



Indiana Department of Environmental Management

Fish Community Assessments

Site Information

SubBasin: Mississinewa **14 digit HUC:** 05120103030010 **LSite:** WMI-04-0008
Site: Tributary of Campbell Creek **Location:** CR 200 N **County:** Delaware
Latitude: 40.220181 **Longitude:** -85.234797 **IASNat Region:** 5C **Topo:** E-20 **Segment:** 39
Ecoregion: Eastern Corn Belt Plains **Drainage Area (sq.miles):** 3.524 **Gradient (ft/mile):** 12.468

Sample Information

SampleNumber: AB18398 **EventID:** 14T101 **Sample MediumCollected:** Fish Community + Water + Macro
SampleDate: 07/16/2014 **SurveyCrewChief:** KAG **SampleTime:** 04:35:00 PM **HydroLabNumber:** Q2
WaterFlowType: Run **WaterAppearance:** Murky **SkyConditions:** 4 - Cloudy **AirTemperature:** 4 - 61-75
WindDirection: 27 - West (270 degrees) **WindStrength:** 2 - Mod./Light
DissolvedO2 (mg/l): 6.02 **pH:** 7.51 **WaterTemp(°C):** 17.07 **SpecificConductivity (µS/cm):** 776 **Turbidity (NTU):** 22.9
SpecialNotes: Q2 turb = 140; Diesel sheen and odor from sediments

ElectrofishingEquipment: Backpack **Voltage:** 200 **Avg.StreamWidth(m):** 4 **DistanceFished (m):** 60
SecondsFished: 507 **WaterDepthAvg (m):** .4 **WaterDepthMax (m):** 1.2 **TimeAtSite:** 01:30
BridgeInReach: **ReachRepresentative:** **WhyReachNotRepresentative:**
SpecialComments:

Habitat Information

TotalScore (max100): 56 **SubstrateScore (max20):** 11 **InstreamCover Score (max20):** 13 **ChannelMorphologyScore (max20):** 10
RiparianZoneBankErosion Score(max10): 5 **Pool/GlideQualityScore(max12):** 9 **Riffle/RunQualityScore(max8):** 0
GradientScore (max10): 8 **%Pool:** 40 **%Riffle:** 0 **%Run:** 60 **%Glide:** 0 **CanopyCover PctOpen:** 30%<-55%
SubjectiveRating: **AestheticRating:** **NOTES:** "NEW RECORD"

Fish Community Index of Biotic Integrity (IBI) Information

Calibration Used: Eastern Corn Belt Plains

	<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:	15	5	%TolerantIndividuals:	41.56	3
Darter/Madtom/SculpinSpeciesCount:	6	5	%OmnivoreIndividuals:	12.99	5
%HeadwaterIndividuals:	3.9	1	%InsectivoreIndividuals:	63.64	5
MinnnowSpeciesCount:	4	3	%PioneerIndividuals:	54.55	1
SensitiveSpeciesCount:	3	5	Total # of Individuals (CPUE):	77	1
			%SimpleLithophilicInd.:	29.87	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)	42
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SampleNumber: AB18398

EventID: 14T101

LSite: WMI-04-0008

County: Delaware

StreamName: Tributary of Campbell Creek

LocationDescription: CR 200 N

Common Name	Individual Fish Count	Deformities	Eroded Fins	Lesions	Tumors	Multiple Anomalies
Bluegill	9					
Bluntnose Minnow	2					
Central Stoneroller	3					
Creek Chub	15					
Creek Chubsucker	3					
Green Sunfish	5					
Greenside Darter	1					
Johnny Darter	7					
Longear Sunfish	6					
Mottled Sculpin	1					
Orangethroat Darter	7					
Rainbow Darter	6					
Tadpole Madtom	2					
Western Blacknose Dace	2					
White Sucker	8					



Indiana Department of Environmental Management Fish Community Assessments

Site Information

SubBasin: Mississinewa 14 digit HUC: 05120103020050 LSite: WMI-02-0010
 Site: Elkhorn Creek Location: CR 500 N County: Randolph
 Latitude: 40.235317 Longitude: -85.159902 IASNat Region: 5C Topo: E-20 Segment: 39
 Ecoregion: Eastern Corn Belt Plains Drainage Area (sq.miles): 7.098 Gradient (ft/mile): 8.539

Sample Information

SampleNumber: AB18397 EventID: 14T102 Sample MediumCollected: Fish Community + Water + Macro
 SampleDate: 07/16/2014 SurveyCrewChief: KAG SampleTime: 03:00:00 PM HydroLabNumber: Q2
 WaterFlowType: Run WaterAppearance: Clear SkyConditions: 4 - Cloudy AirTemperature: 4 - 61-75
 WindDirection: 27 - West (270 degrees) WindStrength: 0 - Calm
 DissolvedO2 (mg/l): 12.58 pH: 8.08 WaterTemp(°C): 18.64 SpecificConductivity (µS/cm): 785 Turbidity (NTU): 5.36
 SpecialNotes: Q2 Turb = 18.5

ElectrofishingEquipment: Backpack Voltage: 150 Avg.StreamWidth(m): 3 DistanceFished (m): 50
 SecondsFished: 315 WaterDepthAvg (m): .2 WaterDepthMax (m): .2 TimeAtSite: 01:00
 BridgeInReach: ReachRepresentative: WhyReachNotRepresentative:
 SpecialComments:

Habitat Information

TotalScore (max100): 29 SubstrateScore (max20): 7 InstreamCover Score (max20): 5 ChannelMorphologyScore (max20): 4
 RiparianZoneBankErosion Score(max10): 4 Pool/GlideQualityScore(max12): 3 Riffle/RunQualityScore(max8): 0
 GradientScore (max10): 6 %Pool: # %Riffle: # %Run: # %Glide: 100 CanopyCover PctOpen: >85%-Open
 SubjectiveRating: AestheticRating: NOTES: "NEW RECORD"

Fish Community Index of Biotic Integrity (IBI) Information

Calibration Used: Eastern Corn Belt Plains

	<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	3	%TolerantIndividuals:	64.25	1
Darter/Madtom/SculpinSpeciesCount:	4	5	%OmnivoreIndividuals:	17.65	5
%HeadwaterIndividuals:	15.84	3	%InsectivoreIndividuals:	28.51	3
MinnnowSpeciesCount:	2	1	%PioneerIndividuals:	60.63	1
SensitiveSpeciesCount:	1	1	Total # of Individuals (CPUE):	221	5
			%SimpleLithophilicInd.:	26.24	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)	36
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SampleNumber: AB18397

EventID: 14T102

LSite: WMI-02-0010

County: Randolph

StreamName: Elkhorn Creek

LocationDescription: CR 500 N

Common Name	Individual Fish Count	Deformities	Eroded Fins	Lesions	Tumors	Multiple Anomalies
Blackstripe Topminnow	1					
Central Stoneroller	15					
Creek Chub	103					
Johnny Darter	8					
Mottled Sculpin	35					
Orangethroat Darter	8					
Rainbow Darter	11					
Spotted Bass	1					
White Sucker	39					



Indiana Department of Environmental Management Fish Community Assessments

Site Information

SubBasin: Mississinewa **14 digit HUC:** 05120103020050 **LSite:** WMI-02-0011
Site: Tributary of Bush Creek **Location:** CR 500 N **County:** Randolph
Latitude: 40.235481 **Longitude:** -85.128756 **IASNat Region:** 5C **Topo:** E-20 **Segment:** 39
Ecoregion: Eastern Corn Belt Plains **Drainage Area (sq.miles):** 4.196 **Gradient (ft/mile):** 13.67

Sample Information

SampleNumber: AB18396 **EventID:** 14T103 **Sample MediumCollected:** Fish Community + Water + Macro
SampleDate: 07/16/2014 **SurveyCrewChief:** KAG **SampleTime:** 01:30:00 PM **HydroLabNumber:** Q2
WaterFlowType: Pool **WaterAppearance:** Murky **SkyConditions:** 3 - Partly **AirTemperature:** 4 - 61-75
WindDirection: 27 - West (270 degrees) **WindStrength:** 1 - Light
DissolvedO2 (mg/l): 6.72 **pH:** 7.81 **WaterTemp(°C):** 18.42 **SpecificConductivity (µS/cm):** 635 **Turbidity (NTU):** 12.2
SpecialNotes: Q2 turb =79.3

ElectrofishingEquipment: Backpack **Voltage:** 200 **Avg.StreamWidth(m):** 3 **DistanceFished (m):** 50
SecondsFished: 1103 **WaterDepthAvg (m):** .4 **WaterDepthMax (m):** .7 **TimeAtSite:** 01:00
BridgeInReach: **ReachRepresentative:** **WhyReachNotRepresentative:**
SpecialComments:

Habitat Information

TotalScore (max100): 69 **SubstrateScore (max20):** 17 **InstreamCover Score (max20):** 18 **ChannelMorphologyScore (max20):** 14
RiparianZoneBankErosion Score(max10): 5 **Pool/GlideQualityScore(max12):** 7 **Riffle/RunQualityScore(max8):** 0
GradientScore (max10): 8 **%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: Eastern Corn Belt Plains

	<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	5	%TolerantIndividuals:	60.63	1
Darter/Madtom/SculpinSpeciesCount:	5	5	%OmnivoreIndividuals:	16.88	5
%HeadwaterIndividuals:	0.63	1	%InsectivoreIndividuals:	31.88	3
MinnnowSpeciesCount:	4	3	%PioneerIndividuals:	79.38	1
SensitiveSpeciesCount:	3	5	Total # of Individuals (CPUE):	160	3
			%SimpleLithophilicInd.:	18.75	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: AB18396

EventID: 14T103

LSite: WMI-02-0011

County: Randolph

StreamName: Tributary of Bush Creek

LocationDescription: CR 500 N

Common Name	Individual Fish Count	Deformities	Eroded Fins	Lesions	Tumors	Multiple Anomalies
Bluntnose Minnow	13					
Central Stoneroller	20					
Creek Chub	62					
Creek Chubsucker	13					
Green Sunfish	8					
Greenside Darter	1					
Johnny Darter	7					
Longear Sunfish	5					
Mottled Sculpin	1					
Orangethroat Darter	4					
Rainbow Darter	9					
Striped Shiner	3					
White Sucker	14					

