

Reports

9-14-1987

Limited Information on Utilization of the Chesapeake Bay Bridge Tunnel Area by Recreational Fishermen

Jon A. Lucy
Virginia Institute of Marine Science

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



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

Recommended Citation

Lucy, J. A. (1987) Limited Information on Utilization of the Chesapeake Bay Bridge Tunnel Area by Recreational Fishermen. Marine Resource Report No. 92-4. Virginia Institute of Marine Science, College of William and Mary. <http://dx.doi.org/doi:10.21220/m2-vzqg-pf75>

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.

Limited Information on Utilization of the
Chesapeake Bay Bridge Tunnel Area by
Recreational Fishermen

Jon A. Lucy

Sea Grant Marine Advisory Program
Virginia Institute of Marine Science
College of William and Mary
Gloucester Point, VA 23062

Information Presented to Japanese Delegation
Relative to Impacts of Bridge-Tunnel
Complexes on Fisheries

September 14, 1987

Marine Resource Report No. 92-4

Chesapeake Bay-Bridge Tunnel:

Impact on Recreational Fishing and Boating

With completion of the Bridge-Tunnel complex in 1964, fishermen in the lower Bay area found a new focal point for their fishing activities. The four rocky islands supporting the two tunnel sections are the primary points where recreational boats concentrate with the channel edges over the two tunnels and around the "high rise" section of the bridge over the North Channel also being major areas of fishing activity. Several distinctive shoal areas occur along the length of the Bridge-Tunnel complex with such areas also serving to concentrate fish and fishing boats. The various components of the complex and associated shoals primarily attract sciaenids (spot, croaker and gray and speckled trout), bluefish, flounder, striped bass (spring and fall) along with sea bass and tautog among the rocks of the four islands. Some red drum, black drum and cobia occur along the northern most section of the bridge system in the vicinity of the "high rise" area.

Checking numerous sources, it became apparent that the only recreational boat counts ever made in association with the Bridge-Tunnel were made by VIMS staff during late 1982 through August 1984. Counts were made from an airplane as part of pound net surveys and were only made on one week day during each month sampled. Two flights were made in 1982 (Oct. and Nov.), five in 1983 (June-Oct.) and four in 1984 (April-Aug.). In 1983, the average week day boat count was 36 boats with counts ranging from 19 to 72 boats; in 1984 average week day counts equaled 58 boats with the range being 19-104 boats. During

1983 an average of three head (party) boats fished the complex on week days and in 1984 an average of four boats fished it on week days.

Checking recently (September 1987) with marinas in the vicinity of the complex for estimated numbers of boats fishing the structure during typical summer weekends produced a range of responses. Marina operators, most often making estimates for "good" weekends, stated that boat numbers ranged from 40 boats per day in mid summer when fishing dropped off up to 300-500 per day on peak weekends. Much of the fishing activity is by trailered boats ranging in length from 14 feet up to 22-23 feet. Estimates of use of the Bridge-Tunnel by such boats from major marinas in the area with boat ramps indicated that 100-200 trailered boats likely fish the complex on a weekend given good boating weather. Adding fishing boats kept in wet slips and dry stack storage at these facilities to the trailered boat traffic could easily produce total weekend boat counts around the Bridge-Tunnel of 300 or more vessels.

Based upon the limited information available and the fact that daily boat counts were made only as recently as 1984, it is difficult to provide an estimate of current fishing activity attributed to the Bridge-Tunnel. An extremely rough estimate of average weekday fishing boat densities over the fishing season (mid April through early November) would be 30 boats, considering bad weather days and poor periods of fishing. A similar estimate for average weekend counts would be 150 boats (fishing each Saturday and Sunday). Assuming a seven month fishing season with 22 weekdays in each month and a total of 28 weekends over the season, an approximation of annual fishing

trips to the Bridge-Tunnel would be 13,000 trips. This provides no indication, however, of the actual number of boats utilizing the structure for fishing since many of the same boats fish ^{may fish the complex more than one day per week} the area. In addition, ~~to the~~ estimated private boat trips, as many as 7-10 head boats currently fish the Bridge-Tunnel area on weekdays and weekends. Assuming a head boat fishing season of May 15-Sept. 15, a ^{rough} ~~rough~~ estimate of head boat trips associated with the Bridge-Tunnel ^{would} be 1000 such trips each year ^{(850 half day plus 150 whole day trips for 7 boats fishing 5 days per week).} ^{Assuming} ~~On the average~~ a private boat trip ^{typically} provides fishing for 2-3 fishermen. Assuming 2.5 fishermen per private boat trip and 35 fishermen ^{per} head boat trips, the Chesapeake Bay ^{for each} Bridge Tunnel ^{could} annually provides recreational fishing opportunities for over 32,000 ^{angler days} private boat anglers and 35,000 ^{angler days} head boat anglers. ^{for private boat and head boat anglers, respectively.}

Table 1. Indicators of importance of
CBBT to area divers and recreational fishermen.

