-year study show a significant decline in the Nelson Lakes population since the 1990s.

Department of Conservation (DOC)'s Research & Development (R&D) team, headed by Josh Kemp, conducted field trials of the kea repellents to ensure that target pests were not repelled by the new bait mixes – preliminary results were extremely positive with no repellent effect being shown on pests. Further testing will be conducted by the R&D team before introduction of this bird repellent into all 1080 baits.



Photo: Andy Newman

DOC takes the lead poisoning issue seriously, stating a need in conservancy documents to remove this toxin from conservation land as soon as possible.

FEBRUARY – MARCH

Kea strike on sheep is brought to the fore in February after contact by a concerned merino farmer. This is a highly controversial issue which needs reasoned discussion and action to resolve.

Five nest cameras were purchased and placed at nest sites in Arthurs Pass and Nelson Lake as part of the Wellington Zoo Conservation Fund nest monitoring and tracking project. It is hoped that these will capture footage of kea nesting activity as well as any pest visitation events.

The 2010 Kea Husbandry Manual went global with North American AZA kea studbook keeper, Jessica Meehan, distributing the manual to their members and Bristol Zoo keepers using the information from the manual to upgrade enrichment for their kea.

APRIL – MAY



The new Kea Conservation Trust video produced by Roland (Kahurangi) Payne was completed and loaded onto our website. This four-minute film highlights kea issues and promotes the KCT's work to the community.

Nest monitoring cameras placed in Nelson Lakes and Arthurs Pass clearly show possums visiting kea nests raising concerns about chick survivorship this year.

Capri Gilliam took over the Facebook administrator position.

The 2011 Winter Advocacy Tour was highly successful with over 270 people attending 13 talks over the 10-day tour around the South Island. This year's tour also included the winter survey with volunteers braving heavy snowfalls to send in sightings of kea to us.

Initial discussions to start trials of repellents on sheep to stop kea strike began in Queenstown between the KCT, DOC Wakatipu and local farmers. This is a very positive step forward which will hopefully result in resolution of this difficult historical issue.

In partnership with DOC, the Rotoiti Kea Protection Plan was launched to protect the three remaining breeding pairs of kea in the Nelson Lakes area (funded by Wellington Zoo Conservation Fund (WZCF), Avian Disease Management Council (ADMC) and Australasian Society of Zoo Keepers (ASZK)).

The KCT attended the ZAA NZ conference at Wellington Zoo and presented a paper entitled 'Collaboration for kea conservation' (T. Orr-Walker & Dr. Lorne Roberts (of Unitec Institute of Technology)).

JUNE – JULY

August-September was not a good time for the kea population with five birds shot dead and laid out on a picnic table at Arthurs Pass.

Unfortunately the person or persons who committed this crime were never found. Another kea was also dumped at DOC on the West Coast in a potentially related incident and in September seven dead kea were recovered by DOC staff after a 1080 operation on the West Coast.

The Arthurs Pass (AP) community project was initiated this month in what is considered a key hot spot for kea. This project is funded by Canterbury Community Trust (CCT) and the Auckland Zoo Conservation Fund.

Dr Nigel Adams (KCT trustee and science advisor from Unitec Institute of Technology) presented a paper on the KCT's summer survey census 'Surveying the Southern Alps': substantial differences in indices of kea (*Nestor notabilis*) abundance across its range may reflect response to pest management (N.J. Adams, J. Kemp, T. Orr-Walker and L. Roberts) at the Australasian Ornithological conference 2011 in Cairns, Queensland.

AUGUST – SEPTEMBER



Photo: Paddy Moran

OCTOBER – NOVEMBER

Funds were secured for the 2012 Summer survey from the NZ Lottery Grants Board ensuring this great work continues over all

three survey sites this coming January in collaboration with DOC.

The KCT Chair visited Otago University for the launching of *Wild Heart – The Possibility of Wilderness in Aotearoa*. The authors of this lovely book have very kindly donated the proceeds to the KCT and NZ Forest & Bird.

We also welcomed our new Treasurer, Andrew Newman to the KCT. Andy has volunteered his accounting expertise over the past few years to the Trust. Many thanks to our exiting Treasurer, Hugh Williams, for his work over the past few years.

DECEMBER – JANUARY 2012



Photo: Andy Newman

The 2012 summer survey field work was completed by the end of January thanks to our intrepid volunteers and field workers who were very ably managed by our three hard working site coordinators Corey, Paul and Matt.

Keen volunteers Martin Curtis and Kenny Lang were spotted in the news clearing the Cascade Hut at Mt Aspiring of old lead-head nails.

Dr Nigel Adams presented a paper on the KCT's bird repellent research; 'Effectiveness of the bird repellents anthraquinone and d-pulegone on an endemic New Zealand parrot, the kea (*Nestor notabilis*)' (T. Orr-Walker, N.J. Adams, L. Roberts, J. Kemp and E.B. Spurr) at the Society for Conservation Biology, in Auckland.

FEBRUARY – MARCH 2012

Filming of the KCT's Kids Kea Conservation DVD (funded by the Lion Foundation) began in March at Mt Cook School. Roland Payne is developing this DVD for the KCT which will be available to schools and groups by August 2012, and will provide some fun tools and information for kids to really get their teeth into kea conservation projects.

Two young boys from Nelson saved Jake the one-legged kea. Jake was caught in a leg hold trap and had his leg amputated as a result. Jake is now resident at Natureland zoo in Nelson where he was cared for during his recovery.

And finally the KCT's bird repellent paper was published in *Applied Animal Behaviour Science*.



Photo: Coral Butler

KEA CONSERVATION TRUST: RESEARCH 2011

The 2011/2012 research year was highly successful with a number of projects being rolled over from 2010. On-going monitoring of kea nests and radio tagged kea from the Summer Survey at Nelson Lakes and Arthurs Pass continued throughout the year; the July Winter Survey and Advocacy Tour kicked off at the end of June and the Arthurs Pass Community Kea Conservation Project was initiated later in the year along with development of an initial education framework for school children. Thanks to all our sponsors and in-kind supporters who enabled these important projects to go ahead.

Photo: Corey Mosen

Winter Advocacy Tour

Tamsin Orr-Walker, Kea Conservation Trust

Funded by Hubbard's Foods with support from the Lion Foundation and Unitec Institute of Technology



The KCT kea winter survey has been running each July since 2008. As part of this survey a visit 1 week to 10 days prior to the survey is conducted to connect with key stakeholders in key areas and to highlight the survey. Over the years this has been extended to include a number of talks on kea, the issues facing the species and the role of communities, and stakeholders in collaboration with the KCT, in protecting this species. These talks also provide the opportunity for public discussion about topics particularly relevant to the local area.

