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**Geographical Aspects of People's Safety at Water Areas
on the Basis of Drownings in West Pomeranian Voivodeship**

Doctoral dissertation (abstract)

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The research subjects presented in the doctoral dissertation are natural, spatial and social safety aspects of people at water areas in West Pomeranian Voivodeship between 2011 and 2015. In the dissertation, the following aspects have been taken into consideration: climatic, hydrological, demographic, spatial, functional, legal and medical factors as well as established institutional and organizational solutions in terms of functioning of designated water areas.

The aim of the study was to portray and explain the complexity of the phenomenon of drowning. The basis for achieving the research purpose was the original research instrument, which allowed to identify different aspects of drownings as a measure of security threat to people staying at water areas, and particularly to determine the most vulnerable areas, types of water reservoirs and groups of people in West Pomeranian Voivodeship. The main research question was how natural, spatial and social factors influenced the number and distribution of drownings.

Achieving the defined aim of the dissertation was possible due to using instruments of spatial analysis and a descriptive statistics method. Processing of database of drownings based on National Police Information System and Geographic Information System was of particular importance. This allowed to present drownings in spatial terms and to set new indicators to assess drownings in water areas.

The main hypothesis of the dissertation has been formulated as follows: existing natural, spatial and social conditions conduce to drowning in West Pomeranian Voivodeship. Drownings may occur more often in certain weather conditions and types of water areas. With the aim of detailed verification of such formulated a hypothesis, a series of research questions has been formulated. They contained references to criteria concerning the structure of drownings according to demographic and geographical

criteria. Research questions also related to spatial diversity and variability of drownings as well as characteristics of drownings occurrence in particular places and geographical environment. The author's proposition of model profile of those drowning victims in West Pomeranian Voivodeship has been presented.

As a result of research and analyses, formulated hypotheses, regarding the occurrence of convergence between drownings and natural, social and spatial variables, have been verified. Spatial analysis of density allowed to depart from the point distribution of drownings which enabled highlighting the areas where there is a higher risk of drowning occurrence. It has been stated that the identified areas of an increased risk of drowning may be associated with not only calendar years, but also meteorological seasons, especially meteorological summer, and even division into weekdays and weekends.

Simplified profiles of drowning victims have been created (the so-called "tourist, inhabitant and angler"), which may form the basis for further works related to the improvement of research on drowning processes in the West Pomeranian Voivodeship.

Conclusions in the dissertation have also shown the lack of systemic solutions in the aspect of water safety and geographical conditions. The research results presented in the dissertation may lead to a better understanding of the phenomenon and the character of drowning not only in West Pomeranian Voivodeship, but also in whole Poland. Recommendations concerning the systemic reduction of drowning were formulated for the government and local administration as well as for subordinate services responsible for measures concerning safety of people in water areas.

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