

Gear Report: Bushnell BackTrack GPS

Andrus Voitk and Aare Voitk

*Foray Newfoundland & Labrador,
Humber Village, NL, CANADA*

In a series dedicated to the prevention of getting lost, Voitk (2009) described a simple method of using a GPS device solely to find one's car. Using such complicated equipment might still be overly daunting to the technologically challenged, a category where many mushroom foragers find themselves. Since then, a simpler GPS device has been developed for exactly this use: a unit with two buttons and limited functions—no menu, no pages, no maps...!

We found five models on the market, and asked each manufacturer to send demonstration units for comparative assessment. One did not reply; the others promised to send their units for comparison. Despite repeated promises, we only received units from the Bushnell Corporation. Herein we report our assessment of this device in field trials: **Bushnell's BackTrack performed admirably and comes highly recommended as a simple safety device for the technophobic mushroo-mer.** For those wishing to know more, the detailed account follows.

The unit

BackTrack (Figure 1) resembles a 7.5 cm diameter pocket watch with a screen and two buttons. Its two AAA batteries are accessible by a removable back cover (Figures 2 & 3). The unit is turned on with the POWER button. A flashing satellite icon appears on the screen. The unit is ready for use once this icon stops flashing. The POWER button toggles between a compass setting (pointing north, giving your direction in degrees), and three site selections. To mark a site to return to, toggle to its icon and hold down the MARK button. Toggle to another icon and repeat the process to mark a second and third site. To return to a marked site, toggle to its icon: an arrow gives its direction and distance. This number decreases as you get closer, confirming that you are going in the right direction. A single push on the MARK button turns on a light, very effective

in the dark. It turns off in 20 seconds; the unit shuts down after 10 minutes of inactivity; the POWER button can be used to turn it off earlier.

Field tests

Woods Island

To reduce the risk of getting lost, our first tests were carried out on a 5.5 x 3.5 km island, covered by forest, bush, bog and meadow, with some hills in the center. The first subject was an 11-year old girl with no previous orienteering or GPS experience, and no previous knowledge of the chosen terrain. She was shown how to use the BackTrack and asked to mark the boat-site before setting out to explore the island. After three hours of wandering almost four km from

the boat, she was asked to return to the boat using the BackTrack. Companions were forbidden to help, offer advice or intervene. Without problem, she navigated a straight line directly to the boat, while avoiding a few small natural obstacles.

For the second test the same subject set out past summer cabins and a series of paths. After two hours of meandering about 2 km away from the boat, the subject returned cross-country in a straight line until she encountered a path. She followed the path in the direction closest to the direction on the BackTrack. At each intersection, she chose the path closest in direction to the BackTrack direction, until she eventually reached the boat.

