

## BUREAU OF VIRGINIA INSTITUTE OF MARINE SCIENCE

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## ANNUAL RIVER HERRING CATCH BY FOREIGN FLEETS ESTIMATED

By Dr. Jackson Davis, Head, Ichthyology Department

For the third year the USSR and Poland have sent fleets numbering in excess of 100 trawlers to fish for mackerel and herring off the Mid-Atlantic coast in the area from Cape Hatteras to Ocean City, Maryland. From information obtained on Coast Guard surveillance flights, made in cooperation with the Bureau of Commercial Fisheries, it has been determined that the number of Soviet vessels has fluctuated between 10 to 110 trawlers and the size of the Polish fleet has averaged about 10 trawlers during 1970. In 1969 the combined fleet numbered about 150 vessels; in 1968 about 100. Prior to 1968 the foreign fleet fished north of Maryland for the most part and only 10 to 30 vessels worked off the Virginia Capes.

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Virginia finfishermen have expressed concern about the effects of these harvesting activities on the success of their own fishing operations.

Under the auspices of the Bureau of Commercial Fisheries, a 9-man party of Americans, including the author, recently boarded a Russian factory ship off the Virginia Capes to talk with the commander of the fleet, V.A. Zakharov, and his deputies. The commander indicated that the average daily catch of his SRT-class vessels (145-foot side trawlers) was 2 tons of mackerel and 2 tons of herring, giving a total of 4 tons per vessel per day. He did not state the average daily catch of the

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larger side trawlers and stern trawlers.

Further questioning of the Russians revealed that about 30% of the herring catch was sea herring (Clupea harengus), also called Labrador herring, and the remaining 70% (2800 pounds per vessel per day) was river herring.

If the average daily catch is multiplied by the number of vessels reported operating, an estimate of the smallest probable catch is obtained. Thus, the 1970 catch of river herring by the Russian fleet probably is not less than 12 million pounds and that of the smaller Polish fleet probably not less than 3 million pounds. Not knowing the catch-rate of the larger vessels, we are unable to calculate a more accurate estimate at this time. However, our observations of the foreign fleet at sea lead us to guess that their catch of river herring does not exceed 30 million pounds.

This 15 to 30 million pounds of fish was caught south of 38° 30' N latitude (Ocean City, Maryland) and therefore represents fish that might have spawned in tributaries of Chesapeake Bay and in other streams further up the coast had they not been caught. To put the oceanic harvest by foreign fleets in perspective, one should realize that the annual landings of river herring in Virginia have averaged around 30 million pounds in the last few years.

VIMS has been collecting data on the ages and spawning history of river herring in the James, York, Rappahannock, and Potomac rivers since 1965. This information is now being interpreted to determine the influence of the foreign fishery on herring stocks. Results will be announced in future issues of the Bulletin.

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### TRI-STATE SEAFOOD MEETING AT VIMS

The Tri-State Seafood Committee met May 6 at the Virginia Institute of Marine Science (VIMS) at Gloucester Point to discuss problems of processing and marketing blue crabs, lobsters and other seafood products.

Maryland, North Carolina and Virginia state health officials, food science technologists, seafood industry representatives and marine scientists comprise the Core Committee. This was the seventh meeting of the Committee, which was first organized in September 1967. Meetings are usually held twice a year.

Major objectives of the Committee are to promote standardization of handling, processing and marketing of seafood products so that they may easily enter interstate commerce and become more widely acceptable to the consumer.

Two members were unanimously re-elected to serve as officers during 1970: Willard A. Van Engel, Head of the Crustaceology Department at VIMS, as Chairman and Dr. George J. Flick, Assistant Professor of Food Science at Virginia Polytechnic Institute, as Executive Secretary.

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Maryland representatives at the meeting were: J. Clayton Brooks, Chesapeake Bay Seafood Industries Association; L.F. Hobbs, Head of the Seafood Section at the Department of Health; Dr. Mahlon C. Tatro, Director of the Seafood Processing Laboratory at Crisfield.

North Carolina representatives at the meeting were: Howard Lupton, District Shellfish Sanitation, State Board of Health; Dr. Frank B. Thomas, Seafood Extension Specialist at North Carolina State University.

Virginia representatives at the meeting in addition to Van Engel and Flick were Victor G. Burrell, Marine Extension Agent and Lawrence W. Mason, Information Officer, both of VIMS.

