"GREEN SHEET"

Meeting dates:	January 10-12, 2008 Meeting (Briefing)	**#8**
Agenda item:	Razor Clam Growth and Mortality Study - Briefing	
Staff Contact:	Dan Ayres, Coastal Shellfish Lead Biologist – Region 6 (Fish Program)	
Presenter(s):	Dan Ayres, Coastal Shellfish Lead Biologist – Region 6 (Fish Program)	

Background:

Washington State's coastal razor clam populations support one of the largest recreational shellfish fisheries along the U.S. west coast with an average of 250,000 digger trips each season. It is conservatively estimated that this fishery generates between $4 and $10 million each year to the economies of Washington's coastal communities. Annually, WDFW staff conducts thorough coast-wide razor clam stock assessments. In 1997, WDFW adopted a new population assessment technique and increased the area of beach included in the assessments. These data are used to set the total allowable catch (TAC), which is calculated based on a *maximum harvest rate*.

In the spring of 2004, WDFW, in close consultation with fishery co-managers at the Quinault Indian Nation (QIN), revised the method of calculating the *maximum harvest rate* after an intensive review of its data on the coastal razor clam fishery. Under the new method, WDFW and QIN agreed to increase the *maximum harvest* rate on four coastal beaches to 30 percent of the clams three inches or longer, up from a rate of 25 percent in effect since 1993. (This increase in the *maximum harvest* rate has resulted in an estimated additional 180,000 digger trips and $4.5 million to local economies between the fall of 2004 and spring of 2007). This agreement was a result of a change in management strategy. However, regardless of choice of management strategy, the resulting TAC is directly determined by biological parameters such as natural mortality, and it became apparent that that parameter needed updating.

WDFW and QIN agreed to conduct a joint study designed to refine the natural mortality rate estimate for razor clams on the Washington Coast. This information is key in the calculation of the *maximum harvest rate* and a more reliable estimate may allow state and tribal biologists to recommend a further adjustment of the *maximum harvest rate*. The natural mortality rate study began in June of 2004 on three razor clam reserves, located on Copalis, Twin Harbors (field conditions prevented successful completion of the research at Twin Harbors, resulting in dropping Twin Harbors from the study) and Long Beach. These ¼ mile sections of beach had been closed to all harvest for 10 or more years. In the initial study, an intensive removal of a specific portion of the harvestable clams in ½ of each reserve was conducted. Comparison of the repopulation rates was to be used to assess *natural mortality*. Initial evaluation of the repopulation data at both Copalis and Long Beach showed that the survival estimates were heavily dependent on another biological parameter, the growth rate. The most recent growth data from the late 1990's involved 216 clams but exhibited a large degree of uncertainty. Therefore, a growth rate study was added at both Long Beach and Copalis to reduce the degree of uncertainty. The growth rate and survival rate studies are both scheduled for completion in 2009, and reassessed exploitation rates for razor clams are expected in 2010.

This briefing will include a review of the fishery, updates on study implementation and communications with the public.

Policy issue(s) you are bringing to the Commission for consideration:

None. Briefing only.

Public involvement process used and what you learned:

A public meeting was held in August 2004 to specifically discuss this issue. In addition, this issue was also included as a discussion point in each of the 5 public meetings WDFW holds each September to discuss razor clam season setting. Input received has been favorable.

Action requested:

None. Briefing only.

Draft motion language:

N/A

Justification for Commission action:

N/A