

PrairieIslandNPEm Resource

From: Asah, Raelynn S. [Raelynn.Asah@xenuclear.com]
Sent: Monday, December 15, 2008 4:01 PM
To: Nathan Goodman
Cc: Holthaus, James J.; Eckholt, Gene F.; Giese, Brad; Kuhl, Brent A
Subject: RE: PINGP Fish Impingement Summary Data 1974-1984
Attachments: PINGP1981-1984_Imping_Summ.pdf

Nathan,

Please find fish impingement summary data for PINGP 1981-1984 attached.

Thank you,

RaeLynn

From: Asah, Raelynn S.
Sent: Monday, December 15, 2008 3:00 PM
To: 'Nathan Goodman'
Cc: Holthaus, James J.; Eckholt, Gene F.; Giese, Brad; Kuhl, Brent A
Subject: RE: PINGP Fish Impingement Summary Data 1974-1984

Nathan,

Please find summary data 1979-1980 attached.

Thank you,

RaeLynn

From: Asah, Raelynn S.
Sent: Monday, December 15, 2008 2:58 PM
To: 'Nathan Goodman'
Cc: Holthaus, James J.; Eckholt, Gene F.; Giese, Brad; Kuhl, Brent A
Subject: PINGP Fish Impingement Summary Data 1974-1984

Good Afternoon Nathan,

I will be sending you a series of three emails to transmit the fish impingement summary data from the Prairie Island Nuclear Generating Plant (PINGP) Annual Environmental Reports 1974-1984. This email contains 1974-1978, the second 1979-1980, and the third 1981-1984. This is public information submitted the Minnesota Department of Natural Resources, however please note that this is only portions of the reports as requested by your staff aquatic biologist. As we discussed on the phone this data was gathered at the plant screen house prior to construction of the intake screen house in 1983.

Please do not hesitate to contact James Holthaus, Environmental Project Manager (james.holthaus@xenuclear.com 651-388-1121 ext 7268) or myself with any questions or concerns.

Thank you,

RaeLynn S. (Jones Loss) Asah
Environmental Consultant
Major Projects-Nuclear
Xcel Energy
Prairie Island Nuclear Generating Plant

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651-388-1121 ext 7269
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As of July 1, 2008, my new email address is: raelynn.asah@xenuclear.com

Hearing Identifier: Prairie_Island_NonPublic
Email Number: 192

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Subject: RE: PINGP Fish Impingement Summary Data 1974-1984
Sent Date: 12/15/2008 4:00:41 PM
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From: Asah, Raelynn S.

Created By: Raelynn.Asah@xenuclear.com

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"Nathan Goodman" <Nathan.Goodman@nrc.gov>
Tracking Status: None

