



Indiana Department of Environmental Management Fish Community Assessments

Site Information

SubBasin: Little Calumet-Galien **14 digit HUC:** 04040001030050 **LSite:** LMG-05-0013
Site: Tributary of Deep River **Location:** 750 W **County:** Porter
Latitude: 41.464511 **Longitude:** -87.210165 **IASNat Region:** 2A **Topo:** A-55 **Segment:** 2
Ecoregion: Central Corn Belt Plains **Drainage Area (sq.miles):** 2.912 **Gradient (ft/mile):** 27.7

Sample Information

SampleNumber: AB11696 **EventID:** 13T015 **Sample MediumCollected:** Fish Community + Water
SampleDate: 06/24/2013 **SurveyCrewChief:** TAF **SampleTime:** 11:00:00 AM **HydroLabNumber:** YSI 4
WaterFlowType: Glide **WaterAppearance:** Murky **SkyConditions:** 5 - Mist **AirTemperature:** 4 - 61-75
WindDirection: 27 - West (270 degrees) **WindStrength:** 1 - Light
DissolvedO2 (mg/l): 8.55 **pH:** 7.93 **WaterTemp(°C):** 16.31 **SpecificConductivity (µS/cm):** 739 **Turbidity (NTU):** 12.6
SpecialNotes: Brant Fisher and Joanna Davis assisted with sampling

ElectrofishingEquipment: Backpack **Voltage:** 300 **Avg.StreamWidth(m):** 3 **DistanceFished (m):** 50
SecondsFished: 638 **WaterDepthAvg (m):** .5 **WaterDepthMax (m):** .65 **TimeAtSite:** 01:10
BridgelnReach: **ReachRepresentative:** **WhyReachNotRepresentative:**
SpecialComments: THERE WERE BLUE/GREEN HYBRIDS (ONE CALLED BLUEGILL); 59.26% catch western blacknose dace

Habitat Information

TotalScore (max100): 64 **SubstrateScore (max20):** 13 **InstreamCover Score (max20):** 11 **ChannelMorphologyScore (max20):** 16
RiparianZoneBankErosion Score(max10): 8 **Pool/GlideQualityScore(max12):** 4 **Riffle/RunQualityScore(max8):** 2
GradientScore (max10): 10 **%Pool:** 40 **%Riffle:** 10 **%Run:** 10 **%Glide:** 40 **CanopyCover PctOpen:** 10%-<30%
SubjectiveRating: **AestheticRating:** **NOTES:** "NEW RECORD"

Fish Community Index of Biotic Integrity (IBI) Information

Calibration Used: Central Corn Belt Plains - Lake Michigan

	<u>Actual</u> <u>Observation</u>	<u>Metric</u> <u>Score</u>		<u>Actual</u> <u>Observation</u>	<u>Metric</u> <u>Score</u>
SpeciesCount:	5	3	%TolerantIndividuals:	81.48	1
Darter/Madtom/SculpinSpeciesCount:	1	3	%OmnivoreIndividuals:	0	1
SunfishSpeciesCount:	2	3	%InsectivoreIndividuals:	87.04	1
MinnnowSpeciesCount:	2	3	%PioneerIndividuals:	38.89	3
SensitiveSpeciesCount:	0	1	Total # of Individuals (CPUE):	54	1
			%SimpleLithophilicInd.:	59.26	5
			%Ind.withDELT:	0	5

Metrics are dependent on Ecoregion and Drainage Area.
 Metrics can score a 0, 1, 3, or 5 depending on calibration.

Total IBI Score (min 0, max 60)	30
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SampleNumber: AB11696

EventID: 13T015

LSite: LMG-05-0013

County: Porter

StreamName: Tributary of Deep River

LocationDescription: 750 W

Common Name	Individual Fish Count	Deformities	Eroded Fins	Lesions	Tumors	Multiple Anomalies
bluegill	1					
creek chub	7					
green sunfish	5					
johnny darter	9					
western blacknose dace	32					



Indiana Department of Environmental Management Fish Community Assessments

Site Information

SubBasin: Little Calumet-Galien **14 digit HUC:** 04040001030050 **LSite:** LMG-05-0034
Site: Tributary of Deep River **Location:** 89th Avenue **County:** Lake
Latitude: 41.456330 **Longitude:** -87.229307 **IASNat Region:** 2A **Topo:** A-55 **Segment:** 2
Ecoregion: Central Corn Belt Plains **Drainage Area (sq.miles):** 2.364 **Gradient (ft/mile):** 23.493

Sample Information

SampleNumber: AB11697 **EventID:** 13T016 **Sample MediumCollected:** Fish Community + Water
SampleDate: 06/24/2013 **SurveyCrewChief:** TAF **SampleTime:** 12:00:00 PM **HydroLabNumber:** YSI 4
WaterFlowType: Glide **WaterAppearance:** Brown **SkyConditions:** 8 - Rain **AirTemperature:** 4 - 61-75
WindDirection: 27 - West (270 degrees) **WindStrength:** 1 - Light
DissolvedO2 (mg/l): 8.28 **pH:** 7.77 **WaterTemp(°C):** 16.92 **SpecificConductivity (µS/cm):** 716 **Turbidity (NTU):** 33.7
SpecialNotes: Brant Fisher and Joanna Davis assisted with sampling.

ElectrofishingEquipment: Backpack **Voltage:** 300 **Avg.StreamWidth(m):** 2 **DistanceFished (m):** 50
SecondsFished: 592 **WaterDepthAvg (m):** .3 **WaterDepthMax (m):** .6 **TimeAtSite:** 01:00
BridgeInReach: **ReachRepresentative:** **WhyReachNotRepresentative:**
SpecialComments: Brant took Central mStoneroller and Fathead Minnow specimens

Habitat Information

TotalScore (max100): 52 **SubstrateScore (max20):** 2 **InstreamCover Score (max20):** 12 **ChannelMorphologyScore (max20):** 15
RiparianZoneBankErosion Score(max10): 9 **Pool/GlideQualityScore(max12):** 4 **Riffle/RunQualityScore(max8):** 0
GradientScore (max10): 10 **%Pool:** 70 **%Riffle:** 0 **%Run:** 0 **%Glide:** 30 **CanopyCover PctOpen:** 10%-<30%
SubjectiveRating: **AestheticRating:** **NOTES:** "NEW RECORD"

Fish Community Index of Biotic Integrity (IBI) Information

Calibration Used: Central Corn Belt Plains - Lake Michigan

	<u>Actual</u>	<u>Metric</u>		<u>Actual</u>	<u>Metric</u>
	<u>Observation</u>	<u>Score</u>		<u>Observation</u>	<u>Score</u>
SpeciesCount:	11	5	%TolerantIndividuals:	74.44	1
Darter/Madtom/SculpinSpeciesCount:	1	5	%OmnivoreIndividuals:	4.44	5
SunfishSpeciesCount:	2	3	%InsectivoreIndividuals:	48.89	5
MinnowSpeciesCount:	4	5	%PioneerIndividuals:	75.56	1
SensitiveSpeciesCount:	0	1	Total # of Individuals (CPUE):	90	3
			%SimpleLithophilicInd.:	5.56	1
			%Ind.withDELT:	0	5

Metrics are dependent on Ecoregion and Drainage Area.
 Metrics can score a 0, 1, 3, or 5 depending on calibration.

Total IBI Score (min 0, max 60)	40
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SampleNumber: AB11697

EventID: 13T016

LSite: LMG-05-0034

County: Lake

StreamName: Tributary of Deep River

LocationDescription: 89th Avenue

Common Name	Individual Fish Count	Deformities	Eroded Fins	Lesions	Tumors	Multiple Anomalies
bluegill	10					
central mudminnow	3					
central stoneroller	3					
creek chub	35					
fathead minnow	1					
grass pickerel	2					
green sunfish	23					
johnny darter	6					
largemouth bass	2					
western blacknose dace	2					
white sucker	3					



Indiana Department of Environmental Management Fish Community Assessments

Site Information

SubBasin: Little Calumet-Galien **14 digit HUC:** 04040001030050 **LSite:** LMG-05-0014
Site: Tributary of Deep River **Location:** 93rd Avenue **County:** Lake
Latitude: 41.449152 **Longitude:** -87.247303 **IASNat Region:** 2A **Topo:** A-55 **Segment:** 2
Ecoregion: Central Corn Belt Plains **Drainage Area (sq.miles):** 3.505 **Gradient (ft/mile):** 15.289

Sample Information

SampleNumber: AB11698 **EventID:** 13T017 **Sample MediumCollected:** Fish Community + Water
SampleDate: 06/24/2013 **SurveyCrewChief:** TAF **SampleTime:** 01:00:00 PM **HydroLabNumber:** YSI 4
WaterFlowType: Glide **WaterAppearance:** Clear **SkyConditions:** 5 - Mist **AirTemperature:** 4 - 61-75
WindDirection: 27 - West (270 degrees) **WindStrength:** 2 - Mod./Light
DissolvedO2 (mg/l): 7.09 **pH:** 7.88 **WaterTemp(°C):** 19.32 **SpecificConductivity (µS/cm):** 723 **Turbidity (NTU):** 5.27
SpecialNotes: Brant Fisher and Joanna Davis assisted with sampling

ElectrofishingEquipment: Backpack **Voltage:** 300 **Avg.StreamWidth(m):** 3 **DistanceFished (m):** 50
SecondsFished: 605 **WaterDepthAvg (m):** .2 **WaterDepthMax (m):** .5 **TimeAtSite:** 01:00
BridgeInReach: **ReachRepresentative:** **WhyReachNotRepresentative:**
SpecialComments:

Habitat Information

TotalScore (max100): 51 **SubstrateScore (max20):** 7 **InstreamCover Score (max20):** 10 **ChannelMorphologyScore (max20):** 12
RiparianZoneBankErosion Score(max10): 5 **Pool/GlideQualityScore(max12):** 3 **Riffle/RunQualityScore(max8):** 4
GradientScore (max10): 10 **%Pool:** 30 **%Riffle:** 10 **%Run:** 60 **%Glide:** 0 **CanopyCover PctOpen:** 10%-<30%
SubjectiveRating: **AestheticRating:** **NOTES:** "NEW RECORD"

Fish Community Index of Biotic Integrity (IBI) Information

Calibration Used: Central Corn Belt Plains - Lake Michigan

	<u>Actual</u>	<u>Metric</u>		<u>Actual</u>	<u>Metric</u>
	<u>Observation</u>	<u>Score</u>		<u>Observation</u>	<u>Score</u>
SpeciesCount:	7	3	%TolerantIndividuals:	72.53	1
Darter/Madtom/SculpinSpeciesCount:	2	5	%OmnivoreIndividuals:	1.1	5
SunfishSpeciesCount:	2	3	%InsectivoreIndividuals:	53.85	5
MinnnowSpeciesCount:	1	1	%PioneerIndividuals:	83.52	1
SensitiveSpeciesCount:	0	1	Total # of Individuals (CPUE):	91	3
			%SimpleLithophilicInd.:	1.1	1
			%Ind.withDELT:	0	5

Metrics are dependent on Ecoregion and Drainage Area.
 Metrics can score a 0, 1, 3, or 5 depending on calibration.

Total IBI Score (min 0, max 60)	34
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SampleNumber: AB11698

EventID: 13T017

LSite: LMG-05-0014

County: Lake

StreamName: Tributary of Deep River

LocationDescription: 93rd Avenue

Common Name	Individual Fish Count	Deformities	Eroded Fins	Lesions	Tumors	Multiple Anomalies
bluegill	10					
creek chub	38					
green sunfish	27					
johnny darter	11					
largemouth bass	3					
tadpole madtom	1					
white sucker	1					



Indiana Department of Environmental Management Fish Community Assessments

Site Information

SubBasin: Little Calumet-Galien **14 digit HUC:** 04040001030040 **LSite:** LMG-05-0015
Site: Deep River **Location:** Clay Street **County:** Lake
Latitude: 41.447048 **Longitude:** -87.277618 **IASNat Region:** 2A **Topo:** A-54 **Segment:** 2
Ecoregion: Central Corn Belt Plains **Drainage Area (sq.miles):** 44.481 **Gradient (ft/mile):** 3.348

Sample Information

SampleNumber: AB11699 **EventID:** 13T018 **Sample MediumCollected:** Fish Community + Water
SampleDate: 06/25/2013 **SurveyCrewChief:** TAF **SampleTime:** 12:45:00 PM **HydroLabNumber:** YSI 4
WaterFlowType: Pool **WaterAppearance:** Clear **SkyConditions:** 4 - Cloudy **AirTemperature:** 5 - 76-85
WindDirection: 22 - 220 degrees **WindStrength:** 1 - Light
DissolvedO2 (mg/l): 4.78 **pH:** 7.55 **WaterTemp(°C):** 21.51 **SpecificConductivity (µS/cm):** 650 **Turbidity (NTU):** 6.82
SpecialNotes: Brant Fisher and Joanna Davis assisted with sampling

ElectrofishingEquipment: Scanoe **Voltage:** 150 **Avg.StreamWidth(m):** 10 **DistanceFished (m):** 150
SecondsFished: 1161 **WaterDepthAvg (m):** .9 **WaterDepthMax (m):** 1.7 **TimeAtSite:** 01:40
BridgeInReach: **ReachRepresentative:** **WhyReachNotRepresentative:**
SpecialComments: 1.5 KVA TIMER STOPPED NEAR END OF REACH (EST); 62.2% catch green sunfish

Habitat Information

TotalScore (max100): 57 **SubstrateScore (max20):** 11 **InstreamCover Score (max20):** 13 **ChannelMorphologyScore (max20):** 13
RiparianZoneBankErosion Score(max10): 5 **Pool/GlideQualityScore(max12):** 9 **Riffle/RunQualityScore(max8):** 0
GradientScore (max10): 6 **%Pool:** 60 **%Riffle:** 0 **%Run:** 0 **%Glide:** 40 **CanopyCover PctOpen:** 55%-<85%
SubjectiveRating: **AestheticRating:** **NOTES:** "NEW RECORD"

Fish Community Index of Biotic Integrity (IBI) Information

Calibration Used: Central Corn Belt Plains - Lake Michigan

	<u>Actual</u>	<u>Metric</u>		<u>Actual</u>	<u>Metric</u>
	<u>Observation</u>	<u>Score</u>		<u>Observation</u>	<u>Score</u>
SpeciesCount:	13	5	%TolerantIndividuals:	81.1	1
DarterSpeciesCount:	1	3	%OmnivoreIndividuals:	7.87	5
SunfishSpeciesCount:	2	3	%InsectivoreIndividuals:	81.89	5
SalmonidaeSpeciesCount:	0	1	%CarnivoreIndividuals:	4.72	3
SensitiveSpeciesCount:	0	1	Total # of Individuals (CPUE):	127	1
			%SimpleLithophilicInd.:	7.09	1
			%Ind.withDELT:	0	5

Metrics are dependent on Ecoregion and Drainage Area.
 Metrics can score a 0, 1, 3, or 5 depending on calibration.

