10-2010

Research on Wildland Visitor Inventories for Management Communications

Ken Chilman
Southern Illinois University Carbondale

Ken Chilman is an Associate Professor Emeritus in the Department of Forestry at Southern Illinois University Carbondale. He retired from teaching in 1995 but continues to do recreation visitor inventory research in various wildland locations. He has been serving as Chairman of the Board of Directors of Friends of the Cache River Watershed since 2007.

Wildland Visitor Inventories for Management Planning and Communication

- Today discussing 2 Cache River visitor studies done in 2006: Heron Pond and Wetland Center
- The studies are called Rapid Assessment Visitor Inventories (RAVI)
  - Designed to obtain a representative sample of visitors to a specific place or area rapidly and inexpensively
- RAVI's are 4-day studies to sample visitors one weekend (Sat., Sun) plus 2 weekdays for comparison
  - Represents 1 of 13 weekends in a season (spring, summer, etc.)= 7.7% sample of seasonal visitors

- RAVI's have a simple study format
  - Visitor counts, one-page surveys, short reports (7-8 pp)
  - Useful for communications by field level managers with community members/groups, interest groups, other management organization members, etc.

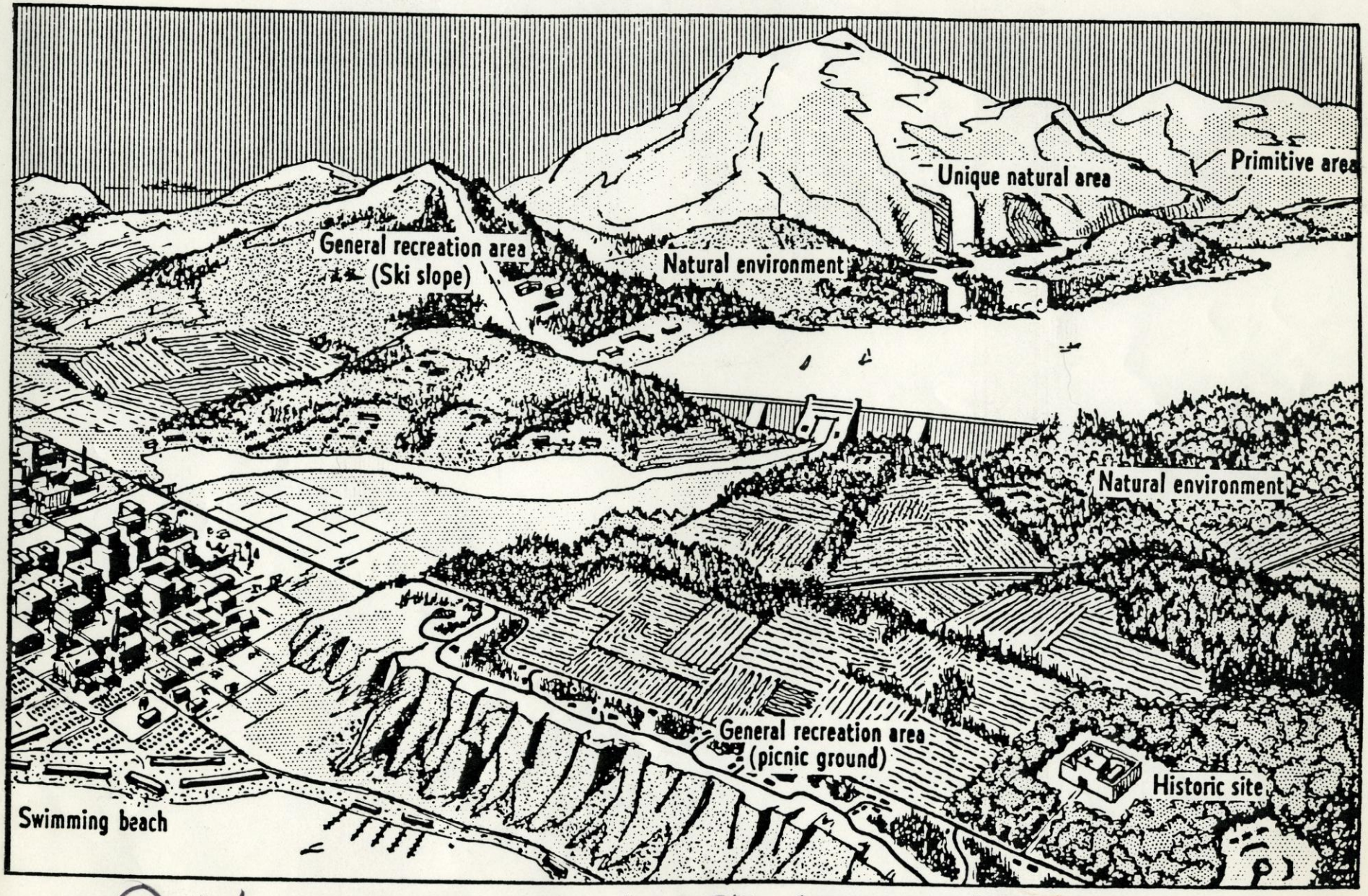
- These 2 studies are part of a long-term program of visitor inventory research (both large-scale and small-scale studies) since 1972

