BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

ORIGINAL

IN THE MATTER OF:	)	
	)	
WATER QUALITY STANDARDS AND	)	R08-9 (Subdocket C)
EFFLUENT LIMITATIONS FOR THE	)	(Rulemaking – Water)
CHICAGO AREA WATERWAY SYSTEM	)	
AND LOWER DES PLAINES RIVER	)	
PROPOSED AMENDMENTS TO 35 ILL.	)	
ADM. CODE 301, 302, 303, and 304	)	

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Pollution Control Board

PC#505

NOTICE OF FILING

TO:

John Therriault, Assistant Clerk
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(VIA FIRST CLASS MAIL)

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(SEE PERSONS ON ATTACHED SERVICE LIST)

PLEASE TAKE NOTICE that I have today filed with the Office of the Clerk of the Illinois Pollution Control Board the ILLINOIS DEPARTMENT OF NATURAL RESOURCES' ADDITIONAL COMMENTS REGARDING PROPOSED DESIGNATED USES AND STANDARDS FOR THE CHICAGO AREA WATERWAY SYSTEM AND LOWER DES PLAINES RIVER, a copy of which is herewith served upon you

Respectfully submitted,

ILLINOIS DEPARTMENT OF
NATURAL RESOURCES

Date: October 22, 2010

By: Virginia I. Yang
Virginia I. Yang

Virginia I. Yang, Legal Counsel
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CERTIFICATE OF SERVICE

I, Virginia I. Yang, the undersigned, hereby certify that I have served the attached ILLINOIS DEPARTMENT OF NATURAL RESOURCES' ADDITIONAL COMMENTS REGARDING PROPOSED DESIGNATED USES AND STANDARDS FOR THE CHICAGO AREA WATERWAY SYSTEM AND LOWER DES PLAINES RIVER upon:

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by depositing said documents in the United States Mail, postage prepaid, in Springfield Illinois on October 22, 2010.

/s/ *Virginia I. Yang*
Virginia I. Yang

Before the Illinois Pollution Control Board

IN THE MATTER OF:	)	
	)	
WATER QUALITY STANDARDS AND	)	
EFFLUENT LIMITATIONS FOR THE	)	R08-9
CHICAGO AREA WATERWAY SYSTEM	)	(Rulemaking - Water)
AND THE LOWER DES PLAINES RIVER:	)	
Adm. Code Part 301,302, 303, and 304	)	(Subdocket C & D)

Illinois Department of Natural Resources

Additional Comments on
Proposed Designated Uses and Standards
for the Chicago Area Waterway System and Lower Des Plaines River

On January 8, 2009, the Illinois Department of Natural Resources ("IDNR") filed comments to the Illinois Pollution Control Board ("Board") in support of the Illinois Environmental Protection Agency's ("IEPA") proposed amendments to the designated uses and water quality standards for the Chicago Area Waterway System ("CAWS") and Lower Des Plaines River ("LDPR"), currently under review by the Board. IDNR maintains its support for IEPA's proposed uses and standards changes for the CAWS and LDPR. And, in light of recent monitoring and control operations, IDNR presents these additional comments to augment its prior comments and recommendations for the Board's consideration and use in this rulemaking proceeding.

The new information consists of observations and data gathered during two [2] Asian carp monitoring and control operations. The first sampling operation was conducted in December 2009 on the Chicago Sanitary and Ship Canal (CSSC) near Romeoville, Illinois. The second sampling operation was conducted in May 2010 on the Little Calumet River downstream of the T. J. O'Brien Lock and Dam. (See Attachment - Description of Sampling Sites) These operations included the application of the fish toxicant, Rotenone, in two segments of CAWS. Both operations resulted in more detailed observations of resident fish assemblages than the observations obtained through the use of conventional electro-fishing and netting collection gear. Although conventional collection gears, such as electro-fishing, can be effective in sampling native fish communities, such collection gear has limitations for sampling in large, deep draft channels, and especially areas with steep, artificial banks.

The species richness and abundance of the existing fish community discovered in the CSSC and Little Calumet River during the December 2009 and May 2010 operations were unexpected given the historical information and "poor" habitat rating (QHEI range 27-49), as described in "Chicago Area Waterway System Use Attainability Analysis Final Report," prepared for Illinois EPA by Camp, Dresser and McKee. ("CDM 2007"). (See IPCB Case No. R2008-099 – Initial Filing dated 10/26/2007, Document No. 59252.)

IDNR's additional comments on fish assemblages observed or recovered during two sampling operations are summarized in four [4] general categories for each sampling events: 1) overall species richness and abundance, 2) abundance of sportfish and other selected species, 3) body condition, and 4) extent of reproductive success.