Total IBI Score (min 0, max 60)	34
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SampleNumber: AB11699

EventID: 13T018

LSite: LMG-05-0015

County: Lake

StreamName: Deep River

LocationDescription: Clay Street

Common Name	Individual Fish Count	Deformities	Eroded Fins	Lesions	Tumors	Multiple Anomalies
black bullhead	1					
bluegill	2					
bowfin	1					
central mudminnow	1					
common carp	1					
creek chub	7					
golden shiner	4					
grass pickerel	5					
green sunfish	79					
johnny darter	8					
tadpole madtom	8					
white sucker	9					
yellow bullhead	1					



Indiana Department of Environmental Management Fish Community Assessments

Site Information

SubBasin: Little Calumet-Galien **14 digit HUC:** 04040001030050 **LSite:** LMG-05-0035
Site: Deer Creek **Location:** 97th Avenue **County:** Lake
Latitude: 41.441925 **Longitude:** -87.270185 **IASNat Region:** 2A **Topo:** A-54 **Segment:** 2
Ecoregion: Central Corn Belt Plains **Drainage Area (sq.miles):** 5.883 **Gradient (ft/mile):** 9.535

Sample Information

SampleNumber: AB11700 **EventID:** 13T019 **Sample MediumCollected:** Fish Community + Water
SampleDate: 06/24/2013 **SurveyCrewChief:** TAF **SampleTime:** 02:00:00 PM **HydroLabNumber:** YSI 4
WaterFlowType: Run **WaterAppearance:** Clear **SkyConditions:** 1 - Clear **AirTemperature:** 5 - 76-85
WindDirection: 27 - West (270 degrees) **WindStrength:** 2 - Mod./Light
DissolvedO2 (mg/l): 5.44 **pH:** 7.61 **WaterTemp(°C):** 22.93 **SpecificConductivity (µS/cm):** 738 **Turbidity (NTU):** 6.8
SpecialNotes: Brant Fisher and Joanna Davis assisted with sampling

ElectrofishingEquipment: Backpack **Voltage:** 300 **Avg.StreamWidth(m):** 4 **DistanceFished (m):** 60
SecondsFished: 906 **WaterDepthAvg (m):** .6 **WaterDepthMax (m):** 1 **TimeAtSite:** 01:00
BridgeInReach: **ReachRepresentative:** **WhyReachNotRepresentative:**
SpecialComments: 1 HYBRID BLUEGILL/GREEN SUNFISH, CALLED GREEN; 50.77% catch green sunfish

Habitat Information

TotalScore (max100): 36 **SubstrateScore (max20):** 1 **InstreamCover Score (max20):** 9 **ChannelMorphologyScore (max20):** 9
RiparianZoneBankErosion Score(max10): 3 **Pool/GlideQualityScore(max12):** 6 **Riffle/RunQualityScore(max8):** 2
GradientScore (max10): 6 **%Pool:** 50 **%Riffle:** 10 **%Run:** 10 **%Glide:** 30 **CanopyCover PctOpen:** 10%-<30%
SubjectiveRating: **AestheticRating:** **NOTES:** "NEW RECORD"

Fish Community Index of Biotic Integrity (IBI) Information

Calibration Used: Central Corn Belt Plains - Lake Michigan

	<u>Actual</u>	<u>Metric</u>		<u>Actual</u>	<u>Metric</u>
	<u>Observation</u>	<u>Score</u>		<u>Observation</u>	<u>Score</u>
SpeciesCount:	8	3	%TolerantIndividuals:	86.15	1
Darter/Madtom/SculpinSpeciesCount:	2	5	%OmnivoreIndividuals:	0	5
SunfishSpeciesCount:	2	3	%InsectivoreIndividuals:	72.31	5
MinnnowSpeciesCount:	1	1	%PioneerIndividuals:	78.46	1
SensitiveSpeciesCount:	0	1	Total # of Individuals (CPUE):	65	1
			%SimpleLithophilicInd.:	0	1
			%Ind.withDELT:	0	5

Metrics are dependent on Ecoregion and Drainage Area.
 Metrics can score a 0, 1, 3, or 5 depending on calibration.

Total IBI Score (min 0, max 60)	32
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SampleNumber: AB11700

EventID: 13T019

LSite: LMG-05-0035

County: Lake

StreamName: Deer Creek

LocationDescription: 97th Avenue

Common Name	Individual Fish Count	Deformities	Eroded Fins	Lesions	Tumors	Multiple Anomalies
black bullhead	1					
black crappie	1					
creek chub	17					
grass pickerel	1					
green sunfish	33					
johnny darter	1					
tadpole madtom	6					
yellow bullhead	5					



Indiana Department of Environmental Management Fish Community Assessments

Site Information

SubBasin: Little Calumet-Galien **14 digit HUC:** 04040001030040 **LSite:** LMG-05-0016
Site: Niles Ditch **Location:** Colorado Street **County:** Lake
Latitude: 41.423646 **Longitude:** -87.296674 **IASNat Region:** 2A **Topo:** A-54 **Segment:** 2
Ecoregion: Central Corn Belt Plains **Drainage Area (sq.miles):** 10.029 **Gradient (ft/mile):** 1.36

Sample Information

SampleNumber: AB11701 **EventID:** 13T020 **Sample MediumCollected:** Fish Community + Water
SampleDate: 06/26/2013 **SurveyCrewChief:** JCR **SampleTime:** 08:47:00 AM **HydroLabNumber:** Q4
WaterFlowType: Run **WaterAppearance:** Murky **SkyConditions:** 7 - Shower **AirTemperature:** 3 - 46-60
WindDirection: 9 - East (90 degrees) **WindStrength:** 3 - Moderate
DissolvedO2 (mg/l): 1.27 **pH:** 7.52 **WaterTemp(°C):** 22.88 **SpecificConductivity (µS/cm):** 682 **Turbidity (NTU):** 6.19
SpecialNotes: Turbidity from Hydrolab Q4: 25.3

ElectrofishingEquipment: Canoe **Voltage:** 300 **Avg.StreamWidth(m):** 8 **DistanceFished (m):** 120
SecondsFished: 706 **WaterDepthAvg (m):** .75 **WaterDepthMax (m):** 1 **TimeAtSite:** 01:30
BridgeInReach: **ReachRepresentative:** **WhyReachNotRepresentative:**
SpecialComments:

Habitat Information

TotalScore (max100): 44 **SubstrateScore (max20):** 11 **InstreamCover Score (max20):** 10 **ChannelMorphologyScore (max20):** 9
RiparianZoneBankErosion Score(max10): 3 **Pool/GlideQualityScore(max12):** 7 **Riffle/RunQualityScore(max8):** 0
GradientScore (max10): 4 **%Pool:** 10 **%Riffle:** 0 **%Run:** 90 **%Glide:** 0 **CanopyCover PctOpen:** 30%-<55%
SubjectiveRating: **AestheticRating:** **NOTES:** "NEW RECORD"

Fish Community Index of Biotic Integrity (IBI) Information

Calibration Used: Central Corn Belt Plains - Lake Michigan

	<u>Actual</u>	<u>Metric</u>		<u>Actual</u>	<u>Metric</u>
	<u>Observation</u>	<u>Score</u>		<u>Observation</u>	<u>Score</u>
SpeciesCount:	11	5	%TolerantIndividuals:	37.8	3
Darter/Madtom/SculpinSpeciesCount:	1	3	%OmnivoreIndividuals:	1.22	5
SunfishSpeciesCount:	3	3	%InsectivoreIndividuals:	82.93	5
MinnnowSpeciesCount:	1	1	%PioneerIndividuals:	13.41	5
SensitiveSpeciesCount:	0	1	Total # of Individuals (CPUE):	82	1
			%SimpleLithophilicInd.:	1.22	1
			%Ind.withDELT:	0	5

Metrics are dependent on Ecoregion and Drainage Area.
 Metrics can score a 0, 1, 3, or 5 depending on calibration.

Total IBI Score (min 0, max 60)	38
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SampleNumber: AB11701

EventID: 13T020

LSite: LMG-05-0016

County: Lake

StreamName: Niles Ditch

LocationDescription: Colorado Street

Common Name	Individual Fish Count	Deformities	Eroded Fins	Lesions	Tumors	Multiple Anomalies
black crappie	2					
bluegill	33					
brown bullhead	2					
central mudminnow	7					
golden shiner	5					
grass pickerel	2					
green sunfish	11					
largemouth bass	11					
tadpole madtom	3					
white sucker	1					
yellow bullhead	5					



Indiana Department of Environmental Management Fish Community Assessments

Site Information

SubBasin: Little Calumet-Galien **14 digit HUC:** 04040001030040 **LSite:** LMG-05-0017
Site: Niles Ditch **Location:** 121st Avenue **County:** Lake
Latitude: 41.398295 **Longitude:** -87.301760 **IASNat Region:** 2A **Topo:** A-54 **Segment:** 2
Ecoregion: Central Corn Belt Plains **Drainage Area (sq.miles):** 7.238 **Gradient (ft/mile):** 1.36

Sample Information

SampleNumber: AB11702 **EventID:** 13T021 **Sample MediumCollected:** Fish Community + Water
SampleDate: 06/26/2013 **SurveyCrewChief:** JCR **SampleTime:** 01:06:00 PM **HydroLabNumber:** Q4
WaterFlowType: Run **WaterAppearance:** Murky **SkyConditions:** 4 - Cloudy **AirTemperature:** 5 - 76-85
WindDirection: 9 - East (90 degrees) **WindStrength:** 3 - Moderate
DissolvedO2 (mg/l): 3.29 **pH:** 7.69 **WaterTemp(°C):** 22.64 **SpecificConductivity (µS/cm):** 707 **Turbidity (NTU):** 17.7
SpecialNotes: Winkler out of starch

ElectrofishingEquipment: Scanoe **Voltage:** 300 **Avg.StreamWidth(m):** 9 **DistanceFished (m):** 135
SecondsFished: 520 **WaterDepthAvg (m):** .5 **WaterDepthMax (m):** .5 **TimeAtSite:** 01:30
BridgeInReach: **ReachRepresentative:** **WhyReachNotRepresentative:**
SpecialComments: W/ANODE RING; 100% catch green sunfish

Habitat Information

TotalScore (max100): 33 **SubstrateScore (max20):** 1 **InstreamCover Score (max20):** 10 **ChannelMorphologyScore (max20):** 7
RiparianZoneBankErosion Score(max10): 5 **Pool/GlideQualityScore(max12):** 6 **Riffle/RunQualityScore(max8):** 0
GradientScore (max10): 4 **%Pool:** 0 **%Riffle:** 0 **%Run:** 50 **%Glide:** 50 **CanopyCover PctOpen:** 55%-<85%
SubjectiveRating: **AestheticRating:** **NOTES:** "NEW RECORD"

Fish Community Index of Biotic Integrity (IBI) Information

Calibration Used: Central Corn Belt Plains - Lake Michigan

	<u>Actual</u>	<u>Metric</u>		<u>Actual</u>	<u>Metric</u>
	<u>Observation</u>	<u>Score</u>		<u>Observation</u>	<u>Score</u>
SpeciesCount:	1	1	%TolerantIndividuals:	100	1
Darter/Madtom/SculpinSpeciesCount:	0	1	%OmnivoreIndividuals:	0	1
SunfishSpeciesCount:	1	1	%InsectivoreIndividuals:	100	1
MinnnowSpeciesCount:	0	1	%PioneerIndividuals:	100	1
SensitiveSpeciesCount:	0	1	Total # of Individuals (CPUE):	1	1
			%SimpleLithophilicInd.:	0	1
			%Ind.withDELT:	0	1

Metrics are dependent on Ecoregion and Drainage Area.
 Metrics can score a 0, 1, 3, or 5 depending on calibration.

Total IBI Score (min 0, max 60)	12
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SampleNumber: AB11702

EventID: 13T021

LSite: LMG-05-0017

County: Lake

StreamName: Niles Ditch

LocationDescription: 121st Avenue

Common Name	Individual Fish Count	Deformities	Eroded Fins	Lesions	Tumors	Multiple Anomalies
green sunfish	1					



Indiana Department of Environmental Management Fish Community Assessments

Site Information

SubBasin: Little Calumet-Galien **14 digit HUC:** 04040001030040 **LSite:** LMG-05-0036
Site: Smith Ditch **Location:** 113th Avenue **County:** Lake
Latitude: 41.412817 **Longitude:** -87.332919 **IASNat Region:** 2A **Topo:** A-54 **Segment:** 2
Ecoregion: Central Corn Belt Plains **Drainage Area (sq.miles):** 2.962 **Gradient (ft/mile):** 9.559

Sample Information

SampleNumber: AB11703 **EventID:** 13T022 **Sample MediumCollected:** Fish Community + Water
SampleDate: 06/24/2013 **SurveyCrewChief:** TAF **SampleTime:** 03:10:00 PM **HydroLabNumber:** YSI 4
WaterFlowType: Stagnant **WaterAppearance:** Murky **SkyConditions:** 2 - Scattered **AirTemperature:** 6 - > 86
WindDirection: 27 - West (270 degrees) **WindStrength:** 3 - Moderate
DissolvedO2 (mg/l): 3.38 **pH:** 7.17 **WaterTemp(°C):** 25.86 **SpecificConductivity (µS/cm):** 906 **Turbidity (NTU):** 81.5
SpecialNotes: Brant Fisher and Joanna Davis assisted with sampling

ElectrofishingEquipment: Backpack **Voltage:** 300 **Avg.StreamWidth(m):** 4 **DistanceFished (m):** 60
SecondsFished: 1159 **WaterDepthAvg (m):** .75 **WaterDepthMax (m):** .9 **TimeAtSite:** 01:20
BridgeInReach: **ReachRepresentative:** **WhyReachNotRepresentative:**
SpecialComments: 1 GREEN/BLUEGILL HYBRID CALLED GREEN; SWITCHED FROM BRANT'S BACKPACK TO IDEM LR-24 60% THROUGH THE SITE (200 VOLTS/35 FREQUENCY/20 DUTY)

Habitat Information

TotalScore (max100): 25 **SubstrateScore (max20):** 2 **InstreamCover Score (max20):** 5 **ChannelMorphologyScore (max20):** 5
RiparianZoneBankErosion Score(max10): 4 **Pool/GlideQualityScore(max12):** 3 **Riffle/RunQualityScore(max8):** 0
GradientScore (max10): 6 **%Pool:** 10/0 **%Riffle:** 0 **%Run:** 0 **%Glide:** 0 **CanopyCover PctOpen:** >85%-Open
SubjectiveRating: **AestheticRating:** **NOTES:** "NEW RECORD"

Fish Community Index of Biotic Integrity (IBI) Information

Calibration Used: Central Corn Belt Plains - Lake Michigan

	<u>Actual</u> <u>Observation</u>	<u>Metric</u> <u>Score</u>	<u>Actual</u> <u>Observation</u>	<u>Metric</u> <u>Score</u>
SpeciesCount:	7	5	%TolerantIndividuals:	31.18 3
Darter/Madtom/SculpinSpeciesCount:	0	1	%OmnivoreIndividuals:	0 5
SunfishSpeciesCount:	3	3	%InsectivoreIndividuals:	98.92 5
MinnnowSpeciesCount:	1	1	%PioneerIndividuals:	23.66 5
SensitiveSpeciesCount:	0	1	Total # of Individuals (CPUE):	93 3
			%SimpleLithophilicInd.:	0 1
			%Ind.withDELT:	0 5

Metrics are dependent on Ecoregion and Drainage Area.
 Metrics can score a 0, 1, 3, or 5 depending on calibration.

Total IBI Score (min 0, max 60)	38
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SampleNumber: AB11703

EventID: 13T022

LSite: LMG-05-0036

County: Lake

StreamName: Smith Ditch

LocationDescription: 113th Avenue

Common Name	Individual Fish Count	Deformities	Eroded Fins	Lesions	Tumors	Multiple Anomalies
black bullhead	4					
black crappie	1					
bluegill	62					
golden shiner	1					
green sunfish	22					
largemouth bass	1					
yellow bullhead	2					



Indiana Department of Environmental Management Fish Community Assessments

Site Information

SubBasin: Little Calumet-Galien **14 digit HUC:** 04040001030040 **LSite:** LMG-05-0018
Site: Main Beaver Dam Ditch **Location:** Grant Street **County:** Lake
Latitude: 41.435553 **Longitude:** -87.354725 **IASNat Region:** 2A **Topo:** A-54 **Segment:** 2
Ecoregion: Central Corn Belt Plains **Drainage Area (sq.miles):** 19.073 **Gradient (ft/mile):** 2.607

Sample Information

SampleNumber: AB11704 **EventID:** 13T023 **Sample MediumCollected:** Fish Community + Water
SampleDate: 06/25/2013 **SurveyCrewChief:** TAF **SampleTime:** 02:10:00 PM **HydroLabNumber:** YSI 4
WaterFlowType: Glide **WaterAppearance:** Clear **SkyConditions:** 3 - Partly **AirTemperature:** 6 - > 86
WindDirection: 27 - West (270 degrees) **WindStrength:** 1 - Light
DissolvedO2 (mg/l): 5.03 **pH:** 7.21 **WaterTemp(°C):** 21.61 **SpecificConductivity (µS/cm):** 676 **Turbidity (NTU):** 3.21
SpecialNotes: Brant Fisher and Joanna Davis assisted with sampling

ElectrofishingEquipment: Scanoe **Voltage:** 125 **Avg.StreamWidth(m):** 8 **DistanceFished (m):** 120
SecondsFished: 1000 **WaterDepthAvg (m):** .8 **WaterDepthMax (m):** 2 **TimeAtSite:** 01:20
BridgeInReach: **ReachRepresentative:** **WhyReachNotRepresentative:**
SpecialComments: SAMPLED D/S OF BRIDGE DUE TO CSO AND TOLD BY DEEP RIVER PROJECT THIS IS WHAT WAS WANTED; DO NOT BELIEVE 1.5 KVA IS KEEPING TIME (EST 1000 SECONDS); 50.86% catch green sunfish; Brant took Fathead Minnows

Habitat Information

TotalScore (max100): 58 **SubstrateScore (max20):** 13 **InstreamCover Score (max20):** 15 **ChannelMorphologyScore (max20):** 6
RiparianZoneBankErosion Score(max10): 5 **Pool/GlideQualityScore(max12):** 10 **Riffle/RunQualityScore(max8):** 5
GradientScore (max10): 4 **%Pool:** 20 **%Riffle:** 20 **%Run:** 20 **%Glide:** 40 **CanopyCover PctOpen:** <10%-Closed
SubjectiveRating: **AestheticRating:** **NOTES:** "NEW RECORD"

Fish Community Index of Biotic Integrity (IBI) Information

Calibration Used: Central Corn Belt Plains - Lake Michigan

	<u>Actual</u> <u>Observation</u>	<u>Metric</u> <u>Score</u>		<u>Actual</u> <u>Observation</u>	<u>Metric</u> <u>Score</u>
SpeciesCount:	11	5	%TolerantIndividuals:	64.66	1
Darter/Madtom/SculpinSpeciesCount:	2	5	%OmnivoreIndividuals:	1.72	5
SunfishSpeciesCount:	3	3	%InsectivoreIndividuals:	93.1	5
MinnowSpeciesCount:	2	3	%PioneerIndividuals:	60.34	1
SensitiveSpeciesCount:	0	1	Total # of Individuals (CPUE):	116	1
			%SimpleLithophilicInd.:	0	1
			%Ind.withDELT:	0	5

Metrics are dependent on Ecoregion and Drainage Area.
 Metrics can score a 0, 1, 3, or 5 depending on calibration.

