

Protecting the Alps from weed threats: Behaviour Change for improving Hygiene

Update - 26th May 2021

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This summary is for Australian Alps National Parks and the National Hawkweed Working Group partners to provide an update on work initiated under the AANP 2018-2020 grants but delayed due to bushfires and Covid-19 restrictions. Additional funding was secured by NPWS to continue the analysis and subsequent development of best practice strategies to improved hygiene behaviours. Final reports and recommendations will be provided to AANP and NHWG partners once completed.

- Data collection for the behavioural component of the project was completed in April 2021
- Total intercept surveys across 2019-2021 was N=1117
- A number of factors limited progress in data collection across 2019-2021, and may have changed the composition of Park users.

2019: data collection affected by bushfires – Round Mountain site was abandoned for data collection

2020: data collection affected by bushfire and COVID-19

2021: park visitation likely affected by COVID-19 – increased numbers

Sites

1. Thredbo Top Station ((i) adjacent to Eagles Nest – 2019 and on paved track between (ii) Eagles Nest and Dead Horse Gap turnoff - 2021)



2. Charlotte Pass Main Range trail



Intercept surveys descriptives

The total numbers of surveys at each site were similar at the end of data collection however the accumulation of surveys across time was different. There was a need to ensure the number of surveys at Thredbo increased in 2021 because of the change in site position. Both sites were sampled across weekday and weekend visitations, however Thredbo was not sampled during a period that could be considered an offpeak weekend.

Breakdown of surveys by site across time

Survey Station			Year			Total
			2019	2020	2021	
<i>Thredbo</i>	Month	January			161	161
		February			96	96
		April	113		208	321
		Total	113		465	578
<i>Charlotte Pass</i>	Month	January			155	155
		February		59	96	155
		March		24	31	55
		April	137		34	171
		May	3			3
	Total	140	83	316	539	

Surveys by KNP usage period

2019-2021			Weekday	Weekend	Total
Peak	<i>TS</i>		130	352	482
	<i>CP</i>		127	165	292
Offpeak	<i>TS</i>		96	0	96
	<i>CP</i>		119	128	247
			472	645	1117

Demographics

Respondents at Thredbo Summit were older and reported slightly less bushwalking experience on average. A large proportion of respondents at both sites nominated a University degree as their highest level of education and 65% were in full time work.

		<i>Thredbo Summit</i>	<i>Charlotte Pass</i>
Age (years)		45.22 (14.77)	39.93 (15.74)
% Female		49%	49%
Self-rated experience (/10)		6.30 (2.17)	6.88 (1.81)
Education	Before Year 10	3	1
	Year 10	11	14
	Year 12	52	54
	TAFE Certificate / Diploma	81	54
	University Degree / Diploma	419	408
	Other	7	5
	Employment		
Working full-time		376	343
Working part-time or casually		83	77
Unemployed but looking for work		11	13
Homemaker		7	1
Retired		69	56
Full-time student		18	33
Full-time carer		0	2
Other		9	11

SDs are in brackets

Walkers' uses of KNP

Samples at each site reveal differing proportions of visitors engaging in family outings (more likely at Thredbo) and small group bushwalking (more likely at Charlotte Pass).

		Survey Station		Total
		<i>Charlotte Pass</i>	<i>Thredbo Summit</i>	
Who were you walking with today?	Solo walker	50	38	88
	Small group bushwalk	305	223	528
	Walking group event	9	10	19
	Family outing	149	280	429
	Formal tour activity	1	4	5
	Other	22	18	40
	Missing			8
Total		536	573	1117

What was the base rate of cleaning station use amongst respondents?

Respondents were surveyed in outgoing and incoming directions.

Outgoing walkers' usage of the cleaning station was 42% (Thredbo main range) and 48% (Charlotte Pass) respectively. Note that usage involved some level of engagement with brushes and/or spray.