1. Overall Species Richness and Abundance

CSSC – December 2009

Observations and data from the CSSC and LDPR in December 2009 found 39 fish species to be present (See Table 1 – "Summary of Fish Species from the CSSC, December 2 – 5, 2009; and See Table 2 – "U.S. Army Corps of Engineers Fish Counts from CSSC Disposal Dumpster for Asian Carp, December, 2009".) Whereas, sample totals obtained by using conventional gear for individual sample yielded a range of 7-18 species in the CSSC (27 total species) (CDM 2007). A total of 12 of the native species found in the December 2009 sampling were not reported in the "Use Attainability Analysis" for the CSSC (CDM 2007).

Little Calumet River – May 2010

A total of 38 species were recovered from the Little Calumet River in May 2010 [i.e., 32 native species and 6 introduced species]. Sampling conducting from 1997 to 2002 by boat electro-fishing found 29 species, with total ranging from 17 to 24 for individual runs (CDM 2007).

In the pre-Rotenone electro-fishing samples during May 2010, which included 4 runs, IDNR recovered 27 species, with a range of 10 to 21 species for individual runs (See Table 4 – "Pre-Rotenone Electro-fishing Samples for the Little Calumet River near O'Brien Lock and Dam – May, 2010). A total of 13 species were found in the May, 2010 Rotenone operations that were not found in the May 2010 electro-fishing samples. A total of 10 species were found in the Rotenone sampling operation and were not recorded in the Use Attainability Analysis report (CDM 2007). Among the species unique to the Rotenone sampling operation were flathead catfish, black buffalo and smallmouth buffalo. Ghost shiners were also very common in the Rotenone sample but have not been recorded for any other area of the CAWS.

2. Abundance of Sportfish and Other Selected Species

CSSC – December 2009

Of particular interest for the CSSC was the presence of several sportfish species, including smallmouth bass, which is considered an intolerant species. Adult channel catfish were especially abundant upstream of the Lockport Lock (Table 2). Approximately 500 dead sauger, which represent at least three size classes, were observed just downstream of the Lockport Lock in the CSSC (not included in dumpster count). The sauger were introduced from an IDNR stocking program into the Des Plaines River between the Hofmann Dam and Romeoville, Illinois where 104,750 two-inch fish and 2,000,000 fry have been stocked since 1997. The area of the CSSC and LDPR below the Lockport Lock, where deep flowing water is present, may be an

important over wintering area for sauger. Other sportfish species present included bluegill, largemouth bass, walleye, and northern pike.

Although tolerant species comprised most of the biomass observed during the December 2009 operation, only about one third of the total species observed are considered to be tolerant according to the Illinois Index of Biotic Integrity. (See "Interpreting Fish – Index of Biotic Integrity Scores," IEPA. January 2005. – IPCB Case No. R2008-009. Document No. 59227.) With the exception of smallmouth bass, the remaining two thirds of the observed species are generally classified as moderately tolerant (Table 1).

Little Calumet River – May 2010

Gamefish were commonly observed in the Little Calumet River. Thirteen [13] fish species of the 38 total species were recorded for the Little Calumet River, thereby comprising over 8% of the total abundance. Channel catfish (N=1,959) and Rock bass (N=1,244) were the two most abundant species (Table 3 – "Estimated Total Number/Percentage, Total Weight/Percentage, and Standing Stock for 38 Species of Fish and Two Hybrid Groups Recovered from the Little Calumet River near T.J. O'Brien Lock and Dam – May 20, 2010.).

Although tolerant species were numerous, they comprised only 9 of the 38 total species recorded for the Little Calumet River (Table 3). Fish counts from the Rotenone sampling allowed calculation of a standing stock of 389 fish per acre, for all species combined, for a total weight of 584 lbs. per acre (Table 3). These values are in the moderate range for Illinois.

3. Body Condition of Fish.

Another observation from both the CSSC and the Little Calumet River Rotenone events was the good body condition observed for most individual fish species. For areas with poor water or sediment quality, it is common to see a high percentage of fish with external anomalies (known as DELTS), such as sores, eroded fins, eroded barbells, and even tumors. The CSSC and the Lower Des Plaines River downstream to the I-55 Bridge have historically reported high DELTS occurrence. However, most of the fish observed during both Rotenone operations had few DELTS and the general body condition was very good to excellent.

4. Extent of Reproductive Success.

CSSC – December 2009

One of the most significant observations from the December 2009 operation was the very high abundance of young-of-the-year channel catfish. This observation indicates that the existing water quality and habitat is sufficient to support larval stages of this species, and that spawning is commonly occurring. The presence of young from other species; including emerald shiner, bluegill, and largemouth bass; suggests these species are successfully reproducing in the CSSC and LDPR as well.

