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# What is the Place of Democracy in Recreation Ecology?

Susan A. Moore

**Abstract** — What should be monitored and who decides has been debated for as long as recreation ecology has been with us. The early work on planning frameworks advocates consulting with visitors to determine what conditions are important to them and then derive resource and social indicators from this information. Any associated standards are then similarly set with visitors' input. At the same time, recreation ecologists have selected indicators that allow measurement and predictions regarding the relationships between resource and social conditions and levels of visitor use. Where are we now regarding these choices? A democratic perspective would argue that visitors should have significant influence on indicator selection and the standards that might accompany them. But what role does this leave for scientists and institutionally derived scientific knowledge in recreation ecology? In this paper I argue that we are morally and societally bound to embrace a democratic approach to recreation ecology with scientists and managers working with visitors, and others with a vested interest in protected areas, to develop 'practical wisdom' that can be evoked as a central tenet of recreation ecology.

**Index Terms** — democracy, practical wisdom, public, recreation ecology, visitors.

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## 1 INTRODUCTION

Work began in earnest on the selection and measurement of indicators for determining human impacts on the natural environment in the wilderness areas of north America in the late 1970s and early 1980s [1], [2], [3]. These indicators were concerned with the ecological consequences of human use. At the same time research was underway determining the social impacts of visitor use, mainly the impacts of visitors on each other. This line of inquiry focused on crowding and included numbers of other individuals and parties seen and/or heard while on the trail or camping [4]. These two sources of information on visitor impacts and what might be monitored to detect impacts came together in approaches to developing carrying capacities. This concept was cleverly re-conceptualised to deal with the practicalities and complexities of protected area management as the limits of acceptable change [5]. Here the wants and needs of visitors, and potential concerns regarding whose voices and concerns were heard and considered in protected area management, clearly intersected with recreation ecology.

This intersection between society and science in the selection of indicators has become increasingly evident over the last decade. Development of sustainability

indicators (a much broader task than resource and social indicators for protected areas which are the focus on this paper) has been accompanied by concerns that their selection could be dominated by scientific and technical elites [6]. Another burgeoning area of related interest is developing indicators to assist in evaluating the effectiveness of protected area management [7], [8].

## 2 BACKGROUND

The limits approach was developed and first applied by the staff from the United States Forest Service (on the Flathead Forest) and researchers from the Forest Service, Aldo Leopold Wilderness Research Institute and the University of Montana. It was applied to the Bob Marshall Wilderness Complex, an area of 1.5 million acres, which includes extensive horse use and extended hiking opportunities. This planning process used both ecological indicators (such as trail erosion, extent of bare ground, exposed tree roots) and social indicators (such as the number of parties camped within sight and sound, number of trail encounters) [9].

In this planning process, an advisory committee had a say in what indicators were selected and what levels were set for acceptable impacts. They were provided with guidance by managers and scientists, and the indicators selected mirrored the research indicators of interest at the time.

Given this brief background, this paper explores four related issues:

1. Who provides the indicators?

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2. Who is involved in selecting indicators and how are those persons selected?
3. How can choices regarding indicators be made?
4. How could practical wisdom work for recreation ecology?

The intention in exploring these issues is to stimulate thoughts for discussion rather than provide definitive solutions. The context for this discussion is protected areas with a mandate for both protection of ecological and other natural assets and providing for visitor use and appreciation, now and in the future.

### 3 ISSUES

#### 3.1 Who Provides the Indicators – The Role of Scientists

Indicators have been provided by both recreation ecologists and social scientists. Those involved in planning for protected areas usually have these indicators provided by agency staff drawing on previous scientific research. Anecdotal evidence suggests that visitors don't notice and are often not concerned about recreation ecology indicators, such as bare ground and exposed tree roots, until they are shown and the ecological consequences explained. Then, they become more concerned. The question then becomes – what to monitor? Similar queries are evident regarding social indicators with increasing discussion about whether crowding really is a useful surrogate for the visitor experience. An associated social concern is how can the interests of those not currently visiting, but deeply interested in a protected area or areas, be involved in decisions about indicators?

These questions suggest an opportunity for dialogue between the public (including visitors), with an interest in protected areas, and scientists regarding what is important to the public and what is important to scientists. A number of commentators (e.g. [6]) have cautioned against restricting the selection of indicators to those with predominantly scientific and technical interests, suggesting this may bias indicator selection to ones favored by scientists but not necessarily reflecting broader societal values and concerns.

#### 3.2 Who is Involved and How Are They Selected?

In the previous sections the term 'the public' was used to flag the interest of those beyond but including visitors. Contemporary writings

talk of stakeholders where these are individuals or groups that have either direct or indirect interests in protected areas [10]. This definition can be clarified further by referring to the 'demos' associated with protected areas. Dahl [11] defined the demos as all adults subject to the binding decisions of their group. He noted that anyone not included will be unable to represent or defend their interests. Using this definition suggests that all those persons likely to be affected by indicator selection and the associated standards should be involved in the associated decision-making.

