

# СЪВРЕМЕННИ ТЕНДЕНЦИИ НА ФИЗИЧЕСКОТО ВЪЗПИТАНИЕ И СПОРТА



**Направления:**

1. *Физическото възпитание, спортът и рекреацията в образователната система*
2. *Рекреацията, анимацията и спортът в свободното време – превенция за здраве*
3. *Теория и методика на физическото възпитание и спорта*
4. *Връзка на физическото възпитание и спорта с други дейности и научни области*

ДЕСЕТА  
МЕЖДУНАРОДНА  
НАУЧНА КОНФЕРЕНЦИЯ

# СЪВРЕМЕННИ ТЕНДЕНЦИИ НА ФИЗИЧЕСКОТО ВЪЗПИТАНИЕ И СПОРТА

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Международната научна конференция **„Съвременни тенденции на физическото възпитание и спорта“** се провежда за десета поредна година под ръководството на проф. Анжелина Янева. В юбилейната конференция са представени 57 бр. доклади от 72 бр. автори от България, Казахстан, Македония, Русия и др.

Идеята за научната конференция се заражда през 2008 година, след участието на екип от преподаватели от Департамента по спорт (А. Янева, Е. Йорданов и Е. Михайлова) в няколко научни конференции, но реално се осъществява през 2009 г., под ръководството на Анжелина Янева и подкрепата на директора, по това време, на Департамента по Спорт – доц. д-р Емил Прокопов и ректорското ръководство.

Първата Международна научна конференция **„Оптимизация и иновации в учебно-тренировъчния процес“** се провежда и с подкрепата на проф. дпн Емилия Рангелова от Факултета по педагогика и проф. Димитър Гюров от Факултета за начална и предучилищна подготовка, днес Факултет по науки за образованието и изкуствата, както и със съдействието на учени от други факултетите на СУ и други Университети в България, като доайена на Теорията и методиката на физическото възпитание – проф. дпн Крум Рачев.

През годините Конференцията се провежда с финансовата помощ на Университета чрез участие по Проект по Наредба № 9, за финансиране на научната дейност на Софийския университет „Св. Климент Охридски“.

През 2011 г. наименованието на конференцията е променено на **„Съвременни тенденции на физическото възпитание и спорта“**, със следните направления:

1. *Физическото възпитание, спортът и рекреацията в образователната система;*
2. *Рекреацията, анимацията и спортът в свободното време – превенция за здраве;*
3. *Теория и методика на физическото възпитание и спорта*

Тези три направления разкриват същността, характера и смисъла на Физическото възпитание и спорта.

Направленията, обхващат дейности, които формират у личността физическа възпитаност и култура, стремеж към физическо и здравословно развитие, афинитет към физическо, психическо и емоционално съвършенство, желание за физическа подготвеност и физическа дееспособност.

През 2016 г. в резултат на повишения интерес на учени и педагози от други научни области към физическото възпитание и спорта се въведе четвърто направление: **„Връзка на физическото възпитание и спорта с други дейности и научни области“**. Това направление разкрива широкомащабността на феномена – **„Физическо възпитание и спорт“**.

Значителният интерес към конференцията през годините се потвърждава от участието на автори от над девет страни – България, Казахстан, Албания, Македония, Турция, Сърбия, Русия, Полша, Румъния и др. и публикувани над 450 доклада.

Докладите, презентирани през годините са показател, не само за високото ниво на научната конференция, но и за съпричастността към каузата на Физическото възпитание и спорта, а темите, разисквани на организираниите кръгли маси са индикатор за съществуващите проблеми, които не трябва да се отлагат.

Настъпилите промени след 1989 година създадоха условия за ликвидирането на спорта в България, в резултат на което болестите, депресията, демотивацията и жестокостта се настаниха трайно в живота на хората.

Докладите от научния форум не само отразяват състоянието и статута на спорта и нацията, но те са призив към българските държавници, отговорни към гражданите на България.

Необходима е кардинална промяна на досегашния подход към спорта и образователната система, без която е немислим напредъкът на държавата.

