© Kamla-Raj 2014 PRINT: ISSN 0973-5070 ONLINE: 2456-6772

## Noise Pollution and Human Health in Trabzon Parks

Ethno Med, 8(2): 127-134 (2014)

DOI: 10.31901/24566322.2014/08.02.03

Buket Ozdemir<sup>1</sup>, Elif Bayramoglu<sup>2</sup> and Oner Demirel<sup>3</sup>

Forestry Faculty, Department of Landscape Architecture, Karadeniz Technical University, 61080 Trabzon, Turkey

E-mail: 1<buketozdemir@hotmail.com>, 2<elifsol\_@hotmail.com>, 3<odofe01@yahoo.com>

KEYWORDS Traffic Noise. Plant Barriers. City Parks. Public Health

ABSTRACT Since the 1980s, rapid and unplanned urbanization has caused environmental pollution. It is accepted that noise pollution has a major impact on health, such as physical, physiological, psychological and performance-related effects, all over the world. This paper provides an evaluation of noise pollution in three urban parks in the city of Trabzon, located in the north-eastern part of Turkey. Equivalent noise point levels were measured during a 3-minute spread at each park. Measured values were compared with national legislation (Law: 60) allowed limits, and the parks were thus classified as either "acoustically polluted or unpolluted." Urban parks in Trabzon's city center, surrounded by roads with heavy traffic and intense commercial activities, do not satisfy any of the standards used. The most noise-polluted parks in Trabzon were the Meydan Park, Atapark and Fatih Park with measured Leq of dB (A) Meydan park (63.74), dB (A) Atapark (64.15) and dB (A) Fatih park (64.67). This paper examines the opportunity of using plant material (Syringa vulgaris, Viburnum lantana and Acer pseudoplatanus) to minimize noise to acceptable levels in the three urban parks located inside Trabzon's city center. At the end of this examination, it was concluded that is possible to reduce noise to acceptable levels in all three parks, by using green barriers decorated with plant material. In this way, the noise level was reduced, which will have a positive effect on human health.