

NOAA 2012 Protected Species
Studies of Green Sturgeon along the West Coast of the
U.S. to Guide the Design and to Implement a Monitoring
Program to Track Coast-Wide Status and Trends for
Future Population Viability Assessments

PROGRESS REPORT

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Project accomplishments by objective are:

A) Database Development

This objective has been curtailed due to budget reductions. An in-house database has been developed to house historic data from WDFW and ODFW, and data associated with the current project. Efforts to make tagging data available through existing online data systems such as PTAGIS and Hydra will continue.

In addition, we have had a discussion with the Supervisory IT Specialist at the NWFSC about using their Oracle Beehive collaboration suite as a tool in the development of our data exchange system. They developed a working site for us to test until September 2012, to help us develop an understanding of the tools available. We have also begun exploring other options for collaborative sites such as Google Sites.

1. *Solicit and select a contractor to oversee the development of the database by August 31, 2010.*

(See past progress reports for periods of July 1 through December 31, 2010 and January 1 through June 30, 2011, respectively.)

2. *Convene a conference to define needs and standards by November 30, 2010.*

(See past progress report for period January 1 through June 30, 2011.)

With the reduction in resources available, input by the steering committee will serve as the primary means to define data needs and standards for the data exchange system.

3. *Build a beta-version of the database system by March 31, 2011.*

Efforts to make tagging data available through existing online data systems such as PTAGIS and Hydra will continue, and we are exploring options to develop a collaborative site using existing resources.

4. *Incorporate feedback from researchers by April 30, 2011.*

Input by the steering committee will serve as the primary means to define data needs and standards for the data exchange system.

5. *Complete the database with sample/historical data by August 31, 2011.*

An in-house database has been developed to house all green sturgeon data collected by ODFW and WDFW since 2003.

6. *Input tagging information until web application is completed.*

Tagging information is being input into the ODFW/WDFW database. We are also utilizing the HYDRA system for storage of acoustic tag data and PTAGIS for the storage of PIT tag data.

7. *Roll out green sturgeon tagging data website for accessing coast-wide data by February 29, 2012.*

This task has been curtailed due to budget reductions.

8. *Roll out enhanced green sturgeon tagging data website for input and access to coast-wide data (including interface to other databases) by October 31, 2012.*

This task has been curtailed due to budget reductions.

9. *Develop a maintenance plan for the website by October 31, 2012.*

This task has been curtailed due to budget reductions.

10. *Maintain the website, and make improvements November 1, 2012 – June 30, 2013.*

This task has been curtailed due to budget reductions.

B) Critical Habitat

This objective has been eliminated to address reduced federal funding. Biotelemetry elements that were in common with objectives 1 and 3 are described below.

1. *Deploy acoustic receivers at the entrance to the main estuaries (in concert with Abundance/Survival objective) by July 15.*

Four receivers were deployed across the mouth of Grays Harbor by May 8, 2012 (Figure 1).

An array of 8 receivers, previously maintained by NWFSC, now maintained by WDFW with receivers on loan from NWFSC, was in place in Willapa Bay by June 1, 2012 (Figure 2).

An array of 8 receivers, previously maintained by CRITFC, now maintained by WDFW with receivers on loan from CRITFC, was in place by June 19, 2012 (Figure 3).

One receiver deployed at the mouth of Tillamook Bay by ODFW in 2011 continues to be maintained (Figure 4).

An array of four receivers deployed in the Umpqua River estuary by ODFW in 2011 continues to be maintained (Figure 5).

2. *Complete download of all gateway receivers yearly in November-December.*
(Task is not scheduled for completion during this reporting period.)
3. *Complete year one acoustic tagging of fish (in concert with Abundance/Survival objective) by mid-September 2010.*
(See previous progress report for period of July through December 2010)
4. *Deploy and monitor non-gateway receivers in the Columbia River July 16 – November 30.*
We are working with groups with acoustic receivers in the lower Columbia River to share detection data.
5. *Complete year two acoustic tagging of fish September 2011.*
(See previous progress report for period of July through December 2011)
6. *Deploy and monitor non-gateway receivers in Willapa Bay May 1-November 30.*
The acoustic array in Willapa Bay was operated by NWFSC and we assisted in the maintenance of this array in 2011. In 2012, NWFSC no longer has funding to maintain this array, so WDFW has assumed maintenance of this array. Eight receivers were deployed in Willapa Bay as of June 1, 2012.