SampleNumber: AB18395

EventID: 14T104

LSite: WMI-02-0012

County: Randolph

StreamName: Bear Creek

LocationDescription: CR 800 N

Common Name	Individual Fish Count	Deformities	Eroded Fins	Lesions	Tumors	Multiple Anomalies
Blackstripe Topminnow	2					
Bluntnose Minnow	13					
Central Stoneroller	16					
Creek Chub	8					
Goldfish	1					
Greenside Darter	4					
Johnny Darter	10					
Longear Sunfish	3					
Mottled Sculpin	1					
Rainbow Darter	2					
Redfin Shiner	2					
Sand Shiner	1					
Tadpole Madtom	1					



Indiana Department of Environmental Management Fish Community Assessments

Site Information

SubBasin: Mississinewa **14 digit HUC:** 05120103020010 **LSite:** WMI-02-0013
Site: Fetid Creek **Location:** CR 800 N **County:** Randolph
Latitude: 40.279634 **Longitude:** -85.026701 **IASNat Region:** 5C **Topo:** D-67 **Segment:** 39
Ecoregion: Eastern Corn Belt Plains **Drainage Area (sq.miles):** 3.957 **Gradient (ft/mile):** 10.869

Sample Information

SampleNumber: AB18394 **EventID:** 14T105 **Sample MediumCollected:** Fish Community + Water + Macro
SampleDate: 07/16/2014 **SurveyCrewChief:** KAG **SampleTime:** 09:50:00 AM **HydroLabNumber:** Q2
WaterFlowType: Run **WaterAppearance:** Murky **SkyConditions:** 4 - Cloudy **AirTemperature:** 3 - 46-60
WindDirection: 27 - West (270 degrees) **WindStrength:** 1 - Light
DissolvedO2 (mg/l): 5.64 **pH:** 7.81 **WaterTemp(°C):** 16.81 **SpecificConductivity (µS/cm):** 722 **Turbidity (NTU):** 22.3
SpecialNotes: Q2 turb= 35.7

ElectrofishingEquipment: Backpack **Voltage:** 250 **Avg.StreamWidth(m):** 6 **DistanceFished (m):** 90
SecondsFished: 795 **WaterDepthAvg (m):** .3 **WaterDepthMax (m):** .4 **TimeAtSite:** 01:30
BridgeInReach: **ReachRepresentative:** **WhyReachNotRepresentative:**
SpecialComments:

Habitat Information

TotalScore (max100): 33 **SubstrateScore (max20):** 3 **InstreamCover Score (max20):** 8 **ChannelMorphologyScore (max20):** 6
RiparianZoneBankErosion Score(max10): 5 **Pool/GlideQualityScore(max12):** 3 **Riffle/RunQualityScore(max8):** 0
GradientScore (max10): 8 **%Pool:** 15 **%Riffle:** 0 **%Run:** 45 **%Glide:** 40 **CanopyCover PctOpen:** 10%-<30%
SubjectiveRating: **AestheticRating:** **NOTES:** "NEW RECORD"

Fish Community Index of Biotic Integrity (IBI) Information

Calibration Used: Eastern Corn Belt Plains

	<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:	88.41 1
Darter/Madtom/SculpinSpeciesCount:	1	3	%OmnivoreIndividuals:	37.68 3
%HeadwaterIndividuals:	0	1	%InsectivoreIndividuals:	15.94 1
MinnnowSpeciesCount:	3	3	%PioneerIndividuals:	81.16 1
SensitiveSpeciesCount:	0	1	Total # of Individuals (CPUE):	69 1
			%SimpleLithophilicInd.:	8.7 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: AB18394

EventID: 14T105

LSite: WMI-02-0013

County: Randolph

StreamName: Fetid Creek

LocationDescription: CR 800 N

Common Name	Individual Fish Count	Deformities	Eroded Fins	Lesions	Tumors	Multiple Anomalies
Bluntnose Minnow	20					
Creek Chub	27					
Creek Chubsucker	1					
Goldfish	2					
Green Sunfish	6					
Johnny Darter	2					
Spotted Bass	5					
White Sucker	6					



Indiana Department of Environmental Management Fish Community Assessments

Site Information

SubBasin: Mississinewa **14 digit HUC:** 05120103020010 **LSite:** WMI020-0002
Site: Mississinewa River **Location:** CR 100 W **County:** Randolph
Latitude: 40.28 **Longitude:** -84.995277 **IASNat Region:** 5C **Topo:** D-68 **Segment:** 39
Ecoregion: Eastern Corn Belt Plains **Drainage Area (sq.miles):** 133 **Gradient (ft/mile):** 3.52

Sample Information

SampleNumber: AB18399 **EventID:** 14T106 **Sample MediumCollected:** Fish Community + Water + Macro
SampleDate: 08/04/2014 **SurveyCrewChief:** KAG **SampleTime:** 11:20:00 AM **HydroLabNumber:** Q6
WaterFlowType: Run **WaterAppearance:** Clear **SkyConditions:** 1 - Clear **AirTemperature:** 5 - 76-85
WindDirection: 27 - West (270 degrees) **WindStrength:** 0 - Calm
DissolvedO2 (mg/l): 7.32 **pH:** 8.08 **WaterTemp(°C):** 20.36 **SpecificConductivity (µS/cm):** 683 **Turbidity (NTU):** 5.74
SpecialNotes:

ElectrofishingEquipment: Longline **Voltage:** 150 **Avg.StreamWidth(m):** 10 **DistanceFished (m):** 150
SecondsFished: 1586 **WaterDepthAvg (m):** .5 **WaterDepthMax (m):** 1.2 **TimeAtSite:** 01:30
BridgeInReach: **ReachRepresentative:** **WhyReachNotRepresentative:**
SpecialComments:

Habitat Information

TotalScore (max100): 57 **SubstrateScore (max20):** 13 **InstreamCover Score (max20):** 9 **ChannelMorphologyScore (max20):** 13
RiparianZoneBankErosion Score(max10): 5 **Pool/GlideQualityScore(max12):** 6 **Riffle/RunQualityScore(max8):** 3
GradientScore (max10): 8 **%Pool:** 20 **%Riffle:** 20 **%Run:** 60 **%Glide:** # \$ **CanopyCover PctOpen:** >85%-Open
SubjectiveRating: **AestheticRating:** **NOTES:** "NEW RECORD"

Fish Community Index of Biotic Integrity (IBI) Information

Calibration Used: Eastern Corn Belt Plains

	<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:	18	5	%TolerantIndividuals:	38.4	3
DarterSpeciesCount:	4	5	%OmnivoreIndividuals:	34.4	3
SunfishSpeciesCount:	3	3	%InsectivoreIndividuals:	50.4	5
SuckerSpeciesCount:	3	3	%CarnivoreIndividuals:	15.2	5
SensitiveSpeciesCount:	8	5	Total # of Individuals (CPUE):	125	1
			%SimpleLithophilicInd.:	40	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)	46
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SampleNumber: AB18399

EventID: 14T106

LSite: WMI020-0002

County: Randolph

StreamName: Mississinewa River

LocationDescription: CR 100 W

Common Name	Individual Fish Count	Deformities	Eroded Fins	Lesions	Tumors	Multiple Anomalies
Blackstripe Topminnow	1					
Bluntnose Minnow	11					
Green Sunfish	2					
Greenside Darter	3					
Johnny Darter	1					
Logperch	1					
Longear Sunfish	29					
Mottled Sculpin	3					
Northern Hog Sucker	3					
Rainbow Darter	9					
Redfin Shiner	1					
Rock Bass	16					
Sand Shiner	1					
Smallmouth Bass	3					
Spotted Sucker	5					
Tadpole Madtom	1					
White Sucker	32					
Yellow Bullhead	3					



Indiana Department of Environmental Management Fish Community Assessments

Site Information

SubBasin: Mississinewa **14 digit HUC:** 05120103020020 **LSite:** WMI-02-0005
Site: Flesher Creek **Location:** CR 800 S **County:** Jay
Latitude: 40.322877 **Longitude:** -85.063054 **IASNat Region:** 5C **Topo:** D-67 **Segment:** 39
Ecoregion: Eastern Corn Belt Plains **Drainage Area (sq.miles):** 7.265 **Gradient (ft/mile):** 4.792

Sample Information

SampleNumber: AB18393 **EventID:** 14T108 **Sample MediumCollected:** Fish Community + Water + Macro
SampleDate: 08/04/2014 **SurveyCrewChief:** KAG **SampleTime:** 01:55:00 PM **HydroLabNumber:** Q6
WaterFlowType: Glide **WaterAppearance:** Clear **SkyConditions:** 2 - Scattered **AirTemperature:** 6 - > 86
WindDirection: 27 - West (270 degrees) **WindStrength:** 1 - Light
DissolvedO2 (mg/l): 5.99 **pH:** 7.75 **WaterTemp(°C):** 20.25 **SpecificConductivity (µS/cm):** 622 **Turbidity (NTU):** 7.58
SpecialNotes:

ElectrofishingEquipment: Backpack **Voltage:** 200 **Avg.StreamWidth(m):** 3 **DistanceFished (m):** 50
SecondsFished: 503 **WaterDepthAvg (m):** .3 **WaterDepthMax (m):** 1 **TimeAtSite:** 02:00
BridgeInReach: **ReachRepresentative:** **WhyReachNotRepresentative:**
SpecialComments:

Habitat Information

TotalScore (max100): 44 **SubstrateScore (max20):** 9 **InstreamCover Score (max20):** 10 **ChannelMorphologyScore (max20):** 8
RiparianZoneBankErosion Score(max10): 5 **Pool/GlideQualityScore(max12):** 8 **Riffle/RunQualityScore(max8):** 0
GradientScore (max10): 4 **%Pool: #** \$ **%Riffle: #** \$ **%Run: #** \$ **%Glide:** 100 **CanopyCover PctOpen:** 55%<-85%
SubjectiveRating: **AestheticRating:** **NOTES:** "NEW RECORD"

Fish Community Index of Biotic Integrity (IBI) Information

Calibration Used: Eastern Corn Belt Plains

	<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	3	%TolerantIndividuals:	38.46	1
Darter/Madtom/SculpinSpeciesCount:	1	1	%OmnivoreIndividuals:	7.69	1
%HeadwaterIndividuals:	0	1	%InsectivoreIndividuals:	84.62	1
MinnnowSpeciesCount:	0	1	%PioneerIndividuals:	0	1
SensitiveSpeciesCount:	1	1	Total # of Individuals (CPUE):	13	1
			%SimpleLithophilicInd.:	7.69	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: AB18393

