

**Annual Report on Licences issued under the
DECC Policy and Procedural Guidelines for the
Mitigation of Commercial Crop Damage by Flying-foxes for the 2007/08
Fruit Growing Season**

Department of Environment and Climate Change

March 2009

Executive Summary and Recommendations

The following is a state-wide summary of licensing activity in 2007/08 under the *National Parks and Wildlife Act 1974* and the 'Department of Environment and Climate Change (DECC) policy and procedures for the mitigation of commercial crop damage by flying-foxes'.

- The NSW allocation of the national cull limit was 3,040 Grey-headed Flying-foxes (GHFF). DECC allocated 2,432 (80% of quota) to the Parks and Wildlife Regions (PWG) at the start of the season.
- Licences were issued to 35 properties. Thirty-three licences authorised harm to 883 GHFFs, which represents 29% of the NSW quota.
- The majority of licences (40%) were issued in the Sydney North Region.
- Several regions did not issue any licences (Northern Rivers, North Coast, Northern Tablelands, Hunter, and South Coast).
- Flying-fox Record Sheets (FFRS) were returned for 89% (31) of the 35 licences (including variations).
- The number of GHFFs actually harmed, estimated from Flying-fox Record Sheets is 516 animals or 17% of the NSW cull limit.
- PWG Mid North Coast Region and Upper Darling Region each issued one licence for Black Flying Fox and Little Red Flying Fox respectively.

It is recommended that:

1. The quota for the 2008/09 growing season remains at 3,040 GHFFs. 80 % of this limit (2,432 GHFF) will be distributed across NSW Regions.
2. DECC Wildlife Licensing and Management Unit provide a summary protocol of the DECC policy to officers who issue licenses to cull flying-foxes. This is a recommendation of the NSW Flying-fox Consultative Committee and has been implemented for the 2007-08 season.
3. A thorough review of the policy will be undertaken prior to the 2009-2010 fruit-growing season.
4. DECC continue to support research priorities agreed by the NSW Flying-fox Consultative Committee.

1 Introduction

The term 'flying-fox' in this report will refer to all three species of *Pteropus* found in NSW (the Black, Grey-headed and Little Red Flying-fox). However, the majority of data is relevant to the GHFF.

The Department of Environment and Climate Change (DECC), has had a policy in place since 1998 with respect to mitigating the damage caused by flying-foxes to commercial fruit crops. This policy advocates full exclusion netting as the only reliable method for protecting fruit crops, but also made provision for the issue of licences under the *National Parks and Wildlife Act 1974* to permit fruit growers to harm limited numbers of flying-foxes.

Grey-headed Flying-foxes were listed by both the NSW Scientific Committee and the Commonwealth Government as a threatened species in 2001. Since that time a national working group coordinated and chaired by the Australian Government has set a national limit on the number of animals that can be culled. Under this system, NSW has a national cull limit of 3040 Grey-headed Flying-foxes per year (0.95% of the minimum population estimate).

In 2007, the Australian Government advised the states that the national approach has ceased. DECC has undertaken to continue to issue licences for the 2008-09 season in accordance with the former cull limit, but will review its policy prior to the commencement of the 2009-2010 season.

In NSW, the Flying-fox Consultative Committee (FFCC) which comprises government, non-government, industry, science and conservation members of the community, provides advice into NSW policy with respect to licensing and recovery planning for flying-foxes.

The licensing program for flying-foxes is currently coordinated centrally by the DECC Parks and Wildlife Group Wildlife Licensing and Management Unit (WLMU) and administered by local Area Offices. Recovery planning and policy development for the department, with respect to GHFF management and conservation, is coordinated by the DECC Landscapes and Ecosystems Conservation Branch.

An annual report on licence applications and licences issued has been prepared by the WLMU each year since 2001. This report includes a summary of data and a brief analysis of trends and comparison with previous years and is made available to stakeholders and the public via the DECC internet site.

2. Licences issued for 2007-2008

A breakdown of the number of licences issued for the 2007-2008 growing season is provided in Table 1. The data shows that all of the licences issued were from DECC Central Branch offices. Approximately 29% of the cull limit i.e. 883 animals allocated to NSW were licensed to be harmed in 2007-2008 and 516 GHFFs (59%) were reported killed from returned Flying-fox Record Sheets (17% of the GHFF cull limit).

3. Licensing trends 2001-2008

The number of licences issued to harm flying-foxes during 2007-2008 was similar to that of the previous season. However, overall there was a 24% decline in the number

of GHFFs licensed to be harmed and a 36% decline in the number of animals reported harmed at the end of the season. This reduction was most evident in the Sydney South Region where there was a 67% decline in the number of animals licensed to be harmed. In contrast, Blue Mountains Region experienced an 84% increase in the number of GHFFs licensed to be harmed and an increase of 97 reported killed on the previous season.

The overall trend continues to show a decline in the number of GHFFs licensed to be harmed with a 52% reduction observed since the 2001-2002 season. The number of licensees has also declined since the 2003-2004 season. An analysis of the rationale for their departure from the licensing system may assist with explaining this trend.

The overall decline in licensing is possibly due to a greater abundance of native food resources for the animals. This can be corroborated by evidence that the reproductive output of flying-foxes over the last few seasons has been stable. There may also be a change in attitude of some growers toward the effectiveness of shooting, or that some growers are choosing not to acquire a licence. In addition, reports indicate that a number of growers have left the industry.

