An Evaluation of the Early Trout Season in Wisconsin

A report of the consensus of the Task Force on issues and a plan for the early trout season

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EXECUTIVE SUMMARY

Traditionally, Wisconsin's trout season opened statewide on the first Saturday in May, and gave anglers five months of trout fishing. An early trout season was initiated in 1975 to provide additional angling opportunities and relieve opening day crowding, but it has not been without controversy. In 1999, the Natural Resources Board (NRB) directed the Department of Natural Resources Fisheries Management Program (DNR) to work with the Wisconsin Conservation Congress (WCC) and all other interested parties to develop a compromise for the early trout season. An Early Trout Season Task Force Committee (task force) consisting of representatives of the DNR, WCC, interested groups, and several at-large members was charged with addressing the issues related to, and making recommendations for an early trout season. The task force proposed five alternative plans for an early season, and public opinion on the alternatives was gathered through a series of open houses held throughout Wisconsin. This is a draft report that represents the actions and decisions of the early season task force and does not represent the final recommendations of the Wisconsin Department of Natural Resources (DNR).

A consensus of the task force was reached after considering many of the social and biological issues including:

- The impacts of angler wading on trout redds and trout populations
- Hooking mortality and trout harvest
- Differences in fishability of streams in the north vs. south
- Protection of sensitive waters
- Enforceability of the regulations
- Loss of youth involvement in fishing
- Landowner/angler conflicts
- Maximizing angler opportunity

By consensus, the task force recommended the two zones plan as an alternative that all could live with. The task force came to a consensus on the early season through a process that included rating each alternative by key social and biological issues, and a process of selection – rejection to determine favored alternatives. Although two of the alternatives were rated as satisfying most of the key issues, the 2 zones plan was the only alternative not objected to by any member of the task force. The main points of the two zones plan included: two zones (zone 1 streams in the northeast portion of the state would be open if selected for inclusion, and zone 2 in the remainder of the state would be open except for the exclusion of sensitive waters); statewide March 1 opening date; five day closure between the early and regular fishing seasons. Under the two zone plan, DNR fisheries biologists would select or exclude streams based on the following criteria:

- Biological sensitivity of streams
- Enforceable by wardens
- Reasonably fishable

Recommendations for an early season included:

- A catch and release season using only artificial lures
- A ban on the use and possession of barbed hooks
- No sunset clause

- No separate stamp or license required by anglers
- Provide education to reduce landowner-angler conflicts
- Specific biological criteria for exemption of sensitive waters.

Local DNR fisheries biologists provided a list of streams for inclusion in the early season following the guidelines of the two zones plan. These stream selections were reviewed for consistency with the established criteria by the statewide DNR Trout Team, and subsequently approved internally by the Bureau of Fisheries Management and Habitat Protection. The task force recommended a five-year evaluation and monitoring of the early trout season, with annual reports to be made to the Trout Study Committee of the Conservation Congress.

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INTRODUCTION

Trout angling is a popular sport in Wisconsin, with over 2,000 trout streams totaling 9,561 miles for recreational opportunities. In 1997 the state sold 123,840 inland trout stamps, and ranked 21st in the nation in sales attributed to trout angling (Epifanio and Lindloff 1999). Traditionally, Wisconsin's trout season opened statewide on the first Saturday in May, and gave angler five months of trout fishing. An early trout season was initiated in 1975 to provide additional angling opportunities and relieve opening day crowding, but it has not been without controversy. In 1999, the Natural Resources Board (NRB) directed the Department of Natural Resources Fisheries Management Program (DNR) to work with the Wisconsin Conservation Congress (WCC) and all other interested parties to develop a compromise for the early trout season. An effort was made to balance representation from regions of the state and attitude about the early season. An Early Trout Season Task Force Committee consisting of representatives of the DNR, WCC, interested groups, and several at-large members was charged with addressing the issues related to, and making recommendations for an early trout season. The NRB policy statement concerning the compromise was that "the goal of this rule continues to be additional angling opportunities while protecting the resource". The objectives of the Early Trout Season Task Force Committee (task force) were:

- Gather information on issues of concern surrounding the early trout season
- Propose several alternative plans for an early season
- Encourage public input on the issues and alternatives
- Work to resolve significant issues and come to a consensus on an early trout season
- Provide a report with recommendations for an early season compromise to the NRB

METHODS

Identifying the main Issues of the Current Early Trout Season

To identify the main issues, the task force first identified benefits and drawbacks of the current early season:

Benefits

- Expands recreational opportunity
- Reduces opening weekend pressure
- Increased quality of angling experience (solitude)
- Fish are easier to catch during the early season
- Eliminates excessive pressure on one geographical area of the state
- Opportunity to observe aquatic insect hatches not seen during the regular season
- No adverse biological impacts identified
- Less stressful on trout than other early season options that allow harvest and bait angling
- Greater opportunity to teach angling techniques
- Generates public interest in the welfare of trout streams
- Promotes catch and release concept
- Presence of anglers potentially reduces violations and increases resource protection

- Generates economic benefits through additional angling days by trout anglers
- Generates revenue for the Department through additional trout stamp sales

Drawbacks

- Creates animosity between trout anglers and landowners
- Aggravates differences among user groups; bait anglers and lurefishers
- Youth are not using the streams because they want to use bait and harvest fish
- Few anglers in the north use the early season
- Most angler pressure is in southwestern counties
- Possible destruction of trout redds from wading
- Fish mortality from catch and release
- Makes fish more difficult to catch during the regular season
- Anglers not allowed to harvest fish
- Additional pressure on the resource may be hard on the fish
- Interpretation of the term "barbless" is difficult
- Lack of credibility about the impacts of using barbed hooks
- Could promote poaching and increase warden workload
- Poor fishing conditions in northern counties because of weather
- The public is generally against it in some regions
- Animal rights activists are opposed to catch and release

Using the list of benefits and drawbacks, the task force identified, and sought information on, the main biological and social issues related to the early season:

- The impacts of angler wading on trout redds and trout populations
- Hooking mortality from natural baits vs. artificial lures
- Hooking mortality from various artificial lures
- Differences in fishability of streams in the north vs. the south
- Protection of sensitive waters
- Landowner and early season angler conflicts
- Enforceability of the regulations
- Loss of youth involvement in trout fishing
- Economic impacts of an early trout season
- Maximizing angler opportunity

Proposal of Alternatives

Groups or individuals within the task force proposed five early season alternatives. The main points of each are listed along with a justification and a map if necessary to define an alternative's zones.

Regular Season Opening April 1

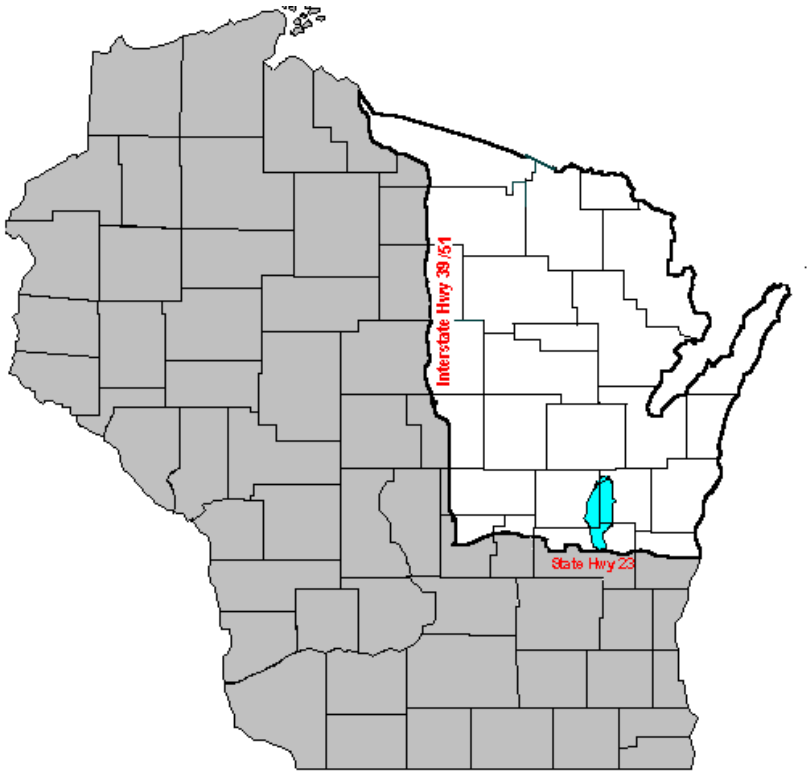
- The regular trout fishing season would open approximately one month early, on April 1
- Most streams would be open to harvest and bait fishing under the regular trout fishing season regulations

Justification: This proposal would give anglers the opportunity to fish a full month earlier than the present regular season. There would be no separate early trout season. It would allow all anglers, including those who prefer using natural bait, to harvest under the current regulations of the regular fishing season.