EventID: 14T108

LSite: WMI-02-0005

County: Jay

StreamName: Flesher Creek

LocationDescription: CR 800 S

Common Name	Individual Fish Count	Deformities	Eroded Fins	Lesions	Tumors	Multiple Anomalies
Blackstripe Topminnow	2					
Central Mudminnow	2					
Grass Pickerel	1					
Longear Sunfish	3					
Tadpole Madtom	2					
White Sucker	1					
Yellow Bullhead	2					

SampleNumber: AB18392

EventID: 14T109

LSite: WMI-02-0006

County: Randolph

StreamName: Days Creek

LocationDescription: SR 28

Common Name	Individual Fish Count	Deformities	Eroded Fins	Lesions	Tumors	Multiple Anomalies
Bluegill	1					
Creek Chubsucker	1					
Green Sunfish	44					
Johnny Darter	2					
Longear Sunfish	11					
Smallmouth Bass	1					
Tadpole Madtom	4					
White Sucker	4					



Indiana Department of Environmental Management Fish Community Assessments

Site Information

SubBasin: Mississinewa **14 digit HUC:** 05120103020040 **LSite:** WMI-02-0007
Site: Mississinewa River **Location:** CR 600 W **County:** Randolph
Latitude: 40.285212 **Longitude:** -85.092729 **IASNat Region:** 5C **Topo:** D-67 **Segment:** 39
Ecoregion: Eastern Corn Belt Plains **Drainage Area (sq.miles):** 179.063 **Gradient (ft/mile):** 2.331

Sample Information

SampleNumber: AB18391 **EventID:** 14T110 **Sample MediumCollected:** Fish Community + Water + Macro
SampleDate: 08/06/2014 **SurveyCrewChief:** KAG **SampleTime:** 10:45:00 AM **HydroLabNumber:** Q6
WaterFlowType: Run **WaterAppearance:** Brown **SkyConditions:** 4 - Cloudy **AirTemperature:** 4 - 61-75
WindDirection: 27 - West (270 degrees) **WindStrength:** 0 - Calm
DissolvedO2 (mg/l): 4.73 **pH:** 7.87 **WaterTemp(°C):** 22.06 **SpecificConductivity (µS/cm):** 688 **Turbidity (NTU):** 23.5
SpecialNotes: Q6 Turb = 23.5

ElectrofishingEquipment: Canoe **Voltage:** 100 **Avg.StreamWidth(m):** 27 **DistanceFished (m):** 405
SecondsFished: 3000 **WaterDepthAvg (m):** .5 **WaterDepthMax (m):** 1.2 **TimeAtSite:** 03:00
BridgeInReach: **ReachRepresentative:** **WhyReachNotRepresentative:**

SpecialComments:

Habitat Information

TotalScore (max100): 49 **SubstrateScore (max20):** 9 **InstreamCover Score (max20):** 7 **ChannelMorphologyScore (max20):** 13
RiparianZoneBankErosion Score(max10): 6 **Pool/GlideQualityScore(max12):** 6 **Riffle/RunQualityScore(max8):** 0
GradientScore (max10): 8 **%Pool: #\$ %Riffle: #\$ %Run: 100 %Glide: #\$** **CanopyCover PctOpen: 55%<85%**
SubjectiveRating: **AestheticRating:** **NOTES:** "NEW RECORD"

Fish Community Index of Biotic Integrity (IBI) Information

Calibration Used: Eastern Corn Belt Plains

	<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:	19	5	%TolerantIndividuals:	29.88	3
DarterSpeciesCount:	1	1	%OmnivoreIndividuals:	17.68	5
SunfishSpeciesCount:	4	5	%InsectivoreIndividuals:	80.49	5
SuckerSpeciesCount:	4	5	%CarnivoreIndividuals:	1.83	1
SensitiveSpeciesCount:	4	3	Total # of Individuals (CPUE):	164	1
			%SimpleLithophilicInd.:	20.12	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)	42
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SampleNumber: AB18391

EventID: 14T110

LSite: WMI-02-0007

County: Randolph

StreamName: Mississinewa River

LocationDescription: CR 600 W

Common Name	Individual Fish Count	Deformities	Eroded Fins	Lesions	Tumors	Multiple Anomalies
Black Redhorse	2					
Blackside Darter	1					
Blackspotted Topminnow	1					
Bluntnose Minnow	10					
Common Carp	8					
Freshwater Drum	1					
Golden Redhorse	3					
Goldfish	1					
Green Sunfish	18					
Largemouth Bass	1					
Longear Sunfish	58					
Orangespotted Sunfish	13					
Redfin Shiner	1					
Rock Bass	1					
Spotfin Shiner	17					
Spotted Bass	1					
Spotted Sucker	15					
Striped Shiner	1					
White Sucker	11					

SampleNumber: AB18946

EventID: 14T112.5

LSite: WMI-02-0009

County: Randolph

StreamName: Bush Creek

LocationDescription: CR 750 N

Common Name	Individual Fish Count	Deformities	Eroded Fins	Lesions	Tumors	Multiple Anomalies
Black Bullhead	1					
Blackside Darter	1					
Blackstripe Topminnow	2					
Common Carp	3					
Creek Chub	13					
Creek Chubsucker	5					
Grass Pickerel	4					
Green Sunfish	16					
Johnny Darter	2					
Longear Sunfish	25					
Northern Hog Sucker	1					
Rainbow Darter	1					
Rock Bass	1					
Striped Shiner	1					
Tadpole Madtom	1					
White Sucker	3					
Yellow Bullhead	3					



Indiana Department of Environmental Management
Fish Community Assessments

Site Information

SubBasin: Mississinewa 14 digit HUC: 05120103020050 LSite: WMI-02-0009
 Site: Bush Creek Location: CR 750 N County: Randolph
 Latitude: 40.271584 Longitude: -85.145049 IASNat Region: 5C Topo: D-66 Segment: 39
 Ecoregion: Eastern Corn Belt Plains Drainage Area (sq.miles): 19.939 Gradient (ft/mile): 8.598

Sample Information

SampleNumber: AB18390 EventID: 14T112 Sample MediumCollected: Fish Community + Water + Macro
 SampleDate: 08/05/2014 SurveyCrewChief: KAG SampleTime: 12:20:00 PM HydroLabNumber: Q6
 WaterFlowType: Run WaterAppearance: Brown SkyConditions: 4 - Cloudy AirTemperature: 5 - 76-85
 WindDirection: 27 - West (270 degrees) WindStrength: 0 - Calm
 DissolvedO2 (mg/l): 5.3 pH: 8.15 WaterTemp(°C): 21.24 SpecificConductivity (µS/cm): 704 Turbidity (NTU): 23.4
 SpecialNotes: Q6 TURB = 38.7

ElectrofishingEquipment: Longline Voltage: 150 Avg.StreamWidth(m): 8 DistanceFished (m): 120
 SecondsFished: 835 WaterDepthAvg (m): .3 WaterDepthMax (m): .5 TimeAtSite: 01:30
 BridgeInReach: ReachRepresentative: WhyReachNotRepresentative:
 SpecialComments:

Habitat Information

TotalScore (max100): 60 SubstrateScore (max20): 12 InstreamCover Score (max20): 8 ChannelMorphologyScore (max20): 13
 RiparianZoneBankErosion Score(max10): 9 Pool/GlideQualityScore(max12): 5 Riffle/RunQualityScore(max8): 3
 GradientScore (max10): 10 %Pool: 5 %Riffle: 10 %Run: 85 %Glide: # \$ CanopyCover PctOpen: 30%-<55%
 SubjectiveRating: AestheticRating: NOTES: "NEW RECORD"

Fish Community Index of Biotic Integrity (IBI) Information

Calibration Used: Eastern Corn Belt Plains

	<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:	14	5	%TolerantIndividuals:	13.46	5
Darter/Madtom/SculpinSpeciesCount:	6	5	%OmnivoreIndividuals:	0	5
%HeadwaterIndividuals:	1.92	1	%InsectivoreIndividuals:	86.54	5
MinnnowSpeciesCount:	2	1	%PioneerIndividuals:	25	3
SensitiveSpeciesCount:	3	3	Total # of Individuals (CPUE):	52	1
			%SimpleLithophilicInd.:	15.38	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: AB18390

EventID: 14T112

LSite: WMI-02-0009

County: Randolph

StreamName: Bush Creek

LocationDescription: CR 750 N

Common Name	Individual Fish Count	Deformities	Eroded Fins	Lesions	Tumors	Multiple Anomalies
Blackside Darter	2					
Creek Chub	1					
Creek Chubsucker	4					
Grass Pickerel	5					
Green Sunfish	3					
Greenside Darter	4					
Johnny Darter	4					
Longear Sunfish	17					
Mottled Sculpin	1					
Orangethroat Darter	1					
Smallmouth Bass	1					
Striped Shiner	5					
Tadpole Madtom	1					
Yellow Bullhead	3					



Indiana Department of Environmental Management Fish Community Assessments

Site Information

SubBasin: Mississinewa **14 digit HUC:** 05120103020060 **LSite:** WMI-02-0015
Site: Dinner Creek **Location:** SR 28 **County:** Randolph
Latitude: 40.293388 **Longitude:** -85.143443 **IASNat Region:** 5C **Topo:** D-66 **Segment:** 39
Ecoregion: Eastern Corn Belt Plains **Drainage Area (sq.miles):** 5.957 **Gradient (ft/mile):** 6.278

Sample Information

SampleNumber: AB18368 **EventID:** 14T113 **Sample MediumCollected:** Fish Community + Water + Macro
SampleDate: 08/05/2014 **SurveyCrewChief:** KAG **SampleTime:** 02:00:00 PM **HydroLabNumber:** Q6
WaterFlowType: Glide **WaterAppearance:** Clear **SkyConditions:** 2 - Scattered **AirTemperature:** 6 - > 86
WindDirection: 27 - West (270 degrees) **WindStrength:** 1 - Light
DissolvedO2 (mg/l): 5.39 **pH:** 7.55 **WaterTemp(°C):** 19.16 **SpecificConductivity (µS/cm):** 729 **Turbidity (NTU):** 8
SpecialNotes:

ElectrofishingEquipment: Backpack **Voltage:** 200 **Avg.StreamWidth(m):** 3 **DistanceFished (m):** 50
SecondsFished: 640 **WaterDepthAvg (m):** .2 **WaterDepthMax (m):** .4 **TimeAtSite:** 01:30
BridgeInReach: **ReachRepresentative:** **WhyReachNotRepresentative:**
SpecialComments:

Habitat Information

TotalScore (max100): 43 **SubstrateScore (max20):** 12 **InstreamCover Score (max20):** 9 **ChannelMorphologyScore (max20):** 9
RiparianZoneBankErosion Score(max10): 3 **Pool/GlideQualityScore(max12):** 4 **Riffle/RunQualityScore(max8):** 0
GradientScore (max10): 6 **%Pool:** 10 **%Riffle:** # \$ **%Run:** 90 **%Glide:** # \$ **CanopyCover PctOpen:** 55%-<85%
SubjectiveRating: **AestheticRating:** **NOTES:** "NEW RECORD"

Fish Community Index of Biotic Integrity (IBI) Information

Calibration Used: Eastern Corn Belt Plains

	<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	5	%TolerantIndividuals:	55	1
Darter/Madtom/SculpinSpeciesCount:	2	3	%OmnivoreIndividuals:	15	5
%HeadwaterIndividuals:	0	1	%InsectivoreIndividuals:	50	3
MinnnowSpeciesCount:	4	3	%PioneerIndividuals:	62.5	1
SensitiveSpeciesCount:	1	1	Total # of Individuals (CPUE):	40	1
			%SimpleLithophilicInd.:	40	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)	32
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SampleNumber: AB18368

EventID: 14T113

LSite: WMI-02-0015

County: Randolph

StreamName: Dinner Creek

LocationDescription: SR 28

Common Name	Individual Fish Count	Deformities	Eroded Fins	Lesions	Tumors	Multiple Anomalies
Blackstripe Topminnow	1					
Central Stoneroller	1					
Creek Chub	12					
Goldfish	2					
Grass Pickerel	1					
Green Sunfish	1					
Johnny Darter	1					
Longear Sunfish	3					
Orangethroat Darter	10					
Redfin Shiner	1					
White Sucker	6					
Yellow Bullhead	1					

SampleNumber: AB18389

EventID: 14T114

LSite: WMI-02-0016

County: Jay

StreamName: Halfway Creek

LocationDescription: CR 1000 W

Common Name	Individual Fish Count	Deformities	Eroded Fins	Lesions	Tumors	Multiple Anomalies
Black Bullhead	1					
Blackstripe Topminnow	1					
Green Sunfish	1					
Largemouth Bass	1					
Longear Sunfish	2					
Tadpole Madtom	2					
White Sucker	1					
Yellow Bullhead	4					



Site Information

SubBasin: Mississinewa 14 digit HUC: 05120103020080 LSite: WMI-02-0017
 Site: Halfway Creek Location: Water Street County: Delaware
 Latitude: 40.297805 Longitude: -85.237069 IASNat Region: 5C Topo: D-66 Segment: 39
 Ecoregion: Eastern Corn Belt Plains Drainage Area (sq.miles): 24.875 Gradient (ft/mile): 2.806

Sample Information

SampleNumber: AB18386 EventID: 14T116 Sample MediumCollected: Fish Community + Water + Macro
 SampleDate: 07/15/2014 SurveyCrewChief: KAG SampleTime: 10:45:00 AM HydroLabNumber: Q2
 WaterFlowType: Run WaterAppearance: Murky SkyConditions: 4 - Cloudy AirTemperature: 4 - 61-75
 WindDirection: 18 - South (180 degrees) WindStrength: 2 - Mod./Light
 DissolvedO2 (mg/l): 7.33 pH: 7.75 WaterTemp(°C): 21.13 SpecificConductivity (µS/cm): 597 Turbidity (NTU): 10.9
 SpecialNotes: Q2 Turb = 15.2

ElectrofishingEquipment: Longline Voltage: 200 Avg.StreamWidth(m): 10 DistanceFished (m): 150
 SecondsFished: 1150 WaterDepthAvg (m): .7 WaterDepthMax (m): 3 TimeAtSite: 02:00
 BridgeInReach: ReachRepresentative: WhyReachNotRepresentative:
 SpecialComments:

Habitat Information

TotalScore (max100): 50 SubstrateScore (max20): 15 InstreamCover Score (max20): 9 ChannelMorphologyScore (max20): 8
 RiparianZoneBankErosion Score(max10): 6 Pool/GlideQualityScore(max12): 4 Riffle/RunQualityScore(max8): 4
 GradientScore (max10): 4 %Pool: # \$ %Riffle: # \$ %Run: 100 %Glide: # \$ CanopyCover PctOpen: 55%-<85%
 SubjectiveRating: AestheticRating: NOTES: "NEW RECORD"

Fish Community Index of Biotic Integrity (IBI) Information

Calibration Used: Eastern Corn Belt Plains

	Actual Observation	Metric Score		Actual Observation	Metric Score
SpeciesCount:	21	5	%TolerantIndividuals:	43.84	3
DarterSpeciesCount:	3	5	%OmnivoreIndividuals:	8.31	5
SunfishSpeciesCount:	3	3	%InsectivoreIndividuals:	85.1	5
SuckerSpeciesCount:	3	3	%CarnivoreIndividuals:	1.72	1
SensitiveSpeciesCount:	8	5	Total # of Individuals (CPUE):	349	5
			%SimpleLithophilicInd.:	2.01	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)	46
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SampleNumber: AB18386

EventID: 14T116

LSite: WMI-02-0017

County: Delaware

StreamName: Halfway Creek

LocationDescription: Water Street

Common Name	Individual Fish Count	Deformities	Eroded Fins	Lesions	Tumors	Multiple Anomalies
Bigeye Chub	1					
Blackstripe Topminnow	2					
Bluegill	6					
Bluntnose Minnow	27					
Central Stoneroller	15					
Creek Chub	2					
Creek Chubsucker	4					
Goldfish	8					
Green Sunfish	108					
Greenside Darter	2					
Johnny Darter	3					
Longear Sunfish	144					
Northern Hog Sucker	1					
Rainbow Darter	3					
Redfin Shiner	2					
Sand Shiner	3					
Silverjaw Minnow	3					
Smallmouth Bass	6					
Stonecat	1					
White Sucker	2					
Yellow Bullhead	6					



Indiana Department of Environmental Management Fish Community Assessments

Site Information

SubBasin: Mississinewa **14 digit HUC:** 05120103020070 **LSite:** WMI-02-0018
Site: Mississinewa River **Location:** Strong Road **County:** Delaware
Latitude: 40.291726 **Longitude:** -85.237454 **IASNat Region:** 5C **Topo:** D-66 **Segment:** 39
Ecoregion: Eastern Corn Belt Plains **Drainage Area (sq.miles):** 240.014 **Gradient (ft/mile):** 1.938

Sample Information

SampleNumber: AB18388 **EventID:** 14T117 **Sample MediumCollected:** Fish Community + Water + Macro
SampleDate: 08/12/2014 **SurveyCrewChief:** KAG **SampleTime:** 08:50:00 AM **HydroLabNumber:** Q6
WaterFlowType: Run **WaterAppearance:** Murky **SkyConditions:** 4 - Cloudy **AirTemperature:** 4 - 61-75
WindDirection: 27 - West (270 degrees) **WindStrength:** 1 - Light
DissolvedO2 (mg/l): 4.49 **pH:** 8.14 **WaterTemp(°C):** 23.57 **SpecificConductivity (µS/cm):** 666 **Turbidity (NTU):** 21.3
SpecialNotes:

ElectrofishingEquipment: Canoe **Voltage:** 250 **Avg.StreamWidth(m):** 10 **DistanceFished (m):** 150
SecondsFished: 3359 **WaterDepthAvg (m):** .4 **WaterDepthMax (m):** 1.2 **TimeAtSite:** 02:30
BridgeInReach: **ReachRepresentative:** **WhyReachNotRepresentative:**
SpecialComments: w/ 2.5 GPP

Habitat Information

TotalScore (max100): 61 **SubstrateScore (max20):** 13 **InstreamCover Score (max20):** 10 **ChannelMorphologyScore (max20):** 14
RiparianZoneBankErosion Score(max10): 9 **Pool/GlideQualityScore(max12):** 6 **Riffle/RunQualityScore(max8):** 3
GradientScore (max10): 6 **%Pool:** 5 **%Riffle:** 10 **%Run:** 85 **%Glide:** # \$ **CanopyCover PctOpen:** 10%-<30%
SubjectiveRating: **AestheticRating:** **NOTES:** "NEW RECORD"

Fish Community Index of Biotic Integrity (IBI) Information

Calibration Used: Eastern Corn Belt Plains

	<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:	28	5	%TolerantIndividuals:	22.82	5
DarterSpeciesCount:	6	5	%OmnivoreIndividuals:	7.28	5
SunfishSpeciesCount:	5	5	%InsectivoreIndividuals:	87.62	5
SuckerSpeciesCount:	4	5	%CarnivoreIndividuals:	3.16	1
SensitiveSpeciesCount:	12	5	Total # of Individuals (CPUE):	412	5
			%SimpleLithophilicInd.:	15.29	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)	52
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SampleNumber: AB18388

EventID: 14T117

LSite: WMI-02-0018

County: Delaware

StreamName: Mississinewa River

LocationDescription: Strong Road

Common Name	Individual Fish Count	Deformities	Eroded Fins	Lesions	Tumors	Multiple Anomalies
Black Redhorse	2					
Bluegill	2					
Bluntnose Minnow	30					
Central Stoneroller	5					
Creek Chub	3					
Dusky Darter	2					
Golden Redhorse	2					
Grass Pickerel	4					
Green Sunfish	59					
Greenside Darter	20					
Johnny Darter	3					
Logperch	3					
Longear Sunfish	171					
Northern Hog Sucker	5					
Orangespotted Sunfish	4					
Rainbow Darter	45					
Redfin Shiner	10					
Rock Bass	7					
Silverjaw Minnow	2					
Slenderhead Darter	2					
Smallmouth Bass	1					
Spotfin Shiner	20					
Spotted Bass	1					
Spotted Sucker	1					
Steelcolor Shiner	3					
Stonecat	2					
Striped Shiner	1					
Yellow Bullhead	2					



