# Comprehensive Fisheries Survey Report 

## Lake and Location:

Trump Lake, Forest County, T35N-R15E-Sec31 (WBIC 0479300)

## Physical/Chemical Attributes:

Morphometry: 172 acres, maximum depth 20 feet, estimated mean depth 9 feet
Lake Type: Drained (no inlet, one outlet to Eugene Lake)
Basic Water Chemistry: Soft - low alkalinity and conductance ( $21 \mathrm{mg} / \mathrm{l}$ and 51umhos)
Littoral substrate: 50\% sand, $35 \%$ muck, $10 \%$ gravel, $5 \%$ rubble
Aquatic vegetation: moderate to heavy growth of submerged species
Shoreline character: $85 \%$ upland, $15 \%$ wetland
Level of shoreline development: Intense (avg. 1 structure < every 147 feet of shoreline)
Winterkill: none reported or expected
Other features: Clear water

Purpose of Survey: Assess status of gamefish, panfish and non-game species. Develop management recommendations.

Dates of Field Work: April 8, 1998 to September 24, 1998
Survey and Data Personnel: Steve AveLallemant, David Brum, Al Bluhm, Tracy Kusek, Steve Timler, Gary Muench, Steve Kramer, Marty Kiepke,

Report Author: Bob Young, Fisheries Biologist, Woodruff
Report Date: January 14, 2002
I. SUMMARY

Trump Lake was surveyed in 1998 with a variety of sampling gear to assess the status of all major fish communities. Sampling began with early spring fyke netting and electroshocking, targeted at adult gamefish abundance, and concluded with fall electroshocking for gamefish young-of-year recruitment. Included between those periods was late spring electroshocking for adult bass, late spring fyke netting targeted at panfish, and summer mini-fyke netting for panfish and non-game species.

Five gamefish, 6 panfish and 7 non-game species were captured during the survey period. Largemouth bass (LMB) was the most commonly encountered gamefish, followed by walleye and northern pike (NP). Muskellunge and smallmouth bass appear to exist as only remnant populations. LMB size structure is indicative of heavy angling pressure and harvest of individuals greater than 14 " total length (TL). Restrictive LMB harvest regulations ( 18 " minimum length $/ 1$ bag) were in place for only 2 seasons at the time of survey, apparently not long enough to improve LMB adult size structure. The adult walleye population was estimated to be 0.8 per acre, on the low side of what is generally considered to be a "fishable" (> 1.0/acre) density. Northern pike are quite low in relative abundance and probably provide little angling opportunity. LMB and muskellunge growth
rates are lower than average while growth rates for walleye and NP are about average when compared to similar North Central Wisconsin lakes.

Among the panfish, bluegill were relatively much more abundant than either black crappie, pumpkinseed, rock bass, warmouth, or yellow perch. Based on the abundance data, it is likely bluegill provide the vast majority of the panfish angling opportunity. While in past decades bluegill over-abundance and poor size structure warranted panfish removal efforts, 1998 sampling indicated improved size structure and angling quality, as measured by higher maximum, modal, and proportion of larger sizes. Growth rates for all panfish sampled except pumpkinseeds were slower than the average for comparable north central Wisconsin lakes. Pumpkinseed growth was similar to the average for comparable north central Wisconsin lakes. In light of the improved bluegill size structure and low relative abundance of the other panfish, the slow growth rates are likely related to the lake's inherent nutrient-poor chemistry and resultant low productivity.

Management recommendations are as follows:
Largemouth bass - Assess LMB relative abundance and size structure by 2004 to determine the impact of the 18 "minimum size/1 bag regulation.

Muskellunge - No active management of muskellunge in Trump Lake is recommended at this time.
Northern pike - No active management of northern pike in Trump Lake is recommended at this time.

Smallmouth bass - No active management of smallmouth bass in Trump Lake is recommended at this time.

Walleye - Continue to periodically monitor walleye abundance and size structure. Continue to allow private stocking of walleye to maintain a low density stocked fishery.

Bluegill - No active management of bluegill in Trump Lake is recommended at this time.
Other panfish - No active management of other panfish in Trump Lake is recommended at this time.

## II. PAST MANAGEMENT AND SURVEYS

## Known Stocking

Black Crappie - unknown size, 1937-38
Bluegill - unknown size, 5 of 7 years from 1937-43
Bullhead (sp.?) - unknown size, 1941
LM Bass - unknown size, 7 of 12 years from 1937-48; fingerlings, 1988-91
Muskellunge - fingerlings, 1969 and 1988
Northern Pike - unknown size, 9 of 20 years from 1940-59; fry and fingerling, 1960-61
Pumpkinseed - unknown size, 1937, 1939, 1941
Rock Bass - unknown size, 1939
SM Bass - unknown size, 1943
Walleye - unknown size, 1937, 1956-57; small and large fingerlings, 20 of 33 years from 1965-01 Yellow Perch - unknown size, 4 of 7 years from 1937-43