- Inventories are basic to all types of management
  - What are we working with?
    - Amounts, locations, etc.

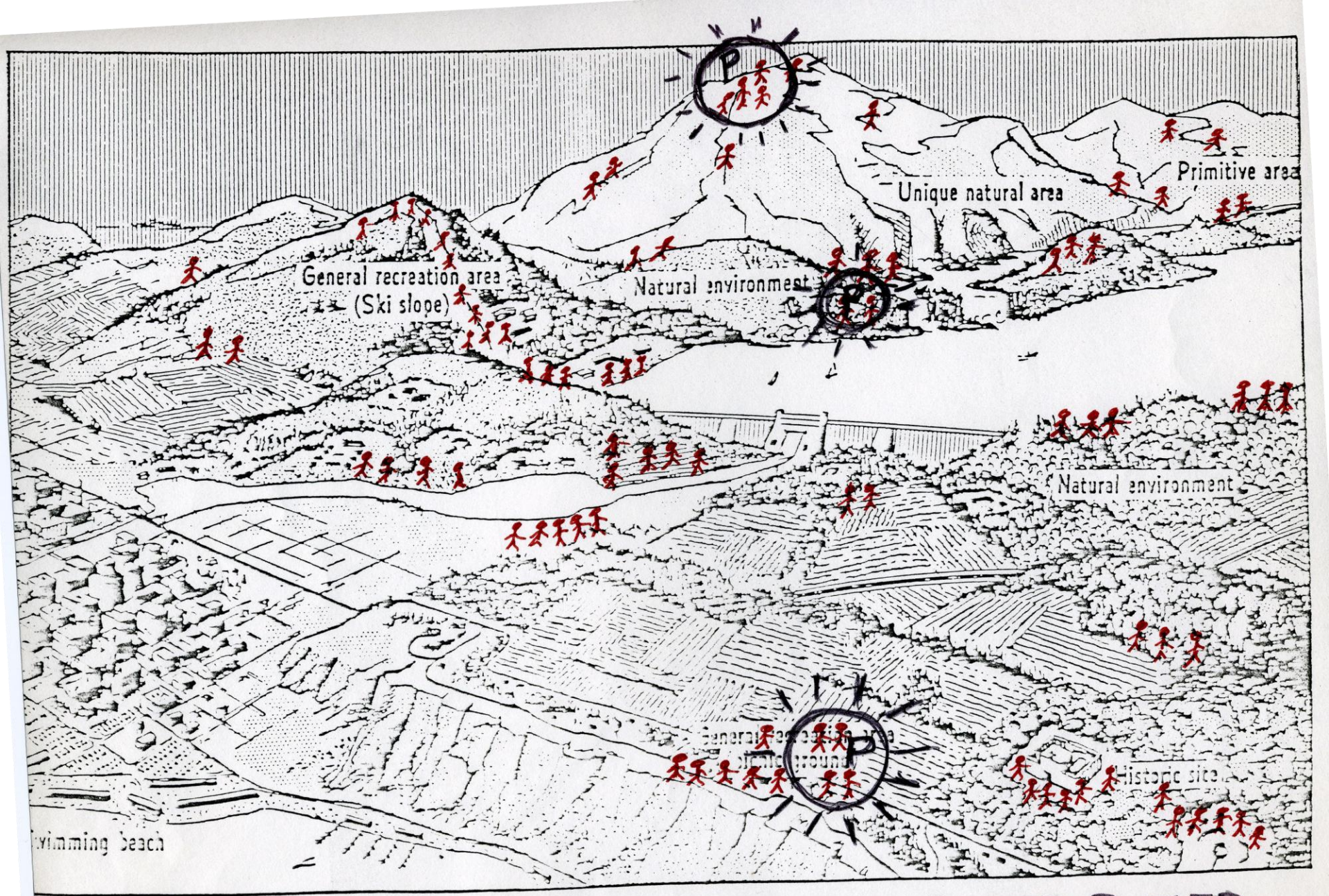
Methods

Wildland recreation areas are often large and diverse

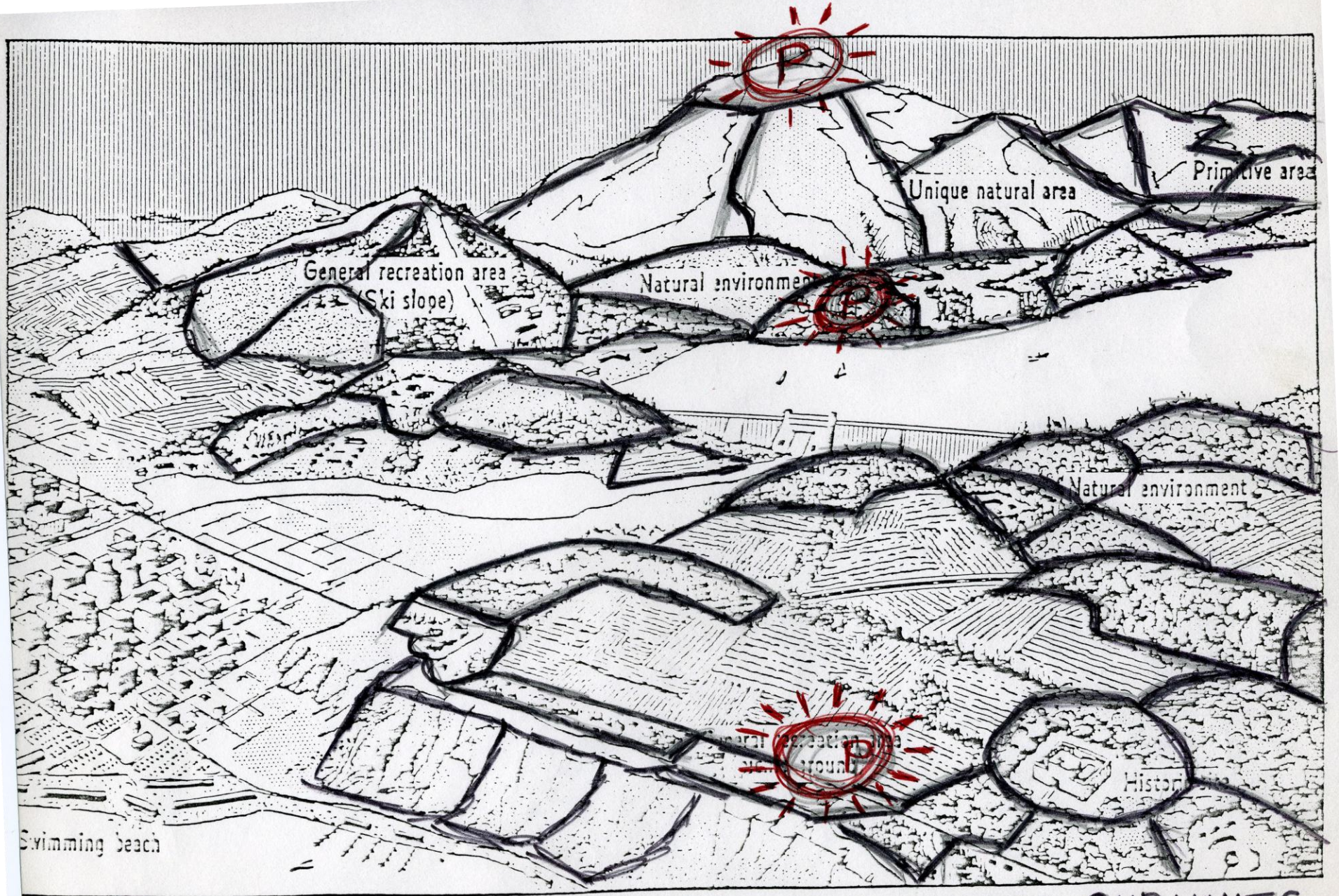
- Useful to examine other resource inventory methods (timber management, wildlife management)
- My background:
  - 2 years USFS Timber Inventroy, California
  - Then M.F. degree at University of Michigan, thesis: Timber Inventory methods
  - Then 6 years ranger district management at California Sierra- increasing recreation use, increasing management communications
  - Then PhD studies at University of Michigan, focus on management decision-making



