



Specificity of coastal zone landscapes (on the example of Crimean coastal zone)

I. Agarkova-Lyakh

Tavrical National University, Simferopol, Ukraine (iryalyakh@gmail.com)

Coastal zone is the region of contemporary interaction between land and sea. The common landscape study of the aquatic and terrestrial parts of the coastal zone allows recognize its major features as the features of integral system. The character of matter flows in the coastal zone is determined by the different processes appeared in it. Matter flows form the structure of the coastal zone landscapes, which are characterized by the following features. (1) The coastal zone is the focus of the “land-sea” system, where the main part of matter-energetic interactions and transportations are concentrated. The amount and intensity of interactions are decrease with the movement off a coastal line that leads to gradual weakening of landscape links. (2) The bi-direction of matter flows is observed in the coastal zone. The matter can come in it both from the land and the sea. (3) Spatial-temporal variability of the states of landscape complexes is determined by high dynamic of the coastal zone. The coastal zone hydrodynamic processes control peculiarities of differentiation of fragmental material on the coast and submerged slope, dissemination of marine and terrestrial vegetation, distribution of zoocenoses and other, that allows consider hydrodynamic as a major factor of landscape diversity. Landscape margins can be selected according to hydrodynamic criteria. The upper landscape margin should be the average line of annual maximal waves uprush, the lower margin should be placed on the depth of half wave length. (4) The coastal zone biota is characterized by deep quality differences and barrier effects, stipulated by high contrast of marine and terrestrial coastal environments. The favorable conditions in aquatic environment cause high productivity and diversity of marine biocenoses. Adverse conditions in terrestrial part of coast cause deficient structure and low diversity of terrestrial biocenoses. From this point of view the coastal zone has no analogs.

In the Black Sea costal zone of Crimea (Ukraine) two landscape types are distin-

guished, which are differed in prevail direction and intensity of matter flows between sea and land.

The first type includes landscape complexes formed by bi-directional matter flows that came from sea and land. Both the erosion and the accumulative processes are presented here. Landscapes include erosion and accumulative coasts. Absolute height of coastal slopes on erosion coasts is 5-15 m, on accumulative coast - till 2 m. Coasts consist of pliable and very pliable materials: clays, loams and loose deposits. Beaches have complex feeding and feeding by along shore matter flows. Biogenic material plays significant role in beaches feeding. Marine slopes are flat. Average slope is less than 0.02 that favor to carry bottom material to the coast. Wave conditions are relatively calm.

The second type includes landscape complexes formed by prevail matter flows from land to sea. Materials from the land arrive to the sea with landslides, crumbling, mud-flows and river-flows. Landscapes include erosion coasts. Absolute height of coastal slopes can reach some hundred meters. Coasts consist of steady and moderate steady materials: basalts, conglomerates, sandstones, massive limestones, flysch deposits and other. Beaches have alluvial and erosion feeding. The role of biogenic material is very insignificant. Marine slopes are moderate and step. Average slope is more than 0.02 that favor to carry terrestrial material to marine slope. Wave conditions are more active in comparison with previous landscape type.

The described landscape types mirror landscape diversity in the coastal zone and form unique face of Crimean landscapes.