	Survey Station		
	<i>Thredbo Summit</i>	<i>Charlotte Pass</i>	<i>Total</i>
Yes	133	110	243
No	186	120	306
Total	319	230	549

Incoming walkers were found to have engaged in station use at the start of their walk at the rates of 29% (Thredbo Summit) and 13% (Charlotte Pass) although cleaning stations were not available at all trail heads where walkers commenced their walk. Incoming walkers used the cleaning stations at rates of 27% (Thredbo summit) and 45% (Charlotte Pass).

		Survey Station		
		<i>Thredbo Summit</i>	<i>Charlotte Pass</i>	<i>Total</i>
Start of walk	Yes	73	39	112
	No	167	82	249
	No cleaning station at start of walk	15	182	197
End of walk	Yes	68	138	206
	No	186	165	351
Total		254	303	557

NB: Survey respondents are a fraction of the total walkers using the trails during this period. There may be selectivity bias regarding who consents to be involved with intercept surveying. These base rates therefore need to be considered in relation to these constraints.

Stay tuned for the full report.... 😊

2019-20 Data and Activity Summary

- Over four days during Easter 2019 we made 4961 observations of station use/non-use at Thredbo Top Station and 1334 observations at Charlotte Pass.
- Over four days during Easter 2019 we conducted 253 intercept surveys at Thredbo Top Station and Charlotte Pass.
- Over three days in Late February/Early March 2020 we made 224 observations of station use/non-use at Charlotte Pass and conducted 87 intercept surveys at Charlotte Pass.

Easter 2019 work was conducted by Nick Gill (School of Geography and Sustainable Communities) and Leonie Miller (School of Psychology) with assistance from students Olivia Nicholson, Aidan Wade, and Madeleine Clegg.

Easter 2019 work was conducted by Nick Gill (School of Geography and Sustainable Communities) and Leonie Miller (School of Psychology) with assistance from research assistance Emily Keough and student Vincent Barwick. They were joined one morning by Bec Mooy and NPWS volunteers.

Observations of the use of the cleaning stations showed that **93% of walkers at Thredbo Top station did not use the station at all or got on the station but did nothing**. Use was higher at **Charlotte Pass with 26% percent of walkers using the station in some way at Easter 2019 and 34%** using the station in some way at the quieter non-peak period in February/March 2020. While it is not surprising that a non-peak period sees higher cleaning station use, this may be confounded by the types of visitors venturing into the park after the fires.

Of those who do use the cleaning stations, less than one percent completed all recommended cleaning steps. Most commonly walkers used the fixed brush only or the fixed brush with a spray, followed by using the fixed brush again. Very few used the handheld brush whether singly or in combination with the fixed brush and/or spray.

The low rate of use of the Thredbo Top Station at Easter 2019 was clearly partly due to the fact that it was located in a very busy site near the top of the chairlift where there are many signs, people, mountain bikers, and other distractions. It was common for survey respondent to have not noticed or to have seen the cleaning station at all. In 2020, the station was moved further along the track to near the junction with the Dead Horse Gap track but COVID-19 meant that we did not conduct any fieldwork there before we had to cancel any further work in 2020.

Impressions so far from survey and observations:

- If it is busy and a crowded environment, walkers don't even see the station: **location is critical**.
- Walkers walk past it wanting to get going – stopping, reading, and doing is a time impost: there is probably a **need to prepare walkers in advance** and change expectations.
- Wanting more/clearer/bigger **signage** was a common open-ended response.
- Children jump on and 'play'; adults stop, assess the station in some way, and move on or use it. What is happening at this moment of assessment? Interviews may be help understand this.
- Large groups – some will use it but the groups tend to move on before all do.
- **Those who used the station found it straightforward to use.**
- Trail runners don't stop and clean footwear.
- How important are perceptions of cleanliness in the decision to clean – Walkers essentially ask do ALL boots need cleaning regardless of apparent cleanliness? If my boots look clean, they may not need cleaning.
- It takes about a minute to read and use the station fully – **what capacity is needed so that people don't have to wait and queue beyond their tolerance?**

Walker Use of Cleaning Stations Charlotte Pass and Thredbo Top Station 2019 and 2020