7. *Complete year three acoustic tagging of fish (in concert with Abundance/Survival objective) by mid-September 2012.*

(Task is not scheduled for completion during this reporting period.)

8. *Deploy and monitor non-gateway receivers in Grays Harbor May 2-November 30.*

This task has been curtailed due to budget reductions.

9. *Complete assessment of fine scale critical habitat use in the three estuaries by January 2013.*

This task has been curtailed due to budget reductions.

C) Abundance/Survival

1. *Complete year one tagging of fish (in concert with Critical Habitat objective) by mid-September 2010.*

(See previous progress report for time period from July through December 2010)

2. *Present a stratified sampling approach for the mark-recapture study to the green sturgeon steering committee for their critical review by January 2011. (This will be informed by year one acoustic tagging and other distribution information).*

Due to the late start of sampling in 2010, distribution data from 2010 is sparse and sampling design was informed by 2011 sampling data.

The FY2012 budget reduction resulted in reduced staff availability for sampling and the sampling approach has been reconsidered to reflect the reduction in resources. In 2012, all sampling efforts will be focused in the Columbia River estuary, Willapa Bay, and Grays Harbor, with no sampling effort in the Umpqua River estuary. Only one crew will be available for sampling and therefore, only one estuary will be sampled per week.

3. *Complete year two tagging and recovery of fish by mid-September 2011.*

(See previous progress report for time period of July through December 2011)

4. *Complete initial (year two) abundance estimates by January 2012.*

We were unable to calculate a meaningful abundance estimate during this reporting period. Reasons are either not recapturing a tagged fish from a given release group or the total number of recaptured fish was too few to calculate a defensible unbiased estimate.

5. *Complete year three tagging and recovery of fish by mid-September 2012.*

(Task is not scheduled for completion during this reporting period.)

6. *Complete assessment of alternative survival and abundance estimates by January 2013.*

(Task is not scheduled for completion during this reporting period.)

D) FMEP

1. *Complete a review of what Washington fisheries would benefit from having an FMEP.*

(See previous progress report for period from July through December 2010)

2. *Determine how WDFW can meet the essential elements of the FMEP.*

(See previous progress report for period from July through December 2010)

3. *Gather or generate supporting documentation.*

(See previous progress report for period from July through December 2010)

4. *Complete and circulate a draft of the FMEP.*

(See previous progress report for period from July through December 2010)

5. *Complete revisions and submit a final FMEP to NMFS by the 120-day deadline.*

The final Twin Harbors Region FMEP was submitted by WDFW on January 7, 2011, thereby meeting the 120-day deadline.

The ODFW continues to develop a complimentary draft FMEP that will address those Oregon coastal and estuary fisheries that are not authorized by either, (1) federal permit or regulation and managed according to Pacific Fishery Management Council (PFMC) fishery management plans and are subject to future Section 7 consultations between PFMC and NMFS or, (2) fisheries in the Columbia River or its estuary, that are subject to an existing Biological Opinion.

6. *Complete the review of what Oregon fisheries would benefit from having an FMEP and determine how ODFW can meet the essential elements of the FMEP.*

Planning and reviewing activities associated with this task are ongoing.

7. *Gather and generate supporting documentation to complete and circulate a draft FMEP by 30 June 2012.*

Considerable progress toward the completion of this task was made during the reporting period. Oregon Department of Fish and Wildlife staff will continue to work on this task using contributed state funds. A draft FMEP is scheduled to be completed by December 31, 2012

8. *Complete revisions and submit a final FMEP to NMFS by 30 June 2013*

(Task not scheduled to be completed during this reporting time period.)

E) Reporting and coordination

1. *Form, and convene at least semiannually, the green sturgeon steering committee, July 2010, January & June 2011, January & June 2012, and January & June 2013.*

The steering committee was formed and has met via teleconference on two occasions since July 2011.

