

Black Sea current environmental problems*

Received for publication, November, 1, 2011.
Accepted, May, 15, 2012

Alexandru S. BOLOGA

National Institute for Marine Research & Development "Grigore Antipa", Constantza 3,
Romania, RO-900581, , Full member of the Academy of Romanian Scientists, Splaiul
Independenței street, no. 54, Bucharest, Romania, e-mail: alsbologa@yahoo.com

Abstract.

The environmental degradation and various related sufferings of the Black Sea are more and more detailedly known.

They are connected to its natural handicaps as well as anthropogenic activities with severe impact on the Black Sea such as transport (Danube, Danube-Danube-Black Sea canal, Dnepr, Don, fluvial and maritime harbours, free economic zones), industry (fertilizers, herbicides, pesticides), fishing (and overfishing), tourism.

The evolution of the former more diversified Black Sea coastal and pelagic ecosystems has changed dramatically and got depleted, both qualitatively and quantitatively, over the years. The most significant contemporary issues affecting the natural equilibrium state concern coastal erosion, water quality and eutrophication, extension of hypo- and/or anoxic zones, possible rise of hydrogen sulfide in euphotic layers, accumulation of different fall-out and terrestrial pollutants, decrease of water self-purification capacity in coastal areas towards chemical and microbiological contaminants, significant decline of biodiversity. Following main issues and concerns in above respect are synthetically resumed: international framework, pollution, and environmental quality monitoring and sea water quality control in Romania, eutrophication, biodiversity, and urban sewage treatment.

Key words: The Black Sea, monitoring, water quality, pollution, eutrophication, biodiversity, sewage treatment

Introduction

The greatest threats to the oceans consist in pollution, the overexploitation of marine resources and the destruction of marine environments. About 80% of all pollution entering the oceans comes from land-based sources / river drainage

*A version of the present article appeared in *The Black Sea: Dynamics, Ecology and Conservation*, A.L. Ryann and N.J. Perkins (Eds.), Nova Science Publishers, Inc., New York, USA, 265-274