

## **Rozdział XIV. Abstract**

Physical recreation of the mountains has been gaining more enthusiasts each year. Every year new tourist and recreational products are created due to the growing number of practitioners. The products provide an opportunity to satisfy the needs related to active recreation, as well as to develop the tourist potential of particular areas.

### **Objective**

The aim of the study is to create recreational trails of the mountain ranges of the Western Sudeten. Loads of physical effort in particular forms of physical activity, such as running, cycling and walking were taken into account. Based on that, the doctoral thesis presents the influence of the environmental conditions of the studied area on the physical effort of a human being.

### **Methodology**

The trading point method for the needs of physical recreation was used in the studies concerning the assessment of the natural and anthropogenic environment of the Western Sudeten. The most attractive places, in terms of physical recreation in the particular ranges of the Western Sudetes, were distinguished on the basis of the created bonding maps.

The research on the measurement of energy expenditure was conducted. It involved 241 people, including 100 women and 141 men. These studies were conducted in the Western Sudeten in the years 2014-2017 during amateur running and cycling competitions and walking trips of the 'Sudeten Guides' Students from Wrocław. The amount of energy expenditure was measured by using Caltrac™ accelerometer.

Furthermore, 623 people, 237 women, and 386 men took part in the diagnostic survey using a questionnaire. The questionnaire was used to study the opinions and conditions of people connected with physical recreation in mountain areas with particular emphasis on the Western Sudeten. The survey was conducted directly. The documents were distributed to participants of amateur running and cycling competitions organized in the Western Sudeten, as well as participants of walking trips of the Sudeten guides.

## Results

The final results of the work are summarised in the proposed recreational trails. The concluding classification of trails is prepared on the basis of the results of environmental valorisation of particular ranges of the Western Sudeten, opinions of respondents and results of measurement of energy expenditure. Twenty-three recreational trails were marked out in the area of the four studied ranges in the Western Sudeten. The planned trails contain information about the expected energy expenditure and the level of the intensity of physical effort taking into account such forms of physical recreation as running, cycling and walking. Presented work includes information about the level of difficulty of the trail in terms of the intensity of physical effort. It allows for the selection of the trail in terms of the needs and capabilities of the particular person.

## Conclusion

The development of recreational trails in the Western Sudeten requires a comprehensive research procedure in terms of the difficulty level. The surveys show differences in the intensity of tourist traffic between the particular mountain ranges of the Western Sudeten, on behalf of the Giant Mountains and the Jizera Mountains. This is influenced by the conditions of developing tourism, especially accommodation, catering, and transport infrastructure. The main factor which determines the participation in mountain recreation is an aesthetic experience - it relates to contemplating the mountain landscape. In the studied groups, on average, men are characterized by a higher degree of general physical fitness than women due to greater tolerance to long-term and intensive physical activity. The distance has the greatest influence on the value of energy expenditure in both sexes, whereas elevations dominate in cycling, among both women and men. Furthermore, body weight has a significant impact on the value of energy expenditure among individual traits. Between jogging, cycling and walking practiced in mountain conditions, jogging is characterized to have the highest intensity of physical effort.

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