The list of talks has increased steadily over the years with demand driving the number of locations and numbers of people attending talks. This year, 270 people attended 13 talks (5 school and 8 public

talks) delivered from 29 June – 10 July 2011 by trust Chair Tamsin Orr-Walker and science advisor Dr Lorne Roberts (Unitec, NZ). The talks were hosted by the following groups in the following locations: Otago University, Dunedin; Mt Cook School and Department of Conservation (DOC) at Mt Cook; Forest & Bird in Christchurch; DOC in Arthurs Pass; South Westland Area School, Whataroa School and DOC in Franz Josef; Fox School and DOC in Fox Glacier; Sustainable Wanaka, in Wanaka and Kiwi Birdlife Park in Queenstown.

Our first talk at Otago University also included a fascinating talk about kea genetics from PhD student Nic Dussex. To date he has isolated micro satellites from over 500 DNA samples –

many of these collected by us during our Summer Surveys. At present he sees 3 distinct subpopulations (the 4th site at Kaikoura Mountains has a very small sample of 4 so he has not as yet included these in his results). Nic's research could have profound ramifications not only in regards to kea representation in captivity and any future reintroductions of birds into the wild but also on providing information on the diversity of the remaining wild population and any bottlenecking resulting from the historical bounty.

Additional highlights of the tour included a very energetic welcome at Mt Cook School from the 7 children and 2 teachers who had spent considerable time learning about kea prior to our visit. The visit sparked the idea of

developing a children's kea conservation video to get more kids enthused about engaging with kea.

The evening talk at Mt Cook DOC also brought up some interesting information on the use of Ferotox (cyanide in cereal pre-feed) bags by Twizel DOC. These bags are stapled to trees to control possums. DOC have noticed a number of these torn open top to bottom and all contents emptied and are concerned that it may be kea (a kea was seen following one of the DOC workers while he was stapling these up on trees). The issue of Ferotox being accessed by kea was also brought up at the

Arthur's Pass (AP) talk. The AP community again showed on-going support of the KCTs work in the area and it is hoped that more collaboration will occur in the future.

Talks at Franz Josef and Fox Glaciers also went well with 4 school talks and 2 DOC talks organised by Cornelia Vervoorn of DOC. The West Coast has historically been a kea trouble spot with populations of kea heavily persecuted by locals or poisoned during 1080 aerial operations. The DOC kea team and community made us feel very welcome and we hope to get back there again next year.

Wanaka was the next port

of call and we were highly entertained by local singer, Martin Curtis, and his wonderful poem and song of kea before seeing in the first falls of snow at Queenstown Birdlife Park. Unfortunately this resulted in our airport exit from Queenstown the next morning being cancelled and replaced by a 10-hour bus drive through some very snowy (and highly scenic!) passes to Christchurch making for a very eventful exit from the South Island. All in all, the tour was considered a great success, stimulating more discussion and ideas about potential projects and direction within the Trust for future years.



Photo: Lorne Roberts

Nest monitoring – Arthurs Pass and Nelson Lakes



Tamsin Orr-Walker, Kea Conservation Trust

**Funded by Wellington Zoo Conservation Fund (WZCF)
and the New Zealand Lottery Grants Board**

Photo: Corey Mosen

This is the second year of this project which aims to conduct follow-up monitoring of two known kea populations in two key study areas (Nelson Lakes and Arthurs Pass). Both areas are integral to a larger population research project which has been run annually for three years in Nelson Lakes (2009-2011) and four years in Arthurs Pass (2009-2012). This census work aims to establish the density and stability of kea populations in a number of key areas which are subject to different pest management regimes. The nest monitoring and tracking project will provide crucial supporting information for the summer survey by ascertaining status of kea pairs, nesting activity, and movement, migration and survivorship of radio tracked (Tx) kea throughout the year within each of the study areas.

ARTHURS PASS: At the start of the 2011 season there were twenty-one kea radio tagged in the Hawdon valley, Arthurs Pass to be monitored. Six transmitters were found to be in mortality mode (4 of which were adult breeding females). The loss of these birds significantly reduces the possible sample size of nests to monitor. Additionally, nine transmittered birds remained unaccounted for resulting in only



six kea able to be followed. Three of these kea are adult females of which only one has been identified as attempting to breed this year (Queen Pow Pow). The other two females showed no indication of having active cavities or any notable courtship or nesting behaviour. Nest cameras set up at the Queen Pow Pow's nest showed that this nest was abandoned with an egg intact and this pair moved to another nest site which also did not produce chicks. Information gleaned from this nesting season appears to indicate that the high number of deaths of both adult and sub-adult birds may now be affecting productivity. A case in point is the late 2010 nesting by

Mrs Moon (one chick fledged at the end of April 2011). Mrs Moon died one month later on 8 June 2011.

NELSON LAKES: In total eleven telemetry checks were conducted in this area. In August 2011, a light aircraft was used to radio track birds (thanks to in-kind support from DOC). Seven kea are presently radio tagged in Nelson Lakes – two of these are adult females, Ceejay (mate Kelly recently deceased), and Aphrodite (mate most probably Gandalf). The area's additional breeding female Fidget (mate Phantom) is not yet radio tagged. The two active satellite tagged birds are both sub-adult males who have not yet formed any

pairings (Raglan Ranger and Leppard). The three identified breeding pairs (confirmed through the 2009-2011 summer survey and 2010 nest monitoring efforts) were followed and their nest cavities identified. Out of a seven possible nest sites, three cavities were confirmed by September 2011. Cameras were set up inside and outside

each nest area and images taken throughout the breeding season. Only one of the breeding pairs, Ceejay and Kelly, successfully fledged chicks as follows: Nest Site 3 successfully fledged three chicks early in December 2011; Nest Site 26 most likely failed due to possum predation; Nest Site 8 was found to be infertile. Unfortunately, Kelly, Ceejay's

mate, was recovered dead during the nesting period (necropsy report showing cause of "sudden death" – unknown). The last sighting of him alive by Corey Mosen was on 21 May 2011 and on camera footage 17 June 2011. Fortunately Ceejay and her chicks continued to be resourced by up to three attendant males.