The procedure used for the Little Calumet River Rotenone sampling included measuring individual fish lengths and weights for a sub-sample of the recovered fish (Table 5 – "Mean, Minimum, and Maximum Total Lengths and Weights for a Subsample of Fish Recovered from the Little Calumet River near T. J. O'Brien Lock and Dam – May 20, 1020"). Based on the measurement of 1,429 fish, we found wide range of sizes were present, including many smaller fish, likely to be juveniles from last year's spawn. The Little Calumet River sampling event was performed in spring, prior to spawning for many sunfish, catfish, and minnow. Therefore IDNR did not observe many young-of-the-year. Routine monitoring performed as part of the Asian carp monitoring program on the Little Calumet River produced large numbers of young-of-the-year, including largemouth bass, bluegill, gizzard shad, carp, and quillback, as well as many minnow species and other sunfish.

Summary

The IDNR's observations during the December 2009 and May 2010 Rotenone monitoring and control operations demonstrate the limitations of using conventional electro-fishing and netting methods to evaluate fish populations in large, deep-draft, steep-sided channels especially the CSSC. While electrofishing is somewhat more effective in the Little Calumet River which has more 'natural' streambanks, it still underestimated the number of species present.

The December 2009 and May 2010 sampling demonstrated that the CSSC is capable of supporting a diverse, healthy, and reproducing population of fish comprised of a high percentage of moderately tolerant species in adult and early life stages. The Little Calumet River was also found to support a diverse assemblage of species including the intolerant smallmouth bass (N=45). IDNR observed evidence of reproduction, which would be necessary to maintain the moderate standing stocked estimated for the segment of the Little Calumet River below the O'Brien Lock. This area also supports diverse and reasonable abundant sportfish populations.

These observations and data are not in agreement with statements from opponents of the IEPA's Use Availability Analysis proposal. In general, these opposing statements describe the areas of the CAWS, particularly CSSC, and LDPR as highly degraded, unproductive, low in fish species diversity, with little or no reproduction.

IDNR observations and data suggest that the currently proposed 'Aquatic Life Use B' for the Lower CSSC and Brandon Pool could be upgraded to 'Aquatic Life Use A'. Additionally, when viewed in the context of the habitat indices contained in this rulemaking record, IDNR observations and data from the Rotenone samplings suggest that other proposed 'Aquatic Life Use B' waters in the CAWS, with similar or better habitat, may currently be supporting a higher aquatic life use than the 'Use B' category, as defined. (See Aquatic Life Uses "A" and "B" as defined in IPCB Case No. R2008-2009, Initial Filing 10/26/1007. Document No. 59137).

In conclusion, Illinois Department of Natural Resources reiterates its support for revisions to the water uses and standards for the CAWS and LDPR as proposed by the Illinois Environmental Protection Agency. IDNR's observations and data are based

upon its recent field operations. These observations are relevant to this rulemaking proceeding and ongoing evaluation of appropriate water use designations and standards for the Chicago Area Waterway System and Lower Des Plaines River.

Illinois Department of Natural Resources appreciates the diligent efforts of the Illinois Pollution Control Board on these and other critical issues affecting the water quality and the aquatic habitats of the waters for the State of Illinois. If there are any further questions or issues that the Board has reason to address in this rulemaking, the Illinois Department of Natural Resources will endeavor to offer its technical expertise and assistance.

Respectfully submitted,
Illinois Department of Natural Resources

By: /s/ *Virginia I. Yang*

Virginia I. Yang, Deputy Counsel

By: /s/ *Stephen Pescitelli*

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Dated: October 22, 2010

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ATTACHMENT

Description of Sampling Sites

Chicago Sanitary and Ship Canal (CSSC)

Rotenone sampling was performed on 5.5 mile stretch of the Lower Lockport Pool segment of the Chicago Sanitary and Ship Canal (CSSC) from December 3-6, 2009. The segment runs from just upstream of the Aquatic Nuisance Species Electric Barrier in Romeoville (RM 296.8) downstream to Ruby Street in Joliet (RM 288.8). The information from this operation is summarized in the attached tables and include: 1) documented observations of 7 IDNR biologists and 1 IEPA biologist present during the fish recovery phase of the operation (See Table 1); and 2) fish counts performed at fish disposal sites (dumpters) by crews from the Army Corps of Engineer (See Table 2)

Little Calumet River

Rotenone sample was performed on the Little Calumet River May 19-23, 2010. The sampling segment ran from the T. J. O'Brien Lock (RM 326.5) downstream to RM 323.6). The procedure for this event included weighing and measuring approximately 50 individuals from each species, and counts of all dead recovered fish during the first three days of recovery. IDNR then estimated weight of fish thereafter from roll off dumpsters for an additional three days. IDNR also conducted 4 electrofishing runs to salvage sportfish and to provide comparisons of electrofishing results to rotenone results.

LIST OF TABLES

Table 1. Summary of fish species from the Chicago Sanitary and Ship Canal, December 2-5, 2009 rotenone project.