Two Zones – Selected Streams in Zone 1 and Current Early Season in Zone 2

- Two zones with the same opening date of March 1 (Figure 1):
  - Zone 1 streams would be open if selected for inclusion in the early season
  - Zone 2 streams would be open except for the exclusion of sensitive waters
- The season would close statewide for five days prior to the regular fishing season
- Catch and release fishing
- Use of artificial lures with barbless hooks
- Department of Natural Resources fishery biologists would select or exclude streams based on the following criteria:
  - Biological sensitivity of streams
  - Enforceable by wardens
  - Reasonably fishable

Figure 1. Map of two zones alternative



Zone 1: North of State Hwy 23 and east of Interstate 39/51. Streams closed unless specifically selected to be open for early season

Zone 2: Remainder of the state. All streams open for early season unless specifically closed

Justification: This proposal has a statewide opening and closing date. The two zones allows for some streams to be open in the northeastern and eastern portions of the state, and most streams to be open in the southern, western and northwestern portions of the state. These zones generally reflect the County vote at last spring's hearings on the early season, as well as the opinions of DNR fishery biologists. The earlier closing date gives trout a resting period between the early and regular fishing seasons. The use of barbless-hooked lures and the closure of ponds, flowages and lakes are the same as the current early season. This proposal would allow local DNR fishery biologists to select streams in zone 1 based on ease of enforceability by conservation wardens, whether streams are reasonably fishable using spincasting and flyfishing equipment, and the biological sensitivity of streams. In zone 2 streams would be excluded only if biologically sensitive.

Selected Streams Opening February 15

- DNR fishery biologists would select streams or stream sections to be open based on the following criteria:
  - Practicable use of flyfishing and spinfishing equipment
  - Reasonable ease of monitoring by law enforcement
  - Biological considerations
- The season would close for five days prior to the regular season
- Catch and release fishing
- Use of artificial lures with barbless hooks

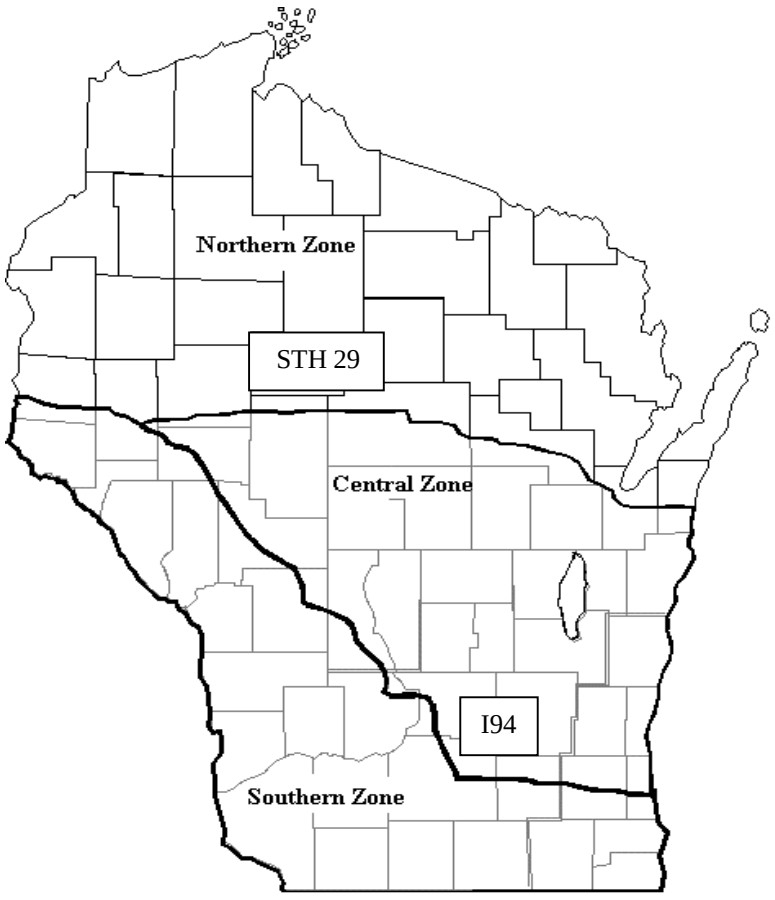
Justification: This proposal has a statewide opening date and no boundary lines or zones that may cause confusion and consternation among anglers and law enforcement. The season closing date would be earlier than the current early season closing date, to allow trout stocked into streams to acclimate themselves to new surroundings without being disturbed. The earlier opening date would compensate for the loss of five days of fishing due to the earlier closing giving anglers additional fishing opportunities. The use of barbless hooks and the closure of ponds, flowages and lakes are the same as the current early season. This proposal would allow DNR fishery biologists to select streams or portions thereof, based on biological considerations; streams would not be selected where there are concerns about the impacts of wading anglers on spawning trout redds, and to protect large concentrations of wintering trout. It would also allow fishery biologists and law enforcement personnel to direct angling usage to waters where enforcement can monitor the season reasonably well. Only those streams or stream sections where flyfishing or spincasting with lures is practicable would be open. Small brush choked streams or stream sections that cannot be fished with lures and flies would be closed during the early trout season.

Three Zones with Different Opening Dates

- Three zones with different opening dates based on biological and climatological variances found across the state (Figure 2):
  - Northern zone opens April 1
  - Central zone opens March 15
  - Southern zone opens February 15
- In all zones the season would close for five days prior to the opening of the regular fishing season
- Use of artificial lures with barbless hooks

- DNR fishery biologists would list sensitive waters in their region, based on biological criteria, to be excluded or where limited harvest could be allowed without harm to the resource.

Figure 2. Map of three zones alternative



Justification: The zones are based on geological, biological, and climatic variances found across the state. The earlier closing date gives trout a resting period between the early and regular fishing seasons. The use of barbless hooks and the closure of ponds, flowages and lakes are the same as the current early season. Fishery biologists would define and list sensitive waters to be excluded from the early season, and could give the opportunity for limited harvest of trout on streams or sections thereof to be designated by state fishery biologists.

Current Early Season

- Maintains the current rules of the early trout season.
- Season opens March 1
- Season closes 5 p.m. on the Friday preceding the first Saturday in May
- Catch and release fishing
- Use of artificial lures with barbless hooks required

Polling the Public

To seek public input on the early season, a news release inviting people to open houses was published in papers and sent to 1,400 conservation organizations in Wisconsin. Open houses were held at eight locations around the state to encourage people to express their preferences on the alternatives, and what they liked or disliked about each. People were asked to fill out a survey on their preferences including the use and possession of barbless hooks, and suggestions for an early season (Appendix A, I). To determine if people from different regions preferred a specific alternative, the selection of alternatives was summarized by region. The selection of alternatives was also summarized by social type to determine if non-anglers, farmers, landowners, and non-landowners preferred specific alternatives. Comments about an early trout season and alternative likes and dislikes were summarized and ranked for the number of people making a particular response.

Task Force Consensus on Alternatives

The task force rated each alternative relative to the others using a +/- rating system. Alternatives were rated by whether they satisfied the main biological and social issues. Through a process of selection-rejection, the task force members chose an alternative they favored and one they rejected. Rejections were justified by a comment from each member. To reach a consensus, votes were cast between the two most favored alternatives, and the task force agreed on recommendations for an early season. Dissenting voters were notified of the right to file a letter stating their position.

DESCRIPTIVE RESULTS

Main Issues

A broad search of the literature pertaining to each issue is summarized. For each issue, task force ratings and recommendations are given, and public opinion from the survey is included.

