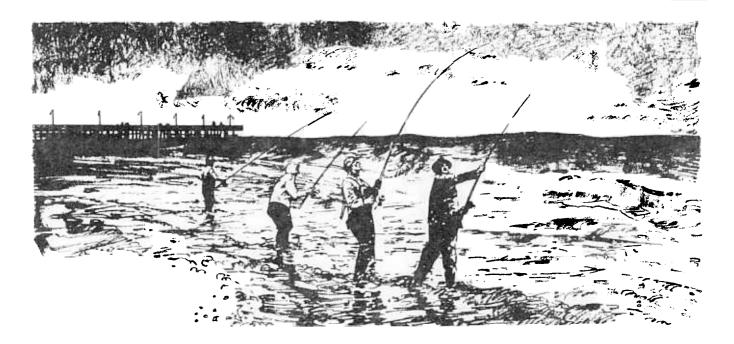


MARINE RESOURCE INFORMATION BULLETIN

A SEA GRANT ADVISORY SERVICE

Virginia Institute of Marine Science, Gloucester Point, Virginia 23062



FISHING FORECAST FOR 1975

Virginia anglers should have the best croaker fishing season in years according to finfish specialists at the Virginia Institute of Marine Science whose population assessments of various species of fishes have enabled them to make annual predictions of supplies that will be available to fishermen. Based on information from winter and summer trawl surveys, catch statistics, and sport and commercial fishing samples, scientists have assessed the outlook for 1975.

Chesapeake Bay fishermen can expect increased catches of croaker as a result of mild winters and successful spawns during the past four years. Continued good catches also are expected for sum-

mer flounder which had strong year classes during the last three years. Early season catches of croaker and summer flounder seem to confirm this forecast.

Continued high abundance is forecast for bluefish and stocks of menhaden appear stable at a high level of harvest. An increase is expected in catches of small and medium size black sea bass.

Year classes of spot in 1973 and 1974 were average, but good catches of two and three year olds are forecast for this year due to recent mild winters that have allowed greater survival and faster growth. An abundance of six-to-Continued on Page 2

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eight inch spot should make for excellent fall fishing.

As predicted by VIMS, this year's commercial catch of river herring in Virginia waters was slightly lower than in 1974. The downward trend for river herring, chiefly alewife and blueback, is predicted to continue through 1978, based on assessments of young herring which make up the adult stocks several years later.

Except for continued scarcity in the James River, populations of white perch seem to be recovering from the low levels noted during the last few years. The forecast for 1975 is for an increase in abundance.

Low spawning success during the period from 1971 through 1974 has lowered the supply of striped bass and fishermen should expect a decline in pan and medium sizes. Weakfish (gray trout) have experienced low to average year classes since 1971. Fewer pan-sized weakfish will be available but supplies of fish three pounds and over should remain about the same this year. Scientists say catches of large and pan weakfish will decline in two to three years unless there is a strong year class in 1975 and 1976.

The outlook for scup in 1975 is poor and the supply of American eel, although difficult to assess, appears stable. There appears to be no puffer available to the fisherman.

No specific estimates were made for black drum, spotted seatrout, channel bass and cobia.



DAVID GARTEN..... EDITOR

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University of Delaware Offers 'Marine Environment Studies'

"Marine Environment Studies", a multidisciplinary collection of learning experiences designed to increase the knowledge of the general student about the marine environment, is available from the University of Delaware.

The collection includes materials for all grades, K-12, with an emphasis on the middle school and high school. Some lessons can be used for instruction of college students or adults.

"Marine Environment Studies" may be purchased as a set or by individual units. For a price list and further information, direct inquiries to Dr. Carolyn Thoroughgood, Marine Advisory Service, 313 Robinson Hall, University of Delaware, Newark DE 19711.

Disaster Relief Notice Amended

Applications for disaster relief loans for damage resulting from high wind in Virginia on April 3 and 4, 1975 will be accepted by the Small Business Administration from disaster victims in six additional counties and adjacent affected areas.

According to the May 23, 1975 Federal Register, disaster victims in Accomack, Gloucester, Mathews, Northampton, Northumberland, Westmoreland and adjacent affected areas may file for disaster relief.

