## HOREA POP1\*, POP GABRIELA MARIA1, TÖRÖK ANNAMÁRIA2

ABSTRACT. This paper promotes ski touring and simultaneously analyze tourism potential elements for practicing this sport branches Vlădeasa. The topic subject research is interdisciplinary in nature, and the novelty is that we try to make the connection between geography, specifically side tourism potential of the area, skiing, practiced for recreation or sport, and ecology, sustainable development area. Observation method was present throughout the period of the study, materialized through spontaneous comments and observations intentional. Following field observations we obtained data about possibilities ski touring trails in the area studied. At this stage we were able to realize inventory and mapping of the field. Proposed routes are routes practicable, verified on the ground. Interview method, the process of scientific investigation, has been applied to person's skilled practitioners of this branch of the area and sports. Statistical and mathematical method is a method of measurement data and mathematical analysis allowed comparison of results. Were processed data on air temperature and snow cover. By consulting the literature, direct observations, inventory and mapping operations made in the field, and analyzed and interpreted the data collected and or made maps and photographic documentation for ski touring routes proposed by us. Media were used to study specific geographical space and land characteristics (length, inclination, presence of vegetation). Given the characteristics of skiing and results through the study area, we propose two types of routes. The first category includes trails that take place on the mountain tourist markings and the second category free ride trails that require complex technical skills, superior physical training and appropriate equipment. We conclude that Vlădeasa is an ideal place for ski touring, with many possibilities and lines of routes, with differences of up to 900 meters and 30-40° inclination of the slope.

Keywords: ski touring, Vlădeasa Mountains, hiking, mountain trails

<sup>&</sup>lt;sup>1</sup> Faculty of Physical Education and Sport, Babes-Bolyai University, Cluj-Napoca

<sup>&</sup>lt;sup>2</sup> Secondary School, Huedin

<sup>\*</sup> Corresponding Author: pophorea2005@yahoo.com

REZUMAT. Promovarea schiului de tură în Masivul Vlădeasa. Lucrarea de fată promovează schiului de tură și în același timp analizează elementele potențialului turistic pentru practicarea aceastei ramuri sportive în Masivul Vlădeasa. Tema supusă cercetării, are un caracter de interdisciplinaritate, iar noutatea constă în faptul că se încercă să facem legătura între geografie, mai precis latura de potențial turistic a zonei, schiul de tură, practicat în scop recreativ sau sportiv, și ecologie, pentru dezvoltarea durabilă a zonei. Metoda observației a fost prezentă pe întreaga perioadă de realizare a studiului, concretizându-se prin observații spontane cât și prin observații intenționate. În urma observațiilor din teren am obținut date referitoare despre posibilităti de trasee de schi de tură în arealul studiat. În această etapă am reușit să le inventariem și să realizăm cartarea pe teren. Traseele propuse sunt trasee practicabile, verificate pe teren. Metoda interviului, ca procedeu de investigație stiințifică, a fost aplicată persoanelor cunoscătoare ale zonei și practicanților acestei ramuri sportive. Metoda statistico-matematică este o metodă de măsurare, de analiză matematică a datelor și a permis compararea rezultatelor obținute. Au fost prelucrate date referitoare la temperatura aerului și stratului de zăpadă. Prin consultarea literaturii de specialitate, a observațiilor directe, operatiunilor de inventariere si cartografiere făcute în domeniu, sau analizat și interpretat datele colectate și sau realizat hărți și documentație fotografică pentru traseele de schi de tură propuse de noi. S-au folosit mijloace media pentru studierea spațiului geografic și a caracteristicilor specifice terenului (lungime, înclinație, prezența vegetației). Luând în considerare caracteristicile schiului de tură și rezultatele obținute prin studiul zonei, propunem două tipuri de trasee. Prima categorie include traseele care se desfăsoară pe marcajele turistice ale masivului, iar a doua categorie sunt trasee de freeride (schi la liber) care necesită abilități tehnice mai complexe, pregătire fizică superioară și un echipament adecvat. Concluzionăm ca Masivul Vlădeasa, este un spațiu ideal pentru schi de tură, cu multe posibilități și linii de trașee, cu diferente de nivel până la 900 de metri și 30-40 ° înclinația pantei.

Cuvinte cheie: schi de tură, Masivul Vlădeasa, turism, trasee montane

## Introduction

Skiing is a sport new branch in Romania, practiced for about 20 years and has seen a major development lately. Clear definition of skiing, and defining its areas is quite difficult, because there is no global unified terminology. In this paper we use the term for all forms skiing ski on skis that involves moving both climbing and descending. In English "backountry", "freeride", "off piste" are terms used to cause place of skiing "off-piste" (Volken, 2007). To distinguish and name a difficulty descent in the highlands (above 45° downhill slopes, terrain strewn with rocks, high avalanche danger etc.) use extreme skiing term, used by the French in 1970 "we ski extreme "(Vives, 2014).

