

WHAT IS MINIMAL IMPACT?

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Introduction

Minimal Impact (MI) is a code of practice for users of natural areas designed to maintain the ecological and intrinsic values (ie. scenic amenity, cultural heritage and water catchment) of natural settings for outdoor recreation. In Australia, one of the few comprehensive MI education initiatives was the "Minimal Impact Bushwalking" (MIB) campaign. This was developed by the Tasmanian Department of Parks, Wildlife and Heritage (now Parks and Wildlife, Department of Primary Industries, Water and Environment) in 1986 to combat recreational impacts caused by both increasing numbers and poor minimal impact practices of walkers venturing into the South-west Tasmanian World Heritage Area (O'Loughlin 1989). MIB has since been adapted to a varying extent by each State and Territory nature conservation agency to deal with recreation induced environmental impacts in their parks, forests and reserves. The MIB concept is also known and promoted as 'Walk Softly', 'Tread Lightly', and 'No-trace Camping'.

The main message that MI education campaigns aim to convey is to leave the least possible trace of one's presence or journey through the bush (O'Loughlin 1989). Thus, many MI education campaigns focus on six major issues: where and how to walk, campsite modifications, campfires, rubbish, hygiene and the feeding of wildlife. These issues represent many of the ecological impacts caused by recreators to natural environments. Many land management agencies spend considerable amounts of time and money addressing these issues. A brief discussion of each of these issues is provided below.

Where and how to walk



MI education promotes the concept that walkers should stay on tracks where provided and to spread out in open untracked areas. In areas where no directional signage is given, good map reading and navigation skills are preferred to marking the route. The modern practice of marking routes with flagging tape poses a number of social and environmental problems as many bushwalkers do not wish to see brightly coloured pieces of plastic tied around trees. As markers deteriorate, pulled down or replaced, they inevitably become litter on the ground. This adds to the deterioration of a site and loss of amenity.

On tracks, walking through muddy sections is promoted in an attempt to reduce track widening in these locations. It also lessens the likelihood of surrounding vegetation being trampled as recreators try to skirt around muddy or boggy track sections. Skirting around muddy track sections only exasperates the problem at these locations by causing track widening or track braiding. This action may also reduce the likelihood of plants establishing beside walking tracks in these areas. Thus, contributing to track expansion.

Campsite modifications



MI education promotes the concept that 'no-trace camping' is the preferred practice. Emphasis is placed on informing recreators that they should not clear an area to set tents up on or construct fireplaces.

Digging of drainage ditches to divert rainwater runoff or using native vegetation for shelter or bedding materials are other practices that should not be undertaken.

While drainage ditches can be filled in, fireplaces taken apart and the ashes spread or buried, and leaf litter placed back over cleared areas, it is quite difficult to remove all evidence of a group camping in a natural area. This is especially the case if a group has been there for some time. In most instances, site modifications (eg. firerings, cleared sites) are left for the next group to use. Site engineering generally causes some form of permanent scar that may take the natural environment many years to recover from, if at all.

Campfires



MI education promotes the concept that fuel stoves should be used where possible and if a fire is necessary, it should be as small as possible to achieve its purpose. For many people the outdoors and campfires are a valued part of camping. Campfires are used to cook meals and to boil the billy. They also provide warmth on wintry nights and opportunities for social interaction. However, while the 'warm outer glow' of a campfire is quite tempting, the impacts that they cause are not readily apparent as site degradation accumulates over time (O'Loughlin 1989).

At some campsites, firewood is supplied. However, the decision to supply firewood in camping areas is a management decision to reduce the likelihood of people scavenging and depleting the local area of fallen or dead standing timber. This action also reduces the likelihood of people trying to burn live timber.

Campfires cause the depletion of available homes and nutrients for wildlife, scarring and death of plants, sterilisation of the soil surface and structural damage, and the visual scarring

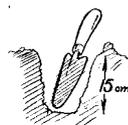
of sites through the accumulation of charred and incombustible rubbish (eg. food scraps, tins, aluminium foil, plastic, cigarette butts, etc.) (Batt 1994).

Rubbish



MI education promotes the concept that visitors should adopt a 'carry in carry out' ethic in natural areas. This includes food scraps and other rubbish that may or may not be able to be burnt, buried or left for wildlife to devour. Food scraps can attract and support excessive numbers of scavenging animals (eg. crows, currawongs, kookaburras, goannas, emus, common brush tail possums and grey kangaroos). Human diseases may also be spread to native wildlife that scavenge and feed on scraps left behind (Hammitt & Cole 1987). The reluctance to carry out leftover food and other scraps by many outdoor recreators needs to be addressed, as these items may also affect nutrient balances in soil, or introduce weeds if the scraps contain seeds.

Hygiene



MI education promotes the concept that people should use a toilet or defecate at least 50 - 100 metres away from campsites and watercourses. It also emphasises that faecal waste and toilet paper should be buried to 15 centimetres deep in the ground amongst soil and humus layers. In natural environments, moving too far away from a campsite or watercourse may cause geographical embarrassment as opposed to embarrassment by being caught in the act. The sudden and urgent urge to defecate will also determine the distance a bushwalker will travel away from these features.



MI education also promotes the concept that people should wash dirty dishes and bodies at least 50 – 100 metres from waterways when using detergents and soaps. Bathing and/or doing the dishes in or close to watercourses may contaminate the water source. In most instances these activities may increase nutrient levels, primarily nitrogen and phosphorous, or introduce coliform bacteria which may directly effect human health (Hammitt & Cole 1987). Poor sanitation may also lead to the contamination of water supplies causing vomiting and diarrhoea amongst outdoor recreators. Maintaining a pure and clean water supply should be a priority for all recreators, not just for land managers.

Feeding of wildlife



MI education promotes the concept that human foods cause disease and encourage competition between species. Generally, the effects of wildlife feeding relate to animal health issues and the interference with natural population dynamics of species that are more tolerant of humans (Hammitt & Cole 1987). Supplementary feeding (ie. direct handouts or campers' scraps) of wildlife tends to favour species that readily associate with people, causing human tolerant species to increase in abundance and ultimately displacing species not so tolerant of humans. When supplementary feeding stops (eg. campers leave) artificially supported populations may collapse or be placed under great stress (Batt 1990:6).

Conclusion

Minimal impact education is one of the most important techniques for managing recreators

in natural areas. It is fundamental to limiting nature-based recreational impacts (Parkin and Bauchop 1997). However, minimal impact education should target specific users and issues. As each group of outdoor recreators will place different demands on the environment in pursuit of their recreational experience. Our relationship with the environment is best provided through the outdoors: through meaningful activity, experience and knowledge. Minimal impact education can contribute to the development of the values, knowledge and skills necessary to act constructively **for** the environment (McRae 1990). However, it is not a panacea. It should be applied in combination with other methods used to manage environmental degradation.

References

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