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# Stream Temperatures for 18 Lakes in the Experimental Lakes Area, Northwestern Ontario, 1970 - 1995

J.N. Moyer, D.R. Cruikshank, C.R. Fazakas and C. Grose

Central and Arctic Region  
Department of Fisheries and Oceans  
Winnipeg, Manitoba R3T 2N6

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by

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## ABSTRACT

Moyer, J. N., D. R. Cruikshank, C. R. Fazakas and C. Grose. 1997.  
Stream temperatures for 18 lakes in the Experimental Lakes  
Area, Northwestern Ontario, 1970 - 1995. Can. Data Rep. Fish.  
Aquat. Sci. 1001: v + 39 p.

This report presents inflow and outflow stream temperature data from 18 lakes in the Experimental Lakes Area in northwestern Ontario during the period 1970 through 1995.

Keywords: Experimental Lakes Area; ELA; stream temperatures

## RÉSUMÉ

Moyer, J. N., D. R. Cruikshank, C. R. Fazakas, and C. Grose. 1997.  
Stream temperatures for 18 lakes in the Experimental Lakes  
Area, Northwestern Ontario, 1970 - 1995. Can. Data Rep. Fish.  
Aquat. Sci. 1001: v + 39 p.

Le rapport présente des données sur la température de l'eau dans les affluents et effluents de 18 lacs dans la Région des Lacs Expérimentaux située dans le nord-ouest de l'Ontario entre 1970 et 1995.

Mots clés: Région des Lacs Expérimentaux; RLE; températures de cours d'eau.



## INTRODUCTION

This report is the first data report on stream temperatures at the Experimental Lakes Area (ELA) in northwestern Ontario. Stream temperature data taken for 18 ELA watersheds from 1970 - 1995 are presented in tabular and graphical form. Location and character of these watersheds were presented by Brunskill and Schindler (1971). Lake temperature profile data from the same watersheds for 1969 - 1983 were presented by Cruikshank (1994), for 1984 by Lyng and Cruikshank (1985), for 1985 by Cruikshank (1986), for 1986 by Cruikshank (1987), for 1987 by Cruikshank (1988), and for 1988 - 1993 by Cruikshank (1994). Hydrometeorological data from these watersheds for 1969 - 1978 were presented by Beaty (1981), for 1979 - 1981 by Beaty (1984), for 1982 - 1987 by Beaty and Lyng (1989). Stream temperatures of Natural Variation Lakes (L149, L164, L165, L373, L377, L442, L938) 1986 - 1990 at the ELA were published separately (Cruikshank et al. 1993, 1996).

## METHODS

The majority of stream temperature data presented in this report were collected from 1970 to 1982. Stream chemistry and temperature sampling were then reduced, except for Lakes 222, 223, 239 (Northwest Inflow, Outflow, East Inflow, Northeast Inflow, Northeast at Lake), and 304. Stream temperatures from ELA were measured with an alcohol pocket thermometer (1 degree celsius accuracy). Many of the ELA watersheds are headwater systems and the streams are first or second order.

Discharge from ELA streams is relatively low, with most streams typically less than 1 metre wide and 20 centimetres deep. Most ELA streamflows are intermittent throughout the year, depending on precipitation and snow cover, watershed changes, beaver activity, forest fires, and hydrometric station structure (Beaty and Lyng, 1989). Temperatures were only taken when there was flow over the weir.

## ACKNOWLEDGEMENTS

We would like to thank all those who assisted in the collection of stream data during the period 1970 - 1995. We would also like to thank Donna Laroque for formatting this report.

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Table 1. L114 stream temperatures. 1971 - 1985. (OF = Outflow, IF = Inflow).

Date	OF	IF	Date	OF	IF
07/08/1971	18.7		05/13/1980	9.6	
10/01/1971	11.8		05/06/1981	12.9	
10/02/1973	19.7		05/11/1981	9.5	
06/13/1974	16.7		05/25/1981	11.5	
10/30/1974	7.0		06/22/1981	14.0	
05/15/1978	14.3		07/06/1981	21.0	
05/29/1978	20.2		07/20/1981	19.0	
06/12/1978	14.0		08/03/1981	16.0	
06/26/1978	20.0		08/17/1981	16.8	
07/10/1978	19.4		09/14/1981	11.0	
07/21/1978	17.0		09/28/1981	7.8	
07/24/1978	21.0		10/12/1981	6.0	
08/07/1978	20.3		05/10/1982	10.0	
09/04/1978	19.7		05/17/1982	11.2	
09/18/1978	11.8		05/24/1982	15.5	
05/21/1979	14.0		05/31/1982	16.0	
05/23/1979	16.8		06/01/1982	16.0	
05/28/1979	16.8		06/07/1982	16.0	
06/04/1979	17.5		06/14/1982	18.0	
06/11/1979	17.0		08/26/1985		2.0
06/18/1979	21.0				
06/25/1979	17.8				
06/25/1979	17.9				
07/02/1979	20.5				
07/09/1979	18.5				
07/16/1979	17.5				
11/01/1979	3.1	3.4			

Table 2. L120 outflow temperatures. 1972 - 1974 . (OF = Outflow) .

Date	OF
05/09/1972	6.8
06/27/1972	22.5
07/25/1972	19.6
09/26/1972	11.4
05/23/1974	12.9
06/20/1974	18.6
08/15/1974	19.5

Table 3. L222 stream temperatures. 1980 - 1985. (OF = Outflow, IF = Inflow).

Date	OF	IF	Date	OF	IF
05/20/1980	14.1	6.9	05/10/1982	10.5	3.0
06/17/1980	13.7	9.0	05/24/1982	16.0	6.0
07/15/1980		16.0	06/07/1982	10.0	6.0
08/12/1980	18.5	14.2	06/21/1982		7.0
09/09/1980	19.2	7.2	07/04/1982		11.0
10/07/1980		6.0	07/19/1982		7.0
			08/02/1982		8.0
06/01/1981	13.0	10.0	08/16/1982		10.0
06/14/1981	18.0	8.0	08/30/1982		7.0
07/01/1981	18.0	8.0	09/13/1982		5.0
07/13/1981	23.5	8.0	09/27/1982		6.0
07/28/1981	17.5	8.0	10/11/1982		6.0
08/10/1981	17.0	5.9			
08/25/1981	13.9	2.9	06/04/1984		6.4
09/07/1981	15.4	6.7	07/02/1984		11.0
09/22/1981	8.0	3.0	07/30/1984		6.3
10/05/1981	7.8	5.5	08/27/1984		7.0
10/20/1981	6.0	5.0			
			05/15/1985		6.0
			07/10/1985		7.0
			10/14/1985		3.0

Table 4. L223 stream temperatures. 1976 - 1995. (OF = Outflow, IF = Inflow).

Date	OF	IF	Date	OF	IF
05/04/1976	6.8		05/21/1979	12.0	12.5
05/18/1976	12.2	11.8	06/04/1979	13.5	13.0
06/01/1976	22.2	23.2	06/11/1979		12.5
06/15/1976	16.9		06/18/1979	17.0	17.5
06/28/1976	21.0	19.0	06/25/1979	17.0	16.5
07/13/1976	21.2	16.9	07/02/1979	19.5	18.5
07/27/1976	21.0		07/16/1979	20.5	16.0
08/10/1976	20.0		07/23/1979	22.0	21.5
08/24/1976	18.2		07/30/1979	21.0	21.0
09/07/1976	14.7		08/06/1979	18.5	18.0
09/21/1976	10.7		08/13/1979	17.0	16.0
10/05/1976	10.6		08/20/1979	17.5	16.5
10/19/1976	4.1		08/27/1979	16.5	14.5
			09/03/1979	14.0	12.5
05/02/1977	4.6		09/10/1979	11.5	9.8
05/09/1977	6.7		09/17/1979	19.0	14.0
05/16/1977	17.0		09/24/1979	12.0	9.3
05/23/1977	18.0	15.0	10/01/1979	9.0	7.5
05/30/1977	21.0	14.8	10/08/1979	6.5	5.2
06/06/1977	18.6		10/15/1979	4.2	4.2
06/13/1977	16.7	12.5	10/22/1979	5.0	4.2
06/20/1977	17.7	15.1	10/24/1979	2.9	2.8
06/27/1977	20.5	18.8	10/29/1979	4.3	3.5
07/04/1977	21.1	19.1			
07/11/1977	19.4	18.3	05/05/1980	16.5	12.3
07/18/1977	22.6	22.4	05/13/1980	13.0	12.2
07/25/1977	21.9	18.0	07/01/1980	17.5	12.8
08/01/1977	17.9	15.8	07/29/1980	18.4	15.0
08/08/1977	17.5	15.1	09/23/1980	11.0	9.0
08/15/1977	16.8	14.9	10/21/1980	9.5	9.4
08/22/1977	15.0	13.0			
08/29/1977	15.0	14.0	05/05/1981	9.8	8.2
09/19/1977	13.5	13.0	05/18/1981	13.2	
09/26/1977	13.1		06/01/1981	14.0	11.5
10/03/1977	9.6	7.0	06/15/1981	16.0	12.5
10/10/1977	8.3	5.4	06/29/1981	18.0	14.6
10/17/1977	7.8	5.4	07/13/1981	22.8	19.4
10/24/1977	5.7	2.7	07/27/1981	21.0	15.5
			08/10/1981	20.0	16.0
05/08/1978	6.4	5.6	08/24/1981	16.0	
05/22/1978	14.3	12.9	09/07/1981	16.0	12.4
05/29/1978	20.0	18.0	09/21/1981	8.0	6.0
06/05/1978	14.5	12.9	10/05/1981	9.0	7.2
06/19/1978	16.5	16.5	10/19/1981	6.3	5.1
07/03/1978	21.0	19.5			
07/17/1978	21.2	21.0			
08/01/1978	18.7	16.8			
08/14/1978	21.8	21.7			
08/28/1978	17.4	15.6			
09/11/1978	17.5	17.2			
09/25/1978	12.4	11.0			
10/23/1978	5.8	5.0			

Table 4 cont. L223 stream temperatures. 1976 - 1995. (OF = Outflow,  
IF = Inflow).

Date	OF	IF	Date	OF	IF
05/10/1982	7.5	8.0	10/15/1985		5.0
05/17/1982	10.0	9.0			
05/24/1982	11.0	10.0	05/19/1986		6.0
05/31/1982	11.0	10.0	05/26/1986		16.0
06/07/1982	13.5	13.0	06/09/1986		16.0
06/21/1982		15.0	06/23/1986		15.0
07/04/1982		18.0	07/07/1986		19.0
07/05/1982		18.0	08/04/1986		17.0
07/12/1982		16.0	10/13/1986		4.0
07/19/1982		17.0			
07/26/1982		18.0	06/29/1987		16.0
08/02/1982		18.0	07/07/1987		17.0
08/09/1982		16.5	07/13/1987		12.0
08/16/1982		18.0	08/03/1987		18.0
08/23/1982		16.0	08/17/1987		16.0
08/30/1982		12.0	08/24/1987		11.0
09/06/1982		11.0	09/14/1987		13.0
09/13/1982		12.0	09/23/1987		13.0
09/20/1982		8.0	09/29/1987		9.0
09/27/1982		11.0			
10/04/1982		8.0	05/16/1988		6.0
10/11/1982		9.0	05/23/1988		9.0
10/18/1982		6.0	05/30/1988		13.5
10/25/1982		6.0	06/13/1988		14.0
			06/20/1988		13.0
05/07/1984		4.0	06/27/1988		12.0
05/21/1984		13.0	07/04/1988		15.0
06/11/1984		10.0	07/11/1988		15.0
06/25/1984		15.5	07/18/1988		16.0
07/02/1984		12.0	07/25/1988		17.0
07/09/1984		18.0	08/01/1988		17.0
07/16/1984		16.0	08/08/1988		22.0
10/22/1984		6.0	08/22/1988		15.0
10/29/1984		2.0	09/02/1988		11.0
			09/05/1988		9.0
05/06/1985		10.0	09/19/1988		12.0
05/13/1985		13.0	09/26/1988		7.0
05/27/1985		14.0	10/03/1988		9.0
06/03/1985		11.0	10/10/1988		7.0
06/10/1985		12.0	10/20/1988		3.0
06/17/1985		15.0	10/26/1988		1.0
06/24/1985		14.0			
07/01/1985		17.5			
07/08/1985		19.0			
07/15/1985		17.0			
07/29/1985		18.0			
08/05/1985		19.0			
08/12/1985		16.0			
08/19/1985		11.0			
08/26/1985		15.0			
09/02/1985		13.0			
09/16/1985		15.0			
09/23/1985		10.0			

Table 4 cont. L223 stream temperatures. 1976 - 1995. (OF = Outflow,  
IF = Inflow).

Date	OF	IF	Date	OF	IF
05/23/1989		14.0	05/17/1993		8.0
05/29/1989		10.0	06/15/1993		13.5
06/05/1989		13.0	06/28/1993		11.0
06/12/1989		13.0	07/12/1993		12.0
06/19/1989		17.0	07/26/1993		15.0
06/26/1989		17.0	08/09/1993		16.0
07/04/1989		18.0	08/23/1993		19.0
07/10/1989		20.0	09/20/1993		8.0
07/17/1989		22.0	10/04/1993		3.0
07/24/1989		24.0	10/25/1993		6.0
07/31/1989		19.0			
08/21/1989		16.0	05/11/1994		4.0
08/28/1989		17.0	05/25/1994		9.0
09/05/1989		14.0	06/22/1994		15.0
09/11/1989		10.0	07/06/1994		15.9
09/18/1989		15.0	08/03/1994		16.5
09/25/1989		8.0	08/17/1994		18.0
10/02/1989		9.0	08/31/1994		11.0
10/30/1989		3.0	09/14/1994		10.5
			09/23/1994		9.0
			10/12/1994		11.0
06/04/1990		13.0	10/26/1994		2.5
06/26/1990		14.0			
07/30/1990		15.0	05/04/1995		6.5
			05/11/1995		4.0
06/17/1991		16.0	05/31/1995		13.0
07/15/1991		18.0	07/12/1995		17.0
07/29/1991		17.0	07/26/1995		15.0
08/26/1991		14.0	08/09/1995		16.0
09/23/1991		9.0	08/23/1995		12.5
			09/06/1995		18.0
06/01/1992		13.2	09/20/1995		5.0
06/29/1992		11.0	10/04/1995		9.0
07/13/1992		14.9			
07/27/1992		13.0			
08/10/1992		15.0			
08/24/1992		13.0			
09/03/1992		11.2			
10/19/1992		2.0			

Table 5. L224 inflow temperatures. 1976 - 1978. (IF = Inflow).

