



# Fighting against extinction: Recovery of an endangered flying-fox in a conflicted society

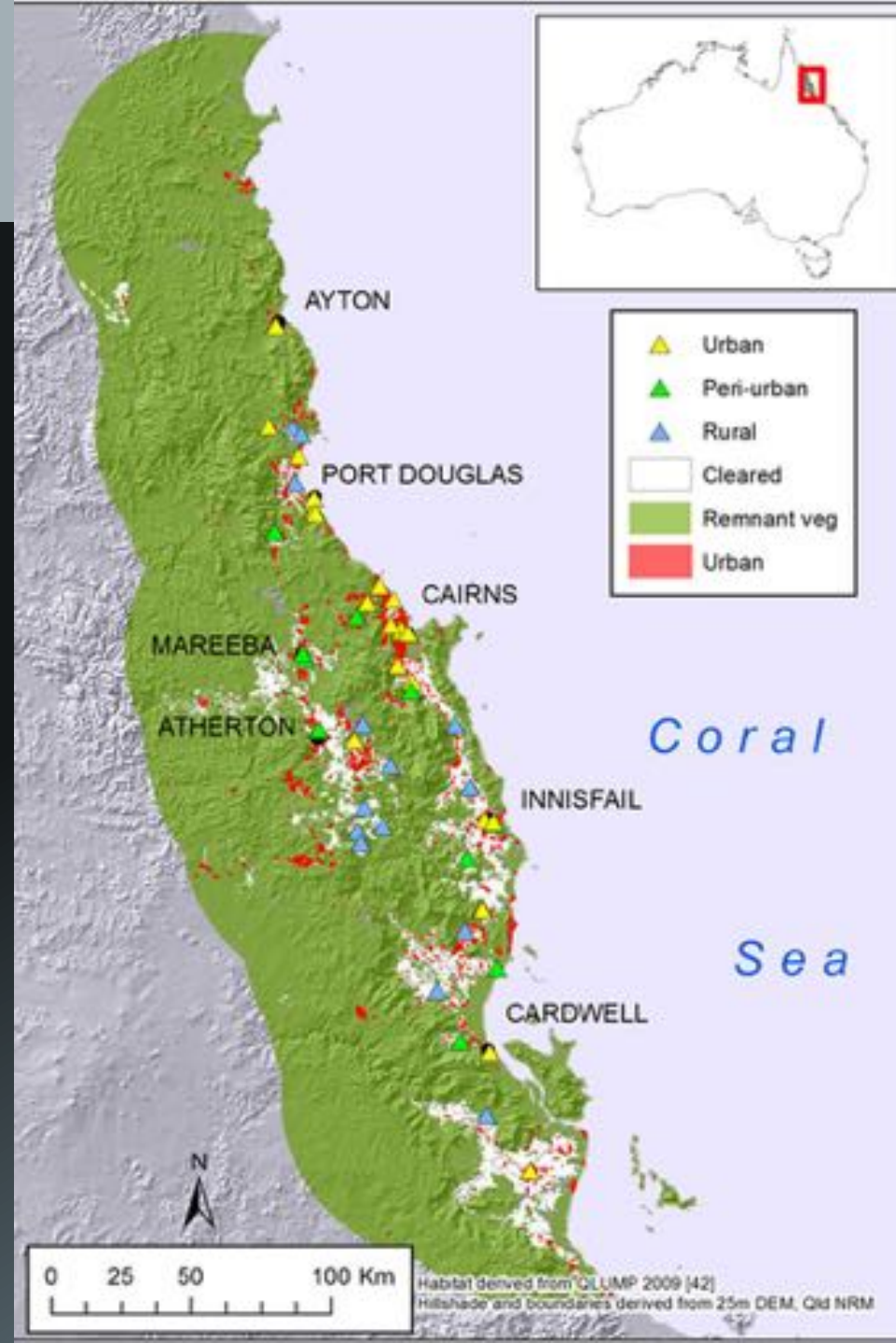
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# The Spectacled Flying-fox

- In Australia, restricted to Tropical Queensland
  - An icon of the Wet Tropics
- Endangered (EPBC Act and Qld NCA)
- Population decline
  - 80 – 85% decline over 15 years
  - 32% national population lost, HSE November 2018
- Is a Matter of National Environmental Significance (MNES) as a threatened species
- Is a MNES for its value to the Wet Tropics World Heritage Area

Is the Spectacled flying-fox a high priority for conservation?



