



# Wanaka Orchard

*Quality Nashi and Stonefruit*

---

---

The House of Representatives  
Standing Committee on Agriculture Fisheries and Forestry  
Parliament House  
Canberra ACT 2600.

12 May, 2004

## INQUIRY INTO THE IMPACT ON AGRICULTURE OF PEST ANIMALS

### SUBMISSION

Thank you for providing me with the opportunity of making a submission to your committee and the enquiry.

I am making this submission through the encouragement of my local member, Mr. Alby Schultz MP.

The pest animal I would like to bring to notice of the enquiry is, *Pteropus poliocephalus*, commonly known as the Grey Headed Flying Fox. A native animal listed as 'vulnerable', under threatened species legislation of both the Commonwealth and New South Wales governments.

The Collins English Dictionary defines 'pest' as; "any organism that damages crops....". Clearly a protected animal can nonetheless be a pest.

The agricultural industries impacted upon are, the deciduous and tropical fruit growing industries, carried out on the east coast of Australia from Queensland to Victoria. I will try and confine myself to the activity I undertake, i.e. stone and pome fruit growing.

### **Background**

I farm 16Ha at Oakdale, NSW, located within the Federal electorate of Hume about 100 kilometres south east of Sydney. I have been farming here about 15 years. The farm is family operated and employs about 6-8 casual locals during picking, packing and other operations.

The area around Oakdale once supported in excess of 50 orchards, with another 60 or so in the Camden, Wedderburn and Thirlmere areas. Now there are 2 producing orchards left in Oakdale, 2 in Camden, about 4 in Wedderburn and 2-3 in Thirlmere.

One of the main reasons for the demise of this industry in this region is the impact, upon it, of the Grey Headed Flying Fox (GHFF).

In the past 10 years or so this animal has consistently attacked ripening fruit, on the tree at night, literally in their thousands. During the months of November/December, when stone fruit commenced to ripen, through to March/April when apples were maturing, growers and their families patrolled the orchards with shotguns in an attempt to scare off and sometimes reduce the numbers of GHFF attacking their livelihood. Most gave up, sold their farms to 'city folk', for large sums and moved away. The new owners did not farm the land but used it as 'lifestyle or hobby farms'. Some like me have stayed and tried to survive.

Historically the bats would come, stay for a few weeks then go, some years they would return, some not.

---

---

*Degree of Damage.*

In recent years reports from different areas of the eastern seaboard give varying degrees of damage to fruit crops. The range of damage may be limited to a certain variety, whose ripening coincides with the arrival of GHFF, or it may be widespread across all varieties when the animals remain for longer periods.

This year bats even attacked green immature fruit.

Levels of damage have been reported as low as 5-10% up to 90%. Levels of 20-40% are common. (See Pic.2) NSW Agriculture values fruit and berry production in the Sydney basin alone at \$60m annually (Mason. 2003.)<sup>1</sup> Therefore damage of \$15m -\$40m annually, in the Sydney basin may be occurring. Add to this the production areas of Queensland, NSW north and south coast and the levels are truly significant.

This level of damage is likely to be permanent and ongoing, it may well increase as the population of GHFF increases with the cessation of culling and the impact of any statutory recovery plan for the animal. (There is no recovery plan for the orchard industry)



*Picture 2. Showing all crop (peaches) above shoulder height removed by GHFF.*

---

---

---

### **Causes for increased attacks on fruit crops**

It has been generally accepted that the main reason that GHFF is now regularly attacking fruit crops along the east coast of Australia, is one of natural habitat loss and consequent diminished natural food supply.

The Grey Headed Flying Fox is a native Australian fruit bat that ranges along the east coast of Australia, from central eastern Queensland to Melbourne in Victoria.

Prior to European colonization the GHFF relied on the native forests of the coastal plain for both habitat and food.

Since European settlement, much of the GHFF habitat has been removed, mainly to provide the majority of Australia's population with a place to live. Most Australians lived, and continue to live, along the east coast, between the sea and the Great Dividing Range.