*проф. д-р Анжелина Янева*

**ВРЪЗКА НА ФИЗИЧЕСКОТО  
ВЪЗПИТАНИЕ И СПОРТА С ДРУГИ  
ДЕЙНОСТИ И НАУЧНИ ОБЛАСТИ**

# РАЗДЕЛ И ФУНКЦИОНАЛНИ ХАРАКТЕРИСТИКИ НА ПЛАНИНИТЕ В РЕПУБЛИКА МАКЕДОНИЯ ЗА ОТДИХ, ПЛАНИРАНЕ, СПОРТ И АКТИВНО СВОБОДНО РАЗНООБРАЗИЕ

НИКОЛА ДИМИТРОВ, БИЛЯНА ПОПЕСКА, ЦВЕТАНКА РИСТОВА

DIMITROV, V. NIKOLA, POPESKA BIJANA, RISTOVA CVETANKA. DIVISION AND FUNCTIONAL CHARACTERISTICS OF THE MOUNTAINS IN THE REPUBLIC OF MACEDONIA FOR RECREATION, MOUNTAINEERING, SPORTS AND ACTIVE LEISURE

*Абстракт:* Съвременният начин на живот и работа е причинил радикални промени в характера, начина на живот и особено в организацията на свободното време и почивката на хората. Добър пример за качествен начин на живот е практикуването на активна почивка чрез отдих, планинарство и спорт. Република Македония изобилства с планини и хълмове за реализиране на различни програми за активен отдих чрез спорт, отдих, планинарство, туризъм, бягане, колоездене, плуване, ски и други дейности. Представената книга изработва няколко класификации на планините в Македония въз основа на различни критерии, както и възможностите, които предлагат от гледна точка на развитието на спорта, отдиха и туризма.

**Abstract:** The modern way of life and work has caused radical changes in the character, the way of life, and especially in the organization of leisure time and rest in people. A good example of a quality way of life is practicing an active rest through recreation, mountaineering and sports. The Republic of Macedonia abounds with mountains and hills for realization of various programs for active recreation through sports, recreation, mountaineering, hiking, running, cycling, swimming, skiing and other activities. The presented paper elaborates several classifications of the mountains in Macedonia based on different criteria as well as the possibilities that they offer from the aspect of development of sport, recreation and tourism.

*Ключови думи:* планина, отдих, спорт, дейности за свободното време, Република Македония

**Key Words:** mountain, recreation, sports, leisure time activities, Republic of Macedonia

## Introduction

The states that are privileged to have mountains must create conditions for recreation and other sport activities in the countryside. The Republic of Macedonia is precisely such a state (hilly and mountainous) that creates conditions through various activities of the population to live in nature. Namely, most of the territory of the Republic of Macedonia covers the mountains with an area of 11,044 km<sup>2</sup> or 42,95%, followed by the hills with 9,769 km<sup>2</sup> or 37,99%, and plains with 4,900 km<sup>2</sup> or 19,06%. According to the data, the Republic of Macedonia is a mountainous country with a share of 81%, and an average altitude of 829 meters.

The mountains are found across all parts of the country. According to the structure of the areas, the hill-mountainous land occupies an area of 23,713 km<sup>2</sup> (92,2%), and the plain land of 2,000 km<sup>2</sup> (7,8%). The layout of the surfac-



es according to the altitude: up to 200 m. 2,89%; from 200-500 m, 22,45%; 500-1000 m, 44,02%; 1000-1500 m., 22,23%; 1500-2000 m., 6,94%; over 2000 m., 1,37%. Summarized up to 500 m a.s.l., the land covers an area of 6513,72 km<sup>2</sup> or 25,34% and from 500–over 2764 m a.s.l. is 74,66%.

In addition to the stated indicators for the mountainous-hill landscape and practicing activities for recreation of the population in the nature, it is confirmed by the existence of the Federation of mountain sports, the existence of several mountaineering societies, mountaineering homes, bicycle federation, Macedonian alpine federation, hiking trails, more laws, rulebooks, etc.

