

1-1993

Juvenile Finfish and Blue Crab Stock Assessment Program Bottom Trawl Survey annual data report series, volume 1991

Christopher F. Bonzek
Virginia Institute of Marine Science

Patrick J. Geer
Virginia Institute of Marine Science

James A. Colvocoresses
Virginia Institute of Marine Science

Robert E. Harris
Virginia Institute of Marine Science

Follow this and additional works at: <https://scholarworks.wm.edu/reports>

 Part of the [Aquaculture and Fisheries Commons](#), and the [Marine Biology Commons](#)

Recommended Citation

Bonzek, C. F., Geer, P. J., Colvocoresses, J. A., & Harris, R. E. (1993) Juvenile Finfish and Blue Crab Stock Assessment Program Bottom Trawl Survey annual data report series, volume 1991. Data report (Virginia Institute of Marine Science) ; no. 43. Virginia Institute of Marine Science, College of William and Mary. <https://doi.org/10.21220/VSM300>

This Report is brought to you for free and open access by W&M ScholarWorks. It has been accepted for inclusion in Reports by an authorized administrator of W&M ScholarWorks. For more information, please contact scholarworks@wm.edu.

JUVENILE FINFISH AND BLUE CRAB STOCK ASSESSMENT PROGRAM

BOTTOM TRAWL SURVEY

ANNUAL DATA REPORT SERIES

VOLUME 1991

by

**Christopher F. Bonzek
Patrick J. Geer
James A. Colvocoresses
Robert E. Harris, Jr.**

**Data Report No. 43 Volume 1991
Virginia Institute of Marine Science
School of Marine Science
College of William and Mary
Gloucester Point, VA 23062**

Dennis L. Taylor, Dean and Director

January 1993

PREFACE

This represents only the text portion of this report. The actual data portion is housed in Jefferson Hall under the supervision of the Fisheries Data Management Unit. For further information or assistance, contact Chris Bonzek or Patrick Geer.

No portion of this report may be used without consent or citation of the Virginia Institute of Marine Science, Trawl Survey Project.

Project Staff

Scientific Staff

James A. Colvocoresses, Project Leader

Patrick J. Geer, Project Manager

Technical Support Staff

Joy Dameron
David P. King

A. Dean Estes
Donald Seaver

Capt. Paul Gerdes
Jon Terman

Graduate Research Assistants

Heidi M. Banford
Karen Metcalf

David Hata
Jonathan Mintz

Jiangang Luo
Heinz Proft

Data Management and Analysis Staff

Christopher F. Bonzek
Robert E. Harris, Jr.

INTRODUCTION

This report presents a summary page for each tow conducted by the Virginia Institute of Marine Science, Juvenile Fish and Blue Crab Trawl Survey during 1991. The sampling methods and summarized data are presented in Bonzek et al. (1992). Data analysis and calculations of juvenile indices for selected species are presented in Colvocoresses et al. (1991). The purpose of this report is simply to provide a "hard copy" record of trawl results. It also provides a method to retrieve information about one or several particular trawls without consulting computerized archives.

All data about each tow are presented, except that length data are summarized to number measured, minimum size, maximum size, mean size, and standard error. Each page contains four major subsections: Station Data, Atmospheric and Hydrographic Data, Comments, and Catch Summary Data. Each subsection is further divided into groups of related data, such as Station Identification Data or Atmospheric Data.

In the Catch Summary Data section, species are presented in alphabetical order by common name. For nineteen species, cutoff values have been established which separate measured fish into those which we use to calculate "juvenile indices" (usually age 0 fish) and those outside the "index" range. Table 1 contains the list of species for which cutoff values have been established along with those cutoff values. For those species, the number caught of "index age" is included in the Catch Summary Data section.

Currently four major water basins are sampled in the survey, the Chesapeake Bay main stem below 37° 40' N latitude (system CL in the tables), the James River (JA), the York River (YK), and the Rappahannock River (RA). This report is divided into four major sections, one for each basin, presented alphabetically by code. Within each basin section, pages are in order of month and station identifier (the Rivmile/Station heading on each sheet). In the Chesapeake Bay the station identifier is the same as the "Station Number." In the rivers, the station identifier corresponds to river mile. During May through November in the rivers, some stations are sampled twice; the second tow being a "crab" tow in which only blue crabs are counted and measured. Each crab tow is presented immediately after its corresponding "normal" tow.

Beginning in June 1991, in the York River, a complementary survey was begun. The historical sampling sites in each river are fixed, mid-channel sites. The complementary survey is a stratified random survey of sites. Its purpose is to provide a basis for comparison with the fixed sites so that eventually the fixed station survey may be replaced with a stratified random survey. The data from this complementary survey are presented in the Appendix.

Current plans call for producing documents similar to this for each year the survey has been conducted.

REFERENCES

Bonzek, C.F., P.J. Geer, J.A. Colvocoresses, and R.E. Harris, Jr. 1992. Juvenile finfish and blue crab stock assessment program bottom trawl survey annual data summary report series. Volume 1991. Va. Inst. Mar. Sci. Spec. Sci. Rpt. No. 124. Va. Instit. Mar. Sci., Gloucester Pt. VA 23062. 213 p.

