



A vision and strategy for the NZ Possum fur industry to increase export revenues and provide conservation benefits

In June 2013, the Parliamentary Commissioner for the Environment made the following recommendation in an update about the use of 1080 poison to kill possums
<http://www.pce.parliament.nz/publications/all-publications/evaluating-the-use-of-1080-predators-poisons-and-silent-forests-update-report>

Recommendation 5:

The Minister of Conservation asks the Department of Conservation to prioritise the development of national policy and operational procedures on possum fur harvesting.



Executive Summary

The possum fur industry has been quietly but actively developing over the past 15-20 years.

However, this industry cannot grow in value until better access to the Possum fur resource is addressed, and this white paper argues that this can be achieved, while enhancing conservation outcomes from a major pest.

Possum fur is considered to be a cottage industry by many, but is now much larger than the Manuka honey industry (\$70m FOB in 2010*). An economic analysis by NZIER shows it directly contributes \$130 million a year to the local economy.

Possum fur mixed with merino wool is a unique New Zealand product, and, as a 'green' fur, has considerable potential to grow further – providing economic and environmental enhancement benefits for New Zealand. It is believed that the market could at least double in size at today's prices.

This possum fur white paper outlines the extent of the industry in New Zealand and overseas, its economic and environmental contribution.

It demonstrates why the ability to access more possums and obtain the fur resource is a pragmatic response to an opportunity.

It supports the argument that enabling trappers to harvest more possums will help protect greater areas of native forest, add to regional employment, and boost the national economy.

The major argument is that, in a fashion-led manner, doing what we currently do, better, will considerably boost environmental and economic outcomes.

*MED/Coriolis Report - <http://www.med.govt.nz/sectors-industries/food-beverage/pdf-docs-library/information-project/coriolis-report-investment-opportunities-honey-industry.pdf>



A Department of Conservation/ NZ Fur Council Strategy

The major remaining areas of possum presence, from which the fur resource can be obtained in New Zealand, are on the DOC estate.

However:

- Only 2% of DOC's estate receives protection through 1080 poisoning
- DOC has to be selective on what species it most protects
- It has been shown (scientific and anecdotal evidence) that harvesters can economically reduce the possum presence to 10-15% densities.
- DOC has recently indicated a willingness to partner with the commercial sector, particularly when it results in an enhanced conservation outcome

Partnership proposal with DOC

It is proposed that NZFC enter an exclusive arrangement with DOC to guarantee access to possums. Details of the arrangement need to be developed, and it is suggested could be based on the following principles.

- To fulfill Recommendation 5 of Parliamentary Commissioner for the Environment report, June 2013
- Enhance conservation outcomes for DOC
- Provide access to possum resource.
- That trapping take place in areas where it is not practical, or the conservation estate not deemed worthy of 1080 applications
- To work in with planned 1080 drops (trappers/harvesters to have first opportunity to kill possums)
- Be for five years, with the trapping/harvesting regime being scientifically measured/validated
- Involve Accredited harvesters (to pre-defined standards) to reduce and maintain possums to (to be determined) defined levels
- To also have the provision/opportunity for other pests (stoats, rats) to be targeted at certain times by possum harvesters present on the ground in collaboration with DOC.



Outcomes of a partnership arrangement

Among the outcomes that can be expected from a possum access/supply arrangement are greatly improved flora and fauna growth and preservation (where none currently exists), at zero cost to taxpayers (a preservation and improvement of the environmental estate).

- An improved recognition of DOC as being partners in preserving NZ's natural environment
- Greater stability of possum fur supply and an opportunity to brand fur supply from this source
- Fashion and design led opportunities from such exclusive possum fur access
- Savings for taxpayer
- Contribution to regional and national economy
- Preserving and improvement of environmental estate

Summary

In an ideal world, possums would never have been introduced to New Zealand, or a virulent possum-only disease could be created that wiped out their population.

Equally, despite the wishes and intentions of Pest Free NZ, it is unlikely that possums will be eradicated in the next 20 years.

This proposal is a pragmatic response to the here and now.

As a partnership, it is a fashion-led opportunity to utilise a resource, vastly improve conservation outcomes at virtually zero cost, raise an industry profile and contribute to the regional and national economy in a sustainable manner.

The 'global' perspective



Possum fur as a fashion item

Over the past 15 years, possum fur/merino wool mixes have become accepted and established as a different yarn, with a special story, among the wider mix and array of fibres available around the world.