Angler Wading Effects on Trout Eggs and Fry

The task force rated the alternatives to determine which ones reduced angler wading on redds. The consensus was that the two zones and selected streams alternatives would most effectively reduce the impact of wading. Information from the public opinion survey indicated that there is some concern that an early season may negatively impact trout from angler wading. Public comment on "damage to the redds" was ranked second on the list of dislikes under the current early season, but for all other alternatives the issue was low ranking.

The timing of spawning and fry emergence of trout is relevant to the issue of angler wading effects on trout populations. Brook and brown trout in Wisconsin spawn in the fall, usually peaking in November. Brown trout spawn from mid-October to mid-December; although hatchery reared fish have been observed spawning as early as September and can continue through mid-January (Avery and Niermeyer 1999). Brook trout spawn from mid-October (Hunt 1961, 1962, 1963, 1964) to mid-December, but can begin as early as September (Carline 1973), and last until early January in spring ponds (Brasch 1949, Carline 1973). Thus, brook and brown trout have ceased spawning activity by the time the early season begins. By contrast, rainbow trout spawn in the spring; March through the end of April with a peak in early April (Klaurens 1997).

Trout eggs may be susceptible to mortality from wading anglers. During spawning, trout excavate redds for egg deposition in protective pockets. Depth to the top of the egg pocket (relative to the original level of the streambed) averaged 5 cm for brook trout and 8 cm for brown trout, and was proposed as criteria proposed for the maximum allowable depth of scour before egg loss (DeVries 1997). However, the data on depth to egg pockets has high variability; for example, depth to the top of pockets containing brown trout eggs ranged from 6 to 20 mm. Trout eggs are most susceptible to mortality at the stage just before they emerge as fry. Wading mortality is highest between the eyed egg stage and hatching (Roberts 1988, Roberts and White 1992). Timing of fry emergence varies among streams and among years in Montana (Kelly 1993) and in Wisconsin (Table 1). Eyed eggs were found in brown trout redds in late December to early February in Trout Creek, Wisconsin (Avery 1980), and in brook trout redds in Spring Creek, Oneida County as late as March 29 (Brasch 1949). This suggests eggs develop more slowly in northern Wisconsin streams, and are more susceptible to mortality by wading anglers later in the spring.

Brook and brown trout fry are susceptible to mortality from angler wading during the early trout season because they emerge from January through early-May in Wisconsin. Rainbow trout fry are not susceptible to angler wading during the early season because they emerge from May through June, peaking in mid June. Emergence of brown trout fry from the nest ranged from mid-March through early May in Emmons Creek (Avery and Niermeyer 1999), and peaked in Trout creek during February and March (Avery 1980). Brook trout fry emerged from mid-January through mid-March (Hausle 1973), and from early-February through early-May in Lawrence Creek (Miller 1970). Carline (1971, 1973) also found sac fry in brook trout redds in February and March in Langlade County spring ponds.

Table 1. Presence of trout eggs and fry, and emergence of trout from spawning redds.

Waterbody/ County	Fish Species	Dates Eggs & Fry Present	Emergence Range	Emergence Peak	Investigator(s)
Spring Creek./ Oneida Co.	Brook Trout	Mar 10 Mar 29			Brasch 1949
Spring ponds/ Langlade Co.	Brook Trout	Feb-Mar			Carline 1971 Brasch 1949
Lawrence Creek/ Marquette Co.	Brook Trout	Dec 28- Mar 16			Hausle 1973
Lawrence Creek/ Marquette Co.	Brook Trout		Feb – May 7	March	Miller 1970
Trout Creek/ Iowa Co	Brown Trout	Dec-Feb		Feb – Mar	Avery 1980
Emmons Creek Portage Co.	Brown Trout		Mar 15 – May 3	Apr 25	Avery et al. 1999
SE Minnesota	Brown Trout		Mar 15-Apr 15		Anderson 1983
W. R. White R./ Waushara Co.	Rainbow Trout		May 19-Jun 28	Jun 13	
Michigan	Lake Trout		Feb 22-Mar 22		Hansen 1975

There are few scientific studies of the direct relationship between angler wading and mortality of trout eggs and fry, based on a recent literature search and contacts of prominent trout experts in mid-western and western U.S. In a laboratory study using treatment and controls, mortality from a single wading event ranged from 2.8% to 37.4% on brown trout and from 7.1% to 52.9% on rainbow trout eggs; depending on the stage of egg development when wading occurred (Roberts and White 1992) (Table 2). Twice daily wading from egg fertilization to fry emergence resulted in 89% mortality for brown trout and 96% mortality for rainbow trout; the highest wading mortality of brown and rainbow trout was during the period between hatching and emergence. Roberts and White (1992) suggested “wading be restricted to protect resident trout only in situations where the population is limited by lack of spawning habitat and where intensive angler wading in spawning areas occurs during the stage of development between egg and pre-emergent fry”.

Table 2. Mortality of trout eggs and fry from angler wading on redds[1].

Frequency of Wading	Fish Species	Percent Mortality
Once	Brown	2.8-37.4
Once	Rainbow	7.1-52.9
Twice daily	Brown	89.0
Twice daily	Rainbow	96.0

[1]Data from Roberts and White 1992.

Angler Wading Effects on Trout Populations

Few studies directly assess the impacts of angler wading on trout populations. Montana studies show that while angler wading can effect individual nests it does not effect trout populations. Studies on the Yellowstone River system used cutthroat trout adult population abundance, size structure and movement in conjunction with cutthroat trout fry and egg counts and long-term angler records to describe the potential effects of angler wading on trout populations. Adult cutthroat trout populations did not decrease following many years of catch and release angling, and angler wading (Jones et al. 1992). Adult cutthroat populations remained stable in the Yellowstone River in years of high estimated fry mortality, however, fry mortality may have been biased high because of emmigration from the sampling area (Kelly 1993). The relative abundance of larger trout increased in a section of the Yellowstone River from 1974 to the mid-1980's, regardless of increased angling pressure (Jones et al. 1992).

Brown Trout fingerling density in Wisconsin streams does not appear to be affected by angler wading. In fact, fingerling recruitment was substantial in some streams during years of the early trout season in Wisconsin. While there are a few studies that evaluated trout from pre- to post- early season years, most were not designed specifically to address the effects of the early season, and lacked replication and control, estimates of trout abundance, and concurrent angler catch and effort data. Stream surveys indicated increased fingerling densities after the early season was established. For example, a 20-year study of Trout Creek, Iowa County showed higher average fingerling density (1,977/year) for the 5 years after the early season began, compared to an average fingerling density of 1,587/year for the 15 years before the early season. Average fingerling density in Black Earth Creek 1997 and 1998 (the first two years of the current early season) increased by 163% compared to the long-term average finglerling density from eight consecutive years (1989-1996) when there was no early season (unpublished data, Wisconsin Department of Natural Resources). Data were compiled from the same five survey stations on Black Earth Creek, among all years. Average brown trout finglering density in 1997 and 1998 in Black Earth Creek increased by 70% compared to the average finglerling density taken over six non-consecutive years (1989-1991 and 1994-1996) from 10 survey stations. In the Mecan River (Waushara County),

brown trout fingerling density increased by 336% in the first year (1997) of the current early season compared to the average finglering density taken from a three year period (1992, 1993, 1995) (unpublished data, Wisconsin Department of Natural Resources). Average brown trout fingerling density increased 338% in early season years (1982, 1988, 1997) in Bohemian Valley Creek, Lacrosse County, compared to fingerling density in a single pre-early season year (1981). Some streams in Wisconsin including Timber Coulee, Spring Coulee, Bishop Branch (Vernon County), the Big Green River and Crooked Creek (Grant County) have improved from Class II (stocked) to Class I (naturally reproducing) during the former early season that opened January 1st and allowed some harvest (unpublished data, Wisconsin Department of Natural Resources). However, increased fingerling density or changes in stream classification does not necessarily indicate that wading has no impacts at the population level, because changing biotic and abiotic conditions (land use practices, habitat modifications, fish stocking, spring floods, drought, etc.) can also influence fish populations.

