

The National Flying-fox Monitoring Program

Report on the May 2016 survey

Background

The National Flying-Fox Monitoring Program (NFFMP) is a collaborative program that brings the community and local, state and the Commonwealth governments together to provide quarterly snapshots of the size and distribution of flying-foxes in Australia. The data collected provides unique insights into the ecology and dynamics of flying-fox populations and represents an essential underpinning for the conservation and management of flying-fox populations. Monitoring programs such as the NFFMP are essential to enable the collection of such data and, over time, to identify trends.

Monitoring of flying-foxes is useful for a variety of reasons but is especially important because flying-foxes are so often in conflict with humans while at the same time being of conservation concern; two species, the grey-headed flying-fox (GHFF) and the spectacled flying-fox (SFF), are listed as threatened under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) and legislation in some states. The NFFMP provides key data for decision making not just for flying-fox conservation but also to inform responses to public concerns about the impact of flying-foxes on industry, amenity and public health.

The May 2016 Survey Results - a Summary.

The May 2016 survey marked the fifteenth count of the project. During this survey 240 camps were surveyed, 103 in NSW, 112 in Qld, 23 in Vic, and one each in the ACT & SA.

The estimate for the total GHFF population in these camps was 663,000 animals from 67 active camps. The majority of the animals were found in NSW (84%), with Qld having 11% and Victoria 6%. During this survey there was a large Spotted Gum flowering event on the NSW south coast which resulted in over 270,000 GHFF congregating on the 3 camps in the Batemans Bay area. This meant that over 40% of the counted population was camping within 20km of Batemans Bay.

SFF numbers totalled 32,000 animals and these were distributed across 12 active camps, with Goldsborough being the largest camp with just 6,500 animals recorded.

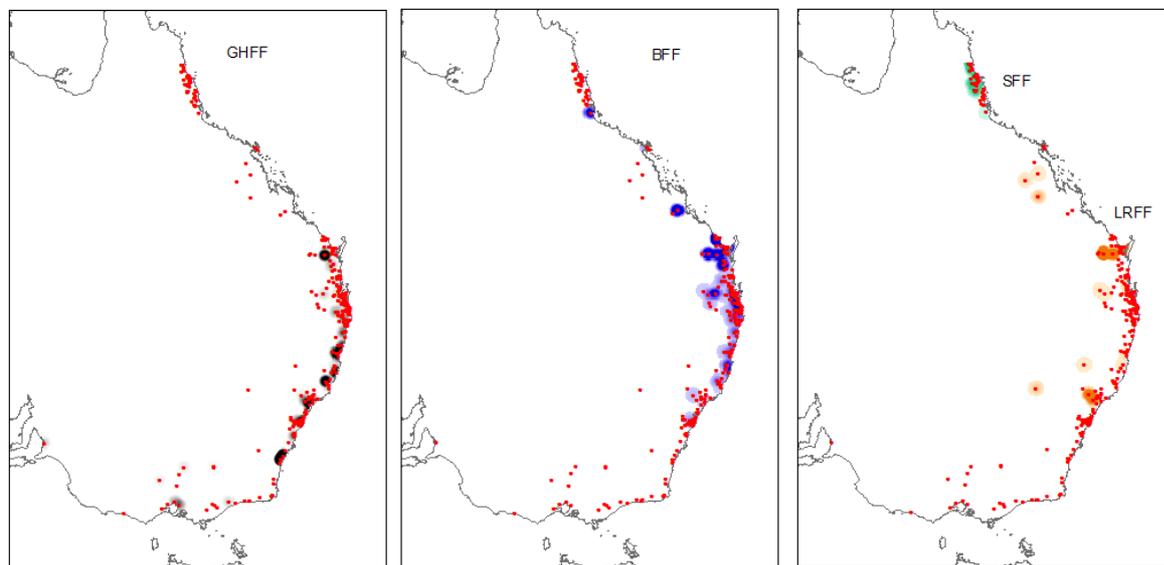
In contrast to the GHFF and LRFF whose entire ranges are covered by the NFFMP, the program covers only a part of the ranges of the BFF and LRFF. This means that our estimates LRFF and BFF are indicative only of camp use in the survey region and not of the entire population. In total 108,000 BFF were recorded, with 82% of those in Qld. 404,000 LRFF were recorded across the counted camps, with 80% being found in Qld. The LRFF results included a large camp at Cessnock. LRFF generally move north and out of the NFFMP area during the colder months, so having a camp of this size at this time of the year is unusual.

A map of the camps covered in the NFFMP surveys can now be viewed at <http://www.environment.gov.au/node/16393>. Clicking on a camp icon will show a plot of species composition and numbers recorded at that camp during NFFMP surveys.

Where were the flying-foxes in May?

The heat maps below show the distribution of the different flying-fox species across the region of the NFFMP. The darker the colour the greater the abundance of flying-foxes in an area, black shading refers to GHFFs, blue to BFFs, green to SFFs and orange to LRFFs. Red triangles represent visited camps

As usual a reminder, the numbers presented here represent the reported numbers. While these are a reasonable guide, our final estimates of the population size differ slightly once our estimates of the errors associated with the counts are taken into account. We provide the reported numbers to give counters a feel for the outcome of the count.



The aim of the program is to establish a reliable baseline estimate of the flying fox populations and over time to estimate trends. This will take a number of years since each quarterly count will be subject to various factors which will influence the results, making assessment of population size more difficult. A report reviewing the data from the first phase of the program can be viewed at the Australian Government Department of the Environment's website at

<https://www.environment.gov.au/biodiversity/threatened/publications/status-and-trends-australias-epbc-listed-flying-foxes>. This analysis suggests that while the GHFF population appears to be at approximately 700,000 individuals, the population of the SFF has declined by as much as 50% over the last decade to approximately 100,000 individuals. We will discuss and update these results in future reports.

In order to achieve the best possible estimate it is important that surveys are performed using the methods correctly. We are continuing to conduct training sessions and the CSIRO urges any counters who have any questions or concerns about count methodology to contact Dr David Westcott at david.westcott@csiro.au or Mr Adam McKeown at adam.mckeown@csiro.au.

We are continually updating the database and adding new camps as we are made aware of them. If you know of camps that are not being counted please contact us at the CSIRO.

Thank you to all the counters who put in the hours to assist the program. Your effort is greatly appreciated.

If you would like to participate please contact:

New South Wales – Mike.Roache@environment.nsw.gov.au

Queensland — Pauline.Fitzgibbon@ehp.qld.gov.au

If you know of additional camps or have questions about the counts please contact:

david.westcott@csiro.au or adam.mckeown@csiro.au

Additional information about the program can be found at:

www.environment.gov.au/biodiversity/threatened/species/flying-foxes-monitoring-program.html

The National Flying-fox Monitoring Program is collaboration between the Australian Government, the South Australian, Victorian, New South Wales, Australian Capital Territory and Queensland governments, CSIRO, local governments and volunteers in New South Wales and Queensland. The CSIRO was contracted by the Rural Industries Research and Development Corporation to undertake this research project. This research was funded by the Commonwealth of Australia, the State of New South Wales, the State of Queensland and RIRDC under the National Hendra Virus Research Program.