Arthurs Pass Community project

Tamsin Orr-Walker, Kea Conservation Trust

This project based in the Arthurs Pass alpine village and surrounds was initiated in October 2011 and is the first project of its kind to directly engage a community to develop a plan for kea conservation. The project is made up of two parts and aims to, a) identify a community kea conservation strategic plan after community discussion and, b) to develop a kea focused education framework for schools.

The project is generally based in the Waimakariri area and more specifically Arthurs Pass, Castle Hill village and businesses extending along the mountainous areas following the Great Alpine Hwy on the eastern side of the main divide. Although the resident human population of these areas is quite low and generally seasonal, the Arthurs Pass Visitor Centre is the fourth busiest DOC visitor centre in the country with 160,000 people through the doors annually.

People come en masse to explore the natural wilderness of the National Park, to ski at any one of six ski fields, or to stop en route in the middle of the pass for a coffee before travelling to the other side of the divide. There are also those people, particularly overseas tourists who come to Arthurs Pass simply to see and photograph the antics of the unique feathered locals. The alpine village is home to kea who breed in the National Park beech forest surrounding the often busy village and as such it is a melting pot of potential conflict situations and, as a result, an excellent place to conduct research on conflict resolution.

The first stage of the project looks to identify community views (including concerns/issues) surrounding kea, provide an objective view of the scale and scope of any issues identified, direct community discussions to finding solutions to mitigate these, identify available community resources and investigate ways to mobilise community passion/



expertise. In Stage 2, a Community Strategic Plan is to be developed to address all the stakeholder issues which have been identified.

A pilot education programme directed at local primary and secondary schools is also to be developed (in collaboration between local teachers and KCT education personnel). This is aimed at providing a freely accessible resource for schools to encourage more kids to get involved with kea and conservation of native species in general. Other child-focused resources will also be sourced and developed throughout 2012 inclusive of a kids conservation DVD, songs, music, books and cartoons to build up an extensive library.

Many thanks to the Canterbury Community Trust (CCT) and Auckland Zoo Conservation Fund (AZCF) for funding this project.



Photos: Tamsin Orr-Walker

2012 Kea Conservation Trust Summer Survey



Tamsin Orr-Walker, Kea Conservation Trust

Sponsored by the NZ Lottery Grants Board



Department of Conservation
Te Papa Atawhai

Three Kea Conservation Summer surveys were run between 13 – 24 January 2012 at Kiwi Saddle, Kahurangi National Park, the Hawdon Valley in Arthurs Pass and Borland saddle in Fiordland.

This survey could not have been possible without funding from NZ Lottery Grants Board and the collaborative input from Department of Conservation. Special thanks must go to Josh

Kemp (DOC R&D), who continues to provide his expertise and support for this work, and thanks also to our dedicated team of KCT science advisors who continue to volunteer their time.

Kea Survey – Kiwi Saddle, Kahurangi National Park

Corey Mosen, Natures FX

During the period 16-24 January 2012 a kea census was conducted by a group of 12 people in the Kahurangi National Park, specifically between Mt Luna, Mt Patriarch and Mt Baldy in the Wangapeka area. The census involved treeline surveys conducted by pairs (one volunteer and one person with previous experience with kea) between the hours of 6am to 9am and 6pm to 9pm.

All kea activity was recorded, the majority of sites were surveyed twice and follow-up visits to the site were conducted if there was significant sign of kea. One potential nest cavity was visited and there was an attempt to catch the female who was perched close to the site.

Five kea were caught during the period, two new birds and three recaptures of historically known birds. One diagnostic transmitter was attached to an adult female, 'Ridge Runner', all other captures resulted in bands attached or updated, measurements taken, and DNA samples collected.

Four fledglings were caught and transmitters attached prior to the survey, (22-23 December)



Photo: Liam Bolitho

transmitter checking took place from high points when time allowed with historically known kea transmitters checked for an alive or dead status and the direction of its position noted.

There was quite significant kea activity at the top of the Gibbs Track with at least six unbanded birds frequenting the area on more than one occasion. Attempts were made to catch as many as possible with one team devoting two nights to this task.

The team were all very fit, helpful and got on extremely well. We had more than a few laughs and experienced a range of weather

conditions, from scorching hot days, rain and even snow.

Acknowledgements: thanks to the Kiwi Saddle team including site coordinator, Corey Mosen, experienced bird handlers Dave Patterson, Jason Taiaroa, Patrick Crowe and Sarah Forder and volunteers David Van Der Peet, Joe Hay, Lesley Hadley, Liam Bolitho, Pamela Jenkins, Rosie Wallacy, and Tom Goodman.

Additional thanks must go to DOC Motueka, for providing radio communication and schedules for staff and volunteer safety, and Syd Deaker, for helicopter flights around the area.

Kea Survey – Hawdon Valley, Arthurs Pass

Paul van Klink, NZ Wildlife Solutions

The fourth annual kea tree line survey in the Hawdon Valley, Arthurs Pass was carried out between 13-22 January 2012. The survey involved 13 personnel who surveyed a total of 14 sites above the tree line.

Kea were observed at all 14 sites and birds were caught for banding at eight of the 14 sites. A total of 12 kea were caught and handled on the survey. One of the 12 kea caught was a recapture and the remaining 11 were new birds. Of these 11 kea, four had transmitters attached to them including one which has a satellite transmitter (two fledglings, two adult females).

Two nests/cavities were visited during the survey. One was not active (Moon's nest 2010/11) and How's 2011/12 nest appears to have failed.

Acknowledgements: thanks to the Hawdon Team who



Photo: Andy Newman

consisted of Paul van Klink, site coordinator; experienced bird handlers (EBH): Laura Young, Raoul Schwing, Brent Barrett, Amanda Greer and Paddy Moran and volunteers: Neil Pilbrow, Sasha Roselli, Joel Zwartz, Jane Gosden, Rennie Bishop, Andy Newman, and Ryan Nielson. The number of experienced kea handlers has increased in recent years due

to the corresponding increase in kea conservation work. The number of personnel with competent bird handling skills has made it easier to recruit EBHs each year.

Additional thanks go to Department of Conservation staff at Rangiora for radio schedules during the week and to DOC Arthurs Pass for weekend radio schedules. The Christchurch Boys' High School provided Kidson House for a nominal fee. Corey Mosen and Josh Kemp of DOC Nelson provided a large amount of kea catching and handling equipment. Laura Young and Jane Gosden purchased additional groceries for the survey and some fishing rods for catching kea, and Department of Conservation Hokitika Area Office, South Westland Area Office and Waimakiriri Area Offices provided VHF radios, spare batteries and radio chargers.