## Panfish Removals

1959 through $1961-2$,400 to 3000 lbs. (14-17 lbs./acre) each year, mostly bluegills, some crappies 1988 and 1989 - 3300 and 2750 lbs. (19 and 16 lbs./acre), mostly bluegills

## Surveys and Findings

1944-76, various dates and gear - panfish abundant, mostly bluegill. LM bass common, N pike common, walleye present in low numbers
1981, fall shock - bluegills very abundant, NP common, LMB present, no walleyes
1992, fyke net, unknown date and number of lifts - moderate improvements in bluegill growth rates and size structure following 1988-89 removal
1995-97, fall shock - no YOY walleyes, LM bass present, NP present

## III. INVESTIGATIONS SINCE 1998

2000, fall shock - 1 YOY walleye, Serns Index . 08 YOY/acre. (1255 walleye fgl. stocked in 2000, date unknown)

## IV. METHODS

Table 1. Sampling Summary of 1998 Trump Lake, Forest County, Comprehensive Fisheries Survey

| DATES | GEAR TYPE | SAMPLING EFFORT | PRIMARY OBJECTIVE | OTHER OBJECTIVES |
| :---: | :---: | :---: | :---: | :---: |
| April 8-12, 1998 | Fyke Nets | 5-4ft. nets, 24 lifts | Gamefish population estimate marking | Game-, pan- and nongame fish catch per effort, length at age |
| April 13, 1998 | Boomshocker | Entire shoreline 2.8 miles | Adult walleye recapture - 1st Run | Gamefish catch per effort, length at age. Mark new/unmarked gamefish. |
| April 28, 1998 | Boomshocker | Entire shoreline 2.8 miles | Total walleye recapture - 2nd Run | Gamefish catch per effort, length at age. Mark new/unmarked gamefish. |
| May 19, 1998 | Boomshocker | Entire shoreline 2.8 miles | Bass PE marking - 3rd Run | Gamefish catch per effort, length at age. Mark new/unm arked gamefish. |
| May 26, 1998 | Boomshocker | Entire shoreline 2.8 miles | Bass PE recapture - 4th Run | Gamefish catch per effort, length at age. |
| May 27-29, 1998 | Fyke Nets | 6-4ft. nets, 15 lifts | Panfish catch per effort | Panfish length at age; nongame catch per effort |
| August 18-19, 1998 | Fyke Nets | 6-3ft.(mini) nets, 12 lifts | Game- and nongame- fish catch per effort | Game- and nongame- fish length at age |
| September 24, 1998 | Boomshocker | Partial shoreline 2.6 miles | Gamefish recruitment | Gamefish catch per effort |

## V. SURVEY RESULTS

Results are summarized in the following figures. Corresponding data tables are in the Appendix.

## CATCH SUMMARY

Figure 1.


## GAMEFISH CPE

Figure 2.


Figure 3.


## LARGEMOUTH BASS

Figure 4.


Figure 5.


## MUSKELLUNGE

Figure 6.


## NORTHERN PIKE

Figure 7.


Figure 8.


## SMALLMOUTH BASS

Only 1 smallmouth bass was captured during the entire survey - a 2.6 inch individual collected in the September 24 electroshocking run.

## WALLEYE

Figure 9.


Figure 10.


Figure 11.


Figure 12.


Figure 13.


## PANFISH

Figure 14.


Figure 15.


Figure 16.


Figure 17.


Bluegill angling quality was determined with the indices Proportional Stock Density (PSD) and Relative Stock Density (RSD) (Figure 18). PSD is the proportion of "quality" size fish (6 inches or greater TL) while RSD is the proportion of "preferred" size fish (8 inches or greater).

Figure 18.


Figure 19.


Figure 20.


Figure 21.


Figure 22.


Figure 23. Trump Lake, Forest County. 1998 Sampling Locations.


1998 Comprehensive Fisheries Survey Net Locations
Early Spring Fyke Nets
Late Spring Fyke Nets
Summer Mini-fyke Nets

## - Walleye

Northern Pike

## VI. Discussion and Recommendations

## GAMEFISH

Largemouth Bass (LMB) - Natural reproduction of LMB appears adequate in Trump Lake, with good size representation of smaller fish (Figure 4). LMB were also the most numerous and commonly encountered gamefish species of the survey.

LMB size structure is also indicative of heavy angling pressure, with few fish larger than 14 inches found. However, those few fish that do make it beyond the 14 inch size range can reach large size (up to 22 inches). At the time of the 1998 survey the Trump Lake bass minimum size limit was 18 inches with a daily bag of one. However, that regulation had been in effect for only 2 fishing seasons by 1998. It appears that the more restrictive regulation had not yet produced the desired result of a better quality adult LMB size structure.

Growth as measured from scale aging appears slower than the average for comparable north central Wisconsin lakes.

Recommendation: Assess LMB relative abundance and size structure by 2004 to determine the impact of the 18 "minimum size $/ 1$ bag regulation

Muskellunge - The last known stocking of muskellunge was in 1988, and a remnant population apparently remains. Four muskies were captured during the survey, ranging from 35 to 43 inches.