IDNR / IEPA Biologist observations				Army Corps of Engineers - Counts from fish disposal			
Fish species observed during recovery operations	Native (N)/ Introduced (I)	IEPA IBI tolerance rating	Native NE IL species not previously recorded for CSSC (UAA report 2007)	Fish species documented and tallied from disposal areas	Native (N) /Introduced (I)	IEPA IBI tolerance rating	Native NE IL species not previously recorded for CSSC (UAA report 2007)
Alewife	I			alewife	I		
Asian weatherfish	I			bighead carp	I		
Bighead carp	I			black crappie	N		
black crappie	N			bluegill	N		
Bluegill	N			bluntnose minnow	N	tolerant	
Bluntnose Minnow	N	tolerant		channel catfish	N		
Channel catfish	N			common carp	I	tolerant	
Common carp	I	tolerant		emerald shiner	N		
Emerald shiner	N			flathead catfish	N		x
Flathead catfish	N		x	freshwater drum	N		
Freshwater drum	N			gizzard shad	N		
Gizzard shad	N			golden shiner	N	tolerant	
Golden shiner	N	tolerant		goldfish	I	tolerant	
Goldfish	I	tolerant		grass carp	I		
Grass Carp	I			green sunfish	N	tolerant	
grass pikerel	N		x	hybrid sunfish			
Green Sunfish	N	tolerant		largemouth bass	N		
Largemouth Bass	N			longnose gar	N		x
Longnose gar	N		x	northern pike	N		x
Pumpkinseed	N			orangespotted sunfish	N		
Round goby	I			pumpkinseed	N		
Sauger	N		x	redear	I		
skipjack herring	N		x	round goby	I		
Smallmouth bass	N	intolerant	x	sauger	N		x
smallmouth buffalo	N		x	smallmouth buffalo	N		x
threadfin shad	I			tadpole madtom	N		x
Walleye	N		x	threadfin shad	I		
White crappie	N		x	walleye	N		x
White perch	I			white bass	N		
White sucker	N	tolerant		white crappie	N		x
Yellow bass	N			white perch	I		
Yellow bullhead	N	tolerant		white sucker	N	tolerant	
yellow perch	N		x	yellow bass	N		
				yellow bullhead	N	tolerant	
				yellow perch	N		x
total species	34		10	total species	35		11
total native	24			total native	26		
total tolerant species	8			total tolerant species	7		

Table 2. U.S. Army Corps of Engineers fish counts from CSSC disposal dumpsters for the Asian carp rotenone project, December 2009.

	12/3/2009		12/4/2009			
Species	Cargill	Lockport	Cargill	Lockport	Ruby St	TOTAL
common carp	2288	3364	200	715	527	7094
gizzard shad	652	263	50	11	44	1020
yellow bullhead	633	77	50	602	220	1582
channel catfish	629	178	30	107	131	1075
tadpole madtom	2	1				3
white perch	185	1			1	187
yellow bass	3	3			2	8
round goby	3	5			42	50
largemouth bass	5	1	5		2	13
green sunfish	6	1		1	2	10
bluegill	235	90	20	5	2	352
bighead carp				1		1
silver carp						0
freshwater drum	361	31		16	97	505
emerald shiner	2622	103	50	60	65	2900
bluntnose minnow	1251	10		40	15	1316
black crappie	22	1			4	27
longnose gar	5					5
pumpkinseed	189			5	3	197
goldfish	1091	15	30	22	107	1265
white bass	11				3	14
threadfin shad	57	1			3	61
sauger	1				13	14
white sucker	3	1			1	5
flathead catfish	2	3			6	11
hybrid sunfish	22			5	1	28
walleye	2					2
alewife	1					1
golden shiner	3				7	10
orange-spotted sunfish	1				2	3
grass carp	1					1
white crappie				1	1	2
northern pike					4	4
yellow perch					1	1
redear		1			1	2
smallmouth buffalo					2	2

Table 3. Estimated total number and percentage, total weight and percentage, and standing stock for 38 species of fish and two hybrid groups recovered from the Little Calumet River near T. J. O'Brien Lock and Dam during six days of recovery after rotenone application on May 20, 2010. Weight was not measured for most minnow and darter species.

