

JOB COMPLETION REPORT

As required by

FEDERAL AID IN FISHERIES RESTORATION ACT

TEXAS

Federal Aid Project No. F-4-R-12

FISHERIES INVESTIGATIONS AND SURVEYS OF THE WATERS OF REGION 2-A

Job No. B-29: Fisheries Reconnaissance

Project Leader: Dwane Q. Smith

J. Weldon Watson  
Executive Director  
Texas Parks and Wildlife Department  
Austin, Texas

Marion Toole  
D-J Coordinator

Eugene A. Walker  
Director for Wildlife Services

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## Abstract

Lakes Kemp, Possum Kingdom, Graham, Palo Pinto, Wichita, Daniels and Iowa Park were surveyed. The results from Kemp, Possum Kingdom, and Graham were compared to previous data to determine any gross changes in the fish populations. Only slight changes were indicated. The per cent by number of rough fish remain very high for all three lakes.

Palo Pinto is a new lake. A netting survey was conducted in order to inventory the native fish population, to recommend a stocking program and to obtain basic information for future reference.

Lakes Wichita, Daniels and Iowa Park are old municipal lakes which were surveyed in order to determine existing fish populations. Fish populations were adequate except for Lake Wichita which yielded very few fish. Lake Wichita contains a very heavy growth of aquatic vegetation which can not be eliminated at the present time because of cost. Stocking of largemouth bass and channel catfish was recommended.

Job Completion Report

State of Texas

Project No. F-4-R-12

Name: Fisheries Investigations and Surveys of  
the Waters of Region 2-A.

Job No. B-29

Title: Fisheries Reconnaissance.

Period Covered: November 1, 1964 - October 31, 1965

Objective:

To conduct limited investigations to obtain current information concerning gross changes in fishing conditions and factors influencing fish populations.

Procedures:

During this segment of work seven lakes were surveyed. Lakes Kemp, Graham and Possum Kingdom were surveyed during the previous segment of work and re-visited during this segment. Lake Palo Pinto is a new lake, created as a water supply. It was stocked by the State hatchery system. Lakes Wichita, Daniel and Iowa Park are old lakes which were surveyed in order to determine needed fisheries management procedures.

Standard gill nets (150 feet long, 6 feet deep with graduated mesh from one inch square to 3½ inches square, changing every 25 feet) were set at random locations for each collection.

A reference list of fishes taken in gill nets during this segment is given in Table 1. The technical designations for all species are included with the reference list. Only the common names are used otherwise. For the purpose of this report the following are designated as game fish species: largemouth bass, white crappie, white bass, channel catfish, bluegill and longear sunfish.

Several lakes scheduled for reconnaissance were not surveyed due to a shortage of personnel and the press of other duties.

Findings:

Lake Kemp

Surveys conducted in 1963-64 at Lake Kemp showed the fish population to be composed predominantly of rough fish. The 1964-65 survey indicates the situation to be unchanged. Rough fish comprised 70.89 per cent by number of gill net samples; game fish, 29.11 per cent. Carpsuckers were the most numerous species with 34.96 per cent by number, followed by the carp with 24.27 per cent. Largemouth bass, absent from previous nettings, comprised 5.82 per cent by number during this segment of work. White crappie reflected some increases in "K" range and "K" average (Tables 2 and 3).

Table 1. Fisheries Reconnaissance November 1, 1964 - October 31, 1965

Reference List of Fishes

LEPISOSTEIDAE - (Gars)

- Lepisosteus oculatus - (spotted gar)
- Lepisosteus osseus - (longnose gar)

CLUPEIDAE - (Herrings)

- Dorosoma cepedianum - (gizzard shad)

CATOSTOMIDAE - (Suckers and buffalofishes)

- Ictiobus bubalus - (smallmouth buffalo)
- Carpionodes carpio - (river carpsucker)
- Moxostoma congestum - (gray redhorse)

CYPRINIDAE - (Shiners and minnows)

