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Evaluating Private Lands for Conservation of Wildlife[1]

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Natural areas and agricultural lands provide important economic and ecological services that benefit society. These lands have value, therefore, that goes beyond traditional economic measures, although these values may not be easy to quantify. In general, the value of land is prioritized in different ways by different organizations, depending upon their particular missions. For example, some organizations may prioritize particular plant and animal communities; others may seek to conserve rare and endangered species; others may be responsible for conserving water resources; and some concentrate on historical or archaeological benefits.

Here, we present criteria for evaluating land in terms of conserving wildlife species. There are several basic principles of conservation planning that can assist private landowners and organizations in assessing the wildlife value of a property. Below, we have listed seven broad criteria for consideration when evaluating and prioritizing areas for wildlife.

Evaluation Criteria

Size: How much natural area is encompassed within the candidate lands? Are these natural areas sufficiently large to provide for the needs of a particular species? For example:

- average Florida Panther home range: male = 200 sq mi., female = 75 sq mi.
- average Florida Black Bear home range: male = 100 sq. mi., female = 21 sq. mi.

Location: Do the candidate lands contribute to nearby existing areas of wildlife habitat? Are these other areas in conservation easements or public ownership? Does the location of the candidate lands provide unique contributions to wildlife (important nesting areas, etc.)?

Connectivity: Do the candidate lands increase connectivity with other natural areas, particularly conservation lands? Do barriers exist to wildlife movement among these areas? Within the candidate lands, are natural areas in large blocks or are they highly fragmented and patchy in distribution?

Quality: What is the condition of natural areas within the candidate lands? Are these habitats in degraded ecological condition due to fire suppression, invasion by exotic plants, clear-cutting, over-grazing, pollution, or other factors? What management or restoration plans are needed to establish high-quality habitat for wildlife?

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Wildlife: Do the candidate lands support high diversity or important wildlife components, such as rookeries or endangered species? Is the location and habitat quality suitable for supporting endangered and threatened species of wildlife that occur in the area?

Human activity: What are current and likely future levels of human activity within and surrounding the candidate lands? Will human development prevent important management programs, such as prescribed burning, or limit wildlife movement?

Special considerations: Do the candidate lands provide other ecological attributes that warrant special consideration (e.g., endangered plants, water recharge, flood retention, etc.)?

For Additional Information

Noss, R. F., O'Connell, M. A., and D. D. Murphy. 1997. The Science of Conservation Planning. Island Press, Washington, D.C. 246pp.