

Hemoglobin content in hemolymph of planorbarius corneus (Mollusca: Gastropoda: Bulinidae) as indicator of complex impact of parasites and toxicants

Stadnychenko A., Gyryn V., Shymkovich O.
Kazan Federal University, 420008, Kremlevskaya 18, Kazan, Russia

Abstract

© 2016 Begell House, Inc. Paper deals with impact of sodium nitrate (0.1, 1, 10 and 100 mg/l3) on hemoglobin content in hemolymph of Planorbarius corneus in norm and at infestation by redia Echinoparyphium aconiatum and sporocysts Tylodelphys excavata. At equal toxicant' concentration and infestation degree hemoglobin content changed for more extent at infestation by "mature" sporocysts T. excavata than by immature redia E. aconiatum. Hemoglobin content in P. corneus hemolymph in toxic medium is conditioned by modification of some physiological-biochemical systems of different levels: hemoglobin/ oxyhemoglobin, inhibition of aerobic path of energy generation and glycolysis activation, hemoglobin transformation into methemoglobin.

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Keywords

Hemoglobin, Planorbarius corneus, Sodium nitrate, Trematoda's redia and sporocysts