Post Office: enex02.ft.nmcco.net

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**1981
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for the
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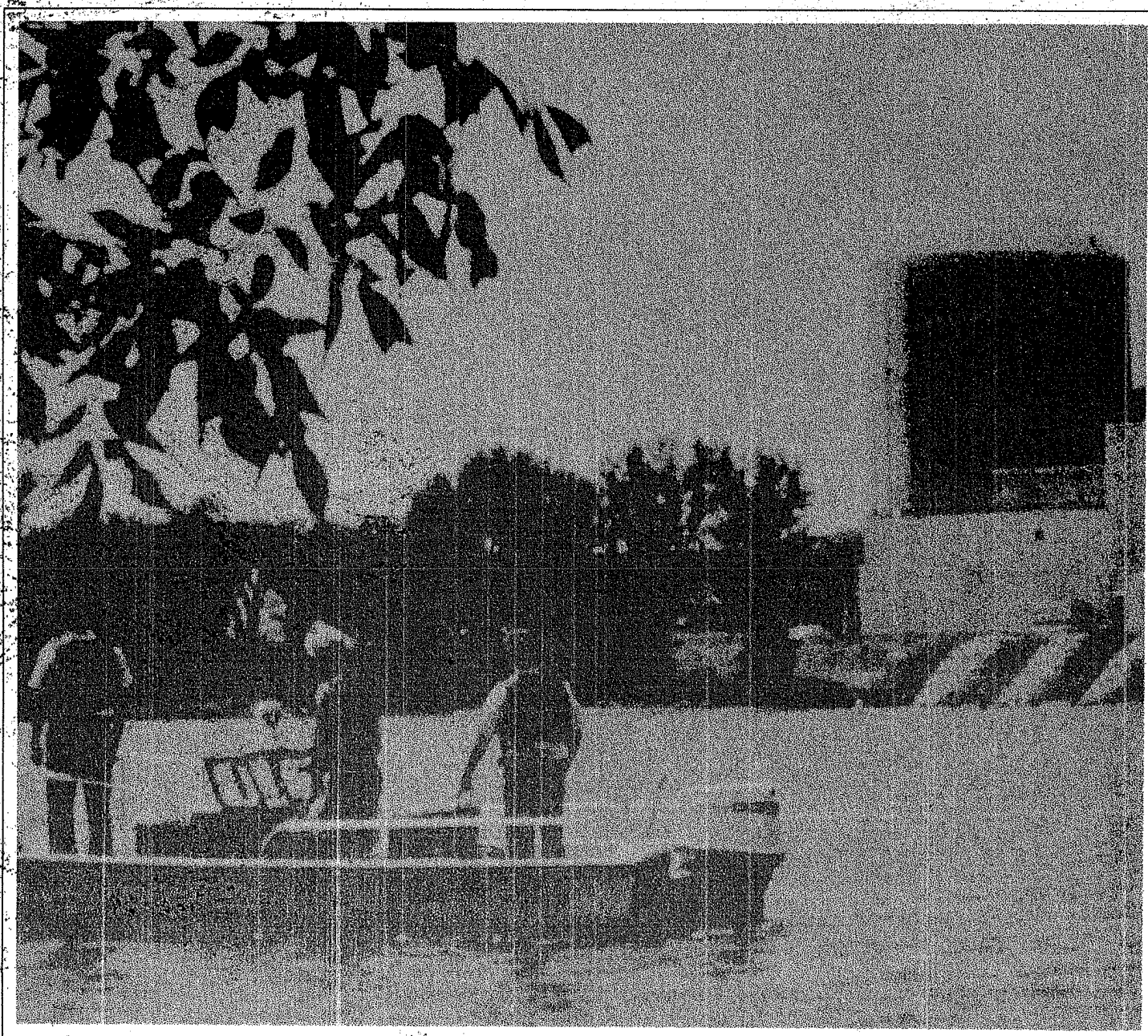


Table 3. Seasonal Comparison of Numbers and Percent of Fish Taxa Impinged "Every Other Week" at Prairie Island during 1981.

Taxa	Winter		Spring		Summer		Fall	
	January - March	April - June	July - September	October - December				
	Number	% of Total	Number	% of Total	Number	% of Total	Number	% of Total
Silver lamprey	2	66.7	1	33.3				
Lamprey spp.	1	100.0						
Longnose gar								
Shortnose gar	1	33.3	1	33.3	1	100.0	1	33.3
Gar spp.								
Bowfin	1	16.7	5	83.3	3	100.0		
Gizzard shad	12,159	50.7	4,525	18.9				
Mooneye			1	100.0	3,530	14.7	3,769	15.7
Northern pike	1	16.7	1	16.7	4	66.8		
Carp	10	10.5	25	26.3	30	31.6	30	31.6
Minnow/shiner spp.	3	2.7	16	14.6	45	40.9	46	41.8
Silver chub	3	33.3	1	11.1	3	33.3	2	22.2
Carp sucker spp.	20	42.5	20	42.5	6	12.8	1	2.1
Smallmouth buffalo	5	41.7	2	16.7			5	41.7
Bigmouth buffalo	1	50.0	1	50.0				
Shorthead redhorse	2	33.3	3	50.0	1	16.7		
Redhorse spp.			1	100.0				
Bullhead spp.	2	50.0	2	50.0				
Channel catfish	83	33.1	48	19.1	64	25.5	56	22.3
Tadpole madtom	1	50.0			1	50.0		
Flathead catfish	2	28.6	1	14.3	4	57.1		
Trout-perch					1	100.0		
Burbot								
White bass	235	27.3	97	11.3	346	40.1	1	100.0
Rock bass	4	23.5	8	47.1	2	11.8	184	21.4
Green sunfish	2	8.0	14	56.0	6	24.0	3	17.7
Bluegill	13	9.6	39	28.9	27	20.0	3	12.0
Smallmouth bass	1	33.3			2	66.6	56	41.9
Largemouth bass								
Crappie spp.	29	8.3	1	100.0				
Yellow perch	2	33.3	45	12.9	185	53.0	90	25.8
Logperch			2	33.3	1	16.7	1	16.7
Sauger	16	76.2	3	14.3	2	100.0		
						9.5		