Growth as measured from scale aging appears slower than the average for comparable north central Wisconsin lakes.

Recommendation: Current musky stocking guidelines do not allow for stocking Trump Lake. No active management of muskellunge in Trump Lake is recommended.

Northern Pike - Relatively low numbers of pike were captured during the survey, but they can reach good size for a small lake (37" TL).

Size structure is fairly evenly distributed through most of the size ranges, although only one larger than 29 inches was captured.

Growth as measured from scale aging appears similar to the average for comparable north central Wisconsin lakes.

Recommendation: No active management of northern pike in Trump Lake is recommended at this time.

Smallmouth Bass - Only one smallmouth was captured during the entire survey period.

Recommendation: No active management of smallmouth bass in Trump Lake is recommended at this time.

Walleye - Although Trump Lake is best characterized as a bass-bluegill lake, there is a small but fishable population of walleye, maintained solely by stocking. There little to no evidence of natural
reproduction and recruitment, based on fall electroshocking surveys, since surveys were begun in 1981.

Walleye size structure showed adequate representation of most sizes from 7 " to over 20 " TL, indicating good survival of stocked fish. Notably, fish from 17" to 22" TL were well represented, and several walleyes were captured measuring from 25" to 27" TL.

Growth of walleyes as measured from scale aging appears similar to the average for comparable north central Wisconsin lakes.

Recommendation: Continue to provide a walleye fishing opportunity by authorizing the annual private stocking of walleye fingerlings from the FCWA coop pond. Small fingerlings to be stocked at no more than 50 per acre. Large fingerlings to be stocked at no more than 20 per acre.

## PANFISH

Bluegill - Bluegill are by far the dominant panfish in Trump Lake based on relative abundance. Historical concerns about overabundance and small size led to several panfish removal projects, the last which occurred in 1989.

Bluegill size structure in 1998 appears to have remained fairly good, with sizes up to almost 8" TL well represented, and a maximum size sampled of 9" TL. Modal size was 6.7" TL. In comparison, maximum and modal sizes in 1988, 1989 and 1992 were all less than in 1998.

Growth as measured from scale aging appears slower than the average for comparable north central Wisconsin lakes. In light of the relatively good size structure, the slow growth may also be related to factors other than bluegill density, most likely the lake's inherent nutrient-poor chemistry and resultant low productivity.

Recommendation: No active management of bluegill in Trump Lake is recommended at this time. Periodic monitoring of bluegill relative abundance and size structure may warrant future panfish removals if abundance again greatly increases and sizes decline.

Other Panfish - Black crappie, pumpkinseed, rock bass, warmouth and yellow perch were all relatively very low in abundance compared to bluegill. Like bluegill, growth rates for all except pumpkinseeds were slower than the average for comparable north central Wisconsin lakes. In light of their low relative abundance, the slow growth rates are likely related to the lake's inherent nutrient-poor chemistry and resultant low productivity. Pumpkinseed growth was similar to the average for comparable north central Wisconsin lakes.

Recommendation: No active management of other panfish in Trump Lake is recommended at this time.

## APPENDIX

Appendix Table numbering corresponds with Figures in the SURVEY RESULTS section.

Table 1. Trump Lake, Forest County 1998 Comprehensive Fisheries Survey Catch Summary