Total IBI Score (min 0, max 60)	36
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SampleNumber: AB11704

EventID: 13T023

LSite: LMG-05-0018

County: Lake

StreamName: Main Beaver Dam Ditch

LocationDescription: Grant Street

Common Name	Individual Fish Count	Deformities	Eroded Fins	Lesions	Tumors	Multiple Anomalies
black bullhead	1					
bluegill	18					
central mudminnow	6					
creek chub	4					
fathead minnow	2					
green sunfish	59					
johnny darter	5					
largemouth bass	2					
pumpkinseed	1					
tadpole madtom	15					
yellow bullhead	3					



Indiana Department of Environmental Management Fish Community Assessments

Site Information

SubBasin: Little Calumet-Galien **14 digit HUC:** 04040001030030 **LSite:** LMG-05-0019
Site: Tributary of Main Beaver Dam Ditch **Location:** Summit Street **County:** Lake
Latitude: 41.427329 **Longitude:** -87.369298 **IASNat Region:** 2A **Topo:** A-54 **Segment:** 2
Ecoregion: Central Corn Belt Plains **Drainage Area (sq.miles):** 2.793 **Gradient (ft/mile):** 4.037

Sample Information

SampleNumber: AB11705 **EventID:** 13T024 **Sample MediumCollected:** Fish Community + Water
SampleDate: 06/24/2013 **SurveyCrewChief:** TAF **SampleTime:** 04:30:00 PM **HydroLabNumber:** YSI 4
WaterFlowType: Glide **WaterAppearance:** Black **SkyConditions:** 1 - Clear **AirTemperature:** 6 - > 86
WindDirection: 27 - West (270 degrees) **WindStrength:** 2 - Mod./Light
DissolvedO2 (mg/l): .49 **pH:** 7.13 **WaterTemp(°C):** 23.86 **SpecificConductivity (µS/cm):** 621 **Turbidity (NTU):** 24.6
SpecialNotes:

ElectrofishingEquipment: Longline **Voltage:** 100 **Avg.StreamWidth(m):** 4 **DistanceFished (m):** 60
SecondsFished: 386 **WaterDepthAvg (m):** .4 **WaterDepthMax (m):** .6 **TimeAtSite:** 01:00
BridgeInReach: **ReachRepresentative:** **WhyReachNotRepresentative:**
SpecialComments: EXTREMELY LOW DO (0.49 MG/L). A LOT OF TADPOLES.; 66.67% catch green sunfish

Habitat Information

TotalScore (max100): 26 **SubstrateScore (max20):** 1 **InstreamCover Score (max20):** 3 **ChannelMorphologyScore (max20):** 8
RiparianZoneBankErosion Score(max10): 6 **Pool/GlideQualityScore(max12):** 4 **Riffle/RunQualityScore(max8):** 0
GradientScore (max10): 4 **%Pool:** 0 **%Riffle:** 0 **%Run:** 0 **%Glide:** 100 **CanopyCover PctOpen:** 30%-<55%
SubjectiveRating: **AestheticRating:** **NOTES:** "NEW RECORD"

Fish Community Index of Biotic Integrity (IBI) Information

Calibration Used: Central Corn Belt Plains - Lake Michigan

	<u>Actual</u> <u>Observation</u>	<u>Metric</u> <u>Score</u>		<u>Actual</u> <u>Observation</u>	<u>Metric</u> <u>Score</u>
SpeciesCount:	2	1	%TolerantIndividuals:	66.67	1
Darter/Madtom/SculpinSpeciesCount:	0	1	%OmnivoreIndividuals:	0	1
SunfishSpeciesCount:	2	3	%InsectivoreIndividuals:	100	1
MinnnowSpeciesCount:	0	1	%PioneerIndividuals:	66.67	1
SensitiveSpeciesCount:	0	1	Total # of Individuals (CPUE):	3	1
			%SimpleLithophilicInd.:	0	1
			%Ind.withDELT:	0	1

Metrics are dependent on Ecoregion and Drainage Area.
 Metrics can score a 0, 1, 3, or 5 depending on calibration.

Total IBI Score (min 0, max 60)	14
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SampleNumber: AB11705

EventID: 13T024

LSite: LMG-05-0019

County: Lake

StreamName: Tributary of Main Beaver Dam
Ditch

LocationDescription: Summit Street

Common Name	Individual Fish Count	Deformities	Eroded Fins	Lesions	Tumors	Multiple Anomalies
bluegill	1					
green sunfish	2					



Indiana Department of Environmental Management Fish Community Assessments

Site Information

SubBasin: Little Calumet-Galien **14 digit HUC:** 04040001030030 **LSite:** LMG-05-0020
Site: Main Beaver Dam Ditch **Location:** Clark Road **County:** Lake
Latitude: 41.441741 **Longitude:** -87.392582 **IASNat Region:** 2A **Topo:** A-53 **Segment:** 2
Ecoregion: Central Corn Belt Plains **Drainage Area (sq.miles):** 9.860 **Gradient (ft/mile):** 2.892

Sample Information

SampleNumber: AB11706 **EventID:** 13T025 **Sample MediumCollected:** Fish Community + Water
SampleDate: 06/24/2013 **SurveyCrewChief:** JCR **SampleTime:** 04:40:00 PM **HydroLabNumber:** Q4
WaterFlowType: Glide **WaterAppearance:** Murky **SkyConditions:** 2 - Scattered **AirTemperature:** 6 - > 86
WindDirection: 27 - West (270 degrees) **WindStrength:** 1 - Light
DissolvedO2 (mg/l): 6.82 **pH:** 7.12 **WaterTemp(°C):** 24.42 **SpecificConductivity (µS/cm):** 519 **Turbidity (NTU):** 10.3
SpecialNotes:

ElectrofishingEquipment: Canoe **Voltage:** 300 **Avg.StreamWidth(m):** 10 **DistanceFished (m):** 150
SecondsFished: 884 **WaterDepthAvg (m):** 1 **WaterDepthMax (m):** 1.5 **TimeAtSite:** 01:30
BridgeInReach: **ReachRepresentative:** **WhyReachNotRepresentative:**
SpecialComments: W/BOOM; 58.62% catch golden shiner

Habitat Information

TotalScore (max100): 37 **SubstrateScore (max20):** 2 **InstreamCover Score (max20):** 12 **ChannelMorphologyScore (max20):** 7
RiparianZoneBankErosion Score(max10): 3 **Pool/GlideQualityScore(max12):** 9 **Riffle/RunQualityScore(max8):** 0
GradientScore (max10): 4 **%Pool:** 20 **%Riffle:** 0 **%Run:** 20 **%Glide:** 60 **CanopyCover PctOpen:** >85%-Open
SubjectiveRating: **AestheticRating:** **NOTES:** "NEW RECORD"

Fish Community Index of Biotic Integrity (IBI) Information

Calibration Used: Central Corn Belt Plains - Lake Michigan

	<u>Actual</u> <u>Observation</u>	<u>Metric</u> <u>Score</u>		<u>Actual</u> <u>Observation</u>	<u>Metric</u> <u>Score</u>
SpeciesCount:	8	3	%TolerantIndividuals:	82.76	1
Darter/Madtom/SculpinSpeciesCount:	0	1	%OmnivoreIndividuals:	0	5
SunfishSpeciesCount:	2	3	%InsectivoreIndividuals:	89.66	1
MinnnowSpeciesCount:	1	1	%PioneerIndividuals:	3.45	5
SensitiveSpeciesCount:	0	1	Total # of Individuals (CPUE):	29	1
			%SimpleLithophilicInd.:	0	1
			%Ind.withDELT:	0	5

Metrics are dependent on Ecoregion and Drainage Area.
 Metrics can score a 0, 1, 3, or 5 depending on calibration.

Total IBI Score (min 0, max 60)	28
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SampleNumber: AB11706

EventID: 13T025

LSite: LMG-05-0020

County: Lake

StreamName: Main Beaver Dam Ditch

LocationDescription: Clark Road

Common Name	Individual Fish Count	Deformities	Eroded Fins	Lesions	Tumors	Multiple Anomalies
black bullhead	4					
bluegill	2					
bowfin	2					
central mudminnow	1					
golden shiner	17					
grass pickerel	1					
green sunfish	1					
yellow bullhead	1					



Indiana Department of Environmental Management Fish Community Assessments

Site Information

SubBasin: Little Calumet-Galien **14 digit HUC:** 04040001030030 **LSite:** LMG-05-0022
Site: Main Beaver Dam Ditch **Location:** Blaine Street **County:** Lake
Latitude: 41.448212 **Longitude:** -87.426483 **IASNat Region:** 2A **Topo:** A-53 **Segment:** 2
Ecoregion: Central Corn Belt Plains **Drainage Area (sq.miles):** 2.347 **Gradient (ft/mile):** 2.899

Sample Information

SampleNumber: AB11707 **EventID:** 13T027 **Sample MediumCollected:** Fish Community + Water
SampleDate: 06/24/2013 **SurveyCrewChief:** JCR **SampleTime:** 01:02:00 PM **HydroLabNumber:** Q4
WaterFlowType: Glide **WaterAppearance:** Brown **SkyConditions:** 4 - Cloudy **AirTemperature:** 5 - 76-85
WindDirection: 27 - West (270 degrees) **WindStrength:** 2 - Mod./Light
DissolvedO2 (mg/l): 5.39 **pH:** 6.71 **WaterTemp(°C):** 23.12 **SpecificConductivity (µS/cm):** 743 **Turbidity (NTU):** 8.97
SpecialNotes: Turbidity Q4= 3.4

ElectrofishingEquipment: Scanoe **Voltage:** 300 **Avg.StreamWidth(m):** 10 **DistanceFished (m):** 150
SecondsFished: 773 **WaterDepthAvg (m):** .5 **WaterDepthMax (m):** .75 **TimeAtSite:** 02:00
BridgeInReach: **ReachRepresentative:** **WhyReachNotRepresentative:**
SpecialComments:

Habitat Information

TotalScore (max100): 27 **SubstrateScore (max20):** 1 **InstreamCover Score (max20):** 5 **ChannelMorphologyScore (max20):** 7
RiparianZoneBankErosion Score(max10): 4 **Pool/GlideQualityScore(max12):** 6 **Riffle/RunQualityScore(max8):** 0
GradientScore (max10): 4 **%Pool: #** \$ **%Riffle: #** \$ **%Run: #** \$ **%Glide:** 100 **CanopyCover PctOpen:** >85%-Open
SubjectiveRating: **AestheticRating:** **NOTES:** "NEW RECORD"

Fish Community Index of Biotic Integrity (IBI) Information

Calibration Used: Central Corn Belt Plains - Lake Michigan

	<u>Actual</u> <u>Observation</u>	<u>Metric</u> <u>Score</u>		<u>Actual</u> <u>Observation</u>	<u>Metric</u> <u>Score</u>
SpeciesCount:	9	5	%TolerantIndividuals:	40	3
Darter/Madtom/SculpinSpeciesCount:	0	1	%OmnivoreIndividuals:	4	5
SunfishSpeciesCount:	4	5	%InsectivoreIndividuals:	84	5
MinnnowSpeciesCount:	2	3	%PioneerIndividuals:	20	5
SensitiveSpeciesCount:	0	1	Total # of Individuals (CPUE):	25	1
			%SimpleLithophilicInd.:	0	1
			%Ind.withDELT:	0	5

Metrics are dependent on Ecoregion and Drainage Area.
 Metrics can score a 0, 1, 3, or 5 depending on calibration.

Total IBI Score (min 0, max 60)	40
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SampleNumber: AB11707

EventID: 13T027

LSite: LMG-05-0022

County: Lake

StreamName: Main Beaver Dam Ditch

LocationDescription: Blaine Street

Common Name	Individual Fish Count	Deformities	Eroded Fins	Lesions	Tumors	Multiple Anomalies
black bullhead	1					
black crappie	3					
bluegill	9					
central mudminnow	1					
common carp	6	1				
golden shiner	2					
green sunfish	5					
largemouth bass	2					
warmouth	1					



Indiana Department of Environmental Management Fish Community Assessments

Site Information

SubBasin: Little Calumet-Galien **14 digit HUC:** 04040001030030 **LSite:** LMG-05-0021
Site: Tributary of Main Beaver Dam Ditch **Location:** 101st Avenue **County:** Lake
Latitude: 41.434951 **Longitude:** -87.403025 **IASNat Region:** 2A **Topo:** A-53 **Segment:** 2
Ecoregion: Central Corn Belt Plains **Drainage Area (sq.miles):** 1.536 **Gradient (ft/mile):** 2.593

Sample Information

SampleNumber: AB11717 **EventID:** 13T026 **Sample MediumCollected:** Fish Community + Water
SampleDate: 06/24/2013 **SurveyCrewChief:** JCR **SampleTime:** 11:08:00 AM **HydroLabNumber:** Q4
WaterFlowType: Glide **WaterAppearance:** Brown **SkyConditions:** 5 - Mist **AirTemperature:** 5 - 76-85
WindDirection: 27 - West (270 degrees) **WindStrength:** 1 - Light
DissolvedO2 (mg/l): .78 **pH:** 6.51 **WaterTemp(°C):** 23.61 **SpecificConductivity (µS/cm):** 549 **Turbidity (NTU):** 12.5
SpecialNotes:

ElectrofishingEquipment: Canoe **Voltage:** 300 **Avg.StreamWidth(m):** 5 **DistanceFished (m):** 75
SecondsFished: 932 **WaterDepthAvg (m):** .75 **WaterDepthMax (m):** 1.5 **TimeAtSite:** 02:00
BridgeInReach: **ReachRepresentative:** **WhyReachNotRepresentative:**
SpecialComments: W/BOOM; 66.67% catch central mudminnow

Habitat Information

TotalScore (max100): 40 **SubstrateScore (max20):** 1 **InstreamCover Score (max20):** 14 **ChannelMorphologyScore (max20):** 7
RiparianZoneBankErosion Score(max10): 6 **Pool/GlideQualityScore(max12):** 8 **Riffle/RunQualityScore(max8):** 0
GradientScore (max10): 4 **%Pool:** 20 **%Riffle:** 0 **%Run:** 0 **%Glide:** 80 **CanopyCover PctOpen:** 55%<85%
SubjectiveRating: **AestheticRating:** **NOTES:** "NEW RECORD"

Fish Community Index of Biotic Integrity (IBI) Information

Calibration Used: Central Corn Belt Plains - Lake Michigan

	<u>Actual</u> <u>Observation</u>	<u>Metric</u> <u>Score</u>		<u>Actual</u> <u>Observation</u>	<u>Metric</u> <u>Score</u>
SpeciesCount:	2	1	%TolerantIndividuals:	66.67	1
Darter/Madtom/SculpinSpeciesCount:	0	1	%OmnivoreIndividuals:	0	1
SunfishSpeciesCount:	0	1	%InsectivoreIndividuals:	66.67	1
MinnnowSpeciesCount:	0	1	%PioneerIndividuals:	0	1
SensitiveSpeciesCount:	0	1	Total # of Individuals (CPUE):	3	1
			%SimpleLithophilicInd.:	0	1
			%Ind.withDELT:	0	1

Metrics are dependent on Ecoregion and Drainage Area.
 Metrics can score a 0, 1, 3, or 5 depending on calibration.

