The Role of Open Space in Urban Planning

I second the comments about urban sprawl by John Marzluff (*Conservation Biology* **17**:1175–1176) but would like to add a few thoughts. He states that "among the aims of urban growth management is the preservation of open space, but open space is not being preserved in all urban areas, and where it is, reserved space is rarely adequate to maximize protection of biodiversity. . . . The small fragments of natural habitat that are purchased and connected often become ecological sinks and traps in the face of abundant invasive species and human trampling." I agree with this but think these are not necessarily the least favorable outcomes for conservation. As heretical as it sounds, maximizing biodiversity protection should not be the primary goal of nearly every open-space protection effort. Some of the more effective approaches to urban sprawl involve designation of urban growth zones and substantial increases in human density within them. They also include protection of small habitat fragments, which enhance livability for human communities that surround them, especially at high human densities. Enhanced livability then reduces pressure on outlying greenfields, implying that lower biodiversity, higher numbers of non-native species, and more intensive human use in remnant parcels can be offset by conservation gains elsewhere on the landscape.

As in the question of whether to protect remnant urban parcels, most "smart-growth" issues have a similar trait: trade-offs at the landscape scale need to be evaluated before a determination about conservation gains or losses can be made. However, this kind of evaluation has not been the norm in land-protection activities. Traditionally, most land protection efforts have focused on preservation, disconnected from complementary land use needs such as fostering the best locations for people to live, businesses to locate, and infrastructure to be built to avoid degrading resources. For all the increased land trust activity and open-space bond funds set aside in the last decade in the United States, there has still been relatively little discussion or consensus about how to incorporate growth concerns into prioritization criteria for land conservation. To add to Marzluff's excellent list of ways that conservation biologists can be involved in guiding settlement patterns, then, I add that we could "contribute to our common understanding of where and when maximization of biodiversity is actually the most strategic goal." Absent this improved understanding, too much land conservation will continue to be more haphazard than it needs to be. At best, results may include random patterns of protected land and at worst they may actually cause sprawl, by pushing development pressure away from urban areas and into more remote lands.

This is not to detract from the call issued by Marzluff, but to echo his point that "an important way to keep distant lands 'distant' is to guide the march of settlement so that it reduces impacts on wildlands it eventually will abut." I would echo it in even stronger terms, though, and suggest that the greatest contributions to protection of wildlands may come from making cities great places to live. This has been a standard urban ecology theme (the mission statement of *Urban Ecology* magazine reads, "vibrant, successful cities are not only possible but necessary for the health of society and our planet"), but it has not been standard for *Conservation Biology*. However, especially given the numbers Marzluff cites—"[P]rojections are for urban populations to increase by 10–30% over the next 25 years. Much smaller increases in the past have doubled the area of converted land around cities. . . ."—the question of how to *dramatically* increase human density and quality of life in cities should perhaps become a much greater focus for conservation biologists. Dose this mean we should all become urban planners? No, but to the degree we can refocus our research, policy, and education activities on human density and quality of life in cities, I believe our causes will be greatly aided.

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