**Indiana Department of Environmental Management
Fish Community Assessments**

Site Information

SubBasin: Mississinewa 14 digit HUC: 05120103020070 LSite: WMI-02-0019
 Site: Mud Creek Location: Edgewater Road County: Delaware
 Latitude: 40.287437 Longitude: -85.235923 IASNat Region: 5C Topo: D-66 Segment: 39
 Ecoregion: Eastern Corn Belt Plains Drainage Area (sq.miles): 12.547 Gradient (ft/mile): 2.284

Sample Information

SampleNumber: AB18385 EventID: 14T118 Sample MediumCollected: Fish Community + Water + Macro
 SampleDate: 07/15/2014 SurveyCrewChief: KAG SampleTime: 01:00:00 PM HydroLabNumber: Q2
 WaterFlowType: Run WaterAppearance: Murky SkyConditions: 3 - Partly AirTemperature: 4 - 61-75
 WindDirection: 27 - West (270 degrees) WindStrength: 3 - Moderate
 DissolvedO2 (mg/l): 8.37 pH: 7.93 WaterTemp(°C): 20.12 SpecificConductivity (µS/cm): 678 Turbidity (NTU): 28.6
 SpecialNotes: Q2 turb = 28.6

ElectrofishingEquipment: Backpack Voltage: 250 Avg.StreamWidth(m): 10 DistanceFished (m): 150
 SecondsFished: 827 WaterDepthAvg (m): .5 WaterDepthMax (m): .8 TimeAtSite: 01:30
 BridgeInReach: ReachRepresentative: WhyReachNotRepresentative:
 SpecialComments:

Habitat Information

TotalScore (max100): 51 SubstrateScore (max20): 11 InstreamCover Score (max20): 11 ChannelMorphologyScore (max20): 7
 RiparianZoneBankErosion Score(max10): 8 Pool/GlideQualityScore(max12): 6 Riffle/RunQualityScore(max8): 4
 GradientScore (max10): 4 %Pool: 15 %Riffle: 15 %Run: 70 %Glide: 0 CanopyCover PctOpen: <10%-Closed
 SubjectiveRating: AestheticRating: NOTES: "NEW RECORD"

Fish Community Index of Biotic Integrity (IBI) Information

Calibration Used: Eastern Corn Belt Plains

	Actual Observation	Metric Score	Actual Observation	Metric Score
SpeciesCount:	15	5	%TolerantIndividuals:	66.3
Darter/Madtom/SculpinSpeciesCount:	4	5	%OmnivoreIndividuals:	30.43
%HeadwaterIndividuals:	0	1	%InsectivoreIndividuals:	39.13
MinnnowSpeciesCount:	5	3	%PioneerIndividuals:	64.13
SensitiveSpeciesCount:	2	1	Total # of Individuals (CPUE):	92
			%SimpleLithophilicInd.:	22.83
			%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: AB18385

EventID: 14T118

LSite: WMI-02-0019

County: Delaware

StreamName: Mud Creek

LocationDescription: Edgewater Road

Common Name	Individual Fish Count	Deformities	Eroded Fins	Lesions	Tumors	Multiple Anomalies
Bluntnose Minnow	13					
Central Stoneroller	2					
Creek Chub	22					
Creek Chubsucker	1					
Grass Pickerel	2					
Green Sunfish	9					
Johnny Darter	8					
Longear Sunfish	9					
Orangethroat Darter	3					
Rainbow Darter	1					
Scarlet Shiner	2					
Silverjaw Minnow	1					
Tadpole Madtom	2					
White Sucker	15					
Yellow Bullhead	2					

SampleNumber: AB18387

EventID: 14T119

LSite: WMI-04-0013

County: Delaware

StreamName: Mississinewa River

LocationDescription: Dowden Avenue

Common Name	Individual Fish Count	Deformities	Eroded Fins	Lesions	Tumors	Multiple Anomalies
Black Redhorse	12					
Blackside Darter	1					
Blackspotted Topminnow	1					
Bluegill	6					
Bluntnose Minnow	3					
Common Carp	26					
Creek Chubsucker	1					
Emerald Shiner	1					
Freshwater Drum	1					
Golden Redhorse	10					
Goldfish	1					
Grass Pickerel	3					
Green Sunfish	70					
Greenside Darter	1					
Johnny Darter	9					
Logperch	3					
Longear Sunfish	184					
Orangespotted Sunfish	12					
Rainbow Darter	4					
Redfin Shiner	2					
Rock Bass	3					
Silver Redhorse	2					
Slenderhead Darter	3					
Smallmouth Bass	5					
Spotfin Shiner	25					
Spotted Bass	6					
Spotted Sucker	5					
Tadpole Madtom	1					
White Crappie	2					
White Sucker	1					
Yellow Bullhead	1					



Indiana Department of Environmental Management
Fish Community Assessments

Site Information

SubBasin: Mississinewa 14 digit HUC: 05120103030010 LSite: WMI-04-0014
 Site: Campbell Creek Location: Schindel Road County: Delaware
 Latitude: 40.261092 Longitude: -85.289320 IASNat Region: 5C Topo: D-65 Segment: 39
 Ecoregion: Eastern Corn Belt Plains Drainage Area (sq.miles): 20.321 Gradient (ft/mile): 10.741

Sample Information

SampleNumber: AB18384 EventID: 14T120 Sample MediumCollected: Fish Community + Water + Macro
 SampleDate: 07/15/2014 SurveyCrewChief: KAG SampleTime: 03:05:00 PM HydroLabNumber: Q2
 WaterFlowType: Run WaterAppearance: Murky SkyConditions: 3 - Partly AirTemperature: 4 - 61-75
 WindDirection: 18 - South (180 degrees) WindStrength: 2 - Mod./Light
 DissolvedO2 (mg/l): 8.18 pH: 7.96 WaterTemp(°C): 21.16 SpecificConductivity (µS/cm): 630 Turbidity (NTU): 5.97
 SpecialNotes: Q2 Turb = 8.8

ElectrofishingEquipment: Backpack Voltage: 200 Avg.StreamWidth(m): 8 DistanceFished (m): 120
 SecondsFished: 1315 WaterDepthAvg (m): .6 WaterDepthMax (m): 1.5 TimeAtSite: 02:30
 BridgeInReach: ReachRepresentative: WhyReachNotRepresentative:
 SpecialComments:

Habitat Information

TotalScore (max100): 80 SubstrateScore (max20): 19 InstreamCover Score (max20): 12 ChannelMorphologyScore (max20): 16
 RiparianZoneBankErosion Score(max10): 8 Pool/GlideQualityScore(max12): 9 Riffle/RunQualityScore(max8): 6
 GradientScore (max10): 10 %Pool: 35 %Riffle: 30 %Run: 35 %Glide: 0 CanopyCover PctOpen: >85%-Open
 SubjectiveRating: AestheticRating: NOTES: "NEW RECORD"

Fish Community Index of Biotic Integrity (IBI) Information

Calibration Used: Eastern Corn Belt Plains

	<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:	15	5	%TolerantIndividuals:	42.11	3
DarterSpeciesCount:	3	5	%OmnivoreIndividuals:	17.98	5
SunfishSpeciesCount:	4	5	%InsectivoreIndividuals:	33.77	3
SuckerSpeciesCount:	2	3	%CarnivoreIndividuals:	4.82	1
SensitiveSpeciesCount:	4	3	Total # of Individuals (CPUE):	228	3
			%SimpleLithophilicInd.:	6.58	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: AB18384

EventID: 14T120

LSite: WMI-04-0014

County: Delaware

StreamName: Campbell Creek

LocationDescription: Schindel Road

Common Name	Individual Fish Count	Deformities	Eroded Fins	Lesions	Tumors	Multiple Anomalies
Bluegill	2					
Bluntnose Minnow	37					
Central Stoneroller	68					
Creek Chub	31					
Creek Chubsucker	1					
Green Sunfish	22					
Greenside Darter	23					
Johnny Darter	2					
Longear Sunfish	7					
Mottled Sculpin	7					
Rainbow Darter	8					
Rock Bass	11					
Striped Shiner	3					
White Sucker	4					
Yellow Bullhead	2					



Indiana Department of Environmental Management
Fish Community Assessments

Site Information

SubBasin: Mississinewa 14 digit HUC: 05120103030030 LSite: WMI-04-0015
 Site: Rees Ditch Location: Layne Drive County: Jay
 Latitude: 40.366814 Longitude: -85.219357 IASNat Region: 5C Topo: D-66 Segment: 39
 Ecoregion: Eastern Corn Belt Plains Drainage Area (sq.miles): 1.428 Gradient (ft/mile): 12.796

Sample Information

SampleNumber: AB18383 EventID: 14T121 Sample MediumCollected: Fish Community + Water + Macro
 SampleDate: 07/15/2014 SurveyCrewChief: KJC SampleTime: 10:25:00 AM HydroLabNumber: Q6
 WaterFlowType: Run WaterAppearance: Clear SkyConditions: 2 - Scattered AirTemperature: 4 - 61-75
 WindDirection: 27 - West (270 degrees) WindStrength: 1 - Light
 DissolvedO2 (mg/l): 5.68 pH: 7.68 WaterTemp(°C): 17.62 SpecificConductivity (µS/cm): 951 Turbidity (NTU): 4.68
 SpecialNotes: Turb = 5.7 NTU

ElectrofishingEquipment: Backpack Voltage: 200 Avg.StreamWidth(m): 3 DistanceFished (m): 50
 SecondsFished: 550 WaterDepthAvg (m): .2 WaterDepthMax (m): .5 TimeAtSite: 01:00
 BridgeInReach: ReachRepresentative: WhyReachNotRepresentative:
 SpecialComments: All fish processed at site.

