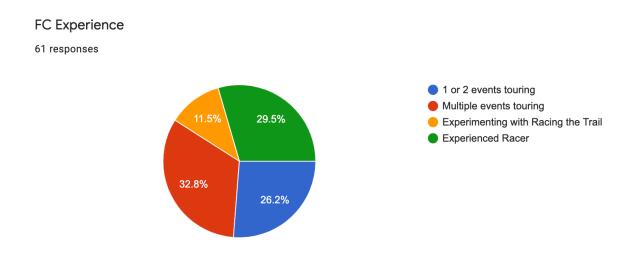
## Freedom Challenge Gear Survey

### Compiled by: Roger Nicholson (July 2021)

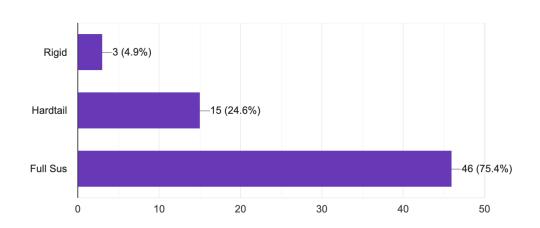
I'd like to thank the 61 respondents for taking the time to complete the survey. The aim of the survey was to poll riders regarding their gear choices for the winter events (R2R, R2P and RASA). Hopefully insights that are gained can translate into some useful recommendations for prospective FC entrants. A summary and some conclusions follow



60% of riders were "touring" the trail.

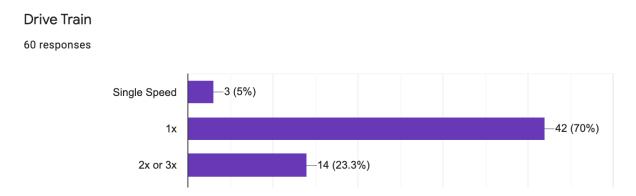
#### Bike / Preferred Bike

61 responses

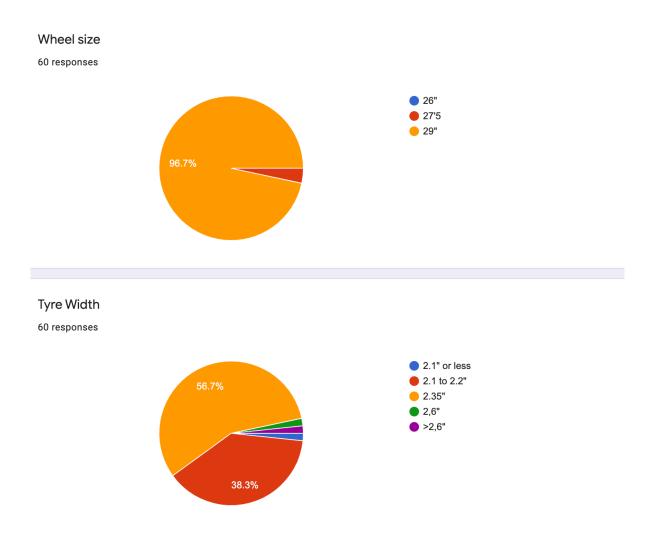


For many riders the choice of bike is simple (its their only bike). Having said that most riders choose a full suspension (comfort is the commonest quoted reason as to why). A small set preferred rigid single speed's (for simplicity). And  $\frac{1}{4}$ , preferred hard tails (reduced weight, making it easier to lift / carry the bike as well as simplicity).

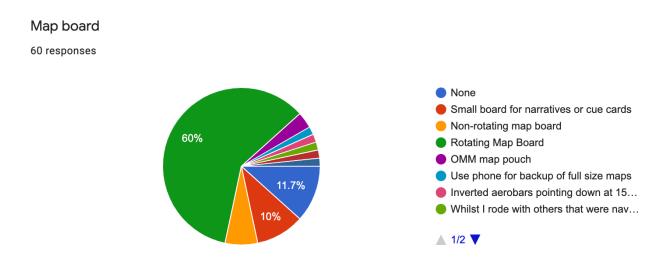
Flat handle bars appear to be the preferred choice (no respondents used drop bars), only 4 riders used "aero bars". Additional "bar ends", Ergon grips, bar tape or "ESI type" foam grips placed closer to the stem (and several variations) were used to offer additional hand positions in 46% of riders.