# Conservation Challenges

- Climate Change
  - Cyclones
  - Heat Stress Events
- Other threats
  - Habitat loss- vegetation clearing
  - Tick paralysis and other disease
  - Cleft palate and other birth deformities
  - Human activities – deliberate and indirect
- Complications and hindrances
  - Public attitudes
  - Flying-fox behaviour- Perpetual backpackers
    - Extreme mobility
    - Urbanisation of SFF
  - Orchard protection
  - Health concerns and messaging
  - Political considerations
  - Policy, Legislation and Management

Could public perceptions and politics be greatest threat to conservation?



# Policy and legislation



## Nature Conservation Act 1992



## Flying-fox Roost Management Guideline



## Environment Protection and Biodiversity Conservation Act 1999

No. 91, 1999

Compilation No. 54

Compilation date: 18 September 2020



Australian Government  
Department of the Environment

## Referral guideline for management actions in grey-headed and spectacled flying-fox camps

EPBC Act Policy Statement



September 2015

## Is current legislation sufficient to save the SFF?

- Political considerations
- Focused on mitigating impacts to humans
- Inconsistent between state and Commonwealth
- EPBC Referral Guideline for management of Grey-headed and spectacled flying-fox camps
- Qld flying-fox roost management framework
  - As-of-right authority (Urban FF Management Areas- UFFMA)
  - Flying-fox Roost permits outside UFFMA
  - COP - Ecologically sustainable management of flying-fox roosts
  - COP - Low Impact activities affecting flying-fox roosts
  - Flying-fox roost management guideline
  - Notification, evaluation forms and Statement of Management Intent, not mandatory except for Notification
  - Local councils have option to develop a Management Plan for entire LGA

# Management

## An unfortunate legacy – the Campbell-Newman War on Bats

- Dispersals seen as only management option
  - Rate of dispersals increased by 6000%
- As of right authority to LGAs
- Concerns with revised Qld COP
  - Dispersals can be carried out any time of the year
    - when dependent young present
    - during high forecast temperatures
  - Onus of proof that management activities are cause of injury or deaths



## Has anything changed for the SFF since becoming threatened in Qld?

- No DMPs for protection of orchards issued for SFF
- SFF can still be dispersed from all camps except Nationally Important Camps without referral to either DES or DAWE

# Cairns CBD camp

## A Nationally Important camp on the edge of the CBD

- A history of mismanagement
  - Two thirds roost trees removed between 2014 & 2017
  - Construction of two high rise hotels in immediate vicinity
    - Impacts during construction
    - Collisions with buildings
  - Pressures on remaining roost trees
    - Overcrowding and damage to trees
  - Use of lower quality roost trees
    - Dangers of street trees – vehicle strike
- High mortality and abandonment of young
- Questions of viability of roost
  - Dispersal (EPBC referral 2019/8424) approved – began 4 July 2020- approved until Oct 2024
  - Delegation to state as only regulator for continuation of activities from 10 August 2020



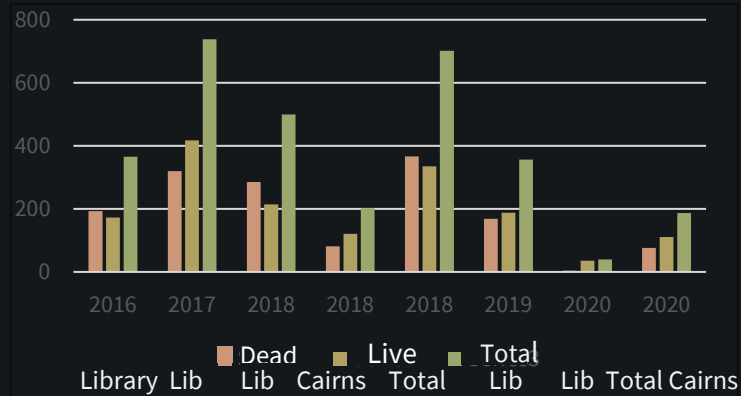
# Impacts



# Dispersal of a nationally Important Camp

## Pros

- Dispersal proposed to avoid high mortality and pup abandonment



Pups only

Pups and adults

- Improved tree health
- SFF at first readily moved to known camps
- Low impact management activities
- Actions were targeted and FF responses monitored to identify and fine tune effective stimuli
- All Cairns camps monitored to learn more about movements

THE CONVERSATION  
Australia's national journal for



David Finnan, CC BY-NC-ND

**Our laws failed these endangered flying-foxes at every turn. On Saturday, Cairns council will put another nail in the coffin**

July 1, 2020 8:11am AEST

The Northern Cairns Regional Council will disperse up to 8,000 **endangered** spectacled flying-foxes this **annually important** pup-rearing season.

