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FILE

Status of Wild Stocks of Striped Bass

by

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Gloucester Point, VA 23062

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Virginia Institute of Marine Science

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Striped bass have been a major Virginia fishery since the 1930's, and have grown dramatically since the 1950's. (Figure 1) Several good year classes during the 1960's, coupled with the dramatic growth of recreational fishing resulted in record high catches. Recreational fishing infact, in New York is estimated at ten times the commercial catch. Maryland is estimated at four times and the Virginia harvest at roughly 0.25 the commercial catch.

During the 1960-1970's both fisheries became dependent upon the occasional dominant year class to sustain the high landings. Current estimates of harvest pressure during this period are from three to four times what the stock could carry.

Prior to 1980 Virginia's landings data show that the major Virginia fishery was a late winter, early spring upper tributaries gill net fishery. This has changed to a fall pound net fishery due both to changes in stock structure and the ASMFC ISFMP which closes the spawning grounds during spring. Data from the PRFC (Figure 2) mirror this pattern during 1975-1984 as the landings change from a spring dominated fishery to a reduced fall fishery. This change is accompanied by a shift from larger fish to smaller

fish. Note in the Potomac the dramatic appearance of the 1982 year class which prompted more stringent regulations.

Current status of stocks in Virginia looks promising for the wild harvester. There are reports of more fish in the rivers now than ever before. This is true, and watermen are unhappy and confused. The rock is a slow growing fish, not reaching sexual maturity until over four to five years at lengths of >24". (Figure 3) Data from the fall pound net fishery, and "special" VIMS sampling of pound nets does indeed show a large stock....but an immature one.

This we believe to be due to a number of factors. The rise and fall of many, if not most, stocks is often a natural cycle. Compounding this is a combination of harvest pressure and reduced water quality. A natural downturn in the cycle is exacerbated by over harvest. Once down, the stock finds it difficult to rebound. It does appear that the stock may have started to recover in 1980-1981, but was "held down". In Virginia the juvenile index (Figure 4) has shown an upward trend since 1981. The ISFMP went into effect in Virginia in 1982. Results would not be forth coming until 1986, yet the Virginia index began a recovery in 1981. A major amendment to the ISFMP has been Amendment No. 3, the protection of the 1982 year class until 95% of the females reached sexual maturity. In all likelihood this is responsible for the dramatic 1987 index.

The State of Maryland, in a joint venture with the USFWS has initiated a hatchery release program in an effort to restore the Upper Bay stocks. This