Photo: Paul van Klink

Kea Survey – Borland, Fiordland

Matt Charteris, Waybacks Ltd



Photo: Andy Newman

A kea survey entailing a 3-hour evening and a 3-hour morning observational survey at 26 sites above, or on the bushline, was carried out between 14-22/01/12 in the Borland area of Fiordland National Park. In addition, two historically known nest site areas (within 200m of the nest) were visited for 30 minutes. No sign of breeding was found on these nest area visits or from the survey sites. Successful breeding for this season in the area was confirmed with a very mobile male fledgling (accompanied and fed by an unbanded adult male) being encountered and caught at Borland Saddle. The fledgling has been named 'Warren'.

A low snowfall at the start of the survey period which was followed by strong winds (gusting 30-70 knots), compromised the survey to some degree. It is known that observer behaviour (tucking in out of the wind; hearing) was

influenced by this weather and possibly also the behaviour of breeding kea may have been influenced as the winds would have made flying difficult for fledglings.

All three kea in the area with working transmitters were confirmed alive through receiving 'non-mortality' signals of their transmitters. Two of these kea ('Celine' and 'Gyp') were associated with the Borland Saddle area where it appeared a set of nearby bluffs were a 'hangout' for a loosely associated group of non-breeders including a minimum of four sub-adult kea. Three band returns were collected from this loosely associated group of kea. The headwaters of Walker River (survey sites 7, 8 and 22 and close to historical nest cavity 40) also seemed to be an area with a small number (minimum $n=3$) of kea. It is felt that these two areas warrant a re-visit in more suitable viewing and catching conditions before the

end of this season (trip forecast March 2-8 for four people).

Very few kea were sighted within the survey area and no breeding pairs were confirmed. Three band returns were recorded from a subadult female (RO/M) and two adult males (M-Pk and MPk/W). At least four adults, three sub-adults and one juvenile unbanded kea were also recorded.

Active transmitter signals were picked up within the Borland area from one adult female (Celine (20), and two males (Gyp (66) and Bioman (18)).

Acknowledgments: thanks to all the Borland team as follows: survey leader: Matt Charteris, EBHs: Reuben Lane; Nic Dussex and Joseph Fraser and volunteers: Ursula Ellenberg, Lucy Rossiter, Laura Bussolini, Mike Hitchcock, and Graeme Clements. Additional thanks to Te Anau DOC contact, Andrew Smart.

RESEARCH PROJECTS

Looking ahead: 2012-2013

The 2012/2013 year will see a number of current research and community projects finalised as well as a few new ones initiated. Current projects which will be completed over the course of this year include the 2012 Summer Survey and follow up tracking work – a collaborative venture between the KCT and Department of Conservation which has run for the past four years. Information gathered from this extensive census has resulted in the development of several satellite projects, including nest monitoring in Arthurs Pass

and Nelson Lakes, and the Rotoiti Kea Protection plan in Nelson Lakes which we hope to continue for the next few years. These sites are of particular interest, not only because of the depth of information on the kea population gathered over the last few years (which has added to existing information particularly at Nelson Lakes), but also because of their value as study sites for many of the issues impacting on this species; specifically predation, unintentional pest control by-kill, lead poisoning, feeding of kea by tourists, on-going persecution,

sheep flagging and damage to human property. We hope over the next few years to be able to address these key issues in addition to developing a concise school education resource and community-led conservation initiatives. It is important to remember that none of the projects undertaken to date or planned for the future would be possible without the support (in-kind and funding) from the large number of organisations, community groups and individuals here and overseas who continue to support kea conservation in New Zealand.

Cincinnati Zoo Supports Kea Conservation from 14,000 Kilometres Away

**Jackie Bray and Kimberly Klosterman,
Cincinnati Zoo and Botanical Gardens, Cincinnati**

In 2006 the Cincinnati Zoo and Botanical Garden added several kea to our animal collection to make better use of a beautiful outdoor walk-through aviary that sat empty for half of the year. Cincinnati's cold and unpredictable winters make it difficult to find animals hearty enough to stay outside during the zoo's Festival of Lights holiday season. Since that time, life in the Aviculture Department has never been the same! From the moment the kea arrived, the staff realised ►



Photo: Jackie Bray

the birds' roguish reputation did not accurately reflect their clever and mischievous nature. This unique alpine parrot's insatiable curiosity and appetite for new experiences quickly won the hearts of staff members and sparked a crusade to protect their species.

The kea adjusted to their new home without difficulty and immediately demonstrated their incredible ability to problem-solve. Like a bank vault, the kea's enclosure has multiple layers of security to protect and contain its precious contents. The design is important because the kea have an uncanny ability to pick locks and dismantle enclosure components so they can perch on a branch that is just outside their own area. Seemingly motivated by entertainment more than escape, you can almost hear the glee in their contact calls when their handiwork is discovered. Undeterred by the combination padlocks placed on the doors, they took the pins out of the door hinges. After the pins were secured, they worked together to lift the heavy metal covers off the drains and crawled through the drain tunnel to perch with their companions next door. On other occasions the staff discovered the exhibit flooded after the kea turned on the water spigots to play in the resulting fountain. We quickly realized the best way to keep the kea happy, healthy and out of trouble was to provide extensive enrichment, including frequent opportunities to participate in operant conditioning training sessions.

Even though staying one step ahead of the kea in a zoo setting is a challenge, those of us who work with them regularly have a deep respect for their intelligence and a profound desire to make a meaningful contribution to their conservation. To this end, we applied for grant funding and developed programmes that encouraged the zoo's 1.2 million annual visitors to partner with us in support of in-situ kea conservation. We were awarded a \$3000 (US) internal conservation grant from the zoo's Lindner Center for Conservation and Research of Endangered Wildlife (CREW) to support the Kea Conservation Trust's 2012 population survey. In partnership with the zoo's Project Saving Species Campaign, we designed and sold buttons to raise funds and developed a Kea Encounter that facilitated positive personal experiences between guests and the kea collection. The birds were trained to collect donations from guests and place them into a collection box. Creating these "wow moments" inspired

the same passion in our guests that we had found in ourselves. Since most US residents were not familiar with kea or their history of conflict with humans, the birds were simply appreciated for their unique characteristics and charismatic personalities. Our future plans include increasing species advocacy, applying for additional grant funding and making the Kea Encounter part of the zoo's daily Bird Show.