Total IBI Score (min 0, max 60)	12
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SampleNumber: AB11717

EventID: 13T026

LSite: LMG-05-0021

County: Lake

StreamName: Tributary of Main Beaver Dam
Ditch

LocationDescription: 101st Avenue

Common Name	Individual Fish Count	Deformities	Eroded Fins	Lesions	Tumors	Multiple Anomalies
bowfin	1					
central mudminnow	2					



Indiana Department of Environmental Management Fish Community Assessments

Site Information

SubBasin: Little Calumet-Galien **14 digit HUC:** 04040001030060 **LSite:** LMG030-0008
Site: Deep River **Location:** Ridge Rd, D/S of Lake George Dam, Hobart **County:** Lake
Latitude: 41.535397 **Longitude:** -87.256425 **IASNat Region:** 2B **Topo:** A-31 **Segment:** 2
Ecoregion: Central Corn Belt Plains **Drainage Area (sq.miles):** 124.048 **Gradient (ft/mile):** 1.38

Sample Information

SampleNumber: AB11689 **EventID:** 13T008 **Sample MediumCollected:** Fish Community + Water
SampleDate: 06/25/2013 **SurveyCrewChief:** JCR **SampleTime:** 01:45:00 PM **HydroLabNumber:** Q4
WaterFlowType: Glide **WaterAppearance:** Green **SkyConditions:** 4 - Cloudy **AirTemperature:** 6 - > 86
WindDirection: 27 - West (270 degrees) **WindStrength:** 0 - Calm
DissolvedO2 (mg/l): 9.2 **pH:** 7.79 **WaterTemp(°C):** 26.2 **SpecificConductivity (µS/cm):** 576 **Turbidity (NTU):** 16.7
SpecialNotes: Hydrolab Turbidity= 23.5

ElectrofishingEquipment: Canoe **Voltage:** 300 **Avg.StreamWidth(m):** 27 **DistanceFished (m):** 405
SecondsFished: 2464 **WaterDepthAvg (m):** 1.5 **WaterDepthMax (m):** 3 **TimeAtSite:** 03:00
BridgelnReach: **ReachRepresentative:** **WhyReachNotRepresentative:**
SpecialComments: ONE PHOTO TAKEN OF UNIDENTIFIED SUNFISH IN VOUCHER JAR; 51.96% catch bluegill

Habitat Information

TotalScore (max100): 74 **SubstrateScore (max20):** 11 **InstreamCover Score (max20):** 17 **ChannelMorphologyScore (max20):** 16
RiparianZoneBankErosion Score(max10): 7 **Pool/GlideQualityScore(max12):** 11 **Riffle/RunQualityScore(max8):** 6
GradientScore (max10): 6 **%Pool:** 30 **%Riffle:** 10 **%Run:** 60 **%Glide:** # \$ **CanopyCover PctOpen:** 30%-<55%
SubjectiveRating: **AestheticRating:** **NOTES:** "NEW RECORD"

Fish Community Index of Biotic Integrity (IBI) Information

Calibration Used: Central Corn Belt Plains - Lake Michigan

	<u>Actual</u> <u>Observation</u>	<u>Metric</u> <u>Score</u>		<u>Actual</u> <u>Observation</u>	<u>Metric</u> <u>Score</u>
SpeciesCount:	13	3	%TolerantIndividuals:	26.47	3
DarterSpeciesCount:	0	1	%OmnivoreIndividuals:	4.9	5
SunfishSpeciesCount:	6	5	%InsectivoreIndividuals:	80.39	5
SalmonidaeSpeciesCount:	0	1	%CarnivoreIndividuals:	14.71	5
SensitiveSpeciesCount:	0	1	Total # of Individuals (CPUE):	102	1
			%SimpleLithophilicInd.:	0.98	1
			%Ind.withDELT:	2.94	1

Metrics are dependent on Ecoregion and Drainage Area.
 Metrics can score a 0, 1, 3, or 5 depending on calibration.

Total IBI Score (min 0, max 60)	32
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SampleNumber: AB11689

EventID: 13T008

LSite: LMG030-0008

County: Lake

StreamName: Deep River

LocationDescription: Ridge Rd, D/S of Lake George Dam, Hobart

Common Name	Individual Fish Count	Deformities	Eroded Fins	Lesions	Tumors	Multiple Anomalies
black crappie	4					
bluegill	53	1				
bluntnose minnow	1					
channel catfish	3					
common carp	4		1			
green sunfish	14					
largemouth bass	9	1				
orangespotted sunfish	1					
pumpkinseed	3					
spotfin shiner	1					
spotted sucker	1					
warmouth	3					
yellow bullhead	5					



Indiana Department of Environmental Management Fish Community Assessments

Site Information

SubBasin: Little Calumet-Galien **14 digit HUC:** 04040001030060 **LSite:** LMG-05-0011
Site: Deep River **Location:** Arizona Street **County:** Lake
Latitude: 41.511891 **Longitude:** -87.285981 **IASNat Region:** 2B **Topo:** A-31 **Segment:** 2
Ecoregion: Central Corn Belt Plains **Drainage Area (sq.miles):** 78.790 **Gradient (ft/mile):** 1.48

Sample Information

SampleNumber: AB11693 **EventID:** 13T012 **Sample MediumCollected:** Fish Community + Water
SampleDate: 06/26/2013 **SurveyCrewChief:** TAF **SampleTime:** 12:00:00 PM **HydroLabNumber:** YSI 4
WaterFlowType: Pool **WaterAppearance:** Brown **SkyConditions:** 7 - Shower **AirTemperature:** 5 - 76-85
WindDirection: 27 - West (270 degrees) **WindStrength:** 2 - Mod./Light
DissolvedO2 (mg/l): 5.91 **pH:** 7.79 **WaterTemp(°C):** 21.88 **SpecificConductivity (µS/cm):** 709 **Turbidity (NTU):** 32.8
SpecialNotes: Brant Fisher and Joanna Davs assisted with field collection

ElectrofishingEquipment: Scanoe **Voltage:** 150 **Avg.StreamWidth(m):** 20 **DistanceFished (m):** 300
SecondsFished: 2600 **WaterDepthAvg (m):** 1.2 **WaterDepthMax (m):** 2 **TimeAtSite:** 02:30
BridgeInReach: **ReachRepresentative:** **WhyReachNotRepresentative:**
SpecialComments:

Habitat Information

TotalScore (max100): 56 **SubstrateScore (max20):** 7 **InstreamCover Score (max20):** 14 **ChannelMorphologyScore (max20):** 14
RiparianZoneBankErosion Score(max10): 8 **Pool/GlideQualityScore(max12):** 9 **Riffle/RunQualityScore(max8):** 0
GradientScore (max10): 4 **%Pool:** 45 **%Riffle:** 0 **%Run:** 10 **%Glide:** 45 **CanopyCover PctOpen:** 30%-<55%
SubjectiveRating: **AestheticRating:** **NOTES:** "NEW RECORD"

Fish Community Index of Biotic Integrity (IBI) Information

Calibration Used: Central Corn Belt Plains - Lake Michigan

	<u>Actual</u>	<u>Metric</u>		<u>Actual</u>	<u>Metric</u>
	<u>Observation</u>	<u>Score</u>		<u>Observation</u>	<u>Score</u>
SpeciesCount:	19	5	%TolerantIndividuals:	61.82	1
DarterSpeciesCount:	1	3	%OmnivoreIndividuals:	13.09	5
SunfishSpeciesCount:	5	5	%InsectivoreIndividuals:	69.82	5
SalmonidaeSpeciesCount:	0	1	%CarnivoreIndividuals:	17.09	5
SensitiveSpeciesCount:	0	1	Total # of Individuals (CPUE):	275	3
			%SimpleLithophilicInd.:	1.09	1
			%Ind.withDELT:	0	5

Metrics are dependent on Ecoregion and Drainage Area.
 Metrics can score a 0, 1, 3, or 5 depending on calibration.

Total IBI Score (min 0, max 60)	40
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SampleNumber: AB11693

EventID: 13T012

LSite: LMG-05-0011

County: Lake

StreamName: Deep River

LocationDescription: Arizona Street

Common Name	Individual Fish Count	Deformities	Eroded Fins	Lesions	Tumors	Multiple Anomalies
black crappie	2					
bluegill	31					
bluntnose minnow	22					
central mudminnow	15					
common carp	3					
gizzard shad	9					
golden shiner	6					
grass pickerel	27					
green sunfish	112					
johnny darter	1					
largemouth bass	15					
northern pike	1					
pirate perch	3					
pumpkinseed	20					
tadpole madtom	1					
walleye	1					
warmouth	3					
white sucker	2					
yellow bullhead	1					



Indiana Department of Environmental Management Fish Community Assessments

Site Information

SubBasin: Little Calumet-Galien **14 digit HUC:** 04040001030060 **LSite:** LMG-05-0033
Site: Sprout Ditch **Location:** 70th Avenue **County:** Lake
Latitude: 41.492959 **Longitude:** -87.287620 **IASNat Region:** 2B **Topo:** A-54 **Segment:** 2
Ecoregion: Central Corn Belt Plains **Drainage Area (sq.miles):** 3.628 **Gradient (ft/mile):** 19.999

Sample Information

SampleNumber: AB11694 **EventID:** 13T013 **Sample MediumCollected:** Fish Community + Water
SampleDate: 06/26/2013 **SurveyCrewChief:** KJC **SampleTime:** 11:00:00 AM **HydroLabNumber:** Q3
WaterFlowType: Run **WaterAppearance:** Murky **SkyConditions:** 8 - Rain **AirTemperature:** 4 - 61-75
WindDirection: 27 - West (270 degrees) **WindStrength:** 1 - Light
DissolvedO2 (mg/l): 6.01 **pH:** 7.73 **WaterTemp(°C):** 22.59 **SpecificConductivity (µS/cm):** 827 **Turbidity (NTU):** 40.6
SpecialNotes: Shocked upstream of culvert

ElectrofishingEquipment: Backpack **Voltage:** 150 **Avg.StreamWidth(m):** 5 **DistanceFished (m):** 70
SecondsFished: 890 **WaterDepthAvg (m):** .5 **WaterDepthMax (m):** 1 **TimeAtSite:** 00:00
BridgeInReach: **ReachRepresentative:** **WhyReachNotRepresentative:**
SpecialComments: Shocked upstream of culvert; 57.89% catch green sunfish

Habitat Information

TotalScore (max100): 66 **SubstrateScore (max20):** 13 **InstreamCover Score (max20):** 14 **ChannelMorphologyScore (max20):** 12
RiparianZoneBankErosion Score(max10): 5 **Pool/GlideQualityScore(max12):** 7 **Riffle/RunQualityScore(max8):** 5
GradientScore (max10): 10 **%Pool:** 35 **%Riffle:** 10 **%Run:** 55 **%Glide:** 0 **CanopyCover PctOpen:** 30%-<55%
SubjectiveRating: **AestheticRating:** **NOTES:** "NEW RECORD"

Fish Community Index of Biotic Integrity (IBI) Information

Calibration Used: Central Corn Belt Plains - Lake Michigan

	<u>Actual</u>	<u>Metric</u>		<u>Actual</u>	<u>Metric</u>
	<u>Observation</u>	<u>Score</u>		<u>Observation</u>	<u>Score</u>
SpeciesCount:	5	3	%TolerantIndividuals:	94.74	1
Darter/Madtom/SculpinSpeciesCount:	0	1	%OmnivoreIndividuals:	2.63	5
SunfishSpeciesCount:	2	3	%InsectivoreIndividuals:	60.53	5
MinnnowSpeciesCount:	2	3	%PioneerIndividuals:	94.74	1
SensitiveSpeciesCount:	0	1	Total # of Individuals (CPUE):	38	1
			%SimpleLithophilicInd.:	2.63	1
			%Ind.withDELT:	0	5

Metrics are dependent on Ecoregion and Drainage Area.
 Metrics can score a 0, 1, 3, or 5 depending on calibration.

Total IBI Score (min 0, max 60)	30
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SampleNumber: AB11694

EventID: 13T013

LSite: LMG-05-0033

County: Lake

StreamName: Sprout Ditch

LocationDescription: 70th Avenue

Common Name	Individual Fish Count	Deformities	Eroded Fins	Lesions	Tumors	Multiple Anomalies
bluegill	1					
central stoneroller	1					
creek chub	13					
green sunfish	22					
white sucker	1					



Indiana Department of Environmental Management Fish Community Assessments

Site Information

SubBasin: Little Calumet-Galien **14 digit HUC:** 04040001030060 **LSite:** LMG-05-0012
Site: Deep River **Location:** Joliet Road **County:** Lake
Latitude: 41.476139 **Longitude:** -87.220151 **IASNat Region:** 2A **Topo:** A-55 **Segment:** 2
Ecoregion: Central Corn Belt Plains **Drainage Area (sq.miles):** 66.707 **Gradient (ft/mile):** 7.987

Sample Information

SampleNumber: AB11695 **EventID:** 13T014 **Sample MediumCollected:** Fish Community + Water
SampleDate: 06/25/2013 **SurveyCrewChief:** TAF **SampleTime:** 09:30:00 AM **HydroLabNumber:** YSI 4
WaterFlowType: Riffle **WaterAppearance:** Clear **SkyConditions:** 4 - Cloudy **AirTemperature:** 5 - 76-85
WindDirection: 27 - West (270 degrees) **WindStrength:** 1 - Light
DissolvedO2 (mg/l): 7.14 **pH:** 7.93 **WaterTemp(°C):** 21.17 **SpecificConductivity (µS/cm):** 734 **Turbidity (NTU):** 16.1
SpecialNotes: Brant Fisher and Joanna Davis assisted with sampling

ElectrofishingEquipment: Longline **Voltage:** 125 **Avg.StreamWidth(m):** 10 **DistanceFished (m):** 150
SecondsFished: 2066 **WaterDepthAvg (m):** .7 **WaterDepthMax (m):** 1.3 **TimeAtSite:** 02:00
BridgeInReach: **ReachRepresentative:** **WhyReachNotRepresentative:**
SpecialComments: Brant took Central Stoneroller and Brown Bullhead

Habitat Information

TotalScore (max100): 75 **SubstrateScore (max20):** 13 **InstreamCover Score (max20):** 13 **ChannelMorphologyScore (max20):** 16
RiparianZoneBankErosion Score(max10): 6 **Pool/GlideQualityScore(max12):** 10 **Riffle/RunQualityScore(max8):** 7
GradientScore (max10): 10 **%Pool:** 40 **%Riffle:** 20 **%Run:** 20 **%Glide:** 20 **CanopyCover PctOpen:** 30%-<55%
SubjectiveRating: **AestheticRating:** **NOTES:** "NEW RECORD"

Fish Community Index of Biotic Integrity (IBI) Information

Calibration Used: Central Corn Belt Plains - Lake Michigan

	<u>Actual</u>	<u>Metric</u>		<u>Actual</u>	<u>Metric</u>
	<u>Observation</u>	<u>Score</u>		<u>Observation</u>	<u>Score</u>
SpeciesCount:	12	3	%TolerantIndividuals:	56.91	1
DarterSpeciesCount:	1	3	%OmnivoreIndividuals:	12.15	5
SunfishSpeciesCount:	2	3	%InsectivoreIndividuals:	61.88	5
SalmonidaeSpeciesCount:	0	1	%CarnivoreIndividuals:	3.31	3
SensitiveSpeciesCount:	0	1	Total # of Individuals (CPUE):	181	3
			%SimpleLithophilicInd.:	12.71	1
			%Ind.withDELT:	0	5

Metrics are dependent on Ecoregion and Drainage Area.
 Metrics can score a 0, 1, 3, or 5 depending on calibration.

