# Homeowner associations can support native species in suburban neighborhoods

March 25 2013

An unpruned shrub sometimes found in residential Phoenix. Allowing shrubs to grow out can benefit insects and other native wildlife. Credit: Christofer Bang, Arizona State University

(Phys.org) —Although it's known that construction of homes in suburban areas can have negative impacts on native plants and animals, a recent study led by University of Massachusetts Amherst ecologist Susannah Lerman suggests that well- managed residential development such as provided by homeowners associations (HOA) can in fact support

native wildlife.

For their recent study published in *Ecology and Society*, Lerman and her colleagues Kelly Turner and Christofer Bang of Arizona State University (ASU), Phoenix, set out to assess whether neighborhoods managed by HOAs contain more native wildlife and a richer variety of plants than neighborhoods with no formal land use rules. They found that such associations might play a key role in promoting species diversity in suburban neighborhoods.

As Lerman explains, "HOAs manage multiple properties, and thus cover larger areas than single yards. This is great for implementing coordinated urban conservation initiatives. When we looked at specific groups of plants and animals, we found that well-managed HOA neighborhoods had greater overall species richness."

Having many different native plants and animals in a neighborhood is not only good for urban wildlife, but great for homeowners as well, she adds. "Living natural communities tend to be more attractive to us, and these environments foster strong relationships between people and nature, including children. And those who consider selling a home are likely to find that properties with flourishing, lively gardens tend to have a higher value than properties without."

For this work, the researchers assessed the diversity of plant and animal species in suburban neighborhoods in Phoenix. Half of the homes were managed by HOAs. This assessment was part of a long-term monitoring project funded by the National Science Foundation's Central-Arizona Phoenix Long-Term Ecological Research (CAP LTER) program.

"CAP LTER has monitored bugs, birds and plants in the Phoenix area since 1998, and their database contains a wealth of information," ASU co-author Bang points out. Turner adds, "The tricky part was to sort

through the database and find out which homes belonged to HOAs and which didn't, and what kind of management practices were used."

The research team concluded that HOAs can help improve urban species research by making use of the resources and tools already in place. For example, HOAs have landscaping requirements and can enforce these requirements when residents fail to comply. This creates large patches of well-managed gardens.

Also, HOA landscaping practices such as mowing occur with regularity and are predictable, which helps animals and plants to adjust their seasonal cycles. Lerman and colleagues encourage HOAs to incorporate ecological landscaping practices to further promote urban biodiversity on a neighborhood scale.

**More information:** www.ecologyandsociety.org/vol17/iss4/art45/

Provided by University of Massachusetts Amherst