Date	IF	Date	IF
05/04/1976	6.5	08/08/1977	18.3
05/18/1976	13.2	08/15/1977	14.3
06/01/1976	19.2	08/22/1977	12.0
06/15/1976	13.8	08/29/1977	12.5
06/29/1976	15.4	09/19/1977	13.5
		09/26/1977	11.4
05/23/1977	10.5	10/03/1977	6.2
05/30/1977	16.1	10/10/1977	5.4
06/06/1977	14.0	10/17/1977	6.7
06/13/1977	11.8	10/24/1977	8.4
06/20/1977	17.2		
06/27/1977	20.1	05/15/1978	13.0
07/04/1977	20.9	06/12/1978	14.8
07/11/1977	19.3	07/10/1978	15.8
07/18/1977	22.3	08/07/1978	18.4
07/25/1977	20.8	09/04/1978	17.5
08/01/1977	16.9	10/02/1978	11.5

Table 6. L226 outflow temperatures. 1971 - 1982. (OF = Outflow).

Date	OF	Date	OF	Date	OF
09/16/1971	16.2	05/04/1977	12.1	05/15/1980	10.5
		05/18/1977	19.6	08/07/1980	20.2
05/01/1973	5.4	06/01/1977	20.2	08/21/1980	21.3
05/29/1973	18.0	06/15/1977	17.8	09/04/1980	17.7
06/12/1973	17.6	06/29/1977	21.0	10/02/1980	11.2
06/26/1973	21.1	07/13/1977	21.4	10/30/1980	3.5
08/07/1973	22.3	07/27/1977	22.0		
08/21/1973	22.1	08/10/1977	17.5	05/13/1981	12.1
09/04/1973	20.2	08/24/1977	15.0	05/27/1981	12.9
09/18/1973	14.7	09/21/1977	13.0	06/10/1981	15.0
09/25/1973	12.5	10/05/1977	9.9	06/24/1981	17.4
10/02/1973	13.3	10/19/1977	6.3	07/08/1981	23.2
10/16/1973	8.4	11/01/1977	7.2	08/05/1981	16.0
10/30/1973	6.2			08/19/1981	16.0
		05/10/1978	9.0	10/01/1981	8.0
05/14/1974	7.2	06/07/1978	14.6	10/14/1981	9.0
05/28/1974	15.3	06/21/1978	16.0	10/28/1981	5.0
06/11/1974	16.5	07/05/1978	22.3		
07/09/1974	24.2	07/19/1978	21.5	05/10/1982	9.0
08/17/1974	20.5	08/02/1978	19.1	05/19/1982	9.0
09/17/1974	14.2	08/16/1978	19.4	05/26/1982	16.5
10/01/1974	9.0	08/30/1978	15.8	06/02/1982	16.0
10/15/1974	6.0	09/27/1978	11.2	06/09/1982	11.0
10/29/1974	7.0	10/25/1978	6.2	08/04/1982	21.0
09/29/1975	14.0	05/23/1979	10.5		
10/13/1975	10.5	05/30/1979	16.8		
10/27/1975	7.1	05/30/1979	16.8		
11/10/1975	4.8	06/05/1979	16.5		
		06/13/1979	17.5		
05/11/1976	9.8	06/27/1979	18.2		
05/25/1976	13.6	07/11/1979	20.5		
06/20/1976	19.3				
06/22/1976	17.4				
07/06/1976	23.8				

Table 7. L227 outflow temperatures. 1971 - 1982. (OF = Outflow).

Date	OF	Date	OF	Date	OF
06/08/1971	19.9	05/21/1974	15.0	05/22/1979	12.0
06/15/1971	24.8	06/04/1974	18.3	05/29/1979	19.0
06/22/1971	24.3	08/27/1974	14.8	06/05/1979	18.0
06/29/1971	22.5	09/24/1974	12.0	06/12/1979	17.0
07/20/1971	24.1	10/08/1974	6.3	06/19/1979	16.0
07/27/1971	19.2			07/03/1979	19.5
08/10/1971	18.3	06/10/1975	17.5		
08/24/1971	14.2	09/02/1975	14.5	05/07/1980	12.5
09/01/1971	12.9	10/01/1975	12.2	06/06/1980	14.2
10/05/1971	1 1 . 7	10/14/1975	6.5	10/22/1980	3.7
10/19/1971	8.3	10/23/1975	5.5		
		11/11/1975	2.4	05/04/1981	9.0
05/10/1972	8.6			05/19/1981	11.7
06/14/1972	15.5	05/12/1976	12.5	06/16/1981	16.0
06/28/1972	23.4	07/07/1976	22.3	07/01/1981	20.0
07/12/1972	23.4			07/14/1981	24.0
07/26/1972	20.7	05/03/1977	11.5	07/28/1981	18.0
08/09/1972	15.7	05/17/1977	21.4	08/11/1981	18.1
		06/01/1977	22.4	09/08/1981	14.2
05/28/1973	16.6	06/14/1977	15.7	09/28/1981	10.5
06/11/1973	19.7	06/28/1977	21.5	10/06/1981	7.0
06/25/1973	21.7	07/12/1977	19.1	10/20/1981	4.0
07/09/1973	23.5	09/20/1977	13.0		
07/23/1973	19.6	10/01/1977	6.2	05/11/1982	10.0
08/06/1973	22.2	10/18/1977	6.6	05/18/1982	11.0
08/20/1973	20.0			05/25/1982	17.0
09/03/1973	19.9	05/09/1978	9.0	06/01/1982	15.0
09/17/1973	12.9	05/23/1978	16.5	06/08/1982	12.0
09/24/1973	10.2	06/20/1978	16.7		
10/01/1973	13.5	07/04/1978	22.0		
10/15/1973	9.3	07/18/1978	21.5		
11/05/1973	1.7	08/01/1978	17.7		
11/06/1973	1.6	08/29/1978	17.8		
		09/26/1978	11.2		
		10/24/1978	5.4		

Table 8. L230 outflow temperatures. 1975 - 1976. (OF = Outflow).

Date	OF
10/21/1975	8.1
05/05/1976	8.2
06/30/1976	20.7

Table 9. L239 stream temperatures. 1970 - 1995. (NWIF = Northwest Inflow, OF = Outflow, EIF = East Inflow, NEIF = Northeast Inflow, NEAT = Northeast Inflow at lake).

Date	NWIF	OF	EIF	NEIF	NEAT
05/28/1970	5.2	5.2	5.0		
04/15/1971			0.6		
04/16/1971	0.0	2.6	0.2	0.2	
04/17/1971	0.8	2.6	0.4	0.2	
04/20/1971	2.1	3.7	1.2	1.3	
04/21/1971	1.0	3.9	0.9	1.0	
04/22/1971				0.5	
04/23/1971	1.4	4.4	0.8	0.7	
04/24/1971	0.5	3.5	0.3	0.2	
04/25/1971	1.0	3.8	0.9	0.6	
04/26/1971	1.2	6.2	0.7	0.6	
04/27/1971	0.7	4.2	0.9	0.4	
04/28/1971	0.4	4.8	1.7	0.5	
04/29/1971	1.0	4.9	1.2	0.5	
04/30/1971	0.4	4.2	0.2	0.2	
05/01/1971	0.6	6.1	0.7	0.3	
05/02/1971	1.2	7.2	0.6	0.6	
05/03/1971	1.3	6.5	1.2	0.8	
05/06/1971	3.7	7.8	5.0		
05/11/1971	4.0	10.0	5.0		
05/18/1971	4.5	11.5	6.0		
05/23/1971	4.0		3.5		
05/25/1971	3.5	11.0	2.5	1.0	
05/30/1971	8.3	11.5	7.0	2.2	
06/01/1971	7.4	15.0	7.2	6.3	1.6
06/06/1971	10.0	17.9	8.5	4.0	
06/08/1971	10.1	17.8	7.8	3.1	3.0
06/13/1971	11.5	20.4	11.5	5.0	6.0
06/15/1971	13.0	22.5	12.0	6.0	6.0
06/16/1971	13.0		11.7		

Table 9 cont. L239 stream temperatures. 1970 - 1995. (NWIF = Northwest Inflow, OF = Outflow, EIF = East Inflow, NEIF = Northeast Inflow, NEAT = Northeast Inflow at lake).

Date	NWIF	OF	EIF	NEIF	NEAT
06/20/1971	12.5	24.3	12.0	5.7	6.4
06/22/1971	13.3	23.5	14.1	8.8	8.6
06/27/1971	14.4	20.5	13.8	12.2	7.9
06/29/1971	13.8	19.9	13.3	8.8	8.8
07/02/1971			13.8		
07/03/1971			14.7		
07/04/1971	14.6	21.1	14.2	12.8	11.9
07/06/1971	14.4	20.6	12.2	8.8	9.9
07/11/1971	12.8	21.6	14.4	11.1	9.4
07/12/1971	13.3	20.0	12.4	9.5	10.0
07/13/1971	14.9	19.4	12.2	9.4	9.9
07/18/1971	13.5	22.2	12.6	10.3	9.3
07/20/1971	13.6	22.2	12.8	9.6	10.3
07/27/1971	12.0	19.7	10.5	8.8	9.2
08/01/1971	11.5	16.0	10.2	9.0	9.5
08/03/1971	11.5	18.0	10.0	8.8	8.5
08/10/1971	13.8	20.5	14.0		
08/15/1971	14.0	18.5	12.5	10.5	11.5
08/22/1971	13.6	19.2	13.6	11.7	11.1
08/24/1971	12.9	18.9	12.2	10.5	10.8
08/29/1971	13.3	20.5	13.3	12.2	
08/31/1971	12.2	18.9	11.1	10.5	
09/05/1971	15.3	20.2	13.9	12.8	13.0
09/07/1971	14.9	21.0	13.8	12.8	12.2
09/12/1971	12.2	18.8	12.2	11.1	11.6
09/14/1971	11.9	17.2	11.1	10.8	
09/21/1971	7.8	13.9	6.7	7.7	
09/28/1971	9.5	13.3	9.1	8.3	
10/05/1971	9.6	12.5	9.3	9.2	9.9
10/12/1971	6.2	11.0	5.4	6.3	6.9
10/26/1971	7.5	9.8	7.3	6.7	7.0
04/25/1972	0.5	5.2	0.5		
04/27/1972	0.5	5.5	0.5	0.0	
05/02/1972	1.0	5.5	1.0	1.0	
05/04/1972	1.7	4.6	2.5	0.7	
05/09/1972	2.4	9.5	2.4	0.4	
05/16/1972	5.0	12.7	4.4	1.0	
05/23/1972	10.0	20.0	9.0	4.0	
05/30/1972	7.9	19.0	5.8	2.2	
06/06/1972	11.1		9.5	3.9	
06/13/1972	10.5	18.7	9.4	3.8	
06/20/1972	9.0	19.5	8.0	5.0	
06/27/1972	11.7	22.8	12.5	7.2	
07/04/1972	11.7	22.8	9.4	8.9	
07/11/1972	14.0	22.0	13.0	12.0	
07/18/1972	12.8	22.0	11.7	10.0	

Table 9 cont. L239 stream temperatures. 1970 - 1995. (NWIF = Northwest Inflow, OF = Outflow, EIF = East Inflow, NEIF = Northeast Inflow, NEAT = Northeast Inflow at lake).

Date	NWIF	OF	EIF	NEIF	NEAT
07/25/1972	12.2	19.5	11.1	9.4	
08/01/1972	13.0		11.0	10.0	
08/08/1972	12.0	17.5	11.0	9.5	
08/15/1972	13.0	20.0	12.0	11.0	
08/22/1972	13.8	19.7	12.8	13.2	
09/05/1972	13.5	18.9	10.0	10.5	
09/12/1972	11.0	16.0	10.0	10.5	
09/19/1972	10.7	14.9	9.5	9.2	
09/26/1972	7.2	10.4	6.5	7.3	
10/03/1972	8.1	11.0	7.6	7.0	
10/10/1972	6.3	9.0	6.2	6.0	
10/17/1972	3.5	4.6	1.5	4.0	
10/24/1972	2.9	5.2	1.9	2.8	
05/08/1973	3.0	11.0	3.0	1.0	
05/15/1973	3.0	10.0	3.0	1.0	
05/22/1973	5.0	14.0	5.5	1.5	
05/29/1973	8.5	19.7	6.8	1.9	
06/05/1973	9.0	16.0	9.0	2.5	
06/12/1973	10.5	17.5	8.5	3.0	
06/19/1973	10.0	17.0	8.0	4.0	
06/26/1973	13.0	20.5	11.0	6.0	
07/03/1973	14.0	20.0	11.5	8.5	
07/10/1973	14.0	22.5	12.0	9.5	
07/17/1973	14.0	21.5	12.0	10.0	
07/24/1973	13.0	21.0	12.5	9.5	
07/31/1973	12.0	20.5	11.5	10.5	
08/07/1973	15.0	22.0	13.5	11.5	
08/14/1973	15.0	21.0	12.0	11.5	
08/21/1973	13.0	23.0	13.0	15.0	
08/28/1973	19.0	23.0	18.0	19.0	
09/04/1973	14.0	21.0	14.0	13.7	
09/11/1973	12.5	18.5	11.0	11.0	
09/18/1973	10.4	14.3	10.4	8.5	
09/25/1973	9.5	12.0	9.0	8.0	
10/02/1973	10.5	13.5	10.0	8.5	
10/09/1973	10.0	13.0	10.0	8.5	
10/16/1973	6.0	10.0	5.0	6.0	
10/23/1973	6.5	9.0	6.0	5.8	
10/30/1973	5.3	8.0	4.0	5.0	
11/06/1973	1.2	4.0	0.0	2.0	
04/25/1974	2.0	3.0	0.5		
05/02/1974	1.0	3.0	1.0	1.0	
05/09/1974	2.0	5.5	2.5	1.0	
05/15/1974	1.5	6.0	2.0	1.5	
05/23/1974	4.7	10.2	3.3	0.6	
05/28/1974	7.0	14.0	9.0	2.0	

Table 9 cont. L239 stream temperatures. 1970 - 1995. (NWIF = Northwest Inflow, OF = Outflow, EIF = East Inflow, NEIF = Northeast Inflow, NEAT = Northeast Inflow at lake).