The role of zoos has changed dramatically from the exotic menageries of the 19th century to the powerful agents of conservation they are today. Zoos have expertise in the husbandry and management of small populations and species at risk, serve as formal educational institutions and centers for scientific research, as well as sponsors of many conservation programmes around the world. Together, zoos and conservation organizations such as the KCT can ensure both captive and wild kea populations survive and thrive for future generations to appreciate.



Photo: Kim Klosterman

Update on Progress with Captive Kea Management

**Bruce McKinlay, Lead TSO for Captive Kea and South Island Kaka
Department of Conservation, Dunedin**

Last year the Department asked all the captive kea holders and other interested parties (including KCT) to give us their views on the future direction of a captive kea population. I was interested in hearing the views of everybody, rather than asking people to respond to a draft captive plan or some other document. In analysing the responses the Department was able to match up the views of holders with DOC policy and to report back to stakeholders the overall context for the future of captive management of kea.

The report recommends that DOC:

1. confirms that kea are held in captivity for the purpose of display for conservation advocacy, and develops a new captive management plan with this as its basis.
2. ensures that standards in the husbandry manual are met or if not a specific strategy to resolve issues is developed.
3. investigates the attributes that a viable and sustainable captive kea population must have to meet the needs of a kea advocacy goal,
4. and that we continue to engage with stakeholders about the future of kea in captivity.

The report has been published at: <http://www.doc.govt.nz/upload/documents/conservation/native-animals/birds/kea-consultation-report.pdf>. The development of an agreed framework for holding of captive birds by the Department of Conservation has been a protracted process which has led to clarity of the purposes for why we might have captive populations.

Following on from this report my recent work has been focused on implementing the Department's policy with respect to kea, through engaging with captive holders, developing an understanding of what the future parameters for a captive kea population might be, and developing a project to assess the current holdings.

This latter task has been greatly assisted by the recent publication by the Kea Conservation Trust of an updated Husbandry Manual. Without up-to-date husbandry standards, holders of kea understandably struggle to know whether their efforts are pitched at the right level or not.

As part of ensuring that husbandry standards are met the Department has commissioned an audit of all captive kea holders. This will be happening this winter and I hope that the results will be useful to the holders of the kea and DOC, for an ongoing conversation about ensuring that kea are kept in aviaries which meet the birds' physical and social needs.

Secondly, to be able to establish what a viable and sustainable captive population might look like into the future I have commissioned a contract to examine what attributes such a populations might have (ie. firm targets/limits for population size, gender ratio, age structure, facilities, founders, level of breeding needed) using small population management tools.

Once completed, these two projects will form the basis for discussion with the captive holders and other stakeholders about the future of captive kea in New Zealand.



Husbandry Manual, Photo: Orana Wildlife Park

The management of kea in captivity has been a vexed issue over the years. This might be because some of the birds in captivity were call birds, and others were being kept in what some observers considered to be poor aviaries. Alternately, holders of kea emphasised the advocacy value of such an engaging bird on display and the options for research that such holding allowed for.

In 1996, when the first captive management plan was approved, there were 294 kea in captivity in New Zealand. Through strong leadership by Tony Pullar, the DOC appointed captive coordinator, this number has dropped to 68 kea at 26 locations. The reasons for this drop are a comprehensive commitment to a breeding ban for an extended period. The breeding ban has led to frustration within the captive community who have a perception that the Department of Conservation is attempting to drive the captive kea population to extinction by attrition.

The projects which I lead seek to improve this situation and to provide a strong basis for the future.

Kea cognition – a remarkable case of convergence with primates

Adrian Currie, Australia National University, Canberra

Some delicious morsel is suspended from a perch by a string. To reach it, a bird must perform a series of actions. It reaches down with its bill to heave the string upwards. It secures the string with its foot while reaching again with its bill. After several repetitions it reaches the morsel. Most birds can do this, but how they do is instructive. Some perform a series of actions based on typical feeding patterns – they are ‘programmed’ for this kind of thing. Others learn by trial and error: by messing around with the string they eventually hit upon the right sequence, and are rewarded. An adult kea does something quite different. She eyeballs the situation for a second before confidently heaving the string upwards. There is no trial and error, and there are too many differences in individual kea’s techniques for it to be instinctual. Presented with a series of strings, only some of which are attached to rewards, keas only pull those strings with food attached. Scientists at the Department für Kognitionsbiologie at the University of Vienna, where this experiment was conducted, think it suggests that keas understand the relationship between the string and the food. They understand that in order to get the food, they need to pull the string. In short, they know what’s going on.

So what? Well, have you ever played fetch with a dog and just pretended to throw the stick? Typically, Fido falls for your trick and races off in pursuit. Here are two explanations for the dog’s behavior. Maybe the dog employs what scientists and philosophers call ‘folk psychology’. Humans use folk psychology when we explain the behaviors of other humans in terms of their beliefs, desires

and other mental states. Yvonne bought Mike flowers because she loves him and believes they will make him happy. So, Fido thought you intended to throw the stick, and so ran off to fetch it. Here’s another take: Fido has deep-seated ‘fetching’ behaviors, in part genetic and in part learnt. You have thrown sticks for Fido many times and she has learned to associate your ‘throwing’ behaviors with a ‘fetching’ response. The dog is fooled not because she thinks something about your mental states, but because she automatically responds to your ‘throwing actions’ (whether or not you actually throw something) with ‘fetching actions’. By one theory the dog is doing something very sophisticated – she is positing and reacting to your inner states. By the other theory the dog is simply programmed to chase given the right stimuli. Which theory do you think is more likely? How would you tell either way? Very few animals show indisputable signs of using folk psychology, but its hallmarks are the ability to respond flexibly to novel situations. If I am simply reacting to your behavior, then I have fewer options than if I have an idea of what is going on in your head.

The string-experiment and others like it are intended to test for ‘folk physics’. Folk physics is a set of causal beliefs about the external world. Humans, for instance, have certain expectations about how physical objects behave, and we use these to interact with the world. This enables flexible problem solving without time-consuming trial and error. Most other animals do not have sophisticated folk physics. Chimpanzees learn very complex tasks through human training

or arduous trial and error, sure, but a kea can nut out a situation by understanding how objects causally relate. Faced with a unique challenge like the string experiment, keas can move directly to the solution. Just as folk psychology allows us and some other animals to respond flexibly to novel social situations, folk physics allows us and keas to respond flexibly to novel physical situations.