### **Division of mountains by altitude**

According to the height, the mountains in the Republic of Macedonia are divided into several categories: high (with over 2,000 m a.s.l.), medium (from 1,000 to 2,000 m) and low (below 1,000 m a.s.l.). According to the age of occurrence, they are divided on old and young mountains. The number of mountains in the Republic of Macedonia is 80, of which 13 are high, 50 medium and 17 low mountains. The high mountains cover an area of 8194,2 km<sup>2</sup>, of which the largest area is Jakupica Mountain with 1672,8 km<sup>2</sup>, Osogovo Mountains with 1167,2 km<sup>2</sup>, Shar Planina with 912,8 km<sup>2</sup>, etc. The average height of the high mountains is 2185 meters. The Republic of Macedonia has over 250 characteristic peaks, 221 of which are higher than 2,000 m a.s.l.. Especially the high mountains provide wonderful conditions for mountain hiking, climbing, rock climbing and other extreme sports (example: Paragliding).

Based on detailed scientific studies, it has been established that in the high mountains, a total of 30 winter and sports centers with total deviation (height difference) can be formed on the ski trails of 115 km. With the application of international standards for the use of ski trails (on 1 m deviation one skier can ski), the maximum capacity of all 30 winter sports centers is about 115,000 skiers who can ski at the same time. If we add to this the number of non-skiers, one per skier, then there is a figure of 230,000 tourists who are staying at the same time.

The only mountain in the Republic of Macedonia on which the largest number of winter sports and mountain centers can be formed is Shar Planina near Tetovo. There are conditions on this mountain to build 8 ski resorts. The total length of all ski trails on the Shar Planina is 48 km. Second one, according to the possibilities for development of mountain sports is Baba Mountain located near Bitola with the peak Pelister. On this mountain, 5 winter sports centers can be built, with a total length of 22 km ski trails. Other planned winter skiing centers are located on Bistra, Galichica, Osogovo Mountains, Nidze, Stogovo, Jablanica, Jakupica, Deshad, Korab, Suva Gora, Plachkovitsa, Busheva, Belasica and others.

Despite all above listed, today there are only 7 winter sports centers that are functioning. They are following: Shar Planina, Ski Center „Popova Shapka“ at 1,700 m a.s.l.; Bistra Ski Center „Zare Lazarevski“ – Mavrovo 1,255 m a.s.l.; on Baba Mountain with Pelister, Ski Center „Kopanki“ 1,420 m a.s.l. and the second location ZLTC „Pelister“ with „Ski lift“ 1,300 m a.s.l.; on Busheva Mountain „Ski Center Stanich“ in Krushevo; on Kozuf „Ski – Kozuf“; and the Osogovo Mountains ZC „Ponikva“ at 1,560 m a.s.l.. [9]. Beside this, in Republic of Macedonia also exist smaller winter sports centers have lesser local significance and some have ski lifts and ski trails. Such centers are Vishnas of Jablanica Mountain and Golak near Delchevo and others.

The second group of the mountains in the Republic of Macedonia is the middle – high mountains whose height range is from 1,000 to 2,000 m a.s.l. and these mountains are distributed throughout the territory of the country. Their total number is 50. This group of mountains also has good conditions for developing summer and winter sports activities. According to scientific research in these mountains, from 75 to 80 tourist sites can be formed [6,8]. From the medium mountains for mountaineers, quite attractive are Busheva Mountain, Vodno, Skopska Crna Gora, Babuna and Ilinska Mountain. Busheva Mountain is attractive due to the city of Krushevo as a winter center. Vodno and Skopska Crna Gora due to the immediate vicinity of Skopje and therefore are often visited. Babuna Mountain is visited by climbers and visitors from Prilep, and Ilinska and Plakenska Mountain due to the attractive panoramas to Ohrid and Prespa Lake, and the monastery St. Elijah [1,2].

