



MEMORANDUM

STATE OF ALASKA

Department of Natural Resources
Office of Habitat Management and Permitting

TO: Jackie Timothy
Juneau Area Manager

DATE: August 22, 2006

FILE NO:

THRU:

SUBJECT: Dry Bay ORV Trails
Trip Report

FROM: Kate Kanouse
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Background

The National Park Service (NPS) is publishing an Off-Road-Vehicle Environmental Assessment for the Dry Bay area in preparation for formally designating off road vehicle (ORV) trails and stream crossings. The ORV trails are used to access remote hunting and fishing sites and several lodges. Dry Bay resources are primarily used for sport fish and hunting purposes, although some historic commercial fishery operations remain. During July 19-22, I accompanied in the field Gordie Woods and George Weekley with Fish & Game, and the following staff with NPS: Glen Yankus, Chad Soiseth, Allison Banks, Bud Rice, Bill Eichenlaub, and Dry Bay Ranger Jim Capra.

Methods

We trapped stream crossings identified by NPS that were likely to remain open for ORV use, stream crossings having unknown fate, and identified and trapped stream crossings where anadromous fish presence was unknown. Some streams identified in the *Catalog of Waters Important to the Spawning, Rearing or Migration of Anadromous Fishes* (Catalog) were also trapped to update the upstream extent of fish use and species present. When sampling for juvenile fish presence, we used 1/4" mesh minnow traps baited with salmon eggs and retrieved them after about two hours. We accessed each site by ATV or by foot. Site specific trapping data is summarized in the attached Table A.

Doame River

Site 1: Doame River wetland drainage (not cataloged)

We located an un-cataloged, low-flow drainage about 600' west of the Doame River that flooded an abandoned ORV trail (see Photo 1). Several salmonids were observed swimming in the tire-track channel, we captured coho and stickleback in five traps. This ephemeral channel probably connects to the Doame River or neighboring streams during high flows or floods, and is created by channeling water from nearby wetlands. If the deeply incised abandoned ORV trail was not present, I doubt this channel would exist. New ORV trails that bypass the drainage are established on both sides of the channel and do not cross the drainage.



Photo 1. Doame River wetland drainage.



Photo 2. Lake southeast of the EAR.

East Alsek River (EAR)

Site 2: EAR crossing (cataloged)

East Alsek River (Stream No. 182-20-10100) is cataloged for the presence of coho, chum, king, pink and sockeye salmon and Dolly Varden. The EAR crossing is about 100' wide and 1-2' deep. The stream crossing banks are not armored for erosion protection, and the substrate in the river is small rock (averaging 2-4" diameter) with some organic debris and silt. Although ORV tracks through the bank vegetation are evident, the crossing is not marked and could be confusing to navigate for unfamiliar ORV users. We did not sample for fish. If the EAR crossing remains open, I recommend sculpting and hardening the stream entrance banks and clearly identifying the crossing. Because the stream crossing has stable natural rock, no hardening of the streambed would be necessary.

Site 3: Lake southeast of EAR crossing (not cataloged)

About 300' southeast of the EAR crossing, we located an un-cataloged lake that drains adjacent wetlands and may provide overflow relief to the EAR during flood events (see Photo 2). Three traps set in the lake captured coho and sockeye salmon and stickleback. Aerial photographs suggest that the lake's two stream outlets drain directly to the EAR. The adjacent ORV trail probably does not impact this lake system, except if trail erosion runoff drains to the lake during wet conditions. I will nominate this lake and outlet stream for inclusion in the Catalog.

Site 4: Lake outlet crossing southwest of EAR crossing (not cataloged)

Along the ORV trail about ¼ mile southwest from the EAR crossing, the trail crosses a 10' wide, un-cataloged lake and outlet drainage (see Photo 3). Aerial photographs indicate that the outlet drains directly to the EAR a few hundred feet downstream, although we did not verify this. Seven traps set in the lake and outlet captured coho and sockeye salmon and stickleback. Some bank undercutting near the narrow crossing entrances are evident, and small rock appears to have been placed in the streambed to strengthen the crossing. If this crossing remains open, it should be clearly marked and the banks sculpted for entry and hardened. Additional hardening of the streambed may also be beneficial. I will nominate this lake and outlet drainage for inclusion in the Catalog.

Site 5: Small pool in the ORV trail about 1 mile west of EAR (not cataloged)

About 1 mile west of EAR along the trail, we observed several dead coho and stickleback in a small isolated pool in the trail (see Photo 4). A 2-minute seine tow of about ½ the pool captured coho and sockeye salmon and stickleback. Most of the fish appeared unhealthy, having large heads and skinny bodies, which is probably due to competition within the small pool. We could not identify a nearby

anadromous water body where the fish might have originated, and speculate that the pool would probably not exist if the trail was not deeply incised. The connection might be more obvious during higher flows and could warrant further investigation before making trail maintenance recommendations at this location.