|  | pecies | Early | Spring |  | (and Size Ra Spring | Late | Inches) by Spring | Samplin | ng Period ummer |  | all |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Common Name | Scientific Name |  | etting |  | ctrofishing |  | etting |  | etting | Electr | trofishing | Total | Catch |
|  |  | Catch | Size | Catch | Size | Catch | Size | Catch | Size | Catch | Size | Catch | Size |
| Black Crappie | Pomoxis nigromaculatus | 49 | ND |  |  |  | (3.8-10.4) |  |  |  |  | 89 | (3.8-10.4) |
| Bluegill | Lepomis macrochirus | 53 | ND |  |  |  | (2.8-9.0) | 316 | (1.1-3.6) |  |  | 1239 | (1.1-9.0) |
| Bluntnose Minnow | Pimephales notatus |  |  |  |  |  |  | 447 | (1.1-3.1) |  |  | 447 | (1.1-3.1) |
| Creek Chub | Semotilus atromaculatus |  |  |  |  |  |  |  | (4.5) |  |  | 1 | (4.5) |
| Golden Shiner | Notemigonus crysoleucas |  |  |  |  |  | (5.1-5.9) |  |  |  |  | 4 | (5.1-5.9) |
| Iowa Darter | Etheostoma exile |  |  |  |  |  |  | 3 | (1.4-1.8) |  |  | 3 | (1.4-1.8) |
| Johnny Darter | Etheostoma nigrum |  |  |  |  |  |  |  | (1.6-2.2) |  |  | 3 | (1.6-2.2) |
| Largemouth Bass | Micropterus salmoides | 4 | ND |  | (7.0-22.0) |  | (7.6-19.8) |  | (1.3-5.8) |  | (5.1-14.4) | 211 | (1.3-22.0) |
| Muskellunge | Esox masquinongy |  | (36.2-43) |  | (35.0) |  |  |  |  |  |  | 4 | (35.0) |
| Northern Pike | Esox lucius |  | (9.9-37.0) |  | (12.5-24.2) |  | (10.7-26.3) |  |  |  | (17.0-20.9) | 49 | (9.9-37.0) |
| Pumpkinseed | Lopomis gibbosus | 5 | ND |  |  |  | (3.8-7.7) |  |  |  |  | 89 | (3.8-7.7) |
| Rock Bass | Ambloplites rupestris | 37 | ND |  |  |  | (3.1-9.3) | 15 | (1.4-4.2) |  |  | 210 | (1.4-9.3) |
| Smallmouth Bass | Micropterus dolomieui |  |  |  |  |  |  |  |  |  | (2.6) | 1 | (2.6) |
| Walleye | Stizostedeon vitreum vitreum | 110 | (7.9-27.3) |  | (7.5-25.4) |  | (9.6-21.4) |  |  |  | (9.8-22.4) | 179 | (7.5-27.3) |
| Warmouth | Lepomis gulosus | 1 | ND |  |  |  | (3.6-7.9) |  |  |  |  | 60 | (3.6-7.9) |
| White Sucker | Catostomus commersoni | 70 | ND |  |  |  |  |  |  |  |  | 70 | ND |
| Yellow Bullhead | Ictalurus natalis |  |  |  |  |  | (7.1-12.4) |  | (2.5) |  |  | 44 | (2.5-12.4) |
| Yellow Perch | Perca flavescens | 26 | ND |  |  |  | (6.7) | 2 | (1.9-2.3) |  |  | 29 | (1.9-6.7) |


| Table 2. Gamefish CPE's - Netting |  |  |  |
| :--- | :--- | :--- | ---: |
|  | Early | Late |  |
|  | Spring | Spring | Summer |
|  | 4.6 | 0.3 | 5.1 |
| Largemouth Bass | 1.0 | 0.7 | 0 |
| Northern Pike | 4.6 | 0.4 | 0 |
| Walleye |  |  |  |

Table 3. Gamefish CPE's - Shocking

|  |  |  |
| :--- | ---: | ---: |
|  | Spring | Fall |
| LM Bass | 11.6 | 5.0 |
| Musky | 0.1 |  |
| N Pike | 0.9 | 1.5 |
| SM Bass |  | 0.4 |
| Walleye (age 0+) |  |  |
| Walleye (age 1+) |  | 0.4 |
| Walleye (other) | 4.7 | 3.8 |


| Table 4. L | MB Trump L | ke 1998 Leng | gth Frequenc |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| unmarked fish only |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| INCH |  |  |  |  |  |  |  |
| GROUP | 04/10/1998 | 04/11/1998 | 04/13/1998 | 04/28/1998 | 05/19/1998 | 05/26/1998 | Totals |
| <8.0 |  |  |  |  | 1 | 3 | 4 |
| 8.0-8.4 |  |  |  |  | 4 | 2 | 6 |
| 8.5-8.9 |  |  |  | 1 | 2 | 1 | 4 |
| 9.0-9.4 |  |  |  | 1 | 3 | 3 | 7 |
| 9.5-9.9 |  |  |  | 1 | 2 | 5 | 8 |
| 10.0-10.4 |  |  |  | 2 | 2 | 4 | 8 |
| 10.5-10.9 | 1 |  |  | 1 | 4 | 3 | 8 |
| 11.0-11.4 |  |  | 2 | 2 | 7 | 4 | 15 |
| 11.5-11.9 |  |  |  | 4 | 5 | 3 | 12 |
| 12.0-12.4 | 1 | 1 |  | 3 | 6 | 4 | 13 |
| 12.5-12.9 | 1 |  |  | 2 | 3 | 3 | 8 |
| 13.0-13.4 |  |  | 2 | 4 | 9 |  | 15 |
| 13.5-13.9 |  |  |  | 1 | 1 | 1 | 3 |
| 14.0-14.4 |  |  | 1 |  |  | 2 | 3 |
| 14.5-14.9 |  |  | 1 | 1 | 1 | 1 | 4 |
| 15.0-15.4 |  |  |  | 1 |  |  | 1 |
| 15.5-15.9 |  |  |  |  |  |  |  |
| 16.0-16.4 |  |  |  |  | 1 |  | 1 |
| 16.5-16.9 |  |  |  |  |  |  |  |
| 17.0-17.4 |  |  |  |  |  |  |  |
| 17.5-17.9 |  |  |  |  |  |  |  |
| 18.0-18.4 |  |  |  |  | 1 |  | 1 |
| 18.5-18.9 |  |  |  |  |  |  |  |
| 19.0-19.4 |  |  |  |  |  |  |  |
| 19.5-19.9 |  |  |  |  |  |  |  |
| 20.0-20.4 |  |  |  |  |  | 1 | 1 |
| 20.5-20.9 |  |  |  |  |  |  |  |
| 21.0-21.4 |  |  |  |  |  |  |  |
| 21.5-21.9 |  |  |  |  |  |  |  |
| 22.0-22.4 |  |  |  |  | 1 |  | 1 |
| 22.5-22.9 |  |  |  |  |  |  |  |
| 23.0-23.4 |  |  |  |  |  |  |  |
| 23.5-23.9 |  |  |  |  |  |  |  |
| 24.0-24.4 |  |  |  |  |  |  |  |
| 24.5-24.9 |  |  |  |  |  |  |  |
| 25.0-25.4 |  |  |  |  |  |  |  |
| 25.5-25.9 |  |  |  |  |  |  |  |
| 26.0-26.4 |  |  |  |  |  |  |  |
| 26.5-26.9 |  |  |  |  |  |  |  |
| 27.0-27.4 |  |  |  |  |  |  |  |
| 27.5-27.9 |  |  |  |  |  |  |  |
| 28.0-28.4 |  |  |  |  |  |  |  |
| 28.5-28.9 |  |  |  |  |  |  |  |
| 29.0-29.4 |  |  |  |  |  |  |  |
| 29.5-29.5 |  |  |  |  |  |  |  |
| 30.0+ |  |  |  |  |  |  |  |
| TOTALS | 3 | 1 | 6 | 24 | 53 | 40 | 123 |

