

Impact of climate and land-use changes on populations of winter visitors in South Korea during the period from 2001 to 2012

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The winter visitors are one of the important eco-tourism resources in South Korea and its population is seen as the indicator of environmental pollution. This research investigated how the environmental changes such as winter temperature and land-use affect the population of winter visitors in South Korea. The data on the number of winter visitors and change of land-use provided by Ministry of Environment was used. The temperature data from Korea Meteorological Agency was used in this research and Coldness Index (CI) was used to analyze the changes in the winter temperature. The wintering sites of the winter visitors are in along the western coast of South Korea in the main river estuaries. This research divided the migration habitats into four regions. The population of the winter visitors in these regions increased when CI increased for past 12 years. However, the three regions in the north and middle of the western coast showed decrease in population when CI decreased whereas the southern region showed increase in population. The population of the winter visitors in South Korea decreased significantly in the same period. There is a need for consistent research and monitoring of this phenomena: To see whether the migration of winter visitors concentrate in the southern region of Korea when the total population of winter visitors decrease as winter temperature of Korean peninsula drops. The change of land-use in the area around the four migration habitats did not affect the population of winter visitors in this research.

Biography

Man Kyu Kim has completed his Ph.D. at the age of 37 years from Technical University Braunschweig in Germany. He is the Director of Institute of Geographic Information Science at Kongju Nat'l University in Korea. He has published more than 25 papers in reputed journals and he is serving as an editorial board member of reputed.

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