Photo 3. Lake southwest of the EAR.



Photo 4. Small pool in the ORV trail.

Site 6: Large shallow pond 150' north of the ORV trail, less than a mile west of EAR (not cataloged)

This shallow wetland pond is probably not impacted by the ORV trail because of its location, but we were interested if juvenile salmonids occupy the pond. Six traps set throughout the pond captured stickleback, and we did not observe any other species.

Site 7: Lower EAR wetland drainage (not cataloged)

This drainage has experienced significant bank erosion from ORV crossings, from wave action undercutting the banks and a deeply incised track, causing the drainage to backwater along the perpendicular trail (see Photo 5). Two seine tows captured hundreds coho and sockeye salmon and stickleback. Due to the erosion situation and because the western portion of this loop trail provides access to the area, this crossing should be closed. I will nominate this drainage for inclusion in the Catalog.



Photo 5. Lower EAR wetland drainage (trail).

Dog Salmon Creek

Site 8: Upper Dog Salmon Creek crossing (cataloged)

Stream No. 182-20-10500 (local name Dog Salmon Creek) is cataloged for spawning sockeye and chum salmon. Four traps set up and downstream of the crossing captured coho and sockeye salmon and stickleback. The banks and crossing appears to have been hardened previously using gravel from an unknown source. The stream is about 60' wide and 1-2' deep, has clearly identified crossing entrances with silt and organic debris accumulations adjacent to the crossing, and obvious adjacent bank undercutting (likely from the wave action associated with crossings). Due to frequent use, regular hardening maintenance of the crossing may be necessary. I will update the Catalog listing to include rearing coho.

Site 9: Lower Dog Salmon Creek, main channel crossing (cataloged)

This crossing does not appear to be frequently used. The overgrown vegetation and deeply incised trail probably make this trail inaccessible during wetter times of the year. The streambed substrate at the crossing site is gravel with sand and some organic debris, and the stream crossing banks have not been stabilized. Six traps set above and below the stream crossing captured coho and stickleback. Because a safer, more defined crossing is available upstream, this crossing should be closed.

Site 10: Lower Dog Salmon Creek, western fork crossing (cataloged)

This stream is cataloged as a distributary of Dog Salmon Creek. Streambed substrate consisted mostly of gravel and sand. A 60-second seine tow captured coho and sockeye salmon, stickleback, starry flounder and staghorn sculpin. ORV tire tracks are evident in the overgrown vegetation in the trail, and navigation across the stream is difficult because the banks are not stabilized. Because a safer, more defined crossing is available upstream, this crossing should also be closed.

Site 11: Lower Dog Salmon Creek wetland drainage (catalog information unknown)

Although we did not sample for fish, this drainage probably does not connect to Dog Salmon Creek (see Photo 6). Stickleback were observed several hundred feet up and downstream of the crossing. Primary streambed substrate is small rock. Because a safer, more defined crossing is available in the upper reach of Dog Salmon Creek, this crossing should also be closed.



Photo 6. Lower Dog Salmon Creek drainage.

Site 12: Lower Dog Salmon Creek, western-most distributary (catalog information unknown)

This 4' wide, 2-6" deep sandy stream has no defined channel. Two juvenile sockeye were hand-caught while swimming downstream. Because other salmonids were observed, we presume this small stream is a distributary of Dog Salmon Creek, although we did not verify this. Because of the fragile nature of this stream, and because a safer, more defined crossing is available in the upper reach of Dog Salmon Creek, this crossing should also be closed.



Photo 7. Dog Salmon Creek estuary.

Site 13: Lower Dog Salmon Creek, estuarine crossing (cataloged)

The estuarine crossing of Dog Salmon is heavily tidally influenced (see Photo 7), and only accessible during low tide and low flows. Evidence of any ORV crossing is washed away with each tidal cycle. Due to the limited access, ORV crossings probably only occur when few fish are present, thereby causing minimal impacts to salmonids. Stream substrate at the crossing consisted of sand with some natural gravel, and may cause temporary increased sedimentation during ORV crossings. Efforts to stabilize or clearly mark the crossing would probably be washed away in the next tide or flood. We did not sample for fish.

Alsek River

Site 14: East slough of Alsek River (cataloged)

Two seine tows captured starry flounders and staghorn sculpin, no salmonids were observed. This backwatered slough is cataloged as part of Alsek River (see Photo 8). Stream crossing access is only available during low tides and low flows, as this reach is heavily tidally influenced. The substrate of this crossing site and of the greater tidal flats area is loose sand and silt. Thus, other than increased sedimentation, ORV crossings at this slough probably have few long-term impacts to fish. Efforts to stabilize or clearly mark the crossing site would probably be washed away during the next tide or flood.