Within New Zealand and overseas, the possum fur/merino wool mix is also known by a number of brands such as Koru, Lothlorian, Native World, Noble Wilde, Perino, and Zealana.

Domestically the vast majority of possum fur products are sold as apparel items to tourists, at premium prices compared to items made solely with merino wool.

The possum fur/merino wool mix appeal to visitors includes:

- Uniqueness (a product that can only be sourced from New Zealand)
- Soft handle
- Characteristics, superior to cashmere
- Story (an understanding that though this is fur, it is obtained from a non-native animal that has unfortunately become a pest)
- Made in New Zealand

Among this tourist and wearer appeal are fibre attributes which include:

- High performance
- Hollow structure (unique to possums and polar bears) traps more air
- Possum fibres 55% warmer than merino, and 35% warmer than cashmere fabrics of the same weight and knit structure
- Around 18 microns average fibre diameter
- Low piling
- Breathable fabric
- Soft touch



International reaction

New Zealand sourced possum fur is recognised globally as being, comparatively speaking, 'green'.

Under the definitions of the International Fur Trade Federation it is considered to be ethically sound.

This is one reason the possum/merino mix has been seen on the catwalks of Paris.

Luxury European brand Hermes-Paris produced a woman's ready-to-wear collection using possum/merino blends (Perino). Some of these garments are seen in the linked video http://www.youtube.com/watch?v=ppb2Q_J3Lr0

Equally, in the increasingly trendy hand-knitting scene, possum fur/merino yarns are being recognised as a special product and there is strong demand in North American and other markets. The recent visit by Vogue Knitting's editor Trisha Malcolm is a small reflection of the blends' importance. <http://wellington.scoop.co.nz/?p=58122>

First and foremost for hand knitters, it is the feel and performance of the yarn and final products that puts them into the luxurious category.



The New Zealand Fur Council

The NZFC is an incorporated society constituted in May 2007.

It was established to help speak as a voice for the wider diverse possum fur industry, and to represent the interests of its members in what is a comparatively new, relatively unrecognised new market and segment with the ability to positively contribute to the national economy and environment.

Among the purposes of the NZFC are:

- Promote understanding and communication amongst members of the wider community
- Increase the public awareness of the unique attributes of the possum fibre
- Increase national and international demand for New Zealand made possum products
- Establish and foster a strict quality control mechanism and ethical standards throughout the entire possum fur industry, using international standards where appropriate
- Promote research to substantiate the many benefits to New Zealand of commercial exploitation of possum

Members include harvesters, fibre collection agencies, yarn spinners and knitters who represent 90% of the NZ industry.

List in alphabetical order

- Basically Bush (www.basicallybush.co.nz)
- Koru Knitwear (www.korunz.co.nz)
- Lothlorian Knitwear (www.lothlorian.co.nz)
- Manawatu Knitting Mills (www.mkm.co.nz)
- Weft Knitting Co (www.weft.co.nz, www.noblewilde.co.nz)
- Woolyarns (www.woolyarns.co.nz, www.zealana.co.nz, www.perino.co.nz)



Brief overview of major companies associated with NZ fur Industry

Basically Bush

New Zealand's main fur collection company, and also operates a possum tannery in Woodville, Manawatu. It has collection agents around New Zealand, and supplies Woolyarns with its possum fur.

Knitting Establishment

A 25 year old, Warkworth based company. Markets possum fur under the Koru brand.

Lothlorian Knitwear

A 23 year old Pukekohe based company producing accessories and garments in luxury fiber. Markets Possum/Merino under the Lothlorian Brand.

Manawatu Knitting Mills

Palmerston North company, established in 1884, specialising in garments using natural fibres. Produces Possum/Merino under the Native World brand.

Weft Knitting company

A Christchurch company established in 1982, producing 100% Merino and Possum/Merino garments and accessories , as well as thermal wear. Their Possum/Merino brands are Noble Wilde and MP Merino Possum, with numerous stockists in NZ, Australia and the Northern Hemisphere.

Woolyarns

An almost 70 year old company based in Lower Hutt. One of New Zealand's few remaining yarn makers, began possum fur/merino wool mixture trials in 1992. Brands, Perino and Zealana.

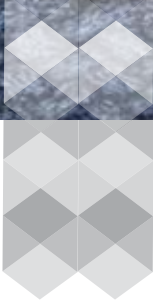
Retailers

Most possum fur and skin products are sold as value-added products in womenswear, menswear, tourist and gift shops. Visitors recognise these as being unique New Zealand gifts that they may not be able to purchase in their home country.

