
Nechako White Sturgeon Recovery Initiative 2008-2009 Annual Report





Adult sturgeon being assessed as potential 2008 broodstock.

From 1994 to 1999, the Province of British Columbia coordinated an intensive study of white sturgeon in the Nechako River. The study came to an unwelcome conclusion - the Nechako white sturgeon are in a critical state of decline. Unless something is done, and done soon, these great creatures will become extirpated.

With so many stakeholders involved along the entire length of the Nechako River, it was imperative that all interested parties gather together, to begin working as a team in recovery planning efforts. This was the beginning of the Nechako White Sturgeon Recovery Initiative (NWSRI). The NWSRI is composed of two committees: the Technical Working Group, which is responsible for identifying the reasons for the decline of white sturgeon in the Nechako watershed, and for the design and implementation of habitat protection, restoration and management options; and the Community Working Group, which focuses on increasing the public's awareness and knowledge about the recovery process, as well as the ecological problems facing the Nechako white sturgeon.

The Nechako White Sturgeon Recovery Initiative is committed to ensuring that all sturgeon, from juveniles to adults, continue to live in the Nechako River for many generations to come.

For more information on the NWSRI, please visit our website:

www.nechakowhitesturgeon.org

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Neil Jantz, FFSBC, describing the white sturgeon life cycle to local schoolchildren.

Messages from the Chairs

Technical Working Group

From the beginning of the NWSRI in 2000, substantial progress has been made working toward understanding and recovering the critically endangered Nechako population of white sturgeon. Although the Initiative has made a great deal of progress, there is still substantial work needed to prevent the permanent loss of these large and amazing fish in the Nechako River.

With funding from the Ministry of Environment, the Freshwater Fisheries Society of BC and Rio Tinto-Alcan, the year 2008 saw the releases of several hundred thousand larval sturgeon as part of a project to determine critical habitat needs for these young fish and enhance their survival. In September, Carrier Sekani Tribal Council field crews captured the first conservation cultured juvenile sturgeon that was released in 2006. With funding from the Ministry of Environment, the Freshwater Fisheries Society of BC and Rio Tinto-Alcan for the third year of a pilot program, several thousand juveniles were grown by the Freshwater Fisheries Society of BC and were released into the Nechako in September and October with the help of children from School District 91. Work towards the development of an interpretive centre focused on Nechako white sturgeon began with federal funding support. With significant, new support from the Nechako Watershed Council, our team is more hopeful than ever that funding will be put in place in the near future to begin construction of new recovery centre that will focus on rebuilding the population while researching and then fixing the cause of the decline.



Cory Williamson, TWG Chair

On the National front, members of the NWSRI's TWG are assisting the National White Sturgeon Recovery team to finalize recommendations in the draft National Recovery Strategy for all white sturgeon populations in BC. This document, once completed and approved, will contain information on recovery planning and critical habitat for all four endangered populations in BC as well as the middle and lower Fraser River populations. With your help, the coming years could mark a new beginning for the Nechako white sturgeon.

Cory Williamson, Chair
Technical Working Group
BC Ministry of Environment
March 31, 2009

Community Working Group

In mid-2008, I was honoured to accept the position of CWG chair - replacing Justus Benckhuysen who had served in that capacity for the past two years. From organizing the annual Save Our Sturgeon release event and assisting the TWG where needed, the CWG has been working towards implementing the idea of a permanent white sturgeon conservation fish culture facility or multi use facility and is assisting in the feasibility study that is currently underway. Stakeholder and community consensus is that a multipurpose arts, recreation, education and fish rearing facility would be the most user friendly and sustainable type of structure in the long run.

In the coming year, the CWG will need to meet some fund-raising challenges to cover the costs of events and capital projects. We are also looking to engage more First Nations representation on the CWG. We are also looking at improving our existing communications plan to further spread the word about the Nechako white sturgeon and get the community involved in its recovery.

Thank you to all the staff and volunteers who work so hard each year to further the research, education and recovery of this amazing and ancient fish - which lives in our own back yard. I look forward to working with you all in 2009/10.

Mussi (Thank you)

Christina Ciesielski
Community Working Group
Carrier Sekani Tribal Council
March 31, 2009



Christina Ciesielski, CWG Chair



The Teams

Technical Working Group

The Technical Working Group (TWG) was formed in September 2000, and is made up of private sector, federal and provincial biologists as well as First Nations and industry experts. Each member has specific qualifications, including a working knowledge of white sturgeon biology, expertise in streamflow management/hydraulic engineering or experience in other animal recovery initiatives. Some members have a regulatory role with regard to the protection of fish and their habitats in the Nechako watershed.