- Cyprinus carpio - (carp)
- Notemigonus crysoleucas - (golden shiner)

AMEIURIDAE - (Freshwater catfish)

- Ictalurus punctatus - (channel catfish)
- Ictalurus melas - (black bullhead)
- Ictalurus natalis - (yellow bullhead)
- Pylodictis olivaris - (flathead catfish)

SERRANIDAE - (Sea basses)

- Roccus chrysops - (white bass)

CENTRARCHIDAE - (Black basses and sunfishes)

- Micropterus punctulatus - (spotted bass)
- Micropterus salmoides - (largemouth bass)
- Lepomis microlophus - (reardear sunfish)
- Lepomis macrochirus - (bluegill)
- Lepomis megalotis - (longear sunfish)
- Pomoxis annularis - (white crappie)
- Pomoxis nigromaculatus - (black crappie)

SCIAENIDAE - (Drum and croakers)

- Aplodinotus grunniens - (freshwater drum)

Table 2. Lake Kemp netting results, 1964 - 1965 (F-4-R-12).

<u>Species</u>	<u>Total Number</u>	<u>% of Number</u>	<u>Total lbs. Weight</u>	<u>% of Weight</u>	<u>Av. Length mm</u>	<u>Av. Weight gms.</u>
Spotted gar	1	0.97	1.15	0.72	470	525
Gizzard shad	5	4.85	2.23	1.39	239	203
Smallmouth buffalo	4	3.89	23.17	14.53	420	263
River carpsucker	36	34.96	45.00	28.23	288	568
Carp	25	24.27	43.13	27.04	323	783
Channel catfish	5	4.85	3.03	1.90	243	276
White bass	5	4.85	2.58	1.62	231	235
Largemouth bass	6	5.82	30.59	19.18	467	2,315
Longear sunfish	2	1.95	0.61	0.39	175	140
Bluegill	5	4.85	0.57	0.35	118	52
White crappie	7	6.79	5.74	3.60	255	372
Freshwater drum	2	1.95	1.66	1.05	215	379
<b>TOTALS</b>	103	100.00	159.46	100.00		

Table 2 (continued). Lake Kemp netting results, 1964 - 1965 (F-4-R-12).

Species	Length Range mm	Weight Range gms.	No. Per 100 ft. Net	Lbs. Per 100 ft. Net	"K"	
					Range	Average
Spotted gar	470	525	0.05	0.05	0.50	0.50
Gizzard shad	210-290	135-350	0.26	0.12	1.35-1.50	1.43
Smallmouth buffalo	230-550	315-4,593	0.21	1.19	2.60-3.30	2.89
River carpsucker	240-315	340-737	1.84	2.30	1.93-2.75	2.31
Carp	280-460	510-2,552	1.29	2.22	1.45-2.60	2.26
Channel catfish	110-365	15-709	0.26	0.15	0.98-1.45	1.27
White bass	210-260	190-300	0.26	0.13	1.72-2.05	1.89
Largemouth bass	425-500	1,588-3,260	0.31	1.57	1.87-2.60	2.24
Longear sunfish	175	140	0.10	0.03	2.20-2.60	2.40
Bluegill	110-145	35-95	0.26	0.03	2.65-3.25	3.02
White crappie	200-315	135-794	0.35	0.30	1.70-2.52	2.02
Freshwater drum	90-340	20-737	0.10	0.08	1.85-2.85	2.35
TOTALS:			5.29	8.17		

Table 3. Lake Kemp netting results, 1963 - 1964 (F-4-R-11).