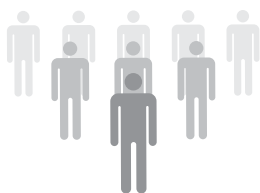
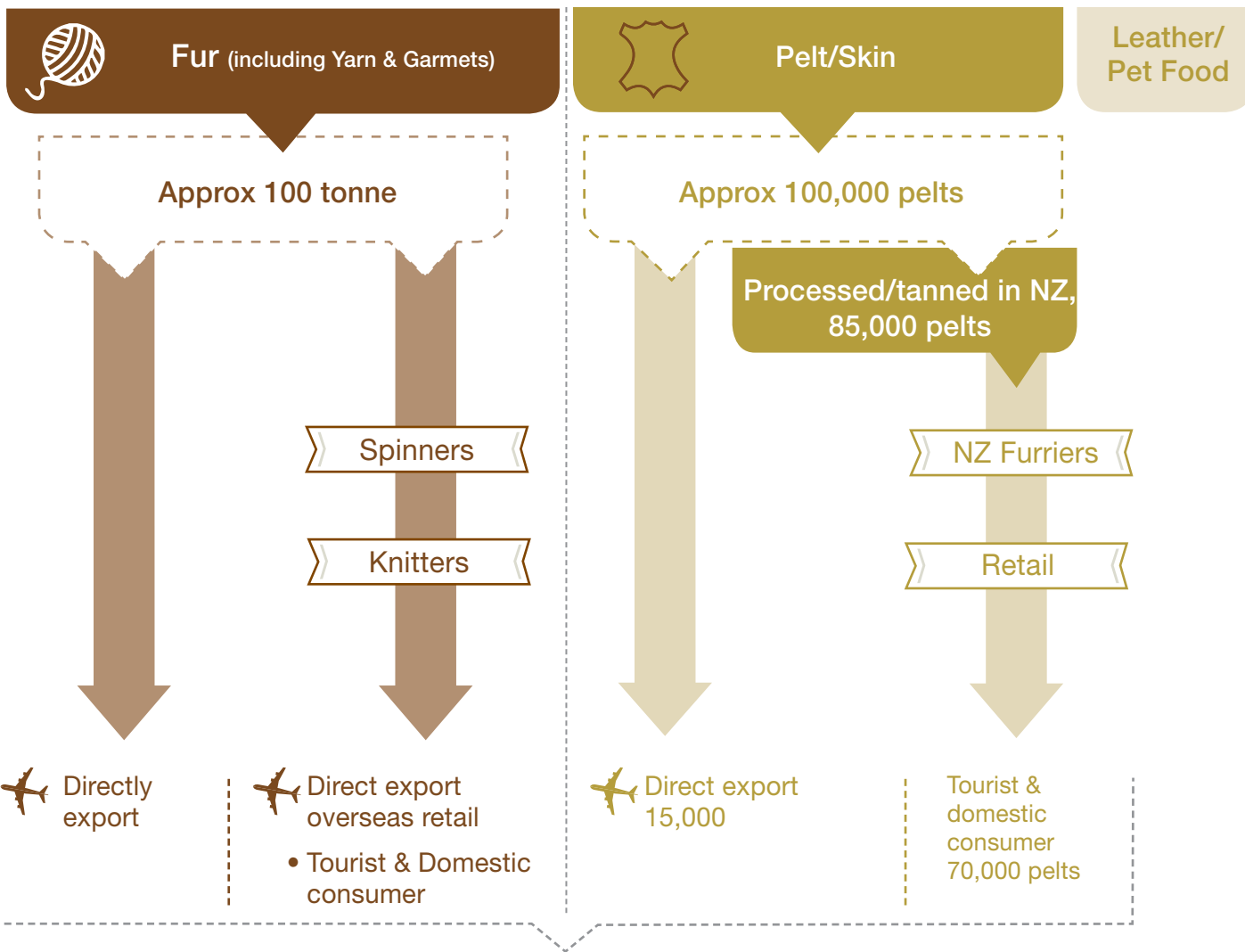
www.aoteanz.com

www.nznature.co.nz

www.thepossumstore.com



Harvesters/Trappers



End Market
Industry value \$NZ 130m



New Zealand's possum picture

History

Possums (*Trichosurus vulpecula*, *Trichosurus* = bushy tailed, *Vulpecula* = fox like) were first introduced to Riverton, Southland in 1837 to form the basis for a New Zealand fur industry.