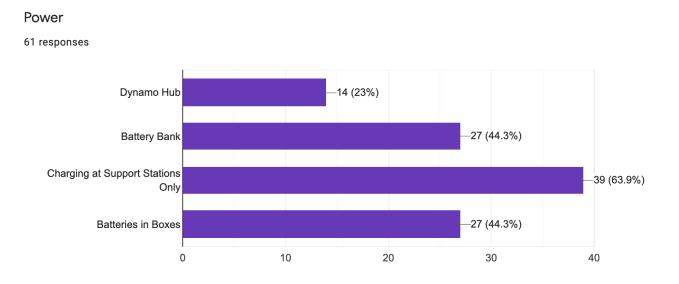
Simplicity and reliability are the commonest reasons for riders to choose a 1x drivetrain. Some riders still have 2x drivetrains, and prefer the range and smaller jumps in ratio. 3 riders had electronic shifting. No problems were reported with this setup.



Tyre choice is not surprising with 2.1 to 2.35 29'rs being the go to choice, as one would expect for a "mountain biking" event. Theres no consensus regarding the "best tyre" (Maxxis, Spez, Kenda, Schwalbe, Vittoria all popular) but "new" tyres with lots of fresh sealant should be chosen



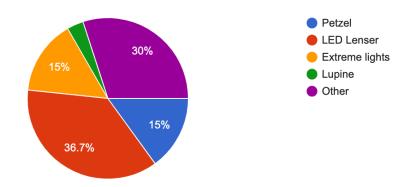
A rotating map board was preferred by most, even some experienced racers and adventure racers (Miry being the most popular). Most racers who raced without a board kept backup maps (hard copies or electronic on phone), or a smaller board with "condensed" maps / narratives or cue cards on the handlebar. It would seem that inexperienced / novices would do best with a board that rotates to allow "active" navigation as the map can be orientated correctly with directional changes in travel (reading maps upside down may be a challenge). Using smaller (the 1:50 000 scale maps printed out on A4 or A5 paper) should be avoided (experienced racers who are very familiar with the trail).



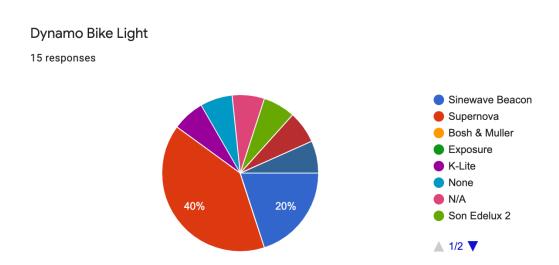
A Dynamo hub is probably "overkill" for touring the trail, and even most racers rely on charging at support stations, backup with batteries and/or a battery bank. Son although more expensive, was the most popular dynamo.

### Headlamp

60 responses



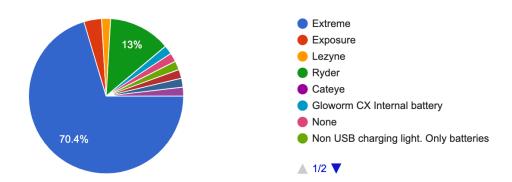
The most popular headlamps were LED Lenser, Extreme Lights and Black Diamond. Choices varied from powerful higher lumen / output LED lamps (advantages include better viz for Nav and Technical riding, but heavier as they often require a battery pack) to light weight lower output / lumen options (really only used for a backup light and viewing maps/narratives)...rider preference.



Sinewave Beacon and Supernova are the 2 most popular dynamo lights.