The number of low mountains or mountains below 1000 m a.s.l. is 17. This group includes following mountains: Plaus, Smrdes Mountain, hill Novo Selsko, Zmieva Hollow, Mangovica, Gradishtanska Mountain, Venec, Kruška, Ruen, Lanishte, Crni Vrv, Bogoslovec, Boska, Karabaliya or Dojranski hill, Stanevski Orman, Ilindza and Ljuba Mountain.

### **Division of mountains, according to functional characteristics**

The mountains in the Republic of Macedonia have various natural dispositions for excursion, recreation, mountaineering, sports activities, promotion of tourism and active lifestyle. From a tourist point of view, based on several functional characteristics, the mountains can be distinguished and grouped into three groups:

- Excursion recreational mountains,
- Sports manifestation mountains and
- Mountains of combined significance.

Excursion recreational mountains are located in the immediate vicinity of the cities, which are mainly the emitting environments in our country. Given the proximity, these mountains have tourist and recreational signifi-

cance. Such mountains are: Shar Planina – Tetovo, Krchin – Debar, Jablanica – Struga, Galichica – Ohrid, Baba – Bitola, Resen – Bigla, Vodno – Skopje, Plachkovica – Stip, Belasica – Strumica, Osogovo Mountains – Kriva Palanka, Dren Mountain – Prilep, Bistra – Kicevo, Kozuf – Gevgelija and others.

In the Republic of Macedonia, a large number of trails for walking and sightseeing are marked, besides from the cities, starting from the rural settlements, in the surrounding mountains. We list only some of the tourist and recreational paths for hiking and sightseeing which start from rural settlements to certain localities, for example: Brajcino, Vevcani, Vishni, Goran Belica, Staravina, Skocivir, Smolare, Bansko, Mokrino, Kolesino, Galichnik, Lazaropole, Rostusha, Zrnovci, Capari, Rotino, Malovishta, Slivnica, Smilevo, Konjsko, Kalista-Radozda and so on. In this regard, it's worth to be noted that a large number of marked trails need renewal and new marking, but unfortunately this is a little bit difficult because of the financial issues.

Sport manifestation mountains are mountains on which winter sports events are organized (Sharplanin Cup – international FIS race in slalom, giant slalom, FIS snowboard cup, Mavrovo memorial in Nordic running, Pelister giant slalom, etc.). At the time when the manifestations are held, the number of visitors increased several times more than on the days when there is no manifestation event. This group includes following mountains: Shar Planina and Bistra in the western and northern part, the Osogovo Mountains in the east, and the Baba and Busheva Mountains in the southwest part of the Republic of Macedonia.

The mountains with combined importance are the mountains that are close to the emitting places, but also own such valuable tourist motives that are attracting tourists from the wider region. Usually these mountains are used by the population for picnics and recreation, given the proximity of the permanent place of residence. Competitions of national and international character can be held in these mountains. These are a larger number of mountains in the country, where, among sports, cultural and other manifestations in their mountainous neighborhoods (Galichnik Wedding, Vevcani Carnival, Caparski Carnival, Mokrinski Meetings, Brajcino, Ljubojno, Rostusha, Smolare, Koleshino, etc.) are held.

In addition to the mountains and mountainous passes that allow connection between the valleys and the mountains, as places with good communication connection, they also have a good location for small commercial gastronomic objects – restaurants, construction of sightings and other accompanying contents. Therefore, the passes, along with the communication value, also acquire additional value – a tourist hospitality value. The number of mountain passes in the Republic of Macedonia is about thirty (Pletvar, Gjavato, Bukovik, Livada, Jama, Turla, Tribor, Sliva, Prevalec, Preslap, Kula, Barbaras, Vrsnikol, Luki, Patrik, Valamat, Jakus, Suvi Laki, Karaula, Kosturino, Golashe, etc.), of which are known: Guard at 1,210 m a.s.l., Preseka 1,150

m a.s.l., Bukovo 1,180 m a.s.l., Prasad 1,169 m a.s.l. and Pletvar at 998 m a.s.l., Bukovo 1,180 m a.s.l., Prasad 1,169 m a.s.l. and Pletvar at 998 m a.s.l..