Initially this coastal strip provided most of the food, fibre and building materials for the colony.

It continues to provide habitat for the three largest Australian cities (Sydney, Melbourne and Brisbane) and for most of the remainder of the population, who choose to live within the confines of this relatively narrow coastal strip.

The Australian Bureau of Statistics census carried out in August, 2001 disclosed that the majority of people in Qld – 88%, NSW - 85% and Victoria – 83% chose to live within 50 kilometers of the east coast; prime GHFF territory. The population of these three states represents approximately 76% or about 15million, of the total population of 19.4 million.

Unfortunately all this activity has caused the wholesale removal of the GHFF habitat and native food supply.

I must stress at this point, that the amount of land cleared for fruit industries when compared to that cleared for all the other land uses previously described, pales into insignificance and can be disregarded as a contributing factor.

Initially, the GHFF and the fruit industry co-existed, although there was some 'raiding' of orchards by the animal, this was sporadic and not consistent. However, in the past 10 years the 'raiding' has increased and become annual, so that each year fruit crops are damaged well beyond tolerable levels and now constitute a threat to the ongoing viability of most of the orchards.

The main reason for this raiding, confirmed by government agencies, scientists, as well as environmental groups, is that the native food source has been reduced to such an extent that the GHFF must feed on commercial fruit crops to avoid starvation.

It appears now that the animal has become 'habituated' to exotic fruit and prefers this to native blossom. I have seen in my own orchard hundreds of flying fox flying past native blossom and feeding on fruit.

Wildlife carer groups collect injured and orphan bats, feed them on exotic fruit, then release them into the wild colonies, exacerbating the problem

The only affordable method available to orchardists to protect fruit from destruction by GHFF was shooting the animals as they entered and fed in the orchards.

Page 4.

## **Control Methods**

### ***Shooting***

Historically, growers when faced with invasion into their orchards of flying fox resorted to shooting, as described earlier, as a method of minimising the impact of this pest animal on their livelihood.

During low pressure years, which were then the norm, shooting was effective.

On 4 May, 2001 the Scientific Committee convened under the NSW *Threatened Species Conservation Act 1995*, decided to place the GHFF on the schedule of vulnerable species under that Act, using data collected during population counts by volunteer bat carer groups and conservationists.

The methodology used, was and still is, at least suspect, however well intentioned the organizers and counters were. Physical, geographic and topographic factors make manual counting imprecise.

In 2002, the Commonwealth, using the same data, listed the species as 'vulnerable' under the EPBC Act.

The effect of these listings was that growers were no longer allowed to cull GHFF as they feed on their crops.

A system of licensed culling, based on a quota, divided up among all affected growers, and states was introduced. The licenses were only obtainable once proven damage had occurred and were for numbers as low as 5 animals, up to 100 animals. Long delays in obtaining licences have been experienced.

Once the numbers on the license were culled, a new license had to be applied for. In some areas this meant re-inspection by NPWS staff etc, causing further delay. In some seasons hundreds, if not thousands of GHFF may feed on a single orchard in one night.

The NSW Director General of National Parks indicated in 2001 that licensed culling of GHFF would cease in 3 years, i.e in 2004, under a recovery plan to be prepared for the species. This has since been extended to 2006.

With the numbers of animals now entering orchards shooting is no longer an effective means of control, but at least it is a method of control and needs to remain until another practical and economical system is devised.

The quota system needs revision upwards and the numbers of animals allowed to be culled per licence needs to reflect the numbers of bats attacking the orchard.

### ***Netting***

Exclusion netting covering the entire orchard, is a method which can be effectively used to prevent GHFF from attacking fruit crops. The cost of this netting ranges from about \$20,000 to in excess of \$35,000 per hectare depending on topography and net type.

---

---

The NSW Rural Assistance Authority makes 'Low interest loans' available to growers, for the erection of exclusion netting. The loans, albeit at *low interest*, have to be repaid. Most growers do not have the capacity to repay loans! The interest rates, being fixed, can in fact be higher than market rates, if the market rate falls during the currency of the loan.