<u>Species</u>	<u>Total Number</u>	<u>% of Number</u>	<u>Total lbs. Weight</u>	<u>% of Weight</u>	<u>Av. Length mm</u>	<u>Av. Weight gms.</u>
Spotted gar	15	8.77	58.81	38.37	666	1,780
Gizzard shad	46	26.90	14.29	9.32	210	141
River carpsucker	42	<del>24.56</del>	44.36	28.95	298	480
Carp	14	8.19	15.35	10.01	289	498
Channel catfish	14	8.19	6.53	4.26	242	212
Flathead catfish	1	0.59	1.74	1.14	370	794
White bass	11	6.43	5.29	3.45	230	219
Bluegill	9	5.26	1.00	0.65	115	51
White crappie	11	6.43	4.16	2.72	198	172
Freshwater drum	8	4.68	1.73	1.13	155	98
TOTALS:	171	100.00	153.26	100.00		

Table 3 (continued). Lake Kemp netting results, 1963 - 1964 (F-4-R-11).

Species	Length Range mm	Weight Range gms	No. Per 100 ft. Net	Lbs. Per 100 ft. Net	"K"	
					Range	Average
Spotted gar	380-790	250-2,920	0.93	3.67	0.54-0.69	0.60
Gizzard shad	150-250	55-210	2.87	0.89	1.14-1.67	1.41
River carpsucker	280-340	380-851	2.62	2.77	1.77-2.15	1.92
Carp	260-320	280-709	0.87	0.95	1.35-2.32	1.87
Channel catfish	170-360	75-680	0.87	0.40	1.07-1.50	1.23
Flathead catfish	370	794	0.06	0.10	1.12	1.12
White bass	160-270	75-300	0.68	0.33	1.47-2.13	1.72
Bluegill	100-160	30-125	0.56	0.06	2.70-4.10	3.00
White crappie	140-290	30-510	0.68	0.26	1.10-2.08	1.75
Freshwater drum	145-165	60-75	0.50	0.10	1.67-1.95	0.45
TOTALS:			10.64	9.53		

The lake, during the summer months, sustains a heavy annual fish die-off composed predominantly of carpsucker. The carpsucker is the predominant species in the lake, as already noted. A study has begun to determine the cause for the fish die-off and to analyze the species composition in some detail (Job D-2, F-4-R-13).

#### Lake Possum Kingdom

Results of netting at Possum Kingdom indicate the fish population to be considerably improved over the 1963-64 segment. A total of 4,950 feet of net was used to take 462 fish. Rough fish made up 51.50 per cent and game fish 48.50 per cent by number (Tables 4 and 5).

Flathead catfish were netted during this segment and comprised 1.73 per cent by number and 9.52 per cent by weight. Channel catfish dropped slightly in numbers but due to the increase in flathead, the over-all catfish population appears adequate.

All game fish show an increase in average "K". Largemouth bass increased from 1.74 to 2.25 and crappie from 2.10 to 2.55.

Lake Possum Kingdom received 500,000 walleye fry on May 10, 1965, to raise the total walleye stocked to over 600,000. A number of walleye have been recaptured, the largest weighing one and one-half pounds.

#### Lake Graham

Results of netting at Lake Graham indicate only slight population changes have occurred. Gizzard shad, smallmouth buffalo and carp continue to be the predominant species. Largemouth bass and crappie show a decrease in per cent by number and per cent of weight. Stunting of crappie is indicated in netting results (Tables 6 and 7).

#### Lake Palo Pinto

Lake Palo Pinto, in Palo Pinto County, Texas, is a new lake built on Palo Pinto Creek eight miles south of the town of Palo Pinto. A netting survey was conducted to develop stocking recommendations, determine the native fish population and obtain other basic data about the new lake. Netting results are given in Table 8. Vegetation in this shallow lake will tend to be a major problem at present. The lake was stocked with largemouth bass from the State hatchery system.

#### Lakes Wichita-Daniels-Iowa Park

Lakes Wichita, Daniels and Iowa Park are city lakes which were netted in order to recommend fish stocking procedures. The lakes have not produced good fishing during the past few years. Lake Wichita is very shallow and contains a heavy growth of various types of vegetation. Channel catfish and white bass are the predominant species in Lake Wichita. Largemouth bass and crappie were not taken during this segment of work. It was recommended that bass and catfish be stocked (Table 9).