Total IBI Score (min 0, max 60)	34
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SampleNumber: AB11695

EventID: 13T014

LSite: LMG-05-0012

County: Lake

StreamName: Deep River

LocationDescription: Joliet Road

Common Name	Individual Fish Count	Deformities	Eroded Fins	Lesions	Tumors	Multiple Anomalies
bluegill	15					
bowfin	2					
brown bullhead	1					
central stoneroller	14					
creek chub	27					
grass pickerel	1					
green sunfish	52					
johnny darter	42					
largemouth bass	3					
tadpole madtom	1					
western blacknose dace	1					
white sucker	22					



Indiana Department of Environmental Management Fish Community Assessments

Site Information

SubBasin: Little Calumet-Galien **14 digit HUC:** 04040001030010 **LSite:** LMG-05-0023
Site: Tributary of Turkey Creek **Location:** 77th Avenue **County:** Lake
Latitude: 41.478671 **Longitude:** -87.438274 **IASNat Region:** 2A **Topo:** A-53 **Segment:** 1
Ecoregion: Central Corn Belt Plains **Drainage Area (sq.miles):** 2.840 **Gradient (ft/mile):** 7.809

Sample Information

SampleNumber: AB11708 **EventID:** 13T028 **Sample MediumCollected:** Fish Community + Water
SampleDate: 06/24/2013 **SurveyCrewChief:** JCR **SampleTime:** 03:15:00 PM **HydroLabNumber:** Q4
WaterFlowType: Run **WaterAppearance:** Murky **SkyConditions:** 3 - Partly **AirTemperature:** 6 - > 86
WindDirection: 27 - West (270 degrees) **WindStrength:** 1 - Light
DissolvedO2 (mg/l): 1.16 **pH:** 6.85 **WaterTemp(°C):** 23.4 **SpecificConductivity (µS/cm):** 530 **Turbidity (NTU):** 13.8
SpecialNotes: winkler titration= 1.5 mg/l

ElectrofishingEquipment: Backpack **Voltage:** 250 **Avg.StreamWidth(m):** 2 **DistanceFished (m):** 50
SecondsFished: 318 **WaterDepthAvg (m):** .5 **WaterDepthMax (m):** .75 **TimeAtSite:** 00:30
BridgeInReach: **ReachRepresentative:** **WhyReachNotRepresentative:**
SpecialComments: 93.33% catch central mudminnow

Habitat Information

TotalScore (max100): 37 **SubstrateScore (max20):** 3 **InstreamCover Score (max20):** 11 **ChannelMorphologyScore (max20):** 8
RiparianZoneBankErosion Score(max10): 5 **Pool/GlideQualityScore(max12):** 4 **Riffle/RunQualityScore(max8):** 0
GradientScore (max10): 6 **%Pool:** 20 **%Riffle:** 0 **%Run:** 20 **%Glide:** 60 **CanopyCover PctOpen:** 55%-<85%
SubjectiveRating: **AestheticRating:** **NOTES:** "NEW RECORD"

Fish Community Index of Biotic Integrity (IBI) Information

Calibration Used: Central Corn Belt Plains - Lake Michigan

	<u>Actual</u>	<u>Metric</u>		<u>Actual</u>	<u>Metric</u>
	<u>Observation</u>	<u>Score</u>		<u>Observation</u>	<u>Score</u>
SpeciesCount:	2	1	%TolerantIndividuals:	100	1
Darter/Madtom/SculpinSpeciesCount:	0	1	%OmnivoreIndividuals:	0	1
SunfishSpeciesCount:	1	1	%InsectivoreIndividuals:	100	1
MinnnowSpeciesCount:	0	1	%PioneerIndividuals:	6.67	1
SensitiveSpeciesCount:	0	1	Total # of Individuals (CPUE):	15	1
			%SimpleLithophilicInd.:	0	1
			%Ind.withDELT:	0	1

Metrics are dependent on Ecoregion and Drainage Area.
 Metrics can score a 0, 1, 3, or 5 depending on calibration.

Total IBI Score (min 0, max 60)	12
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SampleNumber: AB11708

EventID: 13T028

LSite: LMG-05-0023

County: Lake

StreamName: Tributary of Turkey Creek

LocationDescription: 77th Avenue

Common Name	Individual Fish Count	Deformities	Eroded Fins	Lesions	Tumors	Multiple Anomalies
central mudminnow	14					
green sunfish	1					



Indiana Department of Environmental Management Fish Community Assessments

Site Information

SubBasin: Little Calumet-Galien **14 digit HUC:** 04040001030010 **LSite:** LMG-05-0024
Site: Turkey Creek **Location:** Broad Street **County:** Lake
Latitude: 41.498009 **Longitude:** -87.427565 **IASNat Region:** 2B **Topo:** A-53 **Segment:** 1
Ecoregion: Central Corn Belt Plains **Drainage Area (sq.miles):** 5.543 **Gradient (ft/mile):** 6.888

Sample Information

SampleNumber: AB11709 **EventID:** 13T029 **Sample MediumCollected:** Fish Community + Water
SampleDate: 06/26/2013 **SurveyCrewChief:** KJC **SampleTime:** 08:37:00 AM **HydroLabNumber:** Q-3
WaterFlowType: Run **WaterAppearance:** Clear **SkyConditions:** 5 - Mist **AirTemperature:** 4 - 61-75
WindDirection: 27 - West (270 degrees) **WindStrength:** 1 - Light
DissolvedO2 (mg/l): 6.43 **pH:** 7.72 **WaterTemp(°C):** 21.36 **SpecificConductivity (µS/cm):** 643 **Turbidity (NTU):** 12.5
SpecialNotes: Turbidity W/Q3= 22.2

ElectrofishingEquipment: Backpack **Voltage:** 150 **Avg.StreamWidth(m):** 4 **DistanceFished (m):** 60
SecondsFished: 703 **WaterDepthAvg (m):** .4 **WaterDepthMax (m):** .6 **TimeAtSite:** 01:15
BridgeInReach: **ReachRepresentative:** **WhyReachNotRepresentative:**
SpecialComments:

Habitat Information

TotalScore (max100): 49 **SubstrateScore (max20):** 11 **InstreamCover Score (max20):** 11 **ChannelMorphologyScore (max20):** 7
RiparianZoneBankErosion Score(max10): 9 **Pool/GlideQualityScore(max12):** 5 **Riffle/RunQualityScore(max8):** 0
GradientScore (max10): 6 **%Pool:** 5 **%Riffle:** 0 **%Run:** 95 **%Glide:** 0 **CanopyCover PctOpen:** 55%-<85%
SubjectiveRating: **AestheticRating:** **NOTES:** "NEW RECORD"

Fish Community Index of Biotic Integrity (IBI) Information

Calibration Used: Central Corn Belt Plains - Lake Michigan

	<u>Actual</u>	<u>Metric</u>		<u>Actual</u>	<u>Metric</u>
	<u>Observation</u>	<u>Score</u>		<u>Observation</u>	<u>Score</u>
SpeciesCount:	9	5	%TolerantIndividuals:	54.55	1
Darter/Madtom/SculpinSpeciesCount:	1	3	%OmnivoreIndividuals:	0	5
SunfishSpeciesCount:	2	3	%InsectivoreIndividuals:	84.85	5
MinnnowSpeciesCount:	2	3	%PioneerIndividuals:	36.36	3
SensitiveSpeciesCount:	0	1	Total # of Individuals (CPUE):	33	1
			%SimpleLithophilicInd.:	0	1
			%Ind.withDELT:	0	5

Metrics are dependent on Ecoregion and Drainage Area.
 Metrics can score a 0, 1, 3, or 5 depending on calibration.

Total IBI Score (min 0, max 60)	36
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SampleNumber: AB11709

EventID: 13T029

LSite: LMG-05-0024

County: Lake

StreamName: Turkey Creek

LocationDescription: Broad Street

Common Name	Individual Fish Count	Deformities	Eroded Fins	Lesions	Tumors	Multiple Anomalies
black bullhead	1					
bluegill	11					
central mudminnow	4					
creek chub	2					
golden shiner	1					
grass pickerel	3					
green sunfish	9					
johnny darter	1					
yellow bullhead	1					



Indiana Department of Environmental Management Fish Community Assessments

Site Information

SubBasin: Little Calumet-Galien **14 digit HUC:** 04040001030010 **LSite:** LMG-05-0025
Site: Johnson Ditch **Location:** Oak Ridge Prairie County Park **County:** Lake
Latitude: 41.517323 **Longitude:** -87.395924 **IASNat Region:** 2B **Topo:** A-30 **Segment:** 1
Ecoregion: Central Corn Belt Plains **Drainage Area (sq.miles):** 2.131 **Gradient (ft/mile):** 3.986

Sample Information

SampleNumber: AB11710 **EventID:** 13T030 **Sample MediumCollected:** Fish Community + Water
SampleDate: 06/26/2013 **SurveyCrewChief:** TAF **SampleTime:** 10:15:00 AM **HydroLabNumber:** YSI 4
WaterFlowType: Pool **WaterAppearance:** Clear **SkyConditions:** 4 - Cloudy **AirTemperature:** 4 - 61-75
WindDirection: 27 - West (270 degrees) **WindStrength:** 3 - Moderate
DissolvedO2 (mg/l): 1.62 **pH:** 7.65 **WaterTemp(°C):** 23.54 **SpecificConductivity (µS/cm):** 594 **Turbidity (NTU):** 4.54
SpecialNotes: Brant Fisher and Joanna Davis assisted with sampling

ElectrofishingEquipment: Scanoe **Voltage:** 150 **Avg.StreamWidth(m):** 6 **DistanceFished (m):** 90
SecondsFished: 900 **WaterDepthAvg (m):** .7 **WaterDepthMax (m):** 1.3 **TimeAtSite:** 01:00
BridgeInReach: **ReachRepresentative:** **WhyReachNotRepresentative:**
SpecialComments: 1.5 KVA NOT KEEPING TIME; ESTIMATED SECONDS; 89.06% catch golden shiner

Habitat Information

TotalScore (max100): 36 **SubstrateScore (max20):** 1 **InstreamCover Score (max20):** 10 **ChannelMorphologyScore (max20):** 6
RiparianZoneBankErosion Score(max10): 8 **Pool/GlideQualityScore(max12):** 7 **Riffle/RunQualityScore(max8):** 0
GradientScore (max10): 4 **%Pool:** 10/0 **%Riffle:** 0 **%Run:** 0 **%Glide:** 0 **CanopyCover PctOpen:** 10%-<30%
SubjectiveRating: **AestheticRating:** **NOTES:** "NEW RECORD"

Fish Community Index of Biotic Integrity (IBI) Information

Calibration Used: Central Corn Belt Plains - Lake Michigan

	<u>Actual</u>	<u>Metric</u>		<u>Actual</u>	<u>Metric</u>
	<u>Observation</u>	<u>Score</u>		<u>Observation</u>	<u>Score</u>
SpeciesCount:	5	3	%TolerantIndividuals:	92.19	1
Darter/Madtom/SculpinSpeciesCount:	0	1	%OmnivoreIndividuals:	0	5
SunfishSpeciesCount:	1	1	%InsectivoreIndividuals:	93.75	1
MinnnowSpeciesCount:	1	3	%PioneerIndividuals:	0	5
SensitiveSpeciesCount:	0	1	Total # of Individuals (CPUE):	64	1
			%SimpleLithophilicInd.:	0	1
			%Ind.withDELT:	0	5

Metrics are dependent on Ecoregion and Drainage Area.
 Metrics can score a 0, 1, 3, or 5 depending on calibration.

Total IBI Score (min 0, max 60)	28
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SampleNumber: AB11710

EventID: 13T030

LSite: LMG-05-0025

County: Lake

StreamName: Johnson Ditch

LocationDescription: Oak Ridge Prairie County Park

Common Name	Individual Fish Count	Deformities	Eroded Fins	Lesions	Tumors	Multiple Anomalies
bluegill	1					
central mudminnow	1					
golden shiner	57					
grass pickerel	4					
yellow bullhead	1					



Indiana Department of Environmental Management Fish Community Assessments

Site Information

SubBasin: Little Calumet-Galien **14 digit HUC:** 04040001030010 **LSite:** LMG-05-0026
Site: Tributary of Turkey Creek **Location:** W Old Lincoln Hwy **County:** Lake
Latitude: 41.486074 **Longitude:** -87.393392 **IASNat Region:** 2A **Topo:** A-53 **Segment:** 2
Ecoregion: Central Corn Belt Plains **Drainage Area (sq.miles):** 2.642 **Gradient (ft/mile):** 14.199

Sample Information

SampleNumber: AB11711 **EventID:** 13T031 **Sample MediumCollected:** Fish Community + Water
SampleDate: 06/25/2013 **SurveyCrewChief:** JCR **SampleTime:** 11:14:00 AM **HydroLabNumber:** Q4
WaterFlowType: Run **WaterAppearance:** Murky **SkyConditions:** 3 - Partly **AirTemperature:** 5 - 76-85
WindDirection: 27 - West (270 degrees) **WindStrength:** 2 - Mod./Light
DissolvedO2 (mg/l): 6.39 **pH:** 6.88 **WaterTemp(°C):** 23.4 **SpecificConductivity (µS/cm):** 415 **Turbidity (NTU):** 38.9
SpecialNotes:

ElectrofishingEquipment: Backpack **Voltage:** 300 **Avg.StreamWidth(m):** 4 **DistanceFished (m):** 50
SecondsFished: 199 **WaterDepthAvg (m):** .5 **WaterDepthMax (m):** .5 **TimeAtSite:** 00:30
BridgeInReach: **ReachRepresentative:** **WhyReachNotRepresentative:**
SpecialComments:

Habitat Information

TotalScore (max100): 41 **SubstrateScore (max20):** 2 **InstreamCover Score (max20):** 9 **ChannelMorphologyScore (max20):** 12
RiparianZoneBankErosion Score(max10): 5 **Pool/GlideQualityScore(max12):** 5 **Riffle/RunQualityScore(max8):** 0
GradientScore (max10): 8 **%Pool:** 20 **%Riffle:** 0 **%Run:** 80 **%Glide:** 0 **CanopyCover PctOpen:** 55%-<85%
SubjectiveRating: **AestheticRating:** **NOTES:** "NEW RECORD"

Fish Community Index of Biotic Integrity (IBI) Information

Calibration Used: Central Corn Belt Plains - Lake Michigan

	<u>Actual</u>	<u>Metric</u>		<u>Actual</u>	<u>Metric</u>
	<u>Observation</u>	<u>Score</u>		<u>Observation</u>	<u>Score</u>
SpeciesCount:	2	1	%TolerantIndividuals:	100	1
Darter/Madtom/SculpinSpeciesCount:	0	1	%OmnivoreIndividuals:	0	1
SunfishSpeciesCount:	1	1	%InsectivoreIndividuals:	50	1
MinnnowSpeciesCount:	1	1	%PioneerIndividuals:	100	1
SensitiveSpeciesCount:	0	1	Total # of Individuals (CPUE):	4	1
			%SimpleLithophilicInd.:	0	1
			%Ind.withDELT:	0	1

Metrics are dependent on Ecoregion and Drainage Area.
 Metrics can score a 0, 1, 3, or 5 depending on calibration.

Total IBI Score (min 0, max 60)	12
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SampleNumber: AB11711

EventID: 13T031

LSite: LMG-05-0026

County: Lake

StreamName: Tributary of Turkey Creek

LocationDescription: W Old Lincoln Hwy

Common Name	Individual Fish Count	Deformities	Eroded Fins	Lesions	Tumors	Multiple Anomalies
creek chub	2					
green sunfish	2					



Indiana Department of Environmental Management Fish Community Assessments

Site Information

SubBasin: Little Calumet-Galien **14 digit HUC:** 04040001030020 **LSite:** LMG-05-0027
Site: Turkey Creek **Location:** SR 55 **County:** Lake
Latitude: 41.498652 **Longitude:** -87.364763 **IASNat Region:** 2B **Topo:** A-54 **Segment:** 2
Ecoregion: Central Corn Belt Plains **Drainage Area (sq.miles):** 21.179 **Gradient (ft/mile):** 2.388

Sample Information

SampleNumber: AB11712 **EventID:** 13T032 **Sample MediumCollected:** Fish Community + Water
SampleDate: 06/26/2013 **SurveyCrewChief:** TAF **SampleTime:** 08:30:00 AM **HydroLabNumber:** YSI 4
WaterFlowType: Glide **WaterAppearance:** Murky **SkyConditions:** 4 - Cloudy **AirTemperature:** 4 - 61-75
WindDirection: 27 - West (270 degrees) **WindStrength:** 3 - Moderate
DissolvedO2 (mg/l): 4.77 **pH:** 7.67 **WaterTemp(°C):** 22.5 **SpecificConductivity (µS/cm):** 760 **Turbidity (NTU):** 18.3
SpecialNotes:

ElectrofishingEquipment: Scanoe **Voltage:** 150 **Avg.StreamWidth(m):** 6 **DistanceFished (m):** 90
SecondsFished: 1300 **WaterDepthAvg (m):** .7 **WaterDepthMax (m):** 2 **TimeAtSite:** 01:20
BridgelnReach: **ReachRepresentative:** **WhyReachNotRepresentative:**
SpecialComments: 1.5 KVA not keeping time, estimated seconds

Habitat Information

TotalScore (max100): 51 **SubstrateScore (max20):** 11 **InstreamCover Score (max20):** 15 **ChannelMorphologyScore (max20):** 8
RiparianZoneBankErosion Score(max10): 4 **Pool/GlideQualityScore(max12):** 9 **Riffle/RunQualityScore(max8):** 0
GradientScore (max10): 4 **%Pool:** 30 **%Riffle:** 0 **%Run:** 0 **%Glide:** 70 **CanopyCover PctOpen:** >85%-Open
SubjectiveRating: **AestheticRating:** **NOTES:** "NEW RECORD"

Fish Community Index of Biotic Integrity (IBI) Information

Calibration Used: Central Corn Belt Plains - Lake Michigan

	<u>Actual</u> <u>Observation</u>	<u>Metric</u> <u>Score</u>		<u>Actual</u> <u>Observation</u>	<u>Metric</u> <u>Score</u>
SpeciesCount:	14	5	%TolerantIndividuals:	46.88	3
DarterSpeciesCount:	1	3	%OmnivoreIndividuals:	4.69	5
SunfishSpeciesCount:	5	5	%InsectivoreIndividuals:	82.03	5
SalmonidaeSpeciesCount:	0	1	%CarnivoreIndividuals:	13.28	5
SensitiveSpeciesCount:	0	1	Total # of Individuals (CPUE):	128	3
			%SimpleLithophilicInd.:	0.78	1
			%Ind.withDELT:	0	5

Metrics are dependent on Ecoregion and Drainage Area.
 Metrics can score a 0, 1, 3, or 5 depending on calibration.

