Rapporteur's Report on the Ecological Integrity Presentations: A View from a Member of the Panel on the Ecological Integrity of Canada's National Parks

Paul F. Wilkinson
Professor, Faculty of Environmental Studies
York University

The Panel on the Ecological Integrity of Canada's National Parks

Prior to commenting on the day's papers on ecological integrity in terms of their relationship to the Panel on the Ecological Integrity of Canada's National Parks, I would like to briefly describe the Panel, my role on it, and some of the outcomes to date.

In November 1998, the Minister of Canadian Heritage, the Hon. Sheila Copps, appointed an 11-member Panel on the Ecological Integrity of Canada's National Parks. The impetus arose from 1988 amendments to the National Parks Act which specified that maintenance and preservation of ecological integrity was primary in the management of national parks. (A new act, the Canada National Parks Act, passed by Parliament in November 2000, strengthens this mandate.) Previously, some people felt that the Parks Canada Agency, the federal agency responsible for national parks, had a dual mandate: visitor use and keeping the parks unimpaired for future generations. This debate was ended or should have been ended by the amended Act's legislative requirements that ecological integrity and resource preservation are the first consideration when managing a park.

Despite this mandate, only one of the (then) 38 national parks (there are now 39) was considered to be in pristine condition, while 31 reported ecological stresses ranging from significant to severe and 13 increased stress intensity since 1992 (Parks Canada, 1998). Given this situation, the Panel's objectives were to identify issues, examine Parks Canada's approach for maintaining ecological integrity, and provide recommendations.

The Panel proposed to define ecological integrity as follows: An ecosystem has integrity when it is deemed characteristic for its natural region, including the composition and abundance of native species and biological communities, rates of change and supporting processes (PEICNP 2000b, p. 1-15). As such, ecological integrity is arguably the cornerstone concept linking both the phenomenological and analytical aspects of conservation biology (Eagles and Wilkinson 2000, p. 18).

My role on the Panel was that of a geographer specialising in recreation, tourism, and environmental education. While none of the Panel members laid proprietary claim to any parts of our report, my main contributions were to the chapters on

appropriate and allowable use and on interpretation and outreach. I should note that, while I learned a great deal from my fellow panel members with expertise in the natural sciences, I am speaking here as a social scientist.

The Panel's report was submitted to the Minister in February 2000 and made public on March 23, 2000 (PEICNP 2000a, 2000b). In releasing the report, she stated that she had asked the Parks Canada Agency to find ways of implementing all 127 of the Panel's recommendations, if humanly and legally possible. An Action Plan was then announced indicating the immediate and long-term steps that would be taken to ensure that ecological integrity was the clear priority. In March 2001, the Parks Canada Agency (2001) issued a progress report on the implementation of the Panel's recommendations, noting that the Agency had met the Panel's pre-conditions for funding and that many of the recommendations had been implemented, while others awaited the required funding. This was followed in April 2001 by the Minister's Round Table on Parks Canada, which essentially endorsed the Panel's report and called for the funding to be made available to implement the report's recommendations. A decision on providing the funding has not yet been made.

Comments on the Ecological Integrity Presentations

With one exception, my comments will focus on basic themes that cut across the presentations, rather than on specific presentations. The one exception and it is perhaps a reflection of my own biases and training as a social scientist is Tom Beechey's comment that maybe the ecosystem science stuff is the easiest when it comes to understanding and implementing ecological integrity. Let me suggest eight themes (not necessarily in order of importance) from the presentations that illustrate why I single out this comment.

The first theme is that ecological integrity must be considered across a range of spatial scales. However defined, ecological integrity is most often used at a micro (e.g., a particular ecosystem within a park) or a meso (e.g., a park as a whole) scale. It soon became clear to the Panel, however, that, while these scales were important in that they were the mandated focus of Parks Canada, the greatest threats to ecological integrity of national parks were at a macro scale. That is, 85% of the stress on national parks results from external or trans-boundary effects. These include high-altitude air-borne pollution from Asia affecting glacial snow and subsequently meltwaters in the Mountain National Parks, pressures from urbanization and land fragmentation near such parks as St. Lawrence Islands National Park, effects from other resource uses such as agriculture surrounding Riding Mountain National Park or forestry at the edge of Pacific Rim National Park Reserve, etc. Yet, Parks Canada has neither the mandate nor the resources to deal with many of these issues. This suggests four subsequent themes that are important in order to maintain and preserve ecological integrity in national parks (and other types of protected areas).

Second, the entire land base must be considered in policy, planning, and manage-

ment. (A similar comment could be made with respect to marine protected areas, but these were outside the purview of the Panel.) This suggests that a bio-regional approach is required, rather than merely a focus on lands within the often-artificial boundaries of parks. Within those bio-regions will be lands with a range of ecological integrity from the most stressed (e.g., urban areas) to the least (e.g., wildlands within parks). Parks must now be considered as elements in a network, rather than isolated islands.

This also relates to a third theme: the necessity to integrate ecological integrity considerations in parks with other resources uses, e.g., agriculture, forestry, mining, recreation, tourism. One way to do this is for park agencies to work with other resource organizations to develop best management practices which have the potential to reduce stress on both the parks themselves and the surrounding region. The Panel, for example, met with and received the support of several industry organizations (i.e., forestry, petroleum and mining, tourism) for its report. Working with partners, however, goes beyond such organizations and includes nearby residents, non-governmental organizations, other levels and departments of government, and even other countries.

