



State of Alaska
Department of Fish and Game
Division of Sport Fish

Nomination Form
Anadromous Waters Catalog

W

Region SWT USGS Quad(s) NAKNEK C-2 *A-1, B-1, 2*

Anadromous Waters Catalog Number of Waterway 324-20-10140-2076

Name of Waterway *Big Creek USGS Name Local Name

Addition Deletion Correction Backup Information

For Office Use

Nomination # <u>10-645</u>	<i>[Signature]</i> Fisheries Scientist	<u>7/19/10</u> Date
Revision Year: <u>2011</u>	<i>[Signature]</i> Habitat Operations Manager	<u>7/14/10</u> Date
Revision to: Atlas _____ Catalog _____ Both _____	<i>[Signature]</i> AWC Project Biologist	<u>29 MAY/10</u> Date
Revision Code: _____ <u>A-3</u>	<i>[Signature]</i> Cartographer	<u>10/14/10</u> Date

OBSERVATION INFORMATION

Species	Date(s) Observed	Spawning	Rearing	Present	Anadromous
Rainbow Smelt	<u>1985, 1991,</u>				<input type="checkbox"/>
					<input type="checkbox"/>
					<input type="checkbox"/>
					<input type="checkbox"/>
					<input type="checkbox"/>

IMPORTANT: Provide all supporting documentation that this water body is important for the spawning, rearing or migration of anadromous fish, including: number of fish and life stages observed; sampling methods, sampling duration and area sampled; copies of field notes; etc. Attach a copy of a map showing location of mouth and observed upper extent of each species, as well as other information such as: specific stream reaches observed as spawning or rearing habitat; locations, types, and heights of any barriers; etc.