The camp is one of the last major strongholds of the species, but having an average 12% of Australia's population concentrated there during the pup-rearing season has led to significant declines in spectacled flying-fox numbers, moving them from their home further than the species survival.

**And now? Not in an inch!** This is the **eleventh time** this is written.

**Article**

Yes, the federal environment minister **gagging** the dispersal law means under the Environment Protection and Biodiversity Conservation Act (EPBC Act).

This **planned dispersal** - which the council says is in the interests of the species - is set to conclude a long series of controversial management actions at the site. The EPBC Act **failed to protect the species as expected**. The camp may now be too viable for the flying-foxes.



**Decline of the rainforest specialist**

Spectacled flying-foxes are critical for **pollination and forest fire** in Australia's Wet Tropics, and so underpin the natural values of this world heritage-listed region.

The **habitat destruction and harassment** largely caused the species' population to drop from 250,000 in 2000 to 70,000 in 2017. **Subsequent conservation** has, so far, Australia's Wet Tropics, and so underpin the natural values of this world heritage-listed region.

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## Cons

- Camp stressed because of past activities
- While library mortality and abandonment reduced, numbers in wider Cairns have increased. Of 187 (80 pups) rescues: 114 calls from MOP, 36 Library operations; 37 Camp searches. Mortality may have just moved, or could be an artefact of increased search effort
- Referred dispersal conditions allow dispersal to occur only outside pup rearing season. Without ongoing deterrent actions
  - This would mean flying-foxes would return each year to give birth and raise pups
  - Dispersal would only happen at times of lowest population, and therefore
  - Dispersal would be futile
- But, actions continuing with dependent pups present increases risk of significant impact
- No community education
  - People ignorant of reasons for dispersal
- Increased community conflict
- Sets an unfortunate precedent for management of Nationally Important camps and endangered species



# ...AND NOW FOR THE BAT FACTS!

Since July 4, Council has been conducting activities at the Cairns City Library, under Federal Government conditions, to relocate the flying-foxes and to encourage them to seek a new home.

The Federal regulator has determined that flying-foxes are no longer roosting at the Cairns City Library site, hence Council received Federal approval for the dispersal program to continue permanently in the form of deterrents in the morning and early evening, under the Queensland Code of Practice – Ecologically sustainable management of flying-fox roosts Nature Conservation Act 1992.

**FACT** Council only uses low-impact deterrents in the morning and early evening to ensure flying-foxes do not return to the Cairns City Library.

**FACT** Council is approved to conduct daily deterrents (morning and early evening) at the site as an extension of actions which have been used successfully on the Esplanade for the past three years.

**FACT** On-site wildlife carers and environmental officers have reported no injuries or deaths as a result of the deterrent activities.

**FACT** With no flying-foxes roosting at the site, Council can undertake regular maintenance to safeguard the rejuvenation and improved health of the trees at the Cairns City Library.

**FACT** The team of professional wildlife carers are on-site to help rescue any animals that may need help. We have not experienced the high mortality rate at the library site like last year where over 200 flying-fox deaths were recorded plus many hundreds taken into care.

**FACT** Council acknowledges that spectacled flying-foxes are an important part of the natural environment.

**FACT** Heat stress events, urban development and increased construction in close proximity to the Cairns City Library colony has stressed and adversely affect the flying-fox population.

**FACT** Council's ongoing flying-fox management operates under the Queensland Code of Practice – Ecologically sustainable management of flying-fox roosts Nature Conservation Act 1992

## REMEMBER:

If you find bats in your backyard – do not touch them!  
If you see a fallen or injured bat – do not touch it.

Call Wildlife Carers TRO on 4381 6869



Get the bat facts visit [www.cairns.qld.gov.au/bats](http://www.cairns.qld.gov.au/bats)

# The Bat Facts

- The truth?
- Council says only low impact deterrents are used
- CAFNEC says military L-Rad is used
- Council reports no deaths or injuries as a result of actions
- CAFNEC reports 50 orphaned pups and 6 adult deaths
- Council says HSE, urban development and construction close to the camp have stressed the camp
- CAFNEC says camp is stressed due to removal of trees and development that should not have been permitted
- Council says dispersal is necessary to avoid past high rate of mortality and abandonment of pups
- CAFNEC says dispersal is putting dependent pups and population under pressure

# ...AND NOW FOR THE BAT FACTS!

**FACT**

Spectacled Flying Foxes are a keystone species. They are critical in ensuring the survival of our World Heritage Wet Tropic Rainforest, pollinating flowers of over 50 native trees. Without them these trees would not survive.

