

LETTER TO THE EDITOR**Construction of Ecological Population Layout
Planning Model for Urban Residents' Fitness**

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Studying the incremental data of the ecological environment is of great significance to the real-time update of the ecological environment database and ecological monitoring. Aiming at the problems of low efficiency and low accuracy of traditional incremental data extraction methods, an incremental big data extraction algorithm for ecological environment under cloud computing is proposed. The attribute correspondence between the ecological environment source database and the target database is analyzed, and the massive ecological data is discretized. The key attributes of the ecological environment data are extracted by n-pattern. According to the extracted results, the LC increment is adopted. The extraction method is used to establish a temporary table, and the ecological environment data is analyzed by using cloud computing, and the ecological environment data is extracted in three operations according to the data in the temporary table. The experimental results show that the data extraction accuracy of the proposed algorithm can be as high as 90%, and the data extraction efficiency is high, which provides a reference for the in-depth study of the ecological environment.

fitness; ecosystem; Layout planning

1 INTRODUCTION

With the continuous development of society, people are not only satisfied with eating and wearing warmth, but also put forward higher requirements for self-health. In June 1995, the State Council officially issued the Outline of the Urban Residents' Fitness Program, which was implemented in the second phase. From the year 2000 to 2010, the second phase of the project will raise the urban residents' fitness work to a new level and basically build a fitness system for urban residents with Chinese characteristics (Dyer, 2018). From the reality, to achieve this goal will be affected by many factors, such as economic conditions, venue facilities, sports culture atmosphere, etc., these factors belong to the scope of sports ecological environment. These factors play an increasingly important role in the development and promotion of urban residents' fitness. To solve the problem of sports ecological environment, urban residents' fitness can be developed. Therefore, studying the relationship between sports ecological environment and urban residents' fitness and its impact on urban residents' fitness activities has great practical significance for strengthening the construction of sports ecological environment and promoting urban residents' fitness.

Zhou et al. 2019 published an article titled: “Spatial Effects of Environmental Regulation on Regional Ecological Efficiency” in the journal Ekoloji's 2019 Issue 107. This paper uses panel data from 30 provinces in China from 2005 to 2014 to estimate China's regions through a data envelopment analysis (DEA) model. The level of ecological efficiency, using ArcGIS software to explore regional ecological spatial distribution, and further analysis of the reasons for regional differences in ecological efficiency levels through the ecological efficiency boundary map, to study regional spatial correlation. Environmental regulation is based on global spatial correlation and local spatial correlation. Finally, the spatial Durbin model is used to test the impact of technological innovation and environmental regulation on regional ecology. The results show that there are obvious global spatial correlation and long-term stability of environmental regulation in various regions of China; there is a “U”-type nonlinear relationship between environmental and ecological efficiency levels; environmental regulation has a negative impact on ecological efficiency; environmental regulation has ecological efficiency It has a certain spatial spillover effect, but the spatial spillover effect is not obvious. The results show that through a certain degree of environmental regulation, the regional ecological efficiency level can be improved, and the regional spatial effects of environmental regulation and its inevitable relationship with economic development can be fully considered to achieve the correct purpose. Based on this document, a planning model for the ecological environment layout of urban residents' fitness is established.

2 IDEA DESCRIPTION

2.1 Definition of sports ecological environment

The sports ecological environment can be understood as: a multi-dimensional space and a pluralistic environmental system that plays a role in restricting and regulating the generation, existence and development of sports with sports as the center (Dyer, 2018). It is a complex of natural environment and social factors, physical factors and spiritual factors.

Ecological environment. As a system, the sports ecological environment has the characteristics of the system. At the same time, the sports ecological environment is a dynamic open system, which consists of multiple subsystems or elements. If classified according to different causes, the sports ecological environment system includes the sports natural environment system and the sports social environment system (Rudolph, 2017). Among them, the sports natural environment system includes the atmospheric environment, the water environment (water, ice, snow), the terrestrial environment, the noise environment, the biological environment, and the like. The physical environment of sports provides physical conditions such as sports operations, development sites, and materials. The operation and development of sports should strive to maintain harmony and consistency with the natural environment, and not only give full play to people's subjective initiative, but also follow the laws of nature. The sports social environment system includes the political environment (including policies, regulations, systems, etc.), the economic environment (including economic development patterns and levels), and the human environment (including culture, science, education, information, etc.). In fact, what really determines the operation and development of sports is the sports social environment. The political environment plays a guiding and guarantee role for the operation and development of sports. The economic environment is the foundation and the human environment is an important factor (Rehfeld et al, 2017).

