DISTRIBUTION OF SPECIES OF THE GENUS *PSEUDOMONAS* IN ARTIFICIAL PONDS OF ARMAVIR REGION IN ARMENIA

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DISTRIBUCIJA VRSTA RODA *PSEUDOMONAS* U VEŠTAČKIM JEZERIMA REGIONA ARMAVIR U JERMENIJI

Apstrakt

Obavljena je identifikacija i izolacija bakterija roda *Pseudomonas* iz uzoraka podzemne vode koja se koristi za gajenje pastrmke.

Urađena je komparativna analiza vrsta *Pseudomonas* u uzorcima dovodne i odvodne vode. Analizirano je 80 uzoraka od kojih je 50 uzorkovano iz 5 pastrmskih jezera regiona Armavir.

Ispitivanje je obavljeno korišćenjem metode membranske filtracije upotrebom visoko selektivnih medija na rod *Pseudomonas.* Korišćeni su kitovi za brzu biohemijsku identifikaciju vrsta pomenutog roda.

Ispitivan je odnos između kvantitativnog i kvalitativnog sastava vrsta *Pseudomonas* i fizičko hemijskih osobina vode. Vrste *P. fluorescens, P. aeruginosa* i *P. diminuta* su imale visoku frekvenciju pojavljivanja u arteškoj void. *P. fluorescens* i *P. aeruginosa* su izolovane iz uzoraka vode uzetih iz jezera koj su sadržala ribu bez znakova bolesti. Vrste *P. anguilliseptica, P. putida, P. diminuta* poznate kao izazivači pseudomonada kalifornijske pastrmke su identifikovane iz vode gde se nalazila bolesna riba sa ulceracijama u blizini repnog peraja i na leđnoj strain. Zapaženo je i istovremeno prisustvo *P. anguilliseptica* i *P. alcaligenes.*

Abstract

Identification and isolation of bacteria from genus *Pseudomonas* has been carried out form ground water samples used for rainbow trout aquaculture.

The comparative analysis of *Pseudomonas* species in inlet and outlet water samples has been done. 80 water samples were analyzed, 50 from which have been taken from five rainbow trout ponds from Armavir region.

Examination of water has been performed by membrane filtration method, using high selective media particularly for genus *Pseudomonas.* The rapid biochemical identification kits were used to identify the species of the mentioned genus.

The relationship between quantitative and qualitative composition of *Pseudomonas* species and physical-chemical properties of water have been studied. *P. fluorescens, P. aeruginosa* and *P. diminuta* had high frequency of occurrence in artesian water. *P. fluorescens* and *P. aeruginosa* have been isolated from water samples taken from ponds contaning fish without symptoms of illness. The following species *P. anguilliseptica, P. putida, P. diminuta* known as a causative agents of pseudomonades of rainbow trout were identified in water where ill fish with ulcers near caudal fins and on back side were present. Co-occurrence of *P. anguilliseptica* and *P. alcaligenes* has been noticed.