Applications may be filed at the Small Business Administration, District Office, Federal Building - Room 3015, 400 North Eighth Street, Richmond VA 23240. Closing date for accepting applications in the additionally designated counties is July 14, 1975.

Minced Fish As Convenient As Hamburger

Fish as easy and convenient to use as hamburger may soon be available to the homemaker, according to the Department of Commerce's National Oceanic and Atmospheric Administration (NOAA).

Through experiments conducted by NOAA's National Marine Fisheries Service's Utilization Research Center at Gloucester, Mass., minced fish with the same texture as hamburger has been produced.

The minced fish has the same nutritional value as beef, is lower in fat content, and is cheaper to produce since it can be made from a variety of fish species that are not being used to the fullest extent.

Joe Mendelsohn, project director at the NMFS Center, said that minced fish in one-pound frozen blocks is a highly acceptable market form and has commercial potential for both retail and institutional trades.

In the early 1970's a new technology was begun with the introduction of a meat-bone separator machine to the fishing industry. The machine removes the bone, skin and scales from the fish that have been headed and eviscerated and produces fish flesh resembling hamburger. It produces more edible flesh from a fish than can be obtained by hand or machine filleting, thereby making it cheaper to produce.

As a result of this technology and a shortage of whole fillets for conventional frozen blocks, fish processors began using minced fish to produce $13\frac{1}{2}$ to $18\frac{1}{2}$ pound blocks which they use to produce fish sticks and portions.

"Because of the previous success experienced in processing large blocks into sticks and portions, the market potential for a small one-pound frozen fish block suitable for home use was investigated," said Mendelsohn. "A package would contain enough fish for one meal which the housewife could use in tested recipes provided on the package or in recipes she might develop herself."

A variety of products including fish cakes, chowders, salads, fish in spaghetti or marinara sauce, fish and rice, fish stew, and fish and beef was prepared at the Utilization Research Center, tested by families, and found to be highly acceptable. Those testing the fish commented on the convenience of the blocks and the absence of a "fishy" smell.

"The one-pound frozen block of minced fish is adaptable for use in most fish recipes and as an extender for hamburger," said Mendelsohn. "It is convenient requires no preparation for use directly into many recipes, and is very economical when compared to other fish products."

Offshore Angler's Guide Available

A handy 32-page booklet covering many of Virginia's offshore sportfish has just become available from South Carolina. Entitled "A Sportman's Field Guide to the Billfishes, Mackerels, Little Tunas and Tunas of South Carolina", the booklet identifies 21 species of fish.

Distinguishing features of the species are outlined along with a detailed drawing of each fish. Drawings of fin features and liver structure are included and a glossary defines all terminology.

One free copy of the field guide can be obtained by addressing a request for Educational Report No. 3 to the South Carolina Wildlife and Marine Resources Department, Marine Resources Division, Office of Conservation and Management, Recreational Fisheries Section, P. O. Box 12559, Charleston SC 29412.

Coastal Zone Management

Planning For Today And Tomorrow



Coastal Zone Management (CZM) is envisioned by many as a method to substantially increase the number of sound decisions concerning the use of coastal and marine resources, to help resolve use conflicts

and to provide the best possible balance between environmental quality and economic growth. Many Virginians are asking the Division of State Planning and Community Affairs (DSPCA) and the Virginia Institute of Marine Science (VIMS), the two agencies responsible for developing Virginia's CZM program, how the program will be developed and what efforts are being made this year.

Basically, the three-year CZM program planning effort can be divided into three major tasks:

- A comprehensive statewide assessment of the current situation in Virginia's coastal zone.
- A determination of the type of coastal zone (in terms of a balance between environmental quality and economic growth) that best represents the interests of the Commonwealth and its citizens.
- The development of a CZM program that most effectively promotes the attainment of the desired coastal zone objectives.

While this approach seems simple, the development effort will be a complicated and arduous process.

In Virginia the first year's planning efforts are primarily directed towards the completion of the statewide assessment of Virginia's coastal zone. This year's program includes five ongoing work elements.

PUBLIC EDUCATION AND INVOLVEMENT

The prime activity in this first year is the development of a process

by which the interests of all state sectors (state, regional, local, public and private) can be articulated to help formulate the Commonwealth's coastal management goals as well as to help design the management program needed to attain these goals.