Comments:
Add local name Big CREEK to stream

ref nom # 10-643

Name of Observer (please print): Richard Russell

Signature: _____ Date: _____

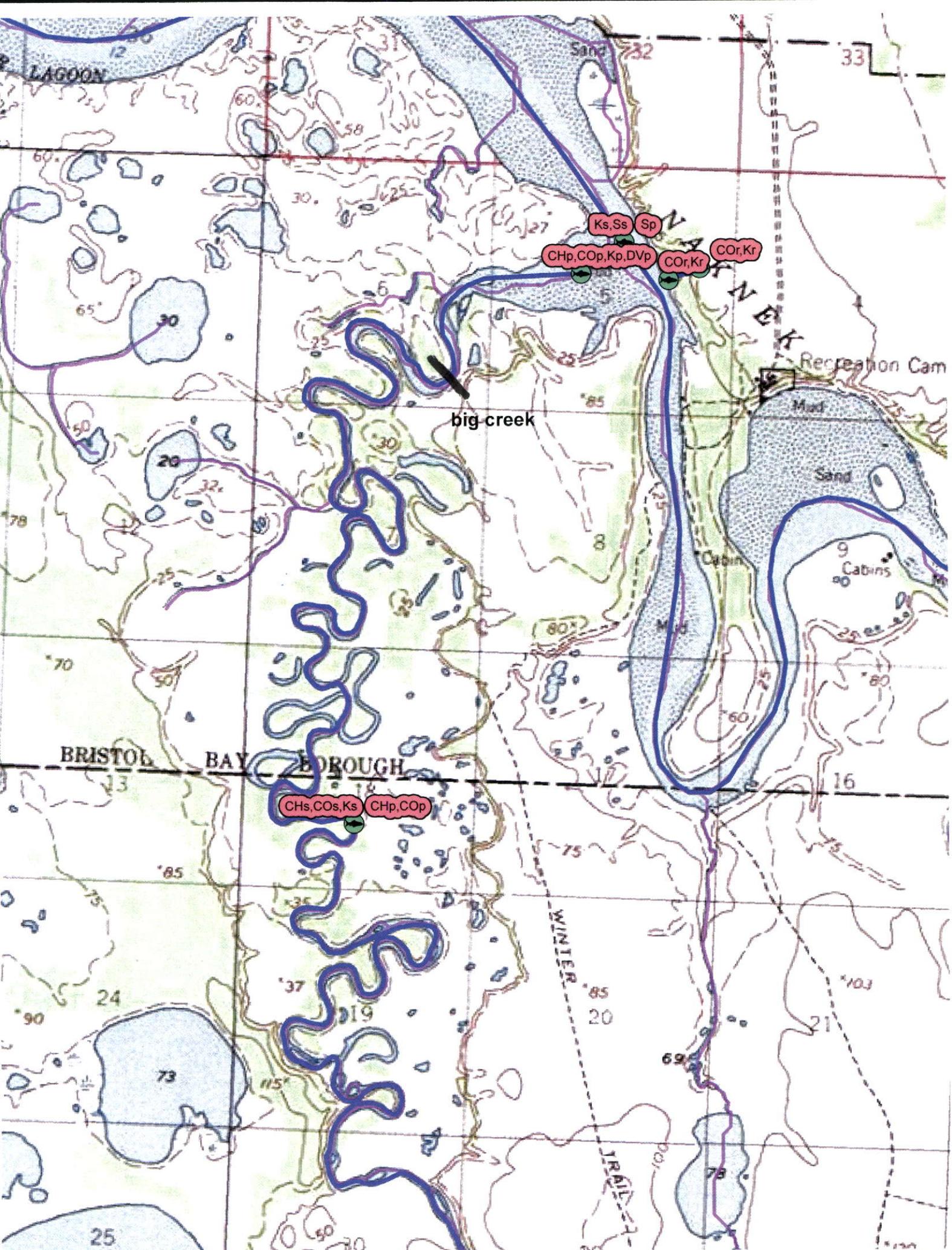
Agency: _____

Address: P.O. Box 66
King Salmon, AK, 99613

This certifies that in my best professional judgment and belief the above information is evidence that this waterbody should be included in or deleted from the Anadromous Waters Catalog.

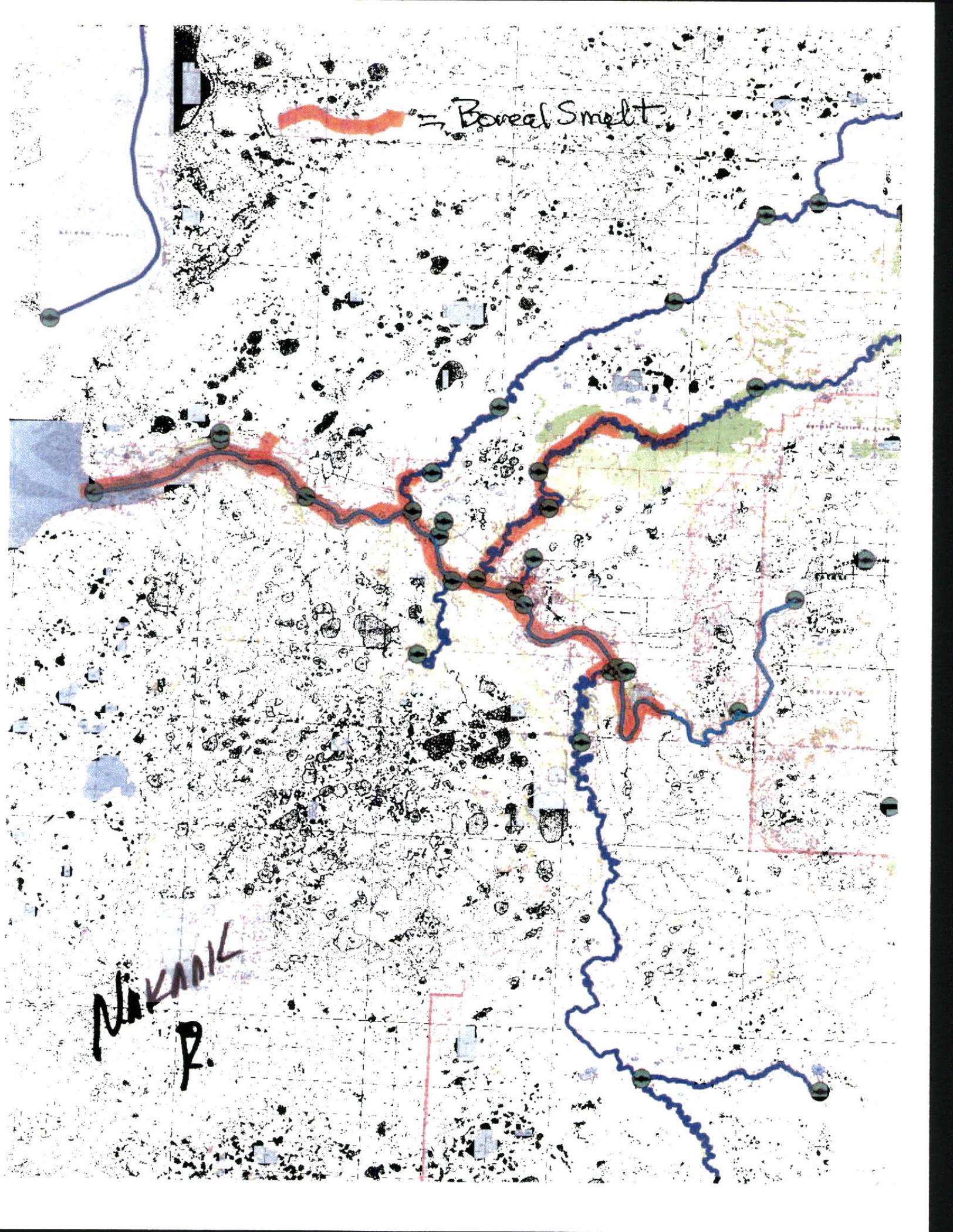
Signature of Area Biologist: _____ Date: _____ Revision 05/08