I. Diving Averages

- A. 2 trips/month (20 divers/trip)

II. Head Boat Fishing

- A. Majority of 7 head boats out of D&M marina fish the CBBT and adjacent area.

III. Virginia Saltwater Fishing Tournament Data

A. Flounder

1. Pre 1965: Over a six year period 13% of flounder citations were taken in area of CBBT
2. Post 1985: Over a 14 year period approximately 40% of flounder citations were taken in area of CBBT

B. Tautog - averaged 74 (1965-1967)

1. Virginia Saltwater Fishing Tournament tautog citation records compared to average number of tautog citations per year for three year period after completion of CBBT

1965-1967	Citations averaged 74 per year
1968	Citations equaled 190 (2.6 X average)
1969	Citations equaled 646 (8.7 X average)
1970	Citations equaled 441 (6.0 X average)
1971	Citations equaled 385 (5.2 X average)
1972	Citations equaled 362 (4.9 X average)

For several key species of fish important to both commercial and recreational fisheries, the CBBT has proven to be a significant focal point for hook and line fishing. Records of the Virginia Saltwater Fishing Tournament indicate that recreational fishing activity began around the structure in the year it was completed. That year (1964) the largest striped bass and flounder caught in Virginia on hook and line were taken at the CBBT. Since completion of the complex, Virginia recreational fishermen have taken the largest catch for the year of at least two species at the Bridge-Tunnel each year except in 1965 and 1969, when no top record catches were recorded for the area and in 1976 when only one top annual catch was recorded for the area (channel bass). The Bridge-Tunnel quickly gained the reputation of being the place to catch record size fish, particularly for the following species: striped bass, flounder, grey trout, speckled trout, and bluefish. In 1972 and 1973 the Bridge-Tunnel produced top catches of the year for four of 22 species for which awards were given and in 1978 five top catches were taken there. For seven different years, recreational fishermen have found the Bridge-Tunnel to produce three top trophy catches. The relative frequency of these catches is shown in Table 2, indicating the significance of the Bay-Bridge Tunnel for trophy catches by recreational fishermen. The influence of the Bridge-Tunnel as a focal point for recreational fishermen to take citation size summer flounder, striped bass and speckled trout is indicated in Table 3.

Table 2. Ranking of Virginia recreational record catches taken annually at the Chesapeake Bay Bridge Tunnel (1964-1986)

Species	Number of Years Record Catch at CBBT	Ranking (%)	Percentage of Total Catch Period*
Flounder <u>Paralichthys dentatus</u>	20	34.5	87.0
Gray Trout (Weakfish) <u>Cynoscion regalis</u>	15	25.9	65.2
Striped Bass <u>Morone saxatilis</u>	6	10.3	26.1
Tautog <u>Tautoga onitis</u>	4	6.9	17.4
Bluefish <u>Pomatomus saltatrix</u>	3	5.2	13.0
Speckled Trout <u>Cynoscion nebulosus</u>	2	3.4	8.7
Cobia <u>Rachycentron canadum</u>	2	3.4	8.7
Channel Bass <u>Sciaenops ocellatus</u>	2	3.4	8.7
King Mackerel <u>Scromberomorus cavalla</u>	2	3.4	8.7

*Number years state record taken at CBBT as percentage of 23 year period
(Source: Virginia Saltwater Fishing Tournament)

Table 3. Influence of CBBT on area of catch for Virginia citations*

Species	VSFT Citations			Total
	CBBT Area	%	Other Areas	
Summer Flounder				
Pre 1965**	203	13	1350	1553
Post 1965***	2606	40	3826	6432
Striped Bass				
Pre 1965	3	1	335	338
Post 1965	2408	64	1330	3738
Speckled Trout				
Pre 1965	0	0	99	99
Post 1965	426	19	1864	2300

* Source: Virginia Saltwater Fishing Tournament

** Six years of catches (1958-1964)

*** 14 years of catches (1965-1979)