**FACT**

Over the decade Cairns Regional Council has approved the removal and destruction of over 43 Spectacled Flying Fox roost trees in the Cairns CBD to make way for developers, and increased construction. This has contributed to increased stress for the SFF and adversely impacted the population.

**FACT**

It is estimated more than 80% of the population has been lost since 2004, meaning the species would now meet the criteria to be listed as 'Critically Endangered'. This is one classification from being 'Extinct in the Wild'.

**FACT**

The Cairns CBD Library roost is a nationally significant camp, and holds 10% of the entire Australian Spectacled Flying Fox population. It is also a primary pup-rearing camp.

**FACT**

The company that Cairns Regional Council has contracted to undertake the Spectacled Flying Fox relocation activities, have also been contracted to provide Council with environmental impact reports, and compliance reviews.

**FACT**

Relocation activities of the Spectacled Flying Foxes at the Cairns CBD Camp commenced on the 4th July 2020. Since that date, wildlife carers have sighted and recorded 50 orphaned flying fox pups, and 6 adult flying fox deaths. This does not take into account the number of orphans and deaths occurring across the region.

**FACT**

Dispersal has been consistently used to relocate the animals. Amongst many other devices and tools, military Hyperspike Long Range Acoustic Devices and military grade flahs lights have been used.

**FACT**

It is now November and temperatures are increasing. Pup rearing time is a pivotal time for the population of Spectacled Flying Foxes, and as the dispersal continues, the population is put under increasingly high stress.

# SOSFF Watch project

*The SOSFF project is supported through a Qld Government Community Sustainability Grant, Protecting Queensland's Threatened Species*

The Save our Spectacled Flying-fox project aims to:

- Engage the community to record where they see flying-foxes feeding and roosting
- Collect data on flying-fox roosting and foraging ecology from researchers and land managers in the field
- Add to the scientific information of the species by filling knowledge gaps on fine-scale movements and land-scape usage
- Identify critical roosting habitat
- Protect vital maternity camps through habitat restoration to mitigate impacts from future heatwaves
- Inform conservation actions to guide recovery

...s and Trees Society of ...



...urveymonkey.com



...e this survey to give information on where and  
... you see flying-foxes to help conserve and ...

<https://www.surveymonkey.com/r/2C7BMN8>

*We need your help to promote the program*

# Adding to Scientific Knowledge

Research shows that engaging the public can improve conservation outcomes, creating a public will for conservation that can influence policy and management