This team of scientists is responsible for investigating *why* the Nechako white sturgeon population is in decline, and then developing an effective plan to help restore the fish to a self-sustaining population. These strategies are based on the best-available science, local, and traditional knowledge.

Community Working Group

In April 2001, the Community Working Group (CWG) was assembled. Composed of some 20 individuals that represent First Nations, non-government environmental organizations, industry, local and regional governments, and affected public, the group was created to provide input from river stakeholders, and to act first and foremost as a public advocate for Nechako white sturgeon and the Recovery Initiative.

The CWG provides an opportunity for key groups essential to the success of the Nechako white sturgeon recovery plan to become involved in the process. The group focuses on increasing the public's awareness and knowledge about the recovery process, as well as the ecological problems facing the Nechako white sturgeon. It is also concerned with building and maintaining community support for the recovery plan and communicating progress back to their respective organizations.

Together the TWG and CWG work towards a common vision of sturgeon recovery. The TWG works to develop and oversee implementation of the Nechako White Sturgeon Recovery Plan. This includes designing and carrying out the projects that are described in this Annual Report. The CWG is the communication and extension arm of the Initiative, and assists the TWG by garnering public and financial support for sturgeon recovery within the Nechako watershed. By sharing a common coordinator, the two groups maintain a continual flow of information and are able to support each other on projects as needed.

Partners Involved During 2008-2009

The members of both the Technical Working Group and Community Working Group represent a wide range of organizations. Those involved during the 2008-2009 fiscal year included:

BC Ministry of Environment
 BC Nature (Federation of BC Naturalists)
 Carrier Sekani Tribal Council
 City of Prince George
 District of Vanderhoof
 Fisheries and Oceans Canada
 Fraser Basin Council
 Fraser River Sturgeon Conservation Society

Freshwater Fisheries Society of BC
 Lheidli T'enneh
 Rio Tinto Alcan Inc.
 Sports Fisher representative
 Spruce City Wildlife Association
 Nechako River Alliance
 Nechako Watershed Council
 Tl'azt'en Fisheries Program

Help Save the Nechako White Sturgeon

White Sturgeon are Endangered
 and protected under the Federal Species at Risk Act (SARA)

- The Nechako white sturgeon is unique from all other sturgeon in British Columbia.
- White sturgeon are an important part of the Nechako/Stuart ecosystem.
- A large Nechako sturgeon can reach 3 metres in length, and live to more than 100 years old!
- The Nechako population has reached a critically low level - less than 350 adult fish remain. Recovery actions are needed to prevent extinction.

How you can help PREVENT EXTINCTION

- Sturgeon are gentle giants – try not to harm, stress or harass them in any way.
- Returning a sturgeon to the water quickly is critical to its survival.
- Let your leaders know these fish are important to you and to future generations.
- Data collected from each fish adds to ongoing research and helps sturgeon recovery.
- Remember, EVERY fish counts!

Lhecho şinlooh de, Fisheries Department 'en bulh yaolhduk CSTC
1-800-280-8722 If you encounter a sturgeon, please phone the Fisheries Department, Carrier Sekani Tribal Council

For more information please visit us at:
www.nechakowhitesturgeon.org

Project Updates for 2008-2009

Juvenile Indexing Program

Project Lead: Carrier Sekani Tribal Council

Funders: Aboriginal Funds for Species at Risk \$30,800, Rio Tinto Alcan Inc. \$35,000

Year: 5 and ongoing

This is the 5th year of a project that focuses on the capture and assessment of sturgeon under 1 meter in length. The intent is to develop a methodology for a long term indexing program for the purposes of monitoring natural juvenile recruitment levels, as well as the growth, survival and distribution of conservation fish culture-reared juveniles. The project is key to detecting the Nechako sturgeon population's responses to recovery efforts. This year, technicians utilized gillnetting, trapping, beach seining and angling to attempt to capture and sample sturgeon. In addition, a sonar device was utilized to detect acoustically tagged juvenile sturgeon released from the pilot conservation fish culture facility in the fall of 2007, and an underwater video camera was utilized to capture footage of white sturgeon congregating in overwintering sites.