In order to make the involvement more meaningful and to create a greater understanding of the problems, pressures and issues associated with the management of Virginia's coastal resources, public information will be provided through brochures, pamphlets, mass media conferences, public hearings and other suitable mechanisms. Formal feedback networks are being created to insure wide access to decision makers responsible for the development of Virginia's CZM program.

Currently a CZM Regional Advisory Committee (RAC) has been created in each of the nine coastal regional planning districts to serve as a formal focus for public education and involvement activities.

ASSESSMENT OF ACTIVITIES

During the first year, ten coastal zone assessment reports will be produced; nine at a regional (RAC) level and one at the state level. With staff support from DSPCA, each RAC will prepare a regional assessment report that will include the following items:

- A description of the region's coastal zone in terms of geography and susceptibility (fragility) to development.
- An assessment of the pressures for and desirability of development of different types in the region.
- An assessment of the potential impacts of such development.
- An assessment of existing methods

to adequately deal with developmental pressures and impacts.

VIMS personnel will be available for technical support for this activity.

In a similar fashion, DSPCA will prepare a state coastal zone assessment report. When completed, any existing statewide approach to resource management within the coastal zone can be evaluated and studied to determine how state policy affects and interrelates (supplementary and complementary) with concurrent actions taking place at the regional and local levels.

The combined results of these assessment reports will provide a basis for many recommendations that will be made in the second and third planning years relative to Virginia's coastal zone planning objectives and management techniques.

DATA COLLECTION AND ANALYSIS

In order to support the public education and coastal zone assessment work elements as well as to provide a basis from which user impacts upon coastal resources can be evaluated, a substantial data gathering program has been initiated.

DSPCA is currently developing and compiling socio-economic and fast land data. The types of information being compiled include, but are not limited to, population characteristics, economic base analyses, land use data, transportation patterns, and natural resource data. The resultant product will be both a graphic and written inventory of the physio-sociological conditions existing in Virginia's coastal plain.

VIMS is conducting two major inventories of coastal resources. The Tidal Marsh Inventory effort is designed to locate and describe, in physical and biological terms, all of the Commonwealth's wetlands. The information is analyzed and published in county level publications. While only three county reports have been published to date, ten will be in print by the end

of 1975. Ongoing Shoreline Situation studies are designed to supply an assessment of important parameters and characteristics of Virginia's entire shoreline in an effort to help planners and managers make the best possible decisions for the utilization of this limited and valuable resource. To date, four county studies have been published, two are in press and fourteen are in varying stages of completion.

DSPCA and VIMS are jointly investigating the availability and suitability of existing graphic (mapping) displays and methods for the presentation of the coastal zone data being generated. While this is not a major effort, it is an important one since it will help make the data more accessible to planners and the public.

At VIMS, the Marine Environment and Resources Research and Management System (MERRMS) is being expanded to provide Virginia with a centralized coastal/marine resources management information clearinghouse. The information is available to any state agency, organization, or individual at little or no cost. Ultimately, this service will augment public education and involvement efforts.

WETLANDS MANAGEMENT NEEDS

Resulting from the implementation of Virginia's Wetlands Law, this work element is being conducted at VIMS to provide continuing support and guidance to local wetlands boards and the Virginia Marine Resources Commission relative to problems of Wetlands management. This project is being supported by Virginia's CZM program to enhance wetlands protection efforts and to determine the most effective method to incorporate wetlands planning and management into the more comprehensive coastal management planning program.

COORDINATION AND ADMINISTRATION

As a result of the comprehensive nature of Virginia's coastal zone management planning effort, a concerted

effort is being made to upgrade the lines of communication between DSPCA, VIMS and other state agencies involved in the management of the Commonwealth's coastal resources. In addition, improved communication networks are being developed between Virginia and the neighboring states in the Mid-Atlantic region, particularly Maryland and North Carolina to monitor and interact in their coastal zone management efforts. Improved intra- and interstate communication and coordination will provide for a more coherent coastal zone planning and management effort in Virginia.

Virginia has embarked upon an ambitious coastal zone management planning effort. Primary emphasis is being given to involving all sectors of the state in this process in order to produce a management program that is responsive to the needs of the Commonwealth and its citizens. The success

of the program is therefore critically dependent upon meaningful citizen involvement.

For further information about Virginia's CZM program or how you can become involved, contact:

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