Housing growth near national parks may limit conservation value

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The growth of housing near national parks, national forests and wilderness areas within the United States may limit the conservation value that these protected areas were designed to create in the first place, a new study has found.

The researchers determined that housing development reduces the potential of these protected areas to serve as a modern-day "Noah's Ark," interrupting potential travel corridors for some animals, and altering habitat for others.

Results of the study are being published this week in Proceedings of the National Academy of Sciences.

"These protected areas have become an amenity that actually attracts housing development," said Roger Hammer, an Oregon State University sociologist and one of the co-authors of the PNAS study. "Housing is a convenient gauge because it is something that is easily measured and can be traced back to the 1940s. In essence, it serves as a proxy for human development impacts that include everything from roads to strip malls."

In their study, the research team looked at how the growth of housing adjacent to protected areas has created a patchwork quilt of land use that essentially has shrunk the impact of the conservation areas. The researchers did not look at potential impacts on individual species, but rather focused their study on how the housing growth has changed the landscape.

Between 1940 and 2000, 28 million housing units were built within 50 kilometers of protected areas in the United States. During the last three decades, the rate of housing growth near these areas has accelerated at the rate of about 20 percent a decade.

In fact, since the 1990s the growth of housing within a single kilometer of protected areas has far outpaced the national average of new housing units, according to Hammer, a demographer in OSU's College of Liberal Arts.

"The real growth began in the 1970s with a 'back to the land' movement, when proximity to the workplace became less important in determining housing location than living in a rural area," Hammer said. "That was the first time that growth in metropolitan areas was outpaced by growth in more rural areas in this country."

Hammer and his colleagues say that if long-term housing trends continue on the same trajectory, another 17 million housing units will be constructed within 50 kilometers of protected areas by the year 2030. The situation actually could worsen, the researchers acknowledge, because baby boomers are just beginning to hit retirement age - and that could affect housing in rural areas.

"Housing issues will not go away," Hammer said. "The largest cohort of baby boomers was born in the mid-1950s and they're just beginning to hit Social Security age. Retirement has been a key factor in the increase of housing near protected areas - and that probably won't change."

Hammer and his colleagues say that the growth of housing near these protected areas includes both full-time and part-time, or vacation, dwellings.

"The growth of seasonal homes has been a driving factor in the

proliferation of housing units built near protected areas," Hammer pointed out. "But from a research standpoint, it's difficult to gauge a difference between a so-called permanent home and a second dwelling. A seasonal home may be actually be used on a year-round basis and a lot of dwellings that begin as vacation homes may become permanent residences when the owners retire."

Provided by Oregon State University