A total of 5 white sturgeon were captured ranging in length from 34cm to 103cm (total length). One of these fish was a conservation fish culture-reared juvenile that had been released in the fall of 2006. This was the first recapture of a fish culture-reared juvenile and the fish appeared very healthy at 49cm in length and just under 400g. A total of 5 of the 29 acoustic tags implanted in fish culture-reared juveniles released in the fall of 2007 were detected in the summer of 2008.



Raised as part of the 2006 conservation fish culture program, this juvenile was recaptured in the fall of 2008.

Adult Spawn Monitoring

Project Lead: Rio Tinto Alcan Inc.

Funders: Interdepartmental Recovery Fund \$25,000, Rio Tinto Alcan Inc. \$37,300 and \$4,000 In-Kind, Carrier Sekani Tribal Council \$17,000 In-Kind, Ministry of Environment \$12,300 In-Kind

Year: 5 and ongoing

White sturgeon spawning in 2008 occurred in two separate events. The initial event was estimated to have occurred between May 26th and June 2nd, based on the telemetry data and egg sampling results. Egg mats were deployed on May 26th and eggs were collected on June 2nd. Telemetry data showed increased activity in the vicinity of the spawning area beginning on May 29th.

On June 9th, additional eggs were collected at 2 of the 10 egg mat sets. The development stage of the eggs suggests that they were part of a second spawning event that occurred between June 4th and 9th. This is the first time that a second spawning event has been confirmed since monitoring began in 2004. There is the potential that the event may have been the result of a brood female being released from the fish culture facility into the river on June 3rd. This fish was released in the vicinity of where eggs were collected, records show that it remained in the vicinity of the spawning area from the 3rd to the 9th.

Spawning in 2008 occurred in the same general area as in previous years (2004-2007). Discharge and water depths were 2008 spawning discharge ranged from 177 - 221 m³/s. In 2004/2006, discharge was approximately 110 m³/s while in 2007 it was 456 m³/s. This translated into an average depth at the egg mat sites of 2.2 m compared to 1.32 m at the egg mat sites in 2006, and 2.96 m in 2007. The mean near-bed velocity at the egg mat sites of 0.99 m/s was approximately equal to those measured in 2007 and 2006 (1.03 m/s vs. 0.96 m/s, respectively). Maximum velocities recorded in the vicinity of the 2008 spawning ranged from 0.55 to 1.63 m/s, which is slightly broader than the range observed in 2004 and 2006 (0.89 to 1.52 m/s).

Water temperature during spawning in 2008 was similar to that observed previous years. In 2008 mean daily temperatures of 13°C and daily maximums of 14.6°C were reached two days prior to eggs being collected for the first time.



Project Updates for 2008-2009

Diagnosing the Causes of Recruitment Failure

Project Lead: Ministry of Environment

Funders: Endangered Species Recovery Fund \$25,000, Rio Tinto Alcan \$25,000, Ministry of Environment \$16,000 In-Kind, BC Conservation Corps \$11,000, Carrier Sekani Tribal Council \$6,000 In-Kind, Ministry of Forests \$9,000 In-Kind, Fisheries and Oceans Canada \$6,000, District of Vanderhoof \$3,000 In-Kind

Year: 2 and ongoing

During the summer of 2008, a series of larval sturgeon habitat experiments were conducted in the Nechako River at Vanderhoof. Since relatively little is known about the early life history of white sturgeon or their habitat use at that stage, biologists Steve McAdam and Marcus Boucher with the Ministry of Environment designed an experiment to examine this question. This component of the projects examined the behaviour and survival of free embryos under field conditions, with a companion study examining both free embryo and larval life history under laboratory conditions (see Effects of River Substrates on Larval White Sturgeon Behaviour). The braided section of river at Vanderhoof lent itself well to the study design, providing separate side channels for each habitat type to be created.

The goal of these tests was to observe how white sturgeon larvae react in the river in response to a variety of substrates, and particularly their reaction to clean gravel versus sand or mixed substrates. Previously tests done at the University of British Columbia have shown that the larvae tend to hide within the spaces in gravel substrates, and the Nechako River tests aimed to reproduce this behaviour within the river.