## Conventional Bike Light

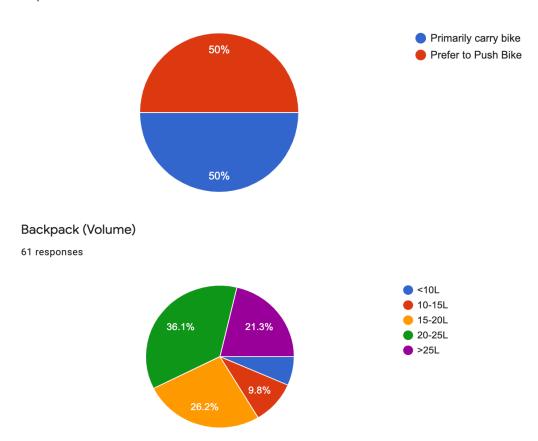
54 responses



Extreme lights are the most popular conventional handlebar mounted light. They also however had multiple reports of failures. This could just be that its the most prevalent and popular. Issues reported relate water ingress, light mount breakage and cable issues (typically at the junction with the battery pack). Also mixed reports on warranty and backup

### Portage Preference

60 responses

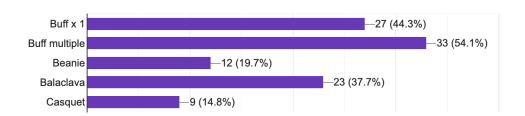


Weight on back vs Bike has a lot to do with personal preferences. Clearly racers are going with a lighter set up, and although some prefer a split or weight on bike, most keep weight on back for speed on portages and comfort carrying bike. Racers can keep backpack volume

low, even with most weight on back (often 15L or less). Tourers will take more kit (bigger backpacks) and although some have a preference for weight on bike most will spread the load.

#### Head and Neck

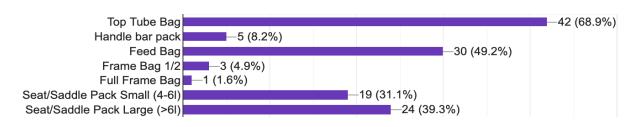
61 responses



Clothing preferences are very personal. There are some trends. Buffs (multiple) are very versatile and may replace a beanie and balaclava.

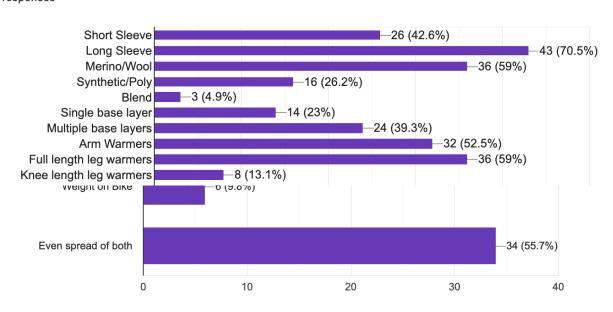
### **Bikepacking Bags**

61 responses



### Base Layer/s

61 responses

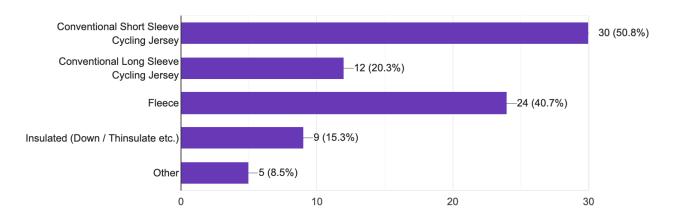


A casquet is useful in the rain and if your helmet doesn't have a peak.

Layering has many advantages. Better weight to warmth ratio than bulkier clothes. Several riders prefer to use a second base layer and avoid a conventional cycling jersey (pockets aren't necessarily useful with a backpack on).

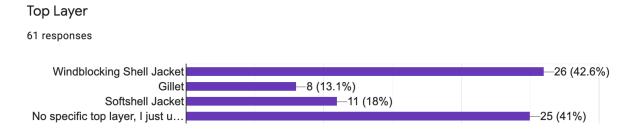
Merino base layers are more popular than Synthetic (pro's and cons of each and depend on preference).





2nd sets of base layers are commonly used as Evening/ Night Clothing and double up as emergency / ultra cold weather backup (multitasking), saving on weight.

Lightweight Wind-blocking Shell Jackets are a good lightweight addition to a layering system in the cold (43%). 41% of riders don't use a 3rd "top layer" and would use their rain gear as an Top layer if needed.



