

EVALUATION OF THE ANNUAL WIND TRANSPORT RATE IN THE DUNE AREA OF THE SF. GHEORGHE BEACH – DANUBE DELTA, BLACK SEA.

Adrian STĂNICĂ¹, Gheorghe Viorel UNGUREANU², Cătălin ROTAR³, Cornel OLARIU⁴, Ștefan ILINA⁵

¹Institutul Național de Geologie și Geoecologie Marină, Str. Dimitrie Onciul 23, sect. 2, 024053, București, e-mail: astanica@geoecomar.ro

²Facultatea de Geologie și Geofizică, Universitatea București, Str. Traian Vuia 6, sect. 2, 020956, București, e-mail: v.g.ung@gg.unibuc.ro

³ROMPROED S.A., Bd. Dinicu Golescu, nr. 23-25, sc. 3, ap. 1, sect. 1, București, 010864, e-mail: rotarcatalin2000@yahoo.com

⁴Department of Geosciences, University of Texas at Dallas, P.O. Box 830688, FO 21, Richardson, TX, 75080, USA, e-mail: cornelo@utdallas.edu

⁵Executive Agency for Higher Education and Research Funding, Bd. Schitu Măgureanu nr. 1, sect. 5, 050025, București, e-mail: stefan.ilina@uefiscsu.ro

Abstract. Seasonal detailed morphological variation measurement surveys were made in a selected pilot area on the Sf. Gheorghe beach (Danube Delta coastal zone, Black Sea). These measurements were made in 16 field campaigns, in February, June, August and November each year, for 4 years. The present study measures the volumes of sediments mobilized by winds in the dune zone and roughly models the mean annual volumes of wind mobilized sediments, per surface unit as well as along the length beach unit for the coastal strip between Sulina and Sf. Gheorghe and for the entire dune zone in the considered coastal strip. Even though rough estimates were made and available data represents large time averages, the obtained values are comparable to those computed for other factors.

Keywords: coastal aeolian transport, sand dunes, Sf. Gheorghe beach, Danube Delta Black Sea coast, seasonal variations, modelling.
