

10. Columbia River White Sturgeon Fishery

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“GREEN SHEET”

Meeting dates:	December 2-4, 2010, Commission Meeting
Agenda item #10:	Columbia River White Sturgeon Fishery Management—Briefing
Staff Contact:	Cindy LeFleur, Director’s Office Region 5 Columbia River Policy Coordinator
Presenter(s):	Cindy LeFleur, Director’s Office Region 5 Columbia River Policy Coordinator Bill Tweit, Director’s Office Columbia River/Distant Waters Policy Lead

Background:

White sturgeon are indigenous throughout the Columbia River Basin and distinct populations exist downstream from Bonneville Dam and in each of the impoundments of the Columbia River hydroelectric system. The population downstream from Bonneville Dam exhibits voluntary anadromous behavior and freely migrates to various Washington, Oregon, California, and British Columbia coastal bays and river systems. Sturgeon migrations appear to be primarily motivated by spawning, food availability, and water temperature. The lower river population is considered to be healthy enough to support consumptive fisheries, but has declined in abundance in recent years.

The longevity, slow growth, and delayed maturation of white sturgeon make them particularly susceptible to overexploitation. Sturgeon abundance in the lower Columbia River collapsed at the end of the 19th century due to over fishing. The commercial white sturgeon fishery in the Columbia began in the early 1880s, reached a peak of 5.5 million pounds in 1892, and the population was decimated by 1899. Most of the harvest during the late 1800s was broodstock size fish averaging seven feet and 150 pounds each. The population began to rebound after 1950 when maximum size limits were adopted to protect broodstock size sturgeon. Since 1950, the population has increased significantly. The current lower Columbia River white sturgeon population abundance of sturgeon two feet long or greater numbers in the hundreds of thousands of fish.

During the 1980s, coincident with reductions in salmon harvest opportunity, the sport sturgeon effort increased and total harvest of white sturgeon increased notably compared to harvest in the 1970s, which drove the legal-sized population down to levels of concern. Washington and Oregon responded with several regulation changes including size limit and bag limit changes, and have continued refining regulations since. The harvest regulatory changes resulted in significant population growth during the 1990s, but the growing trend has subsided during the most recent years.

Current Stock Status

The joint staff monitoring data has indicated that the abundance of the legal size segment of the population, and recruitment to the spawning population, grew considerably during 1991 through 1995 and remained relatively stable from 1998 through 2007; however, the estimates for 2008 and 2009 represent a decline. The sublegal size segment of the population had been steadily increasing in the early 2000s, and peaked in abundance in 2004. Since that time, the catch per unit effort (CPUE) data in the sport fishery indicates the sublegal size segment has also declined. In recent years a new mortality source, predation by sea lions, has begun to impact all segments of the population, including direct predation on spawning-size fish. Increased predation mortality on spawning fish could be reflected in reduced abundance of younger age fish (ages three through five) in the sublegal size segment of the population.

Fishery Management Actions

The primary fishery management objective is to ensure there is adequate escapement of legal-sized immature sturgeon into the over-legal sized mature population to maintain and increase abundance of the spawning segment of the population. The secondary objective is to set fishery levels that can achieve the primary objective while providing stable and sustainable sport and commercial fisheries. A third objective is to provide protection to the spawning-size segment of the population. The joint state management accords, initiated in 1996, are developed with the intention of achieving these three objectives.

For the last 20 years the total allowable harvest has been set to limit harvest rates on younger age fish so that the spawning size segment of the population maintains or increases over time. Determination of the total allowable harvest is dependent on the status of different segments of the population. While the total allowable harvest is most strongly driven by the abundance of the legal size segment of the population, adequate recruitment from the sublegal size segment to the legal size segment is necessary to maintain that same total allowable harvest over time. Additionally, compensating for changes in the status of the spawning size segment of the population will also impact the total allowable harvest.

Harvest reductions occurred in 1999 (25 percent reduction), in 2003 (20 percent reduction), and most recently in 2010 (40 percent reduction). Additionally, the spawning sanctuary, designed to reduce handling of spawning-size fish, has been expanded twice in both time and area, with the latest changes being expansion of the sturgeon fishing closure area to nine miles from May through August. In a separate action, the Oregon Department of Fish and Wildlife (ODFW) established a spawning sanctuary in the Willamette River downstream of Willamette Falls in Oregon City in 2010. The 40 percent reduction in harvest rate and increased spawning ground sanctuary were included in the *Joint State Management Accord for Columbia River White Sturgeon* that covered the time period of January 1, 2010 through December 31, 2010.