Table 4. Lake Possum Kingdom netting results, 1964 - 1965 (F-4-R-12).

<u>Species</u>	<u>Total Number</u>	<u>% of Number</u>	<u>Total lbs. Weight</u>	<u>% of Weight</u>	<u>Av. Length mm</u>	<u>Av. Weight gms.</u>
Spotted gar	1	0.21	1.74	0.28	490	794
Longnose gar	14	3.03	29.87	4.81	643	969
Gizzard shad	121	26.18	65.79	10.61	240	247
Smallmouth buffalo	29	6.28	184.20	29.69	440	2,884
River carpsucker	45	9.74	106.37	17.14	334	1,073
Carp	7	1.51	25.91	4.18	404	1,681
Channel catfish	36	7.80	69.41	11.19	354	875
Flathead catfish	8	1.73	59.07	9.52	553	3,352
White bass	27	5.84	17.11	2.76	231	288
Largemouth bass	16	3.47	15.33	2.47	247	435
Redear sunfish	29	6.28	8.06	1.30	162	126
Bluegill	63	13.64	14.15	2.28	137	102
White crappie	43	9.31	13.98	2.25	175	148
Black crappie	2	0.43	1.31	0.21	233	298
Freshwater drum	21	4.55	8.08	1.31	200	175
<b>TOTALS:</b>	462	100.00	620.38	100.00		

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Table 4 (continued). Lake Possum Kingdom netting results, 1964 - 1965 (F-4-R-12).

Species	Length Range mm	Weight Range gms.	No. Per 100 ft. Net	Lbs. Per 100 ft. Net	"K"	
					Range	Average
Spotted gar	490	794	0.02	0.03	0.67	0.67
Longnose gar	415-750	410-1,474	0.28	0.60	0.35-0.36	0.35
Gizzard shad	140-325	50-595	2.44	1.33	1.52-1.69	1.64
Smallmouth buffalo	330-560	1,134-5,386	0.59	3.72	2.52-3.29	3.14
River carpsucker	200-395	215-1,644	0.91	2.15	2.37-2.43	2.41
Carp	340-460	1,104-2,410	0.14	0.53	2.20-2.57	2.45
Channel catfish	200-560	120-3,175	0.73	1.40	1.26-1.63	1.51
Flathead catfish	380-710	907-5,897	0.16	1.19	1.35-1.71	1.67
White bass	135-280	55-510	0.54	0.35	1.63-2.40	2.21
Largemouth bass	155-460	155-2,098	0.33	0.31	1.83-3.12	2.25
Redear sunfish	150-180	110-150	0.58	0.16	2.87-3.25	2.92
Bluegill	95-160	35-135	1.28	0.29	3.20-4.02	3.79
White crappie	125-290	45-410	0.86	0.28	1.82-2.66	2.55
Black crappie	225-240	255-340	0.04	0.02	2.05-2.25	2.15
Freshwater drum	170-270	75-365	0.43	0.17	1.75-2.20	1.89
TOTALS:			9.33	12.53		

Table 5. Lake Possum Kingdom netting results, 1963 - 1964 (F-4-R-111).

<u>Species</u>	<u>Total Number</u>	<u>% of Number</u>	<u>Total lbs. Weight</u>	<u>% of Weight</u>	<u>Av. Length mm</u>	<u>Av. Weight gms.</u>
Spotted gar	1	0.28	0.50	0.11	355	230
Longnose gar	68	18.79	137.35	32.38	631	931
Gizzard shad	126	34.80	72.10	16.99	236	260
Smallmouth buffalo	13	3.59	64.50	15.21	407	2,253
River carpsucker	6	1.66	15.36	3.62	356	1,163
Carp	4	1.11	14.05	3.31	403	1,595
Channel catfish	44	12.15	59.74	14.08	365	616
White bass	40	11.05	27.23	6.42	247	309
Spotted bass	1	0.28	2.12	0.50	360	964
Largemouth bass	5	1.38	11.25	2.65	356	1,022
Bluegill	17	4.69	3.06	0.72	131	82
White crappie	24	6.63	12.26	2.89	180	232
Freshwater drum	13	3.59	4.73	1.12	199	165
<b>TOTALS:</b>	362	100.00	424.25	100.00		

Table 5 (continued). Lake Possum Kingdom netting results, 1963 - 1964 (F-4-R-11).