Name of Area Biologist (please print): _____



Boreal Smelt

NAKANIK
R.



Richard Russell - HDH (G) FISHERIES BIOLOGIST - BRISTOL Bay
1971-1996 (Retired).

Russell House GPS coords = 58°42.236' N, 156°40.805' W

Notes on Boreal Smelt migrations, Naknek River Drainage, 1974-2010, By- Richard Russell

- Dec. 11, 1974 I creel-censused 2 parties of fishermen on the Naknek River at King Salmon fishing through-the-ice for boreal smelt.
- Dec. 20, 1974 I caught 12 boreal smelt in 1-hour of ice-fishing near "FAA Rock" in the Naknek River at King Salmon today. I used a tiny silver Lujon jig.
- Dec. 21, 1974 I caught 36 boreal smelt in 1 hour while fishing through the ice of the Naknek River near "FAA-Rock", King Salmon.
- Dec. 22, 1974 I caught 67 boreal smelt in Naknek River near the Fish & Game boat launch ramp at King Salmon today...using hook & line...in 1 hour of fishing.
- Jan. 18, 1975 I caught 99 boreal smelt through the ice in the Naknek River...near the ADF&G boat ramp at King Salmon...in 2 angler-hours jigging with a silver Lujon spoon.
- Jan. 25, 1975 Three of us caught 340 boreal smelt in 9 angler hours at FAA Rock in the Naknek River at King Salmon today. We were jigging through the ice.
- Apr. 30, 1976 I saw boreal smelt spawning today in King Salmon Creek.
- Jan. 01, 1977 First boreal smelt angling through the ice in the Naknek River this winter (at FAA Rock)...good catch.
- Dec. 03, 1977 Good boreal smelt fishing through the ice in the Naknek River at King Salmon today.
- Apr. 13, 1979 This afternoon Don Bill & I electro-shocked Leader Creek (a Naknek River tributary) using a Smith-Root Type-V Backpack electro-shocker unit. We fished (shocked) for 278 seconds at and below the Alaska Peninsula Highway bridge at King Salmon and caught 1 Dolly Varden (5-inches), 8 boreal smelt spawners (3-4.5 inches), 1 chinook salmon fingerling, 3 coho fingerlings, 33 sticklebacks (9-spined), & 2 Alaska blackfish.
- Feb. 18, 1984 Air temperature at King Salmon was -9°F at 1000 hours. The Naknek River ice depth is 18 inches now at FAA Rock near King Salmon. Marilyn Russell caught her first boreal smelt in the Naknek River today...jigging through the ice with a silver Lujon (photo).
- ✓ Jan. 14, 1985 Ice fishing for smelt was good today at several locations along the Naknek River today...at Big Creek mouth, Paul's Creek bridge, & FAA Rock.
- May 05, 1986 There are thousands of boreal smelt spawning now in the lower 3 miles of King Salmon Creek.
- May 06, 1986 Boreal smelt were spawning heavily in the lower 2-3 miles of King Salmon

Creek...up to at least Russell House. Many glaucous-winged gulls were diving and feeding on them in a near feeding frenzy (photos).