(For those interested in these experiments I heartily recommend the Department für Kognitionsbiologie website, <http://cogbio.univie.ac.at/labs/kea-lab/> which covers their work in a straightforward, jargon-free way)

Kea’s impressive cognitive performance should be no surprise to those who have encountered them in the wild. Keas are curious (what scientists call ‘neophilic’, literally loving the new) and playful, apparently taking great delight in wanton destruction. It is hard to spend any time with keas without being struck by their somewhat puckish intellect, and their ability to raid bait stations designed for New Zealand’s many pests is an ongoing headache. As a philosopher, I’m interested in the intelligence of kea both for their own sake, and for what they can tell us about the evolution of intelligence in general. Kea cognition is, in some respects, convergent with our own. And this means they can tell us something about how we got to be so clever.

If you are familiar with New Zealand’s fauna, then you are familiar with convergence. In New Zealand, birds play the parts typically reserved for mammals. The extremely odd kiwi is basically a bird attempting to be a badger, our giant wetas are insects who

think they are mice, and moa played the large herbivore role. Convergence is important for scientists because they provide something like a traditional scientific 'test' of their theories. Evolutionary biologists cannot run repeated experiments of their hypotheses like chemists or physicists can, but instead they can use isolated places like New Zealand as 'natural experiments'. If I have a theory about how or why badgers evolved, or mice, or large herbivores, maybe examining their counterparts in New Zealand could provide some support.

Keas have independently evolved a behavioral and cognitive profile reminiscent of some notable groups: cetaceans (dolphins and whales), primates (monkeys and apes including, of course, us) and, to a lesser (but more mysterious) extent, cephalopods (octopus, squid and their ilk). We want to know what factors influence the evolution of highly cognitive animals like ourselves, and convergence is one source of evidence.

Kea (and their clever cousins the crows and ravens) are a remarkable case of convergence with primates. Think about it – the common ancestor of kea and ourselves lived around 320 million years ago. It was, at a guess, some kind of primitive reptile or amphibian. Its ancestors split in two directions. One group, the sauropsids evolved into the reptiles, including the dinosaurs, and (eventually) birds. Meanwhile the synapsidia evolved into mammals, remaining small and furtive until around 65 million years ago (when an enormous meteor impact sent the dinosaurs on their way). Then, in one of the most impressive radiations in evolutionary history, mammals took over the recently vacated niches of the dinosaurs. Some, the bats, took to the skies in replacement of pterodactyls. Some became large grazing animals: cow and horses in place



Photo: Roland Payne

of diplodocus and triceratops. And some became top predators: wolves and lions instead of T-Rex. And some, the primates, became highly social, curious and clever. Simultaneously, separated by millions upon millions of years of evolution, a group of birds evolved a similar profile. They are also highly social, neophilic, long-lived, long childhooded and, of course, remarkably clever.

(Amazingly, they did this with very different brains. The neuroanatomy of birds is profoundly different from mammals. In particular they lack those structures which neuroscientists think are responsible for human intelligence. This means evolution has built different brains to produce similar minds. This is evidence for what philosophers call 'multiple-realization'. The same mental stuff can be realised by different brain stuff.)

Perhaps examining the similarities and differences between primate and kea evolution can provide clues to what conditions promote the evolution of intelligence. Both groups are marked by a generalist, opportunist streak – both kea and monkeys will try to eat almost anything. Both kea and our ancestors have adapted to novel environments: For us, the widening savanna; for kea, New Zealand's alpine region. The prominence of play, sociality and childhood in both kea and primates reveal the importance of these characteristics in the development of flexible cognition. Given

their potential, kea are hugely understudied, and other potential similarities and differences remain to be seen.

To conclude, there are many reasons to preserve kea. Most generally, it is a tragedy, travesty and crime for any species to be annihilated due to human greed, ignorance or indifference. Kea play an integrated part in an alpine ecosystem. Kea are unique, charming and intelligent birds whose lives must be valued and protected for their own sake. But also Kea are one of the few examples we have of convergent evolution of the kind of highly social, flexibly cognitive creature which we are. If we lose kea, we lose one of the pieces to the puzzle of our own past.

About Adrian Currie: "I am a NZ-born graduate student in philosophy at Australia National University specializing in biology and cognitive science, with an abiding love of keas (ever since they made off with my lunch at Mount Hutt when I was a child). Part of my research examines convergence (the independent evolution) of interesting traits in different animals, and (as I'm sure you are aware) keas are an interesting and charming example of this both in adaptive niche and cognitive characteristics".

Te Wao Nui's home for kea a win for both birds and visitors

Michelle Whybrow, New Zealand Birds and Mammals, Auckland Zoo

In September 2011, Auckland Zoo opened Te Wao Nui, a \$16m New Zealand precinct, which takes up one-fifth of the Zoo's 17 ha footprint and offers visitors a unique experience of this country's native animals, plants and culture.

The new development is home to around 60 different New Zealand native species and encompasses six distinct ecological habitats – The Coast (Takutai), The Islands (Moutere Rahui), The Wetlands (Nga Repo), The Night (Te Po), The Forest (Te Wao Nui a Tane), and The High Country (Whenua Waotu).

Our four male kea share a 520m² by 9 metre high aviary with weka within The High Country zone, which replicates the South Island's isolated high country environment with schist rock, river stone, tussock grasses and a trumper's hut. It is also home to blue duck (whio), kakariki, Otago skink and rough gecko.

A prominent feature of the kea enclosure is an eye-catching waterfall, which delivers up to 40 litres of water per second. The surrounding area is a themed rock wall that doubles as a partial



retaining wall, stabilising a steep cut in the existing ground on the side of the hill. This provides the maximum range of topography within the aviary, allowing great range of movement for both the kea and weka. The rock wall has been constructed from shotcrete and natural rock and features a number of in-built planters and various carved paths created for trickles of water to cascade down the rock face. The waterfall recycles the

water through the aviary and helps keep the water oxygenated. Special areas have also been created in the stream to allow all the birds easy access to bathe, while allowing the visitors opportunity to enjoy observing these situations.

Bordering the side of the visitor path opposite the rock face is a wall of basalt schist stone, typical of old South Island huts that might shelter a DOC ranger, trumper or farmer while working in this isolated environment. From this vantage point, the stream and pool can be viewed as well as a flat area for keeper encounters. A variety of substrates and planting have been provided within the aviary to encourage both the kea and weka to naturally forage while also allowing keepers a greater range of options to provide behavioural enrichment within the aviary.