2.2 Relationship between sports ecological environment and urban residents' fitness

People's life is inseparable from the environment, physical exercise is inseparable from the environment, and urban residents' fitness exercise is to seek a good sports ecological environment. In today's constantly evolving and changing world, people have a higher level of demand for physical exercise. From a certain angle, the sports ecological environment reflects people's new concept of urban residents' fitness and exercise. The new thinking is that people conform to the requirements of freedom, harmony and unity of the social environment and the natural environment. The sports ecological environment realizes the harmonious unity between man and nature while satisfying people's integration into the natural environment. Enjoy the sun and enjoy the evolution of fresh air, not only exercise the body but also cultivate the soul. Facing the pressure brought by society, work and life, we are more willing to enjoy the quiet space away from the hustle and bustle of nature (Hollins et al, 2017). At the same time, people's understanding of themselves has been strengthened. At the same time, there are many requirements for the exercise environment. To meet their own exercise needs, the sports ecological environment has been protected. Therefore, the urban residents' fitness is constantly affecting the sports ecological environment. New changes have taken place, and a good sports ecological environment has emerged as the times require (Livesley, 2016, Shi 2017; Guang et al. 2016).

2.2.1 Relationship between natural environment and urban residents' fitness activities

First of all, a good physical environment is a must for fitness activities. As the name suggests, fitness activities are to enhance physical fitness, balance physical and mental balance, and ultimately achieve the purpose of longevity. Therefore, participants in the fitness activities will pay close attention to the surrounding natural environment, and naturally choose a beautiful environment, fresh air park green space, community stadiums or away from the hustle and bustle of the city to the countryside to exercise. In the natural environment with serious pollution and bad weather, the final result is not health, but physical and mental harm. In recent years, the state has attached great importance to the construction of the ecological environment, and has achieved initial results, providing a necessary good natural environment for sports for urban residents. Secondly, another important aspect is that people can actively accept the influence of the environment and give full play to their wisdom and creativity, constantly optimize the natural environment of sports, and realize the purpose of serving the sports natural environment for sports goals. In order to improve the natural environment of mass sports activities and promote the implementation of urban residents' fitness programs, the Chinese government has designed a distinctive "urban residents fitness path" and "green fitness castle" based on the national conditions, which covers a small area. It is suitable for local conditions, simple and easy to build, low investment, beautiful and practical, convenient for the masses, suitable for all ages, and has strong scientific, interesting and fitness characteristics. These public sports facilities have greatly stimulated the participation of the masses. Enthusiasm. Of course, while people are physically fit, they will also have a negative impact on the natural environment to a certain extent. Therefore, while encouraging urban residents to exercise, we must also fully consider environmental protection issues and take relevant measures to implement environmental protection work. In short, we must always establish an environmental awareness and health-oriented philosophy.

2.2.2 The relationship between social environment and urban residents' fitness activities

The human environment includes two levels: "hard environment (material environment)" and "soft

environment (mental environment)". "Hard environment (material environment)" mainly refers to various cultural construction facilities that serve human beings, such as per capita living area, green coverage rate, air purification rate, per capita possession of science, education, culture, health and sports facilities, and even relevant government investment. "Soft environment (spiritual environment)" from the social level, the specific performance is open cultural vision, optimistic and enterprising attitude, clear personality, healthy personality, deep sense of culture, strong sense of belonging, Strong human emotions and social responsibility, collective identity and so on. The sports human environment refers to various social and cultural factors that affect the main body of sports. Sports is a social practice of people. Different human factors restrict and influence the operation and development of sports at different levels, and also affect the development of urban residents' fitness.

3 RESIDENT FITNESS SPORTS ECOLOGICAL ENVIRONMENT LAYOUT PLANNING MODEL

According to the relationship between the natural environment and the urban residents' fitness activities and the relationship between the social environment and the urban residents' fitness activities, the urban residents' fitness sports ecological environment layout planning model is established. Adopting the method of segmented sample test to realize the coordinated development of residents, ecological environment and fitness exercise, and extract the information of urban residents' fitness exercise $v_i(x)$, Characteristic decomposition of urban residents' fitness information $\nabla^2 v_i(x)$, design an ecological environment layout planning model, Get the benefit intensification function of residents' fitness and ecological environment layout planning $S(x)$:

$$S(x) = \sum_{i=1}^N v_i(x) \nabla^2 v_i(x) f$$

In the middle, for the fuzzy related feature points of residents' fitness and ecological environment layout planning, the paper analyzes and realizes the construction of the resident fitness sports ecological environment layout planning model.

4 SUGGESTIONS ON STRENGTHENING THE SUSTAINABLE DEVELOPMENT OF THE COMPREHENSIVE FITNESS SPORTS ECO-ENVIRONMENT

Urban urban residents' fitness and ecological environment construction has a long way to go. It is necessary to build high-rise buildings, enhance ecological awareness, and do a good job in basic work. According to the resident fitness sports ecological environment layout planning model, the following suggestions are proposed to strengthen the sustainable development of the comprehensive fitness sports environment:

4.1 System construction urban sports ecological environment

The sports ecological environment is a subsystem of Henan sports ecosystem. The construction and development of sports ecological environment should establish a systematic viewpoint, build a sports ecological environment from the whole, coordination, level and dynamics, and realize sports through the system construction of sports ecological environment. Sustainable development. In the process of urban over-design, pay attention to environmental protection requirements. Stadium

facilities should be selected in a place with convenient transportation, and try to stay away from areas that may cause pollution. In some cities, some environmental protection measures are taken to reduce pollution sources. Enhance the environmental awareness of community residents and establish a scientific fitness method. Use various forms to promote environmental protection related content and improve the environmental awareness of the whole society

