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The Dilemma of Derelict Gear: Datasets

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DATASET ABSTRACT SUMMARY

Title:

The Dilemma of Derelict Gear: Datasets

Authors:

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Location (place name):

Virginia waters of the Chesapeake Bay

Date:

2016 January

Description of Data:

DDG_Data.csv: This file contains data used to estimate a statistical harvest model and evaluate the economic impacts of the Virginia Marine Debris Removal Program. The following variables are included: annual observations of blue crab harvests and effort by management area; annual blue crab abundance estimates; derelict pot removals by management area and year (2009-2014). Variable definitions: management area/waterbody (WB); year (YEAR); lbs of harvest (LBS); pots used in harvest (POTS); number of crab (CRAB); derelict pot removals (RMVS).

DDG_TLModel.R: This file contains R code used to estimate a translog production model of blue crab harvest which incorporates derelict gear removals. Also included is code to perform a semi-parametric bootstrap of model parameters and estimate mean harvest effects resulting from derelict gear removals. The file can be opened in a variety of text editors and should be executed within the R software environment (www.r-project.org).

Funding Acknowledgement:

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Associated Publications:

Scheld, A.M., Bilkovic, D.M. and Havens, K.J. (2016). The Dilemma of Derelict Gear. Science Reports. 6, 19671; doi: 10.1038/srep19671

Subject Keywords:

Chesapeake Bay

Crab fishery

Crab pots

Derelict fishing gear

Fishery production model

Economic assessment