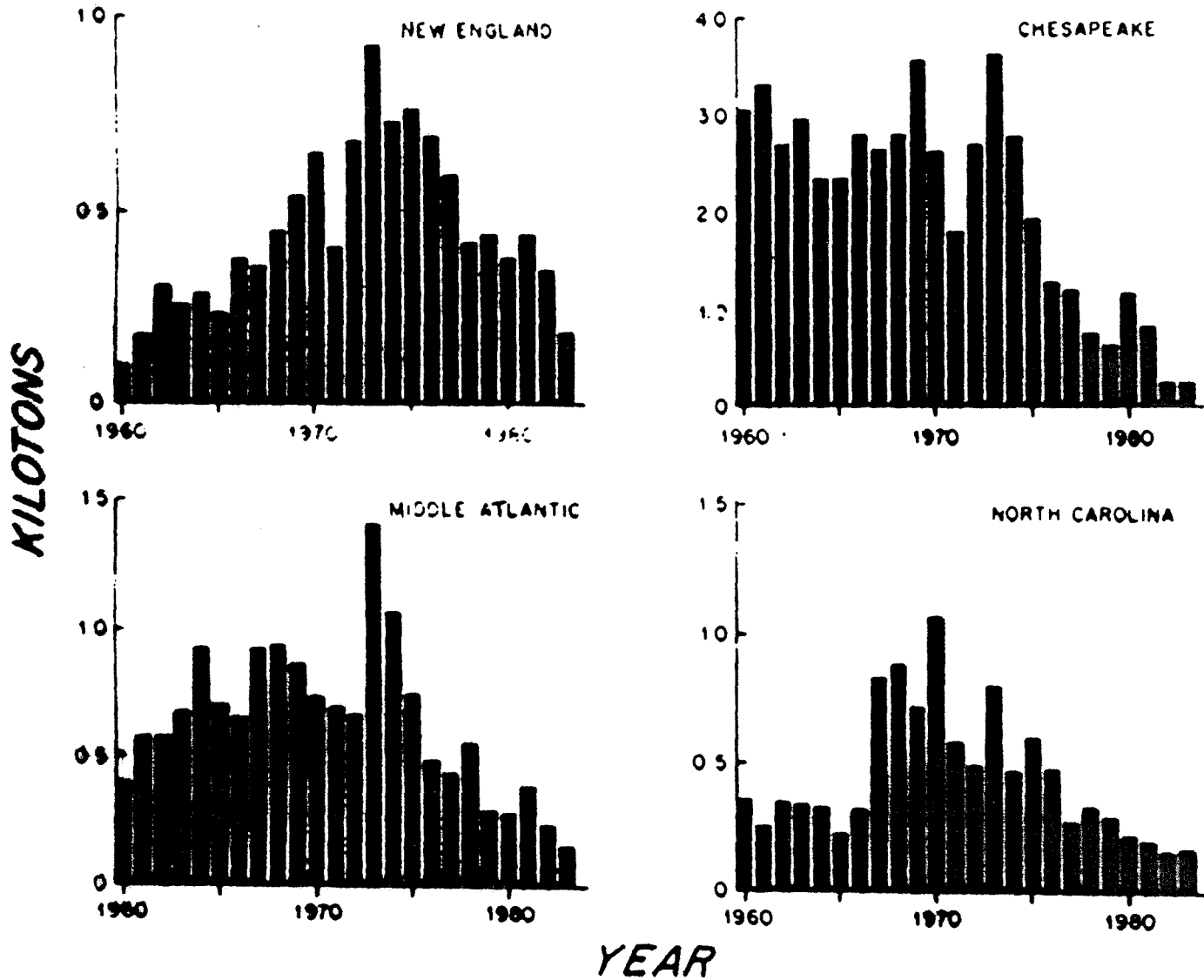
program appears to be meeting with some success, based upon tagging results. Virginia too, through VIMS, VMRC, G&IFC, and USFWS has become involved in an experimental hatchery-release program to assist in supplementing the natural recruitment in an effort to speed the recovery of the Virginia tributaries' stocks. I emphasize however, this is an experimental program.

Successful recruitment and stock recovery in Virginia does not mean the Chesapeake Bay stock has recovered. Pressure will continue on the VMRC to open the fishery; and when the Maryland index reaches a running average of 8 over a three year period it can be reopened. The S&S Committee of ASMFC is working on a plan that will allow a phased reopening of the fishery.