Date	NWIF	OF	EIF	NEIF	NEAT
06/04/1974	10.0	16.8	9.0	2.0	
06/11/1974	8.8	16.0	6.5	3.3	
07/02/1974	21.0				
07/09/1974	16.0	26.0	16.0	10.5	
07/23/1974			16.0		
07/30/1974			14.0		
08/06/1974			15.0		
08/13/1974	16.2	19.8	14.0	12.0	
08/19/1974	13.5	19.9	13.5	12.5	
08/22/1974	12.0	17.5	11.5	11.5	
09/03/1974	9.0	14.0	9.0	9.0	
09/10/1974	9.0	14.0	9.0	9.0	
09/17/1974	9.5		9.5	9.0	
09/24/1974	7.8	8.0	8.0	7.8	
10/01/1974	5.5	8.0	4.0	5.0	
10/07/1974	5.0		5.0	5.0	
10/08/1974	5.0		5.0	5.0	
10/15/1974	4.0	6.0	4.0	5.0	
10/16/1974			4.0		
10/17/1974			4.0		
10/21/1974	4.0	6.0	3.0	4.0	
10/28/1974	5.0	7.5	5.7	4.5	
11/04/1974	3.7	5.0	2.2	3.2	
04/10/1975	1.0	1.0	0.0	0.0	0.0
05/13/1975	6.0	9.8	8.0	8.0	4.0
05/20/1975	9.0	15.0	11.2	13.0	7.0
05/27/1975	9.0	17.0	10.0	10.9	8.0
06/03/1975	8.7	16.5	10.0	10.9	7.8
06/10/1975	8.8	16.5	10.0	10.9	8.8
06/17/1975	10.0	19.2	11.5	12.7	9.5
06/21/1975			13.0		
06/22/1975			14.0	14.1	
06/24/1975	12.3	21.1	13.8	14.2	14.0
07/01/1975	14.0	24.5	15.5	16.0	15.0
07/08/1975	14.5	24.3	14.7	15.0	14.8
07/15/1975	17.2	22.0	17.0	18.0	14.5
07/22/1975	18.0	23.7	16.0	17.6	
07/29/1975		24.7	18.0	20.9	
08/05/1975	15.5	21.5	13.8	14.8	
08/12/1975	18.0	21.5	15.0	15.4	15.3
08/19/1975		21.3	10.8	12.9	
08/26/1975	12.7	18.0	13.5	13.5	13.3
09/02/1975	10.9	18.0	11.0	11.0	11.7
09/09/1975	10.0	16.2	9.8	9.5	10.0
09/16/1975	9.4	14.0	9.0	9.0	9.5
09/23/1975	9.0	12.5	9.0	8.8	9.2
09/30/1975	8.7	12.2	9.0	9.0	9.0

Table 9 cont. L239 stream temperatures. 1970 - 1995. (NWIF = Northwest Inflow, OF = Outflow, EIF = East Inflow, NEIF = Northeast Inflow, NEAT = Northeast Inflow at lake).

Date	NWIF	OF	EIF	NEIF	NEAT
10/07/1975	9.1	12.0	8.0	8.3	8.4
10/14/1975	7.2	9.8	7.1	7.0	7.5
10/21/1975	6.2	9.9	4.8	5.0	5.8
10/28/1975	4.7	7.4	4.0	3.8	4.6
11/01/1975	4.6	5.7	3.5	3.2	4.5
11/04/1975	5.8	7.0	4.4	4.3	5.0
11/18/1975	3.0	4.2	2.0	2.0	
04/08/1976		4.0			
04/12/1976	1.1		1.5	2.0	1.0
04/13/1976		5.0			
04/14/1976	1.0	5.0	1.5	1.5	1.0
04/22/1976	2.0	5.5	2.0	2.0	1.5
04/28/1976	1.8	6.7	2.5	3.0	3.2
05/04/1976	1.2	6.3	2.2	2.2	2.1
05/11/1976	3.0	10.5	4.0	4.3	4.6
05/18/1976	4.3	13.0	5.0	6.6	7.0
05/25/1976	5.5	16.8	7.8	9.8	9.1
06/01/1976	10.7	22.0		15.0	14.2
06/08/1976	11.0	25.0	17.0	15.8	
06/15/1976	10.7	17.0	10.4	11.9	11.3
06/22/1976	10.9	21.3	11.0	14.0	13.0
06/29/1976	11.5	21.0	12.2	14.2	13.2
07/06/1976	13.3	23.9	13.4	16.5	15.2
07/13/1976	13.0	21.7		14.7	13.9
07/20/1976		23.5		18.2	16.1
07/27/1976		24.4		17.5	
08/03/1976				17.0	
08/10/1976	13.0	23.2	13.5	15.0	14.6
08/17/1976	13.0	21.3		14.6	13.3
08/24/1976				17.1	15.7
08/31/1976				14.0	13.0
09/07/1976				16.7	15.0
09/14/1976			11.3	10.9	10.4
09/21/1976				8.4	7.2
09/28/1976				7.0	6.2
10/05/1976			6.5	5.9	5.8
10/12/1976			6.2	6.0	5.0
10/19/1976			3.8	2.2	1.9
10/26/1976				0.4	0.2
04/14/1977	0.5	2.2	0.5	0.5	0.5
04/28/1977	1.5	5.8	0.5	0.8	0.4
05/05/1977	2.3	9.0	1.1	5.0	4.9
05/12/1977	5.0	14.0	1.5	8.5	8.3
05/19/1977	8.1	19.9	4.2	12.0	11.0
05/26/1977	10.0	21.0	6.0	14.5	12.5
06/02/1977	10.0	20.0	6.8	11.9	10.7

Table 9 cont. L239 stream temperatures. 1970 - 1995. (NWIF = Northwest Inflow, OF = Outflow, EIF = East Inflow, NEIF = Northeast Inflow, NEAT = Northeast Inflow at lake).

Date	NWIF	OF	EIF	NEIF	NEAT
06/09/1977	8.7	20.2	7.3	11.0	10.0
06/16/1977	9.5	17.5	9.5	11.5	11.2
06/23/1977	11.5	20.0	10.5	13.5	13.0
06/30/1977	12.1	21.0	11.0	14.2	13.5
07/07/1977	13.8	23.0	13.0	14.9	15.5
07/14/1977	13.4	21.0	13.0	15.3	15.0
07/28/1977	15.0	23.0		15.4	14.0
08/04/1977	12.8	19.5	11.1	12.0	11.8
08/11/1977	11.4	16.9	11.8	12.0	11.3
08/18/1977	10.5	18.2	11.0	10.4	9.9
08/25/1977	11.8	19.0	12.8	12.0	12.0
09/01/1977	11.5	17.0	11.2	11.7	11.7
09/08/1977	11.9	15.0	10.7	11.9	11.5
09/15/1977	12.0	15.5	10.1	11.9	11.0
09/22/1977	9.2	13.5	9.2	10.0	10.0
09/29/1977	8.9	12.1	9.0	9.2	9.1
10/06/1977	6.4	10.2	6.1	6.1	6.1
10/13/1977	5.1	9.7	5.3	5.8	5.0
10/20/1977	5.5	7.7	5.9	6.2	5.5
10/27/1977	5.8	8.2	5.0	6.0	4.8
04/25/1978			0.5	0.1	
04/27/1978	0.7		1.0	1.2	
05/03/1978	3.5		3.2	5.3	
05/08/1978	5.0		5.0	7.0	
05/11/1978	4.5	6.2	5.0	7.0	
05/18/1978	9.8		9.8	9.8	
05/25/1978	11.8	18.3	12.3	11.2	
06/01/1978	9.9	13.7	8.1	7.6	
06/08/1978	9.1	15.0	9.5	10.8	
06/15/1978	11.0	15.5	11.1	11.4	
06/22/1978	11.4	18.2	11.6	11.8	
06/29/1978	15.1	21.8	15.0	14.0	
07/06/1978	19.2	24.1	17.1	16.2	
07/13/1978	13.5	20.6	13.9	14.0	
07/18/1978	18.4		15.8	15.2	
07/20/1978	14.0		13.8	14.0	
07/27/1978	13.8		14.1	14.5	
08/10/1978	11.8	20.5	11.7	13.4	
08/17/1978	14.0	20.3	14.5	14.9	
08/23/1978	11.7	19.0	12.3	13.0	
08/24/1978	12.9	18.0	13.2	13.6	
08/31/1978	11.3	19.0	10.8	12.3	
09/05/1978	14.5		14.9	14.2	
09/07/1978	14.1	19.4	15.0	15.0	
09/14/1978	11.5	15.5	11.3	11.7	
09/21/1978	10.5	13.9	8.9	10.0	
09/28/1978	8.0	12.2	8.0	9.0	

Table 9 cont. L239 stream temperatures. 1970 - 1995. (NWIF = Northwest Inflow, OF = Outflow, EIF = East Inflow, NEIF = Northeast Inflow, NEAT = Northeast Inflow at lake).

Date	NWIF	OF	EIF	NEIF	NEAT
10/05/1978	8.6	11.0	8.5	9.0	
10/12/1978	6.7	9.0	6.5	8.0	
10/19/1978	5.0	8.0	4.7	6.0	
10/26/1978	4.4	6.1	4.0	5.5	
04/24/1979	0.1	2.5	0.2		0.5
05/09/1979	1.2		2.2		1.0
05/17/1979	6.5	6.5	6.0		
05/24/1979	6.0	11.5	6.0		6.5
05/31/1979	6.5	14.0	8.2		6.0
06/07/1979	9.0	15.5	9.0		9.2
06/14/1979	10.0	17.2	10.0		11.5
06/21/1979	10.0	17.5	10.0		11.5
06/28/1979	11.0	19.5	11.0		12.0
07/05/1979	12.0	22.0			11.0
07/12/1979	19.0	24.0			
07/19/1979		21.5			
09/27/1979					9.0
10/04/1979					6.0
10/11/1979					4.5
10/18/1979					2.5
10/25/1979	4.0				1.0
11/01/1979	3.5		4.0		3.0
04/09/1980	0.0	1.0	0.0	0.0	
04/16/1980	0.5	1.8	0.5	0.5	
04/22/1980	2.0	4.0	3.0	1.5	
05/01/1980	5.0	12.0	6.0	2.0	
05/08/1980	4.0	9.5	6.0	3.0	
05/15/1980	10.0	13.0	6.0	3.5	
05/22/1980	9.5	17.5	12.0		
06/05/1980	9.5	18.0	10.5		
06/12/1980	14.5	17.0			
06/25/1980	16.0		14.0		
07/03/1980	13.0	20.0	12.0		
07/10/1980	17.8		20.8		
07/17/1980	14.5	24.5	16.0	15.0	
07/21/1980	14.0	23.0	16.0	15.0	
07/24/1980	15.5	23.0	16.0	15.0	
07/31/1980	14.5	22.0	14.0		
08/07/1980	14.5	20.5	15.0	14.0	
08/14/1980	14.0	21.0	14.5	14.0	
08/21/1980	16.0	21.5	17.0	15.0	
08/28/1980	13.0	19.2	12.0	12.5	
09/04/1980	13.2	18.2	13.5	13.0	
09/11/1980	12.0	17.0	12.0	11.5	
09/18/1980	8.0	12.0	7.2	8.0	
09/25/1980	8.0	10.0	7.5	8.0	

Table 9 cont. L239 stream temperatures. 1970 - 1995. (NWIF = Northwest Inflow, OF = Outflow, EIF = East Inflow, NEIF = Northeast Inflow, NEAT = Northeast Inflow at lake).

Date	NWIF	OF	EIF	NEIF	NEAT
10/02/1980	7.8	8.8	7.0	7.2	
10/09/1980	5.9	9.8	5.0	6.0	
10/16/1980	5.1	8.0	5.0	5.1	
10/23/1980	3.8	6.1	3.0	4.0	
10/29/1980	1.8	5.0	1.0	2.8	
03/26/1981		2.0	0.5		
03/31/1981	0.5	3.0	0.5	1.0	
04/15/1981	1.5	5.2	1.8	2.5	
04/23/1981	0.5	4.0	1.5	1.0	
04/29/1981	3.5	10.5	4.0	2.5	
05/06/1981	5.0	14.5	8.2	5.0	
05/13/1981	3.2	12.0	5.2	2.0	
05/21/1981	6.5	15.5	8.5		
05/28/1981	8.6	15.9	10.0	6.1	
06/04/1981	10.5	18.5	11.0	10.0	
06/11/1981	10.0	18.8	10.2	7.0	
06/17/1981	12.0	11.5	12.1	10.0	
06/25/1981	12.0	18.0	11.5	9.9	
07/01/1981	13.5	17.0	13.8	10.7	
07/09/1981	16.0	24.0	15.0	14.0	
07/15/1981	15.8	23.8	15.0		
07/23/1981	13.8	23.0	12.5		
07/29/1981	15.5	20.0	14.0		
08/06/1981	15.0	22.0	15.4	14.5	
08/12/1981	15.0	21.0	15.0		
08/20/1981	14.0	20.5			
09/09/1981	12.8	18.0	12.8	12.0	
09/17/1981	11.0	16.0	10.0		
09/23/1981	9.0	14.0	8.5		
10/01/1981	5.0	10.0	5.0	6.5	
10/06/1981	6.8	10.0	5.8	6.2	
10/15/1981	7.0	9.0	7.0	7.0	
10/28/1981	2.8	5.0	2.0	2.0	
11/03/1981	5.0	6.0	3.0	4.5	
11/23/1981	0.5		0.2	1.0	
04/15/1982	0.0		0.0		
04/16/1982	0.0	1.0	0.0	0.0	
04/19/1982	0.3		0.1		
04/21/1982	0.8	0.0	0.2	1.3	
04/28/1982	1.8	5.2	4.0	3.0	
05/13/1982	5.0	8.5	5.5	2.2	
05/20/1982	5.0	9.0	4.0	3.0	
05/27/1982	10.5	18.5	10.5	6.0	
06/03/1982	8.0	15.5	7.0	5.0	
06/10/1982	8.5	14.0	8.5	6.5	
06/17/1982	10.0	16.0	9.5	7.5	

Table 9 cont. L239 stream temperatures. 1970 - 1995. (NWIF = Northwest Inflow, OF = Outflow, EIF = East Inflow, NEIF = Northeast Inflow, NEAT = Northeast Inflow at lake).