Total IBI Score (min 0, max 60)	42
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SampleNumber: AB11712

EventID: 13T032

LSite: LMG-05-0027

County: Lake

StreamName: Turkey Creek

LocationDescription: SR 55

Common Name	Individual Fish Count	Deformities	Eroded Fins	Lesions	Tumors	Multiple Anomalies
black crappie	11					
bluegill	35					
bowfin	1					
central mudminnow	1					
common carp	5					
grass pickerel	1					
green sunfish	43					
johnny darter	3					
largemouth bass	14					
pumpkinseed	1					
tadpole madtom	1					
warmouth	1					
white sucker	1					
yellow bullhead	10					



Indiana Department of Environmental Management Fish Community Assessments

Site Information

SubBasin: Little Calumet-Galien **14 digit HUC:** 04040001030010 **LSite:** LMG-05-0028
Site: Tributary of Turkey Creek **Location:** 73rd Avenue **County:** Lake
Latitude: 41.485657 **Longitude:** -87.373614 **IASNat Region:** 2A **Topo:** A-54 **Segment:** 2
Ecoregion: Central Corn Belt Plains **Drainage Area (sq.miles):** 1.731 **Gradient (ft/mile):** 19.835

Sample Information

SampleNumber: AB11713 **EventID:** 13T033 **Sample MediumCollected:** Fish Community + Water
SampleDate: 06/25/2013 **SurveyCrewChief:** JCR **SampleTime:** 11:00:00 AM **HydroLabNumber:** Q4
WaterFlowType: Glide **WaterAppearance:** Clear **SkyConditions:** 3 - Partly **AirTemperature:** 6 - > 86
WindDirection: 27 - West (270 degrees) **WindStrength:** 1 - Light
DissolvedO2 (mg/l): 7.51 **pH:** 7.19 **WaterTemp(°C):** 24.36 **SpecificConductivity (µS/cm):** 465 **Turbidity (NTU):** 9.91
SpecialNotes: Hydrolab Q4 Turbidity= 11.9

ElectrofishingEquipment: Backpack **Voltage:** 300 **Avg.StreamWidth(m):** 2 **DistanceFished (m):** 50
SecondsFished: 229 **WaterDepthAvg (m):** .2 **WaterDepthMax (m):** .5 **TimeAtSite:** 00:30
BridgeInReach: **ReachRepresentative:** **WhyReachNotRepresentative:**
SpecialComments: 64.71% catch largemouth bass

Habitat Information

TotalScore (max100): 41 **SubstrateScore (max20):** 3 **InstreamCover Score (max20):** 10 **ChannelMorphologyScore (max20):** 11
RiparianZoneBankErosion Score(max10): 3 **Pool/GlideQualityScore(max12):** 4 **Riffle/RunQualityScore(max8):** 0
GradientScore (max10): 10 **%Pool:** 10 **%Riffle:** 0 **%Run:** 90 **%Glide:** 0 **CanopyCover PctOpen:** >85%-Open
SubjectiveRating: **AestheticRating:** **NOTES:** "NEW RECORD"

Fish Community Index of Biotic Integrity (IBI) Information

Calibration Used: Central Corn Belt Plains - Lake Michigan

	<u>Actual</u> <u>Observation</u>	<u>Metric</u> <u>Score</u>	<u>Actual</u> <u>Observation</u>	<u>Metric</u> <u>Score</u>
SpeciesCount:	3	3	%TolerantIndividuals:	35.29 3
Darter/Madtom/SculpinSpeciesCount:	0	1	%OmnivoreIndividuals:	0 5
SunfishSpeciesCount:	1	1	%InsectivoreIndividuals:	17.65 3
MinnnowSpeciesCount:	1	3	%PioneerIndividuals:	35.29 3
SensitiveSpeciesCount:	0	1	Total # of Individuals (CPUE):	34 1
			%SimpleLithophilicInd.:	0 1
			%Ind.withDELT:	0 5

Metrics are dependent on Ecoregion and Drainage Area.
 Metrics can score a 0, 1, 3, or 5 depending on calibration.

Total IBI Score (min 0, max 60)	30
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SampleNumber: AB11713

EventID: 13T033

LSite: LMG-05-0028

County: Lake

StreamName: Tributary of Turkey Creek

LocationDescription: 73rd Avenue

Common Name	Individual Fish Count	Deformities	Eroded Fins	Lesions	Tumors	Multiple Anomalies
creek chub	6					
green sunfish	6					
largemouth bass	22					



Indiana Department of Environmental Management Fish Community Assessments

Site Information

SubBasin: Little Calumet-Galien **14 digit HUC:** 04040001030020 **LSite:** LMG-05-0029
Site: Tributary of Turkey Creek **Location:** Arthur Street **County:** Lake
Latitude: 41.505881 **Longitude:** -87.358707 **IASNat Region:** 2B **Topo:** A-31 **Segment:** 2
Ecoregion: Central Corn Belt Plains **Drainage Area (sq.miles):** 5.595 **Gradient (ft/mile):** 3.392

Sample Information

SampleNumber: AB11714 **EventID:** 13T034 **Sample MediumCollected:** Fish Community + Water
SampleDate: 06/25/2013 **SurveyCrewChief:** KAG **SampleTime:** 01:45:00 PM **HydroLabNumber:** Q3
WaterFlowType: Run **WaterAppearance:** Clear **SkyConditions:** 3 - Partly **AirTemperature:** 5 - 76-85
WindDirection: 29 - 290 degrees **WindStrength:** 2 - Mod./Light
DissolvedO2 (mg/l): 9.58 **pH:** 7.98 **WaterTemp(°C):** 25.15 **SpecificConductivity (µS/cm):** 515 **Turbidity (NTU):** 6.5
SpecialNotes:

ElectrofishingEquipment: Backpack **Voltage:** 150 **Avg.StreamWidth(m):** 4 **DistanceFished (m):** 60
SecondsFished: 825 **WaterDepthAvg (m):** .5 **WaterDepthMax (m):** 1 **TimeAtSite:** 01:00
BridgeInReach: **ReachRepresentative:** **WhyReachNotRepresentative:**
SpecialComments: 85.71% catch central mudminnow

Habitat Information

TotalScore (max100): 31 **SubstrateScore (max20):** 1 **InstreamCover Score (max20):** 14 **ChannelMorphologyScore (max20):** 4
RiparianZoneBankErosion Score(max10): 4 **Pool/GlideQualityScore(max12):** 4 **Riffle/RunQualityScore(max8):** 0
GradientScore (max10): 4 **%Pool: #** **%Riffle: #** **%Run: #** **%Glide:** 100 **CanopyCover PctOpen:** 30%-<55%
SubjectiveRating: **AestheticRating:** **NOTES:** "NEW RECORD"

Fish Community Index of Biotic Integrity (IBI) Information

Calibration Used: Central Corn Belt Plains - Lake Michigan

	<u>Actual</u>	<u>Metric</u>		<u>Actual</u>	<u>Metric</u>
	<u>Observation</u>	<u>Score</u>		<u>Observation</u>	<u>Score</u>
SpeciesCount:	2	1	%TolerantIndividuals:	100	1
Darter/Madtom/SculpinSpeciesCount:	0	1	%OmnivoreIndividuals:	0	1
SunfishSpeciesCount:	1	1	%InsectivoreIndividuals:	100	1
MinnnowSpeciesCount:	0	1	%PioneerIndividuals:	14.29	1
SensitiveSpeciesCount:	0	1	Total # of Individuals (CPUE):	7	1
			%SimpleLithophilicInd.:	0	1
			%Ind.withDELT:	0	1

Metrics are dependent on Ecoregion and Drainage Area.
 Metrics can score a 0, 1, 3, or 5 depending on calibration.

Total IBI Score (min 0, max 60)	12
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SampleNumber: AB11714

EventID: 13T034

LSite: LMG-05-0029

County: Lake

StreamName: Tributary of Turkey Creek

LocationDescription: Arthur Street

Common Name	Individual Fish Count	Deformities	Eroded Fins	Lesions	Tumors	Multiple Anomalies
central mudminnow	6					
green sunfish	1					



Indiana Department of Environmental Management Fish Community Assessments

Site Information

SubBasin: Little Calumet-Galien **14 digit HUC:** 04040001030020 **LSite:** LMG-05-0030
Site: Tributary of Turkey Creek **Location:** 73rd Avenue **County:** Lake
Latitude: 41.485465 **Longitude:** -87.340380 **IASNat Region:** 2A **Topo:** A-54 **Segment:** 2
Ecoregion: Central Corn Belt Plains **Drainage Area (sq.miles):** 3.973 **Gradient (ft/mile):** 17.016

Sample Information

SampleNumber: AB11715 **EventID:** 13T035 **Sample MediumCollected:** Fish Community + Water
SampleDate: 06/25/2013 **SurveyCrewChief:** TAF **SampleTime:** 04:10:00 PM **HydroLabNumber:** YSI 4
WaterFlowType: Riffle **WaterAppearance:** Brown **SkyConditions:** 4 - Cloudy **AirTemperature:** 5 - 76-85
WindDirection: 27 - West (270 degrees) **WindStrength:** 1 - Light
DissolvedO2 (mg/l): 6.12 **pH:** 7.5 **WaterTemp(°C):** 25.83 **SpecificConductivity (µS/cm):** 875 **Turbidity (NTU):** 58.5
SpecialNotes: Brant Fisher and Joanna Davis assisted with sampling

ElectrofishingEquipment: Backpack **Voltage:** 200 **Avg.StreamWidth(m):** 2 **DistanceFished (m):** 50
SecondsFished: 1106 **WaterDepthAvg (m):** .4 **WaterDepthMax (m):** .7 **TimeAtSite:** 01:00
BridgeInReach: **ReachRepresentative:** **WhyReachNotRepresentative:**
SpecialComments: TURBID DUE TO RECENT RAIN; SPECIES CAUGHT ASSUMED REPRESENTATION; 72.57% catch creek chub

Habitat Information

TotalScore (max100): 43 **SubstrateScore (max20):** 1 **InstreamCover Score (max20):** 8 **ChannelMorphologyScore (max20):** 10
RiparianZoneBankErosion Score(max10): 3 **Pool/GlideQualityScore(max12):** 7 **Riffle/RunQualityScore(max8):** 4
GradientScore (max10): 10 **%Pool:** 10 **%Riffle:** 35 **%Run:** 35 **%Glide:** 20 **CanopyCover PctOpen:** 55%-<85%
SubjectiveRating: **AestheticRating:** **NOTES:** "NEW RECORD"

Fish Community Index of Biotic Integrity (IBI) Information

Calibration Used: Central Corn Belt Plains - Lake Michigan

	<u>Actual</u>	<u>Metric</u>		<u>Actual</u>	<u>Metric</u>
	<u>Observation</u>	<u>Score</u>		<u>Observation</u>	<u>Score</u>
SpeciesCount:	3	1	%TolerantIndividuals:	100	1
Darter/Madtom/SculpinSpeciesCount:	0	1	%OmnivoreIndividuals:	0.88	1
SunfishSpeciesCount:	1	1	%InsectivoreIndividuals:	26.55	3
MinnnowSpeciesCount:	1	1	%PioneerIndividuals:	99.12	1
SensitiveSpeciesCount:	0	1	Total # of Individuals (CPUE):	113	3
			%SimpleLithophilicInd.:	0.88	1
			%Ind.withDELT:	0	5

Metrics are dependent on Ecoregion and Drainage Area.
 Metrics can score a 0, 1, 3, or 5 depending on calibration.

Total IBI Score (min 0, max 60)	20
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SampleNumber: AB11715

EventID: 13T035

LSite: LMG-05-0030

County: Lake

StreamName: Tributary of Turkey Creek

LocationDescription: 73rd Avenue

Common Name	Individual Fish Count	Deformities	Eroded Fins	Lesions	Tumors	Multiple Anomalies
creek chub	82					
green sunfish	30					
white sucker	1					



Indiana Department of Environmental Management Fish Community Assessments

Site Information

SubBasin: Little Calumet-Galien **14 digit HUC:** 04040001030020 **LSite:** LMG-05-0031
Site: Turkey Creek **Location:** Liverpool Road **County:** Lake
Latitude: 41.512012 **Longitude:** -87.306936 **IASNat Region:** 2B **Topo:** A-31 **Segment:** 2
Ecoregion: Central Corn Belt Plains **Drainage Area (sq.miles):** 37.922 **Gradient (ft/mile):** 1.44

Sample Information

SampleNumber: AB11716 **EventID:** 13T036 **Sample MediumCollected:** Fish Community + Water
SampleDate: 06/26/2013 **SurveyCrewChief:** JCR **SampleTime:** 11:08:00 AM **HydroLabNumber:** Q4
WaterFlowType: Glide **WaterAppearance:** Murky **SkyConditions:** 4 - Cloudy **AirTemperature:** 5 - 76-85
WindDirection: 27 - West (270 degrees) **WindStrength:** 0 - Calm
DissolvedO2 (mg/l): 5.1 **pH:** 7.82 **WaterTemp(°C):** 23.62 **SpecificConductivity (µS/cm):** 649 **Turbidity (NTU):** 20.4
SpecialNotes: Turbidity Q4= 33.8

ElectrofishingEquipment: Canoe **Voltage:** 300 **Avg.StreamWidth(m):** 10 **DistanceFished (m):** 250
SecondsFished: 1643 **WaterDepthAvg (m):** 1 **WaterDepthMax (m):** 2 **TimeAtSite:** 02:00
BridgeInReach: **ReachRepresentative:** **WhyReachNotRepresentative:**
SpecialComments: W/BOOM; 56% catch green sunfish

Habitat Information

TotalScore (max100): 40 **SubstrateScore (max20):** 1 **InstreamCover Score (max20):** 9 **ChannelMorphologyScore (max20):** 10
RiparianZoneBankErosion Score(max10): 7 **Pool/GlideQualityScore(max12):** 9 **Riffle/RunQualityScore(max8):** 0
GradientScore (max10): 4 **%Pool:** 10 **%Riffle:** 0 **%Run:** 50 **%Glide:** 40 **CanopyCover PctOpen:** >85%-Open
SubjectiveRating: **AestheticRating:** **NOTES:** "NEW RECORD"

Fish Community Index of Biotic Integrity (IBI) Information

Calibration Used: Central Corn Belt Plains - Lake Michigan

	<u>Actual</u>	<u>Metric</u>		<u>Actual</u>	<u>Metric</u>
	<u>Observation</u>	<u>Score</u>		<u>Observation</u>	<u>Score</u>
SpeciesCount:	6	3	%TolerantIndividuals:	64	1
DarterSpeciesCount:	0	1	%OmnivoreIndividuals:	8	1
SunfishSpeciesCount:	2	3	%InsectivoreIndividuals:	80	1
SalmonidaeSpeciesCount:	0	1	%CarnivoreIndividuals:	12	1
SensitiveSpeciesCount:	0	1	Total # of Individuals (CPUE):	25	1
			%SimpleLithophilicInd.:	0	1
			%Ind.withDELT:	0	1

Metrics are dependent on Ecoregion and Drainage Area.
 Metrics can score a 0, 1, 3, or 5 depending on calibration.

