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## Increasing Wildlife Through Resource Management in an Urban-Rural Interface

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### Why Does it matter?

Native wildlife species are an important natural resource in both urban and rural landscapes. Along with their niche in the ecology of the landscape, they can have direct economic impact, serve as valuable ecological health indicators, and have an esthetic appeal. As urbanization increases and rural farmlands diminish, the wildlife habitat and populations may decrease. Many wildlife populations depend on cropland, pastures, ponds and woodlands for shelter and food. Many portions of the Southern Piedmont have been urbanized and agricultural producers face challenges operating along the urban-rural interface. Some individuals do not realize the importance of agriculture in this region for wildlife habitat in addition to the production of food and fiber.

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### What is being done?

Oconee County Georgia has transitioned from being a agricultural area into a mixture of urban and rural land use. The **J. Phil Campbell, Sr. Natural Resource Conservation Center (JPC)** houses a field unit for natural resources research and is the “rural part” of this interface. To aid in wildlife development, JPC works with the Natural Resource Conservation Service (NRCS) through the Conservation Security Program (CSP). These guidelines and guidelines from local, state and federal agencies may be used in urban-rural communities to maintain and increase wildlife populations. JPC used information from wildlife biologists working with NRCS, GA Department of Natural Resources (DNR), University of Georgia (UGA), and Oconee Rivers Audubon Society (ORAS) to evaluate existing habitats and make suggestions in developing a wildlife plan to increase bird populations.

- Fence all water areas from livestock (ponds, streams, riparian areas) 2000-2005
- Develop common shade areas for livestock fencing out woodlands 2000-2007
- Participate in Oconee Rivers Audubon Society (ORAS) annual Christmas Bird Count (2004-2009)
- Designate and fence 8 wildlife areas (150 acres) 2006-present
- Transform 4 grass water ways into wildlife feeding plots (5 acres) 2007-present
- Remove grasses (fescue and bermuda) and bushes (privet hedge) 2008-present
- Plant and maintain native grasses (switch and gamma grass) 2008-present
- Designate and fence 2 grassland bird habitats (13 acres) 2010



White Throated Sparrow  
(*Zonotrichia albicollis*)



Grasshopper Sparrow  
(*Ammodramus savannarum*)



Yellow-Rumped Warbler  
(*Dendroica coronata*)



Dickcissel  
(*Spiza americana*)

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The urban-rural interface creates economic, social, and environmental challenges and opportunities for agriculture. Management at JPC attempts to accommodate interactions with adjacent ecosystems and provide a community of ecosystems providing nutrients and energy to facilitate species diversity and by providing needed ecosystem niches.



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<b>What has been found?</b>	Results from the last five years of Audubon Christmas Bird counts show multiple bird species are using both urban and rural niches. Bird counts in December include wintering birds and may not adequately reflect nesting and food niches of the spring and summer seasons. Additional bird counts are planned outside of the winter months to work on quantifying the utilization of nesting and feeding habitat.
<b>What is the impact?</b>	The development of subdivisions and retail outlets in the areas surrounding the research center have decreased open land and cropland but many bird species have adapted for wintering utilizing neighborhoods, riparian woodlands, and agricultural lands to maintain diversity and numbers.
<b>What's next?</b>	Using the guidelines of NRCS's CSP and consulting with members of the ORAS will allow us to continue developing bird habitats. We are will increase the number of sampling dates to better assess bird populations. We will also begin to manage habitat with a specific emphasis on song birds. They will provide an ecological indicator of differences between agricultural and urban land use.
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