Date	NWIF	OF	EIF	NEIF	NEAT
06/24/1982	12.0	17.5	12.0	11.0	
07/01/1982	14.0	17.0			
07/08/1982	13.0	19.5	13.5	12.0	
07/15/1982	14.0	22.0	14.0	13.5	
07/22/1982	14.5	22.0	14.0		
07/29/1982	14.5	22.5	14.0	15.0	
08/05/1982	15.0	23.0	15.0		
08/12/1982	11.0	19.5	10.5		
08/19/1982	13.0	21.0	14.0		
08/26/1982	9.5	18.0	8.2		
09/02/1982	11.0	16.0	11.0	11.0	
09/16/1982	7.5		7.5		
09/23/1982	9.0	13.0	9.0	9.0	
09/30/1982	9.0	12.0	9.0	8.0	
10/07/1982	7.5	10.0	7.5	7.0	
10/14/1982	7.5	9.0	7.5	7.5	
10/21/1982	5.0	7.5	4.0	5.0	
10/27/1982	6.5	7.5	7.0	6.5	
11/23/1982	0.5	2.0	0.5	0.5	
12/14/1982	0.2	1.5			
04/08/1983	0.1	1.0	0.1	0.1	
04/14/1983	0.1	2.5	0.1	0.1	
04/20/1983	0.2	1.1	0.2	1.1	
04/27/1983	0.8	5.0	2.0	1.2	
05/05/1983	1.0	5.0	2.0	1.0	
05/12/1983	2.5	6.5	4.0	1.5	
05/19/1983	3.5	8.8	5.0	1.4	
05/26/1983	4.2	11.2	5.5	1.6	
06/02/1983	6.4	13.8	8.0	3.8	
06/09/1983	6.2	15.0	7.5	4.8	
06/16/1983	9.0	16.0	9.8	6.4	
06/23/1983	12.4	21.2	13.0	10.0	
06/30/1983	12.2	20.8	12.5	11.0	
07/07/1983	12.5	20.5	13.0	12.1	
07/14/1983	16.0	24.0		15.5	
07/21/1983	16.0	24.0	17.0		
07/28/1983		23.5			
08/04/1983		24.5		21.0	
10/05/1983	9.0		9.0	9.0	
10/12/1983	5.0		5.0	7.0	
10/20/1983	5.0		5.0		
05/03/1984	2.0	7.0	2.5	2.0	
05/10/1984	3.0	6.0	4.0	1.5	
05/17/1984	5.0	6.0	5.5	4.5	
05/24/1984	3.5	10.0	6.0	4.5	
05/30/1984	8.0	13.0	10.0	10.0	

Table 9 cont. L239 stream temperatures. 1970 - 1995. (NWIF = Northwest Inflow, OF = Outflow, EIF = East Inflow, NEIF = Northeast Inflow, NEAT = Northeast Inflow at lake).

Date	NWIF	OF	EIF	NEIF	NEAT
06/07/1984	9.5	15.0	14.0	9.0	
06/14/1984	9.5	16.5	9.6	8.2	
06/21/1984	12.0	18.0	11.5	11.0	
06/28/1984	13.0	20.0	12.0	13.0	
07/05/1984	13.0	14.0	12.0	12.5	
07/12/1984		22.0			
07/19/1984	14.0	22.0		13.0	
07/26/1984		21.5			
08/02/1984		23.0			
10/18/1984	8.0		7.0	8.0	
10/25/1984	5.0	6.0	5.0	5.0	
04/30/1985		8.0		5.0	
05/09/1985	6.0	12.0	7.0	3.0	
05/15/1985	6.0	12.0	8.0	4.5	
05/23/1985	7.0	15.0	4.0	5.0	
05/30/1985	7.0	16.0	4.0	7.0	10.0
06/06/1985	7.0	15.0	8.0	6.5	10.0
06/13/1985	7.0	16.5	9.0	7.0	10.0
06/20/1985	8.0	16.0	9.0	7.0	11.0
06/27/1985	10.0	15.0	11.0	9.5	
07/11/1985	10.0	19.0	9.0		
07/25/1985	6.5	21.0	12.5	12.5	13.0
08/01/1985		20.0			
08/08/1985		21.0			
08/15/1985	9.0	17.0	10.0	10.0	8.0
08/22/1985	11.0	16.5	11.0	11.0	13.0
08/29/1985	8.0	16.0	9.0	9.0	11.0
09/05/1985	10.0	15.0	11.0	9.0	12.0
09/19/1985	8.0			8.0	8.0
10/09/1985	5.5	9.0	4.5	5.5	5.0
10/24/1985	6.0	12.0	6.5	6.0	7.0
10/30/1985	4.0	7.0	3.0	7.0	4.0
05/08/1986	4.0	6.0	5.0	3.0	5.0
05/15/1986	6.0	10.0	7.0	6.0	8.0
05/22/1986	5.0	14.0	6.0	6.0	7.0
05/29/1986		21.0			
06/05/1986		16.0			
06/12/1986		16.0			
06/19/1986		19.0			
07/10/1986		20.0			
07/17/1986		21.0			
09/04/1986	10.0		11.0	10.0	12.0
09/11/1986	8.0				
09/25/1986	9.0		10.0	10.0	11.0
10/01/1986	7.0	12.0	7.0	7.0	8.0
10/08/1986	6.0	12.0	6.0	6.0	6.0

Table 9 cont. L239 stream temperatures. 1970 - 1995. (NWIF = Northwest Inflow, OF = Outflow, EIF = East Inflow, NEIF = Northeast Inflow, NEAT = Northeast Inflow at lake).

Date	NWIF	OF	EIF	NEIF	NEAT
10/15/1986	4.0		4.0	4.0	5.0
10/22/1986	3.5		5.0	5.0	5.0
05/07/1987	5.0	1.0	7.0		
05/28/1987	8.0	15.0	11.0	9.5	12.0
06/04/1987	10.0	16.0	10.0	9.0	11.0
06/11/1987	10.0	17.0	10.0	9.5	12.0
06/18/1987	14.5	21.5		12.5	16.0
07/16/1987		19.0			
07/23/1987	12.5	21.0		14.2	
08/12/1987	21.0	21.0		13.0	
08/13/1987	12.0	22.0	13.0	13.0	15.0
05/05/1988	2.0	8.0	2.0	2.0	4.0
05/12/1988	2.0	11.0	3.5	2.0	7.0
05/18/1988	7.0	13.0	10.5	13.0	
05/26/1988	3.0	14.0	7.0	3.0	9.0
06/02/1988	8.0	20.0	15.0	11.0	
06/09/1988		22.0			
06/16/1988	7.0	20.0	9.0	4.0	12.0
06/23/1988	9.0	20.0		8.0	14.0
06/29/1988	17.5	23.0			
07/07/1988	16.0	23.0	17.0	14.0	17.0
07/14/1988	12.0	21.0	13.0	12.0	14.0
07/21/1988	11.0	22.5	12.0	9.5	14.5
07/26/1988	14.0				
08/04/1988		22.0			
08/11/1988		22.0			
08/18/1988		20.0			
05/15/1989	8.0	14.0	10.0	8.0	12.0
05/25/1989	9.0	15.0	9.0	7.0	10.0
05/30/1989	6.5	14.0	8.0	6.0	9.0
06/08/1989	7.0	14.0	8.0	3.0	9.0
06/13/1989	9.0	13.0	8.0	8.0	9.0
06/22/1989	11.5	19.0	13.0	11.0	14.0
07/06/1989	13.5	22.5	15.0	14.5	16.0
07/07/1989	13.5	22.5	15.0	14.5	16.0
07/10/1989	14.0	23.0	14.0	14.0	14.5
07/20/1989	14.0	24.0	16.0	14.0	16.0
07/24/1989	18.0	26.0	19.0		
08/03/1989	20.0	23.0			
08/08/1989	14.0	21.0			
08/17/1989		20.0			
08/21/1989	14.0	19.0		13.0	15.0
08/31/1989		18.0			
05/10/1990	0.5	6.0	1.0	0.0	2.0

Table 9 cont. L239 stream temperatures. 1970 - 1995. (NWIF = Northwest Inflow, OF = Outflow, EIF = East Inflow, NEIF = Northeast Inflow, NEAT = Northeast Inflow at lake).

Date	NWIF	OF	EIF	NEIF	NEAT
05/17/1990	2.5	8.5	5.0	2.0	5.0
05/24/1990	2.0	13.0	5.0	2.0	6.0
05/31/1990	4.0	17.0	4.0	9.0	
06/06/1990	12.0	20.0	13.0	9.0	14.0
06/14/1990	8.0	18.0	11.0	5.0	12.0
06/21/1990	8.0	16.0	10.0	5.0	9.0
06/27/1990	9.0	16.0	11.0	4.5	11.0
07/12/1990	11.0	20.0	12.0	10.0	13.0
07/18/1990	10.0	21.0	14.0	9.0	
07/24/1990		21.0			
07/30/1990		20.0			
05/16/1991	10.0	14.0	10.0	8.0	8.0
05/23/1991	9.5	12.0	10.5	13.0	12.0
05/30/1991	8.0	19.0	9.0	3.0	10.0
06/06/1991	10.0	19.0			
06/13/1991	15.0	19.0			
06/20/1991	18.0	19.0			
07/11/1991	10.0	20.0		10.0	
07/18/1991		23.0			
07/25/1991		20.0			
09/19/1991	6.0	14.0	10.0	9.0	9.0
09/26/1991	7.0	9.0	7.0	7.0	7.0
10/03/1991	6.0	8.0	5.0	6.0	6.0
10/09/1991	6.0	9.0	7.0	7.0	7.0
10/16/1991	8.0	8.0	6.0	6.0	6.0
05/14/1992	5.0	6.0	5.0	2.0	5.0
05/21/1992	9.0	13.5	7.0	8.0	7.0
05/28/1992	6.0	14.3	7.0	5.0	8.0
06/04/1992	9.6	17.0	12.1	8.8	11.5
06/11/1992	19.0		11.5	10.0	
06/18/1992	9.0	15.6	11.8	11.1	
06/24/1992	10.2	16.3	10.5	10.1	
07/01/1992	11.0	15.0	11.0	11.0	10.0
07/09/1992	10.5	17.0	12.0	12.5	10.0
07/16/1992	11.0	19.0	11.0	12.0	
07/23/1992	14.0	17.0	10.0	10.0	12.0
07/30/1992	10.0	19.5	10.1	9.0	12.0
08/06/1992	11.0	18.1	10.5	10.1	
08/13/1992	11.0	19.0	11.0	10.0	13.0
08/20/1992	14.5	19.5	12.0	13.5	
08/26/1992	9.5	16.5	9.5	11.0	9.5
09/02/1992	11.0	15.0	11.0	10.0	12.0
09/10/1992	10.0	12.0	9.0	8.0	10.0
09/17/1992	9.0	13.0	8.0	9.0	9.0
09/30/1992	8.0	10.0	6.0	9.0	8.0
10/07/1992	7.0	11.0	6.0	7.3	7.5

Table 9 cont. L239 stream temperatures. 1970 - 1995. (NWIF = Northwest Inflow, OF = Outflow, EIF = East Inflow, NEIF = Northeast Inflow, NEAT = Northeast Inflow at lake).

Date	NWIF	OF	EIF	NEIF	NEAT
10/13/1992	6.0	9.0	4.0	3.0	4.0
10/20/1992	5.0	5.0	2.0	3.0	
10/22/1992	2.0	6.0	2.0	3.0	4.0
10/27/1992	1.0	4.0	2.5	3.5	4.0
05/06/1993	1.0	9.5	4.0	1.3	4.5
05/13/1993	5.0	12.0	5.0	0.5	6.5
05/20/1993	3.0	9.5	4.0	1.0	5.0
05/27/1993	5.0		5.0	1.0	5.5
06/03/1993	4.0		6.0	3.0	5.0
06/10/1993	6.0		9.5	6.5	10.0
06/15/1993	9.0		9.0	5.0	10.0
06/24/1993	11.0		15.0	10.0	
06/30/1993	8.0	15.5	10.0	6.0	11.0
07/15/1993	8.5	17.0	9.0	7.5	11.0
07/22/1993	11.0	19.5	12.0	12.0	
07/29/1993	12.0	18.0	13.5	11.0	13.0
08/12/1993	14.0	20.5	16.0	13.0	16.0
08/18/1993		21.0	14.0	13.0	16.0
08/26/1993	14.0	21.0	16.0		17.0
09/02/1993	12.0	18.0	7.5	12.0	14.0
09/09/1993	9.0	16.0	11.0	10.0	11.5
09/15/1993	6.0	10.5	5.0	6.0	5.0
09/23/1993	6.0	10.5	5.0	6.5	8.0
09/30/1993	4.0	8.0	5.0	5.0	6.0
10/07/1993	5.0	6.0	4.0	5.0	5.5
10/12/1993	1.0	3.5	5.0	3.5	3.5
10/20/1993	4.5	6.5	5.0	4.0	5.0
10/27/1993	1.0	4.0	2.0	3.0	3.0
05/11/1994	1.0	7.0	4.0	3.0	3.0
05/18/1994	2.0	9.0	4.0	1.5	4.0
05/24/1994	1.0	15.5	5.0	2.0	6.0
06/01/1994	4.0	16.0	6.0	4.0	8.0
06/08/1994	6.0	18.5	6.0	2.0	9.0
06/15/1994	4.0	18.5	10.0	8.0	11.0
06/22/1994	5.0	21.0			
06/27/1994	10.0	21.0	15.5	11.0	
07/06/1994	10.0	21.0	11.0	6.0	13.0
07/13/1994	9.0	19.0	10.0	4.5	11.0
07/19/1994	11.0	20.0	17.0	5.0	17.0
07/27/1994	8.0	19.0	10.0	7.0	
08/03/1994	12.0	21.5	15.0	7.0	15.0
08/10/1994	15.0	15.0	11.0	9.0	
08/17/1994	14.0	18.0	15.5	12.0	
08/24/1994	9.0	18.0	12.0	7.0	12.5
08/31/1994		12.0	9.0		
09/07/1994	11.0	17.0	12.0	10.0	13.0

Table 9 cont. L239 stream temperatures. 1970 - 1995. (NWIF = Northwest Inflow, OF = Outflow, EIF = East Inflow, NEIF = Northeast Inflow, NEAT = Northeast Inflow at lake).

Date	NWIF	OF	EIF	NEIF	NEAT
09/21/1994	6.0	15.0	9.0	6.0	9.0
09/28/1994	4.0	8.0	4.5	3.5	5.0
10/05/1994	2.5	8.0	1.0	2.5	2.5
10/12/1994	1.0	6.0	1.0	1.0	2.0
10/19/1994	4.0	6.5	5.0	3.0	5.0
10/26/1994	1.0	4.0	0.0	1.0	1.5
05/04/1995	1.0	9.0	5.0	1.0	3.0
05/09/1995	2.0	9.0	4.0	1.0	5.0
05/17/1995	1.0	8.5	4.0	5.0	4.0
05/24/1995	2.0	8.0	7.0	0.0	3.0
05/31/1995	7.0	15.0	9.0	6.5	7.0
06/07/1995	7.0	15.0	10.0	4.0	10.0
06/14/1995	9.0	18.0	10.0		
06/21/1995		23.5			
06/28/1995		22.0			
07/12/1995	10.0	19.0	13.0	9.0	13.0
07/19/1995	11.0	20.0			
07/26/1995	12.0	18.5	10.5		
08/02/1995		18.0			
08/23/1995	10.5	17.0	12.0	10.0	13.0
09/06/1995		17.0			

Table 10. L240 outflow temperatures. 1977 - 1982. (OF = Outflow).

