

VIMS Develops New Online Tools for Managers

By Marcia Berman

The Comprehensive Coastal Inventory Program (CCI) at VIMS recently launched three Internet based interactive map applications. "This is a great advancement in Geographic Information System (GIS) technology," said Marcia Berman, head of CCI.

"Through the Internet, users can access GIS data, perform queries, and build map compositions without the need for GIS software on their desktop. A user requires an Internet connection only." As the host, CCI developed an online interface which prompts a user to select from a list of GIS themes (layers). The interface calls to the host server to retrieve selected data. Using specialized tools, the user can also query the database directly for attribute information. Maps can be composed and printed.

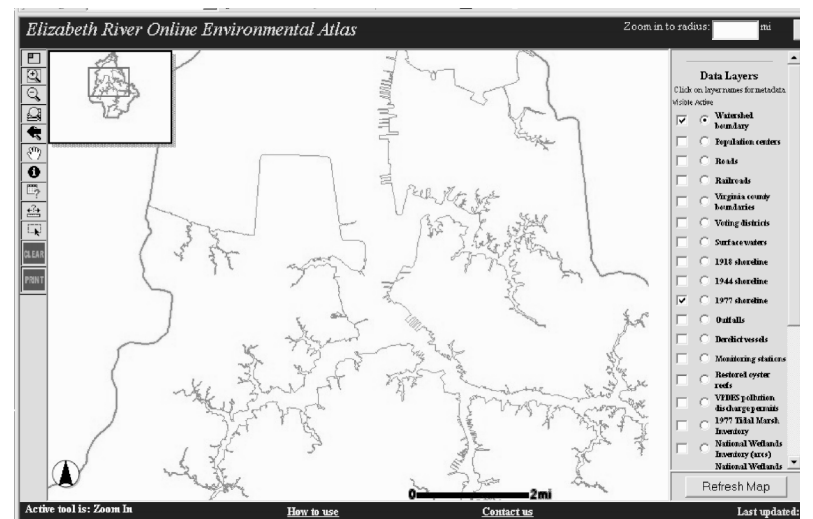
Each interactive map application

was developed for a different purpose and audience. The Shoreline Managers Assessment Kit (SMAK) was developed for state and local government shoreline planners, and allows individual access to a large archive of GIS data that characterizes shoreline conditions in Virginia. Among other things, a user can view shoreline, tidal marshes, location of bulkheads and riprap, location of boat ramps, and the extent of SAV beds in shallow water habitat.

OSCAR, the Oil Spill Clean-up and Response Tool, was designed for oil spill responders to rapidly display a collection of geographic data themes that designate sensitive areas within the Bay. This tool will soon be extended to include a layer that illustrates the placement of booms identified in USCG-approved boom strategies for certain major military installations in the region. Combined with tidal and

meteorological data, OSCAR helps responders locate environmentally sensitive resources and anticipate which areas are at risk during spill events.

The Elizabeth River Online Environmental Atlas is the third interactive mapping tool. This product was developed for use by any individual with an interest in the health and quality of the Elizabeth River Watershed. Data assembled includes images,



Example of online GIS data application.

land use and land cover, water quality monitoring stations, and ecologically important resources.

All three tools can be accessed at <http://ccrm.vims.edu/output/virginia/introduction.htm>

Marine Industry Trends- A Tale of Two Fisheries

By Tom Murray

With continued growth in both recreational saltwater angling and traditional commercial fishing, one wonders how the resources—as measured by overall catches—are faring, and how relative shares of the total harvest are playing out. Most feel that although government-associated harvest data are not without some shortcomings, they represent the best information available to assess catches and gain some insight into fishery trends. And while commercial and recreational data collection efforts differ in their approaches (the former, generally mandatory; the latter, primarily by voluntary angler surveys), use of the data to track overall catch is helpful.

The striped bass represents an economically important inshore finfish

species to the Commonwealth. It therefore serves as a useful example in gauging both the growth in catches overall and the relative harvests by user group. The final 2001 catch statistics are not yet available for either commercial or recreational landings. However, between the commercial catch data available from Virginia's Marine Resources Commission (VMRC) and the recreational catch estimates provided by the National Marine Fisheries Service (NMFS), some trends and comparisons are readily available for Virginia fisheries. As depicted in Figure 1, under recent management practices the average total catches in both sport and commercial fishing have increased since 1994.

