Appendix A: Angoon

Guide to direct fieldwork for cataloging anadromous water bodies in Southeast Alaska
Symbols and Abbreviations

K                Chinook salmon
CH               chum salmon
CO               coho salmon
CT               cutthroat trout (anadromous and resident juveniles and adults)
DV               Dolly Varden char
OU               eulachon
S                sockeye salmon
P                pink salmon
RT               rainbow trout (unknown juvenile or resident adult)
SC               sculpin sp.
SH               steelhead trout (adult)
SB               threespine stickleback
s                spawning
r                rearing
p                presence
EF               electrofish
VI               visual identification
HN               handnet
RS               route survey
MT               minnow trap
BS               beach seine
FN               fyke net

- (ginger pink) route correction
- (apatite blue) addition
- (solar yellow) future investigation
- (poinsettia red) resident fish
- (lepidolite lilac) conveyance
- (electron gold) deletion
- (lapis lazuli) AWC
- (lapis lazuli) overflow channel
- (electron gold) barrier

This appendix is a working document updated as new information is acquired. Figures and tables are numbered per water body. Pages numbers are eliminated to prevent document reprinting when individual pages are inserted or removed.
The city of Angoon is located on the southwest coast of Admiralty Island at Kootznahoo Inlet. With 459 residents,\(^1\) Angoon is the only permanent Admiralty Island settlement.\(^2\) The three mile Killisnoo road splits and ends either at Killisnoo Harbor or at Auk’Tah Lake (Figure 1).


Angoon
**112-17-10500**

**Water body name:** Thayer Creek  
**Survey date:** 8/6/2014  
**Species & Lifestage:** CHp, COr, Pp, Sp

**Water body number:** 112-17-10500  
**Species & Lifestage:** CHp, COr, Pp, Sp

**Watershed:** Fishery Creek-Frontal Chatham Strait  
**Survey date:** 8/6/2014

**MTR:** C049S067E  
**Quad:** Sitka C-2

**Findings:** We surveyed Thayer Creek using an electrofisher, handnet, and GPS (Table 1). There is a series of waterfalls approximately 1250’ upstream from the mouth of the creek that we determined are fish passage barriers (Figures 1, 2). Below the falls we visually identified adult pink salmon, chum salmon, and sockeye salmon and captured rearing coho salmon (Figures 3, 4). The substrate below the falls was gravel and cobble. Upstream of the waterfall, the creek flows through a bedrock gorge, then opens up to a low gradient stream with gravel and cobble substrate. We surveyed a tributary in this area and caught resident cutthroat trout and Dolly Varden char.

**Recommendations:** Correct the anadromous section of Thayer Creek in the AWC and add rearing coho salmon and sockeye salmon presence (Figure 5).

**Nomination:** 14-619

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Table 1.–112-17-10500 survey data.

<table>
<thead>
<tr>
<th>Waypoint</th>
<th>Latitude</th>
<th>Longitude</th>
<th>Notes</th>
<th>Sample Effort</th>
<th>Sample Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>837</td>
<td>57.5935</td>
<td>-134.6217</td>
<td>Tributary on river right. This tributary provides the most water to Thayer Creek.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>845</td>
<td>57.5939</td>
<td>-134.6178</td>
<td>Stopping here, habitat continues.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>846</td>
<td>57.5931</td>
<td>-134.6165</td>
<td>Mouth of tributary.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>849</td>
<td>57.5929</td>
<td>-134.6227</td>
<td>Small tributary into gorge.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>850</td>
<td>57.5776</td>
<td>-134.6275</td>
<td>Mouth of Thayer Creek.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>851</td>
<td>57.5785</td>
<td>-134.6276</td>
<td>EF, VI 2 CT, 1 CH</td>
<td></td>
<td></td>
</tr>
<tr>
<td>852</td>
<td>57.5785</td>
<td>-134.6273</td>
<td>EF 3 CT, 1 flat fish</td>
<td></td>
<td></td>
</tr>
<tr>
<td>853</td>
<td>57.5795</td>
<td>-134.6263</td>
<td>EF 1 CO</td>
<td></td>
<td></td>
</tr>
<tr>
<td>854</td>
<td>57.5799</td>
<td>-134.6251</td>
<td>EF 3 CT</td>
<td></td>
<td></td>
</tr>
<tr>
<td>855</td>
<td>57.5798</td>
<td>-134.6244</td>
<td>EF 1 CO, 2 CT</td>
<td></td>
<td></td>
</tr>
<tr>
<td>856</td>
<td>57.5803</td>
<td>-134.6236</td>
<td>16 yds away from base of a series of three waterfalls. The first fall is approximately 12 ft. with at least 20 ft. deep plunge pool. Visual of salmon trying to jump the falls with no success. The second fall is the approximately 14 ft. bedrock substrate, no plunge pool, and higher velocity. We did not have a visual of the third falls but there is confirmation it exists.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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Angoon
Figure 1.—First 12’ waterfall with 20’ deep plunge pool.

Figure 2.—Second 14’ waterfall with no plunge pool.

Figure 3.—Coho salmon caught below waterfall in Thayer Creek.

Figure 4.—Rick Hoffman walking upstream from the mouth of Thayer Creek.
Figure 5.—112-17-10500 route correction map.

Angoon
**112-67-10350**

**Water body name:** Hasselborg Creek  
**Watershed:** Kootznahoo Inlet-Frontal Chatham Strait  
**Species & Lifestage:** CHs, COrs, Ps, CTpr, DVp, SHp, Ss  
**MTR:** C049S069E  
**Quad:** Sitka C-1

**Survey date:** 8/27/2015

**Findings:** I caught 20 juvenile coho salmon in a minnow trap at waypoint 811 and visually observed >100 spawning sockeye beginning at waypoint 812 while moving downstream (Table 1, Figures 1,2).