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Other members of the Core Committee, who were unable to attend the meeting, include John Andrews and N. McK. Caldwell of the Sanitary Engineering Division of the North Carolina State Board of Health; Wilson Whorton, President of the North Carolina Crab Packers Association; C.W. Wiley and John A. Hope of the Bureau of Shellfish Sanitation, Virginia Department of Health; and Robert Moberg, President of the Virginia Seafood Council.

APRIL 1970 OYSTER MEATS QUALITY INDEX  
(From Public Rocks)

By Dexter Haven, Head, Department of Applied Biology  
Division of Applied Marine Science and Ocean Engineering

Summary

From February through April, oyster meats quality declined slightly in the James, York, and Rappahannock rivers. On individual bars oysters were of better quality from shallow water than deeper locations. Rappahannock oysters were generally superior to those from the York and James rivers.

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Oysters for meat quality analysis were collected during the period from 1 to 10 May. The expected increase in quality for all rivers was not evident. Its absence was associated with unusually cool weather during April. Meat quality of oysters in the Rappahannock continues high while that of oysters from the York is average, and James River quality ranked lowest.

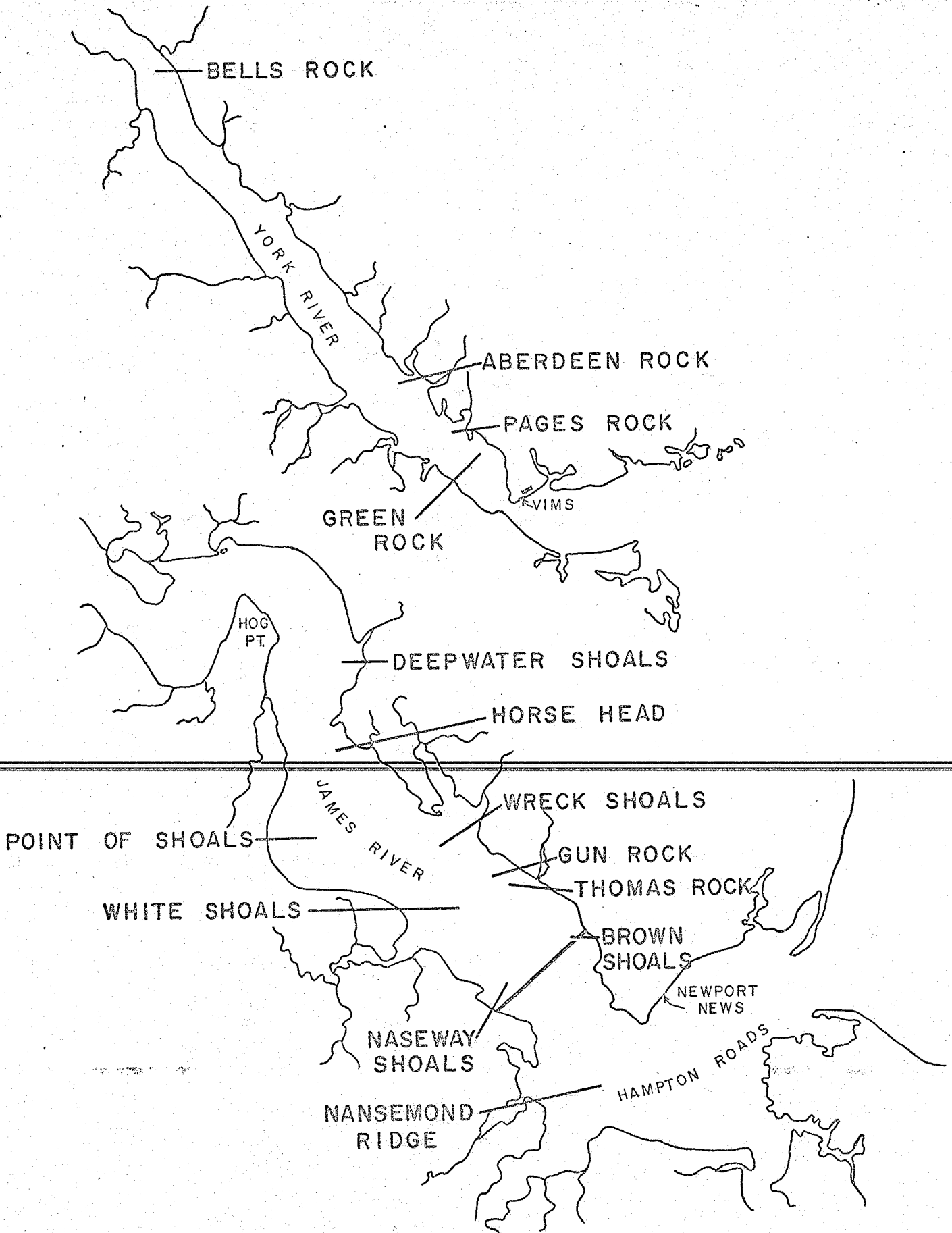
Key to Index numbers: 3.0 to 5.5 is poor quality; 5.6 to 7.5 is fair quality; 7.6 and above is good quality. Stations are listed by river, proceeding upstream.