Considering the large number of mountains in Macedonia, it has great potentials for mountain tourism. There are 75 tourist sites in the mountains in our country, and 35 of them have potential opportunities for tourism. In function of mountain tourism are: active ski resorts (7), mountain hotels (45), mountain weekend settlements (8), mountaineering homes (36), mountain children's resorts (4), mountain, alpine sports associations and clubs (80) and mountainous settlements with over 1000 m a.s.l. (188 settlements). Mountain tourism is developed and realized at following mountains: Shar Planina, Bistra, Baba Mountain with Pelister, Jakupica, Jablanica, Korab, Galichica, Kozuf, Nidze, Plachkovitsa, Osogovo Mountains, Maleshevski Mountains, Belasica, Stogovo, Buseva, Babuna, Ilinska Planina and others.

Famous sites for mountain tourism are:

- On Shar Planina: Popova Shapka, river Patishka, Leshnica, Three Waters, Black Peak, Rudok, Bristovec, Ljuboten and others;
- On the Baba Mountain with Pelister: Begova Tap, Children's resort, Kopanki, Shiroka, Marushica, Veliko Lech, Nizhopole, Neolitsa;
  - Bistra: Mavrovo, Bunec, Leunovo, Lazoropole, Galichnik;
  - On Jablanica: Labuniski Bacila, Gorna Belica, Cherry;
  - Jakupica: Non-zhilovo, Cheples, Solunska Head, Kitka;
  - Localities of other mountains: Ponikva, Golak, Magaro, Kajmakchalan, Lisets, Kalin Kamen, Konsko, Ilina Church and others

### **Most frequent activities in the Macedonian mountains**

Mountaineering is a broad term that covers all human activities related to movement and stay in the mountain. Mountaineering is not aimlessly wandering around the uninhabited landscapes and conquest of rocks, but the way and style of life, a great deal of activities that the modern man deals with in order to live healthy and beautifully. Walking in nature, socializing and the movement of pure mountain air is an active form of rest that the mountaineers fulfill with pleasure and new experiences. Although mountaineering physically drains, at the same time enriches and refreshes us with the new emotional energy that is needed for life in the human community.

Dealing with mountaineering develops good qualities in humans such as: resourcefulness, courage, sacrifice, adaptability, physical endurance, sociability, sense of understanding of people and nature, patriotism, etc. Mountaineering is based on unity, a lively action in order to overcome the natural, but also to its own psychophysical "obstacles". Hence, practicing mountaineering improves human health, both physically and psychologically.

There are 36 mountaineering homes in Macedonia, some of which are not in operation at all. But others that are in operation either are owned by

mountaineering societies either they are assigned to use and maintain them. Most homes were built in the period around ,50-'60s of the last century. With the collapse of the old system, in the period of 1990-2000, most remain abandoned without a clear owner and user. With the exception of a few who operate without stopping from their very opening, the others revive with the beginning of the formation of mountaineering societies in the period from 1997 to this present. However, most (with the exception of several renovated homes) are not at some enviable level, that is, they only offer the most basic living and lodging conditions.

Mountaineering can be divided into a high mountain, middle-mountain and low-mountain climbing. High mountain climbing takes place in the high parts of the mountains of over 2000 m a.s.l. (for Macedonian conditions, and according to another terminology of the mountains of 3000 meters upwards) where it needs greater physical strength and according to its weight it is "difficult" or high mountain climbing, which can be risky, due to the configuration of the terrain, high slope, presence on rocks, outdoor terrain without forest, water and other.

Middle-mountain climbing takes place in the mountains with a height of 1500 to 2000 meters. In these mountains, there are medium-weight trails, most often the mountain is covered with forest and grassy terrain, a mild terrain and a slope.

The low-mountain climbing takes place in the mountains from 500 to 1500 meters. In these mountains, the terrain has a smaller slope, most often the trails are in the forest part, it is pleasant for recreational climbing and walking with minimal loads.