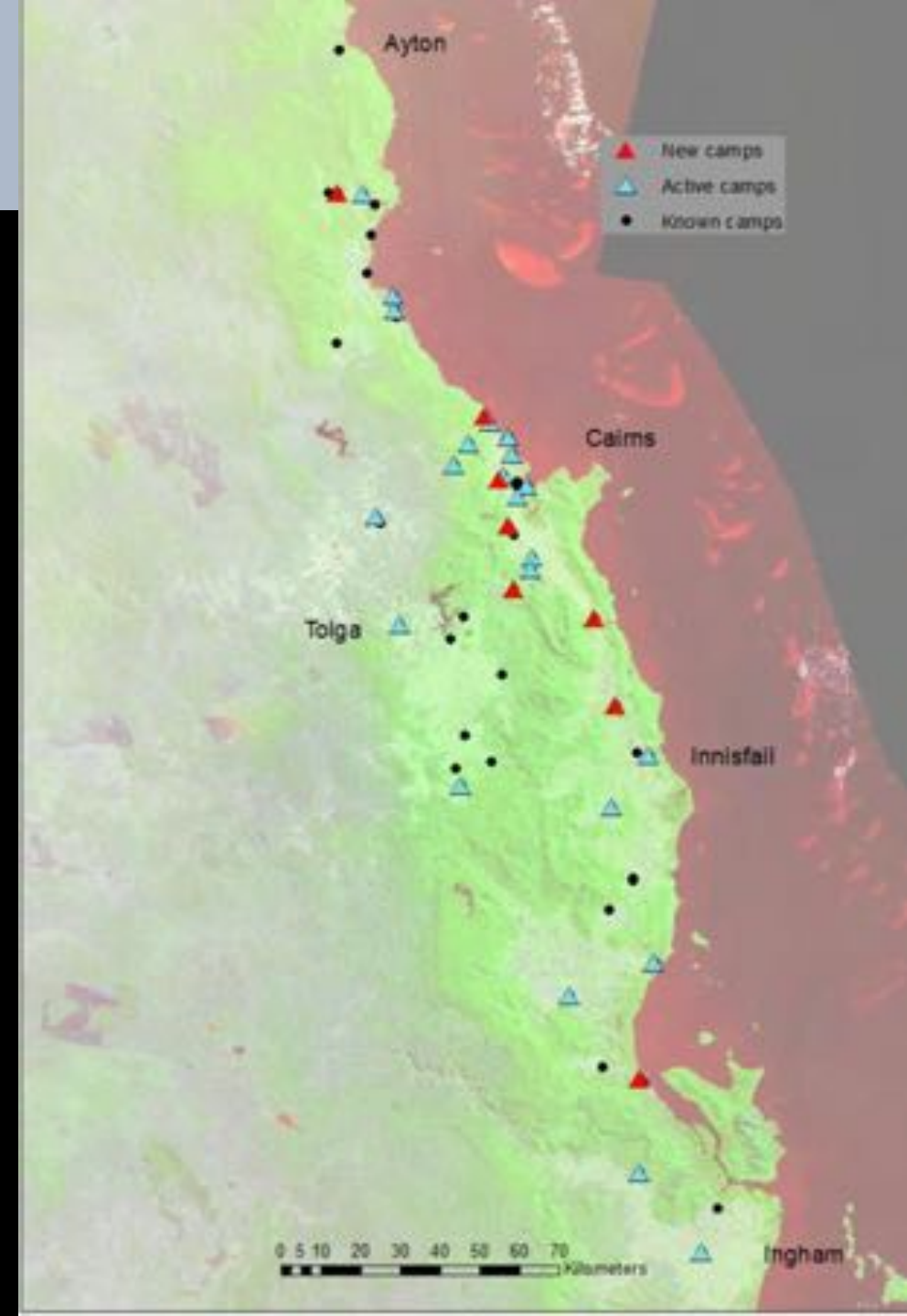
## Information can be recorded using:

- SurveyMonkey
- EpiCollect
- QuestaGame
- Official and informal data collected by ecologists and other researchers and wildlife carers

## Large knowledge gaps exist around SFF behaviour and ecology

- Only half the locations of winter camps are known
- Little knowledge of fine scale movements between the quarterly CSIRO monitoring
- Limited knowledge on threats and causes of population decline
- Unknown impacts of current management and policy
- New maternal behaviour discovered only this year

**Citizen Science and observations from researchers in the field on when and where flying-foxes are seen, what they are doing, and information on their surroundings can help fill these gaps.**



# Identifying and restoring critical habitat

## Observations from the November 2018 HSE, showed that flying-foxes fared better in camps with intact mid-storey vegetation

Foraging and camp observations from the Watch program

- will be entered onto biological databases
- collated onto maps

Camps will be analysed for

- Importance to flying-foxes (numbers, usage, birthing and rearing)
- Habitat quality
- Access to foraging resources
- Existing or potential human conflict

to identify vital camps for habitat restoration.

### Heat-proofing camps

Professional and community bush regenerators will be engaged to restore habitat of selected camps.



