

## ***APPENDIX E.***

### ***ASDI 7***

Life History

# Becharof Lake Limnology

2203

**Category:** Life History *Data on water quality (temperature, pH, dissolved oxygen, turbidity, fluorescence), plankton, invertebrates*  
**Method:** Limnological  
**Anad. Water No.:** 322-10-10080-0020  
**Management Area:** Bristol Bay  
**District:** Egegik District  
**Site Selct Method:** Geographic features

**Years Data Collected:**                      to  
**Years with no data:**  
**Sampling Frequency**  
**Check if project is On-Going**           

**WebSite:**  
**DBFormat:** Unknown  
**DataQuality:** Fair  
**Monitoring Tier Assignment:** MT-1  
**Sampling Location Shapefile:** unassigned  
**Area of Inference**  
**Line Geometry Shapefile:** unassigned  
**Polygon Geometry Shapefile:** unassigned

**Description**

Becharof Lake is located at 57° 53' N. Lat. 156° 0' W. Long. The ADF&G, Central Region Limnology lab's database includes morphometric, water chemistry (conductivity, pH, alkalinity, turbidity, color), nutrient (nitrogen, phosphorus carbon, silica), algal pigment (chlorophyll), and zooplankton (density, size distribution, and biomass) data.

<b>Species</b>	<b>Race</b>	<b>Life Stage</b>	<b>Form</b>	<b>Production</b>	<b>Target</b>
Sockeye		adult	anadromous	wild stock	incidental

**Contacts:**

**Project Leader**      Jim Edmundson      Limnologist                      im\_edmundson@fishgame.state.ak.us  
    ADF&G Commercial Fisheries                      Soldotna                      AK (907) 262-9368

**Agencies asociated with this Data Set:**

**Lead Agency**                      Alaska Department of Fish & Game      Commercial Fisheries                      (907) 262-9368  
    43961 Kalifornsky      Soldotna                      AK 99669

<b>DDAP Category</b>	<b>ID</b>	<b>Objective</b>
PRODUCTIVITY	P5	Survival, freshwater juvenile

Data are kept at agcy.

*Data are reported*

*Check if Meta Data are available:*

*Check if Charge Money for Data:*

***Data may be accessed as follows:***

Special request via email or letter & provided electronically

***References:***

Edmundson, J., and G. Todd. November 2000

Limnological perspectives on stock and recruitment for Egegik and Ugashik River sockeye salmon. Alaska Department of Fish and Game, Commercial Fisheries, Anchorage. Regional Information Report No. 2A00-33.

Edmundson, Jim., 2003.

Central Region Limnology Annual Report. Alaska Department of Fish and Game, Commercial Fisheries Division RIR No. \_\_\_\_\_. Anchorage.

## Egegik River Smolt Enumeration

2331

**Category:** Life History *Smolt enumeration method using sonar*

**Method:** Smolt sonar

**Anad. Water No.:** 322-10-10080

**Management Area:** Bristol Bay

**District:** Egegik District

**Site Selct Method:** Geographic features

<b>Years Data Collected:</b>	1957 to 2001
<b>Years with no data:</b>	numerous gaps in annual data
<b>Sampling Frequency</b>	Daily
<b>Check if project is On-Going</b>	<input type="checkbox"/>

**WebSite:**

**DBFormat:** Excel Table

**DataQuality** Fair

**Sampling Location Shapefile:** SmoltSites\_Loc

**Area of Inference**

**Line Geometry Shapefile:** SmoltSites\_LIA

**Polygon Geometry Shapefile:** SmoltSites\_PAI

**Monitoring Tier Assignment:** MT-1

**Description**

Annual estimates of Sockeye smolt out migration from Becharof Lake based on up looking Bendix sonar arrays, located below the outlet of the Lake. Acoustic estimates for smolt outmigrations started in 1982. Smolt age and size data are collected in conjunction with this project using fyke net trapping. Fyke nets have been intermittently operated at this site as far back as 1935. Climate data, ice coverage data, and water data are also collected and reported for this project.