Alpinism as a sports activity that takes place on steep and high rocks and represents part of the wider family of mountaineering sports. Alpinist activities usually consist of climbing "unprocessed" rocks where there is no complete insurance or marking. The first organized alpine activity registered on the territory of Macedonia is during Yugoslavia. It has been noted that was happening on 10,09,1934 with organized climbing to the Nehilov Rock under the Solunska Head (2540 m.) on the Jakupica Mountain. After the Second World War, the Macedonian climbers started immediately with organized alpine activities with professional help from the then Zagreb rock climbers from the Republic of Croatia.

The beginnings of the existence of the Macedonian Alpinist Association as an organizational form of the Macedonian alpinism, dates from the end of the sixties when the Commission for Alpinism was formed with the establishment of the first alpine society in the Republic of Macedonia – the society MATKA, wherein the then Mountain Federation of Macedonia, the commission for alpinism was formed. At the beginning of the eighties of the last century, with the launch of the first program for Macedonian alpine expeditions, the commission

was renamed the Commission for Alpinism and Expeditions. This name and this organizational form were in operation until 1996, when the decision of the Presidency of the then Commission, during the mountaineering gathering in the locality Matka, was formed the Macedonian Alpinist Association. The Macedonian Alpine Association is the highest form of organization of alpinism in the Republic of Macedonia. The association is comprised of companies, clubs and sections dealing with alpinism. The main goal of the association is to develop the alpine activity in Macedonia, by educating alpine staff, arranging alpine localities, issuing professional literature, organizing top alpine actions and directing the organizing activities in mountaineering.

Today, in Macedonian mountaineering, there are more active climbers than ever before, as well as a higher level of alpine quality, both in individuals and in sections and mountaineering as a whole. Unfortunately, the catastrophic economic reality in Macedonia did not give them a chance to organize a national expedition to go to one of the major mountain massifs in the world.

At the moment, the Macedonian Alpine Association is composed of a dozen associations, clubs and sections that are members of the Federation of Mountain Sports of Macedonia. The basic form of their activities is the alpine gatherings which are organized once or twice a month at a climbing site. Famous localities for mountaineering are: Matka, Demir Kapija, Leshnica (on Shar Planina), Solunska Head (Jakupica Mountain), river Patishka, Locality Ploche (Pilav Tepe), sharp rock Stogot (on Selche Mountain) and other locations of Pelister, Kajmakchalan, Galichica, Jablanica, Korab, Deshad, Bistra, Stogovo, Plachkovitsa, Osogovo Mountains, Belasica and Kozuf.

### **Other activities related to sports and recreation in nature**

Upon above mentioned, there are many other sport and recreational activities in nature that can be proposed and developed at Macedonian mountain. In this regard we will suggest the following: mountaineering and recreational hiking, sports climbing, cycling, paragliding, rock climbing, mountain speleology and various other sports activities in nature.

**Mountaineering and recreational hiking** are a type of human activity that takes place in nature. Namely, this kind of recreation takes place on a relation from the settlement to the surrounding mountains or hills. All cities in Macedonia are surrounded by hills or mountains that are often visited by the population. The exact number of mountaineers and recreants in the country cannot be determined, however, starting from the number of mountaineering and mountaineering companies, our calculations speak for a number of 20,000 registered mountaineers and mountaineers (of about 1% of the total population), and if so, we also add recreational people who are not members of mountaineering companies, then the percentage will be doubled. For smooth and safe mountaineering and recreational hiking, marked hiking trails are required.

A classification of hiking trails is determined, according to their purpose in hiking trails, bicycle trails, trim trails and special purpose trails. According to the weight, mountain trails can be categorized as light, medium and heavy, except for special purpose trails, which are always lightweight. An important element for unifying the hiking trail is the marking and maintenance of the hiking trails that is regulated by the Law on Mountain Trails adopted on 24,02,2014. The most marked mountain trails are in the high mountains. Fewer mountains are located in the middle and insignificant number is located on the low mountains in the Republic of Macedonia. Based on available information on Internet sites (federation's website, mountaineering associations, municipalities, etc.), consulting literature, topographic, and tourist mountain maps we have identified a number of 59 hiking trails individually and networked. However, we emphasize that the exact number of mountain trails is not yet accurately determined because there are paths that do not meet the conditions prescribed in the Rulebook on hiking trails prepared by the Federation of Mountain Sports of the Republic of Macedonia.