Species	Estimated Total Number	Percent	Estimated Total Weight	Percent	Estimated Standing Stock Number per acre	Pounds per acre
Alewife	3485	5.2	215.6	0.2	20	1.25
Black buffalo	205	0.3	1424.1	1.5	1	8.23
Black bullhead	264	0.4	53.5	0.1	2	0.31
Black crappie	333	0.5	40.9	0.0	2	0.24
Bluegill	783	1.2	85.1	0.1	5	0.49
Bluntnose minnow (T)	2374	3.5	--	--	14	--
Brown bullhead	8	0.0	5.4	0.0	0	0.03
Channel catfish	1959	2.9	2480.7	2.5	11	14.34
Common carp (T)	9820	14.6	61744.5	63.2	57	356.90
Emerald shiner	4342	6.5	101.9	0.1	25	0.59
Fathead minnow	325	0.5	--	--	2	--
Flathead catfish	8	<0.1	55.3	0.1	0	0.32
Freshwater drum	3178	4.7	7669.1	7.8	18	44.33
Ghost shiner	6945	10.3	--	--	40	--
Gizzard shad (T)	22298	33.2	19489.7	19.9	129	112.66
Golden shiner (T)	434	0.6	54.7	0.1	3	0.32
Goldfish (T)	2293	3.4	1398.4	1.4	13	8.08
Goldfish x Common carp hybrid	53	0.1	137.9	0.1	0	0.80
Grass carp	43	0.1	872.6	0.9	0	5.04
Grass pickerel	2	<0.1	0.2	0.0	0	0.00
Green sunfish (T)	49	0.1	2.8	0.0	0	0.02
Hybrid sunfish	2	<0.1	0.2	0.0	0	0.00
Johnny darter	1	<0.1	--	--	0	--
Largemouth bass	219	0.3	246.9	0.3	1	1.43
Orangespotted sunfish	174	0.3	2.4	0.0	1	0.01
Pumpkinseed	1098	1.6	120.1	0.1	6	0.69
Rock bass	1244	1.8	390.8	0.4	7	2.26
Round goby	2109	3.1	8.4	0.0	12	0.05
Smallmouth bass (I)	45	0.1	32.9	0.0	0	0.19
Smallmouth buffalo	12	<0.1	90.0	0.1	0	0.52
Spotfin shiner	464	0.7	--	--	3	--
Spottail shiner	213	0.3	--	--	1	--
Warmouth	18	<0.1	2.9	0.0	0	0.02
White bass	82	0.1	84.1	0.1	0	0.49
White crappie	319	0.5	90.0	0.1	2	0.52
White perch	1059	1.6	203.8	0.2	6	1.18
White sucker (T)	319	0.5	306.4	0.3	2	1.77
Yellow bass	10	<0.1	2.0	0.0	0	0.01
Yellow bullhead (T)	366	0.5	256.4	0.3	2	1.48
Yellow perch	268	0.4	50.2	0.1	2	0.29
All species	67224		97720.0		389	564.86
Total Number of Species	38				0	

(T) = Intolerant Species; (I) Intolerant Species

Table 4. May 2010 pre-rotenone electrofishing samples for the Little Calumet River near O'Brien Lock and Dam. Each run was approximately one hour.

Species	Run 1	Run 2	Run 3	Run 4	Total	%
Alewife	4	1		2	7	1.1
Black buffalo	2				2	0.3
Black bullhead				1	1	0.2
Bluegill	1	8	2		11	1.7
Bluntnose minnow	32	12			44	7.0
Channel catfish	6	10		1	17	2.7
Common carp	35	33	54	94	216	34.1
Emerald shiner	25	19	14	3	61	9.6
Fathead minnow	8		1		9	1.4
Freshwater drum	1		1	3	5	0.8
Gizzard shad	20	8	48		76	12.0
Golden shiner			1		1	0.2
Goldfish	5	37	1	1	44	7.0
Green sunfish	1		2		3	0.5
Hybrid sunfish					0	0.0
Largemouth bass	5	7	1	3	16	2.5
Pumpkinseed	3	17	4	3	27	4.3
Rainbow trout			1		1	0.2
Rock bass	3				3	0.5
Round goby	19	19		8	46	7.3
Weather loach			1		1	0.2
White bass	2				2	0.3
White crappie		1			1	0.2
White perch	23	1			24	3.8
White sucker	1	3	3		7	1.1
Yellow bass	2				2	0.3
Yellow bullhead		2			2	0.3
Yellow perch	1	3			4	0.6
Total number	199	181	134	119	633	100
Number species	21	16	14	10	27	

Table 5. Mean, minimum, and maximum total lengths and weights for a subsample of fish recovered from the Little Calumet River near T. J. O'Brien Lock and Dam during the first two days after rotenone application on May 20, 2010.