Ski mountaineering is form of competitive skiing, sport which consists in attending, under the clock, the routes outside of the ski slopes in alpin area. In Romania term is used both skiing and ski mountaineering. Delimitation in Romania is difficult ascent and descent after the mountain. For example in the Fagaras Mountains, Bucegi, Piatra Craiului Mountains, Rodna etc. usually practiced ski mountaineering and knowledge that are required for winter mountaineering, and in the middle mountains of the country as Apuseni Mountains, Harghita Mountains etc. practiced skiing (Gingulescu & Cocean, 2011). Of all forms of tourism, mountaineering best meet the need of modern man recreation and rehabilitation of physical and mental resources, depleted everyday activities. Skiing can be practiced both as sport performance and as a leisure sport has positive effects on fitness and personal-social behaviors. A research done in the Alps (Sterlite, 2010) showed that among the main reasons of choosing skiing were: 1. Experience in nature, 2. Quiet, relaxation, recreation, 3. Sports 4. Meeting with friends and family. For 53% of 550 people surveyed, skiing is one of the most practiced activities. Skiing as a leisure sport can be considered a form of winter mountain tourism as part of the activities of active tourism. Active tourism is basic principles: high quality, responsible and sustainable management attitude that makes that activity is compatible with that context in which it is deployed. This concept is opposed to tourism 'passive', represented by mass tourism and other practices deemed to affect the environment and the local community. Interconnected with ecotourism, ecotourism and adventure tourism, active tourism adds interest of knowledge of the natural and cultural interests. This tour requires active involvement both physically and emotionally. Tourists must interact with the environment and culture of the place, to learn from them and to respect them. Skiing is a sport ethics, with minimal impact on the environment (Zaharia & Cofos, 2012). Development areas for the sport does not require the transformation of nature, the installation mechanisms climb (which can totally transform the aesthetic image of the mountain) are preferred even areas as "wild". Studies on the degree of degradation caused by mountain activities (Simpson & Terry, 2000) showed that skiing has the lowest negative effect on the environment. Practiced by relatively few people before the 70s, skiing has spread in recent years in many places around the world. The most important destinations in Europe are Italy, France, Austria, Slovakia. Although in Romania there are many regions with exceptional opportunities for ski touring, it is a popular destination in Europe.

## **Research Methods**

The methods used to develop the research aspect of the work were: bibliographic study, observation, interview and case study.

#### Vlădeasa Mountains-study area

Vlădeasa Mountains component part of high central-northern Apuseni Mountains, with maximum altitudes of over 1800 m, along with Bihor and Gilău-Mountain High. It is bounded on the east drive north and west tributaries Crișului Repede, Săcuieu and Jada, north of the valley and Depression Huedin Crișului Repede and south of the headwaters of the Warm Somesul Cald Bihor massif (fig 1).



Fig. 1. The settlement zonal geographic Vlădeasa

Peculiarities climate creates ambience for business travel and for winter sports. In Vlădeasa abundant rainfall, but shows great variability from year to year, some years appearing dry, and some surplus, with thickness and duration of snow cover different (Povară, 2004). In average annual and monthly precipitation values shows an altered distribution and altitudinal gradient causes orographic and circulation weather In cold season, precipitation is recorded as rain, sleet or, most commonly, snow. Between XI-III, the average amount of rainfall varies between 229.7 mm and 570.0 mm (Povară, 2004). Rainfall solid cold season, deposited a layer of snow that is maintained over a long period (October to May) in a total of 100 -190 days / year. Monday greatest thickness of snow are average January, February and March (fig. 2).



Fig. 2. Snow depth between the months October to May. (2010-2014) Source: NAM- National Agency of Meteorology

Months when snow allows winter sports are generally the months from December to April, but there are years when the season starts in November (ex. in 2011) and snow can take up May (ex. in 2006) is . Wind broadly adapted relief. Intense winds and storms generate tourist discomfort sometimes limit risk. In Vlădeasa have a notable event in the perimeter of the main ridge. Statistically, 1800 Vlădeasa Station is about 25 days every year with storm, most days in winter. (Cocean, 2008). From because winds affected much and thick snow because of its transport, being usually lower on higher ridges and valleys. Due to the influence of western circulation air moisture has averaged 75-85% (Croitoru, 2002) with values. The months with lowest air temperatures were recorded in January and February (fig. 3).