<b>Species</b>	<b>Race</b>	<b>Life Stage</b>	<b>Form</b>	<b>Production</b>	<b>Target</b>
Sockeye		smolt	anadromous	wild stock	target spec

**Contacts:**

Supervisor	Lowell Fair	Bristol Bay Research Projec			
	ADF&G	Commercial Fisheries	Anchorage	AK	
Project Leader	Drew Crawford	Fishery Biologist			
	ADF&G	Commercial Fisheries	Anchorage	AK	

**Agencies asociated with this Data Set:**

Lead Agency	Alaska Department of Fish & Game	Commercial Fisheries	(907) 267-2104
	333 Raspberry Rd.	Anchorage	AK 99518

**DDAP Category ID Objective**

ABUNDANCE	A6	True estimate for adult spawners
DISTRIBUTION	DT3	Smolt distribution (e.g. points of smolt passage)
DIVERSITY	DV13	Other juvenile life history traits

Data are

*Data are reported*    Annually

*Check if Meta Data are available:*   

*Check if Charge Money for Data:*   

***Data may be accessed as follows:***

Special request via email or letter & provided electronically

Data available via hardcopy

***References:***

Crawford, D.L. 2001.

Bristol Bay sockeye salmon smolt studies 2001. Alaska Department of Fish and Game, Division of Commercial Fisheries, Regional Information Report No. 2A01-27. Anchorage.

Crawford, D.L. and L.F. Fair. 2003.

Bristol Bay sockeye salmon smolt studies 2002. Alaska Department of Fish and Game, Division of Commercial Fisheries, Regional Information Report No. 2A03-17. Anchorage.

Crawford, Drew L., March 2000.

Bristol Bay sockeye salmon smolt studies for 1999. Alaska Department of Fish and Game, Commercial Fisheries, Anchorage. Regional Information Report No. 2A00-18.

Weiland, Morstad, Browning, Sands, Fair, & Crawford. 2

Bristol Bay 2002 Annual Management Report, ADF&G, Commercial Fisheries, Anchorage. RIR No. 2A03-18.

## Kvichak River Smolt Enumeration

2488

**Category:** Life History *Smolt enumeration method using sonar*

**Method:** Smolt sonar

**Anad. Water No.:** 324-10-10150

**Management Area:** Bristol Bay

**District:** Naknek/Kvichak District

**Site Selct Method:** Geographic features

**Years Data Collected:** 1956 to current

**Years with no data:**

**Sampling Frequency** Daily

**Check if project is On-Going**

### WebSite:

**DBFormat:** Excel Table

**DataQuality** Poor

**Sampling Location Shapefile:** SmoltSites\_Loc

### Area of Inference

**Monitoring Tier Assignment:** MT-1

**Line Geometry Shapefile:** SmoltSites\_LIA

**Polygon Geometry Shapefile:** SmoltSites\_PAI

### Description

Fyke nets were used to generate an index of smolt outmigration from the Kvichak River from 1956 to 1970. A single net was fished 24 hours per day, except when operations had to be stopped due to ice movement. Age data was collected concurrently with the smolt data. Starting in 1970 acoustic equipment replaced the fyke net project for obtaining the annual smolt outmigration estimate. The acoustic equipment, manufactured by Bendix Corp. uses a array of upward looking transducers.

<b>Species</b>	<b>Race</b>	<b>Life Stage</b>	<b>Form</b>	<b>Production</b>	<b>Target</b>
Sockeye		smolt	anadromous	wild stock	target spec

### Contacts:

Project Leader	Lowell Fair	Bristol Bay Research Projec			
	ADF&G	Commercial Fisheries	Anchorage	AK	
Project Leader	Drew Crawford	Fishery Biologist			
	ADF&G	Commercial Fisheries	Anchorage	AK	

### Agencies asociated with this Data Set:

Lead Agency	Alaska Department of Fish & Game	Commercial Fisheries	(907) 267-2104
	333 Raspberry Rd.	Anchorage	AK 99518

<b>DDAP Category</b>	<b>ID</b>	<b>Objective</b>
ABUNDANCE	A7	Relative abundance estimate (index) of egg, alevin, fry, parr, sm
DISTRIBUTION	DT3	Smolt distribution (e.g. points of smolt passage)
DIVERSITY	DV13	Other juvenile life history traits

Data are kept at agcy.

*Data are reported*

*Check if Meta Data are available:*

*Check if Charge Money for Data:*

***Data may be accessed as follows:***

Special request via email or letter & provided electronically

Data available via hardcopy

***References:***

Crawford, D.L. 2001.

Bristol Bay sockeye salmon smolt studies 2001. Alaska Department of Fish and Game, Division of Commercial Fisheries, Regional Information Report No. 2A01-27. Anchorage.

Crawford, D.L. and L.F. Fair. 2003.

Bristol Bay sockeye salmon smolt studies 2002. Alaska Department of Fish and Game, Division of Commercial Fisheries, Regional Information Report No. 2A03-17. Anchorage.

Crawford, Drew L., March 2000.

Bristol Bay sockeye salmon smolt studies for 1999. Alaska Department of Fish and Game, Commercial Fisheries, Anchorage. Regional Information Report No. 2A00-18.