Table 5. Largemouth Bass length at age

|  |  |  |
| ---: | ---: | ---: |
|  |  | NC Wis averge |
| age | Trump Lake 1998 | (seepage lakes) |
| 3 | 7.8 | 8.4 |
| 4 | 8.8 | 10.6 |
| 5 | 10 | 12.2 |
| 6 | 11.3 | 13.6 |
| 7 | 12.7 | 14.9 |
| 8 | 13.7 | 15.1 |
| 9 | 13.7 |  |
| 10 | 15.3 |  |
| 11 | 20.3 |  |
| 12 |  |  |
| 13 | 19.8 |  |
| 14 | 22 |  |

Table 6. Muskellunge length at age

|  |  |  |
| ---: | ---: | ---: |
|  |  | NC Wis averge |
| age | Trump Lake 1998 | (seepage lakes) |
| 7 | 35 | 35.5 |
| 8 | 36.2 | 38.1 |
| 9 |  | 40 |
| 10 | 42 | 45.3 |
| 11 | 41 |  |



Table 8. Northern pike length at age

|  |  |  |
| ---: | ---: | ---: |
|  |  | NC Wis averge |
| age | Trump Lake 1998 | (seepage lakes) |
| 2 | 13 | 13.2 |
| 3 | 16.8 | 17.9 |
| 4 | 20.5 | 20.8 |
| 5 | 22.9 | 23.2 |
| 6 | 24.3 | 25.4 |
| 7 | 28.6 | 26 |
| 8 |  |  |
| 9 | 37 |  |


|  |  |  | ESTIMATED |  |
| :---: | :---: | :---: | :---: | :---: |
| INCH |  | SAMPLED | NUMBER PER |  |
| GROUP |  | NUMBER | INCH GROUP |  |
| 3.0-3.4 |  |  |  |  |
| 3.5-3.9 |  |  |  |  |
| 4.0-4.4 |  |  |  |  |
| 4.5-4.9 |  |  |  |  |
| 5.0-5.4 |  |  |  |  |
| 5.5-5.9 |  |  |  |  |
| 6.0-6.4 |  |  |  |  |
| 6.5-6.9 |  |  |  |  |
| 7.0-7.4 |  |  |  |  |
| 7.5-7.9 |  |  |  |  |
| 8.0-8.4 |  |  |  |  |
| 8.5-8.9 |  |  |  |  |
| 9.0-9.4 |  |  |  |  |
| 9.5-9.9 |  |  |  |  |
| 10.0-10.4 |  |  |  |  |
| 10.5-10.9 |  |  |  |  |
| 11.0-11.4 |  |  |  |  |
| 11.5-11.9 |  |  |  |  |
| 12.0-12.4 |  |  |  |  |
| 12.5-12.9 |  |  |  |  |
| 13.0-13.4 |  | 1 |  | 3 |
| 13.5-13.9 |  | 9 |  | 28 |
| 14.0-14.4 |  | 4 |  | 13 |
| 14.5-14.9 |  | 5 |  | 16 |
| 15.0-15.4 |  | 6 |  | 9 |
| 15.5-15.9 |  | 3 |  | 5 |
| 16.0-16.4 |  | 1 |  | 2 |
| 16.5-16.9 |  |  |  |  |
| 17.0-17.4 |  | 1 |  | 2 |
| 17.5-17.9 |  | 5 |  | 8 |
| 18.0-18.4 |  | 1 |  | 2 |
| 18.5-18.9 |  | 4 |  | 6 |
| 19.0-19.4 |  | 7 |  | 11 |
| 19.5-19.9 |  | 5 |  | 8 |
| 20.0-20.4 |  | 6 |  | 11 |
| 20.5-20.9 |  | 1 |  | 2 |
| 21.0-21.4 |  | 1 |  | 2 |
| 21.5-21.9 |  | 3 |  | 5 |
| 22.0-22.4 |  |  |  |  |
| 22.5-22.9 |  |  |  |  |
| 23.0-23.4 |  |  |  |  |
| 23.5-23.9 |  |  |  |  |
| 24.0-24.4 |  |  |  |  |
| 24.5-24.9 |  |  |  |  |
| 25.0-25.4 |  | 2 |  | 4 |
| 25.5-25.9 |  | 1 |  | 2 |
| 26.0-26.4 |  |  |  |  |
| 26.5-26.9 |  |  |  |  |
| 27.0-27.4 |  | 1 |  | 2 |
| 27.5-27.9 |  |  |  |  |
| 28.0-28.4 |  |  |  |  |
| 28.5-28.9 |  |  |  |  |
| 29.0-29.4 |  |  |  |  |
| 29.5-29.5 |  |  |  |  |
| 30.0+ |  |  |  |  |
| TOTALS |  | 67 |  | 141 |