**Fig. 3.** The average temperature during the months October to May. (2010-2014) Source: NAM- National Agency of Meteorology

### Skiing touring trails proposals in the Vlădeasa Mountains

To achieve the research on proposals for ski touring trails in Vlădeasa we used classical methods of research in geography, which were filled with some modern methods, especially for map making. I used Google Map program, Microsoft Paint, Vlădeasa Mountains Tourist Map 1: 50,000, Dimap Publishing (2004).

Observation method was present throughout the period of the study materialized through spontaneous comments and observations intentional. Following field observations we obtained data about possibilities skiing trails in the area studied. At this stage we were able to realize inventorying and mapping the field. The proposed routes are possible routes, field trials. Routes can choose according to several criteria, depending on the length, duration, route difficulty, purpose, after the chosen area in the massif etc. We classified routes into two main groups, depending on the purpose.

The first group we named it in **Hiking trails on skis Vlădeasa Mountains** including classic tourist routes and crossing marked their winter touring skis. All descriptions are detailed, allowing completion of the route in question in winter and without the tourist marking. They are generally recommended for travelers with good physical condition, but does not require advanced technical descent.

The second group is for lovers of the routes which is important not only moving but also ski the downhill slopes looking beautiful, long, technical descents free ride type. We use call these trails, trails with emphasis on descent (free ride type) in Vlădeasa. These trails are recommended for advanced skiers. On many routes are described only Linn descent, because ascents can be combined with other routes ascents.

In describing the routes we used the model guide skiing (Baud, 2004) classifications and taking the necessary practical information, using the following:

PERIOD: shows the optimal time for completing the route, the months are written with Roman numerals.

TIME: The time required for completing the route from the starting point (is estimated, which depends heavily on the snow conditions, the physical condition of athletes, equipment weight, weather conditions, etc.)

DISTANCE: the length in kilometers of the route

DEGREE OF DIFFICULTY:

-depending in endurance routes are classified into mild, moderate or heavy

-in the technique required of "off piste"

Level 1 -beginners -the level of intermediate on slople descents on the slopes below  $30^\circ$ , slope dotted with a few trees, wide color, good snow conditions

Level 2 -the level of technically advanced intermediate on slople descents on the slopes below 35°, descents into the forest, different snow conditions Level 3-advanced, descents on the slopes below 40°, descents in forests with different obstacles in narrow aisles descents, descents any snow conditions (crust, deep snow, Firn etc.)

HAZARDS – lavine, slope strewn with logs, etc.

## Hiking trails on skis in Vlădeasa

## Route 1. The village Bologa - Vlădeasa

Period: -Recommended when snow along the entire length of the route, XII.-III. Duration: 6 - 7h Distance: 21km; Degree of difficulty: Moderate / Level 1 Hazards: orientation problems may occur; Marking: blue stripe, blue cross Access possibilities: 1 - to halt C.F.R. Bologa, on DN1 (km 539, 1), in Huedin 12.1 km; 2 - in Ciucea 10 km (Fig. 4).



Fig 4. Route 1-Vlădeasa Mountains Tourist Map

## Route 2. Drăganului Valley - cottage Vlădeasa

Period: -Recommended when snow along the entire length of the route, XII.-III. Duration: 4 - 4½ hours Distance: 12 km; Degree of difficulty: Moderate / Level 1 Hazards: -can occur orientation issues; Marking: blue stripe, blue cross (Fig. 5)

# Route 3. Vlădeasa - Stone Thief - Poiana Onceasa - cottage Vărășoaia (Padis)

Period: -for that is very long route is recommended when snow is "ideal" XII.-III. Duration: 11:00; Distance: 38 km; Degree of difficulty: Hard / Level 2. Hazards: -danger, wandering; Marking: blue tape, yellow tape (fig. 5).



Fg. 5. Route2, Route 3-Vlădeasa Mountains Tourist Map

## Trails with an emphasis on down (tip freeride) in Vladeasa Mountains

## Route 1. The village Bologa - Vlădeasa

*Period*: -Recommended when snow along the entire length of the route, XII-III *Duration*: 6 - 7h; *Distance*: 21km; *Degree of difficulty*: Moderate / Level 1 *Hazards*: orientation problems may occur; Marking: blue stripe, blue cross

Access possibilities: 1 - to halt C.F.R. Bologa, on DN1 (km 539, 1), in Huedin 12.1 km; 2 - in Ciucea 10 km.