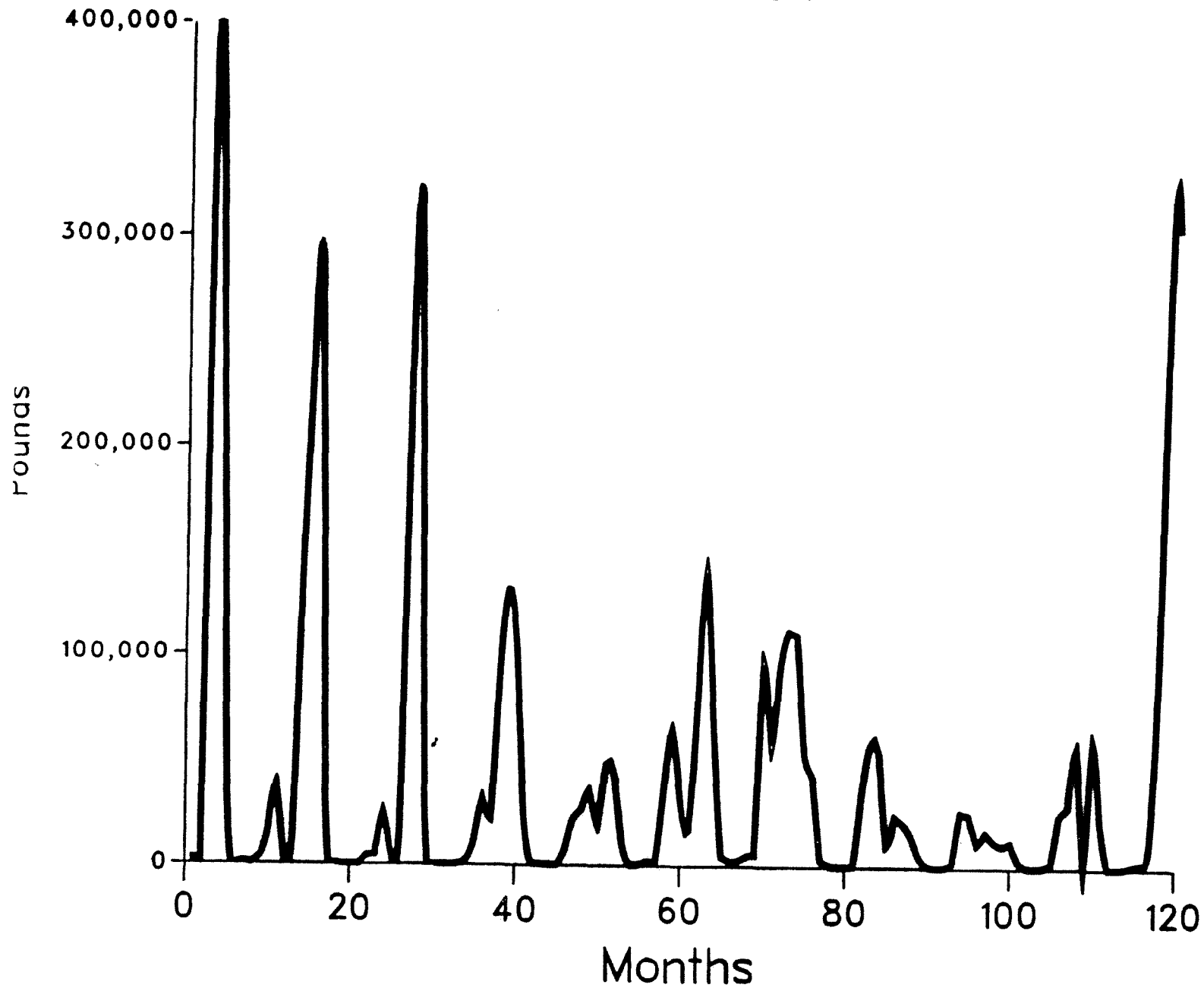
In all likelihood we will see an 18" (three year old fish) size limit in Virginia's waters of the Bay, a 24-28" size limit in the ocean, and a continuation of the closed spawning season, a February or March through April or May closure.

What does this mean to aquaculture? Striped bass should be plentiful by 1990, and the fishery will probably be open again. But, it will be closed to legal sized fish during the "spawning season" from February or March through April or May. Then, during summer (May-June through September) most legal sized fish will be in northern waters. The fishery will not land a significant catch until October. Further, the state will need to determine what minimum size can be possessed. If a wild harvest fish limit is 18", will there be a similar limit on hatchery raised? Or, will one be able to possess and sell a 10-12" fish?