2. *Complete annual progress report for each objective by June 2011-2013.*

This is the fourth semi-annual progress report.

3. *Complete a comprehensive report of the three-year study by December 2013.*

(Task is not scheduled for completion during this reporting period.)

4. *Document and distribute datasets from the study by December 2013.*

(Task is not scheduled for completion during this reporting period.)

Project biologists share raw biological sample and tag information with staff from NMFS-NWFSC and USGS-WRL. The acoustic receiver and tag information is currently being entered into a temporary regional acoustic database.

5. *Complete submission of articles to peer-reviewed journals by December 2013.*

No journal articles have been submitted.

F) Expenditures (Estimated)

ODFW:	January 1 to June 30, 2012	\$ 165,244
Subcontract to WDFW:	January 1 to June 30, 2012	<u>\$ 105,296</u>
Total expenditures	January 1 to June 30, 2012:	\$ 270,540

Figures:



Figure 1: Map of Grays Harbor with orange circles indicating receiver locations.

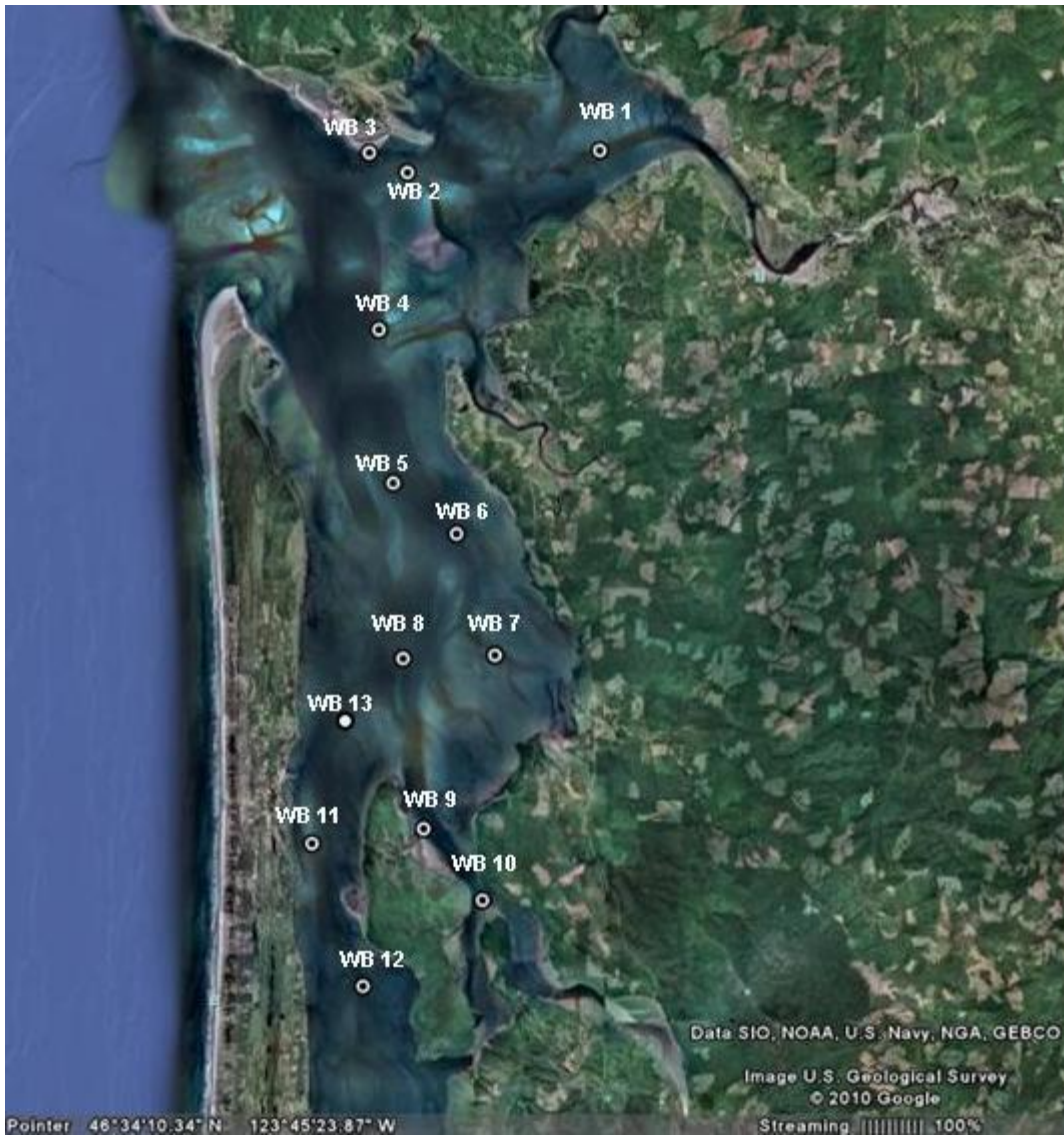


Figure 2: Map of Willapa Bay with circles indicating NWFSC receiver locations. Note that receivers were not deployed at WB 1, WB 3, and WB 10 in 2012. (Image provided by Steve Corbett, NWFSC).

