PATTERN OF CHANGE OF THE WILDLAND-URBAN INTERFACE IN THE EASTERN UNITED STATES

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The wildland-urban interface (WUI) is where human development and wildland vegetation intermingle. Human-wildlife conflicts, exotic species invasions, and forest treatments to reduce fuel loads are concentrated in the WUI. Housing growth in the WUI exacerbates these problems. Our objective was to assess the extent and pattern of WUI growth in the Eastern United States from 1990 to 2000. We identified two types of WUI following the federal definition: intermix WUI are areas with more than one house per 40 acres and more than 50% wildland vegetation, interface WUI are areas with more than one house per 40 acres and less than 50% wildland vegetation that are within 1.5 miles from an area at least 1,325 acres in size and covered with more than 75% wildland vegetation. Housing data were derived from the 1990 and 2000 US decennial Censuses at the block level, and with vegetation data from the 1992 USGS National Land Cover Dataset. WUI areas are widespread at the fringes of metropolitan areas (e.g., Boston and Atlanta) and in rural areas with dispersed housing patterns (e.g. New England and Appalachia). Housing growth rates are highest in the WUI and reached, for example, 42, 35 and 26% in Florida, Georgia, and Arkansas respectively. WUI area increased in these states by 30, 25 and 37%. These results on WUI growth provide an indicator of human impacts on the environment and can facilitate in-depth studies on causal relationships between housing and wildlife or plant populations.