Natural Bait versus Artificial Bait

The task force was concerned with the degree of fish mortality that may occur when natural baits are used; therefore the consensus was to recommend only artificial baits be allowed. The regular season April 1 plan was the only alternative that gave anglers the opportunity to fish with natural bait, and the task force decided that the plan did not adequately protect biological resources. Public opinion was not strong on this issue, only one respondent stated that they liked being given the "choice of baits".

Research shows that in most cases catch and release fishing with natural baits was associated with significantly higher trout mortality than catch and release fishing using artificial lures. Studies generally showed high mortality rates of brook, brown and rainbow trout when natural bait was used, however, like wading impacts mortality from natural bait may be inconsequential at the population level. In a synthesis of literature that combined over 1000 fish captured with natural bait, average mortality rates of wild brown and wild brook trout were 19%, and 42%, respectively (Mongillo 1984), and in a study of hatchery rainbow trout using a control group, mortality was 33% (Mason and Hunt 1966). Two studies that used fairly large samples of brown, brook and rainbow trout found mortality rates of less than 4% with flies and lures, while mortality using natural baits was 20% for brown trout, 42% for brook trout (Shetter and Allison 1955), and 23% for rainbow trout (Klein 1965). Fish loss from natural bait is quite substantial (averaging 25-31% depending on the study), and is much greater than the average mortality of 4% from artificial lures (Wydoski 1977, Mongillo 1984, Schill and Scarpella 1997). In evaluating fish mortality by tackle type, several studies compared losses among different water temperatures, and found a positive relationship between increasing water temperature and trout mortality (Klein 1965, Dotson 1982, Nuhfer and Alexander 1992). Thus, low temperatures typical to early spring in Wisconsin may result in lower mortality rates than those listed above.

A larger, detailed study described the response of a wild brown trout population when stocking was eliminated, and catch and release regulations were instituted on a Pennsylvania Creek. Trout densities and angler catch rates increased in the seventh year after institution of

catch and release, even with year-round angling and no bait restrictions (Carline et al. 1991). Thirty-eight percent of the anglers used natural bait, 52% used flies, and 10% used lures. When angler catches were compared with trout densities, there was strong evidence that fish were captured several times in one season. Yet, hooking mortality was not evident because trout densities and angler catch rates increased. Carline et al. (1991) estimated the potential number of deaths from baited hooks using the average mortality value of 25% derived from Mongillo (1984). High trout densities led Carline et al. (1991) to the conclusion that projected mortality rates were unrealistic, and even if hooking mortality were 25%, the projected number of deaths would have represented only 4% of the entire population. Restricting the use of baits to artificials during Wisconsin's early trout season may be an important consideration if the goal is to reduce mortality of caught and released trout during the early season, however on a population level the reduction in mortality may be inconsequential in a healthy trout population.

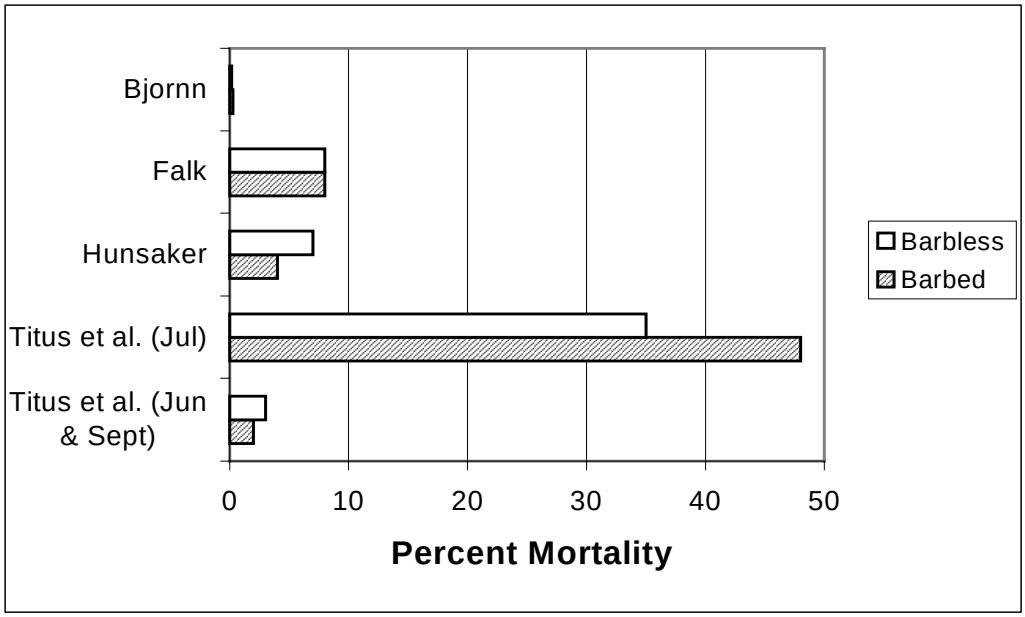
Barbed versus Barbless Hooks

Law enforcement officials on the task force requested that the rules for use and possession of hooks be consistent. Requiring the use of barbless hooks, without a ban on the possession of barbed hooks while fishing made enforcement difficult. The task force voted ten to four in favor of a ban on the use and possession of barbed hooks during the early season. However, the task force generally agreed that if a ban on the possession of barbed hooks was not instituted as a rule, then a ban on the use of barbed hooks should be dropped. In stating their position, the DNR emphasized that there is no biological basis for requiring barbless hooks. Public opinion on this issue highly favored (76%) the use of barbless hooks, and slightly favored (54%) a ban on the possession of barbed hooks. Five percent of respondents that voted on the issue of banning barbed hooks stated that there is "no biological basis for the regulation".

Research clearly shows that trout caught and released using barbed or barbless hooks experienced low and fairly similar mortality rates. Most studies indicated that hooking mortality was less than 10%, except for the study by Titus et al. (1998) where high mortality during July was attributed to extremely warm temperatures (Figure 3). Based on current studies, there is no biological basis for barbed hook restrictions in artificial fly and lure fisheries for trout. Barbed and barbless flies or lures should cause only very low mortality, not detectable at the trout population level. Most hooking mortality studies were located in the western states, Maine, and Canada, except for two that were conducted in the mid-western U.S. Four summaries of over 48 studies agreed that trout caught and released by barbed and barbless hooks experienced low and similar mortality rates when using flies or lures. Most studies used in the summaries were conducted in a hatchery, laboratory or a lake, and the majority of fish used were ≥ 200 mm (8"). Most studies used anglers or a mix of anglers and scientists to capture trout. A few researchers reported that trout-handling time during the study was brief, however, at least five studies claimed that fish were played to the point of exhaustion.

Wydoski (1977) summarized six studies that used a total sample size of 3,549 trout and salmon, and concluded barbless hooks did not significantly reduce fish mortality from hooking. Two of six studies in the summary claimed barbless hooks actually caused higher mortality, but the results were not statistically significant. The average mortality rate of barbless hooked trout was 3.9%, and for barbed hooked fish was 4.1%. Brook and brown trout were used only in the barbed portion of the Wydoski summary. Brook trout averaged 2.5% mortality; brown trout 0% mortality.

Figure 3. Hooking mortality of trout from barbless vs. barbed lures



Another summary of studies from 11 states and provinces using over 16,000 salmonids concluded that there were no differences in hooking mortality of fish using barbless or barbed hooks, and that the mortality associated with lures or artificial flies can be expected to be less than 10% (Mongillo 1984). Again, no brook or brown trout were used in the barbless portion of the summary. Fish used in this study ranged in size from 150 mm (6") to 300 mm (12"). A portion of the studies that were used by Mongillo (1984) were also used by Schill and Scarpella (1997) when they compared hooking mortality of salmonids (including brook trout) using flies or lures. They found there were no significant differences in fish mortality by barbed or barbless hooks and that average hooking mortality was less than 5%. Taylor and White (1992) found a significant difference in mortality between barbed and barbless hooks, but pointed out that the difference in mortality estimates was small, and mortality rate, regardless of hook type, was low. They found that mortality of lake trout, cutthroat trout and

rainbow trout using artificial flies or lures averaged 4.8% ± 0.07 SE for barbed and 2.6% ± 1.4 SE for barbless. However, the data is probably biased because 69 barbed hook trials were compared to only eight barbless trials. In some cases the estimates above do not include tests of significance when comparing hooking mortality. This is because conditions of the experiments were not always the same. Factors that could affect estimates of hooking mortality include species of fish, size of fish, individual sample size, hook size, differences in location, time, and water temperatures.