Table 3. (Continued)

<u>Taxa</u>	<u>Winter</u>		<u>Spring</u>		<u>Summer</u>		<u>Fall</u>	
	January - Number	March % of Total	April - Number	June % of Total	July - Number	September % of Total	October - Number	December % of Total
Walleye	2	20.0	4	40.0	2	20.0	2	20.0
Stizostedion spp.	4	50.0	1	12.5	1	12.5	2	25.0
Freshwater drum	301	26.8	380	33.8	139	12.4	304	27.1
Unidentified fish	21	29.5	19	26.8	31	43.7		
Total	12,927	47.6	5,267	19.4	4,438	16.3	4,556	16.8
Total less Gizzard shad	768	24.0	742	23.2	908	28.3	787	24.6

Totals based on data collected "every other week".



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**1982
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for the
Prairie Island Nuclear
Generating Plant



Table 3
Seasonal Comparison of Numbers and Percent of Fish Taxa Impinged "Every Other Week" At Prairie Island During 1982

TAXA	WINTER JANUARY - MARCH		SPRING APRIL - JUNE		SUMMER JULY - SEPTEMBER		FALL OCTOBER - DECEMBER	
	NUMBER	% OF TOTAL	NUMBER	% OF TOTAL	NUMBER	% OF TOTAL	NUMBER	% OF TOTAL
Silver lamprey	1	50.0	0	0.0	0	0.0	1	50.0
Chestnut lamprey	0	0.0	1	50.0	0	0.0	1	50.0
Lamprey species	0	0.0	0	0.0	0	0.0	0	0.0
Longnose gar	0	0.0	0	0.0	2	100.0	0	0.0
Shortnose gar	1	33.3	2	66.7	0	0.0	0	0.0
Gar species	0	0.0	2	66.7	1	33.3	0	0.0
Bowfin	0	0.0	8	88.9	0	0.0	1	11.1
Gizzard shad	703	2.1	168	0.5	15528	46.1	17270	51.3
Mooneye	0	0.0	4	50.0	4	50.0	0	0.0
Northern pike	0	0.0	3	21.4	11	78.6	0	0.0
Carp	29	14.3	112	55.2	41	20.2	21	10.3
Silver chub	0	0.0	1	4.3	15	65.2	7	30.4
Minnow species	0	0.0	1	3.1	15	46.9	16	50.0
Shiner species	0	0.0	10	16.4	33	54.1	18	29.5
Carp sucker species	0	0.0	24	47.1	8	15.7	19	37.3
Smallmouth buffalo	0	0.0	6	54.5	2	18.2	3	27.3
Bismouth bufflo	0	0.0	11	84.6	1	7.7	1	7.7
Shorthhead redhorse	0	0.0	3	100.0	0	0.0	0	0.0
Redhorse species	0	0.0	0	0.0	0	0.0	0	0.0
Bullhead species	0	0.0	8	30.8	1	3.8	17	65.4
Channel catfish	41	2.0	122	6.0	287	14.0	1596	78.0
Tadpole madtom	0	0.0	0	0.0	0	0.0	1	100.0
Flethead catfish	1	1.6	2	3.1	7	10.9	54	84.4
Trout-perch	0	0.0	0	0.0	1	100.0	0	0.0
Burbot	1	50.0	0	0.0	0	0.0	1	50.0
White bass	35	3.4	85	8.2	491	47.6	420	40.7
Rock bass	3	30.0	2	20.0	2	20.0	3	30.0
Green sunfish	2	8.3	5	20.8	0	0.0	17	70.8
Bluegill	19	10.7	26	14.6	32	18.0	101	56.7
Smallmouth bass	1	25.0	1	25.0	2	50.0	0	0.0
Largemouth bass	0	0.0	0	0.0	0	0.0	0	0.0
Crappie species	20	6.0	41	12.3	73	21.9	199	59.8
Yellow perch	0	0.0	2	66.7	0	0.0	1	33.3
Logperch	0	0.0	1	50.0	0	0.0	1	50.0
Sauger	9	36.0	9	32.0	2	8.0	6	24.0
Walleye	9	56.3	4	25.0	2	12.5	1	6.3
Stizostedion species	3	33.3	4	44.4	0	0.0	2	22.2
Freshwater drum	32	0.1	298	1.3	1038	4.5	21612	94.0
Fish skeletons	15	21.4	49	70.0	4	5.7	2	2.9
White sucker	0	0.0	2	100.0	0	0.0	0	0.0
Black bullhead	0	0.0	11	100.0	0	0.0	0	0.0
Silver redhorse	0	0.0	1	100.0	0	0.0	0	0.0
TOTAL	925	1.5	1029	1.7	17603	28.9	41392	67.9
TOTAL LESS GIZZARD SHAD	222	0.8	860	3.2	2075	7.6	24122	88.4