Newcome, Nikki., 1977.

1976 Bristol Bay sockeye salmon smolt studies. ADF&G Technical Data Report No. 33. Alaska Department of Fish and Game, Juneau.

Pennoyer, Steven. 1966.

1965 Kvichak River Red Salmon (*Oncorhynchus nerka*) Smolt Studies. Alaska Department of Fish and Game Informational Leaflet 83. Juneau, Alaska.

Steward, Don M., 1967.

1966 Bristol Bay red salmon studies, A summary of data collected from red salmon (*Oncorhynchus nerka*) smolt programs on the Kvichak, Wood and Naknek Rivers. Alaska Department of Fish and Game Informational Leaflet 102. Juneau, Alaska.

Weiland, Morstad, Browning, Sands, Fair, & Crawford. 2

Bristol Bay 2002 Annual Management Report, ADF&G, Commercial Fisheries, Anchorage. RIR No. 2A03-18.

## Lake Core Analysis

2905

**Category:** Life History *Sampling sediment cores for stable isotopes of nitrogen*

**Method:** Sediment Core Sam

**Anad. Water No.:**

**Management Area:** Bristol Bay

**District:** Naknek/Kvichak District

**Site Selct Method:** Geographic features

**Years Data Collected:** to

**Years with no data:**

**Sampling Frequency**

**Check if project is On-Going**

**WebSite:** [http://www.absc.usgs.gov/research/Fisheries/Lake\\_Clark/lakecore.htm](http://www.absc.usgs.gov/research/Fisheries/Lake_Clark/lakecore.htm)

**DBFormat:** Unknown

**DataQuality**

**Monitoring Tier Assignment:** MT-1

**Sampling Location Shapefile:** unassigned

### Area of Inference

**Line Geometry Shapefile:** unassigned

**Polygon Geometry Shapefile:** unassigned

**Description**

<b>Species</b>	<b>Race</b>	<b>Life Stage</b>	<b>Form</b>	<b>Production</b>	<b>Target</b>
Sockeye		adult	anadromous	wild stock	target spec

### Contacts:

Project Leader	Bruce Finney	Professor - Geological	Oceanney@ims.uaf.edu		
	UAF	Institute of Marine Science	Fairbanks	AK	(907) 474-7724
Co-Leader	Carol Ann Woody	Research Biologist	carol_woody@usgs.gov		
	NPS	Alaska Science Center	Anchorage	AK	(907) 786-3314

### Agencies associated with this Data Set:

Lead Agency	University of Alaska - Fairbanks	Institute of Marine Science			
	334 Irving II, PO 75	Fairbanks	AK	99775	USA
Co-investigating Ag	National Park Service	Alaska Science Center			
	1011 E. Tudor Rd.,	Anchorage	AK	99503	USA

<b>DDAP Category</b>	<b>ID</b>	<b>Objective</b>
ABUNDANCE	A5	Relative estimate (index) for adult spawners

Data are kept at agcy.

*Data are reported*

*Check if Meta Data are available:*

*Check if Charge Money for Data:*

***Data may be accessed as follows:***

Special request via email or letter & provided electronically

## Naknek River Smolt Studies

2874

**Category:** Life History *Smolt enumeration method using sonar*

**Method:** Smolt sonar

**Anad. Water No.:**

**Management Area:** Bristol Bay

**District:** Naknek/Kvichak District

**Site Selct Method:** Geographic features

**Years Data Collected:** 1956 to 1994

**Years with no data:** 79-82, & 87-92

**Sampling Frequency** daily

**Check if project is On-Going**

**WebSite:**

**DBFormat:** Excel Table

**DataQuality** Fair

**Sampling Location Shapefile:** SmoltSites\_Loc

**Area of Inference**

**Monitoring Tier Assignment:** MT-1

**Line Geometry Shapefile:** SmoltSites\_LIA

**Polygon Geometry Shapefile:** SmoltSites\_PA

**Description**

Fyke nets were used to generate an index of smolt outmigration from the Kvichak River from 1956 to 1978. Age data was collected concurrently with the smolt data. The project was started up again in 1982. Acoustic equipment replaced the fyke net project for obtaining the annual smolt onumigration estimate. The acoustic equipment, manufactured by Bendix Corp. used an array of upward looking transducers.