In order to provide clean and uniform gravel in test areas, gravel was flown in by helicopter to several sites and placed manually into four side channels. This gravel placement was physically challenging and would not have been possible without the help of the fire control crews from the Ministry of Forests. Sand on the other hand was plentiful, as it been deposited in large quantities on several of the nearby islands during the flood of 2007. Each site was about 8m long and 4-6m wide and sites were located in various side channels throughout the braided islands of the Nechako Bird Sanctuary at Vanderhoof.

Results for the 2008 in river tests showed that the 1 day old free embryos released onto gravel substrates successfully hid and survived within newly created gravel substrates. In contrast, larval hiding success and survival decreased markedly as the amount of sand in the substrates increased. In conjunction with ongoing analysis of the factors limiting white sturgeon spawning and juvenile recruitment, the results from 2008 larval studies provide important support for the implementation of larger habitat restoration tests planned for 2010. By combining insights for detailed laboratory tests and these moderately sized in river restoration tests, the Nechako White Sturgeon Recovery Initiative has been able to continually progress towards the ultimate goal of restoring riverine habitat that is capable of supporting continued wild recruitment.

Effects of River Substrates on Larval White Sturgeon Behaviour

Project Lead: Ministry of Environment, University of British Columbia

Funders: Interdepartmental Recovery Fund \$5,000, Rio Tinto Alcan \$5,000, Ministry of Environment \$10,000 In-Kind

Year: 2 and ongoing

This work was divided into two projects that examined free embryos and larvae under lab conditions (this study) and under field conditions (Diagnosing Causes of Recruitment Failure). The goal of this analysis was to provide a detailed understanding of larval behaviour under laboratory conditions, since such observations are not possible for larvae deposited into the river.

White sturgeon free embryos (from hatch to 12 days old) tend to hide in gravel but are forced downstream if only sand is available. Because river habitats are obviously more complicated than simply sand or gravel, tests in 2008 also aimed to examine a more complicated mixture of these two substrates in order to emulate habitats being examined by in-river habitat studies. Similar to previous studies, results showed that larvae hid in gravel. Movements in both sand and mixed substrate treatments were more of a complicated mixture of free embryos both drifting downstream and maintaining stable positions behind small irregularities in the substrate (e.g. behind a small rock). By 5-6 days old most free embryos tended to hold positions against the current or behind rocks by actively swimming against the current. Monitoring of drift in the gravel tanks showed that larvae emerged during the night at 12-14 days old, but still hide during the day. Additional examinations of feeding also showed that larvae (the larval stage starts at the initiation of feeding) ate a wide variety of prey items gathered from the Nechako River, with some larvae eating prey items up to half their size. Examination of larval growth showed a rapid growth increase after 20 days old.

The results from these test provide important detail which helps us understand the results of the in river tests, and to develop a more detailed understanding of the factors that affect the distribution, growth and survival of these critical life stages. Results clearly indicate the importance of gravel substrates at spawning sites for the hiding of free embryos at the time of hatch. They also indicate the wide variety of food items that newly feeding larvae may consume, perhaps suggesting that food availability may not be a limiting factor for this important life stage.



Project Updates for 2008-2009

Community Education & Outreach 2008/09

Project Lead: NWSRI Community Working Group

Funders: Habitat Stewardship Program \$14,900, Carrier Sekani Tribal Council \$10,240 In-Kind, NWSRI- CWG \$500 and \$4,250 In-Kind

Year: 8 and ongoing

Education and outreach are essential components that assist in the recovery of the endangered Nechako white sturgeon. This project worked on increasing community level awareness about the decline of this endangered species as well as supporting ongoing harm reduction work in First Nation communities. A number of communications materials were updated in 2008/09 including a fourth NWSRI newsletter, a new display and several “Help Save the Nechako White Sturgeon” signs— all of which now include some Carrier text. In addition, local Prince George artist Nino Fabro created a spectacular life sized white sturgeon model to be used at educational and community events. Finally, funds were also used update the NWSRI website—specifically the “Where’s My Fish” page and database. Schoolchildren are now able to search on-line to see whether their released fish has been captured.



Model sturgeon created by Prince George artist Nino Fabro.

Strong community-level support (gained via extension, communications and educations programs) for the recovery of species at risk will ultimately increase the probability and degree of successes of recovery programs. By engaging the broad community, public support for investment in the conservation of species of risk will likely be increased over time.