Table 9. Trump Lake WE Population Estimates

| 1998 Comp Survey |  |  |  |
| :---: | :---: | :--- | :--- |
|  |  |  |  |
| Size Group | Adult | Total |  |
| $3.0^{\prime \prime}-11.9^{\prime \prime}$ |  | 130 |  |
| $12.0^{\prime \prime}-14.9^{\prime \prime}$ | 60 | 65 |  |
| $15.0^{\prime \prime}-19.9^{\prime \prime}$ | 51 | 72 |  |
| $>20.0^{\prime \prime}$ | 27 | 18 |  |


| Table 11. . TOTAL POPULATION DISTRIBUTION -Trump Lake |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  | ESTIMATED |  |
| INCH |  | SAMPLED | NUMBER PER |  |
| GROUP |  | NUMBER | INCH GROUP |  |
| 3.0-3.4 | 3 |  |  |  |
| 3.5-3.9 | 3.5 |  |  |  |
| 4.0-4.4 | 4 |  |  |  |
| 4.5-4.9 | 4.5 |  |  |  |
| 5.0-5.4 | 5 |  |  |  |
| 5.5-5.9 | 5.5 |  |  |  |
| 6.0-6.4 | 6 |  |  |  |
| 6.5-6.9 | 6.5 |  |  |  |
| 7.0-7.4 | 7 | 1 | 6 |  |
| 7.5-7.9 | 7.5 | 2 | 12 |  |
| 8.0-8.4 | 8 | 2 | 12 |  |
| 8.5-8.9 | 8.5 | 2 | 12 |  |
| 9.0-9.4 | 9 |  |  |  |
| 9.5-9.9 | 9.5 | 3 | 18 |  |
| 10.0-10.4 | 10 | 4 | 24 |  |
| 10.5-10.9 | 10.5 | 4 | 24 |  |
| 11.0-11.4 | 11 | 2 | 12 |  |
| 11.5-11.9 | 11.5 | 2 | 12 |  |
| 12.0-12.4 | 12 | 1 | 2 |  |
| 12.5-12.9 | 12.5 | 1 | 2 |  |
| 13.0-13.4 | 13 | 1 | 2 |  |
| 13.5-13.9 | 13.5 | 13 | 31 |  |
| 14.0-14.4 | 14 | 4 | 10 |  |
| 14.5-14.9 | 14.5 | 7 | 17 |  |
| 15.0-15.4 | 15 | 6 | 12 |  |
| 15.5-15.9 | 15.5 | 3 | 6 |  |
| 16.0-16.4 | 16 | 1 | 2 |  |
| 16.5-16.9 | 16.5 |  |  |  |
| 17.0-17.4 | 17 | 2 | 4 |  |
| 17.5-17.9 | 17.5 | 5 | 10 |  |
| 18.0-18.4 | 18 | 1 | 2 |  |
| 18.5-18.9 | 18.5 | 5 | 10 |  |
| 19.0-19.4 | 19 | 7 | 14 |  |
| 19.5-19.9 | 19.5 | 5 | 10 |  |
| 20.0-20.4 | 20 | 7 | 7 |  |
| 20.5-20.9 | 20.5 | 2 | 2 |  |
| 21.0-21.4 | 21 | 1 | 1 |  |
| 21.5-21.9 | 21.5 | 3 | 3 |  |
| 22.0-22.4 | 22 |  |  |  |
| 22.5-22.9 | 22.5 |  |  |  |
| 23.0-23.4 | 23 |  |  |  |
| 23.5-23.9 | 23.5 |  |  |  |
| 24.0-24.4 | 24 |  |  |  |
| 24.5-24.9 | 24.5 |  |  |  |
| 25.0-25.4 | 25 | 2 | 2 |  |
| 25.5-25.9 | 25.5 | 1 | 1 |  |
| 26.0-26.4 | 26 |  |  |  |
| 26.5-26.9 | 26.5 |  |  |  |
| 27.0-27.4 | 27 | 1 | 1 |  |
| 27.5-27.9 | 27.5 |  |  |  |
| 28.0-28.4 | 28 |  |  |  |
| 28.5-28.9 | 28.5 |  |  |  |
| 29.0-29.4 | 29 |  |  |  |
| 29.5-29.5 | 29.5 |  |  |  |
| 30.0+ | 30 |  |  |  |
| TOTALS |  | 101 | 286 |  |