The mesh used in this enclosure differs from that used in the other Te Wao Nui aviaries, thanks to the weaponry that the kea wield. Despite manufacturer's claims that the initial mesh choice was



'chew resistant', and had been successfully used to house a range of large parrot species overseas, it was no challenge to our kea who quickly ripped a sample apart during the design phase of the project! Following further research, an American product called Phantom Mesh was used. Its application in tensile structure of the aviary was apparently a world-first.

In addition to having an exciting large new space to explore, more kea to interact with (and the associated hierarchy to establish), these kea also have another species to deal with – meeting weka for the first time. For the most part, the weka are ignored, except for one kea who has taken a particular liking to the weka's mealworms and he'll occasionally see a weka off and take its treat.

The High Country's expansive walk-through aviary is enabling us to give zoo visitors an experience of kea unlike anything we've been able to offer before. People now have the opportunity to get up close to these iconic parrots without mesh or glass between them and the birds. Visitors are also able to gain



a unique perspective when watching the kea fly over their heads, and observe them work for their food as they tackle the many different behavioural enrichment items offered. Of course, there is the opportunity for mischief in a walk-through enclosure and although it has worked well for the most part, the odd mince pie has been fed to our birds! Despite the warning signs, the occasional finger has also been bitten by those that intrude too close and attempt to pat the birds. Our kea are, after all, not pets.

Six months on, Te Wao Nui is proving a huge hit with our visitors as well as the birds and is receiving fantastic feedback.

Visitors love seeing the kea in action and closer than ever before, showcased in a much larger and more dynamic enclosure. As keepers, we are also enjoying the increased opportunities we now have to engage with visitors about these amazing birds and why we all need to ensure their future.



All Photos courtesy Auckland Zoo

KEA IN THE NEWS...

2011 saw a large number of kea articles in the media ranging from curious kea springing traps in the Murchison, lead removal in high country huts and kea deaths in Arthurs Pass and the West Coast. Here are a

couple of the highlights and lowlights.

(Complete articles can be accessed via the Kea Conservation Trust website – Kea in the News in the menu).

By Paul Harper – New Zealand Herald

Aug 17, 2011

DOC SHOCKED FIVE KEA SHOT DEAD



Photo: Paddy Moran

Five kea dumped near Arthurs Pass had been shot, the Department of Conservation says.

An initial pathology report from Massey University said evidence pointed to the use of an air-rifle and a shotgun to kill the five kea. The birds were found piled up on a picnic table at Klondyke Corner in Arthurs Pass on Monday morning last week.

DOC field centre supervisor, Chris Stewart, was appalled by the incident and have referred the matter to the police. “Kea are endangered and their wild population could be as low as 1000 birds,” Mr Stewart said. “The results also

showed that all five animals were young and healthy and could have gone on to contribute to future generations of the species.”

Under the Wildlife Act, it is a criminal offence to kill kea. Offenders could face a \$100,000 fine or six months in prison.

The incident occurred in the same week that a dead kea was dumped on the driveway of a DOC staff member on the West Coast. Early indications are that the bird was also shot and this case has been referred to the police.

Marjorie Cook – Otago Daily Times

December 3, 2011

VOLUNTEERS HELPING CHEEKY KEAS GO LEAD-FREE

“Cardrona singer-songwriter Martin Curtis had been entertaining school children with kea stories for years before he learned about the Kea Conservation Trust and its drive to save the endangered bird. Then, earlier this year a trust member approached Mr Curtis following a recital of the Tale of Two Keas. A film of his performance is now destined for the trust’s website and Mr Curtis is also supporting the trust’s lead-nail replacement programme this week by carrying out roof maintenance at the New Zealand Alpine Clubs 79-year-old Cascade hut in the West Matukituki Valley”... Doc biodiversity ranger Flo Gaud said while Mt Aspiring

keas seemed unaffected by lead, birds at Mt Cook and Arthurs Pass had been poisoned. The reasons why were not entirely clear but Doc and the Kea Conservation Trust had decided to work together to replace old nails in all South Island tramping huts.

Wanaka Placemakers donated the new nails being used by Mr Curtis and his fellow roofer, Kenny Lang.

“In all the new huts, there are no more lead nails whatsoever... what Martin is doing is amazing. I hope if any other people are keen to do something similar, they contact the Kea Conservation Trust,” Ms Gaud said.

Making the Matukituki lead free

Martin Curtis, Gin and Raspberry, Cardrona

I have been a mountaineer in the Southern Alps for over 25 years and always enjoy the interaction with keas – even though there are times in a high bivvy when you wish they would just go away and find someone else to torment. They are an integral part of the mountain scene here, and I have definitely noticed a considerable lack of sightings in the last ten years. I am always on the look out – and listen out – for them and feel cheated if I come back from a four-day trip without seeing at least a half dozen. As a professional folk singer, I travel around the schools of New Zealand giving shows of songs and stories about our wonderful country, and the humorous true story of two keas on a hut roof is always the children's favourite – and adults too.

It was after Tamsin and Lorne's advocacy visit to Wanaka last June that I learned of yet another threat to their survival – that of lead-headed nails and lead covered flashings on the roofs of the older huts. As the Wanaka rep for the New Zealand Alpine Club, I immediately did a check

of the huts in the Matukituki valley and found to my horror that the historical Cascade hut that I look after still had lead nails in the roof. I decided to do something about it straight away and contacted Tim Davies, the owner of the local Placemakers store. He immediately offered new flashings, tek screws and the loan of drills and roofing guns to do the replacement job at absolutely no cost. A few weeks later two of us went up the valley and completed the job in a couple of days. We were even joined by a couple of keas, curious at what we were doing, though more likely to be interested in my 4WD! I'd never actually seen them at this hut before.

However one of the main points of the exercise was also to get some major publicity for the cause and let the general public know that we have a real problem with the numbers of keas left in the wild – a fact that most people are totally unaware of as those keas that are out there always seem to be in your face, so to speak. The local *Otago Daily Times* reporter was just brilliant – riding her mountain



bike up from Raspberry Creek to the hut for photographs and making the story a prominent feature in the next edition of the paper.