Related to the previous theme but significant enough in itself to be highlighted separately as a fourth theme is the legal and practical need to work closely with Aboriginal peoples. The Panel was impressed by the statistic that 50% of the land area of Canada's national parks was within the national park system because of establishment agreements with Aboriginal peoples. While most frequently thought of as playing a role in large national parks in the North, it is also clear that the traditional knowledge and concern for the land by Aboriginal peoples has a role to play in the South. For example, several First Nations are heavily involved with a number of southern parks, such as Pacific Rim National Park Reserve. Outside of parks, an example of Aboriginal peoples' orientation to understanding the importance of ecological integrity is demonstrated by the fact that the Six Nations Reserve near Brantford, Ontario, contains one of the largest areas of Carolinian forest left in Southern Ontario.

A fifth theme, also a corollary of the third one, is the need to work with government, particularly politicians. Politicians have little time to focus on specific issues in general and, in an era of fiscal restraint, are constantly bombarded with competing and conflicting demands for attention and funding. It is also clear that most politicians have little understanding of ecological integrity. The problem is compounded by the structure of government, both between different governments with conflicting priorities and responsibilities and within governments with their own departments also having such conflicts. There is a need, therefore, to educate and inform politicians and bureaucrats about ecological integrity.

Sixth, even when legislation, policies, and plans are created that take ecological integrity into account, there is usually a lack of monitoring to determine if the

expected results did occur. Several of today's presentations noted the absence of monitoring programs. The reasons are, at once, both simple and complex: lack of will, money, personnel, and (both natural science and social science) knowledge. In fact, one of the reasons for the creation of the Panel was that the Auditor-General of Canada, in a performance audit of Parks Canada, noted that the Liberal Government had, in its election platform, promised to examine the implementation of the 1988 ecological integrity amendment to the National Parks Act. In effect, the Auditor-General called for monitoring the impact of that legislative change.

A seventh theme is that acceptance and implementation of the ecological integrity mandate requires a cultural change within even those agencies responsible for that mandate. The Panel specifically stated that such was the case in Parks Canada, with many employees either not understanding the mandate or not considering it to be important. Acceptance of this need for a cultural change within Parks Canada was set by the Panel as a pre-condition to additional funding. When Parks Canada demonstrated its commitment to such a change (through, e.g., the design of an ecological integrity educational program for all employees, the creation of the position of Executive Director for Ecological Integrity, etc.), the Panel agreed that the Agency had met this pre-condition. It is also important that agency employees act as advocates for ecological integrity.

Finally, several speakers today noted that there are many definitions of ecological integrity, but all used similar basic concepts in their presentations. The Panel recognized that, indeed, there were many definitions and that no one definition would satisfy everyone. It developed a definition that was different than the existing one used by Parks Canada; in the end, a different definition was included in the Act. (The presence of the definition in the Act is both good news and bad news: good in that at least it is up front and requires that it be taken into account in each park's management plan; bad in that it will remain a contested issue and, someday, someone will undoubtedly come up with a better definition that could require the Act to be amended.) The Panel's view was that ecological integrity was not a fixed concept that could be easily operationalised, but, rather, was an heuristic device providing an organizing framework around which policy-makers, researchers, planners, and managers could develop active management and adaptive management approaches to solving problems.

Conclusion

I agree that much needs to be learned and done on the natural science side of ecological integrity, but I leave it to others to deal with those issues. I am arguing that many of the issues highlighted in today's presentations demonstrate that the social science side also needs to be emphasised. This requires: a clear and determined social science strategy to foster the maintenance and preservation of ecological integrity; funding; and the training, education, and hiring of social science professionals with expertise in ecological integrity.

Without such an increased emphasis on the social sciences, there is little likelihood that similar changes in the natural sciences will have the desired result: the maintenance and preservation of ecological integrity in protected areas, in general, and in Canada's national parks, in particular. Indeed, the social science stuff may be the hardest when it comes to understanding and implementing ecological integrity.

References

Eagles, P. F. J. and C.J. A. Wilkinson. 2000. *Ecosystem Fragmentation: theory, practice and policy options.* Toronto. A Report to the Environmental Commissioner of Ontario.

Panel on the Ecological Integrity of Canada's National Parks (PEICNP). 2000a. *Unimpaired for Future Generations: Maintaining Ecological Integrity with Canada's National Parks: Volume I. A Call to Action.* Ottawa: Department of Canadian Heritage.

Panel on the Ecological Integrity of Canada's National Parks (PEICNP). 2000b. *Unimpaired for Future Generations: Maintaining Ecological Integrity with Canada's National Parks: Volume II* C Setting a New Direction for Canada's National Parks. Ottawa: Department of Canadian Heritage.

Parks Canada. 1998. *State of the Parks 1997 Report.* Ottawa: Department of Canadian Heritage.

Parks Canada Agency. 2001. *First Priority: Progress Report on Implementation of the Recommendations of the Panel on the Ecological Integrity of Canada's National Parks.* Ottawa: Parks Canada Agency. 2000. State of Protected Heritage Areas 1999 Report. Ottawa: Parks Canada Agency.