| Table 12. Walleye length at age |  |  |
| ---: | ---: | ---: |
|  |  |  |
|  | Trump Lake 1998 | NC Wis average |
| age | survey avg length | (seepage lakes) |
| 1 | 7.8 | 5.6 |
| 2 | 9.5 | 8.9 |
| 3 | 11.3 | 12 |
| 4 | 13.9 | 13.6 |
| 5 | 15.1 | 15.4 |
| 6 | 16.8 | 16.9 |
| 7 | 19.4 | 18.4 |
| 8 | 19.1 | 20.9 |
| 9 | 20.7 |  |
| 10 | 25.6 |  |
| 11 |  |  |
| 12 | 26.4 |  |


| Table 13 | Trump Lake, Forest County |  | Fall Walleye Recruitment Survey Results and Stocking History |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Electrofishing Results |  |  |  | Walleye Stocking History |  |  |
|  |  | (Number per Mile) |  |  |  |  |  |  |
| Year | Survey Date | Walleye Age 0+ | Walleye Age 1+ | Walleye Other | Year | Stocking Date | Number Stocked | Size |
|  |  |  |  |  | 1970-76 |  | 18700 | Fingerling |
| 1981 | 04-Nov | 0 | 0 | 0 |  |  |  |  |
|  |  |  |  |  | 1982-93 |  | 31050 | Fingerling |
|  |  |  |  |  | 1994 | 25-Nov | 900 | Fingerling |
| 1995 | 26-Sep | 0 | 2.1 | 1.4 (12.0"-16.9") | 1995 | 01-Nov | 788 | Fingerling |
| 1996 | 08-Oct | 0 | 1.9 | 3.5 (11.8"-18.8") | 1996 | Sept \& Oct | 1169 | Fingerling |
| 1997 | 15-Sep | 0 | 2.3 | 5 (9.5" - 25.0") | 1997 | 19-Sep | 900 | Fingerling |
| 1998 | 24-Sep | 0 | 0.4 | 3.8 (12.0" - 22.4") | 1998 | 21-Oct | 1000 | 5.5" |
| 1999 |  |  |  |  | 1999 |  | 500 | 5" - 8" |
| 2000 | 15-Oct | 0.4 | 1.1 | 0.4 (13"-13.4") | 2000 |  | 1590 | 3"-9" |

Table 14. Trump Lake Panfish Netting CPE's

|  | Early | Late |  |
| :--- | ---: | :--- | ---: |
|  | Spring | Spring | Summer |
| Black Crappie | 3.3 | 2.7 |  |
| Bluegill | 3.5 | 58.0 | 26.3 |
| Pumpkinseed | 0.3 | 5.6 |  |
| Rock Bass | 2.5 | 10.5 | 1.3 |
| Warmouth | 0.1 | 3.9 |  |
| Yellow Perch | 5.3 | 0.1 | 0.2 |


| Table 15.Black Crappie length at age |  |  |
| ---: | ---: | ---: |
|  |  |  |
|  | Trump Lake 1998 | NC Wis average |
| age | survey avg length | (seepage lakes) |
| 2 | 3.9 | 4.2 |
| 3 | 6 | 6.9 |
| 4 | 7.7 | 8.2 |
| 5 | 8.7 | 9.8 |
| 6 | 9.5 | 10.3 |
| 7 | 10.3 | 10.2 |