**Route 2.** *Period*: XII-II; *Time*: 3 hours (first boarding 1 hour, the second hour 1.30); *Distance*: 10 km; *Degree of difficulty*: Moderate / Level 2; Positive level difference: 700m. *Threats*: - attention to deforestation

**Route 3**. *Period:* XII-III; *Duration*: 1.30 hours; *Distance*: 5 km; *Degree of difficulty*: Easy / Level 2; Positive level difference: 350m; *Threats*: - attention on the rocks and stumps valley

**Route 4**. *Period*: XII-IV; *Distance*: 2 km; *Degree of difficulty*: Easy / Level 2; Negative level difference: 340m; *Threats*: - attention to forest

**Route 5**. *Period:* XII-III; *Distance*: 2 km; *Degree of difficulty*: Easy / Level 2; Negative level difference: 300m; *Threats:* - attention to forest

**Route 6**. *Period:* XII-II; *Distance*: 3 km (downhill); *Degree of difficulty*: Medium / Level 2; Negative level difference: 500m; *Threats*: - attention to forest

**Route 7.** *Period*: XII-II; *Distance:* 3 km (downhill); *Degree of difficulty*: Medium / Level 2, Level difference negative: 500m; *Threats*: - attention to forest

**Route 8**. *Period*: XII-III; *Distance*: 3 km (downhill); *Degree of difficulty*: Medium / Level 2; Negative level difference: 400m; *Threats*: - attention to the forest and the valley

**Route 9.** *Period*: XII-III; *Distance*: 4 km (downhill); *Degree of difficulty*: Medium / Level 2; Negative level difference: 500m; *Threats*: - attention to the woods 62

**Route 10**. *Period*: XII-III; *Distance*: 3.5 km (downhill); *Degree of difficulty*: Medium / Level 2; Negative level difference: 600 m; *Threats*: - attention to forest

**Route 11**. *Period*: XII-II; *Distance*: 10 km (downhill); *Degree of difficulty*: Hard / Level 2; Negative level difference: 900 m; *Threats*: - attention to forest

## Conclusion

In our country, ski touring places are numerous. Vlădeasa is an ideal place, "a haven" for ski touring, with many possibilities and lines of routes, with differences of up to 900 meters with slopes inclined enough for skiing, peaking at 30-40°. And all this while the danger of avalanches is virtually nonexistent. After analyzing the data and the situation on the ground for Vlădeasa and taking into account specific peculiarities of skiing we proposed two groups of routes. The first group includes classical routes marked tourist routes and covering them in winter with ski touring. We proposed three routes of which two with moderate difficulty and ski technique required Level 1, and a longer route with hard difficulty and ski technique required Level 2.

The second group is of free ride routes that include beautiful slopes downhill, long and technical. We proposed 14 free ride routes, lengths, degrees of difficulty and need different ski technique.

## REFERENCES

Balint, G. (2005). Bazele teoretice și metodice ale predării schiului, Tehnopress, Iași.

- Branigan, H. (2014). A Complete Guide to Alpine Ski Touring Ski Mountaineering and Nordic Ski Touring: Including Useful Information for Off Piste Skiers and Snow Boarders, Author House.
- Ciangă, N. & Vescan, I. (2007). Valorificarea ofertei turistice a munților mijlocii. Studiu de caz masivul Vlădeasa. *Geographia Napocensis*, I, no. 1-2, 32-50.

- Gaceu, O. (2009). Climate characteristics of the fog phenomenon and its influence on the tourists activities in the Apuseni Mountains. *GeoJournal of Tourism and Geosites*, II, no. 1, vol. 3, 29-34.
- Gingulescu, M.D. & Cocean, P. (2011). Proiecte de dezvoltare și extindere de noi domenii schiabile în România, *Palestrica Mileniului III Civilizație și Sport*, vol. 12, no. 4, Octombrie-Decembrie 2011, 398–403.
- Linc, R., Nistor, S. & Turnock, D. (2011). Aspects regarding the environmental impact of Tourism activities in the Apuseni Natural Park (Romania). *Analele Universității din Oradea – Seria Geografie*, XXI, no. 2/2011 (December), 340-353.
- Pop, C.A. (2012). Ways of improving tourism via developing four cross competition tracks, *Analele Universității din Oradea – Seria Geografie*, XXII, no. 2/2012 (December), 346-351
- Povară, R. (2004). Particularități ale precipitațiilor atmosferice în Munții Apuseni (Masivele Bihor și Vlădeasa). *Analele Universității Spiru Haret, Seria Geografie,* Nr. 7, 7-12.
- Simpson, K. & Terry, E. (2000). *Impacts of Backcountry Recreation Activities on Mountain Caribou-Management Concerns*, Wildl. Working Rep. No. WR-99.
- Vives, J. (2014). The Alpine Ski Touring Handbook, Globe Peguot Press.
- Volken, M. (2007). *Backcountry skiing-Skills for Ski Touring and Ski Mountaineering*, The Mountaineers book.
- Zaharia, J. & Cofoș, E. (2012). Etica turismului durabil. *Dezbateri social economice*, nr.1/2012.

Harta Turistică Munții Vlădeasa 1:50 000 (2004). Editura Dimap.

ANM - Agenția Națională de Meteorologie.