

## **Nechako and Stuart Rivers Chinook Carcass Recovery 1988 (M88-4)**

**Prepared by D. Rowland, DFO May 1989**

In 1988, adult chinook salmon (*Oncorhynchus tshawytscha*) carcasses were recovered from the Nechako and Stuart rivers for the purpose of collecting biological data on size, sex, age, life history, egg retention and fecundity of chinook. This information will contribute to the database being compiled under the auspices of the Nechako Fisheries Conservation Program (NFCP) Technical Committee to assess achievement of the Conservation Goal set out in the 1987 Settlement Agreement. A brief comparison with data from previous years is also presented.

Two hundred twelve and 102 carcasses were recovered from the Nechako and Stuart rivers respectively. Age determination using scales, fin rays and sagitta otoliths was undertaken. Scale aging by two independent groups were in 95% agreement (219 of 230 comparable samples) whereas comparison of both sets of scale ages and fin rays were in 81% agreement (182 of 226 samples). Chinook sagitta otoliths were not suitable for age determination or analysis of early life history.

Nechako River chinook carcasses recovered in 1988 exhibit similar biological characteristics to those collected from 1980 to 1987. Mean postorbital-hypural length (73 cm) is in the upper range of mean lengths observed during this period. The dominant age class (5-2) is the same as in previous years except 1984. The only comparable data set for the Stuart River is 1980. The dominant age class is 5-2 for both years.

## **Nechako and Stuart Rivers Chinook Carcass Recovery 1989 (M89-2)**

**Prepared by G.J. Birch (Aquatic Resources Ltd.), S. Gidora (DFO), J.S. Mathers (DFO) April 1993**

In 1989, adult chinook salmon (*Oncorhynchus tshawytscha*) carcasses were recovered from the Nechako and Stuart rivers. The purpose was to collect biological data on size, sex, age, life history, egg retention and fecundity of chinook. This information will form part of the database being compiled under the auspices of the Nechako Fisheries Conservation Program (NFCP) Technical Committee to assess achievement of the Conservation Goal. A brief comparison with data from previous years is also presented.

The number of carcasses sampled from the Nechako River was 286, while 453 carcasses were sampled from the Stuart River. Nechako River chinook carcasses recovered in 1989, exhibit similar biological characteristics to those collected from 1980 to 1988. Mean postorbital-hypural length (67.9 cm) is about the same as mean length observed (67.4 cm) in the brood year (1984). The dominant age class (52) was the same as in previous years except 1984.

Comparable data for the Stuart River are available for 1980 and 1988. The dominant age class was 52 for all years. Mean length of fish sampled in 1989 (69.9 cm) was similar to previous years.

**Nechako and Stuart Rivers Chinook Carcass Recovery 1990 (M90-2)**  
**Prepared by G. Faulkner, DFO April 1993**

In 1990, adult chinook salmon (*Oncorhynchus tshawytscha*) carcasses were recovered from the Nechako and Stuart rivers. The purpose of this work was to collect biological data on size, sex, age, life history, egg retention and fecundity of chinook. This information will contribute to the database being compiled under the auspices of the Nechako Fisheries Conservation Program (NFCP) Technical Committee to assess achievement of the conservation goal. A brief comparison with data from previous years is also presented.

Four hundred and forty-four carcasses were collected on the Nechako River between September 13 and 30, 1990. Approximately ten percent of these were rejected due to the advanced state of decomposition, resulting in a total of 400 carcasses being sampled. On the Stuart River, 2208 carcasses were collected and 548 were sampled for age analysis. Nechako River chinook carcasses recovered in 1990 exhibit similar biological characteristics to those collected from 1980 to 1989. Mean postorbital-hypural length (70.8 cm) is approximately the same as mean length observed (72.1 cm) in the brood year (1985). The dominant age class (52) was the same as in all previous years except 1984. Comparable data for the Stuart River are available for 1980 and 1989. The dominant age class was 52 for all years. Mean length of fish sampled in 1990 (72.2 cm) was similar to previous years.

**Nechako and Stuart Rivers Chinook Carcass Recovery 1991 (M91-2)**  
**Prepared by G. Faulkner and B. Ennevor, DFO April 1994**

In 1991, adult chinook salmon (*Oncorhynchus tshawytscha*) carcasses were recovered from the Nechako and Stuart rivers. The purpose of this work was to collect biological data on size, sex, age, life history, egg retention and fecundity of chinook. This information will contribute to the database being compiled under the auspices of the Nechako Fisheries Conservation Program (NFCP) Technical Committee to assess achievement of the Conservation Goal set out in the 1987 Settlement Agreement. A brief comparison with data from previous years is also presented.