Date	OF
06/14/1977	16.7
07/12/1977	18.9
08/09/1977	19.1
10/04/1977	11.3
05/13/1982	9.0
05/20/1982	9.0
05/27/1982	16.5
06/03/1982	13.0
06/17/1982	14.0
08/18/1982	1.0
09/01/1982	1.0

Table 11. L261 outflow temperatures. 1971 - 1978. (OF = Outflow).

Date	OF	Date	OF	Date	OF
07/19/1971	21.6	05/14/1974	8.0	05/08/1976	7.4
05/08/1973	9.5	05/29/1974	16.9	05/21/1976	14.7
05/29/1973	18.6	06/26/1974	22.5	07/02/1976	22.8
06/05/1973	15.9	07/24/1974	22.9	07/09/1976	20.7
06/12/1973	15.5	10/01/1974	7.5	08/13/1976	20.2
06/19/1973	17.9	10/16/1974	6.4	08/20/1976	23.7
06/26/1973	20.7			08/27/1976	22.3
07/03/1973	20.2	05/22/1975	17.0		
07/17/1973	23.9	06/05/1975	18.0	05/11/1977	14.9
07/24/1973	21.3	06/19/1975	20.0	06/08/1977	18.6
08/07/1973	24.0	07/03/1975	25.0	07/06/1977	21.8
08/14/1973	22.5	09/11/1975	13.5	08/03/1977	19.6
08/21/1973	23.8	09/25/1975	10.0	09/28/1977	11.7
08/28/1973	24.7	10/23/1975	7.9	10/26/1977	6.2
09/04/1973	20.8	11/06/1975	5.6		
09/09/1973	14.9			05/17/1978	16.0
09/11/1973	17.9			06/14/1978	11.5
09/18/1973	13.9			07/12/1978	20.1
09/23/1973	8.5			09/06/1978	22.2
09/25/1973	12.0			10/04/1978	11.8
10/02/1973	13.0				

Table 12. L302N outflow temperatures. 1972 - 1982. (OF = Outflow).

Date	OF	Date	OF	Date	OF
05/05/1972	5.4	06/25/1975	22.5	05/26/1981	10.0
06/02/1972	18.7	10/15/1975	6.5	06/09/1981	14.7
06/30/1972	22.6	10/29/1975	4.0	06/23/1981	15.0
				07/07/1981	23.5
05/07/1973	7.5	04/29/1976	9.2	07/21/1981	19.5
05/21/1973	12.7	05/20/1976	12.3	08/04/1981	20.6
06/04/1973	15.0	06/03/1976	19.0	08/16/1981	16.0
06/18/1973	17.2	06/17/1976	14.9	09/01/1981	16.5
07/02/1973	21.6	07/01/1976	18.4	09/15/1981	11.8
07/30/1973	18.9	07/15/1976	20.7	09/29/1981	9.0
08/27/1973	21.7	07/29/1976	21.7	10/13/1981	8.0
09/03/1973	20.0	08/26/1976	21.2	10/27/1981	4.0
09/10/1973	17.7	09/09/1976	16.5		
09/17/1973	13.1			05/08/1982	14.0
10/01/1973	13.3	06/01/1978	14.5	05/11/1982	8.5
10/08/1973	12.8	06/28/1978	19.6	05/18/1982	13.0
10/22/1973	9.0	07/26/1978	21.3	05/25/1982	17.0
10/29/1973	5.9	08/23/1978	17.2	06/01/1982	13.0
11/05/1973	2.3	09/20/1978	13.2	08/21/1982	20.0
		10/18/1978	6.4	08/24/1982	13.0
05/08/1974	5.2				
06/05/1974	18.7	06/11/1980	13.5		
09/25/1974	11.0	07/09/1980	17.4		
10/23/1974	5.0	08/06/1980	17.8		
11/04/1974	3.2	09/03/1980	16.7		
		10/01/1980	10.6		
		10/29/1980	3.0		

Table 13. L303 outflow temperatures. 1971 - 1992. (OF = Outflow).

Date	OF	Date	OF	Date	OF
06/09/1971	19.0	05/16/1978	13.3	05/09/1991	11.0
06/23/1971	21.0	05/30/1978	16.0	05/23/1991	18.0
07/21/1971	22.0	06/13/1978	15.0	06/06/1991	20.0
09/29/1971	13.2	06/27/1978	19.5	07/04/1991	18.0
10/13/1971	7.7	07/11/1978	19.0	07/18/1991	22.0
11/05/1971	5.6	07/25/1978	20.8	08/01/1991	17.0
		08/09/1978	18.9	09/12/1991	12.0
07/16/1975	26.5	08/22/1978	16.3	09/26/1991	7.0
10/08/1975	11.6	09/05/1978	20.4	10/07/1991	9.0
10/22/1975	7.1	10/03/1978	11.8	10/24/1991	2.0
05/13/1976	13.4	05/02/1984	5.5	05/21/1992	17.0
05/27/1976	18.4	05/09/1984	4.0	06/04/1992	17.0
06/10/1976	24.7	05/16/1984	10.5	06/18/1992	15.5
06/24/1976	21.0	05/23/1984	13.0	07/01/1992	14.0
07/08/1976	21.3	05/30/1984	12.0	07/16/1992	20.0
07/22/1976	19.2	06/06/1984	16.5	07/30/1992	18.0
08/05/1976	21.2	06/13/1984	16.0	08/13/1992	16.0
08/19/1976	21.4	06/20/1984	19.0	08/27/1992	14.0
09/02/1976	16.1	06/27/1984	18.0	09/16/1992	12.0
09/16/1976	15.4	07/04/1984	19.0	09/24/1992	10.0
09/30/1976	10.8	07/11/1984	19.0	10/07/1992	7.0
10/14/1976	5.7	07/18/1984	17.0		
		07/25/1984	19.5		
05/10/1977	13.3	08/01/1984	18.0		
05/24/1977	18.5	08/08/1984	22.0		
06/07/1977	18.9	10/24/1984	6.0		
06/21/1977	18.3				
07/05/1977	21.6	05/22/1985	15.0		
07/19/1977	23.6				
08/02/1977	17.0				
08/16/1977	15.4				
09/27/1977	11.7				
10/11/1977	4.9				
10/25/1977	5.9				

Table 14. L304 outflow temperatures. 1971 - 1985. (OF = Outflow).

Date	OF	Date	OF	Date	OF
07/01/1971	22.1	05/08/1973	9.0	05/13/1976	12.4
07/07/1971	21.7	05/16/1973	9.3	05/27/1976	19.7
07/14/1971	22.5	05/30/1973	17.6	06/24/1976	20.5
09/01/1971	19.2	06/27/1973	19.1	07/08/1976	24.8
09/29/1971	11.9	07/11/1973	23.6		
10/13/1971	9.3	07/25/1973	19.6	05/10/1977	13.9
10/20/1971	8.6	08/08/1973	22.6	05/24/1977	17.5
10/27/1971	9.3	08/22/1973	20.7	06/07/1977	18.5
		09/05/1973	18.2	06/21/1977	20.5
05/04/1972	6.5	09/12/1973	15.0	07/05/1977	21.2
05/18/1972	18.6	09/19/1973	9.0	09/27/1977	12.3
06/01/1972	20.5	09/26/1973	11.0	10/11/1977	6.3
06/29/1972	22.8	10/03/1973	14.5		
07/13/1972	22.8	11/01/1973	5.4	05/08/1985	12.0
07/27/1972	20.1				06/05/1985
09/21/1972	16.2	06/12/1974	16.0		8.0
10/05/1972	10.5	10/02/1974	9.0		
		10/30/1974	6.5		
		05/21/1975	18.0		
		10/05/1975	5.8		

Table 15. L382 outflow temperatures. 1977 - 1980. (OF = Outflow).

Date	OF	Date	OF	Date	OF
05/11/1977	12.4	05/17/1978	16.1	06/05/1979	15.0
06/08/1977	19.1	06/14/1978	16.0	07/03/1979	21.0
07/06/1977	21.7	07/12/1978	20.0	07/03/1979	21.0
08/03/1977	19.8	09/06/1978	21.5		
09/01/1977	16.0	09/09/1978	18.5	05/21/1980	16.4
09/28/1977	12.4	10/04/1978	11.7		
10/26/1977	6.7				

Table 16. L470 outflow temperatures. 1982 - 1993. (OF = Outflow).

Date	OF	Date	OF	Date	OF
05/20/1982	8.5	05/03/1984	6.0	05/08/1986	8.0
05/27/1982	19.0	05/17/1984	12.0	05/22/1986	16.0
06/03/1982	15.0	05/24/1984	14.0	09/25/1986	12.0
06/10/1982	11.0	05/31/1984	16.0	10/08/1986	6.0
06/17/1982	15.0	06/07/1984	16.0		
06/24/1982	18.0	06/14/1984	17.0	05/07/1987	11.5
07/01/1982	19.0	06/21/1984	21.5	06/04/1987	15.0
07/08/1982	18.0	06/28/1984	18.0	06/18/1987	22.0
07/29/1982	22.0	07/05/1984	17.5		
08/12/1982	16.0	07/12/1984	22.0	06/02/1988	22.0
08/19/1982	15.0	07/19/1984	20.0	06/16/1988	18.0
09/09/1982	18.0	07/26/1984	19.0	07/12/1988	17.0
09/16/1982	9.0	10/25/1984	2.5	07/26/1988	21.0
09/23/1982	12.0			08/25/1988	16.0
09/30/1982	9.0	05/08/1985	14.0		
10/07/1982	7.5	05/22/1985	16.0	05/25/1989	15.0
10/14/1982	8.0	06/05/1985	12.0	06/08/1989	13.0
10/21/1982	6.0	06/19/1985	19.0	06/22/1989	20.0
10/27/1982	6.0	07/03/1985	21.0	07/06/1989	21.5
		07/17/1985	20.0	07/20/1989	19.0
		07/31/1985	22.0	08/17/1989	14.0
		08/14/1985	13.0	08/31/1989	15.0
		10/08/1985	4.0	09/14/1989	10.0
				09/28/1989	8.0
				06/30/1993	13.0

Table 17. L661 outflow temperatures. 1985 - 1993. (OF = Outflow).

Date	OF	Date	OF	Date	OF
05/08/1985	13.5	05/25/1989	13.0	05/21/1992	16.1
05/22/1985	13.0	06/08/1989	12.0	06/04/1992	18.0
06/05/1985	12.0	06/22/1989	18.0	06/18/1992	14.5
06/19/1985	18.0	07/06/1989	21.0	07/01/1992	14.0
07/03/1985	19.5	07/20/1989	19.5	07/16/1992	16.0
07/17/1985	19.0	08/03/1989	19.0	07/30/1992	16.0
07/31/1985	25.0	08/17/1989	14.0	08/13/1992	15.0
10/08/1985	4.0	08/31/1989	14.0	08/27/1992	15.5
		09/14/1989	10.0	09/16/1992	12.0
05/08/1986	8.0	09/28/1989	9.0	09/24/1992	10.0
05/22/1986	15.0	10/19/1989	2.0	10/07/1992	7.0
06/05/1986	12.0				
09/25/1986	13.0	05/24/1990	15.0	05/26/1993	11.5
10/08/1986	6.0	06/02/1990	14.0	06/03/1993	10.0
		06/07/1990	12.0	06/30/1993	14.0
05/07/1987	11.5	06/20/1990	17.5	07/15/1993	14.0
06/04/1987	15.0	07/06/1990	17.5	07/29/1993	19.0
06/18/1987	22.0	07/19/1990	17.0	08/12/1993	20.0
07/02/1987	16.0	07/30/1990	18.0	08/26/1993	17.0
		08/16/1990	17.0	09/09/1993	10.5
05/18/1988	18.0	08/30/1990	16.0	09/23/1993	10.0
06/02/1988	20.0	10/11/1990	5.5	10/07/1993	4.0
06/16/1988	16.0			10/20/1993	4.5
06/28/1988	16.0	05/09/1991	10.0		
07/12/1988	18.0	05/23/1991	18.0		
07/26/1988	19.0	06/06/1991	18.0		
08/11/1988	18.0	07/04/1991	18.0		
08/25/1988	15.0	07/18/1991	23.0		
09/08/1988	11.0	08/01/1991	17.0		
10/04/1988	8.0	08/15/1991	22.0		
10/18/1988	6.0	08/28/1991	23.0		
		09/12/1991	13.0		
		09/26/1991	7.0		
		10/02/1991	8.0		
		10/24/1991	1.0		

Table 18. L979 stream temperatures. 1976 - 1995. (OF = Outflow, IF = Inflow).

Date	OF	IF
05/13/1982	11.0	7.0
05/20/1982	9.0	7.0
05/27/1982	17.0	9.0

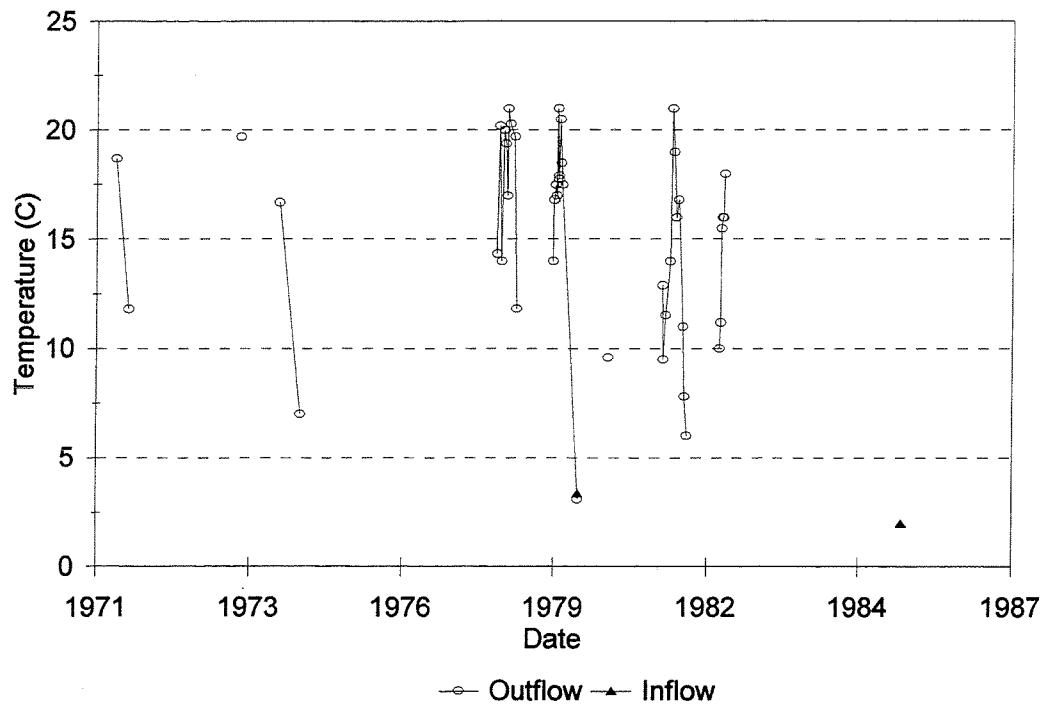


Fig. 1. L114 stream temperatures, 1971 - 1985.

