The Status of Coastal Cutthroat in British Columbia

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Jim Roberts photo
1995

... and 2005?
Outline

- General distribution
- Regional Trends
- Population trends – Salmon River
- Limiting Factors
- Management Initiatives
General Distribution

- Most low-lying areas, islands
- Poorly described outside Georgia Basin
Designatable Units

- Formal units under SARA
- Coinciding with provincial ecoregions
- Supported by genetic, LH differences between regions
Outer Coast 
DU

- Remote area
- Main Issues
  - Habitat loss (logging, mineral extraction) and associated road networks
  - Overharvesting/ bycatch near urban areas
- Likely contains a mix of stable and declining pops but little status info
Georgia Basin DU

- Heavily populated area, urbanized
- Threats primarily habitat-related
  - Development pressures
  - Increased water withdrawals
  - Damaging agricultural practices
  - Human population growth
Stream status in the lower Fraser Valley

- Lost: 15%
- Endangered: 48%
- Wild: 14%
- Threatened: 23%
East Coast Vancouver Island

• Similar habitat trends apparent:
  – 155/165 (94%) with insufficient summer flows (domestic/ agricultural withdrawals)
  – 41% with reduced pool area
  – 93% with reduced LWD
  – 50% with reduced instream cover
  – 88% with excessive fines

  (Reid et al. 2000)
Salmon River Trend data

- Enters Fraser River near Fort Langley
- Good CCT producer
- DFO index stream since 1998
- Not stocked
65% decline in smolts from 1998 - 2003

Earlier declines (overharvesting, flood control)

No data period (Agricultural impacts, rapid urban development)
Georgia Basin CCT

- Significant habitat losses
- Documented population declines
- Reduced point counts and fisheries catches suggest….

30% increase in the number of extirpated and endangered stocks since 1995
Limiting Factors in BC

• Habitat Loss
  – Population growth (+35% by 2020)
  – Unconstrained land, water use
  – Coordinated “small stream” protection lacking
  – Legislation “reactive” as opposed to “proactive”
Limiting Factors in BC (cont.)

- Little data for typical CCT systems
  - Few index streams, most stocked

- Expansion of hatchery programs
  - CCT, STH, COHO
  - Competition, residualism
  - Hybridization
Management class for gazetted streams containing CCT (FISS data, 2003) and inferred levels of hybridization

<table>
<thead>
<tr>
<th>Region</th>
<th>Hatchery Production</th>
<th>Augmented</th>
<th>Wild</th>
<th>Not specified</th>
<th>Hybrid Levels</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vancouver Island</td>
<td>21%</td>
<td>3%</td>
<td>27%</td>
<td>49%</td>
<td>9-29%</td>
</tr>
<tr>
<td>Lower BC Mainland</td>
<td>16%</td>
<td>3%</td>
<td>37%</td>
<td>43%</td>
<td>9%</td>
</tr>
<tr>
<td>Cariboo-Central Coast</td>
<td>2%</td>
<td>&lt;1%</td>
<td>17%</td>
<td>74%</td>
<td>7%</td>
</tr>
<tr>
<td>North Coast</td>
<td>14%</td>
<td>2%</td>
<td>26%</td>
<td>58%</td>
<td>4%</td>
</tr>
</tbody>
</table>
Management Initiatives

- Sportfishing regulations
  - Stream closures
  - Single, barbless hook
  - Bait ban (province-wide in 2006-7?)
  - Limits of 2-5/day; 30 cm minimum
Management Initiatives (cont.)

- Numerous “small-stream” initiatives, stewardship groups
- Community mapping projects (e.g. – South Coast Cutthroat Atlas)
- Recent management reviews: Lower Fraser, Bella Coola CCT
Future directions

• Addressing the information gap:
  – Status of individual populations
  – LH, genetic profiling
  – Hybridization levels

• Address habitat protection:
  – Coordination, enabling, application of land-water regulations
  – Land acquisition, protection
Status summary

• Outer Coast – many pops likely stable but little available data; declines expected on west coast of Vancouver Island

• Georgia Basin – habitat loss and declines in catches suggest that many pops at high risk for extirpation (increase of ~30% in extirpated and threatened stocks since 1995)
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