We can now safely declare the whole Matukituki area in Mt Aspiring National Park to be lead-free kea-friendly territory. My hope is that other groups around the South island will be motivated to check out the huts in their local area and get in there to replace the nails with modern non-toxic tek screws. Try pestering the local Placemakers or Mitre Ten store, and publicise the facts of the kea's slow demise. It would be good publicity for them, as it has been in Wanaka. I have several hundred tek screws left that I can donate to the cause.

I know this doesn't solve the major problems of stoats, possums and irresponsible shooters, but if we can remove just one of the risks to their future, it's a small start. I would hate to think that I am singing songs and telling stories about these wonderful birds to children whose own children may never have the chance of seeing them.



Photos: Sue Galvin

State of our planet : After 7 billion – a challenge for conservationists

Tamsin Orr-Walker, Dr Lorne Roberts and Peter Fraser (KCT)

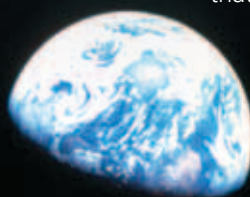
“Since 1999 world population has grown from 6 billion to 7 billion. For the fourth time in the past half-century, 1 billion people were added to the planet in 14 years or less”

Population Institute’s new report, ‘From 6 Billion to 7 Billion: How population growth is changing and challenging our world’*, looks at the projected path of human population growth, the challenges that we currently face and behaviours that we need to change if we want a healthy future on this planet. The statistics quoted throughout the report are frightening, not only in regards the impact of dwindling resources on ourselves, but also in regards the damage we continue to wage on our environment. This should be cause for alarm for all conservationists – desertification, deforestation and climate change are major drivers of biodiversity loss in our oceans and forests as highlighted in the report’s critical challenges, numbers 12 and 13. These each state respectively that “the oceans and coastal ecosystems are in peril” and “the rate of biodiversity loss is still proceeding at an alarming rate”. Ensuring environmental sustainability is Goal number seven of the United Nations Millennium Development Goals (MDGs). These were developed in 2000 to focus the world’s development assistance to reducing global poverty and hunger. In order to achieve this goal the rate of biodiversity loss had to be significantly reduced by 2010; however 10 years after the goal was instated, a UN report has found on the whole that there is “no indication of a significant reduction in the rate of decline in biodiversity” and that “the principal pressures leading to biodiversity loss are not just constant but are, in some cases, intensifying.” It went on to show that 42% of all amphibian species and 40% of bird species populations are declining and concluded that; “There is a high risk of dramatic biodiversity loss and accompanying degradation of a broad range of ecosystem services.” (*Global Biodiversity Outlook 3, 2010*).

In other words the world’s threatened species continue to decline at a rate that has shown no indication of slowing in the past 10 years, despite the fact that the world’s environmental organisations have been focused on trying to slow

this rate of decline down. If we haven’t been able to prevent this slide with all the will in the world, how are we likely to prevent it in the future when our population continues to grow exponentially and ecosystem resources continue to decline as a consequence? Are we all kidding ourselves that we are making a difference when the tide behind us is inexorably eating away the sand beneath our feet?

Lester Browns book, *World on the Edge* looks at how we can prevent environmental and economic collapse and although the book concludes very positively that we can, reversing environmental collapse comes with a massive price tag. Brown asserts that transferring funds from national security coffers globally would enable government monies from developed countries to be diverted into restoring environmental damage, invest in renewable energy, eradicate poverty and stabilise our population. But what is the likelihood that governments worldwide will embrace Brown’s ‘Plan B’? How do you convince the global powers that be (governments and those that pull the governments’ strings) that throwing money from weapons coffers into charitable and environmental causes, which focus instead on supporting people and the environment, is good for their pockets? Although it is hard to imagine that the necessary changes in perception and behaviour will happen before tipping points are reached, it must be something that all conservation organisations strive for; becoming more unified and more vocal in supporting sensible initiatives



that aim to protect precious ecosystems and biodiversity on this planet. More than any other time in our history we have the power to have one voice and to clearly share our conservation message with a public who ultimately have the power to vote in the governments that can make the policy changes. That message needs to be clear with well-defined goals and delivered at the right time – maybe a world such as Brown and the UN goals envision, can be a reality. It’s up to all of us to shout the same message and avert what will otherwise become the sixth mass extinction on our planet.

* <http://www.populationinstitute.org/external/files/reports/from-6b-to-7b.pdf>

OUR VOLUNTEERS – THANK YOU!

Get Involved!

Photo: Corey Mosen

Volunteers are a vital part of the Kea Conservation Trust. All our trustees, specialist advisors and operational committee members are volunteers, freely giving their time each month to ensure the smooth running of the Trust.

Our volunteers come from diverse backgrounds, and ages, providing a range of skills, for varying degrees of time, providing help on a one-off basis (to help with a particular task or project) or providing on-going support.

Additionally, our volunteers are our eyes and ears in the Southern Alps and our voice for kea.

Communities working together is what saves environments and what saves species. If you and your local community would like to become involved in kea conservation, contact us at the KCT.

Education, research, data entry, administration, publishing, marketing, fundraising, advocacy, book-keeping, graphic design, writing, and more are all skills we need here at the KCT.

CALL US IF YOU WOULD LIKE TO JOIN OUR TEAM OF VOLUNTEERS

We would love to hear from you.



Photo: Samantha Telfar



Photo: Jackie Bray



Photo: Coral Butler

Can you help with funding?

Continued funding of important research projects and initiating conservation actions is imperative to ensure the kea's continued survival in the wild.

If you or your organisation can help us achieve these aims, we would love to hear from you.

Please help us to help kea – contact us today and pledge your support!

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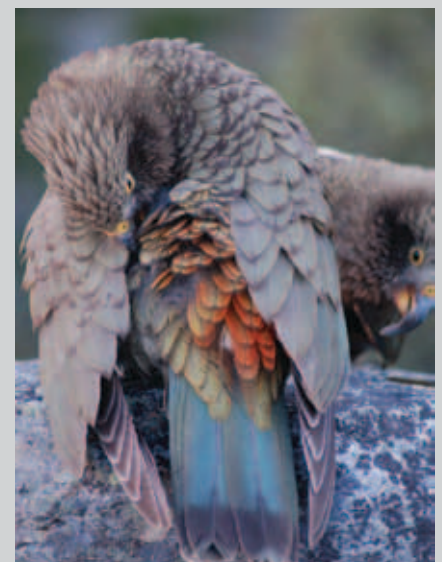


Photo: Corey Mosen

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