Differences in Stream Fishability

The task force recognized that there are physical and biological differences between streams in the north and south that influence angler fishability during the early season. The three zones, two zones, and selected streams are alternatives that take into account these differences in fishability. The latter alternatives include "practicable use of flyfishing and spinfishing equipment" as part of the criteria for stream selection by fisheries biologists. The task force recognized that inclusion of the criteria allows for more reasonable ease of monitoring by law enforcement. For all alternatives except the three zones, the public declared that opening dates were "too early in the north". This latter comment ranked medium to high on the list of public dislikes.

Many northern trout streams are narrow and the banks have dense woody vegetation. These characteristics make it impracticable to fish using spincasting or flyfishing with artificial lures and flies. Small brushy streams are often fished using natural bait on a short length of line at the end of a rod. Climactic variation from south to north also dictates stream fishability. Northern streams are frozen over for a longer period of time than southern streams, making fishing impracticable early in the year.

Landowner – Angler Conflicts

Each alternative was rated by whether or not it reduced landowner problems. Four of the alternatives did not reduce landowner problems, and the fifth (selected streams) was rated positively by just a few on the task force. Task force suggestions for reducing landowner – angler conflicts included educating anglers to reduce pressure on specific streams or working with local fisheries biologists to exclude stream sections that receive sufficiently high angler pressure. However, excluding streams based on social criteria may greatly reduce angler opportunities, would be difficult to apply uniformly statewide, and may increase pressure on nearby streams that are not closed. Recommendations for stream exemption during the early season were based solely on biological criteria set by the task force, and do not include exemption of streams for purely social reasons. The public survey showed that landowners most preferred no early season (30%) followed by the current early season (25%), and the 3 zones (17%) alternatives (Table 3).

Table 3. Selection of preferred alternatives by social type.

	Alternatives						
Type	Current	Three Zones	No ETS	Regular April 1	Two Zones	Selected Streams	Total
Non-angler	1	0	4	1	0	0	6
Farmers	3	2	3	0	1	1	10
[1]Landowners	12	8	14	6	3	4	47
Non-Landowners	10	8	6	11	10	7	52
Fish the ETS	21	11	3	3	6	2	46
Do not fish the ETS	1	5	17	14	7	9	53

[1] Do not necessarily own land adjacent to a stream

However, the choice of no early season is not an accurate estimate since it was not actually listed on the survey, but was written in by some respondents. Non-landowners preferred the regular season April 1 (21%), followed by the current early season (19%) and the 2 Zones (19%) alternatives. Public opinion by landowners ranked trespassing and illegal harvest of trout as high on the list of management issues during the early season.

The early season provides additional fishing opportunities, though like many recreational activities there are conflicts between users and landowners. Most conflicts that were identified by the Task Force were specific to a few areas in Pierce and St. Croix Counties. Streams reportedly having landowner – angler conflicts were the Rush, Kinnickinnic, and Trimbelle Rivers, which lie in close proximity to the twin cities of Minneapolis-St. Paul. Apparently these streams attract many anglers, and there are concerns that pressure may be excessive. A reported 61 vehicles in one day were observed along a 21 mile stretch (one car for every 1/3 mile) of the Rush and Trimbelle Rivers. In an attempt to shift pressure to other streams, the Trimbelle Rod and Gun Club has distributed maps of alternative angling sites. While this may be a promising method in other situations, pressure apparently continued to be excessive in that area.

According to studies on recreational use patterns, the western region of Wisconsin has 125,000 residents that fish (SCORP 1991), and was visited by 68% of anglers surveyed from around the state (Olson et al. 1999). This region contains the counties identified as having significant landowner – angler conflicts during the early season. While most anglers allocated their use primarily on public lands (Olson et al. 1999), conflicts occurred when individuals parked along public roadways blocked farmer access to fields. Most bridges bisecting trout streams are off limits to parking until May 1, and these are access points often used by anglers. In Pierce County, gravel and blacktop areas have been provided near some accesses, but these areas were not maintained for parking during snowfall because of the excessive cost of plowing.

Law Enforcement

Most task force members endorsed law enforcement's position that if a recommendation were made that restricts fishing gear to barbless hooks then the possession of barbed hooks while fishing should also be made illegal. The public indicated that rules and regulations would be most complicated under the three zones, two zones and selected streams alternatives. This comment ranked number one for dislikes under the latter alternatives. In making suggestions for an early season, the public expressed that they wanted to be educated about the new ruling.

The ability to enforce regulations is a concern during the early trout season. Gear for the current early trout season was restricted to artificial lures with barbless hooks. Enforcement of trout regulations during the early season increased by 39% from 1997 to 1998, and by 15% from 1998 to 1999. Wardens spent 2,767 hours on enforcement during the 1999 early season (Homuth, WDNR, personal communication) or 46 hours of patrol time per early trout season day for the entire state. Information on the number of trout violations over a three-year period in Wisconsin indicated that a large proportion of violations occurred for unauthorized use of fishing gear (typically fishing with barbed hooks) (Table 4).

Table 4. Four categories of fishing violations related to the early trout season (violations pertaining only to trout are in parentheses).

	Year		
Violation Category	1997	1998	1999
Fishing during the closed season	55 (6)	44 (3)	55 (4)
Fishing in trout streams during the closed season	14 (0)	19 (6)	16 (3)
Possession of game fish during the closed season	1 (1)	9 (9)	5 (5)
Fishing with gear on waters where its use is not authorized	4 (4)	12 (12)	26 (25)

In a study of noncompliance of regulations on several Idaho rivers an estimated 29% of over 1,000 anglers checked by officers were in noncompliance with a barbless hooks regulation (Schill and Kline 1995). While noncompliance was high, the authors concluded that only 25% of anglers intentionally violated the regulation, based on the number of anglers who hastily changed or broke off flies as the officer approached.

Protection of Sensitive Waters

The task force indicated that all alternatives except the regular season April 1 satisfied this issue. Seven task force members emphasized that the regular season April 1 allows fish harvest. Many respondents from the public survey indicated that this type of season was too liberal, and gave "too much opportunity for harvest". The comment ranked highest of the dislikes under the regular season April 1 alternative. Under the guidelines of the two zone plan, local fish biologists working with law enforcement officials would include streams in the early season if they are reasonably fishable, enforceable by wardens, and not considered sensitive waters.

Biological criteria used for the exemption of sensitive waters under the current early season were slightly modified to include protecting high concentrations of adult brown trout (rather than just brook trout) in spring holes or seeps that are susceptible to angling. It was suggested that existing criteria should be codified, but it was deemed too difficult to quantify**.** Biological criteria for exemption of sensitive waters during the early season includes:

- Streams with high concentrations of spawning rainbow trout
- Areas with concentrated spawning redds and where recruitment is limited
- Areas that contain high concentrations of adult brook or brown trout that may be very susceptible to angling

Loss of Youth in Fishing Activities

It appears that young anglers may not be concentrating their efforts on fishing specifically for trout. Based on a survey using trout anglers from southwestern Wisconsin streams, only 2% were less than 20 years old (Marcouiller et al. 1996). Wisconsin is fortunate to have a strong commitment to youth angling participation. Many civic organizations, sports clubs, schools, libraries, state and federal government agencies provide support for angling participation to children and adults through outreach programs at little to no cost. A few respondents from the public survey addressed this issue, stating that "young people are losing interest in fishing because they cannot harvest fish."