Photo 8. East slough of Alsek River.

Site 15: Isolated pools on abandoned trail adjacent to the Dry Bay tidal flats (not cataloged)

We located several small pools flooding an abandoned trail, the largest pool was about knee-deep and 20' x 20' (see Photo 9). The pools probably result from lack of trail maintenance; trail access is now obtained along the tidal flats. Although we did not sample for fish, we did not observe any salmonids and doubt any connection to anadromous waters occurs. However, during high water the pools may connect to one another and flood the trail.



Photo 9. Isolated pools on abandoned trail.

TABLE A: DRY BAY AREA TRAPPING DATA JULY 19-22, 2006
 PROJECT: DRY BAY NPS ORV TRAIL DESIGNATIONS
 FIELD BIOLOGISTS: KATE KANOUSE (OHMP), CHAD SOISETH (NPS)

Trip Report Site No.	Trap No.	CATALOG NO.	TRIB OF TRIB CATALOG NO.	LOCATION OF TRAP	(DATUM: WGS 84) LATITUDE	LONGITUDE	SPECIES*	COUNT	NOTES
1	1	NOT CATALOGED	UNKNOWN	200' WEST OF DOAME RIVER	59.0897	138.3680	TSB	1	DOWNSTREAM
1	2	NOT CATALOGED	UNKNOWN	30' UPSTREAM OF TRAP 1	59.0897	138.3680	TSB	7	
1	3	NOT CATALOGED	UNKNOWN	300' UPSTREAM OF TRAP 2	59.0903	138.3674	TSB	33	
1	4	NOT CATALOGED	UNKNOWN	50' UPSTREAM OF TRAP 3	59.0903	138.3674	TSB	29	
1	5	NOT CATALOGED	UNKNOWN	30' UPSTREAM OF TRAP 4	59.0901	138.3673	CO	2	DRAINAGE ENDS ABOUT 50' UPSTREAM
1	5	NOT CATALOGED	UNKNOWN	30' UPSTREAM OF TRAP 4	59.0901	138.3673	TSB	47	
3	7	NOT CATALOGED	182-20-10100	IN POND ALONG N SHORE	59.1037	138.3863	CO	4	
3	7	NOT CATALOGED	182-20-10100	IN POND ALONG N SHORE	59.1037	138.3863	TSB	1	
3	8	NOT CATALOGED	182-20-10100	IN POND ALONG S SHORE	59.1037	138.3863	CO	5	
3	9	NOT CATALOGED	182-20-10100	IN POND ALONG N SHORE	59.1037	138.3863	CO	7	
3	9	NOT CATALOGED	182-20-10100	IN POND ALONG N SHORE	59.1037	138.3863	S	1	
4	10	NOT CATALOGED	182-20-10100	IN POND ALONG W SHORE	59.1032	138.3989	TSB	51	
4	11	NOT CATALOGED	182-20-10100	IN POND ALONG W SHORE	59.1032	138.3989	S	1	
4	11	NOT CATALOGED	182-20-10100	IN POND ALONG W SHORE	59.1032	138.3989	TSB	51	
4	12	NOT CATALOGED	182-20-10100	IN POND ALONG E SHORE	59.1032	138.3989	CO	1	
4	12	NOT CATALOGED	182-20-10100	IN POND ALONG E SHORE	59.1032	138.3989	TSB	15	
4	13	NOT CATALOGED	182-20-10100	IN POND ALONG E SHORE	59.1032	138.3989	CO	1	
4	13	NOT CATALOGED	182-20-10100	IN POND ALONG E SHORE	59.1032	138.3989	TSB	8	
4	14	NOT CATALOGED	182-20-10100	IN LAKE OUTLET STREAM	59.1032	138.3989	CO	1	
4	14	NOT CATALOGED	182-20-10100	IN LAKE OUTLET STREAM	59.1032	138.3989	S	1	
4	14	NOT CATALOGED	182-20-10100	IN LAKE OUTLET STREAM	59.1032	138.3989	TSB	1	
4	15	NOT CATALOGED	182-20-10100	IN LAKE OUTLET STREAM	59.1032	138.3989	CO	2	
4	15	NOT CATALOGED	182-20-10100	IN LAKE OUTLET STREAM	59.1032	138.3989	S	1	
4	15	NOT CATALOGED	182-20-10100	IN LAKE OUTLET STREAM	59.1032	138.3989	TSB	54	
4	16	NOT CATALOGED	182-20-10100	IN LAKE OUTLET STREAM	59.1032	138.3989	TSB	154	
5	SEINED	NOT CATALOGED	UNKNOWN	SEINED ABOUT 1/2 THE POND	59.1082	138.4178	S	12	SEVERAL DEAD CO AND TSB WERE
5	SEINED	NOT CATALOGED	UNKNOWN	SEINED ABOUT 1/2 THE POND	59.1082	138.4178	CO	50	OBSERVED, MANY OF THE CAPTURED FISH
5	SEINED	NOT CATALOGED	UNKNOWN	SEINED ABOUT 1/2 THE POND	59.1082	138.4178	TSB	250	APPEARED UNHEALTHY
6	22	NOT CATALOGED	NONE	IN POND ALONG W SHORE	59.1079	138.4138	TSB	32	
6	23	NOT CATALOGED	NONE	IN POND ALONG W SHORE	59.1079	138.4138	TSB	99	
6	24	NOT CATALOGED	NONE	IN POND ALONG W SHORE	59.1079	138.4138	TSB	113	
6	25	NOT CATALOGED	NONE	IN POND ALONG W SHORE	59.1079	138.4138	-	-	NO FISH IN TRAP
6	26	NOT CATALOGED	NONE	IN POND ALONG W SHORE	59.1079	138.4138	TSB	3	
6	27	NOT CATALOGED	NONE	IN POND ALONG W SHORE	59.1079	138.4138	TSB	1	
7	SEINED	NOT CATALOGED	182-20-10100	SEINED THE TRAIL CROSSING	59.1043	138.4227	CO	13	
7	SEINED	NOT CATALOGED	182-20-10100	SEINED THE TRAIL CROSSING	59.1043	138.4227	S	5	
7	SEINED	NOT CATALOGED	182-20-10100	SEINED THE TRAIL CROSSING	59.1043	138.4227	TSB	200	
8	17	182-20-10500		20' DOWNSTREAM OF CROSSING	59.1409	138.4873	CO	2	
8	18	182-20-10500		30' DOWNSTREAM OF CROSSING	59.1409	138.4873	CO	3	

