Special Regulations for Wild Trout

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Objectives

• Biological
  – Increase population size
  – Improve size structure
  – Maintain a strong population

• Social
  – Meet angler and landowner interests
What do special regulations do?

- Regulate anglers and fishing mortality
- Not a panacea
- Important management tool when used properly
When do special regulations have the most benefit?

• Instream habitat and water temperatures good for trout

• Fishing mortality is a major limiting factor
  – Harvest
  – Hooking / handling

• Recovering populations
“Even anglers most knowledgeable in the ways of trout seldom comprehend the severe and unrelenting leveling role played by natural mortality in regulating a population.”
Challenge

• Is angling mortality on a stream of interest a major limiting factor to the trout population?

• Why?
  – Requires angler use and harvest surveys
  – Time consuming and expensive
## Special Regulation

<table>
<thead>
<tr>
<th>Pros</th>
<th>vs</th>
<th>Cons</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Angling mortality high - likely to have a biological benefit</td>
<td>• Angling mortality low - likely to not have a biological benefit</td>
<td></td>
</tr>
<tr>
<td>• Help to increase population size and size structure</td>
<td>• Can result in overpopulation and reduced size structure</td>
<td></td>
</tr>
<tr>
<td>• Can benefit recovering populations</td>
<td>• Often increase angler use</td>
<td></td>
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<tr>
<td>• Often increase angler use</td>
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</tbody>
</table>
6 Special Regulation Programs

• **Catch and Release**
  - C&R Fly Fishing Only
  - C&R Artificial Lures Only
  - C&R All-Tackle

• **Trophy Trout (14” min size and 2 trout/day)**
  - TT Artificial Lures Only
  - TT All-Tackle

• **Miscellaneous Special Regulations**
  - e.g., Harvest Slot Limit on Penns Creek
## Special Regulation Waters

<table>
<thead>
<tr>
<th>Special Regulation</th>
<th>Stream Sections</th>
<th>Stream Miles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Catch &amp; Release Artificial Lures Only</td>
<td>17</td>
<td>41</td>
</tr>
<tr>
<td>Catch &amp; Release Fly-Fishing Only</td>
<td>33</td>
<td>63</td>
</tr>
<tr>
<td>Catch &amp; Release All-Tackle</td>
<td>26</td>
<td>119</td>
</tr>
<tr>
<td>Trophy Trout All-Tackle</td>
<td>1</td>
<td>9</td>
</tr>
<tr>
<td>Trophy Trout Artificial Lures Only</td>
<td>10</td>
<td>26</td>
</tr>
<tr>
<td>Miscellaneous Special Regulations</td>
<td>5</td>
<td>89</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>92</strong></td>
<td><strong>347</strong></td>
</tr>
</tbody>
</table>
Special Regulation Waters

- Catch & Release Artificial Lures Only
- Catch & Release Fly-Fishing Only
- Catch & Release All Tackle
- Trophy Trout Artificial Lures Only
- All Tackle Trophy Trout
- Miscellaneous Regulations

Legend:
- Blue: Catch & Release Artificial Lures Only
- Orange: Catch & Release Fly-Fishing Only
- Green: Catch & Release All Tackle
- Purple: All Tackle Trophy Trout
- Black: Trophy Trout Artificial Lures Only
- Red: Miscellaneous Regulations
Catch and Release Regulations

- Opportunity to fish for wild trout so that harvest is not a major factor in determining population structure or abundance
Trophy Trout Regulations

- Opportunity to fish for wild trout in streams that support fish >14”

- Maintain high densities of wild trout in streams where 5% or more of the adult trout population is composed of trout >14”

- Opportunity to harvest a large trout
Miscellaneous Special Regulations

• Used on a case by case basis for waters that are not a good fit for existing special regulation programs but warrant a special regulation or to test a new regulation

• Used infrequently and each of the regulations is unique
Special Regulation Objectives

• Minimize fishing mortality

• Maintain high trout population densities to provide for high angler catch rates

• Provide protection to the wild trout population (or a portion of the population) from harvest
Tackle Types

• Can provide an additional tool for reducing angling mortality

• Trout species present and amount of angler use important factors when considering tackle types
Tackle Types

1. Fly Fishing Only
   - Low mortality (<10%)
   - Limits opportunities to fly anglers

2. Artificial Lures Only
   - Low mortality (<10%)
   - Provides opportunity to both fly anglers and spin anglers

3. All-Tackle (includes bait)
   - Variable mortality (can be similar to or higher than artificial lures and flies)
   - Trout species and angler use important
   - Maximizes participation of anglers, including youth and families
Moving Forward

• How do we handle special regulations in the future?
  – Special Regulation Guidelines

• **Angler sentiment**
  – not all harvest is bad

• Introduce youth or a friend to wild trout fishing
Special Regulation Guidelines