Species	Number measured	Mean total length (inches)	Minimum total length (inches)	Maximum total length (inches)	Number weighed	Mean weight (pounds)	Minimum weight (pounds)	Maximum weight (pounds)
Alewife	24	6.3	5.5	7.0	24	0.06	0.04	0.11
Black buffalo	74	23.1	18.4	29.3	74	6.96	1.73	13.20
Black bullhead	46	6.9	5.2	12.6	46	0.20	0.07	0.93
Black crappie	83	5.7	2.6	9.6	79	0.12	0.01	0.45
Bluegill	79	4.9	1.3	8.0	76	0.11	0.00	0.39
Bluntnose minnow	8	2.8	1.3	4.3	0	--	--	--
Brown bullhead	3	10.6	9.6	12.2	3	0.66	0.37	1.02
Channel catfish	76	13.5	5.0	23.0	76	1.27	0.01	5.53
Common carp	103	21.9	9.7	29.6	103	6.29	0 67	18.15
Emerald shiner	11	3.4	1.1	4.6	3	0.02	0.02	0.03
Fathead minnow	8	2.1	1.6	2.9	0	--	--	--
Flathead catfish	4	23.0	17.7	32.4	4	6.76	2.20	16.02
Freshwater drum	51	16.3	12.9	20.9	51	2.41	0.98	6.13
Ghost shiner	16	1.9	1.1	2.5	0	--	--	--
Gizzard shad	81	11.8	4.0	19.0	80	0.87	0.03	2.73
Golden shiner	54	6.2	2.0	8.4	49	0.13	0.02	0.24
Goldfish	61	8.9	4.8	13.2	61	0.61	0.15	2.09
Goldfish x Common carp hybrid	9	15.3	7.9	19.0	9	2.59	0.30	4.78
Grass carp	21	34.1	25.6	43.0	21	20.32	8.25	39.60
Grass pickerel	1	7.9	7.9	7.9	1	0.10	0.10	0.10
Green sunfish	16	4.2	3.3	5.9	16	0.06	0.03	0.13
Hybrid sunfish	1	5.1	5.1	5.1	1	0.09	0.09	0.09
Johnny darter	0	--	--	--	0	--	--	--
Largemouth bass	51	12.6	3.5	16.1	51	1.13	0.02	2.24
Orangespotted sunfish	30	2.6	1.3	3.7	24	0.01	0.00	0.04
Pumpkinseed	91	4.9	1.8	7.5	90	0.11	0.00	0.35
Rock bass	76	6.7	1.7	10.2	72	0.31	0.03	0.63
Round goby	8	2.7	1.6	4.4	0	--	--	--
Smallmouth bass	20	10.3	4.1	16.9	20	0.73	0.02	2.40
Smallmouth buffalo	5	23.1	21.4	25.2	5	7.33	5.76	9.16
Spotfin shiner	8	2.9	1.7	4.1	0	--	--	--
Spottail shiner	4	4.4	3.0	5.4	0	--	--	--
Warmouth	6	5.5	4.4	7.0	6	0.16	0.06	0.32
White bass	26	12.6	10 1	15.2	26	1.03	0.46	1.86
White crappie	75	8.1	2.7	10.7	74	0.28	0.01	0.66
White perch	51	6.7	1.3	9.1	50	0.19	0.01	0.41
White sucker	66	13.3	5.2	19.1	66	0.96	0.06	2.50
Yellow bass	5	6.6	3.5	8.6	5	0.19	0.02	0.45
Yellow bullhead	58	10.1	4.9	13.2	58	0.70	0.09	1.45
Yellow perch	59	7.5	3.9	9.9	59	0.19	0.02	0.51
Grand Total	1469				1383			

Curriculum Vitae

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Responsibilities:
Monitoring stream fish communities
Watershed management and planning
Habitat project planning and implementation
Permit review for stream activities
Management of river sport fisheries
Education and outreach

Education:
B.S. Biology, 1978
University of Illinois, Champaign-Urbana

M.S. Biology, Aquatic Ecology Emphasis, 1982
University of Illinois, Champaign-Urbana

Employment History:

Illinois Department of Natural Resources Region II Watershed Administrator	1997-1998
Illinois Department of Natural Resources Region II Stream Project Manager	1994-1997
Dow AgroSciences Research Manager	1985-1994
Champaign-Urbana Sanitary District Laboratory Technician	1983-1985
Illinois Natural History Survey Aquatic Ecology Section Research Associate	1978-1983

Professional Activities

Organized and Moderated Symposium and Companion Worshop at 70th Midwest Fish and Wildlife Meeting entitled "Evaluation of Biotic Response to Instream Restoration Practices", Springfiled, Illinois.
Co-chairman River Restoration Workshop Series with Illinois- Indian Sea Grant
American Fisheries Society (AFS) Member
Illinois Chapter of American Fisheries Society - Chairman of Awards Committee
Illinois Representative, AFS Rivers and Streams Technical Committee
Past Chairman AFS North Central Division, Rivers and Stream Technical Committee
Biological Stream Characterization Committee
Chicago Wilderness Partnership, Aquatic Biodiversity Committee, Chairman
Aquatic Task Force Member
Northeastern Illinois Water Quality Task Force
Fox River Ecosystem Partnership, Executive Planning Committee
Prairie Parklands, Strategic Planning Committee
Statewide Dam Task Force, Chairman
Committee member, Chicago Area Waterway Use Attainment Analysis Project
Branch Leader, Fish ID Branch, Operation Pelican, Asian carp Rotenone Response Project, Calumet River, Illinois.