- Feb. 05, 1989 Air temperature was 15°F at 0800 hours in King Salmon. I spent 1 hour smelt fishing (jigging) through the ice of the Naknek River near FAA Rock at King Salmon. Caught 51 boreal smelt ranging in length from 4.5-8.5 inches. Several were pre-spawners...and two had fish remains in their stomachs. The ice depth in the Naknek River was about 30 inches.
- Feb. 08, 1989 Jim Faro and I went smelt fishing in the Naknek River near FAA Rock. We caught 60 boreal smelt in 1.5 angler hours. Saw 4 other anglers.
- May 01, 1990 Hundreds of glaucous-winged gulls were working King Salmon Creek, feeding on spawning smelt all day.
- ✓ Apr. 16, 1991 This morning I drove from King Salmon to Paradise Point from where I saw about 300 gulls (both mew & glaucous-winged), 11 bald eagles, many common mergansers, & red-breasted mergansers...& I noticed that smelt were being heavily fed upon at the mouth of Big Creek by the gulls & eagles.
- May 06, 1992 I saw glaucous-winged gulls feeding on boreal smelt that are spawning now in King Salmon Creek below the Alaska Peninsula Highway bridge.
- May 09, 1992 From Russell House, King Salmon Creek, I saw glaucous-winged gulls continuing to feed on spawning smelt in the creek today.
- May 11, 1992 The smelt moved up King Salmon Creek to the bend above Russell House this afternoon and I saw about 400-500 gulls (both mew & glaucous-winged) diving and feeding on them this evening. I took a couple photos of the feeding frenzy.
- May 12, 1992 From Russell House, King Salmon Creek, I saw 900-1,000 gulls (mew & glaucous-winged) feeding on spawning boreal smelt in King Salmon Creek in the creek in front of my house this evening.
- May 13, 1992 From Russell House, King Salmon Creek, I saw about 300 glaucous-winged gulls still harassing the spawning boreal smelt in the creek.
- May 14, 1992 The boreal smelt spawning in King Salmon Creek has apparently slackened-off as the flocks of glaucous-winged gulls have dispersed and now only a couple dozen are patrolling the creek.
- Apr. 11, 1993 From Russell House, King Salmon Creek, I saw 4 bald eagles, & 25 glaucous-winged gulls. The gulls were catching spawning boreal smelt migrating up King Salmon Creek past my home.
- Apr. 24, 1993 Smelt are spawning in the lower mile of King Salmon Creek today and the glaucous-winged gulls are feeding heavily on them.
- Apr. 25, 1993 Smelt are still spawning in the lower 2 miles of King Salmon Creek.
- Apr. 27, 1993 I saw about 300 gulls (mostly glaucous-winged) feeding on smelt in the lower 3 miles of King Salmon Creek this evening. Smelt are inhabiting the creek as far upstream as the next bend above Russell House.

- Apr. 30, 1993 From Russell House, King Salmon Creek, I saw 2 bald eagles, 2 common mergansers, about 300 glaucous-winged gulls, about 50 mew gulls, & boreal smelt. The smelt are still spawning in the lower 3 miles of King Salmon Creek and the gulls are feeding heavily on schools of these fish as they migrate up the stream.
- May 01, 1993 From Russell House, King Salmon Creek, I saw 420 gulls (mostly glaucous-winged) feeding on spawning boreal smelt this afternoon.
- Apr. 29, 1994 The boreal smelt have begun to spawn today in King Salmon Creek near Russell House.
- May 02, 1995 From Russell House, King Salmon Creek, I saw noted that the boreal smelt have moved up King Salmon Creek as far as the first bend upstream of Russell House to spawn...and gulls were observed feeding on them.
- May 03, 1995 From Russell House, King Salmon Creek, I saw 100 glaucous-winged gulls feeding on smelt, and 1 osprey fishing the creek this evening. The osprey caught a small fish (smelt ?) and was then harassed by a glaucous-winged gull as it flew off with the fish.
- Mar. 24, 1996 I drove from King Salmon to Rapids Camp from where I walked up into the lower end of the Naknek River "Rapids" this afternoon. During the hike I saw a dead boreal smelt along the river.
- Apr. 29, 1996 The boreal smelt began spawning in King Salmon Creek below Russell House this afternoon.
- Apr. 30, 1996 From Russell House, King Salmon Creek, I saw 200 glaucous-winged gulls, 5 common mergansers, 2 bald eagles, & 3 mew gulls. Smelt continued spawning in King Salmon Creek right in front of Russell House...and lots of gulls were diving on them. Some gulls were still flying the creek until well after dark.
- May 01, 1996 From Russell House, King Salmon Creek, I saw 125 glaucous-winged gulls, & 3 bald eagles. I watched the gulls diving into King Salmon Creek & bringing up boreal smelt which they quickly swallowed.
- May 02, 1996 Boreal smelt are still spawning in King Salmon Creek.
- May 03, 1996 From Russell house, King Salmon Creek, I saw about 250 glaucous-winged gulls chasing spawning boreal smelt in the creek this morning.
- May 07, 1996 From Russell House, King Salmon Creek, I saw 8 common mergansers today. Boreal smelt spawning appears to be about over as the gull activity has decreased dramatically in lower 3 miles of King Salmon Creek. I did see the common mergansers get into a school of smelt though right in front of Russell House.
- Apr. 28, 1997 The boreal smelt run entered King Salmon Creek to spawn this morning and this activity drove the glaucous-winged gulls into a frantic feeding frenzy in front of Russell House (2.5 miles upstream from the stream mouth). At times I saw 500-600 gulls (nearly all Glaucous-winged) circling over the creek in front of my living-room windows. I took several photos of the feeding activity. I saw several

