

Final PSP Project Report

SECTION 1: DEMOGRAPHICS

1. NUMBER OF PARTICIPANTS:

3 classes at Welbourn = 80 student workshop participants, 8 teachers and teacher aides
32 Welbourn students tracked cats.

3 classes Inglewood = 50 children, 3 teachers, 4 aides

20 Inglewood cats tracked

8 Public cats tracked. Families involved, 15 people discussing the results.

2. GENDER

Gender	Number of participants
Male	75
Female	85
Gender diverse	

3. AGE

Age	Number of participants
0 - 4	
5 - 9	130
10 – 14	
15 - 19	
20 - 24	
25 - 29	
30 - 34	6
35 – 39	23
0 - 44	
45 – 49	
50 – 54	
55 - 59	1
60 - 64	
65 – 69	
70 – 74	
75 - 79	
80 – 84	
85+	

4. ETHNIC GROUP

Ethnic Group	Number of participants
New Zealand European	
Māori	
Samoan Cook Island Maori	
Tongan	
Niuean	
Chinese Indian	
Not Known	160

5. REGION OF RESIDENCE

Region	Number of participants
Taranaki Region	160

6. DESCRIPTION OF RESIDENCE

Description of residence	Mark an X in the category that is the best fit
City	
Town	X
Rural Area	

7. SCHOOL INVOLVEMENT

Name of School	Number of participants per school
Welbourn School	88
Inglewood School	57

8. SCIENTIST INVOLVEMENT

Name of scientist	Role title	Fields of research <i>(using up to three 6-digit ANZSRC codes)</i>	ORC ID/Scopus Author ID <i>(if known)</i>
Jo Fitness	Ecologist	060208	55947971400
Elise Smith	Ecologist, MAIN Trust NZ	060299	

9. COLLABORATORS

Name of collaborator	Organisation	<u>Original</u> named collaborator or <u>additional</u> since project started
Leigh Honnor	Wild for Taranaki	original
Craig Henson	Welborn School	Original
Jenny Magon	Welborn School	Original
Abi Knauf	Welborn School	Original
Libby O'Connor	Inglewood Primary School	Additional

SECTION 2: CO-FUNDING AND EXPENDITURE

What was the total co-funding for the project?

MBIE \$19,935.70 + community \$14,800

(Community contribution = \$4,000 covers the in-kind time, \$6,000 equipment, \$4,800 services)

What was the total equipment expenditure? \$240

Used the tracking equipment from the previous Furbabies (Leigh Honnor - = value \$6,000)

\$30 scrapbooks

\$80 posters

\$30 Glow collar reflective strip WISH

\$100 bright material for Glow collars

What was the total personnel expenditure?

\$19,262

What was the total small item expenditure?

What was the total other expenditure?

Online services covered by MAIN Trust community contributions hosting = \$4,800

What was the total expenditure for the project?

\$24,300

What was the total budget for the project?

\$24,735.70

Was the final budget different from what was planned?

Some in-kind time is still to be spent on loading educational resources in the wiki, with images and links to the CitSci Wiki which due to go online next week.

If yes please briefly explain the factors that altered the budget.

SECTION 3: ACTIVITIES

In chronological order what were the activities that happened in the project?

2018

Initial school visits to introduce the concept and discover what questions about cats the children wanted to answer, handed out scrapbooks to each student to use for their CatMap study.

Online office for the administrators was set up. File repository and a Geographic Information System to receive GPS data, and data models convert this to styled spatial layers which can then be published as images and videos.

Welbourn School sessions, 3 classes, on the technology and GPS used, permission forms for parents to track cats went out. Lesson on using iNaturalist.

Welbourn School cats tracked with GPS units, then trackers retrieved, and data downloaded, cleaned, styled, day and night maps made, time-manager maps (with continuity of process by using manuals from previous Furbabies study).

Welbourn School sessions, 3 classes looking at how we cleaned and analysed the data and made the images using Angel as an example.

Welbourn School sessions discussing the experiment with students, the way to keep cats safe and alert birds – would it be any use if cats wore bells or glow collars?

Designed and made Glow collars to use for experiments.

Public applications accepted

Total of 45 cats tracked.

