

Reports

1979

Estimated total finfish biomass for the James River for 1975

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Recommended Citation

Wokcik, F. J. (1979) Estimated total finfish biomass for the James River for 1975. Manuscript. Virginia Institute of Marine Science, William & Mary. <https://scholarworks.wm.edu/reports/2671>

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ESTIMATED TOTAL FINFISH BIOMASS FOR THE JAMES RIVER FOR 1975

-Frank J. Wojcik

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1979

The following biomass estimates were computed from trawl catches made during the VIMS ichthyology fish surveys. These catches were adjusted by whatever information was available in the literature on mortality rates, and length-weight relationships to arrive at the best available estimate of standing crop, and then its weight. These approximations were developed for use with the Kepone model.

Species	Biomass (kg)
Spot	4,323
Atlantic Croaker	5,694
Summer Flounder	276,803
Weakfish (grey trout)	612,515
Channel Catfish	1,458,523
White Catfish (1)	302,721
Brown Bullhead (1)	48,164
Atlantic Menhaden (2)	37,909,091
Alewife (3)	43,863
Blueback Herring (3)	67,906
American Shad (3)	1,783,205
White Perch	35
Gizzard Shad	59
Threadfin Herring	949
Caro	2,130
Northern Hogsucker	155
Tautog	183
Oyster Toadfish	1,789
American Eel	2,612
Hogchoker	587
Spotted Hake	708
Feather Blenny	107
Bay Anchovy	4,446
Atlantic Silversides	3,749
Spottail Shiner	1,595
Total	42,532,912

Because there is little information on the smaller, non-Commercial species, their biomass as given is still grossly underestimated, but is the best available.

Recd Jan 16, 1980

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- (1). Computed from a ratio of catch to the Channel catfish catch.
 - (2). Based on report Preliminary Forecast of 1980 Atlantic and Gulf Menhaden Purse-Seine Catches. 1979. NOAA, Southeast Fisheries Service, Beaufort, N.C. Pp 6-22.
 - (3). Based on data found in Loesch, Joseph G. and W.H. Kriete. 1976. Biology and Management of River Herring and Shad in Virginia, VIMS, 223pp.