Habitat Information

TotalScore (max100): 40 SubstrateScore (max20): 12 InstreamCover Score (max20): 6 ChannelMorphologyScore (max20): 7
 RiparianZoneBankErosion Score(max10): 4 Pool/GlideQualityScore(max12): 3 Riffle/RunQualityScore(max8): 0
 GradientScore (max10): 8 %Pool: 20 %Riffle: # \$ %Run: 80 %Glide: # \$ CanopyCover PctOpen: 55%-<85%
 SubjectiveRating: AestheticRating: NOTES: "NEW RECORD"

Fish Community Index of Biotic Integrity (IBI) Information

Calibration Used: Eastern Corn Belt Plains

	<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:	82.76	1
Darter/Madtom/SculpinSpeciesCount:	2	5	%OmnivoreIndividuals:	27.59	3
%HeadwaterIndividuals:	6.9	5	%InsectivoreIndividuals:	31.03	3
MinnnowSpeciesCount:	4	5	%PioneerIndividuals:	89.66	1
SensitiveSpeciesCount:	1	3	Total # of Individuals (CPUE):	29	1
			%SimpleLithophilicInd.:	10.34	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: AB18383

EventID: 14T121

LSite: WMI-04-0015

County: Jay

StreamName: Rees Ditch

LocationDescription: Layne Drive

Common Name	Individual Fish Count	Deformities	Eroded Fins	Lesions	Tumors	Multiple Anomalies
Bluntnose Minnow	2					
Creek Chub	12					
Fathead Minnow	6					
Green Sunfish	2					
Johnny Darter	4					
Rainbow Darter	1					
Western Blacknose Dace	2					



Indiana Department of Environmental Management
Fish Community Assessments

Site Information

SubBasin: Mississinewa 14 digit HUC: 05120103040010 LSite: WMI-03-0003
Site: Big Lick Creek Location: CR 700 E County: Blackford
Latitude: 40.386693 Longitude: -85.239018 IASNat Region: 5C Topo: D-43 Segment: 24
Ecoregion: Eastern Corn Belt Plains Drainage Area (sq.miles): 7.152 Gradient (ft/mile): 4.58

Sample Information

SampleNumber: AB18382 EventID: 14T122 Sample MediumCollected: Fish Community + Water + Macro
SampleDate: 07/15/2014 SurveyCrewChief: KJC SampleTime: 11:30:00 AM HydroLabNumber: Q6
WaterFlowType: Run WaterAppearance: Clear SkyConditions: 3 - Partly AirTemperature: 4 - 61-75
WindDirection: 27 - West (270 degrees) WindStrength: 1 - Light
DissolvedO2 (mg/l): 8.61 pH: 8.2 WaterTemp(C): 21.02 SpecificConductivity (uS/cm): 1470 Turbidity (NTU): 5.35
SpecialNotes:

ElectrofishingEquipment: Backpack Voltage: 150 Avg.StreamWidth(m): 4 DistanceFished (m): 70
SecondsFished: 351 WaterDepthAvg (m): .2 WaterDepthMax (m): .4 TimeAtSite: 01:00
BridgeInReach: [] ReachRepresentative: [x] WhyReachNotRepresentative:
SpecialComments: All fish processed at site.; 62.3% catch creek chub

Habitat Information

TotalScore 25 SubstrateScore 5 InstreamCover Score 3 ChannelMorphologyScore 7
RiparianZoneBankErosion Score 3 Pool/GlideQualityScore(max12): 3 Riffle/RunQualityScore(max8): 0
GradientScore 4 %Pool: # \$ %Riffle: # \$ %Run: 100 %Glide: # \$ CanopyCover >85%-
SubjectiveRating: AestheticRating: NOTES: "NEW RECORD" PctOpen: Open

Fish Community Index of Biotic Integrity (IBI) Information

Calibration Used: Eastern Corn Belt Plains

Table with 4 columns: Metric, Actual Observation, Metric Score, and another Metric Score. Rows include SpeciesCount, Darter/Madtom/SculpinSpeciesCount, %HeadwaterIndividuals, MinnowSpeciesCount, SensitiveSpeciesCount, %TolerantIndividuals, %OmnivoreIndividuals, %InsectivoreIndividuals, %PioneerIndividuals, Total # of Individuals (CPUE), %SimpleLithophilicInd., %Ind.withDELT.

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

Table with 2 columns: Total IBI Score (min 0, max 60) and value 18.

SampleNumber: AB18382

EventID: 14T122

LSite: WMI-03-0003

County: Blackford

StreamName: Big Lick Creek

LocationDescription: CR 700 E

Common Name	Individual Fish Count	Deformities	Eroded Fins	Lesions	Tumors	Multiple Anomalies
Bluntnose Minnow	10					
Creek Chub	38					
Green Sunfish	2					
Johnny Darter	5					
Silverjaw Minnow	6					



Indiana Department of Environmental Management Fish Community Assessments

Site Information

SubBasin: Mississinewa **14 digit HUC:** 05120103030030 **LSite:** WMI-04-0018
Site: Rees Ditch **Location:** CR 350 E **County:** Delaware
Latitude: 40.335667 **Longitude:** -85.323433 **IASNat Region:** 5C **Topo:** D-65 **Segment:** 39
Ecoregion: Eastern Corn Belt Plains **Drainage Area (sq.miles):** 13.065 **Gradient (ft/mile):** 5.659

Sample Information

SampleNumber: AB18943 **EventID:** 14T123.5 **Sample MediumCollected:** Fish Community + Water
SampleDate: 09/08/2014 **SurveyCrewChief:** SLS **SampleTime:** 01:10:00 PM **HydroLabNumber:** Q4
WaterFlowType: Pool **WaterAppearance:** Clear **SkyConditions:** 1 - Clear **AirTemperature:** 4 - 61-75
WindDirection: 0 - North (0 degrees) **WindStrength:** 3 - Moderate
DissolvedO2 (mg/l): 7.15 **pH:** 7.62 **WaterTemp(°C):** 17.13 **SpecificConductivity (µS/cm):** 701 **Turbidity (NTU):** 3.77
SpecialNotes:

ElectrofishingEquipment: Backpack **Voltage:** 250 **Avg.StreamWidth(m):** 11 **DistanceFished (m):** 120
SecondsFished: 1124 **WaterDepthAvg (m):** .4 **WaterDepthMax (m):** .7 **TimeAtSite:** 01:30
BridgeInReach: **ReachRepresentative:** **WhyReachNotRepresentative:**
SpecialComments: Stream little higher than original visit

Habitat Information

TotalScore (max100): 55 **SubstrateScore (max20):** 17 **InstreamCover Score (max20):** 11 **ChannelMorphologyScore (max20):** 13
RiparianZoneBankErosion Score(max10): 4 **Pool/GlideQualityScore(max12):** 4 **Riffle/RunQualityScore(max8):** 0
GradientScore (max10): 6 **%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: Eastern Corn Belt Plains

	<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:	16	5	%TolerantIndividuals:	48.55	3
Darter/Madtom/SculpinSpeciesCount:	6	5	%OmnivoreIndividuals:	18.12	5
%HeadwaterIndividuals:	3.62	1	%InsectivoreIndividuals:	72.46	5
MinnnowSpeciesCount:	5	3	%PioneerIndividuals:	57.25	1
SensitiveSpeciesCount:	4	3	Total # of Individuals (CPUE):	138	3
			%SimpleLithophilicInd.:	10.14	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: AB18943

EventID: 14T123.5

LSite: WMI-04-0018

County: Delaware

StreamName: Rees Ditch

LocationDescription: CR 350 E

Common Name	Individual Fish Count	Deformities	Eroded Fins	Lesions	Tumors	Multiple Anomalies
Blackside Darter	1					
Bluegill	2					
Bluntnose Minnow	23					
Common Carp	2					
Creek Chub	7					
Green Sunfish	33					
Greenside Darter	2					
Johnny Darter	5					
Longear Sunfish	34					
Mottled Sculpin	5					
Orangethroat Darter	11					
Rainbow Darter	2					
Redfin Shiner	2					
Rock Bass	6					
Spotfin Shiner	1					
Yellow Bullhead	2					



**Indiana Department of Environmental Management
Fish Community Assessments**

Site Information

SubBasin: Mississinewa	14 digit HUC: 05120103030030	LSite: WMI-04-0018
Site: Rees Ditch	Location: CR 350 E	County: Delaware
Latitude: 40.335667	Longitude: -85.323433	IASNat Region: 5C
Ecoregion: Eastern Corn Belt Plains	Drainage Area (sq.miles): 13.065	Topo: D-65 Segment: 39
		Gradient (ft/mile): 5.659

Sample Information

SampleNumber: AB18381	EventID: 14T123	Sample MediumCollected: Fish Community + Water + Macro
SampleDate: 07/15/2014	SurveyCrewChief: KJC	SampleTime: 02:30:00 PM
WaterFlowType: Pool	WaterAppearance: Clear	HydroLabNumber: Q6
WindDirection: 27 - West (270 degrees)		AirTemperature: 4 - 61-75
DissolvedO2 (mg/l): 5.35	pH: 7.71	WaterTemp(°C): 20.08
		SpecificConductivity (µS/cm): 703
SpecialNotes:		Turbidity (NTU):

ElectrofishingEquipment: Backpack	Voltage: 200	Avg.StreamWidth(m): 8	DistanceFished (m): 120
SecondsFished: 987	WaterDepthAvg (m): .3	WaterDepthMax (m): .5	TimeAtSite: 01:00
BridgeInReach: <input type="checkbox"/>	ReachRepresentative: <input checked="" type="checkbox"/>	WhyReachNotRepresentative:	
SpecialComments:			

Habitat Information

TotalScore (max100): 43	SubstrateScore (max20): 12	InstreamCover Score (max20): 6	ChannelMorphologyScore (max20): 10
RiparianZoneBankErosion Score(max10): 4	Pool/GlideQualityScore(max12): 5	Riffle/RunQualityScore(max8): 0	
GradientScore (max10): 6	%Pool: #	%Riffle: #	%Run: 100
	%Glide: #	CanopyCover PctOpen: 10%-<30%	
SubjectiveRating:	AestheticRating:	NOTES: "NEW RECORD"	

Fish Community Index of Biotic Integrity (IBI) Information

Calibration Used: Eastern Corn Belt Plains

	<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:	41.56	3
Darter/Madtom/SculpinSpeciesCount:	6	5	%OmnivoreIndividuals:	1.3	5
%HeadwaterIndividuals:	14.29	1	%InsectivoreIndividuals:	88.31	5
MinnnowSpeciesCount:	2	1	%PioneerIndividuals:	44.16	3
SensitiveSpeciesCount:	5	5	Total # of Individuals (CPUE):	77	1
			%SimpleLithophilicInd.:	20.78	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)	40
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SampleNumber: AB18381

EventID: 14T123

LSite: WMI-04-0018

County: Delaware

StreamName: Rees Ditch

LocationDescription: CR 350 E

Common Name	Individual Fish Count	Deformities	Eroded Fins	Lesions	Tumors	Multiple Anomalies
Bluntnose Minnow	1					
Creek Chub	4					
Dusky Darter	1					
Green Sunfish	25					
Greenside Darter	3					
Johnny Darter	4					
Longear Sunfish	3					
Mottled Sculpin	11					
Rainbow Darter	15					
Rock Bass	4					
Tadpole Madtom	4					
Yellow Bullhead	2					