The 40 percent reduction in harvest rate was the largest reduction since the inception of the joint state accords in 1996. This reduction was enacted in response to recent changes in population status and impacts of the increasing sea lion activity in the lower Columbia River. Data regarding stock status suggests a downward trend in abundance as indicated by a decline in annual legal size abundance estimates in recent years, in catch rates of 38" to 54" fork length (FL) fish since 2007 and catch rates of sub-legal fish since 2004. Additionally, predation by Stellar and California Sea Lions has increased steadily since 2004. The 40 percent reduction in harvest rate was implemented to address the projected decline in legal abundance segment of the population through 2010, declines in recruitment into the legal size segment of the population that are expected to occur during the next four to five years (indicated by reduced catch rates for sub-legal segment of population) and increased predation by Stellar and California Sea Lions.

Sturgeon Policies and Accords

Since 1996, the Washington- and Oregon-Fish and Wildlife Commissions have provided policy guidance for lower Columbia River sturgeon management. Washington Fish and Wildlife Commission direction has occurred through the adoption of Policy C-3001 regarding the management of Columbia River sturgeon populations. The current policy (attachment 1) was adopted for a one-year time period and will expire December 31, 2010; therefore, a policy needs to be adopted to take effect on January 1, 2011. Washington Department of Fish and Wildlife (Department) staff will be recommending that this policy cover a time frame of at least three years.

Concurrent with the policy guidance, the Department and ODFW have negotiated a series of joint state fishery management accords that establish total allowable harvest, allocation between sport and commercial fisheries, specific sport and commercial fishery regulations, and population monitoring programs. The current joint state accord is also due to expire in December 2010 (attachment 2). Department staff members will be recommending that the time period of the new accord be that same as that for Commission Policy C-3001. The allowable harvest could be adjusted prior to or within the three year period if current or future population abundance information indicates that a harvest adjustment is necessary to meet the conservation objectives in the Commission policy.

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

Adopt a three-year policy for lower Columbia River sturgeon management (2011-2013) at the January 2011 meeting. Staff members have provided a draft policy for consideration (attachment 3). Provide policy guidance to the Director for negotiation with ODFW to develop a three-year joint state sturgeon management agreement (Accord), provide guidance to the Director for negotiating a harvestable number for 2011-2013 fisheries, and to set sport and commercial seasons through the Columbia River Compact.

Public involvement process used and what you learned:

Current stock status information was shared with the Columbia River advisory groups in October. Additional advisory group meetings are expected to occur in November and/or December. ODFW is convening a stakeholder group to assist with development of a Lower Columbia River White Sturgeon Conservation Plan and will have a public meeting in December to receive input on the plan and the Accord. The public will provide input on the season structures at a February Compact/joint state hearing.

Action requested:

Briefing only.

Draft motion language:

N/A

Justification for Commission action:

N/A

Communications Plan:

Results of commission decision will be shared with co-managers and appropriate constituents.

Form revised 10/16/2008 - sdy

FISH AND WILDLIFE COMMISSION POLICY DECISION

**POLICY TITLE: 2010 Lower Columbia
Sturgeon Management**

POLICY NUMBER: C-3001

Supersedes: 2009 Lower Columbia
Sturgeon Mgmt Policy C-3001

Effective Date: January 1, 2010
Termination Date: December 31, 2010

See Also: N/A

Approved Miranda Wecker
Chair, Washington Fish and Wildlife Commission

02/05/2010

Lower Columbia Sturgeon Management Policies:

- Manage lower Columbia River sturgeon through a one-year agreement with Oregon for 2010. This interim policy will be replaced with a three year policy for 2011-2014, which will be based on analysis of existing and additional biological information and in-depth review of the existing policy.
- Provide adequate recruitment and regulatory protection to safeguard the broodstock population.
- Manage for optimal sustainable yield (OSY) by setting a combined sport and commercial harvest rate for the legal-sized population.
- Manage fishery in a manner that takes into consideration projected recruitment over the next three years with the objective of increasing escapement into the legal size and broodstock segments of the population. The rate should be based on consideration of all mortality factors including sea lion predation and both recreational and commercial mortalities.
- Maintain concurrent Washington and Oregon regulations in the Columbia River.
- Maintain viable and diverse recreational and commercial fishing opportunities.
- The base period for determining viability and diversity for recreational opportunity among geographic areas should be calculated using recent years (e.g., 1995-2000).
- Manage sturgeon harvests outside the mainstem lower Columbia River consistent with lower Columbia River sturgeon conservation and management needs.
- Limit incidental impacts on other species.
- Review the existing management framework, incorporating the most current scientific information on the status of lower Columbia white sturgeon, and develop updated policy recommendations for consideration by both the Oregon and Washington Commission in advance of the 2011 fishing season. The updated recommendations should include an evaluation of fishery objectives for the population, in light of remaining scientific uncertainties concerning this stock and their role in the ecosystem. The recommendations should adopt a precautionary approach, prioritizing population growth in order to more fully utilize the habitat and afford increased protection of the reproductive portion of the population. Recommendations should consider fishery related mortalities that are not presently reflected in harvest estimates.