Data cleaned, styled, time-manager publications (screenshots of day/night travel, range and videos or the time manager) sent to cat owners

For those cats living near native bush, Angel and Fleck, we did further ‘treatments’ and data analysis with satellite imagery to assist correlation of tracks with biodiversity data

2019

Animals TV show interview student and her cat about the project.

Final Welbourn school workshop with students discussing results from the study with a focus on Angel.

Continued tracking some Welbourn and public cats multiple times under different ‘treatments’

Inglewood Primary School class sessions and tracking of additional cats in June. Data analysis.

Inglewood Primary School - feedback and discussion session

Designed multiple resources for teachers and students to use for further study, made available on Moodle and soon to be in the national CitSci Wiki.

SECTION 4: OUTPUTS AND OUTCOMES

1. Outputs and outcomes:

National TV – Fanimals

Online resources available to the participants and public (see below).

2. Implementation

- Schools were keen on an external project with professionals and guest speakers.
- Most students had cats and could relate to the project in some way.
- The use of technology spiked interest in many of the students.
- The results meant many people learned something new about their cats and were keen on making changes such as the glow collars.

3. Tools and resources

- The project used the GPS units from “Taranaki Furbabies”
- We held interactive sessions with classes.
- The analysis of where cats entered the Significant Natural Areas (SNAs) or bush was assessed using Geographic Information Systems and satellite imagery. The tracks with GPS points and range calculations were provided to the children and cat owners.
- [A blog page](#) and [Facebook page](#) about the project were also used to connect with participants.
- The resources produced during the project are on a Moodle site

[How CatMap used GPS technology](#)

[How cats were tracked with GPS](#)

[Using satellite images to determine the vegetation cover](#)

[Where cats prefer to be ...](#)

[Activities for students](#)

[Making a Glow Collar for your cat](#)

[What do these words mean?](#)

[Record what your cat brings home](#)

[Videos](#)

[A traveling Angel](#)

['Fanimals' meets CatMap](#)

[Where did Angel go?](#)

[Where does Fleck go at night?](#)

[For teachers](#)

[CatMap - school handout and introduction File](#)

[Permission to track cat form](#)

[Lesson plan 2018](#)

[Results of research, Furbabies and CatMap](#)

[Report on Taranaki Furbabies 2018](#)

[Workshop presentation - Taranaki Furbabies 2018](#)

[Where do cats go night vs day?](#)

[Conference presentation July 2018](#)

4. Assessment of success

- Contact with 160 interested people is a good measure of success.
- The fact that many wanted to see how the 'glow-collars' or bells worked on their cats reflects an ongoing interest.
- National exposure
 - 'Fanimals' approached us regarding the project to be showcased on their show and a craft section of making glow collars.
 - The Curious Minds special report on the project will reach further audiences
- Several more teachers have approached us regarding their schools joining the project.
- The level of engagement from students and parents meant the project was successful in reaching the target audience and expanding on 'Taranaki Fur Babies'
- The continuation of the project is possible, with interest such Inglewood Primary School who would like to track the cats again over the summer months.
- Inglewood primary school used this as an opportunity to understand cats as predators as part of their topic of learning about introduced predators to New Zealand.
- Massey University have approached us with regards to using the data for a possible Master's project.
- The success of tracking cats wearing glow collars have shown the effectiveness of these as methods to reduce predation impact on birds. While cats are wearing the glow collars we have noticed that cats do not catch birds and bring them home but will still catch mice.
- Many students and the parents we have talked to are keen to change their own behaviour regarding their cats to help reduce cat predation and roaming.

5. Future plans

- Whilst tracking feral or stray cats would give more reliable data on how cats affect wildlife populations it is not likely that the GPS units would either survive or be retrieved. We suggest that if feral populations are removed from the sensitive wildlife areas (SNAs) then tracking the pets will allow us to see if pets move into those vacant areas.
- Due to the controversy surrounding cats as predators it was challenging to get people to record the prey their cats brought home in iNaturalist for fear of negative repercussions. They would tell us their cats hunted but not record the info in iNaturalist.

This difficulty meant we did not get enough of the wildlife records we wanted in order to answer the question about if the glow collars and bells significantly reduced the number of native birds preyed upon.

- A Massey University professor has made contact regarding a master's student looking at a project along these lines, and this may be able to use data collected from these studies and expand on the project.
- By providing detail of our work online we hope that the tools and processes may be easily taken up by any other interested students.