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ALGIMANTAS ČESNULEVIČIUS (*)

QUANTITATIVE CHARACTERISTICS OF LITHUANIA GLACIAL RELIEF

ABSTRACT: ČESNULEVIČIUS A., *Quantitative characteristics of Lithuania glacial relief.* (IT ISSN 0391-9838, 1998).

When the Pleistocene inland ice retreated from the territory of Lithuania, various glacial, stadial and phasal formations were left behind, which were modified by other geomorphic processes. Distinct differences can be observed concerning glacier margin formations where corner morainic tracts and connecting morainic arcs can be distinguished. Morphological differences are characterised by the following three parameters: height of landform, length and angle of slopes. Based on these parameters genetic and morphological differences of the marginal landforms can be specified. The paper analyzes the morphometry of Lithuanian landscapes and emphasizes the quantitative characteristics of glacial features of various age.

KEY WORDS: Morphometry, Glacial relief, Last glaciation, Lithuania.

RIASSUNTO: ČESNULEVIČIUS A., *Caratteristiche quantitative dei morfotipi glaciali in Lituania.* (IT ISSN 0391-9838, 1998).

Quando la calotta glaciale si è ritirata durante il Pleistocene dal territorio lituano, varie formazioni glaciali, stadiali e di fase glaciale furono abbandonate e furono poi modificate da altri processi geomorfici. Marcate differenze possono essere osservate nelle formazioni glaciali marginali poiché si possono distinguere corpi morenici arcuati e archi morenici. Le differenze morfologiche sono date da tre parametri: altezza del corpo, lunghezza, pendenza dei versanti. Su questa base possono essere specificate le differenze genetiche e morfologiche dei corpi glaciali marginali. L'articolo analizza la morfometria di questi paesaggi della Lituania e sottolinea le caratteristiche dei lineamenti glaciali di varia età.

TERMINI CHIAVE: Morfometria, Paesaggio glaciale, Ultima Glaciazione, Lituania.

INTRODUCTION

Pleistocene glaciers formed the largest orographical formations of Lithuanian relief (fig. 1). The investigations revealed that the existing relationship between the genesis and relief morphometrical parameters were modified by other geomorphological processes. Intensive genetical investigations of Lithuanian relief were launched in the sixties but they represented mostly the works of regional character. In 1965 the gap was filled by A. Basalykas work (Basalykas, 1965). However, still for a long time the quantitative investigations of relief were not carried out. In 1981 morphometrical investigations of Lithuanian surface were launched at the Institute of Geography during which unique data were collected of relief and its quantitative indices and between quantitative indices and recent processes. This article is devoted to the morphometrical structure of Lithuanian relief emphasizing the quantitative characteristics of glacial relief of different age.

GENETICAL COMPLEXES OF RELIEF

At the Institute of Geography a morphogenetic-morphometrical map of Lithuanian relief was compiled in 1995 on the ground of which a quantitative evaluation of relief parameters was carried out. Lithuanian relief has 15 formations of different genesis, however, only 10 of them can be mapped on a survey scale (scale 1:200 000). The remaining five are distinguished as ones supplementing the

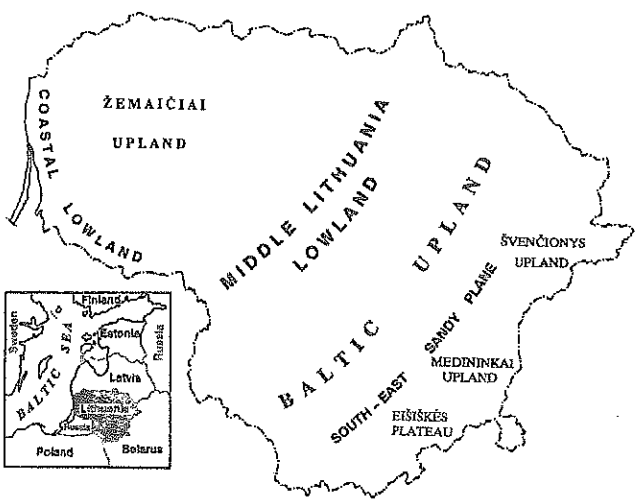

FIG. 1 - Orographic units of Lithuanian relief.

(*) *Vilnius University. Department of General Geography, M.K. Čiurlionio 21/27 - 2030 Vilnius, Lithuania.*