Pilot Broodstock Capture

Project Lead: Ministry of Environment, Carrier Sekani Tribal Council

Funders: Ministry of Environment \$20,000, Carrier Sekani Tribal Council \$30,800, Freshwater Fisheries Society of BC \$22,000 and \$6,150 In-Kind

Year: 3 and ongoing

Similar to 2006-2007, the brood-capture project for 2008 had three objectives (see below). As in 2007, three families were needed in 2008 for conservation fish culture to produce larvae for habitat research and juveniles to rebuild the wild population.

Objectives:

- 1) To assess the feasibility of capturing up to 10-12 mature adults for use in a full scale conservation fish culture program with 10-12 family groups.
- 2) Capture 3 pairs of mature adult white sturgeon for spawning in the enhanced pilot conservation fish culture program.
- 3) Capture and radio tag additional mature adults to aid the spawn monitoring project.

As with previous year's work, 2008 was again a very successful year, with a total of 70 sturgeon captured during the brood program. Sixty-two adults and 8 wild juveniles were caught and tagged between April 29 and May 31. Thirty-four of these fish were recaptures and 36 were previously not caught. A total of six ripe females and four ripe males were captured, and of these fish caught, five females and four males were transported to Prince George for spawning. Of these nine fish, four females and three males were used for the conservation fish culture program. Twenty new radio transmitters were applied to track both wild sturgeon spawners and untagged sturgeon used in conservation fish culture.



Set lines with Sockeye bait.

Project Updates for 2008-2009

Summer/Fall 2008 Pilot Conservation Fish Culture Program

Project Lead: Freshwater Fisheries Society of BC (FFSBC)

Funders: Ministry of Environment \$120,000, Rio Tinto Alcan Inc. \$120,000, Freshwater Fisheries Society of BC \$218,000 & \$34,850 In-Kind, Carrier Sekani Tribal Council \$27,000 In-Kind, District of Vanderhoof \$4,220 In-Kind

Year: 3

2008 marked the third and what was expected to be the last year of a three year pilot white sturgeon conservation based fish culture program on the Nechako River. This year's program was again led by the Freshwater Fisheries Society of BC and supported by numerous partners.

As in the previous years brood capture of maturing fish was led by Ministry of Environment staff and was successful in providing five maturing females and five mature males for spawning purposes. To gain additional information regarding run and spawn timing brood capture was initiated on the earliest date ever, April 29th, which was about a week to ten days earlier than previous years.

This year an additional research and development objective requiring large numbers of larvae resulted in a change of plans for capture, spawning and incubation compared to the first two years. Because of incubation and water limitations at the fish culture facility we strategically selected and advanced the maturation of the four females such that two females were spawned at a time with the spawning events spaced 14 days apart with spawning dates on May 20th and June 3rd.

For each spawning event, individual females were crossed with three male fish to produce three half-sibling-families (i.e. three crosses per female). The contributing adult spawners were sampled for fin tissue for later identification using genetic identification. One male fish used in the first spawning event supplied milt with low viability and produced limited offspring. However, eggs and larvae from the two other half sib-families were retained from each female for further on-growing and juvenile releases. Approximately 200,000 larvae were supplied from the first spawning event and released in the river for the habitat experiment

In previous work, FFSBC staff had a difficult time getting larvae onto commercial diets. By manipulating commercial diets with a variety of natural ingredients, this problem was avoided. The larvae raised on the custom diet took well to first-feeding and as a result, has better larval survival and growth.

To promote optimal growth, grading of the fish started in early July with the exception of one family which experienced high initial losses, at the onset of first feeding and was not graded. Inventory as of July 28th was 2,400 fish in Family 1, 550 in Family 2 and 6,400 fish in Family 3. In total, there were 6,345 fish at an average of 16g at the time of juvenile release.

Releases went according to the Release Event and Recovery Plans with some minor modifications on numbers for release by community and research groups and for dates of release. Over two dates, in mid-September and at three release locations, 3,300 fish were released into favourable river conditions (i.e., warmer than previous years) and above predicted fish size. On Sept 24th, 675 more fish were released, leaving 1,300 fish for the Release Event which took place on October 1st and 2nd. After the event several hundred more fish were released for a total of 5,609 fish and an average weight of 20g. As in previous years, all released juvenile fish were PIT tagged and scute marked.

Additionally, 150 fish were transferred to the Vanderhoof arena where they were placed in a six foot circular fish culture tank supplied with city groundwater where they will be held over the winter and released in the spring of 2009. CSTC and arena maintenance staff oversaw the feeding and monitoring of the fish during this period.