<b>Species</b>	<b>Race</b>	<b>Life Stage</b>	<b>Form</b>	<b>Production</b>	<b>Target</b>
Socketeye		smolt	anadromous	wild stock	target spec

**Contacts:**

Supervisor Lowell Fair Bristol Bay Research Projec  
ADF&G Commercial Fisheries Anchorage AK

**Agencies asociated with this Data Set:**

Lead Agency Alaska Department of Fish & Game Commercial Fisheries (907) 267-2104  
333 Raspberry Rd. Anchorage AK 99518

<b>DDAP Category</b>	<b>ID</b>	<b>Objective</b>
ABUNDANCE	A7	Relative abundance estimate (index) of egg, alevin, fry, parr, sm
DISTRIBUTION	DT3	Smolt distribution (e.g. points of smolt passage)
DIVERSITY	DV13	Other juvenile life history traits

Data are kept at agcy.

*Data are reported*

*Check if Meta Data are available:*

*Check if Charge Money for Data:*

***Data may be accessed as follows:***

Special request via email or letter & provided electronically

Data available via hardcopy

***References:***

Crawford, D.L. 2001.

Bristol Bay sockeye salmon smolt studies 2001. Alaska Department of Fish and Game, Division of Commercial Fisheries, Regional Information Report No. 2A01-27. Anchorage.

Crawford, D.L. and L.F. Fair. 2003.

Bristol Bay sockeye salmon smolt studies 2002. Alaska Department of Fish and Game, Division of Commercial Fisheries, Regional Information Report No. 2A03-17. Anchorage.

Crawford, D.L., and B. A. Cross. 1995.

Naknek River sockeye salmon smolt studies, 1993-1994. Alaska Department of Fish and Game, Commercial Fisheries Division, RIR No. 2A95-09. Anchorage.

Newcome, Nikki., 1977.

1976 Bristol Bay sockeye salmon smolt studies. ADF&G Technical Data Report No. 33. Alaska Department of Fish and Game, Juneau.

Steward, Don M., 1967.

1966 Bristol Bay red salmon studies, A summary of data collected from red salmon (*Oncorhynchus nerka*) smolt programs on the Kvichak, Wood and Naknek Rivers. Alaska Department of Fish and Game Informational Leaflet 102. Juneau, Alaska.

# Nunavaugaluk Lake Limnology

2606

**Category:** Life History *Data on water quality (temperature, pH, dissolved oxygen, turbidity, fluorescence), plankton, invertebrates*  
**Method:** Limnological

**Anad. Water No.:** 325-20-10030-0010

**Management Area:** Bristol Bay

**District:** Nushagak District

**Site Selct Method:** Convenience

**Years Data Collected:**                      to  
**Years with no data:**  
**Sampling Frequency**  
**Check if project is On-Going**           

**WebSite:**

**DBFormat:** Excel Table

**DataQuality:** Fair

**Monitoring Tier Assignment:** MT-2

**Sampling Location Shapefile:** unassigned

**Area of Inference**

**Line Geometry Shapefile:** unassigned

**Polygon Geometry Shapefile:** unassigned

**Description**

Nunavaugaluk Lake is located in Nushagak Bay, Bristol Bay. The ADF&G, Central Region Limnology lab's database includes morphometric, water chemistry (conductivity, pH, alkalinity, turbidity, color), nutrient (nitrogen, phosphorus carbon, silica), algal pigment (chlorophyll), and zooplankton (density, size distribution, and biomass) data.

**Contacts:**

Jim Edmundson    Limnologist                      im\_edmundson@fishgame.state.ak.us  
ADF&G Commercial Fisheries              Soldotna              AK (907) 262-9368

**Agencies asociated with this Data Set:**

Alaska Department of Fish & Game    Commercial Fisheries              (907) 262-9368  
43961 Kalifornsky    Soldotna                      AK 99669

Data are  
*Data are reported*  
*Check if Meta Data are available:*   
*Check if Charge Money for Data:*

**References:**

Edmundson, Jim., 2003.  
Central Region Limnology Annual Report. Alaska Department of Fish and Game, Commercial Fisheries Division RIR No. \_\_\_\_\_. Anchorage.