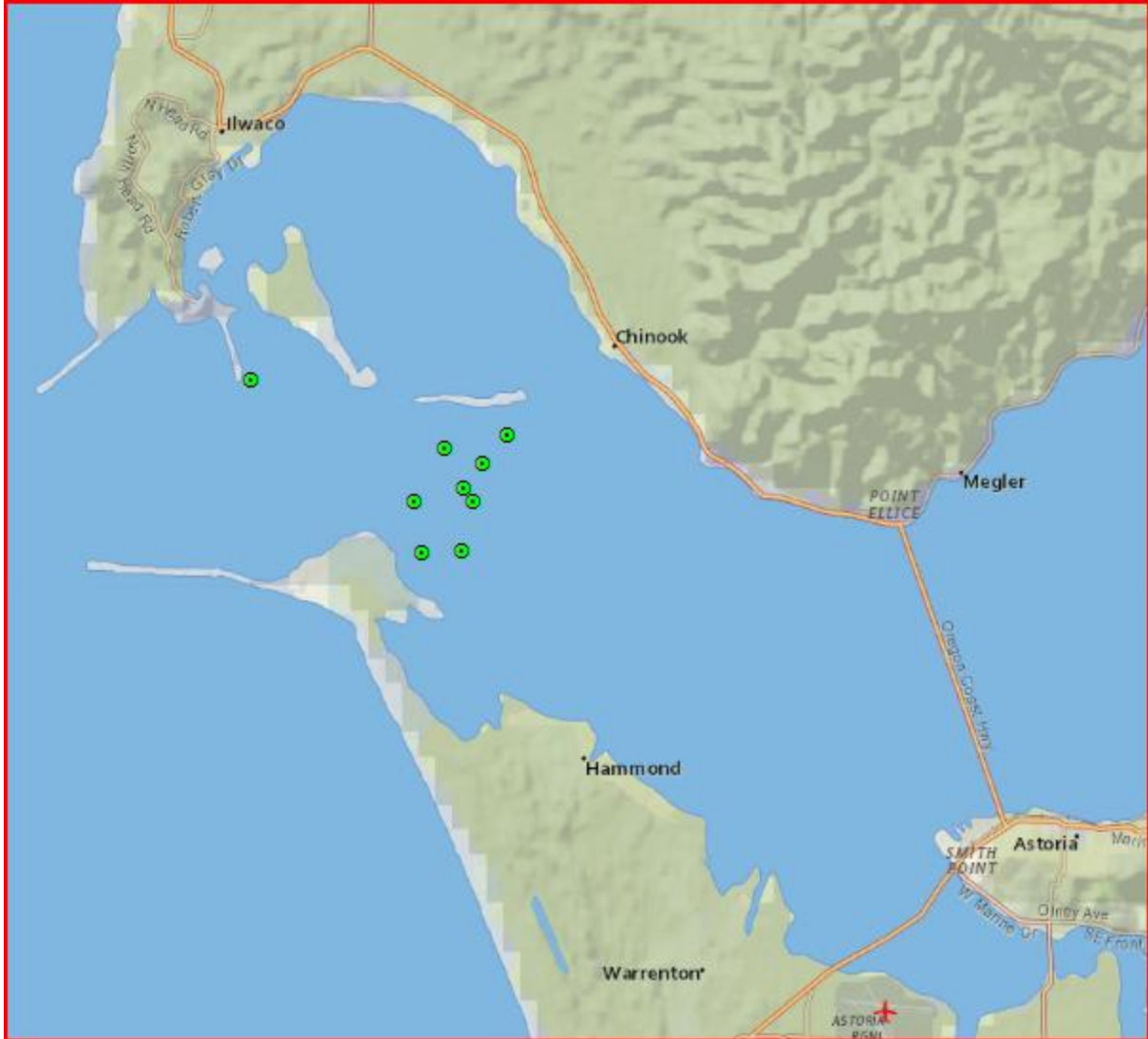


Figure 3: Map of the mouth of the Columbia River with green circles indicating receiver locations.

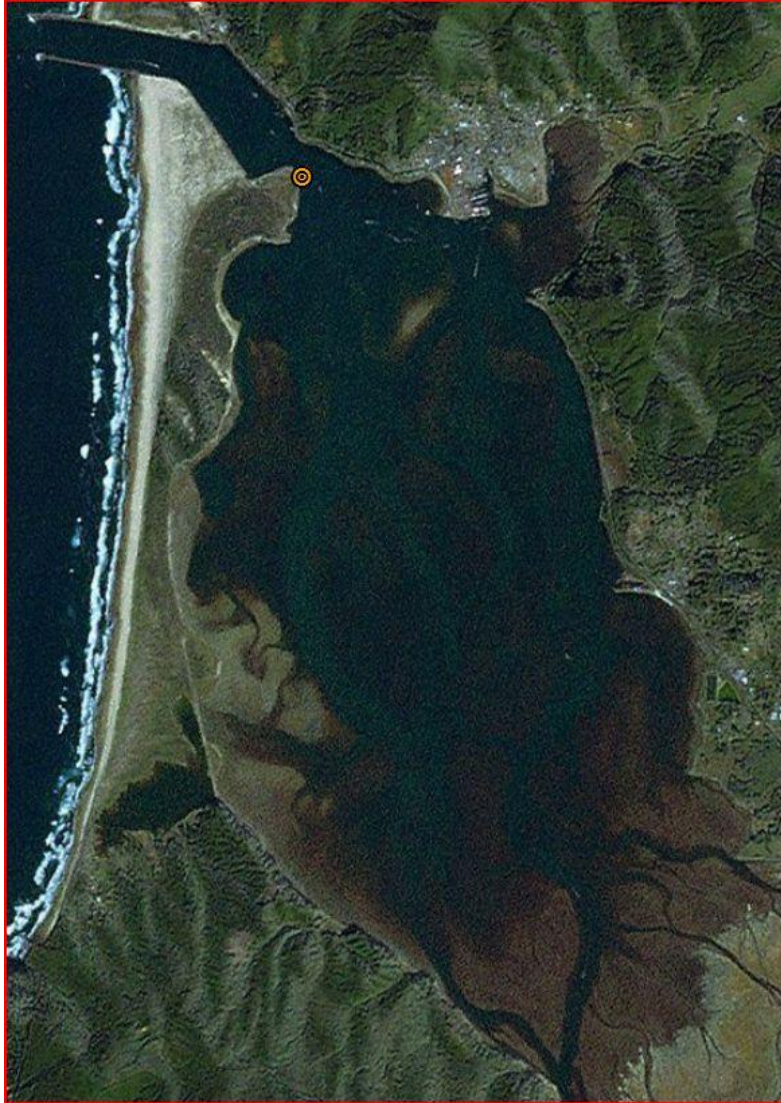


Figure 4: Map of Tillamook Bay with orange circle indicating receiver location.



Figure 5: Map of Umpqua River with receiver locations indicated by yellow circles and orange tacks. Yellow circles indicate current 2012 receiver locations.