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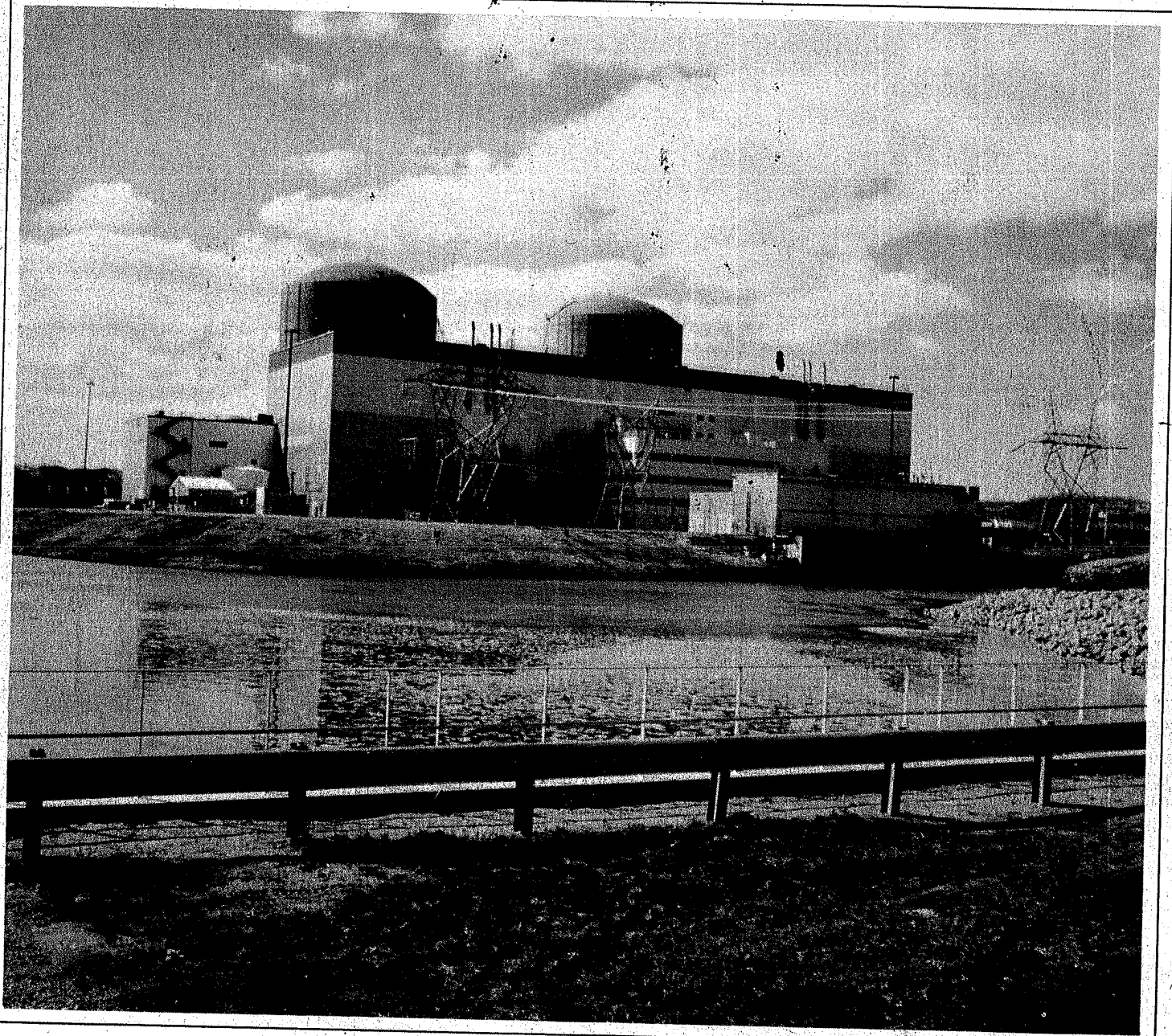