gulls catch and quickly swallow the 4-8 inch smelt. There were 5-6 bald eagles circulating over the stream also looking for feeding opportunities. The stream water temperature at 2100 hours was 44°F. This evening I walked along the stream and watched the smelt migrating rapidly upstream. They were moving in a nearly continuous band, 3-5 fish wide, near the stream bank. I caught one with my hands, a ripe female, and brought it home to eat. They were flipping at the surface in the pool at the head of the bend right in front of my house, several at a time.

- Apr. 29, 1997 From Russell House, King Salmon Creek, I saw 3 bald eagles, & about 230 glaucous-winged gulls patrolling the creek. Creek temperature was 44°F at 1300 hours. Boreal smelt continued migrating up King Salmon Creek past Russell House...and the glaucous-winged gulls continued exploiting them for food.
- Apr. 24, 1998 From Russell House, King Salmon Creek, I saw about 550 glaucous-winged gulls today. The boreal smelt migrated up King Salmon Creek in a big surge today. The creek water temperature at 1430 hours was 42°F. I dip-netted 38 boreal smelt in 30 minutes from the creek in front of my house this afternoon. They ranged in fork-length from 169 to 234 mm (mean length was 193 mm). The sex-ratio was 34 males to 4 females. All the males had a very rough leathery feel to their skin while all the females were smooth and slippery to the touch. The females were the 4 smallest fish in the sample. All the males were ripe. Three of the four females were ripe...one was immature.
- Apr. 25, 1998 From Russell House, King Salmon Creek I noticed the boreal smelt are still migrating up the creek today. King Salmon Creek water temperature was 43°F at 1400 hours. This afternoon I donned my Polaroid sunglasses and walked up King Salmon Creek monitoring the smelt up-migration. Many thousands of them were enroute up the creek. I followed them from my house (2.5 miles upstream from the creek mouth) on up to the Air Force's water monitoring gauge two bends upstream of Vera Angasan's house. I left the creek there as I wasn't prepared for a long hike upstream today. They were still going upstream en-masse at that point. I saw where river otters had eaten two smelt leaving only the heads on the shore. I ate fresh smelt for dinner...some that I dipped yesterday.
- Apr. 26, 1998 Boreal smelt are still migrating up King Salmon Creek.
- Apr. 29, 1998 From Russell House, King Salmon Creek, I saw about 400 glaucous-winged gulls, 2 bald eagles, 1 common merganser, & 3 mew gulls patrolling the creek today...probably seeking spawning smelt. I drove from King Salmon to Lake Camp, & Rapids Camp to watch wildlife. From Rapids Camp Lagoon I saw a mixed flock of about 450 gulls (glaucous-winged & mew) very actively working the lower "Rapids" picking on a downstream moving school of fish (most likely boreal smelt).
- June 30, 1999 At King Salmon Creek, Naknek River tributary. Dave & Pat Price, Joe Sheridan, & I resumed floating & fishing at 1000 hours. Floated until 1900 hours covering about 7 miles. Along the stream I saw a school of boreal smelt

fry in a stretch of water about 15-16 stream miles upstream from the Naknek River-King Salmon Creek confluence. They were over a sandy bottom near a debris pile along the stream bank...tiny little slivers with big eyes.