A total of 303 carcasses were collected on the Nechako River between September 12 and October 1, 1991. Scale and fin ray samples were taken from 208 of these carcasses for age determination. Nechako River chinook carcasses recovered in 1991 exhibited similar biological characteristics to those collected from 1980 to 1990. Mean postorbital-hypural length (70.3 cm) is approximately the same as mean length observed (71.3 cm) in the brood year (1986). The dominant age class (52) was the same as in previous years, except 1984.

On the Stuart River, 3,030 carcasses were collected between September 13 and October 1, 1991 and 909 of these were sampled for age analysis. Comparable data for the Stuart River are available for 1980 to 1991. The dominant age class was 52 for all years. Mean length of fish sampled in 1991 (69.1 cm) was similar to previous years.

**Nechako and Stuart Rivers Chinook Carcass Recovery 1992 (M92-2)**  
**Prepared by G. Faulkner and B. Ennevor, DFO April 1994**

In 1992, adult chinook salmon (*Oncorhynchus tshawytscha*) carcasses were recovered from the Nechako and Stuart rivers. The purpose of this work was to collect biological data on size, sex, age, life history, egg retention and fecundity of chinook. This information will contribute to the database being compiled under the auspices of the Nechako Fisheries Conservation Program (NFCP) Technical Committee to assess achievement of the Conservation Goal. A brief comparison with data from previous years is also presented.

A total of 373 carcasses were collected on the Nechako River between September 12 and 30, 1992. Scale and fin ray samples were taken from 200 of these carcasses for age determination. Nechako River chinook carcasses recovered in 1992 exhibited similar biological characteristics to those collected from 1980 to 1991. Mean postorbital-hypural length (70.1 cm) was less than the mean length observed (71.2 cm) in the brood year (1987). The dominant age class (52) was the same as in previous years, except 1984.

On the Stuart River, 3,265 carcasses were collected between September 21 and October 4, 1992 and 617 of these were sampled for age analysis. Comparable data for the Stuart River are available for 1980 to 1992. The dominant age class was 52 for all years. Mean length of fish sampled in 1992 (71.1 cm) was similar to previous years.

**Nechako and Stuart Rivers Chinook Carcass Recovery 1993 (M93-2)**  
**Prepared by G. Faulkner and B. Ennevor, DFO June 1995**

In 1993, adult chinook salmon (*Oncorhynchus tshawytscha*) carcasses were recovered from the Nechako and Stuart rivers. The purpose of this work was to collect biological data on size, sex, age, life history, egg retention and fecundity of chinook. This information will contribute to the database being compiled under the auspices of the Nechako Fisheries Conservation Program (NFCP) Technical Committee as baseline information for future use in assessing achievement of the Conservation Goal. A brief comparison with data from previous years is also presented.

A total of 192 carcasses were collected on the Nechako River between September 11 and 30, 1993. Scale and fin ray samples were taken from all of these carcasses for age determination. Nechako River chinook carcasses recovered in 1993 exhibited similar biological characteristics

to those collected from 1980 to 1992. Mean postorbital-hypural length (68.9 cm) was less than the mean length observed (73.0 cm) in the brood year (1988). The dominant age class (52) was the same as in previous years, except 1984.

On the Stuart River, 188 carcasses were collected between September 23 and 25, 1993 and 43 of these were sampled for age analysis. Comparable data for the Stuart River are available for 1980 to 1993. The dominant age class was 52 for all years. Mean length of fish sampled in 1993 (67.4 cm) was slightly less than previous years.

**Nechako and Stuart Rivers Chinook Carcass Recovery 1994 (M94-2)**  
**Prepared by B. Ennevor and M. Milko, DFO May 1995**

In 1994, adult chinook salmon (*Oncorhynchus tshawytscha*) carcasses were recovered from the Nechako and Stuart rivers. The purpose of this work was to collect biological data on size, sex, age, life history, egg retention and fecundity of chinook. This information will contribute to the database being compiled under the auspices of the Nechako Fisheries Conservation Program (NFCP) Technical Committee as baseline information for future use in assessing achievement of the Conservation Goal. A brief comparison with data from previous years is also presented.

A total of 173 carcasses were collected on the Nechako River between September 18 and October 5, 1994. Scale and fin ray samples were taken from all of these carcasses for age determination. Nechako River chinook carcasses recovered in 1994 exhibited similar biological characteristics to those collected from 1980 to 1993. Mean postorbital-hypural length (70.4 cm) was slightly greater than the mean length observed (67.9 cm) in the brood year (1989). The dominant age class (52) was the same as in previous years, except for 1984.

On the Stuart River, 664 carcasses were collected between September 18 and October 3, 1994 and 221 of these were sampled for biological data and age analysis. Comparable data for the Stuart River are available for 1980 and 1988 to 1993. The dominant age class was 52 for all years. Mean length of fish sampled in 1994 (68.2 cm) was slightly less than both the 1980 and 1988 to 1993 average, and the brood year (1989) average (69.5 cm).