4.2 Improve organizational leadership and improve laws and regulations

The first is to strengthen leadership. Leaders at all levels have raised awareness of the importance of the construction of sports ecological environment, and adopted it as a carrier to implement the national fitness plan and increase the sports population. The implementation of the development of community sports investment funds, that is, the government should gradually increase the mass sports expenses, the sports department to adjust the structure of sports expenditures, and gradually increase the proportion of the mass sports expenses in the budget. The second is to speed up the pace of legislation. Laws and regulations are a kind of behavioral norms that guide people's social behaviors. On the one hand, they give the actors a compulsory social constraint, on the other hand, they also establish a behavioral order for people's behaviors, and thus make people's behaviors certain. The rules and orientations promote people to consciously prevent "crimes" of behavior. Third, the sports administrative department is responsible for organizing the implementation and promoting the balanced development of sports venues in various regions.

4.3 Strengthen the construction of venue facilities and optimize the sports ecological environment

Sports venues, venues, equipment and facilities are the basic material guarantee for sports. The construction and layout of sports should be reasonable. The internal and external spaces can be used rationally. The air should be circulated, the light should be bright, and all kinds of equipment should be adequately supplied. At present, the sports facilities in Henan Province are obviously insufficient. The construction and use of sports facilities must be coordinated with the development of the community. First, reasonable indoor sports facilities should be built between parks, idle open spaces and buildings in the community to improve the utilization rate of sports units in each unit. The second is to open up existing sports venues and actively strive to provide a harmonious sports environment and continuously improve the management level of environmental protection and facilities. The third is to increase funding, speed up the construction of sports facilities, and build a number of convenient, practical, small and diverse sports venues. The fourth is to build a number of fitness paths with small, convenient, flexible and interesting space to provide residents with a harmonious sports and fitness environment.

4.4 Improve the quality of sports workers and strengthen the construction of ecological sports culture

The improvement of the cultural quality of sports workers is conducive to raising the cognitive level of the sports ecological environment and is conducive to the formation of a good sports ecological environment. Highlight the cultural atmosphere of ecological sports and attract the masses to actively participate in sports and cultural activities and construction. Using radio, television, newspapers, warning signs, etc. to widely publicize the knowledge and methods of ecological sports, organize sports practitioners to carry out various types of ecological sports activities; organically combine ecological sports construction and ecological community construction, and integrate sports

ecological environment construction into ecology The fast lane of social development ensures the good operation of ecological sports.

5 CONCLUSION

The urban residents' fitness and ecological environment is part of the overall ecological environment of China, and the two influence each other. The changes in China's ecological environment have led to changes in the ecological environment of urban residents' fitness, and the changes in the ecological environment of urban residents' fitness have in turn applied to China's ecological environment. While perfecting the supporting facilities for fitness and sports, it will meet the needs of the masses for sports, leisure, recreation, physical and mental health and overall development of the individual, guide urban residents to participate in fitness activities more extensively, vigorously promote urban residents' fitness programs, and promote sportsmanship. The spread among the masses creates a good atmosphere for the arrival of the next National Games. In the face of opportunities, mass sports should take advantage of the trend and take advantage of the development of the situation to make the mass sports form a good development trend.

REFERENCES

- Dyer O (2018) Trump appoints “Dr Oz” to fitness, sports, and nutrition council. *BMJ* 361:k2067.
- Guang Y, Ge S, Han L (2016) The development of ecological environment in China based on the system dynamics method from the society, economy and environment perspective. *Journal of Environmental Biology* 37(1): 155-162.
- Hollins R, Hoffmann S, Sanders N, et al (2017) The development and evaluation of a fitness test for wheelchair-based court sports. *Journal of Science and Medicine in Sport* 20:28.
- Livesley SJ, Mepheron GM, Calfapietra C (2016) The Urban Forest and Ecosystem Services: Impacts on Urban Water, Heat, and Pollution Cycles at the Tree, Street, and City Scale. *Journal of Environmental Quality* 45(1):119.
- Rehfeld K, Müller P, Aye N, et al (2017) Dancing or Fitness Sport? The Effects of Two Training Programs on Hippocampal Plasticity and Balance Abilities in Healthy Seniors. *Frontiers in Human Neuroscience* 11: 305.
- Rudolph S (2017) The connection between exercise addiction and orthorexia nervosa in German fitness sports. *Eating and Weight Disorders - Studies on Anorexia, Bulimia and Obesity*:1-6.
- Shi S (2017) Performance evaluation of urban ecological environment construction with interval-valued intuitionistic fuzzy information. *Journal of Intelligent and Fuzzy Systems* 32(1): 1119-1127.
- Zhou Y, Tian G, Cai D (2019) Spatial Effects of Environmental Regulation on Regional Ecological Efficiency. *Ekoloji* 28(UNSP e107403107): 3605-3616.