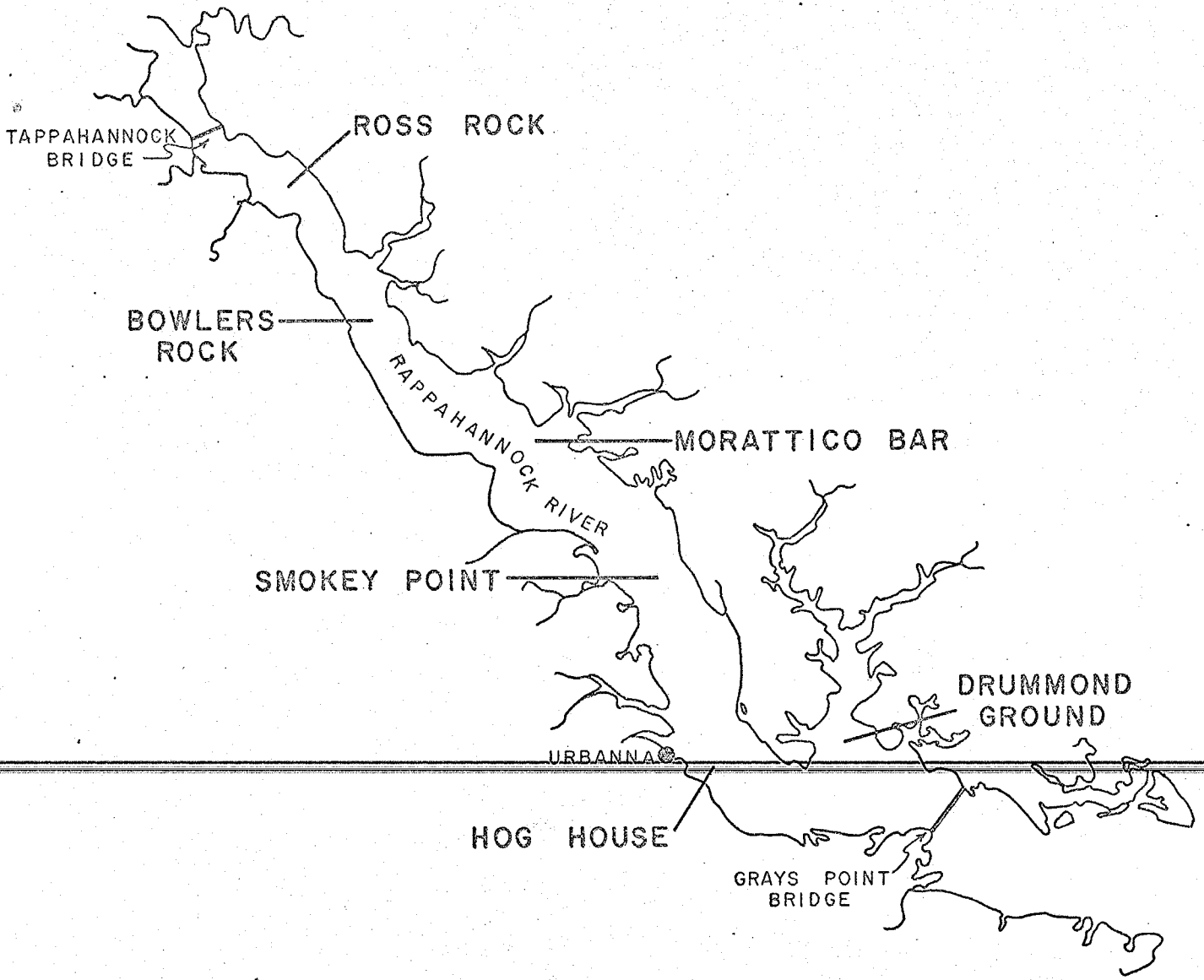
	Mar. 1970	April 1970	May 1970
<b>JAMES RIVER</b>			
Nansemond Ridge	6.1	N.S.*	N.S.*
Brown Shoals	5.3	5.6	5.9
White Shoals	6.1	6.3	N.S.*
Gun Rock	7.1	N.S.*	N.S.*
Wreck Shoals			
shallow	7.6	6.8	N.S.*
deep	6.5	6.3	6.2
Point of Shoals	7.9	6.8	6.6
Horsehead	4.8	4.7	4.7
Deepwater Shoals	5.4	N.S.*	5.5
<b>YORK RIVER</b>			
Green Rock	6.3	6.9	7.1
Pages Rock	5.8	6.0	6.4
Aberdeen Rock	5.5	6.0	6.7
Bells Rock			
deep	7.6	7.4	7.2
shallow	10.1	9.8	N.S.*
<b>RAPPAHANNOCK RIVER</b>			
Drummond Ground	9.2	N.S.*	N.S.*
Urbanna	12.6	11.7	12.0
Smokey Point			
shallow	10.8	10.9	10.7
deep	9.0	9.1	N.S.*
Morattico Bar			
shallow	10.4	9.7	N.S.*
deep	9.3	9.0	8.9
Bowlers Rock			
shallow	11.7	10.1	10.7
deep	10.7	9.6	N.S.*
Ross Rock	N.S.*	8.2	N.S.*