Table 3.

Seasonal Comparison of Fish Impinged "Every Other Week" at Prairie Island During 1983.

TAXA	WINTER		SPRING		SUMMER		FALL	
	JANUARY	MARCH	APRIL	JUNE	JULY	SEPTEMBER	OCTOBER	DECEMBER
	NUMBER	% OF TOTAL	NUMBER	% OF TOTAL	NUMBER	% OF TOTAL	NUMBER	% OF TOTAL
Silver lamprey	4	57.1	3	42.9	0	0.0	0	0.0
Chestnut lamprey	0	0.0	0	0.0	0	0.0	0	0.0
Lamprey species	0	0.0	0	0.0	0	0.0	0	0.0
Longnose gar	1	16.7	0	0.0	1	16.7	4	66.7
Shortnose gar	0	0.0	0	0.0	1	25.0	3	75.0
Gar species	0	0.0	0	0.0	0	0.0	0	0.0
Bowfin	0	0.0	1	20.0	2	40.0	2	40.0
Gizzard shad	7100	8.3	72	0.1	17759	20.7	61055	71.0
Mooneye	0	0.0	2	22.2	5	55.6	2	22.2
Northern pike	4	12.1	5	15.2	21	63.6	3	9.1
Gar	9	7.8	14	12.2	78	67.8	14	12.2
Silver chub	2	12.5	11	68.8	1	6.3	2	12.5
Minnow species	0	0.0	1	50.0	1	50.0	0	0.0
Shiner species	41	31.8	10	7.0	30	23.3	48	37.2
Carp sucker species	13	76.5	4	23.5	0	0.0	0	0.0
Smallmouth buffalo	5	38.5	6	46.2	0	0.0	2	15.4
Smallmouth buffalo	3	27.3	7	63.6	0	0.0	1	9.1
Bismouth buffalo	1	25.0	1	100.0	1	25.0	1	25.0
Shorthorn redhorse	0	0.0	1	100.0	0	0.0	0	0.0
Redhorse species	10	13.5	61	82.4	3	4.1	0	0.0
Bullhead species	1118	64.7	22	1.3	224	13.0	365	21.1
Channel catfish	0	0.0	0	0.0	1	50.0	1	50.0
Tadpole madtom	5	11.6	1	2.3	7	16.3	30	69.8
Flathead catfish	1	33.3	2	66.7	0	0.0	0	0.0
Trout-perch	0	0.0	1	50.0	1	50.0	0	0.0
Burbot	161	24.5	84	12.9	187	28.5	224	34.1
White bass	1	12.5	5	62.5	1	12.5	1	12.5
Rock bass	2	33.3	1	16.7	0	0.0	3	50.0
Green sunfish	37	10.5	10	2.8	23	6.5	284	80.2
Bluegill	3	100.0	0	0.0	0	0.0	0	0.0
Smallmouth bass	0	0.0	0	0.0	0	0.0	4	100.0
Largemouth bass	20	1.7	69	5.8	668	55.9	438	36.7
Crappie species	7	53.8	5	38.5	1	7.7	0	0.0
Yellow perch	0	0.0	1	100.0	0	0.0	0	0.0
Logperch	2	4.7	31	72.1	8	18.6	2	4.7
Sauger	5	22.7	7	31.8	8	36.4	2	9.1
Walleye	0	0.0	0	0.0	0	0.0	0	0.0
Stizostedion species	288	1.4	650	3.1	1336	6.5	19421	89.0
Freshwater drum	0	0.0	7	36.8	11	57.9	1	5.3
Fish skeletons	2	50.0	1	25.0	1	25.0	0	0.0
White sucker	0	0.0	0	0.0	0	0.0	0	0.0
Black bullhead	0	0.0	0	0.0	0	0.0	0	0.0
Silver redhorse	0	0.0	0	0.0	0	0.0	0	0.0
Buffalo species	1	100.0	0	0.0	0	0.0	0	0.0
Central mudminnow	1	50.0	1	50.0	0	0.0	0	0.0
Golden redhorse	1	100.0	0	0.0	0	0.0	0	0.0
Goldeye	0	0.0	0	0.0	1	100.0	0	0.0
TOTAL	8848	8.0	1097	1.0	20381	18.3	80913	72.7
TOTAL LESS								
GIZZARD SHAD	1748	6.9	1025	4.1	2622	10.4	19858	78.6