(1) WILDLANDS AS LARGE AREAS, DIVERSE
- RECREATION USES ALSO DIVERSE



(3) RECREATION VISITORS WIDELY DISTRIBUTED
– MGMT. PROBLEMS OCCUR AT VARIOUS SITES

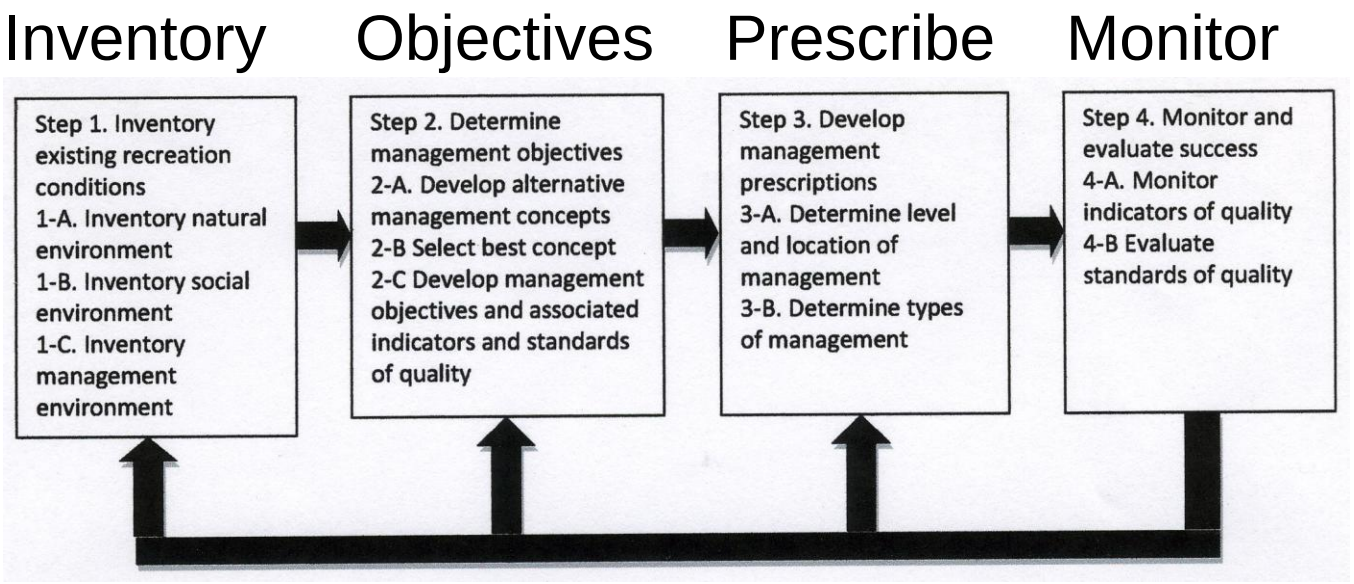


(4) MANAGERS CLASSIFY, MAP MGMT. SUBUNITS

— " USE INVENTORIES OF SUBUNITS FOR DECISION

R. Manning, Studies in Outdoor Recreation

- A literature review of recreation research, 2nd edition, 1999



An outdoor recreation management framework.