Continuing Education

Identification and Ecology of Unionidae in Illinois, Illinois AFS, Allerton, IL, 2007
Fish Passage on Midwestern Streams, Wheaton, IL, 2007
Restoring Stream Fisheries with Meander Pools, Riffles and Fishways, Wheaton,IL 2005
Beyond the Basics of Dam removal and Modification, IL/IN Sea Grant, Elgin, IL 2003
Dam Removal and Modification Workshop. Calumet ,IL 2002
Small Dam Removal Workshop, Trout Unlimited, River Alliance of WI, Kohler WI, 2001
Crayfish and Mussels of Illinois, Illinois AFS, Shelbyville, IL 1996
Cypinidae (minnows) of Illinois: Identification and Ecology, Illinois AFS, Allerton, IL 1997
The Aquatic Insects of Illinois, Illinois AFS, Allerton , IL 1998
Stream Habitat Workshop, Illinois Department of Natural Resources, Springfield IL 1998
Streambank Restoration Techniques, NRCS/Illinois DOA, Lincoln, IL1996

Personal Interests

Life history and distribution of fishes, currently co-authoring book "Entitled Fishes of the Chicago Region", Angling, Music, Song writing, Recording, Cooking, and Travel

Publications

Slawski, T. M, F. M. Veraldi, S. M Pescitelli, and M. J. Pauers. 2008. Effects of Tributary Spatial Position, Urbanization, and Multiple Low-Head Dams on Warmwater Fish Community Structure in a Midwestern Stream. North American Journal of Fisheries Management 28:1020-1035,

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Pescitelli S. M. and K. Sukapinda 1995. Stable transformation via electroporation into maize Type II callus and regeneration of fertile transgenic plants. Plant Cell Reports 14: 712-716.

Presentations

Pescitelli, S. M. and Robert C. Rung. 2010. Reconnecting Stream Ecosystems: The Importance of Fish Passage in Urban Watershed Restoration and Examples of Successful Projects in Northeastern Illinois, 6th Annual River Summit, , June 25, 2010 Chicago, Illinois.

Pescitelli, S. M. and Robert C. Rung. 2010. Establishing a Successful Urban Fishery: Sauger Stocking Program in the Des Plaines River. 48th Annual Meeting of the Illinois Chapter of the American Fisheries Society, February 2009, Moline , IL.

Pescitelli, S. M. and Robert C. Rung. 2009. Evaluating stream restoration practices with minimal resources, is some data better than none? 70th Midwest Fish and Wildlife Conference, Stream Restoration Symposium, December, 2009, Springfield, Illinois.

Pescitelli, S.M., N. Caswell, and D. Anderson. 2009. The Removal of Leonard's Dam and reconnection of Forked Creek to the Kankakee River. 47th Annual Meeting of the Illinois Chapter of the American Fisheries Society, February 2009, Moline , IL.

Pescitelli, S. M, F. M. Veraldi, P. Willink. 2008. Effects of Urbanization on Fish Species Distribution and Biotic Integrity in the Chicago Region. 46th Annual Meeting of the Illinois Chapter of the American Fisheries Society, February 2008, Rock Island Illinois.

Slawski, T. M, F. M. Veraldi, S. M Pescitelli, and M. J. Pauers. 2008. Effects of Tributary Spatial Position, Urbanization, and Multiple Low-Head Dams on Warmwater Fish Community Structure in a Midwestern Stream. North American Journal of Fisheries Management 28:1020-1035.

Pescitelli, S. M. and R. C. Rung. 2007. Evaluation of Full Dam Ramp and Bypass Channel Fish Passage Structures on a High Quality Tributary Stream in Northeastern Illinois. Invited Symposium Speaker: Aquatic Organism Passage: Opportunities to Restore River Continuity . 68th Annual Midwest Fish and Wildlife Meeting, Madison WI, December 2007.

Pescitelli, S. M. 2007. Evaluation of function and Stability of fish passage structures on Big Rock Creek. River Restoration Practices and Concepts, Fih Passsage on Midwestern Streams, November 2007, Wheaton, IL.

Pescitelli, S. M. and R. C. Rung. 2007. Preliminary Evaluation Fish Passage Structures on Big Rock Creek, with Observation on Life History Characteristics of Migratory Catostomids. 45th Annual Meeting of the Illinois Chapter of the American Fisheries Society, Lake Shelbyville, IL, February 27- March 1, 2007.

Pescitelli, S. M. and R. C. Rung. 2007. Expanded Subwatershed Monitiring of Stream Communities in Northeastern Illinois. 45th Annual Meeting of the Illinois Chapter of the American Fisheries Society, Lake Shelbyville, IL, February 27- March 1, 2007.