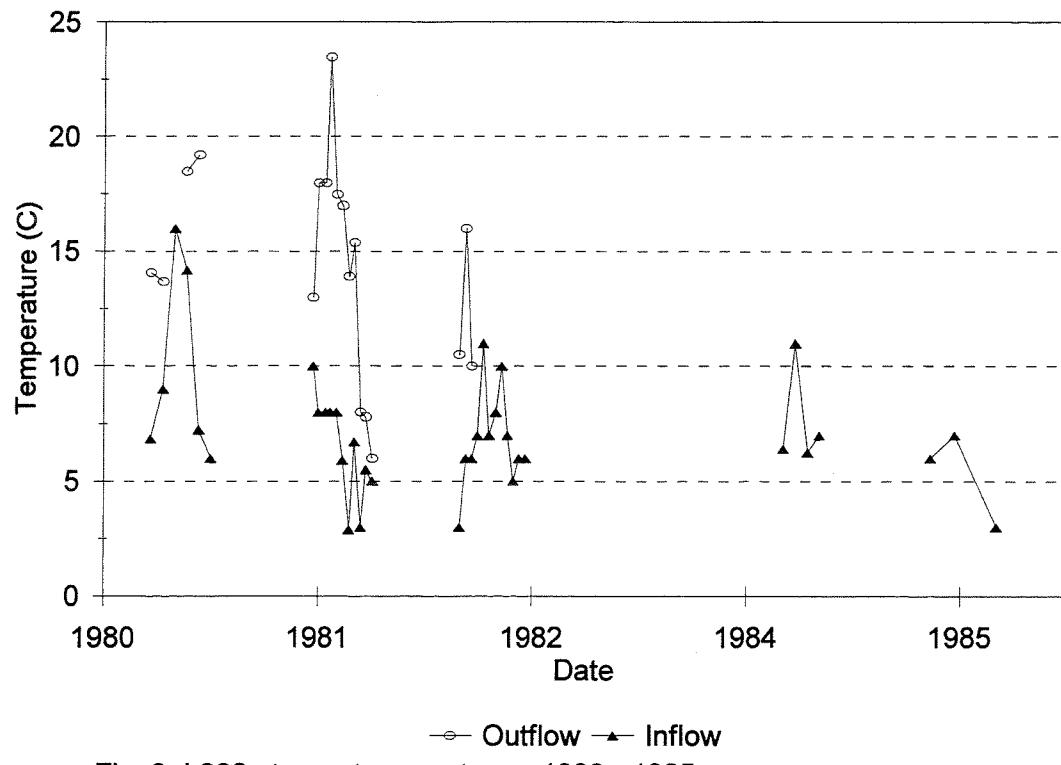


Fig. 2. L222 stream temperatures, 1980 - 1985.

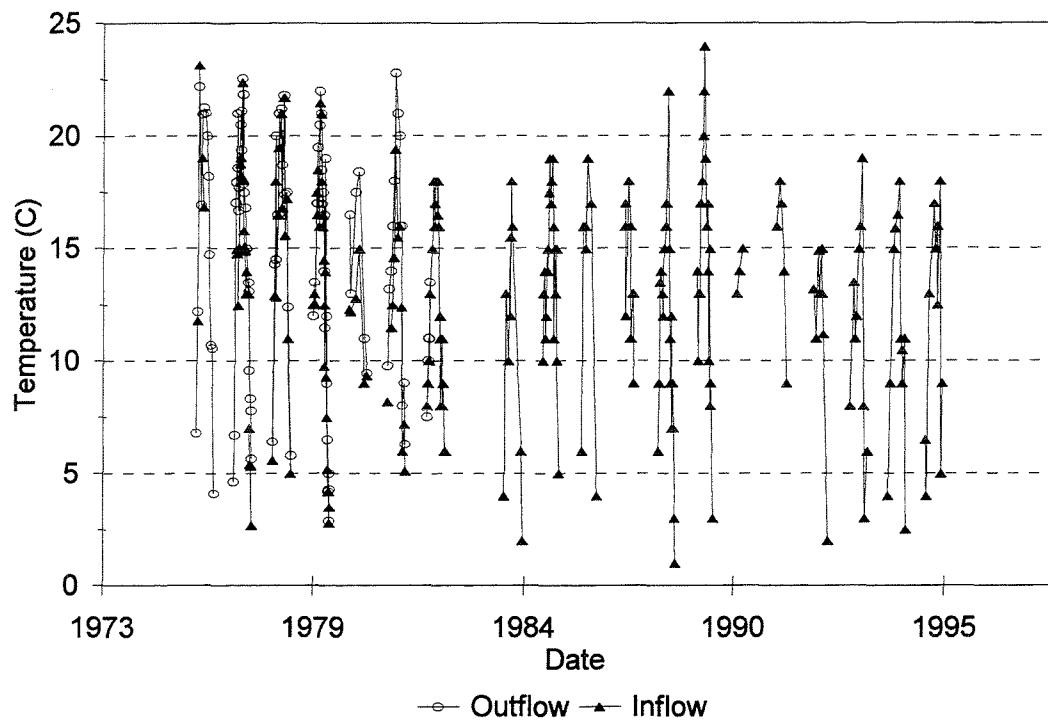


Fig. 3. L223 stream temperatures, 1976 - 1995.

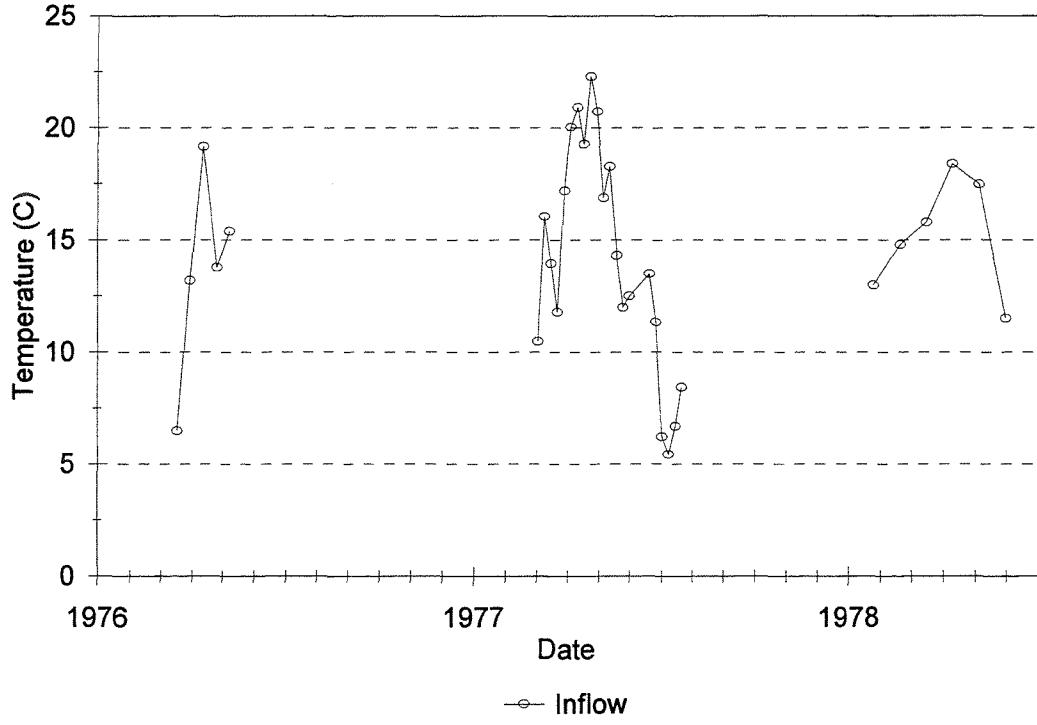


Fig. 4. L224 inflow temperatures, 1976 -1978.

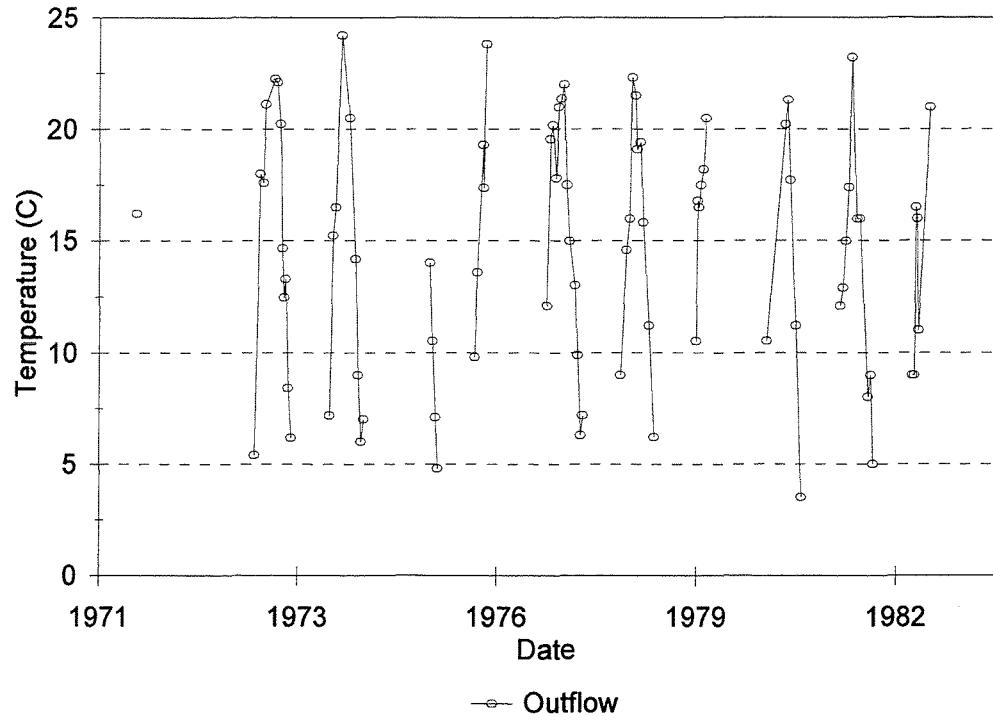


Fig. 5. L226 outflow temperatures, 1971-1982.

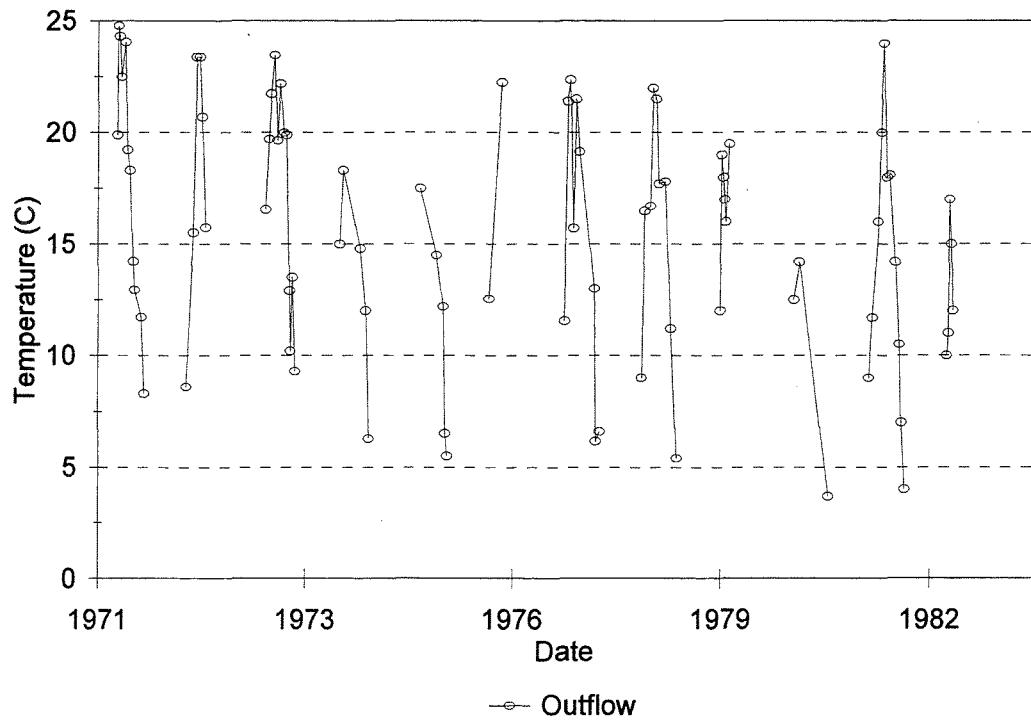


Fig. 6. L227 outflow temperatures, 1971 - 1982.