\*Not Sampled

**Explanation**

The Index number is obtained by comparing the actual size of oyster meats with the amount of space inside an oyster's shell cavity. For oysters with the same shell size (for example, three-inch shucking oysters) the Index indicates relative differences in meat size due to season, type of growing area, age, disease, nutrition, crowding and other natural factors. The Index does not reflect yield differences caused by the amount of clumping in a particular bushel or caused by processing methods. The higher the Index number, the greater the amount and quality of meats that can be expected from a bushel of oysters. Whether an oyster is small or large has no effect on the Index number because meats of small oysters can fill shell cavities as completely as meats of large oysters. Using the Index, one can compare the potential meat yield of oysters of the same size 1) from different growing areas and 2) from one season to the next. (A more detailed explanation of the Index is available upon request)





CERTIFIED CRAB MEAT PLANTS  
 MARYLAND, NORTH CAROLINA AND VIRGINIA  
 MAY 1970

Prepared by the Tri-State Seafood Committee and the Virginia Institute of Marine Science as an aid to seafood buyers in locating certified crab meat suppliers.

MARYLAND

Maryland crab meat plants are certified by the Maryland Department of Health. Expiration date February 28, 1971.

<u>Name</u>	<u>Address</u>	<u>Plant No.</u>
Bay Food Products Co., Inc.	Baltimore	MD 12 P
Byrd's Inc.	Crisfield	MD 195 P
I.F. Cannon Company	Crocheron	MD 110
I.F. Cannon & Son	Crapo	MD 126 P
L.R. Carson, Inc.	Crisfield	MD 243
Chesapeake Shellfish Company	Sherwood	MD 273
J.M. Clayton Company	Cambridge	MD 113 P
N.R. Coulbourn Company	Crisfield	MD 316
Crisfield Packing Company	Crisfield	MD 199
William C. Dean & Company	Wingate	MD 138
Dorchester Crab Company	Wingate	MD 117
Omar Evans & Brother	Ewell	MD 210
Evans Seafood Company	St. George Island	MD 455
Willard Evans & Son	Rock Hall	MD 149
Goose Creek Seafood	Toddville	MD 112
Hales Seafood	Grasonville	MD 163
Russell Hall	Fishing Creek	MD 107
Harrison & Jarboe Seafood	St. Michael's	MD 272
Charles W. Howeth & Brother	Crisfield	MD 193
Island Seafood Company	Deal Island	MD 254
Kent Island Packing	Chester	MD 161
Maryland Crab Meat Company	Crisfield	MD 206 P
Meredith & Meredith	Toddville	MD 124
Metompkin Bay Oyster Company	Crisfield	MD 220
Milbourne Oyster Company	Stockton	MD 458
Milbourne Oyster Company	Crisfield	MD 203 P
Oxford Packing Company	Oxford	MD 8
Charles H. Parks & Company	Fishing Creek	MD 120
A.E. Phillips & Son	Fishing Creek	MD 129
Powley, Inc.	Wingate	MD 108
Rippons Brothers	Hoopersville	MD 105
W.T. Ruark Company	Fishing Creek	MD 111
Ruark & Ashton	Hoopersville	MD 119
Herbert E. Sadler	Eastport	MD 79
Seacrafters of Crisfield	Crisfield	MD 205
J.C.W. Tawes & Son	Crisfield	MD 198 P
W.A. Thomas & Son	Grasonville	MD 159
R.E. Thompson & Son	St. George Island	MD 449

Todd Seafood, Inc.	Cambridge	MD 128
Brady P. Todd & Son, Inc.	Crocheron	MD 115
W.A. Turner & Sons, Inc.	Bellevue	MD 268
W.E. Ward Oyster Company	Crisfield	MD 241
L.B. Wharton	Crisfield	MD 201
Wilson Seafood Company	Deal Island	MD 187
C.M. Woolston, Inc.	Crisfield	MD 204

NORTH CAROLINA

North Carolina Crustacea meat plants are certified by the North Carolina State Board of Health. All certificates expire December 31, 1970, unless revoked prior to that date.