Management Objectives for 2010:

- Manage for an annual combined sport and commercial harvest of white sturgeon to provide measurable population growth to achieve the goals of: (1) fully seeded habitats, and (2) full representation of each age class within the population. For 2010, the combined harvest level should be set at no less than a 45% reduction from the 2009 level; the intent of the 2010 harvest level should be sufficient reduction from previous levels to provide an increasing trend in all age classes or a greater reduction may be necessary in future years.
- Maintain the 80/20 sport/commercial harvest allocation.
- Develop sport fishery regulations consistent with the following objectives:
 - Minimize emergency in-season action;
 - Balance catch between estuary and non-estuary fisheries and maintain a diverse array of sturgeon fishing opportunity; and
 - Maintain fishery monitoring and management capabilities.

- Develop commercial fishery regulations consistent with the following objectives:
 - Optimize economic value (adjust to market needs); and
 - Spread harvest opportunity throughout the year; and
 - No green sturgeon target fisheries.
- Provide sufficient sturgeon spawning sanctuaries or other protection measures where appropriate to ensure adequate recruitment to the population.
- Provide appropriate added protective measures to prevent further decline of green sturgeon.
- Conduct all practical research, within available resources, to assess broodstock and sublegal abundance and to quantify impacts of commercial and recreational fisheries on both broodstock and sublegal abundance.

Delegation of Authority:

Delegate negotiation and adoption authority to the Director for a new one-year (2010) Lower Columbia Sturgeon Management Plan that is consistent with these policies and objectives.

#

POLICY DECISION

POLICY TITLE: **2011-2013 Lower Columbia Sturgeon Management**

POLICY NUMBER: **C-3001**

Effective Date: January 1, 2011

Supersedes: 2010 Lower Columbia Sturgeon Mgmt Policy POL – C-3001

Termination Date: December 31, 2013

See Also: N/A

Approved by:
Fish and Wildlife Commission Chair

Purpose

The purpose of this policy is to provide guidelines for management of the Lower Columbia River white sturgeon population and fisheries.

Definition and Intent

The Lower Columbia River white sturgeon population inhabits the waters of the Columbia River and tributaries downstream of Bonneville Dam and migrates into ocean and coastal estuaries. The intent of the policy is to provide consistent management guidelines that promote a healthy population.

General Policy Statement

Manage the Lower Columbia River white sturgeon population with conservation and fishery management objectives that are consistent with a healthy population.

Policy Guidelines

Lower Columbia Sturgeon Conservation Objectives:

- Provide adequate recruitment and regulatory protection to increase the abundance of the spawning population.
- Manage with a precautionary approach due to uncertainties in population parameters.
- Manage for an annual combined sport and commercial harvest of white sturgeon to provide measurable population growth to achieve the goals of: (1) fully seeded habitats and (2) full representation of each age class within the population.
- Population Monitoring:
 - Continue young-of-the-year (YOY) sampling to track spawning success.
 - Evaluate legal-size abundance methodology to improve accuracy of estimates.
 - Continue to monitor sea lion predation for incorporation into stock status evaluations.
- Staff will review sturgeon population status annually and recommend adjustments to fisheries when deemed necessary to meet conservation objectives.

Fishery Management Objectives:

- Manage Lower Columbia River sturgeon fisheries through a three-year agreement with Oregon for 2011-2013.
- Maintain concurrent Washington and Oregon regulations in the Columbia River.
- Manage fisheries over the next three years in a manner that takes into consideration projected recruitment, with the objective of increasing abundance of the legal size segment, and increasing escapement into the spawning segment of the population. Management should be based on consideration of all mortality factors, including sea lion predation and both recreational and commercial fishery related mortalities.
- The harvest level for 2011-2013 fisheries will be reduced from the 2010 level to the extent that the reduction:
 - Addresses the downward trend in legal size abundance expected through 2011.
 - Accounts for increased predation by sea lions.
 - Addresses uncertainty in expected increased recruitment to legal-size in the near term (2012-2014).
 - Addresses expected low recruitment to legal-size beginning in 2015-2016.
 - Provides for fishery stability.
- Maintain the 80/20 sport/commercial harvest allocation.
- Maintain viable and diverse recreational and commercial fishing opportunities.
- Develop sport fishery regulations consistent with the following objectives:

- Minimize emergency in-season action.
- Balance catch between estuary and non-estuary fisheries and maintain a diverse array of sturgeon fishing opportunity.
- Maintain fishery monitoring and management capabilities.
- Develop commercial fishery regulations consistent with the following objectives:
 - Optimize economic value (adjust to market needs).
 - Spread harvest opportunity throughout the year.
 - Minimize impacts to green sturgeon listed under the Endangered Species Act.
- Provide sufficient sturgeon spawning sanctuaries or other protection measures where and when appropriate.
- Conduct all practical research, within available resources, to assess spawner and sublegal abundance and to quantify impacts of commercial and recreational fisheries on these abundances.
- Manage sturgeon harvests outside the mainstem lower Columbia River consistent with Lower Columbia River sturgeon conservation and management needs.
- Provide appropriate added protective measures to prevent further decline of green sturgeon.
- Limit incidental impacts on other species.

Delegation of Authority: The Commission delegates the authority to the Director to develop and negotiate a new three-year (2011-2013) Lower Columbia Sturgeon Management Accord that is consistent with these policies and objectives. Additionally, the Commission delegates the authority to the Director, through the Columbia River Compact, to set seasons for recreational and commercial fisheries in the Columbia River, and to adopt permanent and emergency regulations to implement these fisheries. The Director shall work with the Oregon Department of Fish and Wildlife to achieve implementation of this Commission action in a manner that results in concurrent regulations between the two states. The Director shall consult with the Commission Chair if it becomes necessary to deviate from the Commission's policy to achieve concurrent regulations with Oregon.



Joint State Accord on 2010 Columbia River Sturgeon Fishery Management



The Oregon and Washington Departments of Fish and Wildlife agree on the following management measures for sturgeon fisheries in the Columbia River and in coastal streams. These fishery regulations shall be in effect in Oregon and Washington boundary waters upstream from McNary Dam, in the lower Columbia River and tributaries, in marine areas, and in coastal basins. Sturgeon fisheries between Bonneville and McNary dams will be managed under agreements negotiated by *U.S. v Oregon* parties.

I. Management Policies

- A. Provide regulatory protection to safeguard the current broodstock population and ensure adequate recruitment of broodstock sturgeon in subsequent years.
- B. Manage for optimal sustainable yield (OSY), by regulating the combined sport and commercial harvest rate for the legal sized population.
- C. Maintain concurrent Washington and Oregon regulations in the Columbia River.
- D. Maintain viable and diverse recreational and commercial fishing opportunities.
- E. Manage the harvest of sturgeon in fisheries outside the mainstem lower Columbia River consistent with lower Columbia River sturgeon conservation and management needs.
- F. Limit incidental impacts of other species needing conservation protection during fisheries directed at white sturgeon.

II. White Sturgeon

A. *Harvestable Number Below Bonneville Dam*

The harvestable number of white sturgeon for 2010 will be 24,000 legal-sized individuals. This number is based on current stock assessments and is intended to provide population growth towards OSY. This number may be changed based on new biological information or analyses/theory.

B. Fishery Allocation Below Bonneville Dam

The harvestable number of white sturgeon in the Columbia River downstream from Bonneville Dam will be allocated 20% to commercial fisheries and 80% to recreational fisheries.

1. The recreational fisheries downstream from Bonneville will be managed to annually provide 40% (7,700 fish) of the harvest to the area upstream of the Wauna powerlines and 60% (11,500) of the harvest to the area downstream. The 11,500 fish for the area downstream of the Wauna powerline is equivalent to 9,600 fish when managed at a 41-inch fork length minimum size.
2. The Willamette will be managed under a separate harvest cap equal to a total of 3,600 fish, including a baseline level of 735 fish. The Willamette harvest cap above the baseline (2,865 fish) is part of the 7,700 fish sport harvest cap above the Wauna powerlines.