4. Compliance and Enforcement

No legal action relating to the licensing of flying-foxes was taken against any licensed grower or other member of the public this season. However anecdotal reports of illegal shooting were noted by Mid North Coast Region.

For the 2007-2008 season DECC published reminder notices in a number of industry magazines informing growers of their statutory obligations with respect to licences to shoot flying-foxes.

DECC will be undertaking a targeted compliance program in consultation with local police commands in the 2008-2009 season. These areas will be the Mid North Coast and Blue Mountains Regions of the Department where there have been ongoing reports of illegal shooting.

5. Allocation of Quota for the 2008-2009 Season

To ensure that the total impact of all licences issued in NSW does not constitute a serious threat to the long term survival of this species, a cull limit has been established whereby DECC will not issue licences to harm in excess of 0.95% of the most recent minimum population estimate (i.e. 320,000 animals) of the GHFF in any given season.

The total cull limit is 3,040 animals with 20% of that amount maintained in reserve (608), leaving a total of 2,432 to be divided amongst the PWG Regions of the Department at the start of the growing season, based on licensing history. The cull limits for season 2008-09 are provided in Table 3.

Table 3: Allocated cull limits for the 2008-09 growing season

PWD Branch	Region	Allocation of flying-fox numbers by region
Northern	Northern Rivers	25
	North Coast	50
	Mid North Coast	107
	Hunter	25
Central	Central Coast Hunter Range	350
	Sydney North	900
	Sydney	25
	Sydney South	700
	Blue Mountains	250
Southern	South Coast	0
TOTAL		2,432

2432 allocated, 608 maintained in reserve to be allocated as needed by the Manager, WLMU.

6. Research and Future Issues

A list of research projects on GHFFs that are either sponsored, or undertaken by DECC officers is provided below. A number of these projects have received Australian Government Natural Heritage Trust Funding.

- Grey-headed Flying-foxes in Orchards Project (NHT funded) – assessing flying-fox damage to commercial crops and investigating the effectiveness of the damage mitigation techniques currently used (including full exclusion netting, and shooting). Project commenced in the growing season of 2006. Some additional funding was obtained, extending the project beyond the original June 2008 timeframe. The project is now expected to be completed in March 2009.
- Grey-headed Flying-fox foraging and habitat mapping project (funded by the Australian Government and DECC) – Dr Peggy Eby and Dr Brad Law (SF NSW) – project is expected to be completed by end of 2008.
- Investigation of microclimate at flying-fox roosts sites undertaken by Stephanie Snoyman at Macquarie University. Thesis submitted.
- Flying-fox camp database (DECC-funded) – Original NSW database on known GHFF and Black FF roost sites updated, and expanded to include (where possible) known GHFF camps in Qld and Vic (to make it a national database)-project completed by Dr Peggy Eby.

The DECC is also currently completing a draft national recovery plan for the Grey-headed flying fox and expects to submit the draft plan to the Australian Government for approval to publicly release by end of 2008.

Table 1: Summary of licensing data for the 2007-2008 growing season

PWG Branch Name	Region	Allocation of cull limits at start of 2007/08 Season	Number of licences issued	Total number GHFF licensed to be harmed	Number FFRS returned	Reported Number GHFF harmed
Northern	Northern Rivers	25	0	0	-	-
	North Coast	25	0	0	-	-
	Hunter/Mid-North Coast	25	1	10* (Black)	1	10* (Black)
Central	Central Coast Hunter Range	371	5	215	5	120
	Sydney North	936	14	320	12	177
	Sydney	25	0	0	-	-
	Sydney South	900	6	210	6	97
	Blue Mountains	100	8**	138	6**	122
Southern	South Coast	25	0	0	-	-
Western	Upper Darling Region	0	1***	40 (Little Red)	1	40 (Little Red)
TOTAL			35 (33 for GHFFs)	883 GHFFs	31	516 GHFFs

- * Hunter/Mid-North Coast data pertains to Black Flying-foxes and is not included in total calculations.
- ** One licence was not picked up from Hawkesbury Area office. Mid North Coast data pertains to Black Fling Foxes and is not included in total calculations
- ***Upper Darling Region data pertains to Little Red Flying-foxes and is also not included in total calculations.

Table 2: Trends in Grey-headed Flying-fox licensing from 2001/02-2007/08 showing the number of licences issued each season with the number of GHFFs identified in brackets.

PWD Branch	Region	2001/02	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08
Northern	Northern Rivers	5 (250)	5 (205)	2 (15)	1 (12)	0	0	0
	North Coast	1 (10)	0	0	0	0	0	0
	Hunter	0	0	1 (30)	0	0	0	0
	Northern Tablelands	2 (55)	0	0	0	0	0	0
Central								
	Central Coast	10 (616)	11 (900)	12 (923)	3 (150)	4 (200)	3 (150)	5 (215)
	Hunter Range							
	Sydney North	22 (590)	26 (828)	25 (850)	13 (435)	16 (535)	11 (300)	14 (320)
	Sydney	1 (21)	1 (35)	1 (20)	0	0	1 (?)	0
	Sydney South	4 (155)	9 (380)	7 (389)	6 (195)	18 (555)	9 (630)	6 (210)
	Blue Mountains	7 (115)	9 (107)	6 (121)	4 (60)	3 (30)	8 (75)	8 (138)
Southern								
	South Coast	1 (20)	1 (20)	1 (20)	0	0	0	0
TOTAL		54 (1852)	62 (2358)	53 (2331)	27 (852)	41 (1320)	32 (1155)	33 (883)