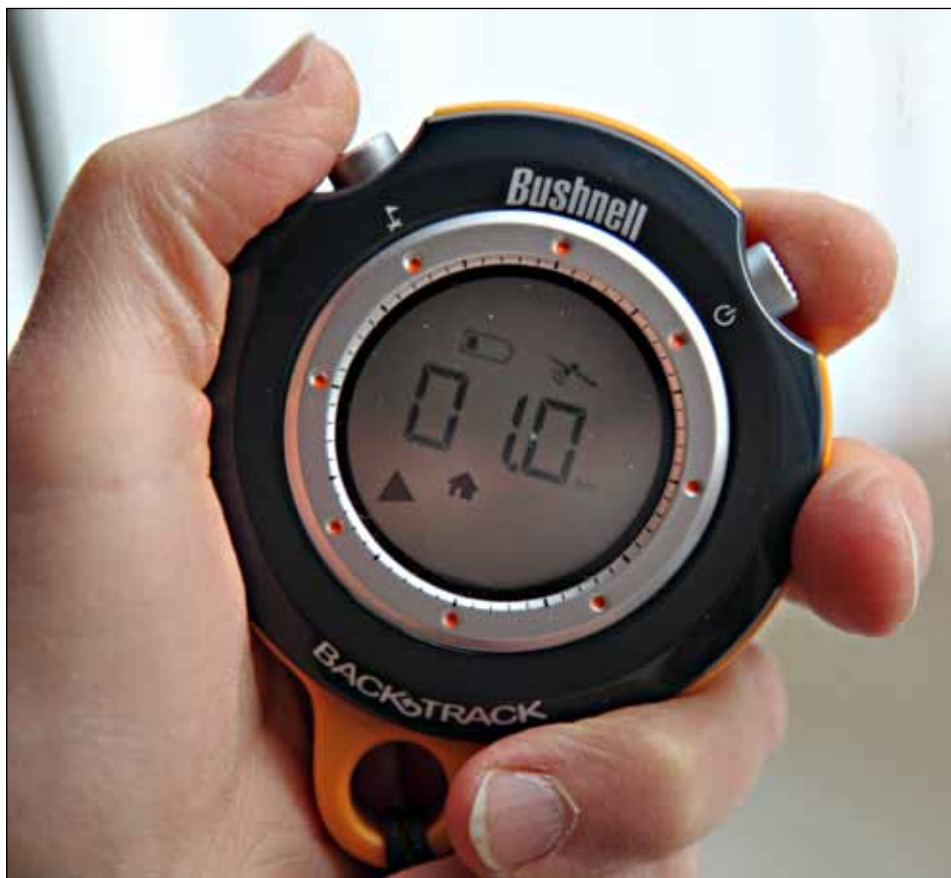


Figure 1. With a lanyard holding it around the neck, good ergonomic design allows the BackTrack to fit comfortably in either palm of average size, with the two buttons readily accessible to thumb and forefinger. The dial is large and easily visible. This picture shows that the battery is nearly empty, the unit is locked onto satellites, and the "Home" icon is active and is 1 km away in the direction of the arrow.

On both occasions, when questioned as to the position of the boat-site, before the BackTrack was turned on, she was mistaken in the direction of its site.

Cook's Marsh

The second test site was deep in the woods, centered around a 1 x 1.5 km fen. The subject was a 13-year old boy, also with no previous orienteering or GPS experience and no previous knowledge of the chosen terrain. He marked the location of the parked car on a woods road, and after two hours of exploring the area, led the group back (again with no help from other participants). Even while circumnavigating some water from time to time, the BackTrack enabled him to find the car easily, mainly walking in a straight line. A second test through forest was equally successful. Asked to lead the return, early on he came across a side road, heading close to the direction indicated on BackTrack, to the main woods road. Here he checked the BackTrack to see which way to turn to go to the car-site, and reached it without difficulty.

Other tests

The above formal tests satisfied us that the BackTrack was reliable, accurate, and simple enough for a child to use. We tested the units in various hands on other outings without formal protocol. They continued to perform impeccably. Only one other experience should be related. One of our nearby mountain plateaus has many steep sides with only a few places to ascend and descend safely. One such trailhead was marked and then approached on a lengthier overland winter hike. Long crags, gullies and other natural obstacles made a straight-line trip impossible. Because we had good visibility and knew the area, we were able to circumvent all dangerous obstacles and reach the trailhead. However, the snow obscured the trail on the barren mountaintop, and only because we were familiar with the terrain, did we find our way down.

Comments

The BackTrack performs flawlessly in directing the user to a marked point and is simple to use. Mushroomers who become separated from their group or get turned around in the woods are usually a short distance away from their point of departure or last contact and this device is an ideal tool to direct them back to that



Figure 2. Battery cover on the back. Arrows indicating direction to open are small and contours low, giving poor traction. Distance between open and close is small and the end position poorly felt. After opening, the cover remains on and the unit must be turned over to have it fall off.



Figure 3. Once uncovered, the batteries are easy to remove and replace. Replacing the cover is more difficult and it may remain incompletely closed, allowing dirt and small particles to get inside, or potentially even losing the cover. The problem with the cover seems to be corrected in the new model.

point. For instance, a mushroomer can mark the campsite, the position of the parked car, and the off-trail departure point from the trail into the woods. When ready to return, the forager can go back point by marked point. The operation of the BackTrack is simple, the performance reliable.

A danger when something works so well is the temptation to extend its use inappropriately. The manufacturer clearly states its intended use, for which it performs well. The BackTrack is not a substitute for a full-featured GPS

and other orienteering aids for longer overland trekking over unfamiliar and rugged terrain. It will not help avoid steep gorges and other hazards, which could be dangerous in poor visibility. Where a trail is not visible, a GPS route or series of waypoints are required to guide somebody unfamiliar with the terrain off a mountain safely.

Some features we did not like. For such a well thought out and sturdy product, the cover to the battery compartment presented unexpected problems (see Figures 2 & 3). We also wondered whether for a person with minimal aptitude for orienteering or electronic equipment, desperately trying to find the car, the compass feature might cause unnecessary confusion. When seeking simplicity, less is more. Somewhat worrisome was the ease with which a marked site could be overwritten. Although this did not happen during our use of the units, it remains a concern for persons unfamiliar with electronic equipment.

Despite the concerns, we were impressed with BackTrack. Our club has decided to buy units for every trail on our forays. The manufacturer has two new units since our testing, both smaller, but with larger screens. One offers the same three waypoints and compass, but has technology to locate satellites faster. It also seems to have corrected the battery access. The other offers five waypoints and additional features that in our opinion may be overly complicated for the electronically challenged. We have tried neither, but will most likely buy the newer three-point models as our additional GPS units.

Statement of conflict

Neither the authors nor Foray Newfoundland & Labrador has any monetary or other interest in Bushnell Corporation or its subsidiaries. Neither received any fee, inducement or stipend for conducting these studies, nor were other benefits sought or offered. Foray Newfoundland & Labrador received from Bushnell four (required by the initial protocol, meant to evaluate five products) demonstration units free-of-charge for assessment purposes, with the understanding that they would be kept by the club after evaluation.

References

Voitk, A. 2009. Lost: Using a GPS. *FUNGI* 2(4): 61-62. ♣