As such, engagement might include those who live adjacent to protected areas and those visiting and using such areas (geographical communities) [12], plus the more difficult to locate and engage, such as those appreciating the intrinsic values of such areas but rarely if ever visiting them (community of interest) [13]. There is also a third 'community' – the interests of future generations and others unable to speak for themselves (e.g., economically or politically disadvantaged peoples). Scholars such as Dobson [14] suggest that environmental groups provide good proxies for these less tangible and accessible interests.

#### 3.3 How Are Choices Made?

Choices regarding indicators are ideally made through some engagement process over time that involves scientists (and/or managers) and the interested public. Such interactions allow knowledge to be shared and, more importantly, developed by those involved. These interactions are likely to be highly variable depending on the location of the various publics and their intensity of interest. Interactions could include working groups for those most involved, through to occasional points of interaction for those further away and/or with less intense concerns.

Interactions are critical because they will allow the public to critique, better understand and request new and more meaningful indicators as necessary. They will allow scientists to explain and explore the practicalities of various indicators. They will also allow discussions and development of understanding regarding the uncertainty associated with some of the causal assumptions that accompany recreation ecology. These assumptions and concerns regarding poor causality between levels of use and impacts are well known to recreation ecologists, but not necessarily to the public.

### 3.4 How Can Practical Wisdom Work for Recreation Ecology?

Recently, reference has been made in fields as diverse as public administration [15], fisheries management [16] and health care [17] to the need for practical wisdom. In fisheries management, Jentoft [16] suggests the need to draw on three kinds of knowledge: *episteme* (science, e.g., recreation ecology), *techne* (practical know-how, e.g., from the public) and *phronesis* (practical wisdom). Practical wisdom is experience-based knowledge particularly concerned with ethical and moral judgment. Rooney and McKenna [15], also drawing on the writings of Aristotle, comment that wise organizational practice rests on *techne*, *phronesis*, virtue and aesthetics.

For health care, Edmondson and Pearce [17] have a slightly different interpretation, drawing attention to the need to consider the capacities of the self (e.g., expertise of recreation ecologists), others (e.g., the public) and the aspects of the situation/problem itself (e.g., the protected area context). Jentoft [16] also emphasizes the absolute importance of being attuned to the socio-ecological context in fisheries management. The same would seem to apply to the selection and application of indicators as part of protected area management.

From this recent work, a simple model for considering practical wisdom in the context of recreation ecology is proposed (Fig. 1). The desired outcome of this triadic arrangement is practical wisdom. Such wisdom should be able to draw on the various forms of knowledge available to protected area management through this process. At one point of the triangle recreation ecologists provide the scientific and technical expertise needed as part of the development of practical wisdom. Edmondson and Pearce [17] note that the reasoning associated with wisdom may take time to evolve. As such, scientists (such as recreation ecologists) may have to tolerate ambiguity, refrain from forcing their views on others and search for flexible solutions [17].

The second point of the triangle is the public and here the notion of the demos becomes critical. The search for practical wisdom depends for its success on including all those with an interest or likely to be affected by indicator choices. Jentoft [16] notes that democracy facilitates *phronesis* (practical wisdom). So choices about the demos, how it is engaged in dialogue and how its views are considered in indicator selection can influence the achievement or otherwise of

practical wisdom.

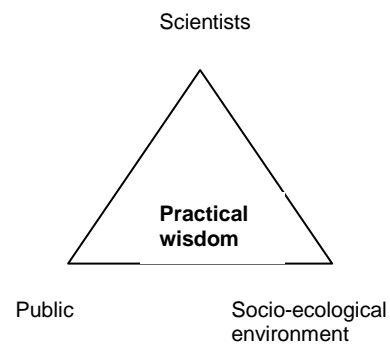


Fig. 1. Triadic approach to recreation ecology

The third part of the triangle is the environment – what social, political or economic influences are there on the protected area and what is being expected from its management? The answers to these questions will contribute to the development and form of practical wisdom. Work from public administration [15], fisheries [16] and health care [17] all emphasizes the importance of these contextual influences in shaping practical wisdom.

## 4 CONCLUSION

Managing protected areas, of which the selection and monitoring of indicators is an essential part, is a collaborative journey. This paper suggests that the notion of the demos should be used to identify the travelling companions. Companions are likely to include recreation ecologists, and various publics with affiliations, both strong and weak, with protected areas. The purpose of the journey is attaining or at least seeking practical wisdom, through including the top and left hand points of the triangle (Fig. 1) while being aware of the socio-ecological landscape through which the travellers are passing.

By pursuing practical wisdom, as indicated in Fig. 1, the science of recreation ecology has the opportunity to be a pivotal player in influencing the future sustainability of protected areas, because sustainability has ecological and social dimensions. Such wisdom provides sound judgment and sensitivity in a practical setting [16]. It can also assist in exercising ethical and moral judgment. Such judgment comes into play in recreation ecology where the choice of indicators and especially standards can advantage some while disadvantaging others. Practical wisdom may help tread this path in ways that are fair and just for all involved.

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