The biggest challenge this year was once again water related. This year due to a very heavy, fine sediment load that occurred in both the early spring and during the Summer Temperature Management Project (STMP), there were difficulties in providing consistent temperatures and incubation water flows to the culture facility. On a few occasions the water system was temporarily transferred to a partial groundwater city water supply to augment or fully supply water to maintain sturgeon culture. However this change of water supply occurred after the critical incubation milestones of first feeding. Fluctuating river water temperatures that effect juvenile sturgeon growth were likewise offset by the heating of river water before and during STMP flows.

If success is solely measured by fish releases, results from this year was the best of the past three years. Juvenile fish were released earlier and in greater number and size than previous years. The additional request for larvae to be used in in-stream habitat work was also accommodated successfully.

Thanks to all involved this year but particularly to FFSBC staff, and team, Mickey McDonald and Neil Jantz, who did an exceptional job!



Neil Jantz and Mick McDonald, FFSBC, holding a young adult sturgeon.

Project Updates for 2008-2009

Fall Juvenile Release with School District 91

Project Lead: Community Working Group

Funders: Community Working Group \$400 and \$1,500 In-Kind, Fisheries and Oceans Canada \$4,600, Resources North Association \$2,500, Tl'azt'en Nation \$500, Carrier Sekani Tribal Council \$2,000 and 6,000 In-Kind, District of Vanderhoof \$2,500 In-Kind

Year: 3 and ongoing

The third annual Save Our Sturgeon (SOS) juvenile release event was a huge success. The weather cooperated by providing us with sunshine and a last blast of heat. Over 900 students from seventeen schools within School District 91 attended the two day event - with each child releasing a 4 month old juvenile white sturgeon into the Nechako River as part of the NWSRI's continuing effort to help restore endangered white sturgeon stocks. The schoolchildren named their sturgeon and received a certificate identifying the unique passive integrated transponder (PIT) tag number of their fish. This number will allow students to track their fish in the future on the NWSRI website. In addition to this main event, everyone took a tour of the mobile aquaculture facility and heard a brief talk about the biology and risk factors to sturgeon survival. This event continues to be one the highlights of the year, not only for the schoolchildren, but for everyone involved with the Initiative.



Outreach and Harm Reduction Program

Project Lead: Carrier Sekani Tribal Council

Funders: Habitat Stewardship Program \$20,500, Carrier Sekani Tribal Council \$10,000 In-Kind

Year: 5 and ongoing

First Nations communities within the Nechako watershed have voluntarily refrained from the direct harvest of white sturgeon since 1994. The focus of the outreach and harm reduction program is to share information with CSTC's eight member First Nation communities about the NWSRI, the CSTC's role in the Initiative and the status of the Nechako white sturgeon population. In 2008, catch monitors were hired for the communities of Saik'uz, Nadleh Whut'en, Nak'azdli and Takla Lake. A catch monitor coordinator was also hired and was successful in receiving reports and gathering data about sturgeon bi-catch. She spoke with several fishers in different communities and educated them about threats to sturgeon survival, how they can help and what laws apply to food fishing and sturgeon bi-catch (i.e., untargeted species caught when fishing/netting).



TWG Chair Cory Williamson with a group of Prince George school children.

Project Updates for 2008-2009

NWSRI Coordination and Data Management

Project Lead: Carla Wainwright—NWSRI Coordinator

Funders: Ministry of Environment \$25,000

Year: 7 and ongoing

The Nechako White Sturgeon Recovery Initiative requires coordination, administrative and technical support in order to be effective. The coordination and administrative support involves the following services: organizing meetings; tracking action items; completing technical tasks assigned by members of the Recovery Initiative; assisting in project proposal development and Terms of Reference for projects; assistance in the development of funding proposals; website maintenance and updating; and, where necessary, assisting team members with their assigned tasks. Technical support is provided to ensure scientific accuracy and technical expertise in planning and executing recovery tasks.

The Nechako White Sturgeon Database continued to be updated with all new sampling, biological, tagging and radio telemetry data. Biological information on the several thousand juveniles raised and released through the pilot conservation fish culture program in 2008 was also added to the database.