Species	Length Range mm	Weight Range gms.	No. Per 100 ft. Net	Lbs. Per 100 ft. Net	"K" Range	"K" Average
Spotted gar	355	230	0.02	0.01		
Longnose gar	370-1,200	175-7,655	1.57	3.17		
Gizzard shad	130-330	30-680	2.91	1.66	1.30-2.05	1.63
Smallmouth buffalo	265-500	567-3,799	0.30	1.49	2.25-3.40	2.93
River carpsucker	305-410	652-1,899	0.13	0.35	2.25-2.70	2.45
Carp	295-460	539-2,268	0.09	0.32	2.08-2.27	2.25
Channel catfish	210-505	110-2,211	1.01	1.38	1.17-1.70	1.36
White bass	150-330	65-737	0.92	0.62	1.45-2.40	1.93
Spotted bass	360	964	0.02	0.04	2.15	2.15
Largemouth bass	215-470	150-2,296	0.11	0.26	1.50-2.20	1.74
Bluegill	105-155	40-140	0.39	0.07	2.85-3.75	3.35
White crappie	130-300	45-595	0.55	0.28	1.62-2.60	2.10
Freshwater drum	140-250	55-285	0.30	0.10	1.47-2.20	1.93
TOTALS:			8.32	9.75		

Table 6. Lake Graham netting results, 1964 - 1965 (F-4-R-12).

Species	Total Number	% of Number	Total lbs. Weight	% of Weight	Av. Length mm	Av. Weight gms.
Spotted gar	1	1.56	2.24	1.09	560	1,021
Gizzard shad	8	12.50	3.45	1.69	222	196
Smallmouth buffalo	13	20.31	101.10	49.47	471	3,531
River carpsucker	20	31.25	54.57	26.70	366	1,239
Carp	1	1.56	7.49	3.66	520	3,402
Channel catfish	6	9.38	6.63	3.25	281	502
Largemouth bass	8	12.50	25.12	12.29	377	1,426
Bluegill	1	1.56	0.08	0.04	105	40
White crappie	6	9.38	3.69	1.81	209	280
TOTALS:	64	100.00	204.37	100.00		

Table 6 (continued). Lake Graham netting results, 1964 - 1965 (F-4-R-12).

Species	Length Range mm	Weight Range gms.	No. Per 100 ft. Net	Lbs. Per 100 ft. Net	"K"	
					Range	Average
Spotted gar	560	1,021	0.13	0.29	0.58	0.58
Gizzard shad	190-270	130-345	1.06	0.46	1.47-1.90	1.72
Smallmouth buffalo	410-630	2,410-7,485	1.73	13.48	2.70-3.80	3.26
River carpsucker	330-420	851-2,240	2.66	7.27	2.20-3.00	2.50
Carp	520	3,402	0.13	0.99	2.41	2.41
Channel catfish	190-500	90-1,956	0.80	0.88	1.25-1.60	1.40
Largemouth bass	240-475	285-2,778	1.06	3.34	2.02-2.75	2.25
Bluegill	105	40	0.13	0.01	3.50	3.50
White crappie	130-295	40-709	0.80	0.49	1.85-2.75	2.44
TOTALS:			8.50	27.21		

Table 7. Lake Graham netting results, 1963 - 1964 (F-4-R-11).