Trip Report Site No.	Trap No.	CATALOG NO.	TRIB OF TRIB CATALOG NO.	LOCATION OF TRAP	(DATUM: WGS 84) LATITUDE LONGITUDE	SPECIES*	COUNT	NOTES
8	18	182-20-10500		30' DOWNSTREAM OF CROSSING	59.1409 138.4873	S	1	
8	18	182-20-10500		30' DOWNSTREAM OF CROSSING	59.1409 138.4873	TSB	2	
8	19	182-20-10500		20' UPSTREAM OF CROSSING	59.1409 138.4873	CO	2	
8	19	182-20-10500		20' UPSTREAM OF CROSSING	59.1409 138.4873	S	1	
8	19	182-20-10500		20' UPSTREAM OF CROSSING	59.1409 138.4873	TSB	1	
8	20	182-20-10500		30' UPSTREAM OF CROSSING	59.1409 138.4873	-	-	NO FISH IN TRAP
9	28	182-20-10500		UPSTREAM OF CROSSING	59.1124 138.4761	CO	7	
9	29	182-20-10500		UPSTREAM OF CROSSING	59.1124 138.4761	CO	5	
9	30	182-20-10500		UPSTREAM OF CROSSING	59.1124 138.4761	CO	1	
9	30	182-20-10500		UPSTREAM OF CROSSING	59.1124 138.4761	TSB	1	
9	31	182-20-10500		DOWNSTREAM OF CROSSING	59.1124 138.4761	CO	10	
9	31	182-20-10500		DOWNSTREAM OF CROSSING	59.1124 138.4761	TSB	1	
9	32	182-20-10500		DOWNSTREAM OF CROSSING	59.1124 138.4761	CO	3	
9	32	182-20-10500		DOWNSTREAM OF CROSSING	59.1124 138.4761	TSB	1	
9	33	182-20-10500		DOWNSTREAM OF CROSSING	59.1124 138.4761	CO	48	
10	SEINED	182-20-10500		SEINED THE TRAIL CROSSING	59.1125 138.4850	CO	60	
10	SEINED	182-20-10500		SEINED THE TRAIL CROSSING	59.1125 138.4850	S	2	
10	SEINED	182-20-10500		SEINED THE TRAIL CROSSING	59.1125 138.4850	TSB	200	
10	SEINED	182-20-10500		SEINED THE TRAIL CROSSING	59.1125 138.4850	SF	6	
10	SEINED	182-20-10500		SEINED THE TRAIL CROSSING	59.1125 138.4850	SC	5	
12	-	182-20-10500		100' UPSTREAM OF CROSSING	59.1124 138.4859	S	2	HAND-CAPTURED
14	SEINED	181-30-10100		SEINED THE TRAIL CROSSING	59.1379 138.5483	SF	2	
14	SEINED	181-30-10100		SEINED THE TRAIL CROSSING	59.1379 138.5483	SC	3	

*Species codes: CO=coho salmon, S=sockeye salmon, TSB=threespine stickleback, SF=starry flounder, SC=staghorn sculpin