Project Name: _____
Page 1 of 2

Site Type (Circle) Index 34000
Weather 100% OC Wind
W 4.1

BIOLOGICAL DATA

Wash Station OK River No. 116.1 UTM 445757 = 5982299 N
Site Description US of Whitehorse
Water Temp 12.7 °C Visibility 2.9 m Depth Max 2.0 m
Water Temp 12.7 °C Visibility 2.9 m
Set Orientation (D, F, P) G Set Orientation (D, F, P) ±

BIOLOGICAL DATA

No.	MORPHOLOGICAL CHARACTERISTICS										TAG DATA			
	Depth (m)	Wash Sta	Site No. Code	FD Length (cm)	Snout Length (cm)	Fork Length (cm)	Total Length (cm)	Girth (cm)	Weight (g)	Sex	Tag No. (1-10)	Tag No. (11-15)	Tag No. (16-20)	Tag No. (21-25)
1	3.0	2.0	98	11	6	42	49	16	39g	N	M	12-13		
2														
3														
4														
5														
6														
7														
8														
9														
10														

2.5: hatchery fish caught. Right pec determined smaller than the left

Datasheet for 2006 juvenile recapture

Financial Summary for 2008-2009

During the 2008-2009 fiscal year, project funding levels reached over \$873,000. Once again, project dollars came from a variety of sources including industry, government, environmental funding sources and even extending to sales of “Stuart” the Clay Sturgeon. The following is a breakdown of both financial and in-kind contributions to the NWSRI for 2008-2009:

BC Ministry of Environment – \$165,000 and \$52,300 In-Kind

BC Ministry of Forests – \$9,000 In-Kind

Carrier Sekani Tribal Council – \$38,800 and \$67,240 In-Kind

District of Vanderhoof – \$7,720 In-Kind

Endangered Species Recovery Fund - \$25,000

Fisheries and Oceans Canada –\$10,600

Freshwater Fisheries Society – \$240,000 and \$41,000 In-Kind

Habitat Stewardship Program – \$35,400

Interdepartmental Recovery Fund (Federal Government) - \$25,000

NWSRI Community Working Group - \$900 and \$5,750 In-Kind

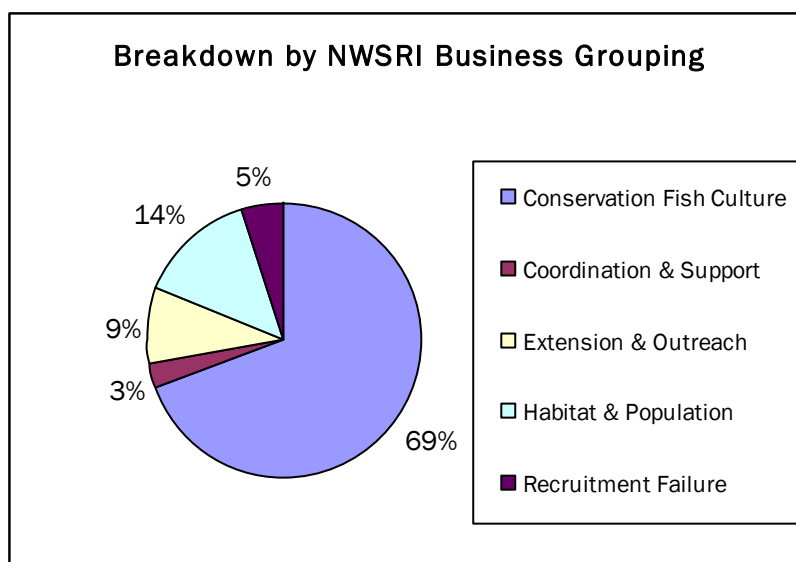
Resources North Association – \$2,500

Rio Tinto Alcan Inc. – \$214,000

Sales of Stuart the Clay Sturgeon & Donations to the NWSRI – \$282,04

Species at Risk - Aboriginal Capacity Building Program - \$30,800

TI'azt'en Nation—\$500



The NWSRI would like to extend its thanks to all groups and individuals who have contributed funds, time and other in-kind contributions. This support is essential to the success of the Initiative and the recovery of white sturgeon in the Nechako watershed.

Photo Credits:

We gratefully acknowledge the use of photos for this annual report from the following organizations:

- Carrier Sekani Tribal Council
- Freshwater Fisheries Society of BC
- BC Ministry of Environment
- Nechako White Sturgeon Recovery Initiative



NWSRI ANNUAL REPORT 2008-2009

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