<u>Species</u>	<u>Total Number</u>	<u>% of Number</u>	<u>Total lbs. Weight</u>	<u>% of Weight</u>	<u>Av. Length mm</u>	<u>Av. Weight gms.</u>
Spotted gar	4	0.79	8.11	1.20	505	921
Gizzard shad	152	30.28	37.43	5.56	180	112
Smallmouth buffalo	33	6.57	231.23	34.34	462	3,181
River carpsucker	59	11.76	135.96	20.19	360	1,046
Carp	12	2.39	79.56	11.81	488	3,010
Golden shiner	1	0.20	0.17	0.03	155	80
Channel catfish	66	13.14	88.26	13.10	308	607
Black bullhead	10	2.00	3.39	0.51	200	155
Flathead catfish	2	0.39	12.98	1.92	555	2,949
Largemouth bass	19	3.79	37.83	5.62	315	904
Bluegill	41	8.17	4.28	0.64	113	54
White crappie	100	19.92	30.79	4.57	167	140
Freshwater drum	3	0.60	3.41	0.51	298	517
<b>TOTALS:</b>	502	100.00	673.40	100.00		

Table 7 (continued). Lake Graham netting results, 1963 - 1964 (F-4-R-11).

Species	Length Range mm	Weight Range gms.	No. Per 100 ft. Net	Lbs. Per 100 ft. Net	"K"	
					Range	Average
Spotted gar	390-615	230-1,588	0.10	0.22	0.62-0.66	0.65
Gizzard shad	135-275	35-305	4.16	1.02	1.20-2.00	1.72
Smallmouth buffalo	375-565	1,588-5,018	0.90	6.33	1.90-3.80	3.17
River carpsucker	295-410	567-1,928	1.61	3.72	1.65-3.10	2.42
Carp	245-600	355-5,358	0.32	2.17	1.47-2.55	2.29
Golden shiner	155	80	0.02	*0.01	2.15	2.15
Channel catfish	170-590	65-3,515	1.80	2.41	0.94-2.30	1.38
Black bullhead	165-230	80-225	0.27	0.09	1.55-2.05	1.89
Flathead catfish	540-570	2,835-3,062	0.05	0.35	1.65-1.80	1.72
Largemouth bass	200-460	140-2,552	0.52	1.03	1.77-2.80	2.28
Bluegill	100-150	25-115	0.12	0.11	1.77-4.20	3.24
White crappie	120-305	40-680	2.73	0.84	1.50-3.00	2.19
Freshwater drum	170-345	350-765	0.08	0.09	1.80-1.95	1.86
TOTALS:			13.68	18.39		

\* Less than

Table 8. Lake Palo Pinto netting results, 1964 - 1965 (F-4-R-12).

<u>Species</u>	<u>Total Number</u>	<u>% of Number</u>	<u>Total lbs. Weight</u>	<u>% of Weight</u>	<u>Av. Length mm</u>	<u>Av. Weight gms.</u>
Longnose gar	2	0.96	7.74	4.79	678	1,758
Gizzard shad	55	26.43	8.25	5.10	167	68
Smallmouth buffalo	19	9.13	12.01	7.44	204	287
River carpsucker	33	15.87	41.52	25.71	305	571
Gray redbhorse	1	0.48	1.56	0.96	310	709
Carp	16	7.69	27.53	17.05	309	781
Channel catfish	15	7.21	33.04	20.45	352	1,000
Black bullhead	10	4.81	5.36	3.32	215	243
Flathead catfish	3	1.45	13.98	8.66	463	2,117
Largemouth bass	3	1.45	1.14	0.70	203	173
Green sunfish	1	0.48	0.14	0.09	135	65
Bluegill	15	7.21	3.05	1.89	135	92
White crappie	33	15.87	4.14	2.56	152	57
Freshwater drum	2	0.96	2.06	1.28	275	469
<b>TOTALS:</b>	208	100.00	161.52	100.00		

Table 8 (continued). Lake Palo Pinto netting results, 1964 - 1965 (F-4-R-12).