Constraints to family fishing trips are a lack of time, increased opportunity to participate in a broader scope of activities, and conflicts with family and work obligations (SCORP 1991). In a survey of anglers who had not fished recently, but had fished sometime during the past five years, 41% listed "no time" as the reason for not fishing. Only 10% of those surveyed listed "quality of the experience (no fish, small fish, crowded, etc.)" as the reason for not fishing (SCORP 1991). Youth involvement in fishing activities has declined in Wisconsin, but also nationwide. Growth of the U. S. angling population has slowed since 1995 (Sportfishing and boating council 1998). All mid-western states have shown decreased sales of fishing licenses from 1990 to 1996. In Wisconsin license sales dropped by 7%, compared to declines of 1% in Minnesota; 4% in Illinois, 7% in Iowa, 8% in Indiana; 23% in Ohio. The lack of fishing participation by youth in the U.S. may be related to changes in the socio-economic structure of male and females in the human population. According to a nationwide survey, the bulk of anglers are white males from rural settings (SFBC 1995). Many children are introduced to fishing by their father or other adult male family members. Yet the percentage of white males from rural settings has steadily declined, which could affect youth participation in angling. Young females from rural settings make up the bulk of all females involved in fishing. Women with a post-secondary education and those from urban centers are less likely to fish. The proportion of educated women from urban centers is increasing, and the U.S. female population is aging. These factors together could reduce the number of young females participating in angling. There are no scientific studies suggesting that youth involvement in fishing has declined because regulations are too complex, or because fish cannot be harvested. Rather, studies suggest that there are more competing activities, and higher demands on their time.

Economics Benefits of Angling

The State of Wisconsin ranked 21st in the nation in trout stamp sales in 1997 (Epifanio and Lindloff 1999), with a total of 126,832 stamps sold. The revenues generated from inland trout stamps are earmarked exclusively for trout habitat development. Unlike other states, trout stamp sales in Wisconsin are primarily used for habitat conservation and monitoring programs rather than artificial production and release programs. In 1998, trout stamp revenues provided $878,299 for trout habitat protection, monitoring and improvement (Klousia, WDNR, Personal communication).

The economic benefits of angling have not been evaluated solely for the early season in Wisconsin. However, a study of annual economic benefits of angling indicated that Wisconsin anglers spent money in the local vicinity of where they recreated (Olson et al. 1999). A survey of over 1,300 Wisconsin residents indicated that anglers were among the top five of twelve primary recreational user groups that stimulated the economy at the local level; spending an average of $800 annually (Olson et al. 1999). Anglers reported that almost three quarters of their spending was at local restaurants within 25 miles of their fishing site. A breakdown of annual spending by eleven categories showed that anglers fishing more than 20 days/year spent an average of $368.30 on recreational equipment and $512.62 on gasoline/auto, groceries, restaurants and taverns. Nonlocal anglers spend more money per trip than local anglers do. Regional economic impacts of nonlocal dollars from anglers fishing only two southwestern streams (Timber Coulee Creek and the West Fork of the Kickapoo River) were estimated at $108.38 per-trip in expenditures, while local anglers spent $42.97 per-trip (Marcouiller et al. 1996)

Maximizing Angler Opportunity

Providing a longer season and including as many streams as possible in the early season were issues that the task force considered in order to maximize opportunity. In rating each alternative by this issue, task force members agreed that the current early season and three zones alternatives most satisfied this issue and the regular season April 1 provided the least amount of additional time open for fishing. Though an earlier opener would provide more angling opportunity, there was concern that it may increase landowner – angler conflicts. Asked to cast a vote for a February 15th opening (Selected Streams alternative) or a March 1 opening (Two Zones and current early season alternatives), the Task Force voted eleven to six for the March 1 opening date.

Public Opinion Survey

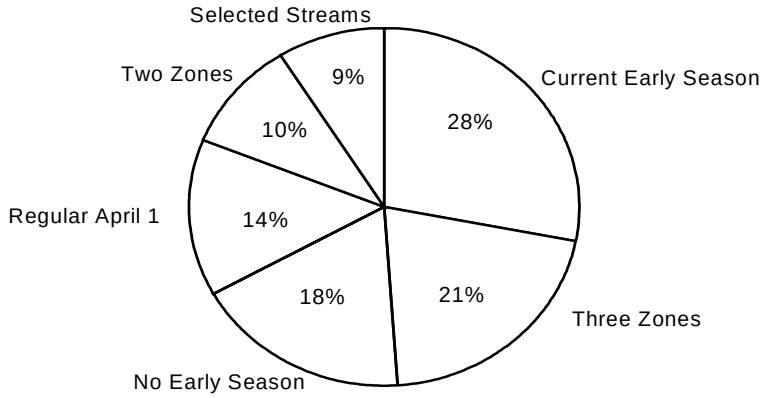
A total of 145 people (including 51 email and postal responses) gave their opinion on the early trout season. Fifty one percent were affiliated with a sports club or organization and of those 64% were members of Trout Unlimited (Table 5).

Table 5. Affiliation of public survey respondents.

Affiliation	Number of Respondents
Trout Unlimited	47
Fly Fishing Federation	9
Other Sports Clubs	18
No Affiliation Listed	71
Total	145

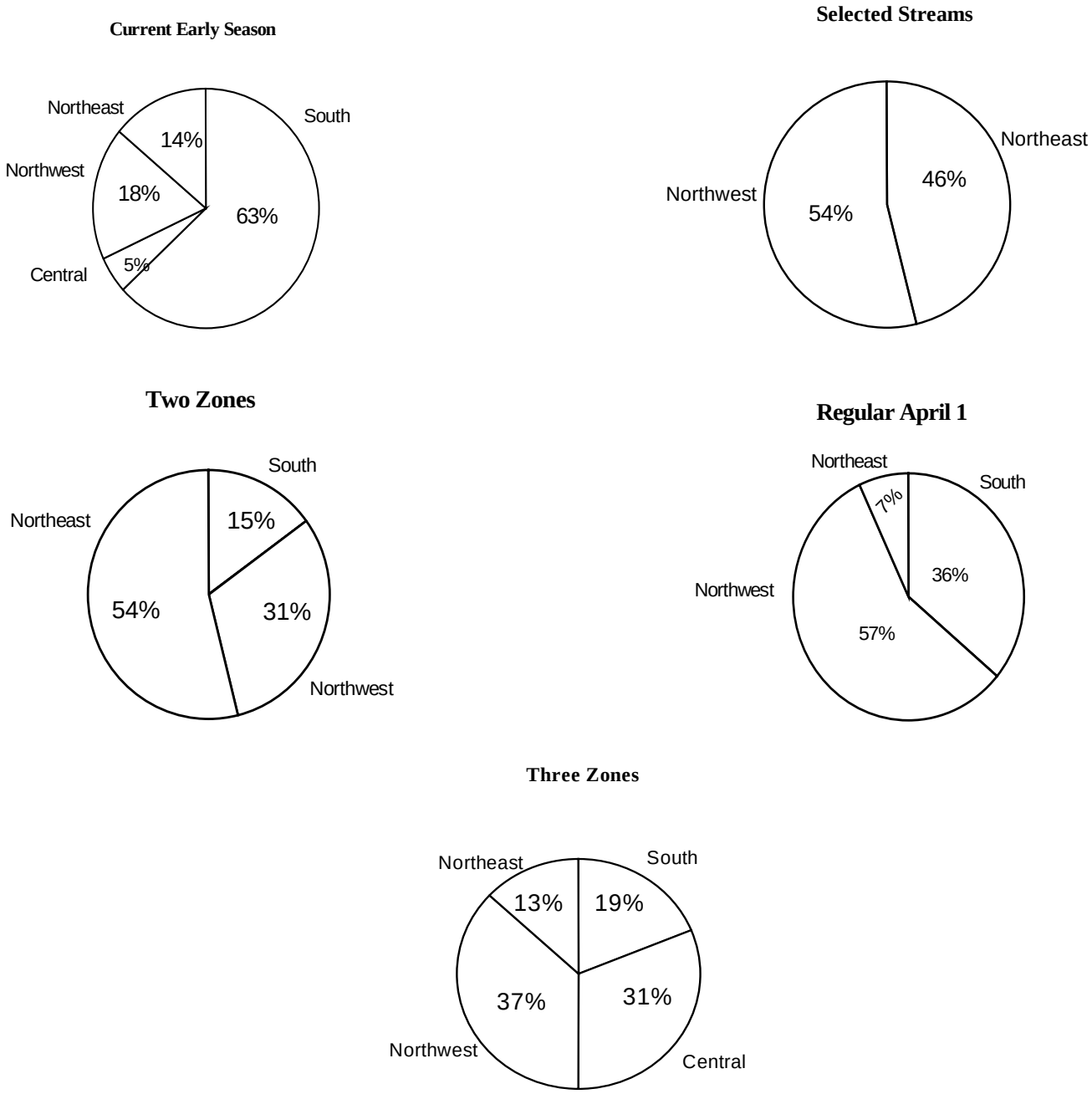
A breakdown of respondents favoring specific alternatives shows that the majority of people selected the current early season, followed by the three zones, and then no early season (Figure 4). The number of respondents favoring no early season was not an accurate estimate since it was not actually listed on the survey, but was written in by some respondents.