**Recommendations:** Correct the species list to include rearing coho salmon and spawning sockeye salmon at specified waypoints 811 and 812.

**Nomination:** 16-553

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<table>
<thead>
<tr>
<th>Waypoint</th>
<th>Latitude</th>
<th>Longitude</th>
<th>Notes</th>
<th>Sample Effort</th>
<th>Sample Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>800</td>
<td>57.5708</td>
<td>-134.3655</td>
<td>Airplane pickup location marked from air.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>801</td>
<td>57.5955</td>
<td>-134.3267</td>
<td>Start of low gradient alder dominated floodplain marked from the air.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>802</td>
<td>57.6065</td>
<td>-134.3110</td>
<td>Log jam, marked from the air.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>803</td>
<td>57.6168</td>
<td>-134.2992</td>
<td>Falls, marked from the air. Confirmed on the ground is ~40 ft barrier.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>804</td>
<td>57.6447</td>
<td>-134.2683</td>
<td>Confluence of sorts, marked from the air.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>805</td>
<td>57.6503</td>
<td>-134.2631</td>
<td>Falls here and 200 ft upstream, marked from the air.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>806</td>
<td>57.6649</td>
<td>-134.2526</td>
<td>Landing and Hasselborg Lake cabin.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>807</td>
<td>57.6605</td>
<td>-134.2522</td>
<td>3 ft falls.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>808</td>
<td>57.6474</td>
<td>-134.2638</td>
<td>6 ft falls on RR, mellower on RL.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>809</td>
<td>57.6276</td>
<td>-134.2835</td>
<td>Stopped for lunch, caught no fish on hook and line.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>810</td>
<td>57.6222</td>
<td>-134.2907</td>
<td>Left boat here during portage.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>811</td>
<td>57.6064</td>
<td>-134.3064</td>
<td>Camp site, 20 CO and 10 CT.</td>
<td>MT 20 COr, 10 CTr</td>
<td></td>
</tr>
<tr>
<td>812</td>
<td>57.5924</td>
<td>-134.3317</td>
<td>15 ft falls near Jim's Creek confluence. Started seeing adult sockeye here.</td>
<td>VI &gt;100 Ss</td>
<td></td>
</tr>
</tbody>
</table>

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Angoon
Figure 1.—10 cutthroat trout (left) and 20 juvenile coho salmon (right) captured in a minnow trap.
Figure 2. Hasselborg Creek correction map.
**112-67-10600**

**Water body name:** Kanalku Creek  
**Survey date:** 7/1/2012  
**Water body number:** 112-67-10600  
**Species & Lifestage:** CHp, COr, Pp, Sp, DVp  
**Watershed:** Kootznahoo Inlet-Frontal Chatham Strait  
**MTR:** C050S069E  
**Quad:** Sitka B-2

**Findings:** Commercial Fisheries Division staff have record of capturing about 20 juvenile coho salmon above the falls at waypoint 2 and annually seine adult sockeye salmon at the head of the lake at waypoint 3 (Table 1, Figures 1, 2).

**Recommendations:** Please correct the species list to include rearing coho at waypoint 2, spawning sockeye salmon in lake, and shorten chum salmon and pink salmon reach to below falls.

**Nomination:** 13-631

<table>
<thead>
<tr>
<th>Waypoint</th>
<th>Latitude</th>
<th>Longitude</th>
<th>Notes</th>
<th>Sample Effort</th>
<th>Sample Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>57.4900</td>
<td>-134.3890</td>
<td>Waterfall.</td>
<td>MT</td>
<td>20 CO</td>
</tr>
<tr>
<td>2</td>
<td>57.4903</td>
<td>-134.3804</td>
<td>Rearing coho caught in minnow traps.</td>
<td>VL</td>
<td>25 S</td>
</tr>
<tr>
<td>3</td>
<td>57.4800</td>
<td>-134.3420</td>
<td>Spawning sockeye adults recorded annually in ADFG Commercial Fisheries Mark-Recapture study.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Figure 1.**–Kanalku Creek falls.

Angoon
Figure 2.–Kanalku Creek correction map.
**112-67-10600**

**Water body name:** Kanalku Creek  
**Water body number:** 112-67-10600  
**Watershed:** Kootznahoo Inlet-Frontal Chatham  
**MTR:** C050S069E  
**Quad:** Sitka B-2  
**Survey date:** 10/27/2014  
**Species & Lifestage:** CHp, COr, Pp, Sp, DVp  

**Findings:** I observed 15 adult coho salmon in the lower reach of Kanalku Creek (Table 1, Figures 1, 2). I did not observe these fish spawning.

**Recommendations:** Please correct the species list to include coho salmon presence in the AWC, and survey for spawning activity if in area during the fall.

**Nomination:** 15-535

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**Table 1—112-67-10600 survey data**

<table>
<thead>
<tr>
<th>Waypoint</th>
<th>Latitude</th>
<th>Longitude</th>
<th>Notes</th>
<th>Sample Effort</th>
<th>Sample Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>57.4930</td>
<td>-134.3960</td>
<td>Observed 15 &quot;weathered&quot; adult CO between the mouth and treeline.</td>
<td>VI</td>
<td>15 CO</td>
</tr>
</tbody>
</table>

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Figure 1.—Adult coho salmon in the intertidal area of Kanalku Creek.
Figure 2.–Kanalku Creek correction map.