- Apr. 25, 2000 Glaucous-winged gulls are still feeding on smelt at the mouth of King Salmon Creek today.
- Apr. 26, 2000 The boreal smelt have moved up King Salmon Creek to Bill Tolbert's Bend a half-mile downstream from my house today.
- Apr. 28, 2000 From Russell House, King Salmon Creek, I saw 250 glaucous-winged gulls feeding on the boreal smelt when they reached my bend in King Salmon Creek.
- May 03, 2000 I saw a flock of glaucous-winged gulls still feeding on smelt at the Alaska Peninsula Highway bridge over King Salmon Creek.
- Mar. 06, 2001 I drove from King Salmon to Rapids Camp where I donned my caulked boots and hiked across Rapids Camp Lagoon to the lower fishing-marker Island. The Lagoon is still about 80% frozen-over...but the ice is thin & rotten. Found a dead boreal smelt along the Naknek River shallows.
- Apr. 16, 2001 From Russell House, King Salmon Creek, I saw 25 glaucous-winged gulls...and I saw lots of glaucous-winged gulls circling over at the King Salmon Creek highway bridge...signaling that the spring spawning upmigration of boreal smelt in the creek has begun.
- Apr. 17, 2001 From Russell House, King Salmon Creek, I saw about 300 glaucous-winged gulls circling over the creek today...a sure sign the smelt are upmigrating.
- Apr. 15, 2003 I drove from King Salmon to Naknek this morning. Enroute I noticed a large flock of glaucous-winged gulls (about 100 birds) circling over Paul's Creek just upstream from where the Alaska Peninsula Highway crosses the creek. The boreal smelt must have begun to migrate up Paul's Creek...thus attracting the gulls to feed.
- Apr 20, 2003 I walked up King Salmon Creek from my house to the bend above Vera Angasan's house where I fished for 20 minutes using a small silver spinner. Caught and retained one 16-inch prespawn male rainbow trout. It had 4 caddis larva and 2 partially digested boreal smelt in its stomach. One of the smelt was a pre-spawn female.
- May 02, 2003 I walked down to King Salmon Creek in front of my house this afternoon and found a dead 7-inch boreal smelt along the bank. The spawning run has apparently begun in the stream.
- May 04, 2003 This afternoon I saw a flock of about 80 glaucous-winged gulls diving into King Salmon Creek on the bend just below my home...apparently feeding on an upmigrating school of boreal smelt. The action moved upstream a few hundred yards but then terminated after about 45 minutes...so it must have been an isolated school of smelt rather than a continuous band of migrants.
- May 03, 2004 Lee Kilbee saw numerous boreal smelt in King Salmon Creek at the South Barrel Bluffs this morning.

- Feb. 07, 2005 I hiked 3 miles up King Salmon Creek on the ice from Russell House this morning. Near Vera Angasan's Cabin I saw some surface water that had gushed up through a crack in the ice...and in a stretch about a foot deep I noticed a lone 3-inch boreal smelt swimming. It had no cover under which to hide so I was able to observe it at length. It had apparently swam up the stream beneath the ice and gotten flushed out on top when the pressure crack ruptured. I was not previously aware that boreal smelt migrated up the stream this early in the year.
- Apr. 29, 2005 From Russell House, King Salmon Creek, I saw about 150 glaucous-winged gulls patrolling over the stream today...apparently the boreal smelt run has begun moving up the creek.
- May 01, 2005 King Salmon Creek at the South Barrel Bluffs is reportedly full of boreal smelt migrating upstream today...per Smoky of Chugach Development Corp. There were about 300 glaucous-winged gulls working the area from just upstream of my house down to one bend above the Alaska Peninsula Highway Bridge catching smelt nearly all day.
- May 10, 2006 I saw about 75 glaucous-winged gulls orbiting over the Alaska Peninsula Highway Bridge over King Salmon Creek this morning. The boreal smelt migration up the creek has commenced. Later I saw about 150 gulls circling over the stream in front of Russell House about 2 miles above the stream mouth.
- May 11, 2006 From Russell House, King Salmon Creek, I saw about 90 glaucous-winged gulls diving into the stream in search of boreal smelt this afternoon.
- May 12, 2006 From Russell House, King Salmon Creek, I saw about 15 glaucous-winged gulls diving into the stream in search of boreal smelt today. Saw about 150 gulls orbiting over the stream near the South Barrel Bluffs this morning.
- Apr. 26, 2007 This afternoon I drove from King Salmon to Rapids Camp where I counted 502 glaucous-winged gulls along the Naknek River at 1610-1715 hours...smelt must be gathering there.
- May 04, 2007 From Russell House, King Salmon Creek, I saw 1 glaucous-winged gull patrolling over the creek today. This evening I drove from King Salmon to Rapids Camp where I saw 1,000 glaucous-winged gulls along the Naknek River at 2000-2100 hours. They appeared to be feeding on small fish schooled at the base of the Naknek River Rapids...probably boreal smelt spawners...but also possibly emergent pink salmon sac-fry. Several times I saw large feeding frenzies in progress but the birds were too distant for me to identify the prey species. The feeding didn't seem to extend upriver of the "Flats" at the base of the "Rapids".
- May 05, 2007 This evening I drove from King Salmon to Rapids Camp where (counting by 10's) I saw approximately 1,500 glaucous-winged gulls along the Naknek River at 2000-2100 hours. They were feeding on small fish schooled at the base of the Naknek River Rapids...probably boreal smelt spawners. I saw large feeding frenzies in progress several times. These didn't seem to extend upriver of the "Flats" at the base of the "Rapids". This factor plus the timing of the fish availability strongly suggests that spawning boreal smelt are the target species.