Figure 4. Public selection of specific alternatives



A breakdown of selected alternatives by regions in the state showed the public favored different alternatives, depending on where they live (Figure 5).

Figure 5. Selection of alternatives by geographic region



People in the south favored the current early season followed by the regular season April 1 alternative. In the central region, people favored the three zones followed by the current early season alternative. The two zones and selected streams alternatives were equally

favored by people in the northeast, and in the northwest the regular season April 1 was most favored, followed by the selected streams alternative.

Task Force Consensus on an early trout season

The two zones and selected streams alternatives were most highly favored by task force members because they satisfied the main biological issues of the early season (Table 6). Most of the task force felt that the current early season and three zones alternatives also satisfied many of the biological issues, but that the regular season April 1 did not protect sensitive waters or prevent over-harvest of trout. Based on social issues, the alternatives most favored were the current early and regular season April 1 alternatives because they provided the maximum angling opportunity and had the simplest rules (Table 7). In terms of enforceability, only the selected streams and two zones alternatives were positively rated. The Selected streams was the only alternative rated positively by some task force members for reducing landowner problems.

Table 6. Task force rating of alternatives by the main biological issues.

	Biological Issues				
Alternatives	Reduces Wading on Redds	Reduces Hooking Mortality	Protects Sensitive Waters	Prevents Over-Harvest	Total +/-
Current ETS	-	+	+	+	3/1
Three Zones	+/-	+/-	+	+	4/2
Regular April 1	+/-	+/-	-	-	2/4
Two Zones	+	+	+	+	4/0
Selected Streams	+	+	+	+	4/0

Table 7. Task force rating of alternatives by the main social issues.

	Social Issues					
Alternatives	Maximum Opportunity	Enforceable	Equal Angling Opportunity	Simple Rule	Reduces Landowner Problems	Total +/-
Current ETS	+	-	-	+	-	2/3
Three Zones	+	-	-	-	-	1/4
Regular April 1	-	-	+	+	-	3/2
Two Zones	+/-	+/-	-	-	-	2/5
Selected Streams	+/-	+	-	-	+/-	3/4

By process of selection – rejection, the task force narrowed the choice of acceptable alternatives to the two zones (favored by five members) and the selected streams (favored by six members) (Table 8). Half the task force rejected the regular season April 1 mainly because it increased fish harvest. The two zones alternative was not rejected by a single member, while all other alternatives received two or more rejections.

Table 8. Selection-rejection of alternatives.

Alternatives	Select	Reject	Justifications
Current Early Season	2	3	Does not address many issues Too many streams open Vulnerable to illegal harvest
Three Zones	2	2	Zone lines will cause problems Zone lines will be in my backyard
Regular April 1	1	8	Increases fish harvest Does not maximize opportunity
Two Zones	5	0	Singles out one area of the state
Selected Streams	6	3	Decision making will go from biological to political Public will not accept it Do not want to select the streams
Total	16	16	

Final votes were cast for the two zones or selected streams alternatives. Votes were tallied at ten members for the two zones, seven members for the selected streams, and one dissenting vote. Task force members agreed by consensus that the two zones plan was the alternative everyone could live with. Two letters expressing minority opinions were submitted by members who cast a vote for one of the two alternatives (Appendix A, II & III).

Stream Selection Recommendations

A list of streams for inclusion in the early season was submitted by WDNR area fisheries biologists in Zone 1 of the proposed two zones plan. Biologists in zone 2 submitted a list of streams they wanted excluded from the early season. Regardless of the zone, streams excluded from the early season had to be accompanied by a written justification from biologists. Stream listings were reviewed by the DNR Trout Team for statewide consistency and justification using the criteria.

Designated streams in zone 1to include in the early season are listed by county:
Florence county: Pine river.
Fond du Lac county: Feldners creek and Silver creek.
Forest county: Peshtigo river downstream from U.S. highway 8, Pine river downstream from STH 55, and Rat river downstream from Scattered Rice Lake.
Langlade county: Wolf river.
Lincoln county: Prairie river downstream from CTH J.
Marathon county: Plover river from STH 29 downstream to STH 153.

Marinette county: N. Br. Peme Bon Won river downstream from STH 141, Pike river between CTH V and CTH K, Peshtigo river upstream from CTH C, and the Rat river.
Marquette county: Chaffe creek downstream from CTH B, Klawitter creek, Lunch creek, Mecan river upstream from STH 22, Wedde creek, and Westfield creek.
Oconto county: N. Br. Oconto river downstream from STH 64, and S. Br. Oconto river downstream from CTH AA.
Portage county: Tomorrow river from Amherst downstream to Durant road.
Shawano county: Middle Rr. Embarrass river from Homme dam to STH 29, N. Br. Embarrass river from Tilleda dam downstream to Leopolis dam, and Red river downstream from lower Red lake dam.
Sheboygan county: LaBudde creek, Jackson creek, Schuett creek, and the Mullet river.
Waupaca county: N. Br. Little Wolf river from CTH P to CTH J, S. Br. Little Wolf river, and the Waupaca river from Frost Valley Road to STH 54.
Waushara County: Pine river downstream from CTH K to Poysippi pond, Willow creek from Blackhawk drive to 29th lane, Mecan river downstream from 12th avenue, White river from STH 22 to White river millpond (lower).

Counties in zone 2, west of a line following U.S. highway 51 and south of a line following state highway 23, all trout streams shall be included except Lake Michigan tributaries, Lake Superior tributaries with early opening dates, the White river and its tributaries upstream from Pike river road bridge, **Bayfield County**, and Chaffee creek, **Waushara County**.

SUMMARY AND POLICY IMPLICATIONS

By general consensus the task force recommended the following for an early trout season:

1. Two zones with a line of demarcation using Highway 51 at the northern state boundary in Iron County south to the junction of Hwy 23, and east to Lake Michigan in Sheboygan County. Fish biologists will select streams to include in the northeastern part of the state, and in remaining part of the state, fish biologists will select sensitive streams to exclude.
2. March 1 opening date with a five day closure at the end of the season.
3. No harvest of trout and no natural baits allowed for use by anglers.
4. Ban on the use and possession of barbed hooks.
5. No sunset clause
6. A five year scientific evaluation and monitoring period.
7. No additional license or stamp.

This process involved analysis of the main issues and public opinion pertaining to the early season. The objectives were to define a season that would be more acceptable to a greater number of resource users and managers alike. The primary issues that were found needing management attention were mostly social, complex in nature, and difficult to address. Those issues centered on trespass concerns, enforceability of the regulations, and providing equal opportunity for anglers. The net effect of a law change is unclear, and requires follow up evaluations to determine the implications of an early trout season. Work is needed to identify the potential effects on trout populations, and to identify waters that are likely candidates for over-crowding.

FURTHER RESEARCH

The task force voted unanimously to recommend an evaluation of the proposed early trout season. Currently, there is a general lack of data describing the effects of such a season. Ed Avery of the Bureau of Integrated Science Services (BISS) suggested a study be implemented to determine fishing pressure by wading vs. bank anglers; angler catch of trout; observed angling violations; and changes in trout populations. The Bureau of Fisheries management and Habitat Protection will work with the Bureau of Integrated Science Services to develop a study design and recommend funding.

Appendix A

I. Public opinion survey questionnaire.

Your Input Matters: The information we collect from this questionnaire will be used by the Early Trout Season Task Force in making their recommendation for an early trout season to the Natural Resources Board. Your responses are important so please consider your answers carefully.