## Nunavaugaluk Lake Smolt Enumeration

2902

**Category:** Life History *Capture method using fyke net (anchored net with leads)*

**Method:** Net, Fyke

**Anad. Water No.:**

**Management Area:** Bristol Bay

**District:** Nushagak District

**Site Selct Method:** Geographic features

**Years Data Collected:** 1975 to 1984

**Years with no data:**

**Sampling Frequency** daily

**Check if project is On-Going**

**WebSite:**

**DBFormat:** Unknown

**DataQuality** poor

**Sampling Location Shapefile:** SmoltSites\_Loc

**Area of Inference**

**Monitoring Tier Assignment:** MT-2

**Line Geometry Shapefile:** SmoltSites\_LIA

**Polygon Geometry Shapefile:** SmoltSites\_PAI

**Description**

<b>Species</b>	<b>Race</b>	<b>Life Stage</b>	<b>Form</b>	<b>Production</b>	<b>Target</b>
Sockeye		smolt	anadromous	wild stock	target spec

### Agencies asociated with this Data Set:

Lead Agency	Alaska Department of Fish & Game P.O. Box 230	Commercial Fisheries Dillingham	(907) 842-5227 AK 99576
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DDAP Category	ID	Objective
ABUNDANCE	A7	Relative abundance estimate (index) of egg, alevin, fry, parr, sm
DISTRIBUTION	DT1	Freshwater juvenile distribution
DIVERSITY	DV13	Other juvenile life history traits

Data are kept at agcy.

*Data are reported* As resources permit

*Check if Meta Data are available:*

*Check if Charge Money for Data:*

***Data may be accessed as follows:***

Data available via hardcopy

## Nuyakuk River smolt enumeration

2876

**Category:** Life History *Smolt enumeration method using sonar*

**Method:** Smolt sonar

**Anad. Water No.:**

**Management Area:** Bristol Bay

**District:** Nushagak District

**Site Selct Method:** Geographic features

**Years Data Collected:** 1983 to 1989

**Years with no data:**

**Sampling Frequency** daily

**Check if project is On-Going**

**WebSite:**

**DBFormat:** Excel Table

**DataQuality** poor

**Sampling Location Shapefile:** SmoltSites\_Loc

**Area of Inference**

**Monitoring Tier Assignment:** MT-1

**Line Geometry Shapefile:** SmoltSites\_LIA

**Polygon Geometry Shapefile:** SmoltSites\_PAI

**Description**

Annual estimates of Sockeye smolt out migration from the Nuyakuk River system based on up looking Bendix sonar arrays, located below the outlet of the Tikchik Lakes. Acoustic estimates for smolt outmigrations started in 1983 and lasted through 1989. Smolt age and size data are collected in conjunction with this project using fyke net trapping. Climatological data, ice coverage data, and water data are also collected and reported for this project.

<b>Species</b>	<b>Race</b>	<b>Life Stage</b>	<b>Form</b>	<b>Production</b>	<b>Target</b>
Sockeye		smolt	anadromous	wild stock	target spec

**Contacts:**

Supervisor Lowell Fair Bristol Bay Research Projec  
ADF&G Commercial Fisheries Anchorage AK

**Agencies asociated with this Data Set:**

Lead Agency Alaska Department of Fish & Game Commercial Fisheries (907) 267-2104  
333 Raspberry Rd. Anchorage AK 99518

<b>DDAP Category</b>	<b>ID</b>	<b>Objective</b>
ABUNDANCE	A7	Relative abundance estimate (index) of egg, alevin, fry, parr, sm
DISTRIBUTION	DT3	Smolt distribution (e.g. points of smolt passage)
DIVERSITY	DV13	Other juvenile life history traits

Data are kept at agcy.

*Data are reported*

*Check if Meta Data are available:*

*Check if Charge Money for Data:*

***Data may be accessed as follows:***

Data generally not available

***References:***

Crawford, D.L. and L.F. Fair. 2003.

Bristol Bay sockeye salmon smolt studies 2002. Alaska Department of Fish and Game, Division of Commercial Fisheries, Regional Information Report No. 2A03-17. Anchorage.

Woolington, J.D., B.A. Cross & B.L. Stratton. 1991.

Bristol Bay sockeye salmon smolt studies for 1989. Alaska Department of Fish and Game, Commercial Fisheries Division, Technical Fishery Report 91-19, Juneau.

**Port Moller Test ASL**

2944

**Category:** Life History *Capture method using gill net (also includes trammel and tangle nets)*  
**Method:** Net, Gill

**Anad. Water No.:**

**Management Area:** Bristol Bay

**District:** All Bristol Bay

**Site Selct Method:** Systematic

**Years Data Collected:** 1970 to current  
**Years with no data:**  
**Sampling Frequency** daily  
**Check if project is On-Going**

**WebSite:**

**DBFormat:** Access

**DataQuality** fair

**Sampling Location Shapefile:** ComHrvst\_Loc

**Area of Inference**

**Monitoring Tier Assignment:** MT-1

**Line Geometry Shapefile:** ComHrvst\_LIA

**Polygon Geometry Shapefile:** ComHrvst\_PAI

**Description**

A commercial gill net vessel test fishes daily along transect line extending offshore of Port Moller to index the abundance of sockeye salmon migrating into the Bristol Bay management area.