- Pink salmon fry would also be available farther upriver if they were out in the numbers to support such feeding activity.
- May 06, 2007 From Russell House, King Salmon Creek, I saw about 50 glaucous-winged gulls assaulting schools of boreal smelt that were migrating up the creek in front of my home at 1615 & 1930 hours today. Watched one gull swallow a 12-inch Dolly Varden that was probably also targeting the smelt run. The bird had to work to get the entire fish ingested but managed to do so over the span of about 2 minutes. This afternoon I drove from King Salmon to Rapids Camp where (counting by 10's) I saw approximately 1,000 glaucous-winged gulls along the Naknek River at 1450-1600 hours. Again they were feeding on small fish schooled at the base of the Naknek River Rapids...probably boreal smelt spawners. I saw large feeding frenzies in progress several times. Again the feeding didn't seem to extend upriver of the "Flats" at the base of the "Rapids". This factor plus the timing of the fish availability (they are migrating up King Salmon Creek today) strongly suggests that boreal smelt spawners are the target species.
- May 07, 2007 From Russell House, King Salmon Creek, I saw about 140 glaucous-winged gulls attacking schools of boreal smelt that were migrating up the creek in front of my home all afternoon today. Saw several dive into the stream and emerge with smelt in their bills...the fish were quickly ingested. This evening I drove from King Salmon to Rapids Camp where (counting by 10's) I saw roughly 1,480 glaucous-winged gulls along the Naknek River at 1910-2215 hours. Once again they were feeding on small fish (probably boreal smelt spawners) at the base of the Naknek River Rapids. On several occasions I saw large feeding frenzies with multiple gulls diving into the river to retrieve small fish. Again the feeding didn't seem to extend upriver of the "Flats" at the base of the "Rapids". This factor plus the timing of the fish availability (they are still migrating up King Salmon Creek today) strongly suggests that boreal smelt spawners are the target species. John Kluck, a local sport-fishing guide, confirmed the presence of a huge school of boreal smelt spawning at the base of the "Rapids" in the Naknek River today.
- May 11, 2007 From Russell House, King Salmon Creek, I saw about 60 glaucous-winged gulls diving for smelt in the creek in front of my home today.
- May 12, 2007 From Russell House, King Salmon Creek, I counted 108 glaucous-winged gulls patrolling the creek in front of my home today.
- May 13, 2007 From Russell House, King Salmon Creek, I saw 36 glaucous-winged gulls patrolling the creek in front of my home today.
- Mar. 06, 2008 This morning I drove to the Naknek River at King Salmon where I spent from 1200-1330 hours fishing through-the-ice of the river with hook & line to catch boreal (Rainbow) smelt for the USFWS genetic samples requested by Cheryl Dion. I caught 100 smelt there opposite "FAA Rock". I brought them home, measured them for Standard Fork length in mm, sexed them, determined their stage of maturity, & collected the dorsal fin off each fish. The fins were then preserved in small vials of ethanol for shipment to Cheryl in Anchorage.

