Evaluation and Interactive Mapping of an Isolated Section of the Continental Divide Trail in Colorado’s South San Juan Mountains

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Background

- Prior studies have described and used separate trail classification tools to assess trail and route conditions (Marion 1999, Cole et al. 1997, Swager and Marion 1999, 2000, Marion and Leung 2001, Leung et al. 2006).
- In this study, only a moderate categorical index was tabulated of the trail’s status and special attributes, and is not systematically delineated as some of the prior cases. The data collected were, however, effective for the scope of this project.

Methodology

- The track resolution was measured at .01 of a mile (.016-km), and waypoints were collected one or two every mile on average, depending on the terrain and features observed.
- Points of interest (POI) Criteria: trail junctions, campgrounds, water sources, historical settings, navigational concerns, flora and fauna, and re-routed trail sections.
- Some points collected will inform the CDTA of the trail’s important characteristics.

Methodology (Cont.)

- Following Data Collection:
  1. Data inventoried into chronological POIs.
  2. Topographic maps and interactive maps produced.
  3. Trip report formulated.
  4. Information transmitted to CDTA’s database and uploaded to Backpacker’s website.

Results

- Total Conejos Headwaters Loop (CHL) surveyed = 48-mi (77-km).
- Total CHL mapped = 42.24-mi (68-km).
- CDT study area: 5,000-km, Canada to Mexico.
- 22 waypoints (CHL006 to CHL027) were collected for this section of the CDT.
- Interactive topographic map produced.

Significant Field Notes for Discussion

- Lack of trail on some sections above the timberline or near creeks. Six separate waypoints were marked to identify these segments of trail.
- The interactive topographic map was produced for distances of 100 to 200 yards (91 to 182m).
- Very few places where erosion and degradation were negatively affecting the overall quality or illustrating excessive work and issues of the trail as documented. In prior studies (Kedrowski 2001; Marion and Leung 2001; Leung and Marion 2002; Marion, McCool and Borrie 2003; Leung et al. 2006).

Conclusions

- Study met two main research objectives:
  1. Project contributed to the overall mission of the CDTA to map the entire 5,000-km CDT.
  2. An interactive topographic map was produced, the map and trip report were posted on the Continental Divide Trail Alliance (CDTA) and Thirde Outdoors interactive website.
- The additional categorical data enclosed within the GPS waypoints (POIs) may also be of significant value to the CDTA, U.S. Forest Service, and Bureau of Land Management.

Acknowledgements

Research Objectives

- Identify, locate, and define a single trail and route as the CDT for a particular 27-mile (43.5-km) section.
- Gather relevant data on status of trail conditions.
- Utilize basic, consumer-level GPS units (Garmin, Magellan) to collect and track waypoints data to assist in the maintenance and function of the CDT.
- Create an accurate and useful interactive map and trip report (including photos) of the CDT route corridor surveyed within the South San Juan Wilderness. (Data posted online also).

Methodological

- To contribute to the overall mission of the Continental Divide Trail Alliance (CDTA) and add to the complete mapping survey of the 5,100-mile (8,200-km) CDT from Mexico to Canada.
- To create an interactive map of the route traveled and post the trip profile on Backpacker magazine’s Thirde Outdoors interactive website so that future backpackers could use the information to their advantage when planning their own backcountry adventures.

Goals

- Prior studies have described and used separate trail classification tools to assess trail and route conditions (Marion 1999, Cole et al. 1997, Swager and Marion 1999, 2000, Marion and Leung 2001, Leung et al. 2006).
- In this study, only a moderate categorical index was tabulated of the trail’s status and special attributes, and is not systematically delineated as some of the prior cases. The data collected were, however, effective for the scope of this project.