<b>Species</b>	<b>Race</b>	<b>Life Stage</b>	<b>Form</b>	<b>Production</b>	<b>Target</b>
Sockeye		adult	anadromous	wild stock	target spec

**Contacts:**

Co-Leader	Lowell Fair	Bristol Bay Research Projec			
	ADF&G	Commercial Fisheries	Anchorage	AK	
Co-Leader	Ray Hilborn				
	UW	School of Fisheries	Seattle	WA	(206) 543-3587

**Agencies asociated with this Data Set:**

Lead Agency	Alaska Department of Fish & Game	Commercial Fisheries	(907) 267-2104
	333 Raspberry Rd.	Anchorage	AK 99518
Lead Agency	Bristol Bay Science & Research Instit		(907) 842-4370
	P.O. Box 1464	Dillingham	AK 99576
Lead Agency	University of Washington	School of Fisheries	
		Seattle	WA

<b>DDAP Category</b>	<b>ID</b>	<b>Objective</b>
ABUNDANCE	A1	Relative index for adult abundance in coastal marine areas

Data are	
<i>Data are reported</i>	
<i>Check if Meta Data are available:</i>	<input type="checkbox"/>
<i>Check if Charge Money for Data:</i>	<input type="checkbox"/>

***Data may be accessed as follows:***

Special request via email or letter & provided electronically

***References:***

West, Fred W., 2004.

Bristol Bay sockeye salmon inriver test fishing, 2003. Alaska Department of Fish and Game, Commercial Fisheries Division, RIR No. 2A04-02, Anchorage.

# Togiak River Smolt Enumeration

2877

**Category:** Life History *Smolt enumeration method using sonar*

**Method:** Smolt sonar

**Anad. Water No.:**

**Management Area:** Bristol Bay

**District:** Togiak District

**Site Selct Method:** Geographic features

**Years Data Collected:** 1988 to 1988

**Years with no data:**

**Sampling Frequency** daily

**Check if project is On-Going**

**WebSite:**

**DBFormat:** Excel Table

**DataQuality** poor

**Sampling Location Shapefile:** SmoltSites\_Loc

**Area of Inference**

**Monitoring Tier Assignment:** MT-1

**Line Geometry Shapefile:** SmoltSites\_LIA

**Polygon Geometry Shapefile:** SmoltSites\_PA

**Description**

Annual estimates of Sockeye smolt out migration from the Togiak River system based on up looking Bendix sonar arrays, located below the outlet of the Togiak Lakes. Acoustic estimates for smolt outmigrations was made only for 1988. Smolt age and size data were collected in conjunction with this project using fyke net trapping. Climatological data, ice coverage data, and water data were also collected and reported for this project.

<b>Species</b>	<b>Race</b>	<b>Life Stage</b>	<b>Form</b>	<b>Production</b>	<b>Target</b>
Sockeye		smolt	anadromous	wild stock	target spec

**Contacts:**

Supervisor Lowell Fair Bristol Bay Research Projec  
ADF&G Commercial Fisheries Anchorage AK

**Agencies asociated with this Data Set:**

Lead Agency Alaska Department of Fish & Game Commercial Fisheries (907) 267-2104  
333 Raspberry Rd. Anchorage AK 99518

<b>DDAP Category</b>	<b>ID</b>	<b>Objective</b>
ABUNDANCE	A7	Relative abundance estimate (index) of egg, alevin, fry, parr, sm
DISTRIBUTION	DT3	Smolt distribution (e.g. points of smolt passage)
DIVERSITY	DV13	Other juvenile life history traits

Data are kept at agcy.

*Data are reported*

*Check if Meta Data are available:*

*Check if Charge Money for Data:*

***Data may be accessed as follows:***

Data available via hardcopy

Data generally not available

***References:***

Crawford, D.L. and L.F. Fair. 2003.

Bristol Bay sockeye salmon smolt studies 2002. Alaska Department of Fish and Game, Division of Commercial Fisheries, Regional Information Report No. 2A03-17. Anchorage.

Woolington, J.D., B.A. Cross, B.L. Stratton, & B. Bue. 19

Bristol Bay sockeye salmon smolt studies for 1988. Alaska Department of Fish and Game, Commercial Fisheries Division, Technical Fishery Report 90-16, Juneau.

