GROUNDWORK



Feeling Relieved: Creating a Positive **Bathroom Field Culture in the Geosciences**

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ABSTRACT

Fieldwork typically poses some level of disruption to regular bathroom habits, which can lead to discomfort, distraction, and, in some cases, serious health and safety risks. We all have a role to play in mitigating these hazards and ensuring field bathroom matters are not a barrier to participation.

Geoscientists carry out fieldwork in a variety of settings, including urban environments, remote wilderness areas, and industrial sites, such as active mines. Field experiences may take the form of day trips or multiday excursions requiring camping or hotel stays. As such, fieldwork can pose some level of disruption to regular bathroom habits. Bathroom behaviors directly impact the physical and emotional well-being of field workers; negative outcomes range from minor discomfort to serious physical health problems. This topic is an important component of field safety but receives relatively little attention, Bathroom-related concerns can distract from participants' abilities to fully engage in fieldwork and may become a barrier to participation entirely. Although this is an issue that can affect anyone, it disproportionately impacts some groups, including those who squat to pee, menstruate, have chronic UT or GI conditions, have a physical disability, or are from cultural backgrounds with bathroom-related taboos or sensitivities. This likely contributes to the lack of diversity in the ranks of geoscientists.

MOTIVATION

With experience working in academia, industry, and government, we have heard negative bathroom-related stories from many individuals. Examples include individuals who have avoided going to the bathroom in the field, leading to consequences such as fainting, urinating themselves, urinary tract infections, kidney stones, and debilitating constipation. There are stories of anxiety attacks brought on by swarms of mosquitoes and people being hurt by cactus, poison ivy, stinging nettle, and tick bites while squatting. We heard from a field geologist who was concerned for the safety of their field assistant because they were going so far away to go to the bathroom but felt unable to address the uncomfortable issue. We listened to stories of teaching assistants taking on the emotional labor of advocating for a pit stop for a car full of students. Despite these experiences indicating that this is a real problem, we have also encountered many colleagues who ascertain that going to the bathroom in the field poses no difficulties or barriers.

PREVIOUS WORK

There is no direct bathroom-related peer-reviewed literature pertaining to the geosciences. However, there are discussions related to inclusion that indirectly refer to bathroom culture. For example, John and Khan (2018) discuss mental

health in the field and argue that it is impacted by environmental and interpersonal factors. Giles et al. (2020) discuss barriers to fieldwork including lack of exposure, experience, and physical and mental differences that could lead to exclusion or even avoidance of geoscience entirely. Although not peer-reviewed, Greene et al. (2020) detail considerations regarding toilet stops on academic field trips in urban settings and provide a list of recommendations for field trip leaders. The Prospectors & Developers Association of Canada Health and Safety (2009) e-toolkit lists "bathroom and privy facilities" as a suggested topic for pre-field season safety meetings but does not go into further detail. Overall, there is a general lack of discussion of field bathroom matters as they relate to the health and safety risks of fieldwork, responsibility of communication, intra-group relationships, and inclusion.

HEALTH AND SAFETY

Going to the bathroom in the field is associated with an increase in the health and safety risks involved in fieldwork, yet it is commonly excluded from safety discussions and documentation. For example, field workers may purposely restrict their water intake to avoid going to the bathroom because of discomfort with the lack of privacy, concern about missing important information, or to avoid exposure to physically uncomfortable conditions like insects or extreme

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temperatures. This behavior can contribute to dehydration, and ramifications of "holding it" include an increased risk of urinary tract infections, kidney stones, and/or constipation (e.g., McCauley et al., 2012; Scott et al., 2020; Jagtap et al., 2022). Risks involving exposure to wildlife (e.g., ticks, mosquitos, snakes, etc.) and poisonous plants (e.g., poison ivy) are higher for those who squat to pee or defecate, as there is a need to remove clothing and get closer to the ground. The risk of having a dangerous encounter with wildlife (e.g., bears, moose, wild cats) or heavy machinery (e.g., haul trucks on a mine site) is increased for those who isolate themselves from the group, possibly without any communication, to fulfill a need for privacy while going to the bathroom.