This initial attempt failed, but 36 importations and releases mostly by Acclimatisation Societies between 1858 and 1921 (when the government prohibited further releases) saw possum numbers quickly multiply. In 1946, possums were declared a noxious pest.

Population estimates and future

Various attempts at estimating the population of possums in New Zealand have been carried out over the past couple of decades.

A popularly quoted figure of 70 million possums has been calculated on the basis if no control measures were carried out.

Based on modelling work carried out by Landcare Research, including extensive control measures by TB-free NZ, regional councils and the Department of Conservation, it is estimated there are about 30 million possums in the country today.

Forest estate

Possums eat the forest at every point, including leaves, buds, flowers, fruit and seeds from the tallest trees. On the ground they eat seedlings, saplings and sometimes bark, and favoured foods include Mistletoes (some driven almost to extinction), tree Fuchsias, Kamahi and Rata trees.

It has been estimated that up to 21,000 tonnes of vegetation a night is destroyed by possums. As well as competing for food with native insects, bats, and birds, they also eat them and their eggs and nestlings. Possums also drive native animals out of their dens and nesting sites.



Possum control

Poison

1080

The main poison used for possum control in New Zealand is 1080, a pesticide using sodium fluoroacetate. New Zealand uses about 80% of the world's supply, and it is commonly aerially spread by the Department of Conservation, TB-free New Zealand and regional councils.

DOC aerially applies 1080 across about 150,000ha of conservation land each year (less than 2% of the total conservation estate). Successful application can kill 98% of possums and more than 90% of rats in the targeted area.

Other poisons

Cyanide can be effective if used properly, by a trained operator on the ground. Acknowledged as the most Humane Toxin in NZ Poisons also known to target possums include brodifacoum and cholecalciferol. Other poisons can be used, but are generally more targeted at killing rats and stoats. This includes pindone, diphacinone, coumatetralyl, para-aminopropiophenone, zinc phosphate and sodium nitrate.

Trapping

Land-based trapping and cyanide use can reduce possum densities to 10-15% and act as an economic control method.

This is based on skinning the best possums (approx. 10%) and plucking the fur of the other 90%.

Research indicates that forest health is significantly improved when possum numbers are reduced to 15%, though more scientific validation is required to demonstrate this across a number of forest types.

Discussion

The Department of Conservation feels it needs to reduce possum densities to below 5% in order to protect conservation values where it involves highly vulnerable species. DOC's own research shows that many species, predominantly flora, will have a significant level of protection at densities above 5%.

However, in any one year, DOC is only able to aerially apply 1080 to about a fiftieth of its total estate.

The NZFC believes that significant forest health gains can be achieved through land-based control, at little or no cost to the country's taxpayers.



Economics

Market size for fur/wool mix

Among the numeric factors of the industry are:

- Market demand and size growing at approximately 10% a year for the past 15 years
- About 100 tonnes of fur is harvested each year (up to 115 tonnes in higher priced seasons)
- Estimated employment through to retail, 1500 people
- 85% of products are exported through tourist retail
- Estimated current value of possum fur industry to New Zealand \$130 million/year
- An unquantified contribution to forest estate (through prevented damage)

The possum fur industry is larger than the NZ Manuka honey industry.

Market potential

Market participants believe that if more possum fur can be collected, then more final products will be able to be sold at current price levels.

This is because:

- Demand is currently not being met
- New markets such as hand-knitting yarns are being developed
- High end luxury garment makers will be able to be targeted
- Possum fur is seen as a 'green' item
- Possum fur is unique to New Zealand and has a unique story



Economic contribution of the NZ Possum fur industry

Based on an NZIER report and modelling (see appendix), a doubling of the Possum harvest in New Zealand would add an additional \$59 million and 760 jobs to the economy each year.

This is broken down to a direct effect of \$35m from the expansion in possum-related exports of fur, hides and garments.

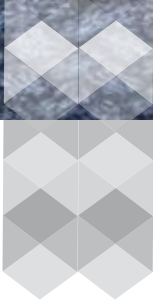
Indirect effects such as higher spending on chemicals, finance and insurance and business services of \$24m.

Put another way – if an extra two million possums were killed, the direct economic addition to the New Zealand economy would be \$17/possum.

The indirect addition would be \$12/possum.