Considering the previously stated situation, conditionally, we determined about 100 zones for hiking and recreational hiking. Zones that will need to be investigated thoroughly and specifically targeted. They are presented in Figure 1.



**Figure 1.** Zones for mountaineering and recreational hiking in the Republic of Macedonia

**Sports climbing** is distinguished from alpinism. Sports climbing is divided into two parts: sports climbing on natural rocks and sport climbing on artificial rocks. In the Republic of Macedonia this type of sports activity has started to be practiced in the last ten years. A few years ago, the Former Yugoslav Sports Climbing Federation was formed, which included a dozen clubs from Skopje, Bitola, Prilep, Ohrid, Stip, Strumica and Demir Kapija. The best terrain for

sports climbing of natural rocks on bouldering is in the surroundings of Prilep, the area Markovi Kuli, Trskavec, parts of the Selecka Mountains.

**Cycling** represents the use of bicycles for traffic, recreation or sports. Cycling is practiced everywhere and in every environment, road, hilly, mountain, urban, rural, recreational, cycling tourism, etc. The Bicycle Federation of Macedonia includes about twenty clubs from Skopje, Bitola, Veles, Kumanovo, Shtip, Prilep, Ohrid, Strumica and other cities. During the year, several competitions are organized in various places, including cycling competitions on Pelister, Bistra and other mountains.

**Mountain running** is a sport activity that is practiced in Macedonia for about ten years through organized races near Prilep, Markovi Kuli, Mavrovo and other places.

**Paragliding** is also one of very popular sports that has been practiced in Macedonia for several decades. The best conditions for paragliding in Macedonia are the locations Krusevo, Treskavec and Selecka Mountain. This event attracts many participants from all over the world. Eight years in row, the World Paragliding Cup has been held in this area.

**Mountain Speleology** is a new form of sports activity. Namely, in combination with hiking, mountain cycling, aerobic in nature, speleology (entering in mountain caves), combined with concerts, socializing and many parties, and since 2010 a festival of this type in Mavrovo has been held. A similar activity can be maintained in other areas where there is a limestone terrain, which in Macedonia covers an area of about 5000 km<sup>2</sup>, and where there are many turnstiles, karstic fields and caves.

### **Conclusion**

The territory of the Republic of Macedonia has excellent conditions for mountaineering, alpinism, recreational hiking, rock climbing, mountain running, cycling, paragliding, mountain speleology and other sports and recreational activities in nature. All institutional and organized factors that nurture hiking, recreation and sports must offer the population continually innovative inventions of activities in nature without disturbing the natural environment and human health.

Despite the possibilities that nature offers for sport, recreation, healthy and active living, these possibilities in Macedonia are not completely used. Many actions must be taken in order to promote the outdoor activities and sports. Some of these actions should be addressed to sport associations and federations that should be more proactive in promotion of benefits of sports that they are representing. Other should be addressed to responsible governmental bodies. Educational institutions have also a great responsibility in this process. They are the one that should work on the awareness of young population for benefits of participation in outdoor activities and should create



habits for healthy and active lifestyle. But, not only that. Moreover, they are responsible to teach children how to move outdoor, how to use the nature and protect the environment at the same time. In this regard, educational institutions can have multiple benefits. This also includes universities. Moreover, universities are in position to offer variety of activities in nature, to attract larger number of students and to organize this more easily. Furthermore, they are more flexible in the sport content that can offer and can use the resources of many departments. In this regard, some of the noted problems like marking trails, promoting and developing some activities such as mountain speleology or promote outdoor activities and protection of the environment at the same time, will be much easier to be done. Therefore, some of the future actions of the universities and responsible departments within should be oriented toward this goal – promotion of mountains as a place for sport, recreation, active living, health, tourism and learning environment.

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