- Developed as part of 2016-2017 Trout Management Plan
- Provide consistent review and application of special regulations moving forward
Special Regulation Considerations

1. Necessary and supported biologically
2. Harvest and/or tackle types are limiting factors
3. Angler opinions and potential impact on angler participation
4. Does regulation exclude segments of the angling public, especially families and children
5. Landowner support
6. Geographic distribution and availability of other special regulation waters
Special Regulation Criteria

1. > 85% open to public angling with majority landowner support

2. Water temperatures do not regularly exceed 68º F during summer

3. Wild trout population has the potential to significantly improve, or remain at its existing high

4. Angler support for the new regulation

5. Waters added to the Catch-and-Release or Trophy Trout programs will be managed for wild trout with no stocking

6. Stream sections will be a minimum of 2 miles
Looking Back and Moving Forward

- Looking back through time C&R certainly filled a biologically necessary management need

- Today’s wild trout anglers strongly embrace the catch and release concept
Changes in Angler Sentiment-Top 3 reasons for fishing

1980\textsuperscript{a}
1. Catch food to eat
2. Fishing for sport
3. Being with family and friends

VS

1999\textsuperscript{b}
1. Relaxation
2. Being with family and friends
3. Being close to nature

\textsuperscript{a}Kellert, 1980

\textsuperscript{b}Responsive Management, 1999
## Angler Use and Harvest Surveys

<table>
<thead>
<tr>
<th>Stream</th>
<th>Survey year</th>
<th>% Brown Trout caught &amp; released</th>
<th>Exploitation rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Penns Ck</td>
<td>1994</td>
<td>61%</td>
<td>-</td>
</tr>
<tr>
<td>Fishing Ck*</td>
<td>1996</td>
<td>99%</td>
<td>-</td>
</tr>
<tr>
<td>Honey Ck</td>
<td>2001</td>
<td>88%</td>
<td>3%</td>
</tr>
<tr>
<td>Statewide WT</td>
<td>2004</td>
<td>93% (all wild trout)</td>
<td>4%</td>
</tr>
<tr>
<td>(200 sections)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Penns Ck*</td>
<td>2013</td>
<td>99%</td>
<td>12%</td>
</tr>
<tr>
<td>Statewide ST</td>
<td>2005</td>
<td>63% (all trout)</td>
<td>-</td>
</tr>
<tr>
<td>(30 sections)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Trophy Trout Regulations
One of the greatest aspects of fishing is the freedom to make your own choices. These choices often directly affect your personal level of fishing success and satisfaction. Whether choosing a place to fish or fly pattern, your options matter. If you choose wisely, you might just land a fish, and that invariably leads to another choice—possibly the most important and potentially difficult one for the modern day angler.

Should the trout be released, or are there other conservation alternatives to consider? For decades, many anglers have defaulted to catch and release as the best, if not only, option of preserving the quality of our fisheries. But in some cases, releasing a wild trout is not the best way to conserve our valuable coldwater resources, and that may actually run counter to the conservation needs on specific waters.

Although catch and release is not specifically defined, it is the practice of letting fish go after they’ve landed... in a manner that minimizes mortality, to conserve a valuable and finite resource. The century-old concept has origins in Europe, where it was used to prevent overharvest of fish. In the U.S., the discussion of catch and release started as early as the 1930s, when esteemed fly angler and conservationist Lee Wulff was credited with saying, “Game fish are too valuable to be caught only once.” Michigan was the first state to implement catch and release rules back in the 1950s, although proponents of the concept had been discussing the strategy for a couple decades prior.

During the first half of the 20th century, fishing was viewed primarily as a means of obtaining protein (fish were food, foremost). With limited free time, many anglers focused on local waters, but as the U.S. developed economically and citizens had more mobility, angling effort increased across the country. Increased effort combined with a “harvest” mindset put new stresses on resources that were once lightly fished. Anglers and biologists recognized that fish populations could decline if harvest numbers continued to increase.
Benefits of Selective Harvest

- **Species Specific Harvest**
  - Can reduce interspecific competition and benefit native species

- **Harvest of intermediate-size fish:**
  - Can increase growth rates / improve size structure if anglers harvest enough fish
    - Largest trout often come from areas where there are reduced densities of trout

- Provides an opportunity to harvest a few trout if anglers choose to do so
Introduce Youth or a Friend to Wild Trout Fishing

- Special regulation streams include many of the best wild trout fisheries in Pennsylvania

- Anglers are often the best advocates for wild trout conservation
Summary

• The future of wild trout conservation requires cooperative efforts between anglers and fishery managers

• Special regulations are an important management tool when used properly

• Special regulations do not always equate to improved wild trout populations
  – Must identify and address the limiting factors!

• On the majority of streams and rivers, today’s most pressing conservation needs include restoring degraded habitat, dealing with a changing environment, and managing introduced and invasive species
Questions?