

Fish and Wildlife Benefits of Farm Bill Conservation Programs: 2000-2005 Update

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Technical Review 05-2 October 2005

The Wildlife Society
Bethesda, Maryland



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Funding provided by the USDA Natural Resources Conservation Service and Farm Service Agency through a partnership with The Wildlife Society in support of the Conservation Effects Assessment Project.

Suggested citation:
Haufler, J. B., editor. 2005. Fish and wildlife benefits of Farm Bill conservation programs: 2000-2005 update. The Wildlife Society Technical Review 05-2.

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Executive Summary

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Heard et al. (2000) summarized information concerning wildlife benefits derived from Farm Bill conservation programs documented in the literature from 1985 to 2000. This publication updates that report with new information and broadens the scope of the report to include fish as well as wildlife.

There is clear evidence of the multitude of benefits produced by the conservation programs of Farm Bill legislation enacted and implemented since 1985. The best researched and documented has been the Conservation Reserve Program (CRP). This program has converted millions of acres of cropland to grass cover across the prairies, and to grass or forest cover in the Southeast.

Farrand and Ryan (*this volume*) summarized the benefits accrued from CRP in the Midwest. Bird populations have been shown to utilize CRP, with some studies reporting increases in reproductive rates and population gains attributable to CRP. Information on other species including mammals, reptiles, and amphibians is not as extensive, but increased occurrences associated with CRP have been reported. Farrand and Ryan (*this volume*) discussed how wildlife responses to CRP are multiscale and that wildlife responses can vary depending on a number of factors. Similarly, Johnson (*this volume*) reported on bird responses to CRP in the northern Great Plains. He found numerous examples of benefits to birds associated with CRP when compared to croplands. He noted the complexity of bird responses and stated that response can vary not only by species but by region, year, vegetation composition, and treatments of CRP fields. Reynolds (*this volume*) reported on the benefits of CRP to waterfowl, and reported that CRP in the Prairie Pothole Region was estimated to produce 2.2 million ducks per year.

Burger (*this volume*) discussed the benefits of CRP to fish and wildlife in the southeastern U.S. He stated that “wildlife populations at a given point in time will be a function of the conservation practice, age of the stand, establishment methods, and mid-contract management regimes”. CRP

conditions and corresponding wildlife use change rapidly in the Southeast because of the good growing conditions. Numerous wildlife species have been documented to utilize CRP or similar habitat conditions in the Southeast (Burger, *this volume*).

Clark and Reeder (*this volume*) discussed wildlife benefits associated with Continuous CRP. The conservation practices in this program are typically linear strips. Clark and Reeder (*this volume*) reported on various studies that documented the use of habitat created by this program by a variety of wildlife species. They did note, however, that because of their linear nature, “[c]areful planning and management are keys to gaining the desired wildlife benefits from these plantings...”. They also noted that information on the reproductive success of wildlife associated with these areas is very limited.

Allen (*this volume*) reported on the benefits to fish and wildlife associated with the Conservation Reserve Enhancement Program, which addresses conservation needs at a larger landscape scale. Most contracts under this program, currently implemented in 25 states, have occurred in the past 4 years. While monitoring of benefits has begun, the limited amount of time since implementation of most projects has restricted the quantification and reporting of benefits. Benefits to fish through enhanced water quality and to wildlife through the establishment of habitat are expected.

That CRP is a tremendous benefit to wildlife populations is well substantiated. However, cautions were raised by all of the authors that CRP is not a panacea. Responses to CRP by wildlife vary, as pointed out above. Landscape relationships are poorly understood. CRP may occur in small patches, or as reported by Clark and Reeder (*this volume*), in linear strips. Such areas may be impacted by edge effects, and many species may have low reproductive rates, creating the potential for ecological sinks. Responses by many wildlife species remain unknown, and most studies that have been conducted have been short term and confined to small areas (Johnson, *this volume*). A concern is that CRP should not be viewed as a replacement to native prairies. Also, CRP should not encourage any conversion of native prairies. While CRP has benefits to many species of wildlife, these benefits have been shown to differ significantly in use and reproductive success by many species when compared to native prairies.

A survey conducted of CRP participants (Allen, *this volume*) indicated strong support for this program, with a majority (75%) of respondents indicating that they felt the benefits to wildlife were important. Most respondents also thought that CRP provided a number of other conservation benefits.

The Wetlands Reserve Program (WRP) has enrolled 1.6 million acres of wetland and associated upland habitats (Rewa, *this volume*). Numerous beneficial responses by wildlife to wetland maintenance and restoration have been documented. However, little research has been conducted directly on WRP areas. Additional research is needed to document direct benefits of WRP to fish and wildlife and to determine influences of factors such as landscape differences on these benefits.

The Grasslands Reserve Program (Wood and Williams, *this volume*) is a new program created by the 2002 Farm Bill. Since 2003, 524,000 acres have been enrolled in this program through easements and long-term rental agreements. While direct benefits to fish and wildlife from this program are expected, they have not been documented to date.

The Environmental Quality Incentives Program (EQIP) (Berkland and Rewa, *this volume*) has substantial allocations, increasing to a proposed authorization of \$1.3 billion by 2007. This program covers a wide variety of practices. Most practices are not specifically directed at fish and wildlife, but are expected to produce secondary benefits to fish and wildlife species. Some practices under EQIP are directed at fish and wildlife. Recently, EQIP has been used to directly focus practices on the needs of listed species or species of concern. Benefits to fish and wildlife from these practices have not been documented to date.

The Wildlife Habitat Incentives Program (Gray et al., *this volume*) is a program directly focused on fish and wildlife. This has been a popular program with agricultural producers and has been applied on 2.8 million acres under 18,000 different contracts. While benefits to fish and wildlife are expected, little data exist on the actual benefits of the program. Additional research is recommended.

The Conservation Security Program (CSP) (Henry, *this volume*) is a new program that rewards agricultural producers who demonstrate a commitment to application of conservation practices. It has 3 tiers, with increasing benefits associated each level. Tiers 1 and 2 focus on soil and water quality, and producers must meet identified standards to gain the added incentives of CSP. To be eligible for Tier 3 benefits, producers must include wildlife habitat practices. The program is too new to have documented benefits, but it appears to offer great potential.

Brady (*this volume*) discussed the benefits of the highly erodible lands and Swampbuster provisions of the Farm Bill. While these programs do not directly provide for wildlife habitat, they do provide substantial indirect benefits. For example, the program has identified a reduction in

soil erosion of 1.3 billion tons/year from cropland as well as a reduction in wetland conversion that is highlighted by a net gain in wetland acres in agricultural lands between 1997 and 2002.

This report documents that Farm Bill conservation programs are widely utilized by agricultural producers and are producing numerous and substantial conservation benefits. Benefits to fish and wildlife accrue directly from practices targeted towards these species as well as through indirect benefits such as reductions in sediments in streams, establishment of habitat through practices not specifically targeting wildlife, and similar effects. Many benefits to wildlife have been documented, especially those associated with CRP. Many other benefits are suspected, but have not been documented. In addition, benefits to fish and wildlife are complex and influenced by many factors, so additional information is needed in order to understand this complexity. Finally, some programs utilize practices that may produce mixed responses from wildlife. Understanding all of these relationships and developing recommendations for maximizing conservation benefits will require additional monitoring and investigations.

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