SampleNumber: AB18380

EventID: 14T124

LSite: WMI-04-0016

County: Delaware

StreamName: Bosman Ditch

LocationDescription: CR 900 N

Common Name	Individual Fish Count	Deformities	Eroded Fins	Lesions	Tumors	Multiple Anomalies
Bluntnose Minnow	2	1				
Central Stoneroller	5					
Common Carp	1					
Creek Chub	47					
Creek Chubsucker	6					
Green Sunfish	11					
Johnny Darter	5					
Longear Sunfish	3					
Mottled Sculpin	17					
Rainbow Darter	7					
Silverjaw Minnow	1					
Striped Shiner	1					
Western Blacknose Dace	2					
White Sucker	3					
Yellow Bullhead	2					



Indiana Department of Environmental Management Fish Community Assessments

Site Information

SubBasin: Mississinewa **14 digit HUC:** 05120103030020 **LSite:** WMI-04-0017
Site: Mississinewa River **Location:** CR 371 E **County:** Delaware
Latitude: 40.318742 **Longitude:** -85.319518 **IASNat Region:** 5C **Topo:** D-65 **Segment:** 39
Ecoregion: Eastern Corn Belt Plains **Drainage Area (sq.miles):** 310.689 **Gradient (ft/mile):** 2.391

Sample Information

SampleNumber: AB18379 **EventID:** 14T125 **Sample MediumCollected:** Fish Community + Water + Macro
SampleDate: 08/12/2014 **SurveyCrewChief:** KAG **SampleTime:** 11:30:00 AM **HydroLabNumber:** Q6
WaterFlowType: Run **WaterAppearance:** Murky **SkyConditions:** 5 - Mist **AirTemperature:** 4 - 61-75
WindDirection: 27 - West (270 degrees) **WindStrength:** 1 - Light
DissolvedO2 (mg/l): 6.19 **pH:** 8.22 **WaterTemp(°C):** 22.64 **SpecificConductivity (µS/cm):** 684 **Turbidity (NTU):** 21.8
SpecialNotes:

ElectrofishingEquipment: Canoe **Voltage:** 300 **Avg.StreamWidth(m):** 28 **DistanceFished (m):** 420
SecondsFished: 3600 **WaterDepthAvg (m):** .4 **WaterDepthMax (m):** .7 **TimeAtSite:** 03:00
BridgeInReach: **ReachRepresentative:** **WhyReachNotRepresentative:**
SpecialComments:

Habitat Information

TotalScore (max100): 52 **SubstrateScore (max20):** 11 **InstreamCover Score (max20):** 9 **ChannelMorphologyScore (max20):** 14
RiparianZoneBankErosion Score(max10): 6 **Pool/GlideQualityScore(max12):** 4 **Riffle/RunQualityScore(max8):** 0
GradientScore (max10): 8 **%Pool: #** \$ **%Riffle: #** \$ **%Run:** 100 **%Glide: #** \$ **CanopyCover PctOpen:** 55%-<85%
SubjectiveRating: **AestheticRating:** **NOTES:** "NEW RECORD"

Fish Community Index of Biotic Integrity (IBI) Information

Calibration Used: Eastern Corn Belt Plains

	<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:	31	5	%TolerantIndividuals:	24.38	5
DarterSpeciesCount:	7	5	%OmnivoreIndividuals:	13.22	5
SunfishSpeciesCount:	5	5	%InsectivoreIndividuals:	77.48	5
SuckerSpeciesCount:	4	5	%CarnivoreIndividuals:	7.64	3
SensitiveSpeciesCount:	15	5	Total # of Individuals (CPUE):	484	5
			%SimpleLithophilicInd.:	16.12	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)	54
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SampleNumber: AB18379

EventID: 14T125

LSite: WMI-04-0017

County: Delaware

StreamName: Mississinewa River

LocationDescription: CR 371 E

Common Name	Individual Fish Count	Deformities	Eroded Fins	Lesions	Tumors	Multiple Anomalies
Black Redhorse	13					
Bluegill	2					
Bluntnose Minnow	61					
Brindled Madtom	3					
Central Stoneroller	4					
Common Carp	3					
Creek Chub	4					
Dusky Darter	1					
Freshwater Drum	1					
Golden Redhorse	5					
Green Sunfish	49					
Greenside Darter	23					
Johnny Darter	10					
Logperch	11					
Longear Sunfish	164					
Mottled Sculpin	1					
Northern Hog Sucker	4					
Orangespotted Sunfish	1					
Orangethroat Darter	5					
Rainbow Darter	32					
Redfin Shiner	18					
Rock Bass	21					
Sand Shiner	2					
Silver Redhorse	2					
Slenderhead Darter	3					
Smallmouth Bass	15					
Spotfin Shiner	14					
Spotted Bass	1					
Steelcolor Shiner	8					
Stonecat	1					
Suckermouth Minnow	2					



Indiana Department of Environmental Management Fish Community Assessments

Site Information

SubBasin: Mississinewa **14 digit HUC:** 05120103030040 **LSite:** WMI-04-0019
Site: Mississinewa River **Location:** Romy Street **County:** Delaware
Latitude: 40.338430 **Longitude:** -85.354742 **IASNat Region:** 5C **Topo:** D-65 **Segment:** 39
Ecoregion: Eastern Corn Belt Plains **Drainage Area (sq.miles):** 334.545 **Gradient (ft/mile):** 6.779

Sample Information

SampleNumber: AB18367 **EventID:** 14T126 **Sample MediumCollected:** Fish Community + Water + Macro
SampleDate: 08/12/2014 **SurveyCrewChief:** KAG **SampleTime:** 03:30:00 PM **HydroLabNumber:** Q6
WaterFlowType: Run **WaterAppearance:** Murky **SkyConditions:** 4 - Cloudy **AirTemperature:** 5 - 76-85
WindDirection: 0 - North (0 degrees) **WindStrength:** 3 - Moderate
DissolvedO2 (mg/l): 7.51 **pH:** 8.36 **WaterTemp(°C):** 22.79 **SpecificConductivity (µS/cm):** 655 **Turbidity (NTU):** 46.7
SpecialNotes:

ElectrofishingEquipment: Canoe **Voltage:** 300 **Avg.StreamWidth(m):** 25 **DistanceFished (m):** 375
SecondsFished: 2929 **WaterDepthAvg (m):** .6 **WaterDepthMax (m):** 1.5 **TimeAtSite:** 03:00
BridgeInReach: **ReachRepresentative:** **WhyReachNotRepresentative:**
SpecialComments: w/ 1.5 kVa

Habitat Information

TotalScore (max100): 56 **SubstrateScore (max20):** 14 **InstreamCover Score (max20):** 5 **ChannelMorphologyScore (max20):** 14
RiparianZoneBankErosion Score(max10): 7 **Pool/GlideQualityScore(max12):** 6 **Riffle/RunQualityScore(max8):** 0
GradientScore (max10): 10 **%Pool:** # **%Riffle:** # **%Run:** 100 **%Glide:** # **CanopyCover PctOpen:** 55%-<85%
SubjectiveRating: **AestheticRating:** **NOTES:** "NEW RECORD"

Fish Community Index of Biotic Integrity (IBI) Information

Calibration Used: Eastern Corn Belt Plains

	<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:	29	5	%TolerantIndividuals:	15.27
DarterSpeciesCount:	6	5	%OmnivoreIndividuals:	7.56
SunfishSpeciesCount:	5	5	%InsectivoreIndividuals:	78.94
SuckerSpeciesCount:	6	5	%CarnivoreIndividuals:	9
SensitiveSpeciesCount:	13	5	Total # of Individuals (CPUE):	622
			%SimpleLithophilicInd.:	29.74
			%Ind.withDELT:	0

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)	56
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SampleNumber: AB18367

EventID: 14T126

LSite: WMI-04-0019

County: Delaware

StreamName: Mississinewa River

LocationDescription: Romy Street

Common Name	Individual Fish Count	Deformities	Eroded Fins	Lesions	Tumors	Multiple Anomalies
Black Redhorse	51					
Bluegill	5					
Bluntnose Minnow	34					
Central Stoneroller	21					
Common Carp	10					
Creek Chub	7					
Golden Redhorse	40					
Green Sunfish	41					
Greenside Darter	35					
Johnny Darter	5					
Logperch	4					
Longear Sunfish	171					
Mimic Shiner	2					
Mottled Sculpin	1					
Northern Hog Sucker	15					
Orangethroat Darter	44					
Rainbow Darter	20					
Redfin Shiner	5					
Rock Bass	33					
Silver Redhorse	1					
Slenderhead Darter	2					
Smallmouth Bass	21					
Spotfin Shiner	27					
Spotted Bass	2					
Spotted Sucker	5					
Steelcolor Shiner	11					
Stonecat	2					
White Crappie	4					
White Sucker	3					



Indiana Department of Environmental Management Fish Community Assessments

Site Information

SubBasin: Mississinewa	14 digit HUC: 05120103030040	LSite: WMI-04-0009
Site: Dodge Creek	Location: Eaton-Wheeling Pike	County: Delaware
Latitude: 40.349757	Longitude: -85.416268	IASNat Region: 5C
Ecoregion: Eastern Corn Belt Plains	Drainage Area (sq.miles): 1.716	Topo: D-64 Segment: 39
		Gradient (ft/mile): 16.949

Sample Information

SampleNumber: AB18945	EventID: 14T128.5	Sample MediumCollected: Fish Community + Water
SampleDate: 09/08/2014	SurveyCrewChief: SLS	SampleTime: 02:40:00 PM
WaterFlowType: Pool	WaterAppearance: Clear	HydroLabNumber: Q6
WindDirection: 0 - North (0 degrees)		AirTemperature: 5 - 76-85
DissolvedO2 (mg/l): 8.7	pH: 7.74	WaterTemp(°C): 22.64
		SpecificConductivity (µS/cm): 511
SpecialNotes:		Turbidity (NTU): 6.28