- "Management of outdoor recreation begins with an inventory and assessment of recreation conditions: natural environment, social, and managerial." P. 282
- "The major emphasis is to obtain systematic and objective information from and about visitors." P. 284

Visitor inventory methods developed during 30 years of research on large-scale areas:

- Ozark National Scenic Riverways in Missouri- 134 miles, 2 rivers (research program 1972-2002)
- Lake Tahoe Basin in California- 100 square miles of forest lands around Lake Tahoe (1979-1989)
- Corps of Engineers lakes (1989-1999)
  - Example: Table Rock Lake- 75 miles long
- Lusk Creek Wilderness in Shawnee National Forest- 10 square miles, year long study (2003-2004)

From these studies developed a Recreation Visitor Inventory/Monitoring System (RVIMS)

- For large-scale areas, identify subunits
- Identify travel pattern concentrations (TPC's) on subunits
- Sample by 13-week seasons (spring, summer, etc.)
- Do counts, one-page surveys at subunit exits

Began small-scale inventory studies (RAVI's) in 2004

- To provide fast, inexpensive assessments for managers to use in decision meetings
- Essentially one weekend plus 2 weekdays in a 13-week season= 7.7% sample
- Since 2004 have done 16 RAVI's for 6 management agencies in 4 states.

Also utilized the social science research method participant observation, negative case analysis (Kidder, 4th ed. 1981)

- Worked with managers on what visitor data most useful and how visitor data is used
- Reported as comparative case studies

Results

From the RVIMS research, we identified a 4-step process to describe how RAVI's are done

- Useful for managers to communicate how a RAVI was done as well as what data was collected

The 4-step RAVI process:

- Step 1- Design the study
- Step 2- Data collection
- Step 3- Data analysis and reporting
- Step 4- Discussion of data with managers

RAVI 4-step process for Heron Pond

Step 1- DESIGN THE STUDY

A. Identify concerns/questions

-Are there visitor concerns?

B. Examine study area

-Identify Heron Pond trailhead for sampling

C. Develop sampling plan

-Thurs.-Sunday, Oct. 12-15, 2006: 9am-4pm

D. Develop count forms and questionnaires

-From previous study examples

Step 2- DATA COLLECTION

A. Train data collectors

-Not necessary here, but done by researcher

B. Do counts and interviews

-Counted 40 groups, total 152 visitors, group size 1 to 26

-Did 29 interviews, 9 groups had not returned, 2 passed by during interview

-3 Thursday, 3 Friday, 11 Saturday, 12 Sunday

Step 2- DATA COLLECTION (continued)

B. Do counts and interviews (continued)

-Survey responses reported by the 9 sections of the one-page survey

C. Data coding and entry

-Optional, can easily tabulate responses for small studies

Step 3- DATA ANALYSIS AND REPORTING

A. Tabulation of counts and interviews

-Data displayed in descriptive enumerative paragraphs

B. Prepare maps of user distribution

-Not done for Heron Pond, but useful for some meetings

C. Prepare preliminary report

-Eight page report to summarize results of counts and surveys

Step 4- DISCUSSION OF DATA WITH MANAGERS

A. Are data, methods clearly understood?

-Brief discussion but appeared clear

B. Implications for management issues

- No particular issues Heron Pond, visitors appreciative of facilities and area

C. Develop plan for monitoring remeasurements

-Not done at the time

D. Prepare the final report

- No corrections or revisions requested, ready for distribution

Discussion

So what did we learn from the 4-day visitor studies at Cache River area?

- Heron Pond- 29 interviews
  - 28 rated satisfaction 8 or higher on a scale of 10
  - Noted improvements- trail, boardwalk
  - Comments section- some minor improvement suggestions

Jim Waycuilis, area manager, not looking for “problems” or “answers” but ways to maintain a high quality experience

RAVI methods easy to apply, Wetland Center data collection and report writing done by Americorps volunteer

So a different kind of research (too simple) but provides tools for managers to use for communication and decision-making