Upper Cretaceous, Palaeocene, as well as Oligocene and Miocene strata, were identified in the Skole Nappe. In the Bystrica Subunit of the Magura Nappe olistostromes of Middle Eocene and probably Late Oligocene–Early Miocene age were mapped. In the course of a recently conducted detailed field mapping it was found that large portions of the Pieniny Klippen Belt consist of huge olistostrome bodies.

In some cases, studies of the geological maps also helped to identify olistoliths and olistostromes. The presence of single olistoliths is manifested by single "spots" that remain in lithological and/or stratigraphical contrast with the surrounding strata. Olistostromes create a random (spotty) texture remaining in contrast with ordered linear texture of the surrounding flysch strata. Revision of geological maps revealed that, e.g. the so-called Fore-Magura thrust-sheet between Koniaków and Żywiec is not a separate tectonic unit but a sequence of the Krosno Beds of the Silesian Nappe containing two or three levels of olistostromes as well as solitary olistoliths. East of this area, between Andrychów and Myślenice, numerous individual olistoliths have been recorded within the Krosno Beds. Field observations reveal that these olistoliths are usually associated with debris-flows.

The teledetection techniques (geological interpretation of aerial photographs, satellite images, radar images, condensed contour maps and DEM - Digital Elevation Models) were used by the present authors to identify olistostromes and olistoliths. At first, images of known olistostromes and olistoliths were studied to find the remotely-sensed geomorphological features that would be helpful in the identification of olistostromes at other localities. Subsequently, on the basis of these experiences and relations between morphology of the terrain and the geological structure the authors attempted to identify previously unknown occurrences of olistostromes and olistoliths. The results are satisfactory if olistoliths consisting of rocks more resistant to weathering than the matrix of the surrounding olistostrome body. Such features are clearly observed on DEM and satellite images as random morphological patterns (mound-like texture). On the condensed contour maps olistoliths often appear as small closed ovals of contour lines, marking separate klippen which form hills or mounds. Especially pronounced appear megablocks of the Pieniny Klippen Belt in Poland and Slovakia which are huge olistoliths of the Middle Triassic-Lower Cretaceous carbonate and siliceous rocks embedded within the Cretaceous-Palaeogene flysch of the Złatne Successions in the vicinity of Haligovce village (eastern Slovakia) and the Middle Jurassic-Early Cretaceous limestone olistoliths in the vicinity of Maruszyna (Poland). Spectacular are large olistoliths of the Upper Jurassic limestones of Štramberg and Pavlovské Kopce (Czech Republic) clearly seen on DEM and satellite images. E.g. an irregular mound-like structure marks the occurrence of the Middle Eocene olistostrome in the Bystrica Subunit of the Magura Nappe in north-east part of the Orava region.

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Territorial differentiation of natural recreation potential of Ukraine

Rudenko V. and Rudenko O.

Faculty of Geography, Yuriy Fedkovych Chernivtsi National University, 58012, Chernivtsi, Ukraine, rudenko_valery@ukr.net, ksiushenjka@mail.ru

Natural recreation potential of Ukraine includes natural recreation lands, mineral waters, medicinal mud and medicinal raw materials for pharmaceutical industry. The value of country's natural recreation potential was estimated through money cost of free time spent outdoors for recreation; mineral waters and medicinal mud – through value of its exploited stock and on the basis of regional market prices. Average indices of natural recreation potential valuation per unit of territory and per inhabitant (the so-called territorial and economic potential productivity) were taken for 100 points.

With regard to geographical allocation of Ukrainian natural recreation potential (as based on materials of its map modeling), two tendencies are clearly observed: the first is the evidence that two major natural regions – Ukrainian Carpathians and Azovo-Chornomorske Uzberezhzhia (Azov-Black Sea Coast) – accumulate over the half of the initial natural