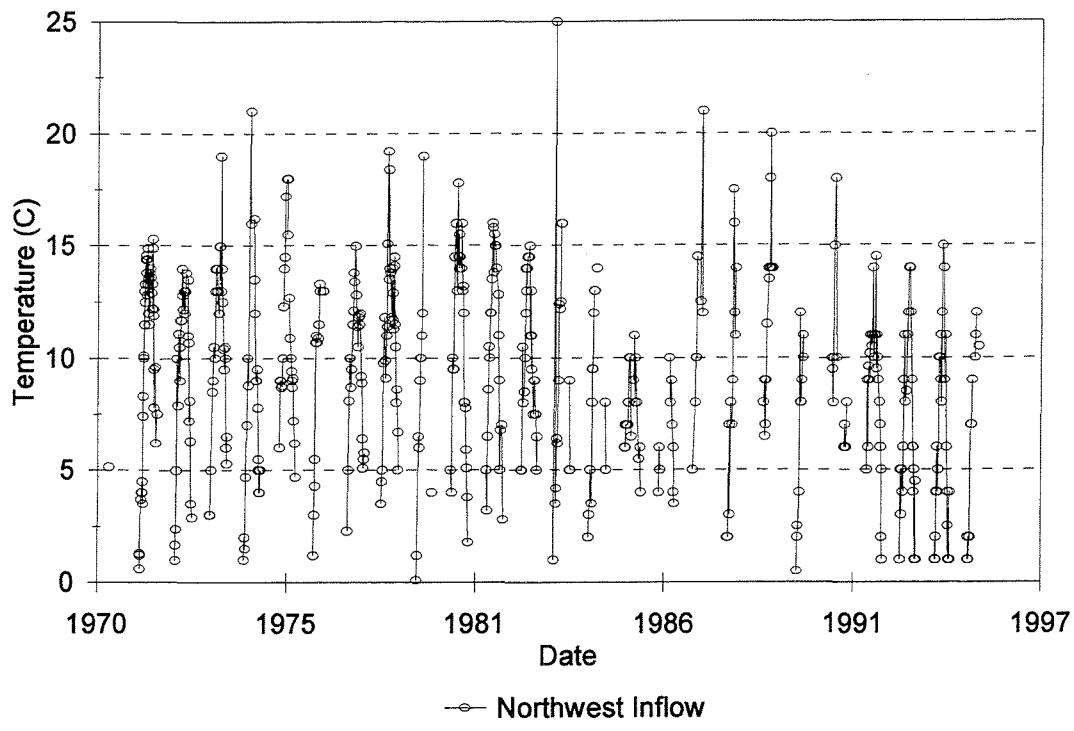


Fig. 7.1 L239 Northwest Inflow stream temperatures, 1970 - 1995.

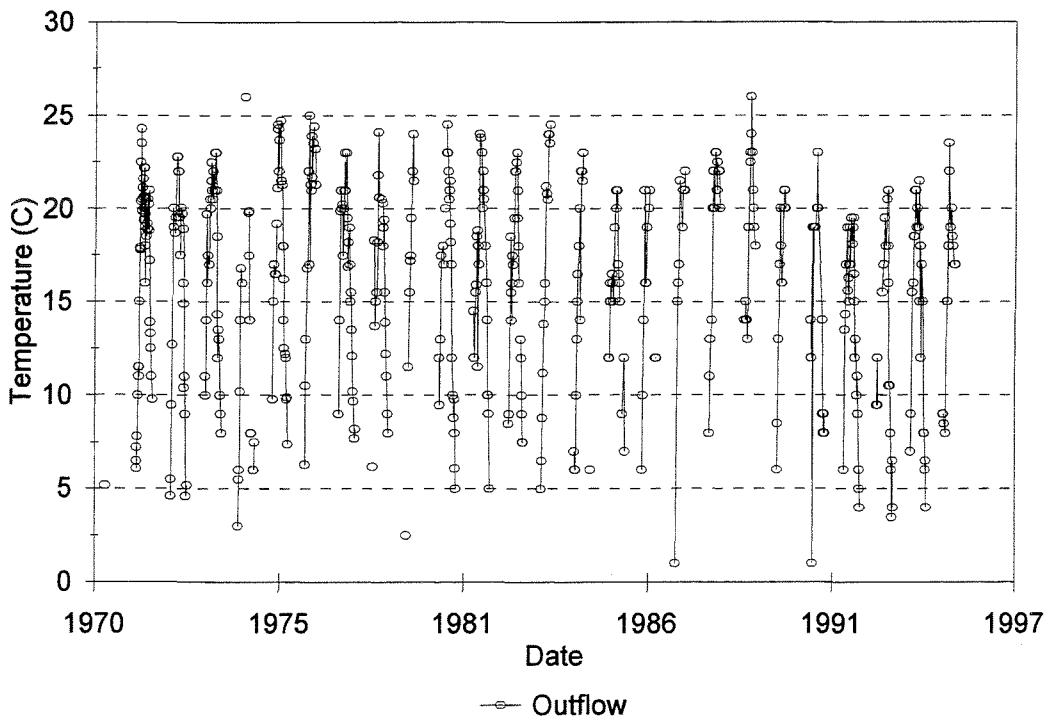


Fig. 7.2. L239 Outflow stream temperatures, 1970 - 1995.

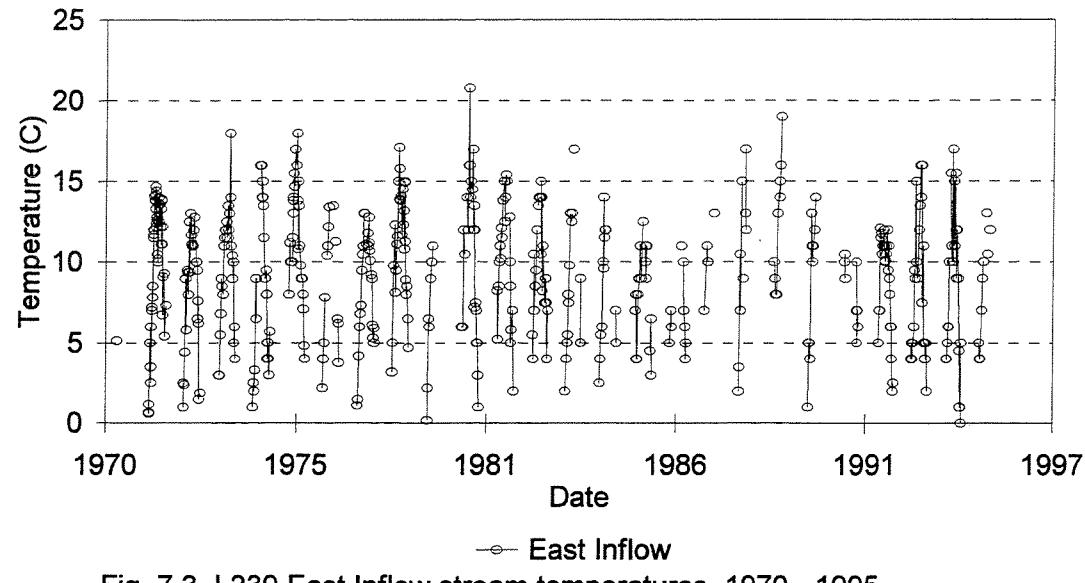


Fig. 7.3. L239 East Inflow stream temperatures, 1970 - 1995.

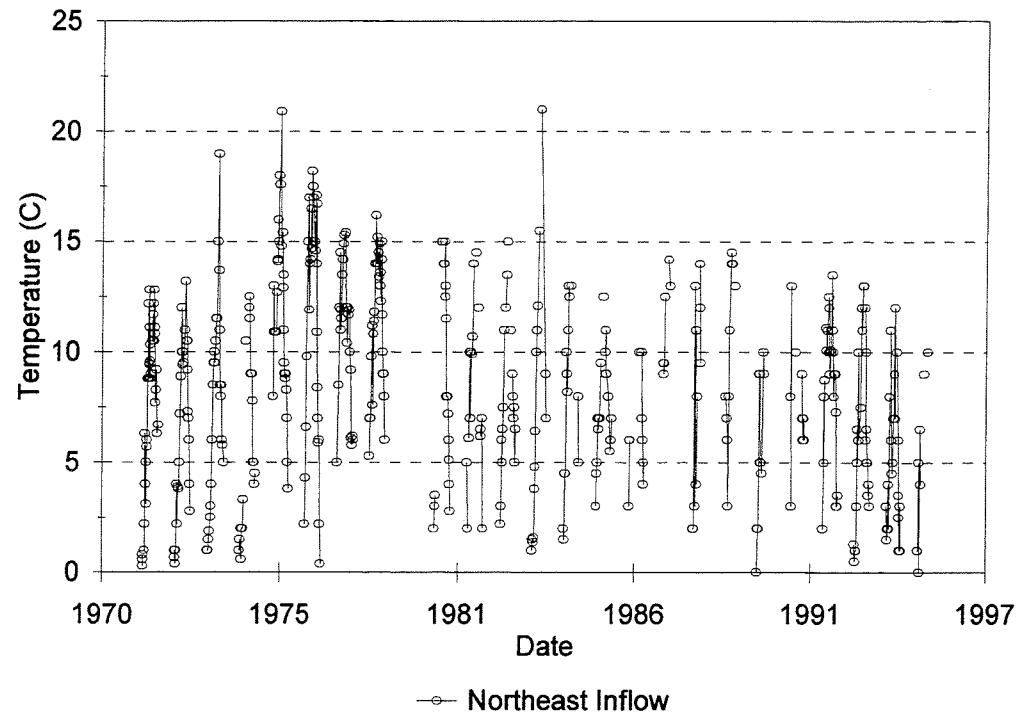


Fig. 7.4. L239 Northeast Inflow stream temperatures, 1970 - 1995.

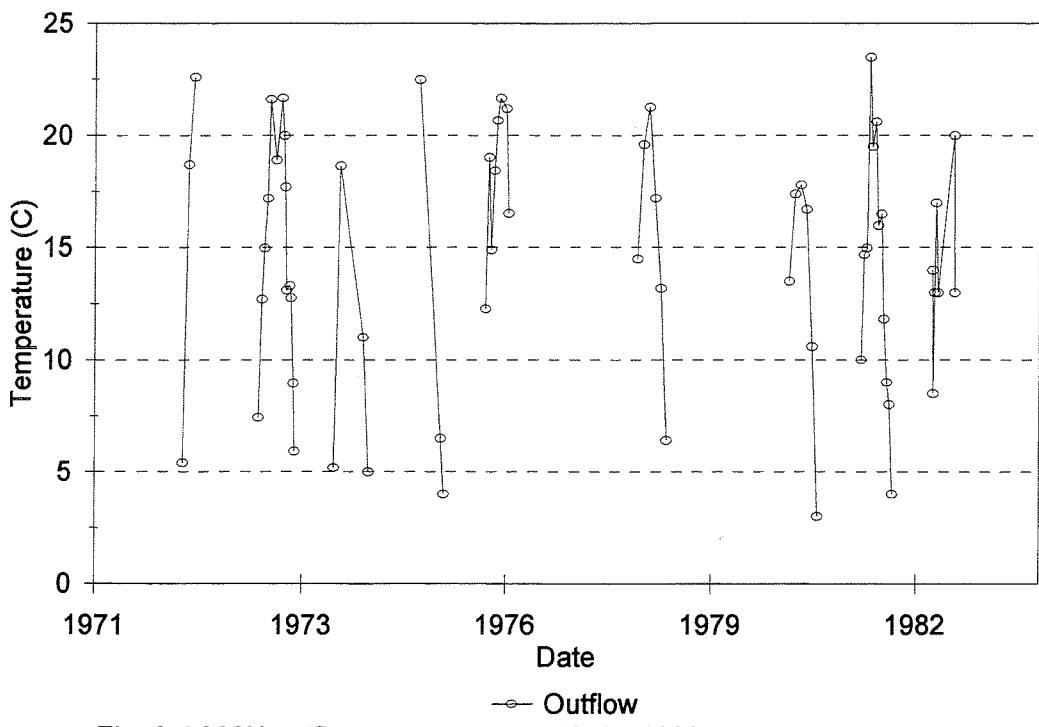


Fig. 9. L302N outflow temperatures, 1972 - 1982.

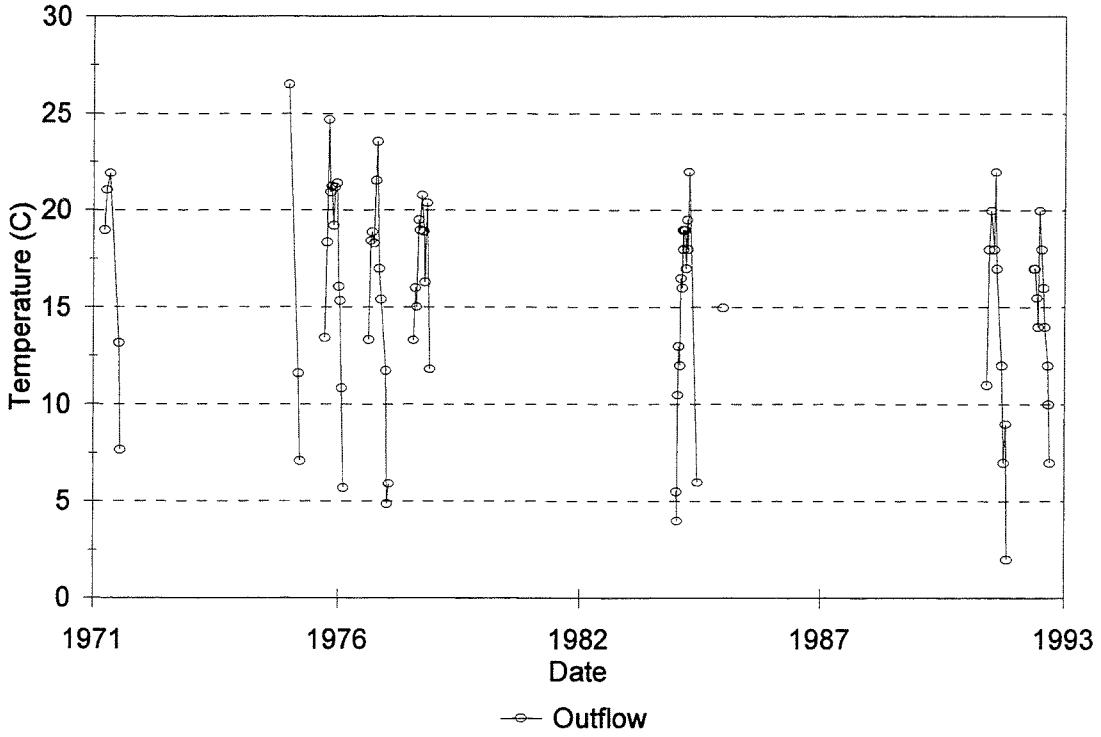


Fig. 10. L303 outflow temperatures, 1971 - 1992.

