Abstract

The Capelin stock in the Barents Sea is the largest in the world. It maintained a fishery with annual catches of up to 3 million tons. The Capelin stock problem has an impact in fish stock development. In this paper, the stock prediction problem of the Barents Sea capelin is attacked using Artificial Neural Network (ANNs) and Multiple Linear model Regression (MLR) model. The
weights of ANNs are adapted using the Genetic Algorithm (GA). The models are compared against each other and empirical work has shown that the ANN-GA model can have better overall accuracy over (MLR). It performs 21% over MLR model.

Reference

Index Terms

Computer Science
Artificial Intelligence

Key words
Forecasting
Capelin stock
Neural Networks
Genetic Algorithm
Ecosystem