Pescitelli, S. M. 2006. Rock Ramp and Bypass Channel Construction for Fish Passage on Big Rock Creek. 44th Meeting of the Illinois Chapter of the American Fisheries Society, Rend Lake, IL. March 7-9, 2006.

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Pescitelli, S. M. and R. C. Rung. 2006. Intensive Subwatershed Monitoring in Northeastern Illinois. American Fisheries Society, Rivers and Streams Techical Committee Annual Winter Meeting, Midwest Fish and Wildlife Conference, Omaha, NE, December, 2006.

Pescitelli, S. M. 2005. Applications of Fish Passage technology in Illinois, River Restoration Pratices and Concept, Restoring Stream Fisheries with Meander Pools, Riffles and Fishways, Wheaton, IL, September 2005.

Pescitelli, S. M. 2004. The Impacts of Dams on Our Rivers and Streams. Annual Meeting Illinois Association of Wastewater Agencies, Galena, IL, September, 2004.

Pescitelli, S. M., R. C. Rung, V. Santucci, J. Hammer, R. Linke, and D. LaBrose. 2004. Effects of Water Quality, Habitat, and Connectivity on Fish Community Structure and Species Distribution in the DuPage River System. 42nd Annual Meeting of the Illinois Chapter of the American Fisheries Society, Champaign, IL , March 2-4, 2004.

Pescitelli, S. M. 2003. History and Status of Dams in Northeastern Illinois. Understanding Dam Modification in Northeastern Illinois.

Pescitelli. S. M., R. C. Rung, and G. Lutterbie. 2002. Evaluation of Backpack Electrofishing and Seining for Use as Supplements to Boat Electrofishing on Non-Wadable Streams. 39th Meeting of the American Fisheries Society, February 2002, Moline, IL.

Pescitelli, S. M. 2002. Past, Present, and Future of Dams in Illinois. River Restoration Practices and Concepts, Dam Removal and Modification Workshop. Illinois Sea Grant. Chicago Wilderness, Purdue University. April 2002, Purdue University Calumet, Hammond, IN.

Pescitelli, S. M. 2001. The Biological Health of Our Streams. Kane County Cean and Green Workshop. March 2000.Geneva, IL.

Pescitelli, S. M. and R. C. Rung. 2000. Restoration and Protection of Smallmouth Bass Populations in the Urban Rivers of Northeastern Illinois. 130th Annual National Meeting of the American Fisheries Society, August, 2000, St. Louis, MO.

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Pescitelli, S. M. 2000. The Dam Debate. Illinois Outdoor Writers Conference, May 2000, Shelbyville, IL.

Pescitelli, S. M. and R. C. Rung 1999. Management of Stream Fisheries in Northeastern Illinois. 37th Annual Meeting, Illinois Chapter of the American Fisheries Society, February 1999, Utica, IL.

Pescitelli, S. M. and R. C. Rung 1999. Watershed Management in Northeastern Illinois. North Central Division of the American Fisheries Society, Rivers and Stream Technical Committee Meeting, April, 1999, Rock Island, IL.

Pescitelli, S. M.. 1999. Factors Affecting Stream Biota. Stream Geomorphology and Restoration Techniques Conference, May 1999, Elgin, IL.

Pescitelli, S. M. 1999. Streams as Habitat: Designing Restoration for Fisheries. Stream Corridor and Floodplain Workshop, American Association for Flood Plain Managers, September 1999, Bloomingdale, IL.

Pescitelli, S. M. and R. C. Rung. 1999. Effects of Dams on Aquatic Ecosystems in Northeastern Illinois and Overview of Removal/Modification Effort. 61st Midwest Fish and Wildlife Conference, December 1999, Chicago, IL.

Husar, J and S. M Pescitelli 1998. The Benefits of Recovering Rivers. Urban Rivers Conference, March 1998, Oakbrook IL.

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Pescitelli, S. M, R..C. Rung 1997. Restoration and Management of Fish Communities in Northeastern Illinois. 2nd Illinois Natural Resources Conference, March 1998, Springfield, IL.

Pescitelli, S. M., D. Day, D. Sallee 1996. The Kanakakee River in Illinois: Stream Quality and Game Species: the Tale of Two Fisheries. 34th Annual Meeting of the Illinois Chapter of the American Fisheries Society, February 1996, Chicago, IL.

Pescitelli, S. M., 1996. Monitoring Stream Quality in Illinois. 23rd Natural Areas National Conference, August 1996, St. Charles, IL.

Pescitelli, S.M., R. Sauer, B. Boyd, G. Lutterbie, D. Day, 1995. Current Status of Fish Population in the Iroquois River Basin. 1st Illinois Renewable Natural Resources Conference, March 1995, Springfield, IL.

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