<u>Name</u>	<u>Address</u>	<u>Plant No.</u>
Aurora Packing Company	Aurora	N.C. 203
Belhaven Fish and Oyster Company	Belhaven	N.C. 18
Caroon Brothers	Lowland	N.C. 27
Croaton Crab Company	Wanchese	N.C. 41
C.B. Caroon Crab Company	Southport	N.C. 22
Daniels Seafood Company	Aurora	N.C. 429
Daniels Seafood Company	Nags Head	N.C. 172
Engelhard Shrimp, Fish and Oyster Co.	Engelhard	N.C. 142
Fulcher Crab Company	Oriental	N.C. 249
J.D. Guthrie	Washington	N.C. 76
<del>Harbor Packing Company</del>	<del>Lowland</del>	<del>N.C. 11</del>
Ireland Brothers	Hobucken	N.C. 95
Lowland Seafood Company	Lowland	N.C. 30
Luther Lewis & Son	Davis	N.C. 39
Riverview Crab Company	Oriental	N.C. 19
Sound Packing Company	Whortonsville	N.C. 23
Swanquarter Crab Company	Swanquarter	N.C. 34

VIRGINIA

Virginia crab plants are certified by the Virginia Department of Health. All certificates expire March 31, 1970 unless cancelled or revoked prior to that date.

<u>Name</u>	<u>Address</u>	<u>Plant No.</u>
W.H. Allen & Son	Gwynn	VA 23 C
Blake and Bass Seafood Co., Inc.	Newport News	VA 45 C
Channel Crab & Lobster Co., Inc.	Norfolk	VA 40 C
Chesapeake Crab Company	Hampton	VA 9 C
Dawson Packing Co., Inc.	Yorktown	VA 11 C
Eastern Shore Seafood, Co.	Onancock	VA 51 C
G.T. Elliott, Inc.	Hampton	VA 37 C
Ewell & Freeman Seafood Co., Inc.	Seafood	VA 72 C
E. J. Fleming	Portsmouth	VA 44 C
W. Haywood Forrest Seafood Co., Inc.	Poquoson	VA 58 C
Graham & Rollins, Inc.	Hampton	VA 17 C
P.K. Hunt & Son	Hampton	VA 16 C
Keyser Bros., Inc.	Lottsburg	VA 5 C
Lawson Seafood Co., Inc.	Hampton	VA 6 C
Martin & Richardson Seafood Co., Inc.	Newport News	VA 18 C
Millers Crab Shore	Colonial Beach	VA 36 C
Old Dominion Crab Co., Inc.	Newport News	VA 19 C
Phillips Seafood Co.	Hampton	VA 74 C
M.F. Quinn Seafood, Inc.	Hampton	VA 25 C
R.C.V. Seafood Corporation	Morattico	VA 35 C
Rappahannock Oyster Co.	Kilmarnock	VA 12 C
Richardson's Seafood, Inc.	Hampton	VA 76 C
Smith Seafood Co.	Reedville	VA 69 C
George D. Spence & Sons	Quinby	VA 75 C
Tidewater Crab Co., Inc.	Newport News	VA 39 C
Herbert Wilkerson & Son	Colonial Beach	VA 13 C
York Crab & Oyster Co., Inc.	Seafood	VA 33 C
York River Seafood Co., Inc.	Perrin	VA 43 C

MARINE RESOURCE INFORMATION BULLETINS are prepared and distributed by the Information and Education Department, Virginia Institute of Marine Science, Gloucester Point, Virginia 23062, as part of a Sea Grant Advisory Services, Project under P.L. 89-688. Bulletins are mailed to persons in the seafood industry as well as to others using or managing the sea for profit or service. Purpose is to inform on matters relating to use, development, and replenishment of marine resources, including scientific studies, technological advances, legislation and problems. Copies of Bulletins are available free of charge. Anyone wishing to receive Bulletins regularly should write in care of the Institute. References to trade names of commercial products do not imply endorsement by VIMS.

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