

# Shiawassee Refuge Suppresses Common Buckthorn with Volunteers

**November 21, 2008**

Shiawassee National Wildlife Refuge protects 4,225 acres of forested wetland. These wetlands provide valuable habitat for many declining neotropical migrant songbirds, including yellow-billed cuckoo, yellow-throated vireo, wood thrush, prothonotary warbler, and Baltimore oriole. These wetlands also provide important habitat for waterfowl such as mallard, wood duck, and hooded merganser. However, refuge forests are threatened by the spread of common buckthorn. This non-indigenous, invasive shrub has colonized approximately 400 acres of the refuge and has become the dominant understory plant in some areas. Consequently, habitat quality for birds and innumerable forms of other refuge wildlife has been degraded.



*The spread of common buckthorn is facilitated by frugivorous songbirds such as American robin, cedar waxwing, and European starling. Steven F. Kahl/USFWS; November 2008*

The refuge typically removes 10-20 acres of buckthorn annually. However, with the help of volunteers, 84 acres were cleared of common buckthorn in 2008. This progress was made possible by a U.S. Fish and Wildlife Service Volunteers

Working with Invasives Grant. This granted funded applicator certification, application and protective equipment, herbicides, GPS receivers, and volunteer stipends. Volunteers worked alongside refuge staff to treat buckthorn stands and will be used for more precise GPS mapping of treated and un-treated patches. Volunteers will also be used to conduct surveys to identify newly invaded sites.



*The green leaves of common buckthorn stick out in this forested wetland.  
Steven F. Kahl/USFWS; November 2008*

Refuge efforts to protect wildlife habitat also benefit neighboring farmers. Common buckthorn is a vital host plant of the soybean aphid which is native to China and Japan. These aphids lay their overwintering eggs alongside the buds of buckthorn twigs. Spring and summer generations move into soybean fields where they greatly reduce yields. Buckthorn reduction on the refuge is helping to interrupt this cycle and is earning the appreciation of adjacent farm owners. Likewise, these farmers have been very successful at eradicating buckthorn on private property. Thus, the re-colonization potential on the refuge is greatly reduced.