Another important Virginia fishery, summer flounder, has exhibited a mixed

Figure 1. Striped Bass Catch by Sport and Commercial Fishermen (lbs.) 1993-2000

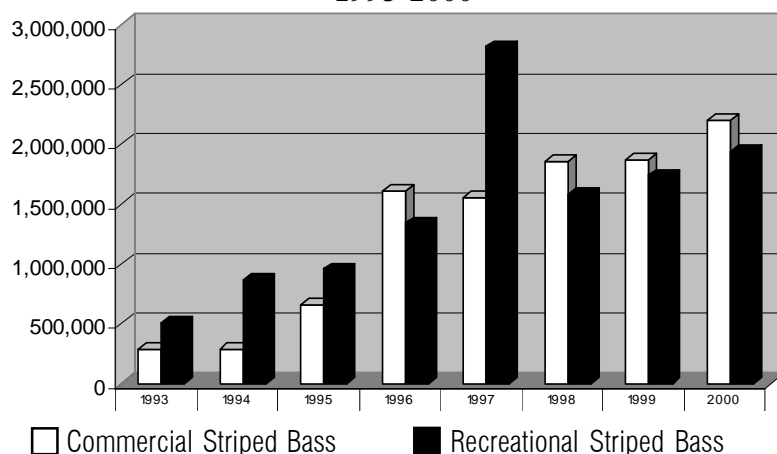
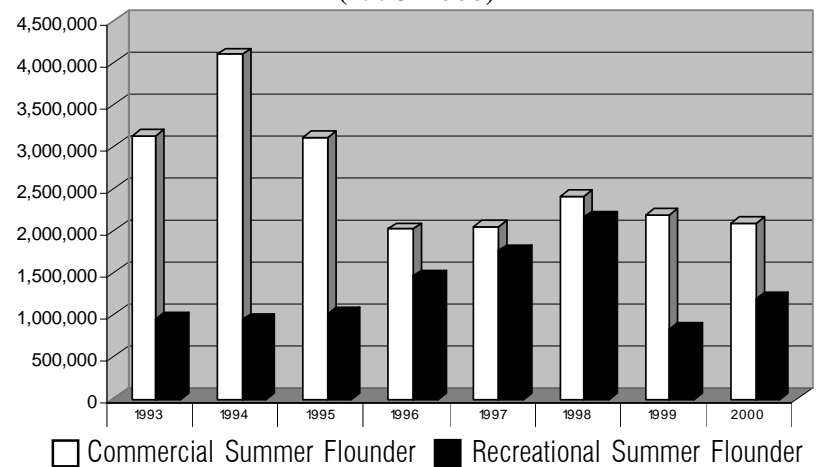


Figure 2. Sport and Commercial Catch of Summer Flounder in Virginia (1993-2000)



track record for the same eight-year period according to the same databases summarized in Figure 2.

The summer flounder stock has been managed federally since 1989 and is believed to be rebuilding under a catch quota system adopted in 1993. Reportedly, the coast-wide (Maine-North Carolina) commercial summer flounder fishery continues to exhibit strength but, according to the NMFS, it has been "encountering a bumpy road along the way." Many believe that additional management measures are needed for the inshore component of the fishery.

Currently, the VMRC proposes to reduce the recreational harvest of summer flounder in 2002 by 43.8 percent in order to comply with the Atlantic States Marine Fisheries Commission's (ASMFC) *Interstate*

Fishery Management Plan for Summer Flounder. The VMRC is looking at combining several management options. Increasing the minimum size limit to 18 inches, reducing the possession limit to as few as two fish, and closing seasons for several months will all be considered.

At the same time, new regulations developed by the NMFS and the ASMFC will allow an increase in catch limits for 2002. The new quota allocates 60 percent (or 14.58 million pounds) to the commercial industry and 40 percent (or 9.72 million pounds) to sport fishermen, representing an overall increase of 36 percent from the 2001 quota of 17.9 million pounds. How the future fishery for summer flounder develops is the subject of much discussion and confusion as we begin 2002.