As the report summarises; the NZ possum fur industry makes a small but significant contribution to the wider NZ economy. Expansion of the industry increases New Zealand's wealth.

Please note: the modelling or its report, does not quantify the value of an enhanced conservation estate which would be brought about through reduced possum damage by an increased harvest.



Utilising a resource, enhancing the environment

Opportunities for a better exploitation of possum fur

Many privately owned forests in New Zealand already have strong commercial trapping and harvesting as methods of pest control.

Alternatively, much hinterland forests (bordering farms) have 1080 control of possums.

The remaining forest estate is controlled by DOC, which as already seen, does not have the resources to kill possums in more than 2% of its estate each year.

The NZFC is proposing that a partnership agreement be entered under which scientifically validated possum control is carried out – and the burden of possum damage significantly reduced in these areas.

Opportunities to scientifically evaluate trapping controls of possum

A partnership with DOC and NZ Fur Council will also be a means to scientifically evaluate trapping control methods.

It will objectively show whether, and how much, reductions in possum densities allow flora and fauna to regenerate more quickly than would otherwise be the case.

Equally, the partnership arrangement will be able to demonstrate humane methods of killing possums, while not demonizing the pest – (after all, it is not the animal's fault it has ended up in New Zealand with no natural predators).

While traps are one of the main methods of possum capture, there may also be other methods that are humane and efficient.



An opportunity to grow the New Zealand textile industry

An additional possum harvest and fur utilization will provide further growth opportunities to enhance and promote NZ-sourced textiles; along with the design and fashion possibilities that result in having a unique product.

NZ Inc would be best served in developing the wider industry and opportunities for the benefit of New Zealand and its citizens, rather than through intermittent overseas traders.

The pragmatic safeguarding of an industry developed in New Zealand should be the main focus of an increased supply of possums.

An opportunity to globally grow a unique, NZ focused and produced 'green' fur

In partnership with DOC, it is envisaged that a country of origin and production brand and associated story can be developed for the additional possums obtained from DOC's estate.

The ability to tell (and sell) this story and products to a wider global audience is an aspect that needs careful thought to maximize the potential for New Zealand.

Opportunities to link in and with the International Fur Trade Federation

The International Fur Trade Federation promotes the responsible use of and pleasure in wearing fur. The IFTF also endorses an 'Origin Assured' label as a way for consumers to be reassured of a fur's provenance.

NZFC suggests that the opportunity for this country to link into this widely recognized 'proof' should be seriously evaluated.



An international perspective on the fur trade and its relation to possums

New Zealand possum is a small part of an international industry, in which fur trading is at an all-time high. In 2012 global retail sales were over US\$35 billion, of which over 85% of the total was farmed fur.

About 15% of all fur sold is from wild fur including the possum. It is estimated that wholesale production of fur skins is worth almost US\$8 billion, with more than one million people employed on a fulltime basis by the global fur trade in farming, processing, manufacturing and retailing. Many more people are casually employed on a seasonal basis.

Demand for fur is strong in North America, Europe, Russia and Asia, with China being the world's largest importer of pelts.

The global trade in wild fur (strongly promoted and endorsed by the International Fur Trade Federation), is a good example of the 'sustainable use' principle of conservation – which is fundamental to the work of the World Wide Fund for Nature (WWF), and the International Union for Conservation and Nature (IUCN).

Given that possums are not an original feature of New Zealand's fauna, the elimination of the pest definitely comes under the 'sustainable use' category.

NZFC also endorses the IFTF's commitment to the Agreement on International Humane Trapping Standards. The AIHTS says that any traps used for any reason must reach a humane standard which, depending on the species, requires the animal to be killed outright and quickly. Trap-lines must be visited within a day of being set. (Note: leghold traps, a common method of possum capture, must be non-toothed).

Overall, possum fur products are an excellent fit with the IFTF ethics, worldview and 'luxury' orientation. As a relatively new fur, with a robust backstory, possum fur has the potential to provide a niche and grow New Zealand's export receipts.

Appendix I

Project name suggestions:

- Environmental wild fur
- NZ Wild fur
- Wild possum fur NZ origin assured
- NZ Origin FUR
- NZ Wild Possum Fur
- DOC Assured FUR
- NZ Assured Possum Fur
- DOC wild fur
- Ecological wild Fur
- Emerald wild Fur
- Green Wild fur

Appendix II

The NZIER report to the NZ Fur Council on the economic contribution of the NZ Possum fur industry