Species	Length Range mm	Weight Range gms.	No. Per 100 ft. Net	Lbs. Per 100 ft. Net	"K"	
					Range	Average
Longnose gar	555-800	794-2,722	0.26	1.03	0.50-0.54	0.52
Gizzard shad	140-235	50-210	7.33	1.10	1.60-1.92	1.78
Smallmouth buffalo	160-365	142-1,559	2.53	1.60	2.65-3.45	3.23
River carpsucker	280-335	567-1,049	4.40	5.53	2.30-3.10	2.76
Gray redbhorse	310	709	0.13	0.20	2.35	2.35
Carp	290-320	595-992	2.13	3.67	2.40-3.00	2.74
Channel catfish	220-510	210-2,495	2.00	4.40	1.52-2.30	1.88
Black bullhead	210-225	215-260	1.33	0.71	2.28-2.65	2.44
Flathead catfish	360-530	794-3,175	0.40	1.86	1.67-2.15	1.90
Largemouth bass	175-225	100-235	0.40	0.15	1.87-2.05	1.97
Green sunfish	135	65	0.13	0.01	2.62	2.62
Bluegill	135	90-100	2.00	0.40	3.65-4.02	3.87
White crappie	125-255	35-365	4.40	0.55	1.80-2.20	1.99
Freshwater drum	250-300	285-652	0.26	0.27	1.85-2.38	2.11
TOTALS:			27.70	21.48		

Of those lakes surveyed, Lake Daniels reflected the highest game fish-rough fish ratio. Largemouth bass comprised 45.61 per cent by number and 52.30 per cent of weight of all fish captured. White crappie provided 17.54 per cent by number and 7.99 per cent of weight. Game fish comprised 75.44 per cent by number and 66.50 per cent of weight over-all. No stocking was recommended for this lake (Table 10).

Results of netting at Iowa Park Lake indicate that the fish population is very good when compared to other old lakes of this region. Small shad proved to be the most numerous species followed by white crappie, with 46.49 per cent and 42.03 per cent of number respectively. Three largemouth bass were taken which averaged over six pounds. No stocking was recommended for the lake (Table 11).

Table 9. Lake Wichita netting results, 1964 - 1965 (F-4-R-12).

<u>Species</u>	<u>Total Number</u>	<u>% of Number</u>	<u>Total lbs. Weight</u>	<u>% of Weight</u>	<u>Av. Length mm</u>	<u>Av. Weight gms.</u>
Gizzard shad	4	15.38	1.35	2.93	221	154
Smallmouth buffalo	4	15.38	13.42	29.15	381	1,524
River carpsucker	2	7.70	7.68	16.69	395	1,744
Channel catfish	8	30.77	18.04	39.19	388	1,024
White bass	8	30.77	5.54	12.04	198	315
<b>TOTALS:</b>	26	100.00	46.03	100.00		

Table 9 (continued). Lake Wichita netting results, 1964 - 1965 (F-4-R-12).

<u>Species</u>	<u>Length Range</u> mm	<u>Weight Range</u> gms.	<u>No. Per 100 ft. Net</u>	<u>Lbs. Per 100 ft. Net</u>	<u>"K"</u>	
					<u>Range</u>	<u>Average</u>
Gizzard shad	210-230	150-165	1.33	0.45	1.23-1.60	2.84
Smallmouth buffalo	320-405	907-1,871	1.33	4.47	2.45-2.85	2.70
River carpsucker	385-405	1,559-1,928	0.66	2.56	2.75-2.95	2.85
Channel catfish	300-435	425-1,503	2.66	6.01	1.55-1.82	1.67
White bass	140-345	65-1,134	2.66	1.84	2.07-3.25	2.55
<b>TOTALS:</b>			8.64	15.31		

Table 10. Lake Daniels netting results, 1964 - 1965 (F-4-R-12).