# SFF Recovery Team

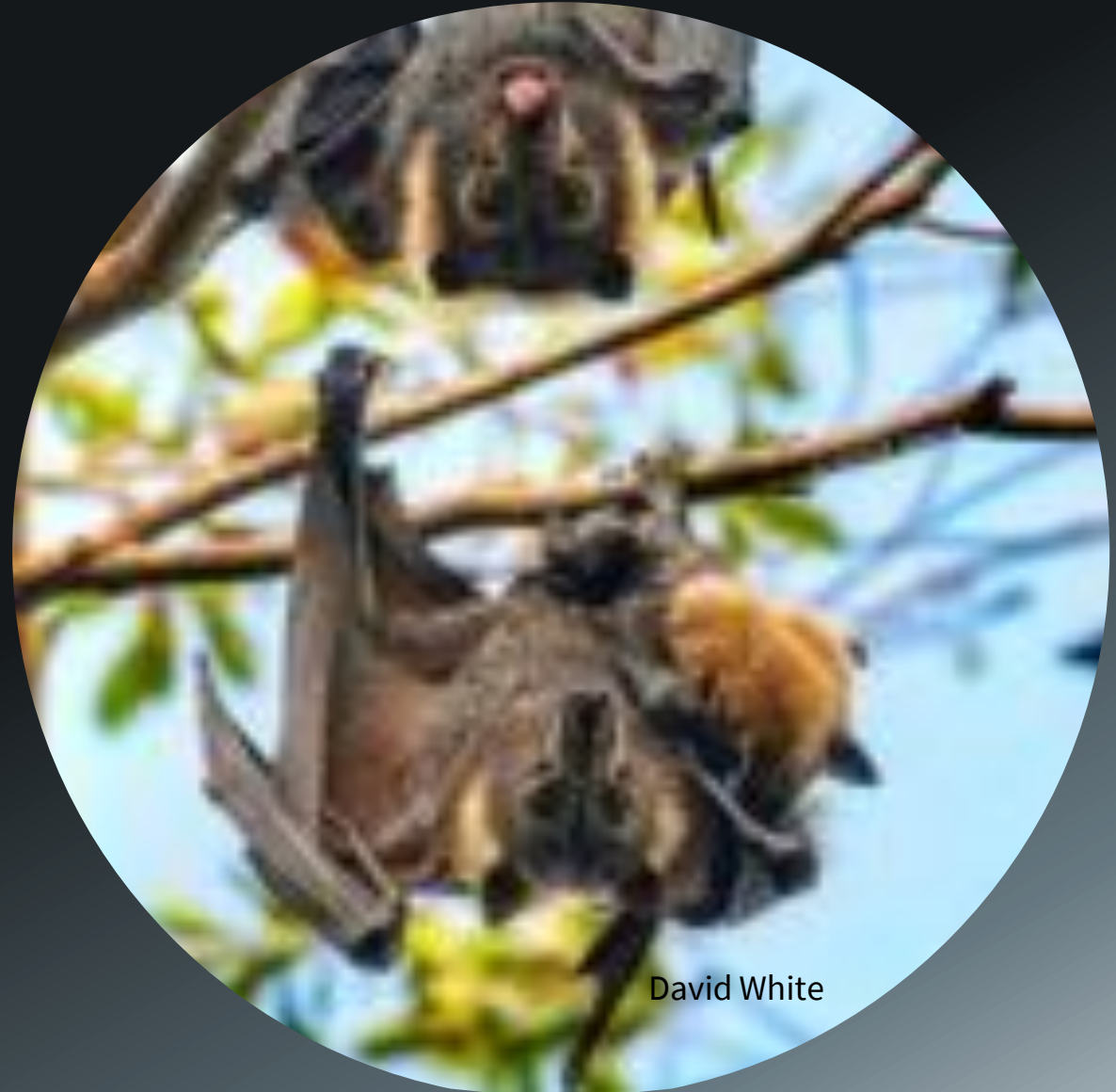
- 2010 Recovery Plan
  - Out of date
  - many recommended actions not implemented
  - SFF Not a priority for a new plan
- Recovery Team created August 2020
  - Objective to develop a new Recovery Plan and implement conservation actions to recover the species
  - The team comprises ecologists, social scientists, environmental lawyers, animal welfare experts, bat carers, community and conservation groups, traditional owners and government representatives

National recovery plan for the  
spectacled flying fox  
*Pteropus conspicillatus*



# SFF Recovery Team

- Core team of 12 members
- Incorporating NGOs like CAFNEC, ABS, Terrain, BatSoc, Support and involvement from all three levels of government
- Integration of all Traditional Owners within habitat range
- Revision of current plan due to expire in April
- Uplisting to critically endangered
- Subcommittees to help advise during various planning and implementation stages
- Direct action involvement in getting the recovery plan adopted and implemented.
- Survival of the species into the future?



David White

# Summary

- The SFF is endangered and nothing much is being done to conserve it
- Negative community attitudes are hindering conservation
- Existing legislation and policy is not protecting the SFF and its camps
- The Qld COP and the EPBC Referral Guideline are inconsistent
- Dispersals can be carried out at any camp even nationally important camps at any time of year
- Only actions at nationally important camps have to be referred.
- We don't know the impacts of current management
- Another cyclone or HSE could effectively wipe out the species (functional extinction)
- This would negatively impact on forests including the world heritage WTMA
- Participating in SOSFF project can create community will for conservation and fill in scientific gaps
- Information from the project can help guide the recovery team and focus conservation actions