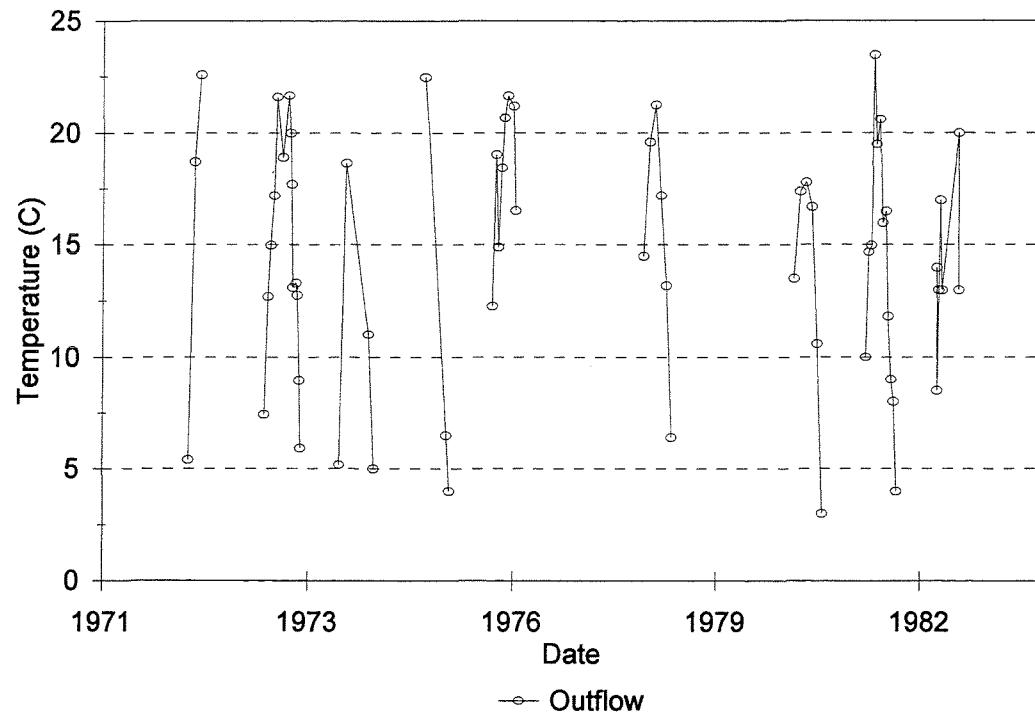


Fig. 9. L302N outflow temperatures, 1972 - 1982.

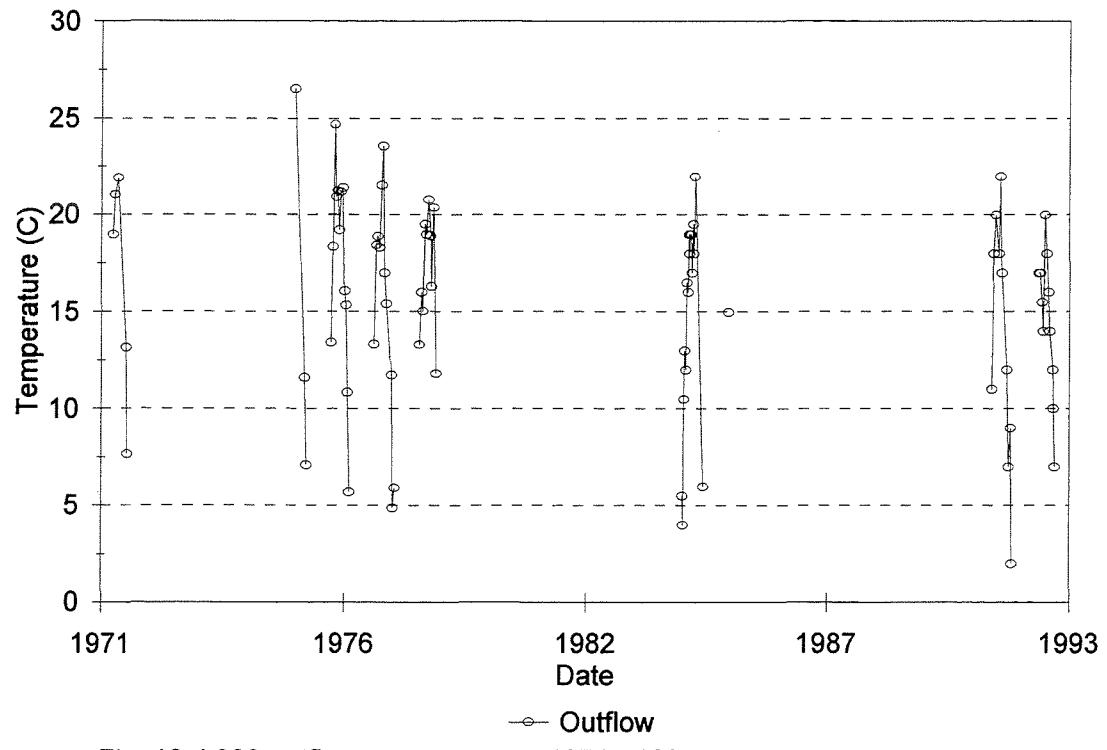


Fig. 10. L303 outflow temperatures, 1971 - 1992.

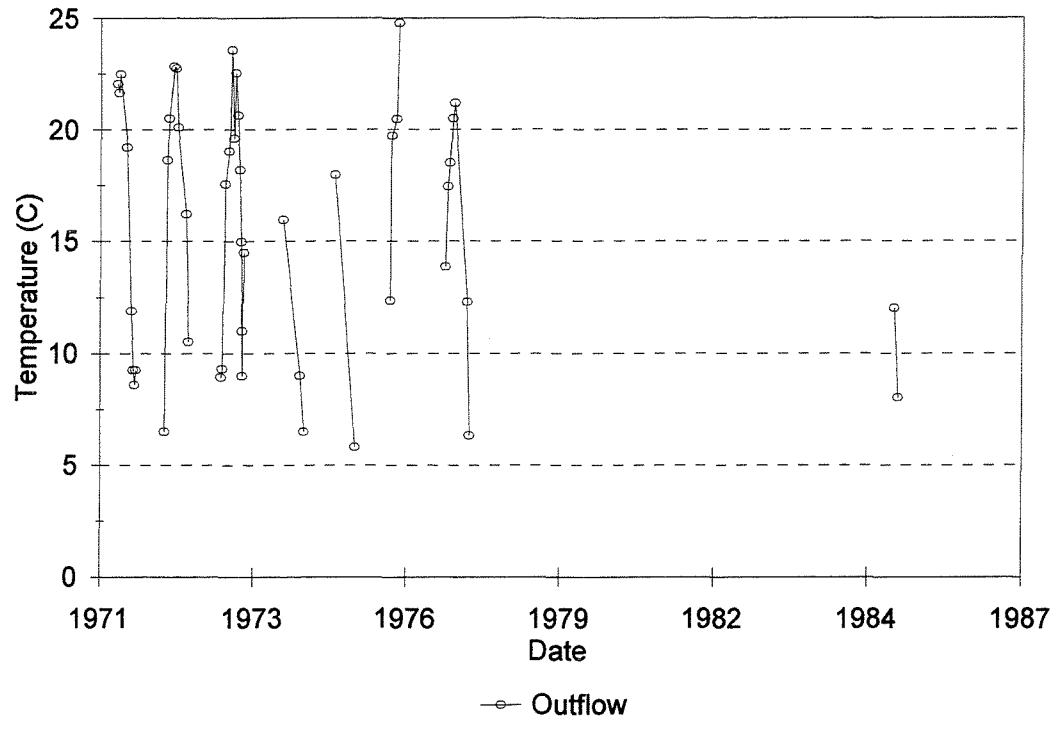


Fig. 11. L304 outflow temperatures, 1971 - 1985.

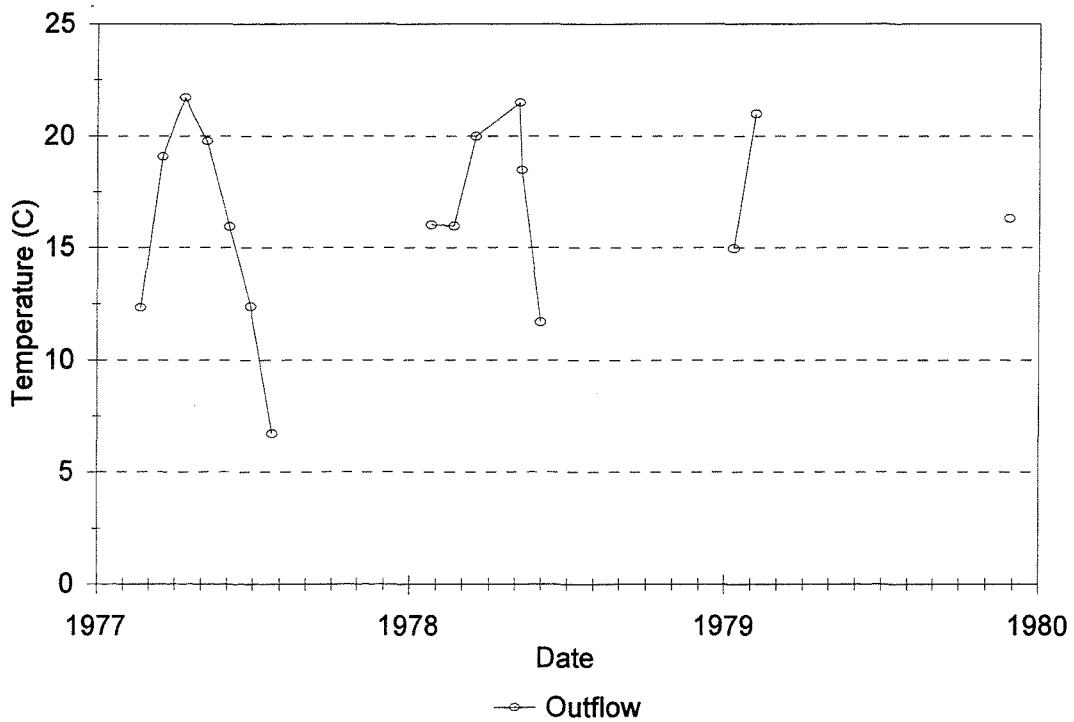


Fig. 12. L382 outflow temperatures, 1977 - 1980.

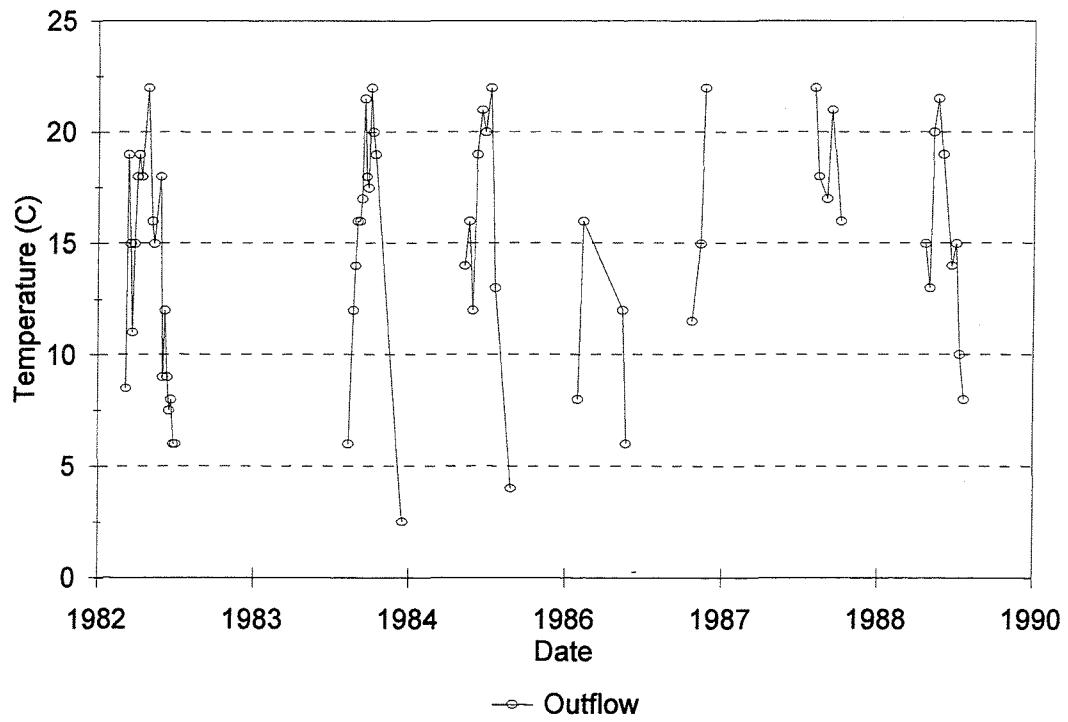


Fig. 13. L470 outflow temperatures, 1982 - 1993.

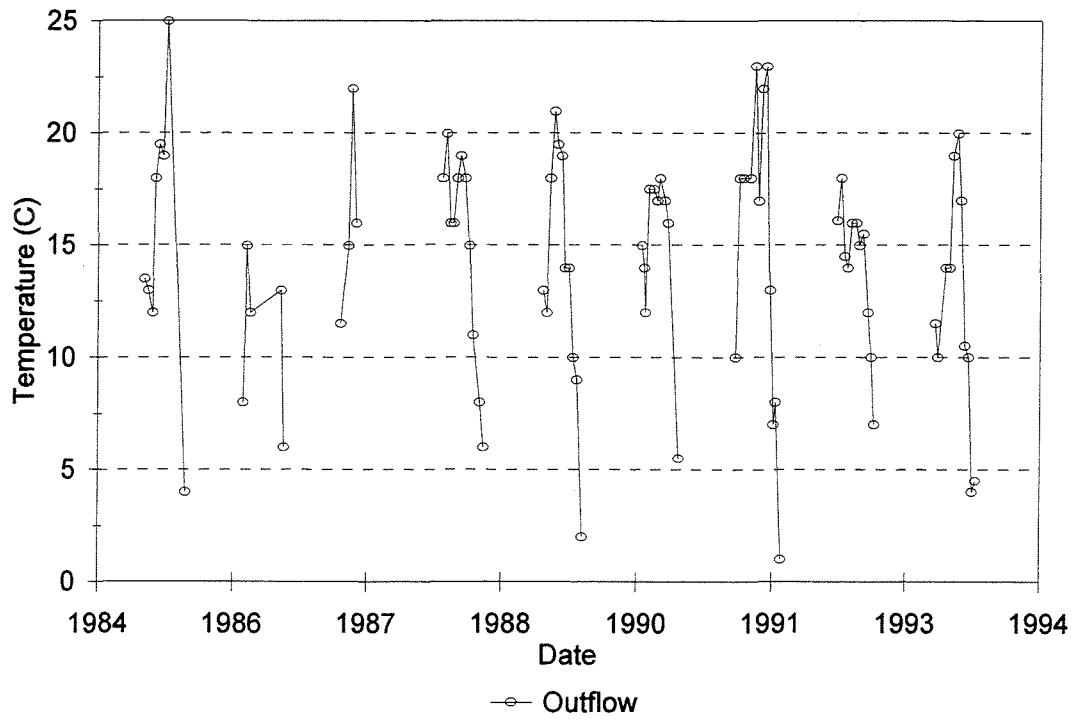


Fig. 14. L661 outflow temperatures, 1985 - 1993.