| Table 16. Panfish LF's Trump lake 19! |  |  |
| :---: | :---: | :---: |
| fyke nets May 27-29 |  |  |
| Length |  |  |
| inch group | number BG |  |
| 2.5 |  |  |
| 2.6 |  |  |
| 2.7 |  |  |
| 2.8 | 3 | 3 |
| 2.9 | 1 | 1 |
| 3 | 1 | 1 |
| 3.1 | 1 | 1 |
| 3.2 |  |  |
| 3.3 | 1 | 1 |
| 3.4 | 3 | 3 |
| 3.5 | 1 | 1 |
| 3.6 | 1 | 1 |
| 3.7 |  |  |
| 3.8 | 1 | 1 |
| 3.9 | 1 | 1 |
| 4 |  |  |
| 4.1 | 3 | 3 |
| 4.2 | 3 | 3 |
| 4.3 |  |  |
| 4.4 | 5 | 5 |
| 4.5 | 1 | 1 |
| 4.6 | 2 | 2 |
| 4.7 |  | 7 |
| 4.8 | 7 | 7 |
| 4.9 | 4 | 4 |
| 5 | 6 | 6 |
| 5.1 | 7 | 7 |
| 5.2 |  | 4 |
| 5.3 | 3 | 3 |
| 5.4 | 10 |  |
| 5.5 |  | 5 |
| 5.6 | 11 |  |
| 5.7 | 6 | 6 |
| 5.8 | 12 |  |
| 5.9 | 5 | 5 |
| 6 | 5 | 5 |
| 6.1 | 10 |  |
| 6.2 | 7 | 7 |
| 6.3 | 9 | 9 |
| 6.4 | 13 |  |
| 6.5 | 5 | 5 |
| 6.6 | 6 | 6 |
| 6.7 | 16 |  |
| 6.8 | 14 |  |
| 6.9 | 7 | 7 |
| 7 |  | 4 |
| 7.1 |  | 8 |
| 7.2 | 6 | 6 |
| 7.3 | 10 |  |
| 7.4 | 10 |  |
| 7.5 | 5 | 5 |
| 7.6 |  | 4 |
| 7.7 |  | 2 |
| 7.8 | 6 | 6 |
| 7.9 | 6 | 6 |
| 8 |  | 3 |
| 8.1 | 3 | 3 |
| 8.2 | 1 | 1 |
| 8.3 |  | 2 |
| 8.4 |  | 2 |
| 8.5 |  | 1 |
| 8.6 |  |  |
| 8.7 |  |  |
| 8.8 |  |  |
| 8.9 | 1 | 1 |
| 9 |  | 1 |
| 9.1 |  |  |
| 9.2 |  |  |
| 9.3 |  |  |
| 9.4 |  |  |

Table 17. BG max/modal sizes

| Trump Lake |  |  |
| ---: | ---: | ---: |
|  | $\max (\mathrm{in})$ | modal (in) |
| 1988 | 7 | 5.7 |
| 1989 | 7.7 | 5.7 |
| 1992 | 7.8 | 6.2 |
| 1998 | 9 | 6.7 |


| Table 18. Trump Lake Bluegill Proportional and Relative Stock Densities |  |  |  |  |  |  |
| :---: | :---: | ---: | ---: | ---: | ---: | ---: |
|  |  |  |  |  |  |  |
|  |  | number >= | number >= | number >= |  |  |
|  |  | min pref | min quality | min stock |  |  |
| year | sample | length (8") | length (6") | length (3") | PSD | RSD |
| 1988 | (PSD \& RSD from 10/26/92 Ave to Andrews memo) | 14 | 0 |  |  |  |
| 1989 | (PSD \& RSD from 10/26/92 Ave to Andrews memo) | 27 | 0 |  |  |  |
| 1992 | (PSD \& RSD from 10/26/92 Ave to Andrews memo) | 74 | 0 |  |  |  |
| 1998 | late spr fykes | 14 | 167 | 277 | 60 | 5 |


| Table 19. Bluegill length at age |  |  |
| ---: | ---: | ---: |
|  |  |  |
|  | Trump Lake 1998 | NC Wis average |
| age | survey avg length | (seepage lakes) |
| 3 | 3.1 | 4.9 |
| 4 | 4.4 | 5.9 |
| 5 | 5.1 | 6.4 |
| 6 | 5.9 | 7.5 |
| 7 | 6.7 | 8.2 |
| 8 | 7.2 | 8.6 |
| 9 | 7.6 |  |
| 10 | 8.3 |  |
| 11 | 8.2 |  |


| Table 20. Pumpkinseed length at age |  |  |
| ---: | ---: | ---: |
|  |  |  |
|  | Trump Lake 1998 | NC Wis average |
| age | survey avg length | (seepage lakes) |
| 4 | 4.6 | 5.2 |
| 5 | 5.7 | 5.4 |
| 6 | 6.7 | 5.8 |
| 7 | 7 | 7.5 |


| Table 21. Rockbass length at age |  |  |
| ---: | ---: | ---: |
|  |  |  |
|  | Trump Lake 1998 | NC Wis average |
| age | survey avg length | (seepage lakes) |
| 2 | 3.2 | 4.1 |
| 3 | 4.6 | 5.6 |
| 4 | 5.7 | 6.8 |
| 5 | 6.4 | 7.9 |
| 6 | 7.1 | 9 |
| 7 | 7.1 |  |
| 8 |  |  |
| 9 | 9.1 |  |
| 10 | 9.3 |  |


| Table 22. Warmouth length at age |  |  |
| ---: | ---: | ---: |
|  |  |  |
|  | Trump Lake 1998 | NC Wis average |
| age | survey avg length | (seepage lakes) |
| 4 | 4.4 | 5 |
| 5 | 4.7 | 5.8 |
| 6 | 6.1 |  |
| 7 | 6.1 |  |
| 8 | 6.7 |  |
| 9 | 7.2 |  |