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1984 Annual Report

Table 3.

1984

JANUARY 25, 1985

SEASONAL COMPARISON OF NUMBERS AND OF FISH TAXA IMPINGED "EVERY OTHER WEEK" AT PRAIRIE ISLAND

TAXA	WINTER		SPRING		SUMMER		FALL	
	JANUARY - MARCH	APRIL - JUNE	JULY - SEPTEMBER	OCTOBER - DECEMBER	NUMBER	% OF TOTAL	NUMBER	% OF TOTAL
Silver lamprey	0	1	0	0	0	0.0	0	0.0
Longnose gar	0	0	0	0	0	0.0	2	100.0
Gizzard shad	9250	49	16	2663	16	0.0	2663	2.6
Carp	1	78	13	82.1	13	13.7	3	3.2
Silver chub	0	1	0	100.0	0	0.0	0	0.0
Minnow species	2	16	2	12.2	111	1.5	111	84.7
Shiner species	30	73	9	31.2	122	3.8	122	52.1
Carp sucker species	1	5	0	95.7	0	0.0	8	57.1
Smallmouth buffalo	0	2	0	100.0	0	0.0	0	0.0
Bigmouth buffalo	0	5	0	100.0	0	0.0	0	0.0
Shorthead redhorse	10	0	0	0.0	0	0.0	0	0.0
Bullhead species	1	0	0	0.0	0	0.0	28	96.6
Channel catfish	174	250	16	49.3	16	3.2	67	13.2
Flathead catfish	0	10	2	62.5	2	12.5	4	25.0
Trot-perch	0	0	0	0.0	0	0.0	9	100.0
Burbot	3	0	0	0.0	0	0.0	0	0.0
White bass	93	2	7	1.5	7	5.1	35	25.5
Rock bass	0	1	0	100.0	0	0.0	0	0.0
Green sunfish	13	3	0	4.3	0	0.0	54	77.1
Bluegill	278	15	5	3.4	5	1.1	142	32.3
Largemouth bass	0	0	0	0.0	0	0.0	1	100.0
Crappie species	8	1	0	0.9	0	0.0	100	91.7
Sauger	5	1	0	16.7	0	0.0	0	0.0
Walleye	7	1	0	12.5	0	0.0	0	0.0
Freshwater drum	512	91	5	6.2	5	0.3	864	58.7
Fish skeletons	2	3	7	25.0	7	58.3	0	0.0
Buffalo species	0	0	1	0.0	1	100.0	0	0.0
Central mudminnow	0	1	0	100.0	0	0.0	0	0.0
TOTAL	100390	609	83	0.6	83	0.1	4213	4.0
TOTAL LESS								
GIZZARD SHAD	1140	560	67	16.9	67	2.0	1550	46.7