1. Are you a (check all that apply):
   __ Trout Angler **__ Farmer** **__ Landowner**
   __ Involved in a Trout-Related Business
   __ Member of a Fishing Organization (specify) _____
   __ None of the Above
2. Do you fish during (check all that apply):
   __ Early Trout Season
   __ Regular Trout Season
   __ Neither
3. How many years have you been trout fishing? (check one)
   __ 0-5 **__ 5-10** **__ 10-20** **__ more than 20**
4. Please list what you like and dislike about each alternative for a future early trout season. (See the fact sheet for more information about each alternative)

Current Early Season Opening March 1
Like: Dislike:

Regular Season Opening April 1
Like: Dislike:

Three Zones with Different Opening Dates
Like: Dislike:

Selected Streams Opening February 15
Like: Dislike:

Two Zones with Current Early Season or Selected Streams Opening March 1
Like: Dislike:

4. Which alternative (check only one) do you favor for a future early trout season?

   __ Current Early Season Opening March 1
   __ Regular Season Opening April 1
   __ Three Zones with Different Opening Dates
   __ Selected Steams Opening February 15
   __ Two Zones with Current Early Season or Selected Streams Opening March 1

5. Do you favor the use of barbless hooks during the early season? **__ Yes __ No**

6. If barbless hooks are required during the early season, do you favor banning the possession of barbed hooks? **__ Yes __ No**

Thank you for your time and input.

Additional comments or suggestions for an early trout season:

II. Letter of minority opinion

Nov. 27, 1999

Department of Natural Resources
P.O. Box 7921
Madison, WI. 53707
Att'n: JEAN UNMUTH

Dear Jean,

With the decision by the Early Trout Season Task Force (ETSTF) to submit to the Natural Resources Board (NRB) a compromise proposal on the current early trout season that uses a **two-zone concept**, I am taking this opportunity as the representative to the ETSTF from the Wisconsin Wildlife Federation (WWF) to enter for the record some statements that may be taken either as a minority report" or as "post mortem comments" on the ETSTF's consensus proposal.

Considering the divisive nature of the early trout season issue, I feel that the ETSTF is to be credited with attaining a compromise proposal, one that encompasses to a fair degree the twin goals set out by the NRB of protecting the resource while maintaining additional trout angling opportunities. The ETSTF opted for the proposal which allows fishery biologists within a designated zone to decide which waters will be open in the early season, while mandating that fishery biologists outside that zone may remove waters from the early season only if existing criteria for "sensitive" waters are met.

This proposal was selected by a narrow vote (10-7) over the one I submitted on behalf of the WWF, one which has no zones or boundary lines and allows all fish managers the flexibility to decide which waters would be open during the early trout season based upon some broad general criteria.

While the ETSTF compromise proposal certainly takes a big step in the direction of finding the elusive common ground between two sides that have been quite polarized on the early trout season issue and was created with the utmost desire to find an acceptable compromise, I feel obligated to list here potential problems I perceive with the ETSTF proposal. It is my hope that the Natural Resources Board (NRB) will fine-tune the plan, should it concur with my perception of the plan's weak spots.

When the NRB reviews the ETSTF compromise proposal, I ask that it compare it with the plan submitted by the WWF to determine what are the practical and defensible differences between the two. Whichever form of the compromise plan the NRB accepts, that plan will be subjected to public scrutiny during the April, 2000, Conservation Congress Fish and Game rule hearings. For a compromise plan to gain broad-based approval, that plan must make sense to the public, appear to be equitable and be reasonably enforceable. While the compromise plan adopted by the ETSTF was put forth with a sincere desire to address concerns of opponents of the statewide early trout season, I perceive the following problems with it that might prevent sufficient public support for a compromise:

BOUNDARY LINES and ZONES: The purpose of the two zones was to carve out an area where opposition to the current early trout season was most concentrated (i.e., the Northeastern and Central parts of the state). While addressing concerns in that area, the ETSTF plan does not address similar concerns of those in other parts of the state (e.g., Grant, Monroe, Pepin and Pierce counties), and it does not do so based solely on the fact that these counties were not part of a **large,** contiguous **block of counties** that voted against reauthorization of a statewide early trout season. Further, past experience indicates that problems sometimes occur with proposals that have zones and boundary lines (e.g., the controversy over the zones for the "catch-and-keep" versus "catch-and-release" bass seasons). Not all fishing and hunting rules can be made simple, but needless complication of such rules should be avoided.

CONSISTENCY: The ETSTF compromise proposal encompasses a "two-zone" concept that sets different criteria in each zone for including waters in the early trout season. In counties bisected by highway boundary lines, streams may be excluded from the early season on one side of the line while streams with similar characteristics on the other side of the line or in other counties must be included in the early season because of different criteria. Not only may this invite hard and valid questions as to the reason(s) for two sets of criteria, but it also may diminish understanding and create confusion regarding why waters are included or not included in the early season.

The significant advantage of the plan offered by the WWF is that it avoid these potential problems by eliminating zones and lines and by setting broadguidelines that allow fishery biologists maximum flexibility in determining which waters would be open during the early season, with no limit to how many streams they may have open in their areas of jurisdiction. In short, the thrust of the WWF's plan is simple: LET THE FISH MANAGERS MANAGE.

The ETSTF compromise plan encompasses that concept of flexibility to a degree, and I commend it for that. However, I think it would be wise for the NRB members to compare the ETSTF plan and that offered by the WWF. If both achieve the goals set out by the NRB at its May, 1999, meeting (i.e. protect the resource while enhancing opportunity), perhaps a melding of the two plans via some mild tweaking of one or the other may help eliminate potential problems that could scuttle the ETSTF compromise proposal, which was produced through alot of effort and give-and-take by people who set aside strong but divergent beliefs in an honest attempt to find some common ground.

In conclusion, the WWF thanks the NRB and Department staff for being able to participate in this effort. We trust that the NRB will take our comments as constructive input into the process and that it will, in the end, opt for a compromise proposal on the early trout season that will best meet wide-ranging public concerns while protecting the resource that we all value so very much..

Yours for conservation,

Mitchell G. Bent
716 Eastview Drive
Antigo, WI. 54409-8708

III. Letter of minority opinion

November 30, 1999

Open Letter to fellow members of the Early Trout Season Task Force

As many of you know, I have long advocated a sound and workable compromise for the early trout season in Wisconsin, one which would successfully put this issue to rest once and for all. I believe all of us share this desire. In this light, I'd like to register my thoughts about the outcome of the Early Trout Season Task Force process and the compromise proposal which we were able to develop in the admittedly limited time available.

After careful consideration, I believe that the consensus recommendations we produced come very close to, but miss, offering the solution we all seek. Unfortunately, I fear, we may fail to attain our assigned goal of reaching a well constructed and acceptable compromise due to the inconsistencies and continued divisiveness inherent in the currently proposed compromise plan. I believe we would all like to see a final resolution of this issue and this can only be accomplished by producing a design which will stand up to public scrutiny and the test of time.

One of the key problems in the current plan is its use of zones. I understand the attraction of attempting to address this challenge by separating the state into broad areas based on the differences found across Wisconsin. The Trout Unlimited compromise proposal which I helped to author was, as you may remember, based in a three-zone concept. That plan was set aside during the evolution of our thinking in favor of the more unifying proposals available, and I believe this was wise considering the geographically divisive nature of the issue. The current two-zone plan does not successfully resolve this problem.

The other, and potentially more damaging, problem in the current plan is the use of two distinctly different guidelines, dependent on zone, to be used by DNR fisheries biologists to determine which waters will be included in the early season. This problem becomes even more difficult to explain and defend where a fisheries biologist's jurisdiction covers nearly identical streams in both zones.

For these reasons, I ask you to reexamine the narrow differences between the current proposal and the high-ranking alternative offered by the task force representative for the Wisconsin Wildlife Federation. Under that proposal, which has no zones and a uniform method of stream inclusion, we find relief from the problems outlined above. For fisheries biologists who can find no reason not to include all streams in their jurisdiction, a simple listing of "all" or "all except ..." would suffice. Additionally, I believe that most of our fisheries biologists would welcome this flexibility in managing the cold water resources in their jurisdiction.

In conclusion, I ask you to consider whether the additional and problematic conditions contained in the current two-zone plan are justifiable or defensible, not only in our own minds but, more importantly, in the minds of Wisconsin's sporting community. Simplicity and accountability will be significant factors in determining our success or failure in this endeavor.

Sincerely,

Stu Grimstad

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