Quality Wildlife Habitat-Results Pay Off!

The Great Lakes Park Training Institute kicked off the first general session presentation of the conference with a presentation by Dr. Brian D. Anderson. Titled, “Quality Habitat Restoration: Results Pay Off”, it was an excellent overview of the history and many benefits of restoring land back to a more natural state—providing wildlife habitats in the form of wetlands and prairies. Dr. Anderson’s mantras for his presentation were “I love it if it’s not a lawn” and “Habitat, Habitat, Habitat”. Dr. Anderson concluded his presentation saying habitat “restoration is good for the environment and wildlife, good for the economy, and there is lots of funding”. A database of over 140 programs offering funding can be found at: http://gis.glin.net/habitat/
Quality Habitat Restoration
Results Pay Off!

by
Dr. Brian D. Anderson

History of Habitat Restoration

• Reforestation
  – Biltmore Estate (late 1880’s, NW NC, Pisgah NF)
    • George Vanderbilt
    • Fredrick Law Olmstead
    • Dr. Carl Alwin Schenck (a German)
    • Biltmore Forest School (1898-1913)

History of Habitat Restoration

• Wildlife Restoration
  – Aldo Leopold, Masters in Forestry, Yale University (1909),
    grandfather a German-trained landscape architect
  • Report of the Committee on North American Game Policy,
    American Game Institute (now Wildlife Management Institute)
    Aldo Leopold Chair (presented at American Game Conference
    1930)
  • Game Management – authored by Aldo Leopold (1933)
  • Chair in Wildlife Management, University of Wisconsin (1933)
  • Establishment of the Cooperative Research Unit (CRU) Program,
    as part of the Bureau of Biological Survey, U.S. Department
    of Agriculture (1934)
  • Ted Frison, Director of the INHS, invites colleagues to talk about
    forming a professional society, (December 1935)
  • Society of Wildlife Specialists (Wildlife Society) established
    (February 1936)

History of Habitat Restoration

• Prairie Restoration
  – University of Wisconsin buys “Curtis” Prairie in 1933
  – Norman Fasset and student John Thomson experiment with
    transplanting sod, plowing, seeding, and mulching with prairie hay.
  – 1935-41 Aldo Leopold and John Longenecker guide experiments
  – John T. Curtis writes master plan and conducts detailed vegetation
    surveys in 1946, 1951, 1956

Restorations and Reconstructions?

• Restoration – Improving the “quality” of habitat by enhancing
  the species composition or increasing the capacity of a habitat to
  support particular species.
• Reconstruction – Creating habitat from scratch, i.e., a plowed
  field, a paved lot, etc.

Prairie Reconstructions

Schulenberg Prairie, Morton Arboretum
Doris Westfall Prairie, Vermilion Co. Conservation District
Fermilab Prairie
History of Habitat Restoration

Wetland Restoration


- At the time the first Europeans settled in the 1600's there were 221 million acres of wetlands
- The University of Illinois’ School of Engineering made famous through drainage technology in the 1870's
- By the 1960's, most political, financial, and institutional incentives to drain or destroy wetlands are in place
- By the middle 1980's only 108 million acres left

How To Resources on the Web

- Reforestation
  - http://www.dnr.cornell.edu/ext/bmp/contents/nonharvest/non_regen.htm
- Wildlife restoration
  - http://www.marionswcd.org/wildlife.htm
  - http://www.in.gov/dnr/fishwild/4435.htm
- Prairie restoration
  - www.plantbio.ohiou.edu/epb/instruct/commecology/labs/Harrelson.pdf
- Wetland restoration
- Habitat Restoration Generally

Habitat Restoration Costs

- The costs of restoration are scalable
- There are avoided costs associated with restoration
  - In Florida cost to mow 1 acre of commercial property $1120 annually
  - Americans use 800 million gallons of gas mowing lawns, 17 million gallons spilled
  - 500 lawn mowers generate 212 lbs. of hydrocarbons
Economic Benefits of Wildlife Habitat Restoration

- Over 3.24 million people participated in some form of residential or non-residential watchable wildlife recreation in Florida in 2001.
- The total expenditures from 2001 watchable wildlife recreation in Florida was estimated at $1.58 billion.
- Total economic effect of watchable wildlife expenditures was $2.86 billion.
- Since 1991, during a recession and the Gulf War expenditures in Florida for watchable wildlife recreation had increased 30 percent ($1.212 billion in 1991), but were down slightly from 1996 levels when consumers were much more open with travel and equipment purchases ($1.677 billion in 1996).

Economic Benefits of Wildlife Viewing

- In 2001, economic activity associated with hunting and fishing in Pennsylvania totaled more than $2.2 billion and $1.6 billion respectively, while nonconsumptive wildlife recreation (viewing, feeding, and photographing wildlife) generated nearly $2 billion in economic activity.
- The total expenditures on watchable wildlife in Arizona in 2001 was $821 million with a total economic effect of $1.5 billion.
- Southwick and Associates specialize in fish and wildlife economics and statistics. They provide many free reports at: http://www.southwickassociates.com/freereports/

In 2006 71.1 million Americans spent $45.7 billion on wildlife-associated recreation. This translates to over $100 billion in total economic effect.
Funding for Habitat Restoration

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