recreation potential of the country, while the second witnesses that Ukrainian natural recreation potential is concentrated around cities-millionaires and big cities. In other words, it is only in Kyiv, Khatkiv, Dnipropetrovsk, Donetsk and Lugansk Regions that over 1/3 of its (potential) totality is accumulated. To substantiate perspectives of recreation in Ukraine, it is important to analyze territorial differences in intro-components structure of natural recreation potential of this country. Thus, it is worth mentioning that the role of sanitary-resort treatment resources increases from the Eastern Economic Macro- (District) where their total is 18%, to the Western (23%) and Southern (33%) Macro-Rayons. Sanitary-resort resources are of special importance in the Odessa (59%) and Zakarpattya Oblasts (43%), Autonomic Republic of Crimea (40%), Vinnytsa (39%) and Lviv (30%) Oblasts. It is obvious that the perspectives of sanitary-resort branch in Ukraine belong to these regions. At the same time, the share of sanitary-resort treatment in natural recreation wealth of the Kyiv, Kharkiv, Dnipropetrovsk, Donetsk and Lugansk Oblasts successively decreases from 1/3 to 1/6. It is in the first turn explained by the increase of the role of natural resources for rest and tourism, efficiently used by the recreants from cities-millionaires and big cities in the form of week-end outdoor holidays. It is also important to mention those Ukrainian administrative Rayons where natural recreation potential is the first (basic) component in the integral natural resources potential (NRP). These are the Chornomorskiy (Black Sea) Rayon of the Autonomic Republic of Crimea, city of Chernivtsi, Kosiv Rayon in Ivano-Frankivsk Oblast, Mukachevo, Svalyava, Khust Rayons in Zakarpattya Oblast, and Kharkiv Rayon in Kharkiv Oblast. 54 more Administrative Rayons of Ukraine possess natural recreation resources as their second-important natural wealth. It is also important to analyze indices of Ukrainian people's provision with natural recreation potential (average index – 100 points). Thus, as regards to Ukrainian natural regions, the East-European Plain is provided at average level of 86 points, Ukrainian Carpathians – 187, and the Crimean Mountains – 331 points. In East-European Plain, the Steppe is provided with natural recreation resources at a level of 91 points, Forest-Steppe – 83, and Mixed Forests – 80 points. Uneven provision in Rayons is evidenced by the following: absolute indices in Mixed Forests amount to 727 points (Slovechansko-Ovrutskiy Rayon, Zhytomyrske Polissya) and 395 points (Dovbacahnsko-Chervonoarmiyskiy Rayon). The Forest-Steppe does not manifest too much difference. West-Ukrainian Forest-Steppe Province is provided at a level of 59 points per inhabitant (absolute value – 562 points), Dnistrovsko-Dniprovska Forest-Steppe Province – 77 points (amplitude – 205-231 points) Livoberezhno-Dniprovska Forest-Steppe Province – 91, and Serednorosiyska Forest-Steppe Province – 111 points. The Crimean Mountains manifest high and relatively homogeneous level of people's provision with natural recreation, and, except for two rayon – Western (Girsko-Krymska Oblast, 34 points) and Chornoricskiy (Peredgirn-Krymska Oblast, 35 points) – ranges within the limits of 260 – 462 points. People's provision with natural recreation resources in Ukrainian Carpathians is rather high and homogeneous. The Oblast of Peredkarpattya is estimated to have 125 points, the same of Zovnishni (External) Carpathians) – 156, Vododilno-Verkhovynska – 341, Polonynsko-Chornogirska – 340, Rakhivsko-Chyvchynska – 375, Volcanic Carpathians and Mizhgirni Kotlovyny – 253, and Zakarpatska Plain – 214 points. As regards Rayons, people's provision is not considerably different. Thus, the geographical analysis proves that territorial differentiation of Ukrainian natural-recreation potential significantly influences upon substantiation of the ways for its balanced development.

Quarternary evolution of "Ancient Lake Ohrid", FYROM/Albania

Rudersdorf A., Hoffmann N., Huertgen J. and Reicherter K.

Department of Neotectonics and Natural Hazards, RWTH Aachen University, Lochnerstraße 4-20, 52056 Aachen, Germany, andreas.rudersdorf@rwth-aachen.de

The cross-boundary Lake Ohrid (40°54´ – 41°10'N, 20°38' – 20°48'E) located at the border of FYR of Macedonia and Albania is situated within a karstic environment in an active tectonic region in the Balkanides and stretches over a length of c. 30 km and a width of c. 15 km. The regional basin and range setting in an extensional back-arc system, that is controlled