Study finds migratory birds not picky about their rest stops

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(PhysOrg.com) -- If a lush, protected forest with a winding stream is considered luxury accommodation for a migratory bird, a Purdue University study shows that those birds would be just as happy with the equivalent of a cheap roadside motel.

John Dunning, an associate professor of forestry and natural resources, found that migrating birds are just as likely to stop in small woodlots in the middle of an agricultural field for the night as long as there is adequate protection and food. Dunning said the finding suggests that conservation efforts should extend to smaller forested lands to help stabilize declining migratory bird populations.

"There are strategies for conserving forest for migratory birds, but those strategies emphasize the largest patches of forest," Dunning said. "We found that even very small woodlots were filled with migratory birds at times. It makes us believe we also need to conserve the little patches of forest, not just the big ones."

Dunning and graduate student Diane Packett observed woodlots at three distances from Indiana's Wabash River and its tributaries - within half a kilometer, between one and five kilometers and at about 20 kilometers. The woodlots were less than 20 acres and had row crops surrounding them on at least three sides. Dunning and Packett made observations in both spring and fall and reported their findings in the current issue of *The Auk,* the journal of the American Ornithologists' Union.

There were 76 different species of migratory birds found in the woodlots, with no statistical differences in the number of species or overall population of birds based on distance from streams.

Packett said the birds, which travel thousands of miles between South and Central America and Canada twice each year, sometimes just need a place to stop along their journey. As forests have been cleared for development, agriculture and other uses, those birds have to make do with whatever patches of forest they can find when they become tired or encounter bad weather.

"They don't make the trip all in one jump. It can be thousands of miles they have to fly," Packett said. "They need safe places to stop, eat and rest. If they don't have that, they might not survive."

Other efforts to stem the declines of migratory bird populations have focused on threats to wintering habitats in Central and South America and threats to breeding grounds. But many urban areas or open fields aren't suitable for migrating birds because they are vulnerable to predators in these open habitats. That makes the small woodlots important refuges, according to the study.

Dunning said the findings are especially timely since smaller forested areas may be in danger because of increased manufacturing of ethanol. He said producers could be enticed to eliminate the woodlots to provide material for ethanol production.

"The big concern now is the emphasis on biofuels. If they get to the point where it's economical to use wood for cellulosic ethanol, those small woodlots could disappear," Dunning said. "If people have the impression there's nothing of value there, they could cut down all the trees and plant more corn on it."

Dunning said he would like to use radio transmitters on birds that gather in small woodlots to see how long they stay in the areas and to pinpoint other important stopovers migratory birds use.

Source: Purdue University (news : web)