Loans have a ceiling of \$100,000 per enterprise. Asset tests apply, that most growers on the east coast fail, due to high land values. Very few of these loans have been taken up.

Page 5

The cost of netting is prohibitive to most orchardists.

Fruit growers are 'price takers' and cannot pass on these extra costs.

Retailers will not pay extra for fruit grown under nets, they will source from growers outside the GHFF problem area.

The price received by growers for their fruit, has steadily fallen over the past decade. There has been some improvement in prices caused by shortages related to the current drought. I fear, this may only be short term and not a trend upward. Growers on the north coast of NSW, producers of early season stone fruit, took up netting eagerly in the 1990's, when returns for early season low chill fruit were high, they have now suffered reduced margins, and are now reluctant to invest in net.

As well as the economic restraints, due to falling prices, growers are angry and fail to see why they should invest their own limited capital to solve a problem that was not caused by themselves, but by others; (the majority of Australia living on the east coast referred to earlier).

Nor do they get a benefit from the protection and proliferation of the GHFF as the community reportedly does.

They fail to see why the community, represented by both the State and Federal Governments, should not assist in the solution of this problem.

Using both the *Impacter pays* and the *Beneficiary pays* principles (Aretino et al. 2001)<sup>2</sup>, it is clear that the community, which benefits from the protection of the GHFF, and who caused the problem (removal of habitat/food source), should fund the majority of the cost of the solution.

### ***Compensation for Loss***

If it is impossible to net, either through topographic, aesthetic (some councils will not allow net in some areas), or on production grounds,(some insect pests and diseases flourish and are uncontrollable under net in certain crops), then on the basis of equity and justice, the value of the crop lost to the GHFF should be compensated back to the grower, at market rate. The costs of this compensation should be borne by both the States and the Commonwealth governments.

### ***Research to date***

There are no economical methods for deterring flying fox currently available. To my knowledge, little funding has been provided for research into methods of deterring GHFF from attacking crops, by either the NSW or Commonwealth governments.

Although, I am aware of one small scale study by an undergraduate student, into alternate feeding stations for bats, in 2002/3 which was funded by the Commonwealth.

---

---

---

Opinions have been expressed by many experts, that they believe no practical deterrent is possible, using either smell, taste or touch during drought or bushfire periods, when the animals have no, or insufficient natural food available and may be starving.

The NSW Government declined to provide funding for any research following two separate requests in 2001/2 and 2002/3 by the Flying Fox Consultative Committee set up under the NSW National Parks and Wildlife Service. The Committee consists of representatives from NPWS, The Nature Conservation Council, Growers, Local Government, NSW Agriculture and RSPCA.

Page 6.

A further plea for funds directly to the Premier of NSW by the non-government members of the committee in November 2002, has to date, not been replied to.

All in all, neither the State Governments nor the Commonwealth appear to be adequately funding any efforts to either reduce the impacts on agriculture by the GHFF, or compensate growers for losses incurred by them caused by an animal which both jurisdictions have protected and by their actions in the past, forced to become a 'pest animal'.

### **Conclusion**

It is my sincere hope that your committee will urge governments, both State and Federal, to assist an industry which is being terminally impacted upon by a native animal, turned into a pest by the very nature of the settlement of this country, and will continue to impact upon the lives of blameless growers of fruit on the east coast.

There are two equally innocent parties in this whole scenario, one is the grey headed flying fox and the other equally innocent party is the east coast fruit grower.

Both governments will have a recovery plan for the flying fox but, to date, none is proposed for the grower who will inevitably become extinct.

Thank you

Ed Biel

---

---

<sup>1</sup> D.W.Mason. June 2003. *Sydney Region Agriculture Snapshot*. NSW Agriculture

<sup>2</sup> Aretino,B.,Holland,P.,Matysek,A. & Peterson,D. 2001.*Cost sharing for biodiversity conservation: A conceptual framework*. Productivity Commission Staff Research Paper, AusInfo, Canberra.