LEVELS OF POWER AND BEST PRACTICES

As people who work in the field, we find ourselves in three different roles: participant, leader, and/or organizer. These roles correspond to different levels of power, where the higher a person is in the power structure, the greater the opportunity and level of responsibility it is to improve bathroom culture in the field.

Participants (e.g., undergraduate students, contract employees, field assistants) are the majority of field workers. Participants depend on those above them to communicate operational procedures and to set the pace and tone of fieldwork. Workplace field culture can be a barrier to participants asking about bathroom access and code of conduct.

A participant can prepare for fieldwork by arming themselves with information. There are informal resources (e.g., REI, 2023; Meyer, 2020; Nodding, 2021) that provide handy how-tos related to using the bathroom in the field. A participant should consider carrying their own bathroom supplies, including toilet paper and a small shovel. Stand-to-pee devices (e.g., pStyle, Freshette, Pee-buddy) are useful for those who usually urinate sitting or squatting and come in a variety of textures, sizes, and compositions (e.g., disposable paper-based, flexible plastic). A pee cloth and portable bidet (e.g., Kula Cloth, TUSHY Travel) are useful in places where folks cannot, or choose not to, use toilet paper. Portable travel urinals can be used in the safety and comfort of a tent or vehicle. For participants who menstruate, reusable menstrual cups and discs (e.g., DivaCup, nixit) only need to be removed and washed every 12 hours. Over-the-counter medications, including pain relievers, antidiarrheal tablets, and yeast infection treatments, are useful to have on hand.

Finally, in group settings, participants should establish a buddy system. A bathroom buddy can help by staying in close contact for safety, aiding in ensuring privacy, and if needed, taking notes to make sure the bathroom user doesn't miss important information. For the buddy system to be most successful, clear communication is key. Use phrases like "I am going to pee here" and "Don't turn, I am going to the bathroom." Be aware of consent in these situations and check in with your buddy by asking, "Am I far enough away for you to feel comfortable?"

Leaders (e.g., field trip leaders, instructors, supervisors) are those who have the most influence on day-to-day operations in the field and carry the largest burden of establishing a positive bathroom culture. The most important thing that a leader can do is communicate so that participants go in prepared. Leaders need to review hazards associated with (not) going to the bathroom in the field. For example, a field school instructor should have a preliminary meeting a few weeks before the course begins discussing important materials to pack; this pack list should include bathroom materials that will be provided versus those that participants must bring themselves.

When preparing a field activity plan or a field guide itinerary, a leader should include times and locations of possible bathroom stops. If in a relatively populated area, leaders should consider scheduling bathroom stops throughout the day at gas stations, highway rest stops, or campsites, and they should have a fully stocked first aid kit that includes bathroom materials. If in remote areas, leaders should discuss safe and accessible places to use the bathroom. Leaders should indicate multiple locations for those who require more or less privacy. After a long drive or hike, pause the lesson or work and let participants use the bathroom without fear of missing information or falling behind.

At the top of the power pyramid are the organizers (e.g., administrators, policy makers, senior geologists). An organizer establishes rules for fieldwork. Although organizers may not be in the field with the leaders and participants, they have the power to enact and enforce rules and wise practices, as they are the ones with the money, decision-making power, and ability to directly delegate tasks.

Organizers should always include bathroom accessibility in safety and field activity plan requirements. When standard operating procedures or other guidelines include bathroom access and safety, folks who are lower in the power structure will be introduced early and often to positive bathroom culture. Organizers are often the people who purchase, or approve the purchase of, gear for fieldwork. These purchases should include bathroom-related items.

CONCLUSION

Feeling safe is a key component in increasing positive field experiences. The most important practice for creating a positive bathroom culture during fieldwork is communication. Expectations for professional conduct regarding bathroom behavior should be explicitly discussed in advance of any excursion and revisited frequently throughout the duration of fieldwork. Bathroom-related information should be integrated with other key information regarding safety and logistics.

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