Total IBI Score (min 0, max 60)	16
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SampleNumber: AB11716

EventID: 13T036

LSite: LMG-05-0031

County: Lake

StreamName: Turkey Creek

LocationDescription: Liverpool Road

Common Name	Individual Fish Count	Deformities	Eroded Fins	Lesions	Tumors	Multiple Anomalies
bluegill	4					
bowfin	1					
common carp	2					
green sunfish	14					
largemouth bass	2					
pirate perch	2					



Indiana Department of Environmental Management Fish Community Assessments

Site Information

SubBasin: Little Calumet-Galien **14 digit HUC:** 04040001040030 **LSite:** LMG-05-0002
Site: Burns Ditch **Location:** US 20 **County:** Porter
Latitude: 41.593620 **Longitude:** -87.220691 **IASNat Region:** 2B **Topo:** A-32 **Segment:** 2
Ecoregion: Central Corn Belt Plains **Drainage Area (sq.miles):** 164.931 **Gradient (ft/mile):** 1.226

Sample Information

SampleNumber: AB11683 **EventID:** 13T001 **Sample MediumCollected:** Fish Community + Water
SampleDate: 06/24/2013 **SurveyCrewChief:** KJC **SampleTime:** 11:55:00 AM **HydroLabNumber:** Q-3
WaterFlowType: Run **WaterAppearance:** Clear **SkyConditions:** 4 - Cloudy **AirTemperature:** 4 - 61-75
WindDirection: 27 - West (270 degrees) **WindStrength:** 1 - Light
DissolvedO2 (mg/l): 4.26 **pH:** 6.77 **WaterTemp(°C):** 24.45 **SpecificConductivity (µS/cm):** 668 **Turbidity (NTU):** 15.8
SpecialNotes: Turbidity with Q3= 17.6

ElectrofishingEquipment: Canoe **Voltage:** 300 **Avg.StreamWidth(m):** 16 **DistanceFished (m):** 240
SecondsFished: 2255 **WaterDepthAvg (m):** .6 **WaterDepthMax (m):** 1.2 **TimeAtSite:** 03:00
BridgelnReach: **ReachRepresentative:** **WhyReachNotRepresentative:**
SpecialComments: W/BOOM

Habitat Information

TotalScore (max100): 48 **SubstrateScore (max20):** 11 **InstreamCover Score (max20):** 10 **ChannelMorphologyScore (max20):** 8
RiparianZoneBankErosion Score(max10): 6 **Pool/GlideQualityScore(max12):** 7 **Riffle/RunQualityScore(max8):** 0
GradientScore (max10): 6 **%Pool:** 20 **%Riffle:** 0 **%Run:** 80 **%Glide:** 0 **CanopyCover PctOpen:** 55%-<85%
SubjectiveRating: **AestheticRating:** **NOTES:** "NEW RECORD"

Fish Community Index of Biotic Integrity (IBI) Information

Calibration Used: Central Corn Belt Plains - EBLC

	<u>Actual</u> <u>Observation</u>	<u>Metric</u> <u>Score</u>		<u>Actual</u> <u>Observation</u>	<u>Metric</u> <u>Score</u>
SpeciesCount:	12	3	%TolerantIndividuals:	15.79	1
DarterSpeciesCount:	0	1	%OmnivoreIndividuals:	7.89	1
SunfishSpeciesCount:	3	3	%InsectivoreIndividuals:	68.42	1
SalmonidaeSpeciesCount:	0	1	%CarnivoreIndividuals:	18.42	1
SensitiveSpeciesCount:	1	1	Total # of Individuals (CPUE):	38	1
			%SimpleLithophilicInd.:	7.89	1
			%Ind.withDELT:	0	1

Metrics are dependent on Ecoregion and Drainage Area.
 Metrics can score a 0, 1, 3, or 5 depending on calibration.

Total IBI Score (min 0, max 60)	16
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SampleNumber: AB11683

EventID: 13T001

LSite: LMG-05-0002

County: Porter

StreamName: Burns Ditch

LocationDescription: US 20

Common Name	Individual Fish Count	Deformities	Eroded Fins	Lesions	Tumors	Multiple Anomalies
alewife	2					
bluegill	9					
bluntnose minnow	1					
common carp	1					
flathead catfish	1					
golden redhorse	1					
green sunfish	2					
largemouth bass	6					
pumpkinseed	12					
spotfin shiner	1					
spotted sucker	1					
white sucker	1					



Indiana Department of Environmental Management Fish Community Assessments

Site Information

SubBasin: Little Calumet-Galien **14 digit HUC:** 04040001040030 **LSite:** LMG-05-0003
Site: Willow Creek **Location:** Clem Road **County:** Porter
Latitude: 41.588285 **Longitude:** -87.204418 **IASNat Region:** 2B **Topo:** A-32 **Segment:** 3
Ecoregion: Central Corn Belt Plains **Drainage Area (sq.miles):** 8.556 **Gradient (ft/mile):** 16.774

Sample Information

SampleNumber: AB11684 **EventID:** 13T002 **Sample MediumCollected:** Fish Community + Water
SampleDate: 06/25/2013 **SurveyCrewChief:** KJC **SampleTime:** 08:40:00 AM **HydroLabNumber:** Q3
WaterFlowType: Riffle **WaterAppearance:** Clear **SkyConditions:** 4 - Cloudy **AirTemperature:** 4 - 61-75
WindDirection: 27 - West (270 degrees) **WindStrength:** 1 - Light
DissolvedO2 (mg/l): 6.53 **pH:** 7.76 **WaterTemp(°C):** 19.1 **SpecificConductivity (µS/cm):** 825 **Turbidity (NTU):** 12.7
SpecialNotes:

ElectrofishingEquipment: Backpack **Voltage:** 100 **Avg.StreamWidth(m):** 4 **DistanceFished (m):** 60
SecondsFished: 847 **WaterDepthAvg (m):** .15 **WaterDepthMax (m):** .35 **TimeAtSite:** 01:30
BridgeInReach: **ReachRepresentative:** **WhyReachNotRepresentative:**
SpecialComments:

Habitat Information

TotalScore (max100): 58 **SubstrateScore (max20):** 13 **InstreamCover Score (max20):** 7 **ChannelMorphologyScore (max20):** 14
RiparianZoneBankErosion Score(max10): 5 **Pool/GlideQualityScore(max12):** 4 **Riffle/RunQualityScore(max8):** 5
GradientScore (max10): 10 **%Pool:** 25 **%Riffle:** 25 **%Run:** 50 **%Glide:** 0 **CanopyCover PctOpen:** <10%-Closed
SubjectiveRating: **AestheticRating:** **NOTES:** "NEW RECORD"

Fish Community Index of Biotic Integrity (IBI) Information

Calibration Used: Central Corn Belt Plains - EBLC

	<u>Actual</u> <u>Observation</u>	<u>Metric</u> <u>Score</u>	<u>Actual</u> <u>Observation</u>	<u>Metric</u> <u>Score</u>
SpeciesCount:	4	1	%TolerantIndividuals:	94.44 1
Darter/Madtom/SculpinSpeciesCount:	0	1	%OmnivoreIndividuals:	0 1
SunfishSpeciesCount:	1	1	%InsectivoreIndividuals:	50 1
SalmonidaeSpeciesCount:	0	1	%CarnivoreIndividuals:	0 1
SensitiveSpeciesCount:	0	1	Total # of Individuals (CPUE):	18 1
			%SimpleLithophilicInd.:	38.89 1
			%Ind.withDELT:	0 1

Metrics are dependent on Ecoregion and Drainage Area.
 Metrics can score a 0, 1, 3, or 5 depending on calibration.

Total IBI Score (min 0, max 60)	12
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SampleNumber: AB11684

EventID: 13T002

LSite: LMG-05-0003

County: Porter

StreamName: Willow Creek

LocationDescription: Clem Road

Common Name	Individual Fish Count	Deformities	Eroded Fins	Lesions	Tumors	Multiple Anomalies
creek chub	8					
green sunfish	2					
round goby	1					
western blacknose dace	7					



Indiana Department of Environmental Management Fish Community Assessments

Site Information

SubBasin: Little Calumet-Galien **14 digit HUC:** 04040001040030 **LSite:** LMG-05-0004
Site: Willow Creek **Location:** Stone Avenue **County:** Porter
Latitude: 41.564924 **Longitude:** -87.189055 **IASNat Region:** 2B **Topo:** A-32 **Segment:** 3
Ecoregion: Central Corn Belt Plains **Drainage Area (sq.miles):** 5.350 **Gradient (ft/mile):** 3.917

Sample Information

SampleNumber: AB11685 **EventID:** 13T003 **Sample MediumCollected:** Fish Community + Water
SampleDate: 06/25/2013 **SurveyCrewChief:** KJC **SampleTime:** 11:00:00 AM **HydroLabNumber:** Q-3
WaterFlowType: Run **WaterAppearance:** Clear **SkyConditions:** 2 - Scattered **AirTemperature:** 5 - 76-85
WindDirection: 27 - West (270 degrees) **WindStrength:** 1 - Light
DissolvedO2 (mg/l): 6.6 **pH:** 7.88 **WaterTemp(°C):** 21.55 **SpecificConductivity (µS/cm):** 694 **Turbidity (NTU):** 8.82
SpecialNotes:

ElectrofishingEquipment: Backpack **Voltage:** 300 **Avg.StreamWidth(m):** 4 **DistanceFished (m):** 50
SecondsFished: 414 **WaterDepthAvg (m):** .15 **WaterDepthMax (m):** .3 **TimeAtSite:** 01:30
BridgeInReach: **ReachRepresentative:** **WhyReachNotRepresentative:**
SpecialComments:

Habitat Information

TotalScore (max100): 40 **SubstrateScore (max20):** 13 **InstreamCover Score (max20):** 6 **ChannelMorphologyScore (max20):** 9
RiparianZoneBankErosion Score(max10): 5 **Pool/GlideQualityScore(max12):** 3 **Riffle/RunQualityScore(max8):** 0
GradientScore (max10): 4 **%Pool:** 0 **%Riffle:** 0 **%Run:** 100 **%Glide:** 0 **CanopyCover PctOpen:** 55%-<85%
SubjectiveRating: **AestheticRating:** **NOTES:** "NEW RECORD"

Fish Community Index of Biotic Integrity (IBI) Information

Calibration Used: Central Corn Belt Plains - EBLC

	<u>Actual</u>	<u>Metric</u>		<u>Actual</u>	<u>Metric</u>
	<u>Observation</u>	<u>Score</u>		<u>Observation</u>	<u>Score</u>
SpeciesCount:	6	3	%TolerantIndividuals:	57.14	1
Darter/Madtom/SculpinSpeciesCount:	1	3	%OmnivoreIndividuals:	7.14	5
SunfishSpeciesCount:	1	1	%InsectivoreIndividuals:	71.43	5
SalmonidaeSpeciesCount:	0	1	%CarnivoreIndividuals:	0	1
SensitiveSpeciesCount:	0	1	Total # of Individuals (CPUE):	28	1
			%SimpleLithophilicInd.:	21.43	3
			%Ind.withDELT:	0	5

Metrics are dependent on Ecoregion and Drainage Area.
 Metrics can score a 0, 1, 3, or 5 depending on calibration.

Total IBI Score (min 0, max 60)	30
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SampleNumber: AB11685

EventID: 13T003

LSite: LMG-05-0004

County: Porter

StreamName: Willow Creek

LocationDescription: Stone Avenue

Common Name	Individual Fish Count	Deformities	Eroded Fins	Lesions	Tumors	Multiple Anomalies
bluntnose minnow	2					
central mudminnow	1					
creek chub	6					
green sunfish	1					
johnny darter	12					
western blacknose dace	6					



Indiana Department of Environmental Management Fish Community Assessments

Site Information

SubBasin: Little Calumet-Galien **14 digit HUC:** 04040001040020 **LSite:** LMG-05-0006
Site: Deep River **Location:** 29th Avenue **County:** Lake
Latitude: 41.565581 **Longitude:** -87.294373 **IASNat Region:** 2B **Topo:** A-31 **Segment:** 2
Ecoregion: Central Corn Belt Plains **Drainage Area (sq.miles):** 150.342 **Gradient (ft/mile):** 1.226

Sample Information

SampleNumber: AB11686 **EventID:** 13T005 **Sample MediumCollected:** Fish Community + Water
SampleDate: 06/24/2013 **SurveyCrewChief:** KJC **SampleTime:** 02:49:00 PM **HydroLabNumber:** Q3
WaterFlowType: Run **WaterAppearance:** Murky **SkyConditions:** 2 - Scattered **AirTemperature:** 5 - 76-85
WindDirection: 27 - West (270 degrees) **WindStrength:** 1 - Light
DissolvedO2 (mg/l): 7.12 **pH:** 7.9 **WaterTemp(°C):** 25.65 **SpecificConductivity (µS/cm):** 583 **Turbidity (NTU):** 11.9
SpecialNotes: Turbidity with Q3= 20.5

ElectrofishingEquipment: Canoe **Voltage:** 300 **Avg.StreamWidth(m):** 18 **DistanceFished (m):** 270
SecondsFished: 1956 **WaterDepthAvg (m):** 1 **WaterDepthMax (m):** 1.5 **TimeAtSite:** 03:00
BridgeInReach: **ReachRepresentative:** **WhyReachNotRepresentative:**
SpecialComments: W/BOOM

Habitat Information

TotalScore (max100): 48 **SubstrateScore (max20):** 11 **InstreamCover Score (max20):** 10 **ChannelMorphologyScore (max20):** 10
RiparianZoneBankErosion Score(max10): 5 **Pool/GlideQualityScore(max12):** 6 **Riffle/RunQualityScore(max8):** 0
GradientScore (max10): 6 **%Pool:** 35 **%Riffle:** 0 **%Run:** 65 **%Glide:** 0 **CanopyCover PctOpen:** 30%-<55%
SubjectiveRating: **AestheticRating:** **NOTES:** "NEW RECORD"

Fish Community Index of Biotic Integrity (IBI) Information

Calibration Used: Central Corn Belt Plains - EBLC

	<u>Actual</u>	<u>Metric</u>		<u>Actual</u>	<u>Metric</u>
	<u>Observation</u>	<u>Score</u>		<u>Observation</u>	<u>Score</u>
SpeciesCount:	12	3	%TolerantIndividuals:	29.55	3
DarterSpeciesCount:	0	1	%OmnivoreIndividuals:	26.14	3
SunfishSpeciesCount:	4	5	%InsectivoreIndividuals:	62.5	5
SalmonidaeSpeciesCount:	0	1	%CarnivoreIndividuals:	9.09	5
SensitiveSpeciesCount:	0	1	Total # of Individuals (CPUE):	88	1
			%SimpleLithophilicInd.:	0	1
			%Ind.withDELT:	0	5

Metrics are dependent on Ecoregion and Drainage Area.
 Metrics can score a 0, 1, 3, or 5 depending on calibration.

Total IBI Score (min 0, max 60)	34
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SampleNumber: AB11686

EventID: 13T005

LSite: LMG-05-0006

County: Lake

StreamName: Deep River

LocationDescription: 29th Avenue

Common Name	Individual Fish Count	Deformities	Eroded Fins	Lesions	Tumors	Multiple Anomalies
alewife	2					
black crappie	6					
bluegill	31					
bluntnose minnow	1					
bowfin	1					
common carp	21					
flathead catfish	3					
gizzard shad	1					
largemouth bass	4					
pumpkinseed	8					
spotfin shiner	8					
white crappie	2					



Indiana Department of Environmental Management Fish Community Assessments

Site Information

SubBasin: Little Calumet-Galien **14 digit HUC:** 04040001040020 **LSite:** LMG-05-0007
Site: Deep River **Location:** Liverpool Road **County:** Lake
Latitude: 41.562822 **Longitude:** -87.290780 **IASNat Region:** 2B **Topo:** A-31 **Segment:** 2
Ecoregion: Central Corn Belt Plains **Drainage Area (sq.miles):** 150.171 **Gradient (ft/mile):** 1.388

Sample Information

SampleNumber: AB11687 **EventID:** 13T006 **Sample MediumCollected:** Fish Community + Water
SampleDate: 06/24/2013 **SurveyCrewChief:** TAF **SampleTime:** 05:05:00 PM **HydroLabNumber:** Q3
WaterFlowType: Run **WaterAppearance:** Murky **SkyConditions:** 2 - Scattered **AirTemperature:** 6 - > 86
WindDirection: 27 - West (270 degrees) **WindStrength:** 1 - Light
DissolvedO2 (mg/l): 6.62 **pH:** 7.96 **WaterTemp(°C):** 26.79 **SpecificConductivity (µS/cm):** 586 **Turbidity (NTU):** 8.76
SpecialNotes: Turbidity w/Q3= 40.4

ElectrofishingEquipment: Boat **Voltage:** 300 **Avg.StreamWidth(m):** 32 **DistanceFished (m):** 500
SecondsFished: 2965 **WaterDepthAvg (m):** 1.5 **WaterDepthMax (m):** 2 **TimeAtSite:** 03:00
BridgeInReach: **ReachRepresentative:** **WhyReachNotRepresentative:**
SpecialComments: TIPPY; SHOCKED 150M D/S TO AVOID CHILDREN SWIMMING; 65.69% catch bluegill

Habitat Information

TotalScore (max100): 52 **SubstrateScore (max20):** 11 **InstreamCover Score (max20):** 7 **ChannelMorphologyScore (max20):** 13
RiparianZoneBankErosion Score(max10): 7 **Pool/GlideQualityScore(max12):** 8 **Riffle/RunQualityScore(max8):** 0
GradientScore (max10): 6 **%Pool:** 20 **%Riffle:** 0 **%Run:** 80 **%Glide:** 0 **CanopyCover PctOpen:** 55%-<85%
SubjectiveRating: **AestheticRating:** **NOTES:** "NEW RECORD"

Fish Community Index of Biotic Integrity (IBI) Information

Calibration Used: Central Corn Belt Plains - EBLC

	<u>Actual</u>	<u>Metric</u>		<u>Actual</u>	<u>Metric</u>
	<u>Observation</u>	<u>Score</u>		<u>Observation</u>	<u>Score</u>
SpeciesCount:	9	3	%TolerantIndividuals:	15.69	5
DarterSpeciesCount:	0	1	%OmnivoreIndividuals:	14.71	5
SunfishSpeciesCount:	4	5	%InsectivoreIndividuals:	77.45	5
SalmonidaeSpeciesCount:	0	1	%CarnivoreIndividuals:	7.84	5
SensitiveSpeciesCount:	0	1	Total # of Individuals (CPUE):	102	1
			%SimpleLithophilicInd.:	0.98	1
			%Ind.withDELT:	0.98	3

Metrics are dependent on Ecoregion and Drainage Area.
 Metrics can score a 0, 1, 3, or 5 depending on calibration.