Colvocoresses, J.A., P.J. Geer., C.F. Bonzek. 1991. Estimation of Relative Abundance of Recreationally Important Finfish in the Virginia Portion of Chesapeake Bay. Annual Progress Report to U.S. Fish and Wildlife Service, Sportfish Restoration Project F104R1. Va. Instit. Mar. Sci., Gloucester Pt., Va 23602. 33 p.

Table 1. Species specific length cutoff values for determining index age fish.*

Species	Mon.	Min. Size	Max. Size	Species	Mon.	Min. Size	Max. Size	Species	Mon.	Min. Size	Max. Size	Species	Mon.	Min. Size	Max. Size			
Alewife	Jun		75	American Shad	Jun		80	Atlantic Croaker**	Sep		50	Atlantic Silverside	Jun		70			
	Jul		90		Jul		100		Oct		80		Jul		80			
	Aug		110		Aug		115		Nov		100		Aug		90			
	Sep		125		Sep		130		Dec		100		Sep		100			
	Oct		135		Oct		145		Jan		100		Oct		110			
	Nov		145		Nov		160		Feb		100		Nov		120			
	Dec		150		Dec		170		Mar		100		Dec		125			
	Jan		150		Jan		170		Apr		110		Jan		125			
	Feb		150		Feb		170		May		135		Feb		125			
	Mar		150		Mar		170		Jun		160		Mar		130			
	Apr		160		Apr		180		Jul		180		Apr		135			
	May		170		May		190		Aug		220		May		140			
Bay Anchovy	Jul		44	Black Seabass**	Aug		70	Blackcheek Tonguefish	Aug		80	Blueback Herring	May		50			
	Aug		51		Sep		85		Sep		90		Jun		58			
	Sep		56		Oct		100		Oct		100		Jul		65			
	Oct		61		Nov		105		Nov		110		Aug		75			
	Nov		65		Dec		110		Dec		110		Sep		90			
	Dec		70		Jan		110		Jan		110		Oct		100			
	Jan		77		Feb		110		Feb		110		Nov		110			
	Feb		80		Mar		110		Mar		110		Dec		110			
	Mar		80		Apr		110		Apr		110		Jan		110			
	Apr		80		May		110		May		115		Feb		110			
	May		80		Jun		150		Jun		125		Mar		110			
	Jun		80		Jul		175		Jul		130		Apr		120			
Channel Catfish	Jun		50	Hogchoker	Aug		40	Northern Puffer	Jun		50	Scup**	May	35	90			
	Jul		80		Sep		50		Jul		85		Jun	40	100			
	Aug		105		Oct		55		Aug		120		Jul	50	125			
	Sep		120		Nov		60		Sep		130		Aug	60	145			
	Oct		130		Dec		60		Oct		135		Sep	75	160			
	Nov		130		Jan		60		Nov		140		Oct	85	170			
	Dec		130		Feb		60		Dec		140		Nov	90	170			
	Jan		130		Mar		60		Jan		140		Dec	90	170			
	Feb		130		Apr		64		Feb		140		Jan	90	170			
	Mar		130		May		67		Mar		140		Feb	90	170			
	Apr		140		Jun		70		Apr		160		Mar	90	170			
	May		150		Jul		80		May		185		Apr	90	170			
Silver Perch	Jul		130	Spot**	Mar		50	Striped Bass	May		50	Summer Flounder**	Mar		60			
	Aug		150		Apr		75		Jun		80		Apr		100			
	Sep		160		May		100		Jul		100		May		140			
	Oct		160		Jun		135		Aug		120		Jun		170			
	Nov		160		Jul		160		Sep		135		Jul		200			
	Dec		160		Aug		180		Oct		150		Aug		225			
	Jan		160		Sep		200		Nov		175		Sep		250			
	Feb		160		Oct		200		Dec		190		Oct		275			
	Mar		160		Nov		200		Jan		200		Nov		290			
	Apr		160		Dec		200		Feb		200		Dec		290			
	May		165		Jan		200		Mar		200		Jan		290			
	Jun		170		Feb		200		Apr		200		Feb		290			
Weakfish**	Jun		90	White Catfish	Jun		50	White Perch	May		35							
	Jul		120		Jul		65		Jun		65							
	Aug		150		Aug		80		Jul		73							
	Sep		180		Sep		90		Aug		80							
	Oct		200		Oct		100		Sep		85							
	Nov		200		Nov		110		Oct		85							
	Dec		200		Dec		110		Nov		85							
	Jan		200		Jan		110		Dec		85							
	Feb		200		Feb		110		Jan		85							
	Mar		200		Mar		110		Feb		85							
	Apr		225		Apr		110		Mar		85							
	May		240		May		120		Apr		95							

* Where no minimum size value is presented, the minimum size is zero.

** For species for which recruitment indices are reported in Colvocoresses et al. (1991), the "boxed" months are those used for indices.