Delineation of information gaps in the data base - Ian Corns, Canadian Forestry Service.

In introducing the topic "Information gaps in the data base:, I will not attempt an exhaustive treatment of the subject, because what are perceived as data gaps will depend upon several factors:

1, 2 The area of expertise and level of training of the persons involved; whether they are data gatherers or users of the information in a report does not necessarily assure its use, particularly if it is difficult to interpret.

3. The intended application of the information may determine whether or not data gaps are perceived. For example, a wildlife biologist looking for habibitat information will inevitably find shortcomings in a vegetation inventory report of his study area.

4. The scale of the project undertaken will determine information gaps. The more detailed the task, the greater will be the gaps in the information necessary for task completion.

Basically, perceived data gaps depend upon who you are and what you need to complete your task or project.

Data gaps occur in two broad categories of information:

1. Inventory (Background) information which includes such things as soil survey, vegetation or forest inventory and classification, forest productivity estimation (eg. CLI), groundwater availability and quality, air quality etc. Such information is often mapped.
2. Response (interpretive information) of ecosystems to various types of management activity such as logging, mining, burning, oil and gas exploration, hunting, trapping, recreation, grazing etc. All of these land uses have very specific requirements and these must be recognized before the appropriate information can be gathered to fill natural resource management objectives. In practice, many studies are a combination of background and response. Recognizing that various land uses have different information requirements for management, it should also be recognized that some of the information requirements for several land uses will be similar. eg. Vegetation information collected for production of a vegetation classification may also be useful for predicting wildlife habitat. An awareness on the part of the researcher of the information needs of those in other disciplines than his own will facilitate very time- and cost-effective data gathering. Thus it is encumbent upon researchers or data gatherers to become aware of the information needs of others than themselves if a data base serving several disciplines is to be developed.

I will now just briefly mention a few of what I consider to be data gaps as seen from my persepective as a forest ecologist with the Canadian Forestry Service. The background or inventory information, particularly that on vegetation and to a lesser extent soils, is often weak or absent. Varying intensities of field study, different degrees of detail in mapping and different kinds of mapping unit components create confusion and result in difficulties in interpretation, and if the survey is of a single discipline, there are often difficulties in correlating other resource components. Because of a wide variety of users, most surveys invariably suit some applications better than others. Alberta needs a sound ecological land classification as a basis for forest management. The Biogeoclimatic Classification and Ecoregions of

of Alberta are good starting points but the information is at very small scale and is incomplete. Provincial staff in Alberta Energy and Natural Resources are working towards closing these information gaps.

Climate information is also often scarce or lacking for forested areas, with the available data usually taken from forestry lookouts at high elevation, for summer months only, and is often not representative of large areas.

Wildlife populations and their habitats are administered separately which means that management information is required at many different administrative levels. In many areas, more population, habitat and behavioral data are required.

There are also many gaps in our knowledge of ecosystem response to various land management practices, eg. logging, mining, burning, hunting, recreation, grazing etc. The wildland management and use history in Alberta is very short (usually less than 60 years and in many areas less than 10 years). Studies of ecosystem response have been and should continue to be the subject of scientific investigation. A large amount of work is still required to further our understanding of forest and wildland ecosystem function and dynamics.

For discussion purposes, consider first inventory data gaps under the headings of vegetation (including forestry), soils, wildlife, and climate.

The need to establish a task force to coordinate research on forestland, wildland/wildlife interactions - Ed Telfer, Canadian Wildlife Service.

There are distinct differences between inventory and research that are not always seen in separate perspectives. Inventory consists of observations which can be put into a data base. If there exists sufficient correlation between the observations and generalizations we can postulate a hypothesis. This is where the research part begins. In the fields of wildland and wildlife, a management strategy is a hypothesis and the implementation of such a strategy means that its effects can be observed. In other words it can be tested. Such a program to test and monitor should be used to find out if the hypothesis is accurate or whether it

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