Most riders (80%) chose a "breathable" rain jacket over conventional non-breathable jackets. As waterproofing (measured at hydrostatic head) increases, breathability (measured as) is affected...increasing both increases cost. Is there anything ideal out there? As an experienced racer commented: "I've purchased thousand's of Rands worth rain jackets over the years. The perfect jacket is still to be designed. Heavier and expensive unfortunately better. Pit zips and helmet compatible hood essential. For me the most important piece of equipment." Remember lighter weight more breathable jackets are not only less waterproof and more expensive, but less durable in harsh environments (Umko, Osseberg, Stettyn's etc.).

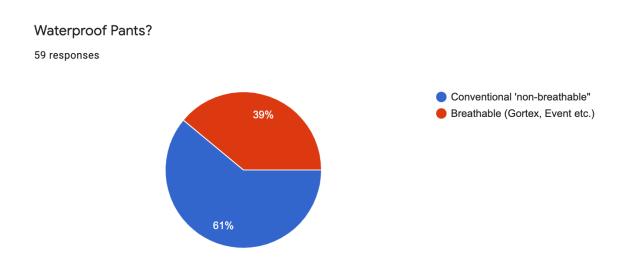
### Shorts vs longs

60 responses



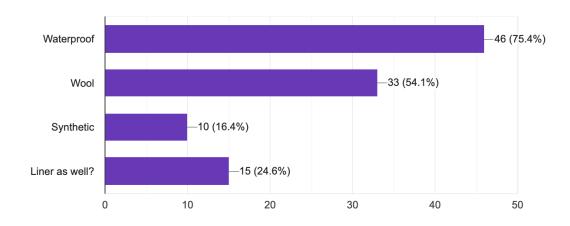
Bib shorts remain the most popular "pants". Sometimes a double pair for "bum problems".

Interestingly while most riders chose breathable jackets, most chose conventional non breathable rain pants.



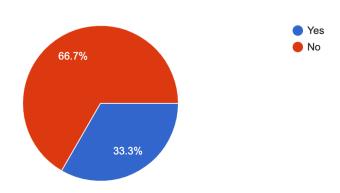
Sealskinz / Dexshell (cheaper option) waterproof socks were the most popular sock choice (75%). For non-waterproof socks wool was preferred to synthetic. 25% wear an additional liner sock (stated advantages were blister protection, and / or an additional thermal layer).

# Socks 61 responses



Are your shoes Waterproof / Gortex etc.

60 responses



A wide variety of shoes appear to be suitable for these events. Popular ones include Shimano XM9's, XM7's, ME7's MT3's, 5's and 7's, Giro Ventana's and Terraduro's, Northwave Arctic, Lake (offer a wide option). More rigid stiffer soled shoes didn't do well and often failed, a durable sole with good grip is needed for the portage sections, and lace (67%) closure seems preferable. It goes without saying that shoes should be in good shape but worn in on HAB's before the Race.

Keeping hands warm and dry seem to be a common challenge. Most riders choose a 3 layer system with a thinner glove which may be a liner or a full finger glove (merino or synthetic liners), more conventional short or long finger cycling glove and then a wind/waterproof cold/wet weather glove. Sealskinz / Black Diamond / First Ascent were popular. Lightweight waterproof "overmitts" are a light weight option that are still flexible and fingers quite mobile, and some racers choose these instead of a bulky "ski / mountaineering" type glove (best warmth but also bulkiest). Mittens are warmest, but make braking and bike handling an issue.

For evening wear at support stations touring options varied quite dramatically, with racers using base layers or rain gear (so as to cut weight and multipurpose clothing) and some don't bringing any extra evening wear :) ... I'm not going to mention names!

To close a comment from Arno Crous, which I think is a nice summary:

"Gear and equipment choices come with years of experience. You know what works and what doesn't. What is essential and what's a luxury. You know what you can endure and what you can't. It will be very different for a 1st timer / tourer and someone racing. Experienced racers will carefully calculate the risk to be safe but reduce weight as much as possible. They are well acquainted with the route and have a plan. We all started our 1st FC event too heavy, planned for all the different contingencies. Racers might pack for survival whilst a tourer will pack for comfort when things go South. Every year the backpack will become lighter as a result of experience gained. We all have our own determined safety limit. I continue to carry extra equipment I have never required before, but this is my safety net."