Fish lengths in mm were as follows:

Males-163, 172, 174, 174, 175, 175, 177, 178, 179, 179, 179, 180, 180, 180, 183, 183, 183, 183, 183, 184, 184, 185, 185, 186, 186, 187, 187, 189, 190, 190, 190, 190, 191, 191, 191, 191, 193, 194, 195, 195, 196, 196, 198, 199, 200, 200, 201, 203, 205, 205, 209, 211, 213, 214, 215, 216, 216, 217...n = 59...mean length = 184 mm. Some were already developing their rough skin texture for mating.

Females-170, 176, 180, 180, 183, 185, 185, 185, 186, 188, 188, 190, 190, 192, 193, 193, 194, 195, 195, 196, 196, 198, 199, 200, 200, 200, 200, 201, 202, 202, 202, 204, 205, 211, 212, 212, 220, 225, 228, 243...n = 41...mean length = 198 mm. All the females' skin textures were smooth and slippery.

All these 100 smelt were mature pre-spawn individuals. Several had leeches attached. Two had large teeth marks on their sides where they had been raked by some predator. GPS Coordinates of the capture location were 58°40'.048N, & 156°39'.577W.

- Mar. 07, 2008 This morning I returned to the Naknek River near "FAA Rock" at King Salmon where I caught and sampled (dorsal fin-clipped) 3 more boreal (Rainbow) smelt...a 134 mm immature female, and two prespawn males at 180, & 181 mm respectively. The Bristol Bay Borough School District had a smelting outing in progress for their Pre-school children and they permitted me to clip the dorsal fins from 97 of the smelt that they & their chaperones caught. Elders- Marie Alvarez & Rose Mikkelson were very helpful in supplying many of the fish. Thus I was able to complete the 200 fish sample the USFWS requested. I only measured the 3 fish that I caught today. The ice was about 30-inches deep on the river today. We smelted on the tail of the outgoing ebb tide.
- May 07, 2008 From Russell House, King Salmon Creek, I saw 32 glaucous-winged gulls patrolling the creek in front of my home at 1345 hours today. It appears the boreal smelt run into the creek has commenced.
- May 09, 2008 From Russell House, King Salmon Creek, I saw 53 glaucous-winged gulls patrolling the creek in front of my home today.
- May 10, 2008 From Russell House, King Salmon Creek, I saw mew gulls catching and swallowing boreal smelt from the creek in front of my home today.
- May 05, 2009 At the Alaska Peninsula Highway bridge over King Salmon Creek I saw about 20 glaucous-winged gulls diving for upmigrating smelt this morning. From Russell House, King Salmon Creek, I saw 6 glaucous-winged gulls patrolling the creek today. From the State Dock at King Salmon I saw glaucous-winged gulls along the Naknek River at 1300 hours.
- May 06, 2009 From Russell House, King Salmon Creek, I saw about 200 glaucous-winged gulls patrolling the creek today. From the Fish & Game Dock at King Salmon I saw more glaucous-winged gulls along the Naknek River at 1100 hours.
- Apr. 30, 2010 This afternoon I drove from King Salmon to Naknek. While crossing the Paul's Creek bridge I noticed 5 glaucous-winged gulls patrolling the creek a short distance upstream. The boreal smelt spawning migration up Paul's Creek has

- probably just begun.
- May 05, 2010 The boreal smelt spawning migration up King Salmon Creek has begun. I saw about 35 glaucous-winged gulls foraging on them near Bert Tolbert's home about 2 stream miles up the creek above its confluence with the Naknek River this morning.
- May 06, 2010 Boreal smelt were observed migrating up King Salmon Creek past my house this afternoon. I collected 5 pre-spawn males with hook & line to send to ADF&G-Fairbanks (Marine Mammals Section) for their use in establishing a "Known-sample" from the Naknek River drainage for use in future analysis of marine nitrogen in Beluga whale tissue samples. Approximately 80 glaucous-winged gulls were patrolling the creek attempting to forage on the upmigrating smelt in front of my home.
- May 07, 2010 Boreal smelt continued their spawning migration past my house on King Salmon Creek today. I counted 47 glaucous-winged gulls foraging on them in front of my house.
- May 08, 2010 Boreal smelt continued their spawning migration past my house on King Salmon Creek today. I counted 18 glaucous-winged gulls still foraging on them in front of my house.
- May 09, 2010 The boreal smelt migration up King Salmon Creek past my house has apparently ended for the spring. I only saw 2 glaucous-winged gulls patrolling the creek today in search of them.