C. Sport Fishery Regulations

Sport fishery regulations will be consistent with the following objectives:

- Minimize emergency in-season action
 - Balance catch between the estuary and non-estuary fisheries and maintain a diverse array of sturgeon fishing opportunity
 - Maintain fishery monitoring and management capabilities
 - Reduce fishing-related mortality of "oversize" sturgeon
1. Size limit: 38 inches – 54 inches fork length. May use more restrictive size limits to manage within specific areas (e.g. the size limit for the summer (post-April) fishery below the Wauna power lines is 41-54 inches fork length).
 2. Catch limits: 1 per day and 5 per year. Allow catch and release fishing after retention of the daily or annual catch limit, except in the sturgeon spawning sanctuary downstream from Bonneville Dam where no fishing is allowed from May 1 through August 31.
 3. Hook requirement: Require one single-point barbless hook.
 4. Retention Seasons: Modify as necessary so that harvest is no greater than the prescribed sport harvestable number. May use different season structures for areas upstream and downstream from Wauna power lines to accomplish the catch-by-area objectives for the two areas.
 5. Miscellaneous regulations: Maintain in effect the miscellaneous sturgeon fishery regulations as described in Oregon and Washington sport regulation pamphlets.
 6. Spawning Sanctuaries: Close the Columbia River from the upper end of Skamania Island upstream to Bonneville Dam, and the Willamette River from I-205 Bridge upstream to Willamette Falls, to angling for sturgeon from May 1 through August 31 to protect broodstock.

7. Oversize Catch and Release Fishery Downstream from Bonneville Dam: Manage the oversize catch and release fishery in this area to safeguard sturgeon broodstock, because this fishery has a higher impact on the broodstock population than other segments of the fishery. Specifically encourage participants in this fishery to follow “Best Fishing Practices” protocols including, but not limited to the following measures:
 - Limit catch to one oversize sturgeon per angler per day
 - Minimize the amount of handling time per oversize fish
 - Keep the fish in the water while being photographed and released
 - Use and maintain proper gear to minimize break-offs, limit handling stress, improve reproductive success and reduce mortality
 - Best Fishing Practices protocols and the purpose of the program shall be posted on informational signs at boat launches used by participants in the fishery.
8. Recreational fishery from McNary Dam upstream to the Oregon-Washington border: Effective May 1, 2010, the retention season for this area will be February 1 through July 31 with a 43-54 inch size limit in effect.

D. Commercial Fishery Regulations

Commercial fishery regulations will optimize economic value and spread harvest opportunity throughout the year.

1. Size limit: 43 inches – 54 inches fork length.
2. Landing limits: May implement landing limits per vessel per fishing period as necessary to spread harvest opportunity and optimize economic value.
3. Seasons: Allow sturgeon fishing outside salmon fishing seasons as necessary to access allocation and optimize economic benefit, consistent with conservation objectives for other species. Allocate the commercial share of white sturgeon among seasons annually in coordination with the Columbia River Commercial Fishery Advisory Group.
4. Miscellaneous regulations: Maintain in effect the miscellaneous sturgeon fishery regulations in effect since 1996.

E. Fishery and Population Monitoring Measures

The following programs will be continued.

1. The Sport Fishery Statistical Sampling Program
2. Expansion of the Willamette Creel Program (to include January-February timeframe)
3. The Tagging Program to Estimate Abundance of Legal-Sized Sturgeon (including the additional measure of evaluating setlines as an alternative sampling gear)
4. ODFW’s Young-of-the-Year Sturgeon Surveys
5. WDFW’s Sturgeon Carcass Surveys and Autopsies
6. WDFW and MSU’s Sturgeon Maturation Study (including continued encouragement of the fishing-guide community to cooperate with investigators)

7. Monitoring of Marine Mammal Predation (incidental to other field activities)

With respect to monitoring broodstock, continue efforts to assess, and quantify impacts of commercial and recreational fisheries on broodstock abundance, including conducting research as necessary and practical.

III. Green Sturgeon

A. Sport Fisheries

Retention of green sturgeon is prohibited in Washington and Oregon recreational fisheries.

B. Commercial Fisheries

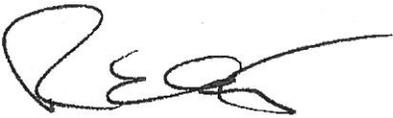
Retention of green sturgeon is prohibited in Washington and Oregon commercial fisheries.

C. Stock Status

Stock status and management of green sturgeon will continue to be reviewed with regional co-managers and NOAA Fisheries consistent with the 2006 listing of the Southern Distinct Population Segment (DPS) of green sturgeon as threatened under the Endangered Species Act.

IV. Ocean and Coastal Fisheries

Harvest in sturgeon fisheries outside the mainstem Columbia River will be managed consistent with lower Columbia River sturgeon conservation and management needs.



Roy Elicker, Director

Oregon Department of Fish & Wildlife

Date

3/31/10



Phil Anderson, Director

Washington Department of Fish & Wildlife

Date