## Ugashik Lakes Limnology

2886

**Category:** Life History *Data on water quality (temperature, pH, dissolved oxygen, turbidity, fluorescence), plankton, invertebrates*  
**Method:** Limnological

**Anad. Water No.:** 322-10-10080

**Management Area:** Bristol Bay

**District:** Ugashik District

**Site Selct Method:** Geographic features

**Years Data Collected:** to  
**Years with no data:**  
**Sampling Frequency**  
**Check if project is On-Going**

### WebSite:

**DBFormat:** Unknown

**DataQuality:** Fair

**Monitoring Tier Assignment:** MT-1

**Sampling Location Shapefile:** unassigned

### Area of Inference

**Line Geometry Shapefile:** unassigned

**Polygon Geometry Shapefile:** unassigned

### Description

Upper and Lower Ugashik Lakes. The ADF&G, Central Region Limnology lab's database includes morphometric, water chemistry (conductivity, pH, alkalinity, turbidity, color), nutrient (nitrogen, phosphorus carbon, silica), algal pigment (chlorophyll), and zooplankton (density, size distribution, and biomass) data.

<b>Species</b>	<b>Race</b>	<b>Life Stage</b>	<b>Form</b>	<b>Production</b>	<b>Target</b>
Sockeye		adult	anadromous	wild stock	target spec

### Contacts:

Project Leader	Jim Edmundson	Limnologist	im_edmundson@fishgame.state.ak.us
	ADF&G	Commercial Fisheries	Soldotna AK (907) 262-9368

### Agencies associated with this Data Set:

Lead Agency	Alaska Department of Fish & Game	Commercial Fisheries	(907) 262-9368
	43961 Kalifornsky	Soldotna	AK 99669

DDAP Category	ID	Objective
PRODUCTIVITY	P5	Survival, freshwater juvenile

Data are kept at agcy.  
*Data are reported* As resources permit  
*Check if Meta Data are available:*   
*Check if Charge Money for Data:*

***Data may be accessed as follows:***

Special request via email or letter & provided electronically

***References:***

Edmundson, J., and G. Todd. November 2000  
Limnological perspectives on stock and recruitment for Egegik and Ugashik River sockeye salmon.  
Alaska Department of Fish and Game, Commercial Fisheries, Anchorage. Regional Information Report  
No. 2A00-33.

Edmundson, Jim., 2003.  
Central Region Limnology Annual Report. Alaska Department of Fish and Game, Commercial  
Fisheries Division RIR No. \_\_\_\_\_. Anchorage.

## Ugashik River Smolt Enumeration

2807

**Category:** Life History *Smolt enumeration method using sonar*

**Method:** Smolt sonar

**Anad. Water No.:** 321-10-10020

**Management Area:** Bristol Bay

**District:** Ugashik District

**Site Selct Method:** Geographic features

**Years Data Collected:** 1955 to 2002

**Years with no data:** 1966, 71, 76-82, 92

**Sampling Frequency** Daily

**Check if project is On-Going**

### WebSite:

**DBFormat:** Excel Table

**DataQuality** Fair

**Sampling Location Shapefile:** SmoltSites\_Loc

### Area of Inference

**Monitoring Tier Assignment:** MT-1

**Line Geometry Shapefile:** SmoltSites\_LIA

**Polygon Geometry Shapefile:** SmoltSites\_PA

### Description

Annual estimates of Sockeye smolt out migration from the Ugashik Lakes based on up looking Bendix sonar arrays, located below the outlet of Lower Ugashik Lake. Acoustic estimates for smolt outmigrations started in 1983. Smolt age and size data are collected in conjunction with this project using fyke net trapping. Fyke nets have been operated at this site since 1955. Climatological data, ice coverage data, and water data are also collected and reported for this project.

<b>Species</b>	<b>Race</b>	<b>Life Stage</b>	<b>Form</b>	<b>Production</b>	<b>Target</b>
Sockeye		smolt	anadromous	wild stock	target spec

### Contacts:

Project Leader	Lowell Fair	Bristol Bay Research Projec			
	ADF&G	Commercial Fisheries	Anchorage	AK	
Project Leader	Drew Crawford	Fishery Biologist			
	ADF&G	Commercial Fisheries	Anchorage	AK	

### Agencies asociated with this Data Set:

Alaska Department of Fish & Game Commercial Fisheries (907) 267-2104  
333 Raspberry Rd. Anchorage AK 99518

DDAP Category	ID	Objective
ABUNDANCE	A7	Relative abundance estimate (index) of egg, alevin, fry, parr, sm
DISTRIBUTION	DT3	Smolt distribution (e.g. points of smolt passage)
DIVERSITY	DV13	Other juvenile life history traits

Data are kept at agcy.