BOREMAN AND AUSTIN

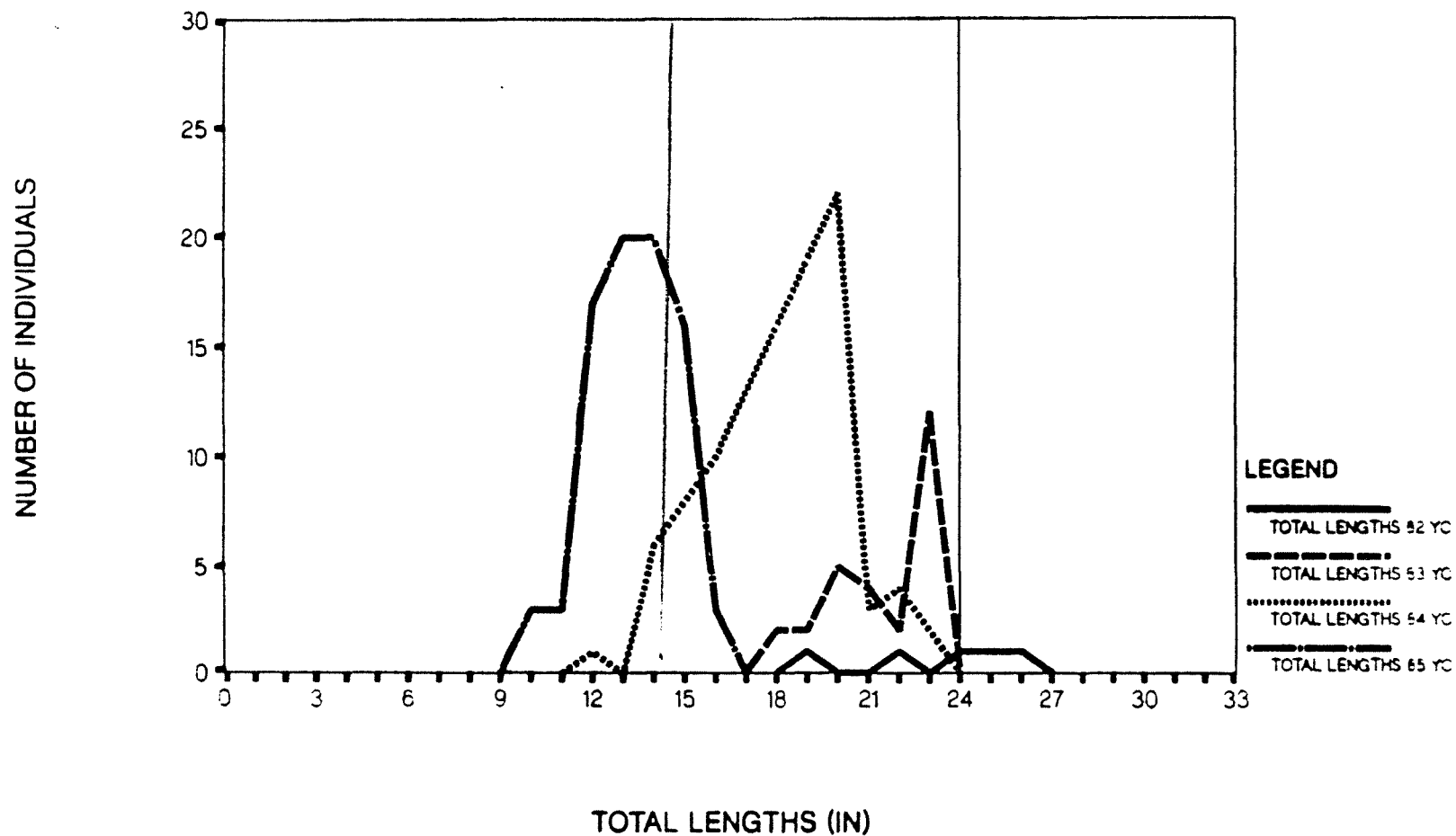


Potomac River Striped Bass landings
monthly data, entire river
1975 - 1984



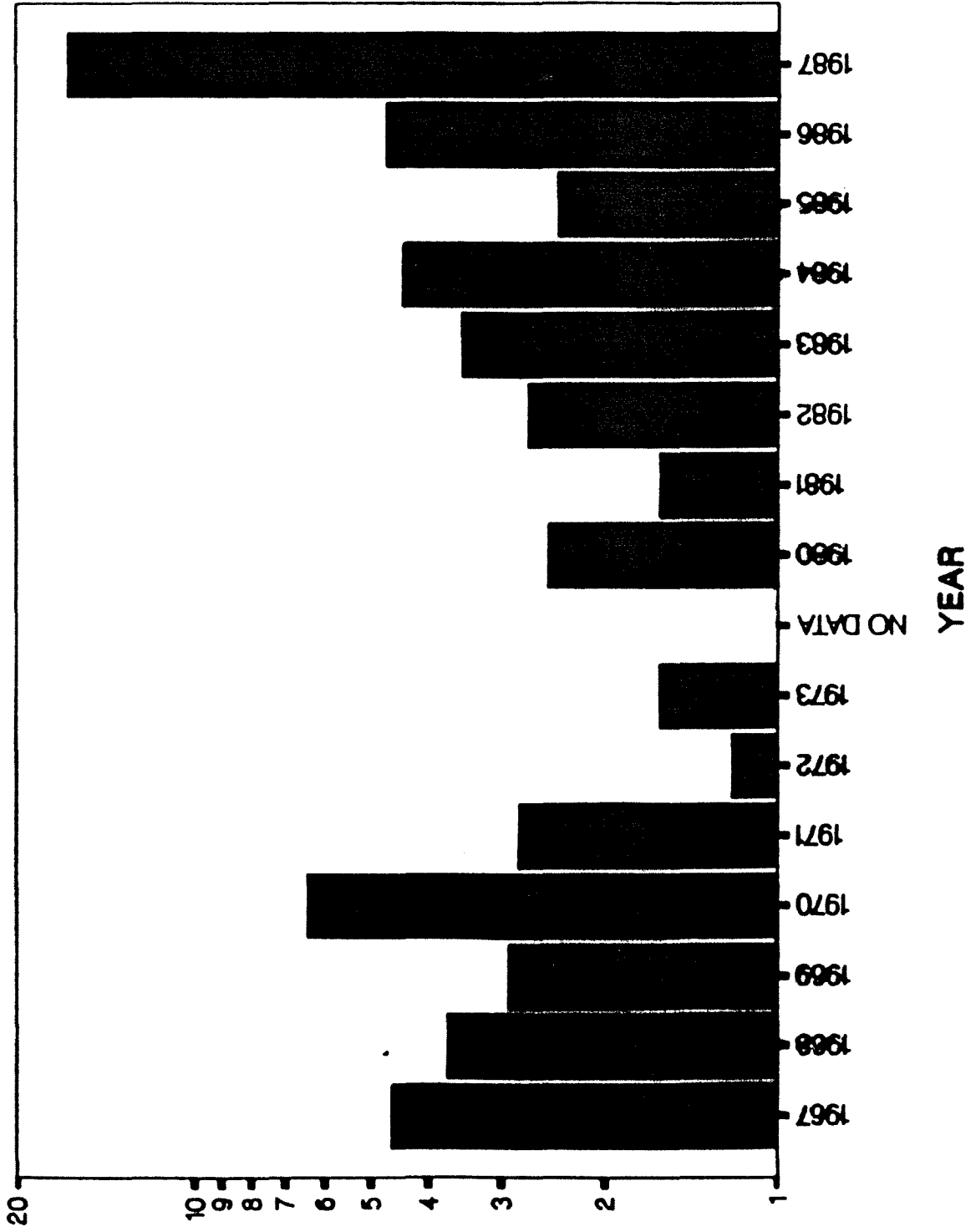
VIRGINIA FEMALE STRIPED BASS YEAR CLASS LENGTH FREQUENCIES

JAMES AND RAPPAHANNOCK RIVERS



(VIMS DATA PREPARED FOR VMRC)

VIRGINIA STRIPED BASS YOUNG OF THE YEAR INDEX



BEACH SEINE SURVEY DATA
FROM J. COLVOCOPRESSES