<u>Species</u>	<u>Total Number</u>	<u>% of Number</u>	<u>Total lbs. Weight</u>	<u>% of Weight</u>	<u>Av. Length mm</u>	<u>Av. Weight gms.</u>
Gizzard shad	2	3.50	1.87	1.76	293	425
River carpsucker	10	17.54	29.41	27.68	---	1,335
Carp	1	1.76	2.12	2.00	340	964
Channel catfish	6	10.53	6.55	6.16	298	496
Largemouth bass	26	45.61	55.56	52.30	348	2,523
Bluegill	1	1.76	0.05	0.05	100	25
White crappie	10	17.54	8.49	7.99	---	386
Freshwater drum	1	1.76	2.18	2.06	345	992
<b>TOTALS:</b>	57	100.00	106.23	100.00		

Table 10. (continued). Lake Daniels netting results, 1964 - 1965 (F-4-R-12).

Species	Length Range mm	Weight Range gms.	No. Per 100 ft. Net	Lbs. Per 100 ft. Net	"K"	
					Range	Average
Gizzard shad	290-295	410-440	0.38	0.35	1.60-1.77	1.68
River carpsücker	-----	-----	1.90	5.60	-----	-----
Carp	340	964	0.19	0.40	2.45	2.45
Channel catfish	175-410	80-992	1.14	1.24	1.35-1.52	1.46
Largemouth bass	240-480	300-2,580	4.95	10.58	1.95-2.70	2.27
Bluegill	100	25	0.19	*0.01	2.52	2.52
White crappie	-----	-----	1.90	1.61	-----	-----
Freshwater drum	345	992	0.19	0.41	2.40	2.40
<b>TOTALS:</b>			10.84	20.20		

\* Less than

Table 11. Iowa Park City Lake netting results, 1964 - 1965 (F-4-R-12).

<u>Species</u>	<u>Total Number</u>	<u>% of Number</u>	<u>Total lbs. Weight</u>	<u>% of Weight</u>	<u>Av. Length mm</u>	<u>Av. Weight gms.</u>
Gizzard shad	73	46.49	8.74	10.20	175	54
River carpsucker	6	3.82	19.66	22.97	376	1,488
Carp	1	0.64	0.39	0.45	215	180
Channel catfish	5	3.19	10.19	11.91	307	926
Yellow bullhead	1	0.64	0.16	0.18	160	75
White bass	1	0.64	1.99	2.33	340	907
Largemouth bass	3	1.91	18.98	22.17	448	2,873
Bluegill	1	0.64	0.04	0.05	75	20
White crappie	66	42.03	25.46	29.74	138	175
<b>TOTALS:</b>	157	100.00	85.61	100.00		

Table 11 (continued). Iowa Park City Lake netting results, 1964 - 1965 (F-4-R-12).

Species	Length Range mm	Weight Range gms.	No. Per 100 ft. Net	Lbs. Per 100 ft. Net	"K"	
					Range	Average
Gizzard shad	145-270	35-330	6.08	0.72	0.95-1.70	1.30
River carpsucker	325-450	907-2,381	0.50	1.63	2.42-3.30	2.72
Carp	215	180	0.08	0.03	1.80	1.80
Channel catfish	110-535	25-3,147	0.41	0.84	1.17-2.05	1.67
Yellow bullhead	160	75	0.08	0.01	1.82	1.82
White bass	340	907	0.08	0.16	2.30	2.30
Largemouth bass	430-470	2,240-3,374	0.25	1.58	2.80-3.42	3.15
Bluegill	75	20	0.08	*0.01	4.90	4.90
White crappie	95-325	15-1,134	5.50	2.12	1.70-3.65	2.53
TOTALS:			13.06	7.10		

\* Less than

Recommendations:

It is recommended that this job be terminated.

Prepared by Dwane Q. Smith  
Project Leader

Approved by Marion Toole  
Coordinator

Date: February 1, 1966

Gary Wood  
Regional Supervisor