*Data are reported*    Annually

*Check if Meta Data are available:*   

*Check if Charge Money for Data:*   

***Data may be accessed as follows:***

Special request via email or letter & provided electronically

Data available via hardcopy

***References:***

Crawford, D.L. 2001.

Bristol Bay sockeye salmon smolt studies 2001. Alaska Department of Fish and Game, Division of Commercial Fisheries, Regional Information Report No. 2A01-27. Anchorage.

Crawford, D.L. and L.F. Fair. 2003.

Bristol Bay sockeye salmon smolt studies 2002. Alaska Department of Fish and Game, Division of Commercial Fisheries, Regional Information Report No. 2A03-17. Anchorage.

Crawford, Drew L., March 2000.

Bristol Bay sockeye salmon smolt studies for 1999. Alaska Department of Fish and Game, Commercial Fisheries, Anchorage. Regional Information Report No. 2A00-18.

Weiland, Morstad, Browning, Sands, Fair, & Crawford. 2

Bristol Bay 2002 Annual Management Report, ADF&G, Commercial Fisheries, Anchorage. RIR No. 2A03-18.

# Wood River Smolt Enumeration

2875

**Category:** Life History *Smolt enumeration method using sonar*  
**Method:** Smolt sonar

**Anad. Water No.:**

**Management Area:** Bristol Bay

**District:** Nushagak District

**Site Selct Method:** Geographic features

**Years Data Collected:** 1955 to 1990  
**Years with no data:** 1967-1974  
**Sampling Frequency** daily  
**Check if project is On-Going**

**WebSite:**

**DBFormat:** Unknown

**DataQuality** poor

**Sampling Location Shapefile:** SmoltSites\_Loc

**Area of Inference**

**Monitoring Tier Assignment:** MT-1

**Line Geometry Shapefile:** SmoltSites\_LIA

**Polygon Geometry Shapefile:** SmoltSites\_PAI

**Description**

Annual estimates of Sockeye smolt out migration from the Wood River Lakes system based on fyke nets and up looking Bendix sonar arrays, located below the outlet of the Lake Aleknagik. Acoustic estimates for smolt outmigrations started in 1975 and lasted through 1990. Smolt age and size data are collected in conjunction with this project using fyke net trapping. Fyke nets have been operated at this site as far back as 1955. Climatological data, ice coverage data, and water data are also collected and reported for this project.

<b>Species</b>	<b>Race</b>	<b>Life Stage</b>	<b>Form</b>	<b>Production</b>	<b>Target</b>
Sockeye		smolt	anadromous	wild stock	target spec

**Contacts:**

**Supervisor** Lowell Fair Bristol Bay Research Proj  
 ADF&G Commercial Fisheries Anchorage AK

**Agencies associated with this Data Set:**

**Lead Agency** Alaska Department of Fish & Game Commercial Fisheries (907) 267-2104  
 333 Raspberry Rd. Anchorage AK 99518

<b>DDAP Category</b>	<b>ID</b>	<b>Objective</b>
ABUNDANCE	A7	Relative abundance estimate (index) of egg, alevin, fry, parr, sm
DISTRIBUTION	DT3	Smolt distribution (e.g. points of smolt passage)
DIVERSITY	DV13	Other juvenile life history traits

Data are kept at agcy.
Data are reported
Check if Meta Data are available: <input type="checkbox"/>
Check if Charge Money for Data: <input type="checkbox"/>

**Data may be accessed as follows:**

Data generally not available

**References:**

Crawford, D.L. 2001.

Bristol Bay sockeye salmon smolt studies 2001. Alaska Department of Fish and Game, Division of Commercial Fisheries, Regional Information Report No. 2A01-27. Anchorage.

Crawford, D.L. and L.F. Fair. 2003.

Bristol Bay sockeye salmon smolt studies 2002. Alaska Department of Fish and Game, Division of Commercial Fisheries, Regional Information Report No. 2A03-17. Anchorage.

Crawford, D.L., J.D. Woolington, & B.A. Cross. 1990.

Bristol Bay sockeye salmon smolt studies for 1990. Alaska Department of Fish and Game, Commercial Fisheries Division, Technical Fishery Report 92-19, Juneau.

Newcome, Nikki., 1977.

1976 Bristol Bay sockeye salmon smolt studies. ADF&G Technical Data Report No. 33. Alaska Department of Fish and Game, Juneau.

Steward, Don M., 1967.

1966 Bristol Bay red salmon studies, A summary of data collected from red salmon (*Oncorhynchus nerka*) smolt programs on the Kvichak, Wood and Naknek Rivers. Alaska Department of Fish and Game Informational Leaflet 102. Juneau, Alaska.