Total IBI Score (min 0, max 60)	36
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SampleNumber: AB11687

EventID: 13T006

LSite: LMG-05-0007

County: Lake

StreamName: Deep River

LocationDescription: Liverpool Road

Common Name	Individual Fish Count	Deformities	Eroded Fins	Lesions	Tumors	Multiple Anomalies
bluegill	67					
common carp	11	1				
gizzard shad	4					
golden shiner	1					
largemouth bass	7					
orangespotted sunfish	4					
pumpkinseed	6					
spotted sucker	1					
warmouth	1					



Indiana Department of Environmental Management Fish Community Assessments

Site Information

SubBasin: Little Calumet-Galien **14 digit HUC:** 04040001040020 **LSite:** LMG-05-0008
Site: Tributary of Deep River **Location:** Shelby Street **County:** Lake
Latitude: 41.558829 **Longitude:** -87.236350 **IASNat Region:** 2B **Topo:** A-32 **Segment:** 2
Ecoregion: Central Corn Belt Plains **Drainage Area (sq.miles):** 3.862 **Gradient (ft/mile):** 1.936

Sample Information

SampleNumber: AB11688 **EventID:** 13T007 **Sample MediumCollected:** Fish Community + Water
SampleDate: 06/25/2013 **SurveyCrewChief:** KAG **SampleTime:** 12:05:00 PM **HydroLabNumber:** Q3
WaterFlowType: Run **WaterAppearance:** Clear **SkyConditions:** 4 - Cloudy **AirTemperature:** 5 - 76-85
WindDirection: 27 - West (270 degrees) **WindStrength:** 1 - Light
DissolvedO2 (mg/l): 6.41 **pH:** 7.78 **WaterTemp(°C):** 21.89 **SpecificConductivity (µS/cm):** 746 **Turbidity (NTU):** 60.3
SpecialNotes:

ElectrofishingEquipment: Backpack **Voltage:** 150 **Avg.StreamWidth(m):** 4 **DistanceFished (m):** 70
SecondsFished: 640 **WaterDepthAvg (m):** .5 **WaterDepthMax (m):** 1 **TimeAtSite:** 01:00
BridgeInReach: **ReachRepresentative:** **WhyReachNotRepresentative:**
SpecialComments:

Habitat Information

TotalScore (max100): 44 **SubstrateScore (max20):** 2 **InstreamCover Score (max20):** 11 **ChannelMorphologyScore (max20):** 11
RiparianZoneBankErosion Score(max10): 5 **Pool/GlideQualityScore(max12):** 8 **Riffle/RunQualityScore(max8):** 3
GradientScore (max10): 4 **%Pool:** 10 **%Riffle:** 0 **%Run:** 90 **%Glide:** 0 **CanopyCover PctOpen:**
SubjectiveRating: **AestheticRating:** **NOTES:** "NEW RECORD"

Fish Community Index of Biotic Integrity (IBI) Information

Calibration Used: Central Corn Belt Plains - EBLC

	<u>Actual</u>	<u>Metric</u>		<u>Actual</u>	<u>Metric</u>
	<u>Observation</u>	<u>Score</u>		<u>Observation</u>	<u>Score</u>
SpeciesCount:	5	3	%TolerantIndividuals:	20	1
Darter/Madtom/SculpinSpeciesCount:	1	3	%OmnivoreIndividuals:	0	1
SunfishSpeciesCount:	2	3	%InsectivoreIndividuals:	80	1
SalmonidaeSpeciesCount:	0	1	%CarnivoreIndividuals:	20	1
SensitiveSpeciesCount:	0	1	Total # of Individuals (CPUE):	5	1
			%SimpleLithophilicInd.:	0	1
			%Ind.withDELT:	0	1

Metrics are dependent on Ecoregion and Drainage Area.
 Metrics can score a 0, 1, 3, or 5 depending on calibration.

Total IBI Score (min 0, max 60)	18
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SampleNumber: AB11688

EventID: 13T007

LSite: LMG-05-0008

County: Lake

StreamName: Tributary of Deep River

LocationDescription: Shelby Street

Common Name	Individual Fish Count	Deformities	Eroded Fins	Lesions	Tumors	Multiple Anomalies
bluegill	1					
grass pickerel	1					
orangespotted sunfish	1					
tadpole madtom	1					
yellow bullhead	1					



Indiana Department of Environmental Management Fish Community Assessments

Site Information

SubBasin: Little Calumet-Galien **14 digit HUC:** 04040001040010 **LSite:** LMG-05-0009
Site: Duck Creek **Location:** Front Street **County:** Lake
Latitude: 41.534894 **Longitude:** -87.253982 **IASNat Region:** 2B **Topo:** A-31 **Segment:** 2
Ecoregion: Central Corn Belt Plains **Drainage Area (sq.miles):** 15.822 **Gradient (ft/mile):** 1.302

Sample Information

SampleNumber: AB11690 **EventID:** 13T009 **Sample MediumCollected:** Fish Community + Water
SampleDate: 06/26/2013 **SurveyCrewChief:** JCR **SampleTime:** 05:15:00 PM **HydroLabNumber:** Q4
WaterFlowType: Glide **WaterAppearance:** Murky **SkyConditions:** 2 - Scattered **AirTemperature:** 5 - 76-85
WindDirection: 27 - West (270 degrees) **WindStrength:** 1 - Light
DissolvedO2 (mg/l): 5.97 **pH:** 7.85 **WaterTemp(°C):** 26.32 **SpecificConductivity (µS/cm):** 584 **Turbidity (NTU):** 6.56
SpecialNotes:

ElectrofishingEquipment: Backpack **Voltage:** 300 **Avg.StreamWidth(m):** 10 **DistanceFished (m):** 150
SecondsFished: 748 **WaterDepthAvg (m):** .5 **WaterDepthMax (m):** 1 **TimeAtSite:** 01:00
BridgeInReach: **ReachRepresentative:** **WhyReachNotRepresentative:**
SpecialComments:

Habitat Information

TotalScore (max100): 52 **SubstrateScore (max20):** 10 **InstreamCover Score (max20):** 12 **ChannelMorphologyScore (max20):** 12
RiparianZoneBankErosion Score(max10): 7 **Pool/GlideQualityScore(max12):** 7 **Riffle/RunQualityScore(max8):** 0
GradientScore (max10): 4 **%Pool:** 30 **%Riffle:** 0 **%Run:** 70 **%Glide:** 0 **CanopyCover PctOpen:** 10%-<30%
SubjectiveRating: **AestheticRating:** **NOTES:** "NEW RECORD"

Fish Community Index of Biotic Integrity (IBI) Information

Calibration Used: Central Corn Belt Plains - EBLC

	<u>Actual</u>	<u>Metric</u>		<u>Actual</u>	<u>Metric</u>
	<u>Observation</u>	<u>Score</u>		<u>Observation</u>	<u>Score</u>
SpeciesCount:	8	3	%TolerantIndividuals:	56.67	1
Darter/Madtom/SculpinSpeciesCount:	1	3	%OmnivoreIndividuals:	3.33	5
SunfishSpeciesCount:	2	3	%InsectivoreIndividuals:	90	5
SalmonidaeSpeciesCount:	0	1	%CarnivoreIndividuals:	3.33	1
SensitiveSpeciesCount:	0	1	Total # of Individuals (CPUE):	30	1
			%SimpleLithophilicInd.:	0	1
			%Ind.withDELT:	0	5

Metrics are dependent on Ecoregion and Drainage Area.
 Metrics can score a 0, 1, 3, or 5 depending on calibration.

Total IBI Score (min 0, max 60)	30
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SampleNumber: AB11690

EventID: 13T009

LSite: LMG-05-0009

County: Lake

StreamName: Duck Creek

LocationDescription: Front Street

Common Name	Individual Fish Count	Deformities	Eroded Fins	Lesions	Tumors	Multiple Anomalies
bluegill	8					
bluntnose minnow	1					
brown bullhead	1					
creek chub	1					
green sunfish	11					
johnny darter	4					
largemouth bass	1					
yellow bullhead	3					



Indiana Department of Environmental Management Fish Community Assessments

Site Information

SubBasin: Little Calumet-Galien **14 digit HUC:** 04040001040010 **LSite:** LMG-05-0010
Site: Tributary of Duck Creek **Location:** 10th Street **County:** Lake
Latitude: 41.521586 **Longitude:** -87.239836 **IASNat Region:** 2B **Topo:** A-32 **Segment:** 2
Ecoregion: Central Corn Belt Plains **Drainage Area (sq.miles):** 3.091 **Gradient (ft/mile):** 9.376

Sample Information

SampleNumber: AB11691 **EventID:** 13T010 **Sample MediumCollected:** Fish Community + Water
SampleDate: 06/25/2013 **SurveyCrewChief:** KAG **SampleTime:** 02:46:00 PM **HydroLabNumber:** Q-3
WaterFlowType: Run **WaterAppearance:** Clear **SkyConditions:** 2 - Scattered **AirTemperature:** 6 - > 86
WindDirection: 27 - West (270 degrees) **WindStrength:** 1 - Light
DissolvedO2 (mg/l): 6.69 **pH:** 7.81 **WaterTemp(°C):** 22.67 **SpecificConductivity (µS/cm):** 489 **Turbidity (NTU):** 6.69
SpecialNotes:

ElectrofishingEquipment: Backpack **Voltage:** 150 **Avg.StreamWidth(m):** 4 **DistanceFished (m):** 60
SecondsFished: 702 **WaterDepthAvg (m):** .6 **WaterDepthMax (m):** 1.2 **TimeAtSite:** 00:00
BridgeInReach: **ReachRepresentative:** **WhyReachNotRepresentative:**
SpecialComments: 100% catch yellow bullhead

Habitat Information

TotalScore (max100): 41 **SubstrateScore (max20):** 3 **InstreamCover Score (max20):** 12 **ChannelMorphologyScore (max20):** 5
RiparianZoneBankErosion Score(max10): 6 **Pool/GlideQualityScore(max12):** 9 **Riffle/RunQualityScore(max8):** 0
GradientScore (max10): 6 **%Pool:** 20 **%Riffle:** 0 **%Run:** 50 **%Glide:** 30 **CanopyCover PctOpen:** 30%-<55%
SubjectiveRating: **AestheticRating:** **NOTES:** "NEW RECORD"

Fish Community Index of Biotic Integrity (IBI) Information

Calibration Used: Central Corn Belt Plains - EBLC

	<u>Actual</u>	<u>Metric</u>		<u>Actual</u>	<u>Metric</u>
	<u>Observation</u>	<u>Score</u>		<u>Observation</u>	<u>Score</u>
SpeciesCount:	1	1	%TolerantIndividuals:	100	1
Darter/Madtom/SculpinSpeciesCount:	0	1	%OmnivoreIndividuals:	0	1
SunfishSpeciesCount:	0	1	%InsectivoreIndividuals:	100	1
SalmonidaeSpeciesCount:	0	1	%CarnivoreIndividuals:	0	1
SensitiveSpeciesCount:	0	1	Total # of Individuals (CPUE):	1	1
			%SimpleLithophilicInd.:	0	1
			%Ind.withDELT:	0	1

Metrics are dependent on Ecoregion and Drainage Area.
 Metrics can score a 0, 1, 3, or 5 depending on calibration.

Total IBI Score (min 0, max 60)	12
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SampleNumber: AB11691

EventID: 13T010

LSite: LMG-05-0010

County: Lake

StreamName: Tributary of Duck Creek

LocationDescription: 10th Street

Common Name	Individual Fish Count	Deformities	Eroded Fins	Lesions	Tumors	Multiple Anomalies
yellow bullhead	1					



Indiana Department of Environmental Management Fish Community Assessments

Site Information

SubBasin: Little Calumet-Galien **14 digit HUC:** 04040001040010 **LSite:** LMG-05-0032
Site: Duck Creek **Location:** 750 W **County:** Porter
Latitude: 41.516442 **Longitude:** -87.210751 **IASNat Region:** 2B **Topo:** A-32 **Segment:** 2
Ecoregion: Central Corn Belt Plains **Drainage Area (sq.miles):** 6.517 **Gradient (ft/mile):** 15.843

Sample Information

SampleNumber: AB11692 **EventID:** 13T011 **Sample MediumCollected:** Fish Community + Water
SampleDate: 07/09/2013 **SurveyCrewChief:** TAF **SampleTime:** 04:00:00 PM **HydroLabNumber:** YSI 4
WaterFlowType: Glide **WaterAppearance:** Murky **SkyConditions:** 4 - Cloudy **AirTemperature:** 5 - 76-85
WindDirection: 27 - West (270 degrees) **WindStrength:** 1 - Light
DissolvedO2 (mg/l): 7.22 **pH:** 7.94 **WaterTemp(°C):** 20.65 **SpecificConductivity (µS/cm):** 706 **Turbidity (NTU):** 41.6
SpecialNotes:

ElectrofishingEquipment: Backpack **Voltage:** 150 **Avg.StreamWidth(m):** 4 **DistanceFished (m):** 60
SecondsFished: 1135 **WaterDepthAvg (m):** .5 **WaterDepthMax (m):** 1 **TimeAtSite:** 01:15
BridgeInReach: **ReachRepresentative:** **WhyReachNotRepresentative:**
SpecialComments:

Habitat Information

TotalScore (max100): 49 **SubstrateScore (max20):** 3 **InstreamCover Score (max20):** 9 **ChannelMorphologyScore (max20):** 14
RiparianZoneBankErosion Score(max10): 6 **Pool/GlideQualityScore(max12):** 7 **Riffle/RunQualityScore(max8):** 0
GradientScore (max10): 10 **%Pool:** 50 **%Riffle:** # \$ **%Run:** # \$ **%Glide:** 50 **CanopyCover PctOpen:** <10%-Closed
SubjectiveRating: **AestheticRating:** **NOTES:** "NEW RECORD"

Fish Community Index of Biotic Integrity (IBI) Information

Calibration Used: Central Corn Belt Plains - EBLC

	<u>Actual</u> <u>Observation</u>	<u>Metric</u> <u>Score</u>	<u>Actual</u> <u>Observation</u>	<u>Metric</u> <u>Score</u>
SpeciesCount:	5	3	%TolerantIndividuals:	92.31 1
Darter/Madtom/SculpinSpeciesCount:	0	1	%OmnivoreIndividuals:	15.38 3
SunfishSpeciesCount:	1	1	%InsectivoreIndividuals:	51.28 5
SalmonidaeSpeciesCount:	0	1	%CarnivoreIndividuals:	0 1
SensitiveSpeciesCount:	0	1	Total # of Individuals (CPUE):	39 1
			%SimpleLithophilicInd.:	7.69 1
			%Ind.withDELT:	0 5

Metrics are dependent on Ecoregion and Drainage Area.
 Metrics can score a 0, 1, 3, or 5 depending on calibration.

Total IBI Score (min 0, max 60)	24
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SampleNumber: AB11692

EventID: 13T011

LSite: LMG-05-0032

County: Porter

StreamName: Duck Creek

LocationDescription: 750 W

Common Name	Individual Fish Count	Deformities	Eroded Fins	Lesions	Tumors	Multiple Anomalies
bluntnose minnow	3					
creek chub	13					
green sunfish	17					
pirate perch	3					
white sucker	3					