Explanatory factors of the spatial distribution of summer air temperature in Santiago of Chile

Por: Smith, P (Smith, Pamela)\(^1\); Romero, H (Romero, Hugo)\(^1\)

REVISTA DE GEOGRAFIA NORTE GRANDE
Número: 63

Páginas: 45-61
Fecha de publicación: MAY 2016

Resumen
The city of Santiago (Chile) shows significant differences in the distribution of air temperatures within the city due to a set of explanatory factors, such as increased proportions of impermeable surfaces and a reduction in vegetation. This has in turn generated heat islands, which are accentuated and generalized in the summer nights, creating a complex and heterogeneous mosaic of urban landscapes that affect the environment and quality of life of its inhabitants. Based on networks of urban-climate information that link data from fixed stations, mobile transects and thermal satellite imagery, we estimate significant spatial relationships that have allowed us to construct maps that help to explain the temporal and spatial variability of atmospheric temperatures, and thus to suggest measures for mitigating and adapting to the phenomena at both the macro- and meso-scale.

Palabras clave
Palabras clave de autor: urban climate; spatial distribution of temperatures; regression models
KeyWords Plus: URBAN HEAT-ISLAND

Información del autor
Dirección para petición de copias: Smith, P (autor para petición de copias)

Direcciones:

- Univ Chile, Dept Geog, Santiago, Chile.

Direcciones de correo electrónico: pesmith@uc.cl; hromero@uchilefau.cl

Editorial
PONTIFICA UNIV CATOLICA CHILE, INST GEOGRAFIA, AV VICUNA MACKENNA 4860, SANTIAGO, 00000, CHILE

Categorías / Clasificación
Áreas de investigación: Geography; Physical Geography