ElectrofishingEquipment: Backpack	Voltage: 250	Avg.StreamWidth(m): 4	DistanceFished (m): 50
SecondsFished: 409	WaterDepthAvg (m): .1	WaterDepthMax (m): .3	TimeAtSite: 01:00
BridgeInReach: <input type="checkbox"/>	ReachRepresentative: <input checked="" type="checkbox"/>	WhyReachNotRepresentative:	
SpecialComments:	65.71% catch Central Stoneroller		

Habitat Information

TotalScore (max100): 49	SubstrateScore (max20): 13	InstreamCover Score (max20): 7	ChannelMorphologyScore (max20): 9
RiparianZoneBankErosion Score(max10): 6	Pool/GlideQualityScore(max12): 4	Riffle/RunQualityScore(max8): 0	
GradientScore (max10): 10	%Pool: 40	%Riffle: 10	%Run: 50
		%Glide: 0	CanopyCover PctOpen: >85%-Open
SubjectiveRating:	AestheticRating:	NOTES: "NEW RECORD"	

Fish Community Index of Biotic Integrity (IBI) Information

Calibration Used: Eastern Corn Belt Plains

	<u>Actual Observation</u>	<u>Metric Score</u>		<u>Actual Observation</u>	<u>Metric Score</u>
SpeciesCount:	16	5	%TolerantIndividuals:	23.63	5
Darter/Madtom/SculpinSpeciesCount:	2	5	%OmnivoreIndividuals:	5.48	5
%HeadwaterIndividuals:	0.29	1	%InsectivoreIndividuals:	14.12	1
MinnnowSpeciesCount:	6	5	%PioneerIndividuals:	91.64	1
SensitiveSpeciesCount:	1	3	Total # of Individuals (CPUE):	347	5
			%SimpleLithophilicInd.:	6.92	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: AB18945

EventID: 14T128.5

LSite: WMI-04-0009

County: Delaware

StreamName: Dodge Creek

LocationDescription: Eaton-Wheeling Pike

Common Name	Individual Fish Count	Deformities	Eroded Fins	Lesions	Tumors	Multiple Anomalies
Blackstripe Topminnow	2					
Bluegill	5					
Bluntnose Minnow	8					
Central Stoneroller	228					
Common Carp	6					
Creek Chub	50					
Green Sunfish	10					
Largemouth Bass	1					
Longear Sunfish	5					
Orangethroat Darter	18					
Silverjaw Minnow	4					
Tadpole Madtom	1					
Western Blacknose Dace	1					
Western Mosquitofish	1					
White Sucker	5					
Yellow Bullhead	2					



Indiana Department of Environmental Management Fish Community Assessments

Site Information

SubBasin: Mississinewa **14 digit HUC:** 05120103030040 **LSite:** WMI-04-0009
Site: Dodge Creek **Location:** Eaton-Wheeling Pike **County:** Delaware
Latitude: 40.349757 **Longitude:** -85.416268 **IASNat Region:** 5C **Topo:** D-64 **Segment:** 39
Ecoregion: Eastern Corn Belt Plains **Drainage Area (sq.miles):** 1.716 **Gradient (ft/mile):** 16.949

Sample Information

SampleNumber: AB18378 **EventID:** 14T128 **Sample MediumCollected:** Fish Community + Water + Macro
SampleDate: 07/15/2014 **SurveyCrewChief:** KJC **SampleTime:** 04:20:00 PM **HydroLabNumber:** Q6
WaterFlowType: Run **WaterAppearance:** Murky **SkyConditions:** 2 - Scattered **AirTemperature:** 4 - 61-75
WindDirection: 27 - West (270 degrees) **WindStrength:** 1 - Light
DissolvedO2 (mg/l): 8.79 **pH:** 8.27 **WaterTemp(°C):** 24.32 **SpecificConductivity (µS/cm):** 475 **Turbidity (NTU):**
SpecialNotes:

ElectrofishingEquipment: Backpack **Voltage:** 175 **Avg.StreamWidth(m):** 3 **DistanceFished (m):** 50
SecondsFished: 354 **WaterDepthAvg (m):** .2 **WaterDepthMax (m):** .3 **TimeAtSite:** 01:30
BridgeInReach: **ReachRepresentative:** **WhyReachNotRepresentative:**
SpecialComments:

Habitat Information

TotalScore (max100): 43 **SubstrateScore (max20):** 11 **InstreamCover Score (max20):** 4 **ChannelMorphologyScore (max20):** 11
RiparianZoneBankErosion Score(max10): 4 **Pool/GlideQualityScore(max12):** 3 **Riffle/RunQualityScore(max8):** 0
GradientScore (max10): 10 **%Pool: #** **%Riffle:** 20 **%Run:** 80 **%Glide: #** **CanopyCover PctOpen:** >85%-Open
SubjectiveRating: **AestheticRating:** **NOTES:** "NEW RECORD"

Fish Community Index of Biotic Integrity (IBI) Information

Calibration Used: Eastern Corn Belt Plains

	<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:	65.9
Darter/Madtom/SculpinSpeciesCount:	1	5	%OmnivoreIndividuals:	12.14
%HeadwaterIndividuals:	0.58	1	%InsectivoreIndividuals:	16.76
MinnnowSpeciesCount:	4	5	%PioneerIndividuals:	87.28
SensitiveSpeciesCount:	2	5	Total # of Individuals (CPUE):	173
			%SimpleLithophilicInd.:	9.25
			%Ind.withDELT:	0

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: AB18378

EventID: 14T128

LSite: WMI-04-0009

County: Delaware

StreamName: Dodge Creek

LocationDescription: Eaton-Wheeling Pike

Common Name	Individual Fish Count	Deformities	Eroded Fins	Lesions	Tumors	Multiple Anomalies
Bluegill	1					
Bluntnose Minnow	21					
Central Stoneroller	38					
Creek Chub	85					
Green Sunfish	7					
Longear Sunfish	5					
Rainbow Darter	15					
Western Blacknose Dace	1					



Indiana Department of Environmental Management Fish Community Assessments

Site Information

SubBasin: Mississinewa **14 digit HUC:** 05120103030050 **LSite:** WMI-04-0010
Site: Hedgeland Ditch **Location:** CR 1070 N **County:** Delaware
Latitude: 40.345359 **Longitude:** -85.464116 **IASNat Region:** 5C **Topo:** D-64 **Segment:** 39
Ecoregion: Eastern Corn Belt Plains **Drainage Area (sq.miles):** 12.323 **Gradient (ft/mile):** 4.857

Sample Information

SampleNumber: AB18377 **EventID:** 14T129 **Sample MediumCollected:** Fish Community + Water + Macro
SampleDate: 08/13/2014 **SurveyCrewChief:** KAG **SampleTime:** 01:35:00 PM **HydroLabNumber:** Q6
WaterFlowType: Run **WaterAppearance:** Clear **SkyConditions:** 1 - Clear **AirTemperature:** 4 - 61-75
WindDirection: 27 - West (270 degrees) **WindStrength:** 1 - Light
DissolvedO2 (mg/l): 5.97 **pH:** 8.01 **WaterTemp(°C):** 18.13 **SpecificConductivity (µS/cm):** 747 **Turbidity (NTU):** 3.12
SpecialNotes:

ElectrofishingEquipment: Backpack **Voltage:** 150 **Avg.StreamWidth(m):** 2 **DistanceFished (m):** 50
SecondsFished: 391 **WaterDepthAvg (m):** .1 **WaterDepthMax (m):** .2 **TimeAtSite:** 01:00
BridgeInReach: **ReachRepresentative:** **WhyReachNotRepresentative:**
SpecialComments:

Habitat Information

TotalScore (max100): 38 **SubstrateScore (max20):** 10 **InstreamCover Score (max20):** 5 **ChannelMorphologyScore (max20):** 9
RiparianZoneBankErosion Score(max10): 4 **Pool/GlideQualityScore(max12):** 4 **Riffle/RunQualityScore(max8):** 0
GradientScore (max10): 6 **%Pool:** 5 **%Riffle:** 10 **%Run:** 85 **%Glide:** # \$ **CanopyCover PctOpen:** 10%-<30%
SubjectiveRating: **AestheticRating:** **NOTES:** "NEW RECORD"

Fish Community Index of Biotic Integrity (IBI) Information

Calibration Used: Eastern Corn Belt Plains

	<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:	42.31	3
Darter/Madtom/SculpinSpeciesCount:	1	1	%OmnivoreIndividuals:	0	5
%HeadwaterIndividuals:	11.54	1	%InsectivoreIndividuals:	26.92	3
MinnnowSpeciesCount:	2	1	%PioneerIndividuals:	46.15	3
SensitiveSpeciesCount:	0	1	Total # of Individuals (CPUE):	26	1
			%SimpleLithophilicInd.:	26.92	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)	28
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SampleNumber: AB18377

EventID: 14T129

LSite: WMI-04-0010

County: Delaware

StreamName: Hedgeland Ditch

LocationDescription: CR 1070 N

Common Name	Individual Fish Count	Deformities	Eroded Fins	Lesions	Tumors	Multiple Anomalies
Creek Chub	8					
Grass Pickerel	11					
Orangethroat Darter	4					
Western Blacknose Dace	3					



Indiana Department of Environmental Management Fish Community Assessments

Site Information

SubBasin: Mississinewa **14 digit HUC:** 05120103030050 **LSite:** WMI-04-0011
Site: Pike Creek **Location:** Eaton-Wheeling Pike **County:** Delaware
Latitude: 40.363154 **Longitude:** -85.457153 **IASNat Region:** 5C **Topo:** D-64 **Segment:** 39
Ecoregion: Eastern Corn Belt Plains **Drainage Area (sq.miles):** 21.311 **Gradient (ft/mile):** 14.044

Sample Information

SampleNumber: AB18376 **EventID:** 14T130 **Sample MediumCollected:** Fish Community + Water + Macro
SampleDate: 08/11/2014 **SurveyCrewChief:** KAG **SampleTime:** 03:50:00 PM **HydroLabNumber:** Q6
WaterFlowType: Run **WaterAppearance:** Clear **SkyConditions:** 3 - Partly **AirTemperature:** 5 - 76-85
WindDirection: 27 - West (270 degrees) **WindStrength:** 1 - Light
DissolvedO2 (mg/l): 7.52 **pH:** 8.13 **WaterTemp(°C):** 22.47 **SpecificConductivity (µS/cm):** 680 **Turbidity (NTU):** 6.3
SpecialNotes:

ElectrofishingEquipment: Backpack **Voltage:** 250 **Avg.StreamWidth(m):** 4 **DistanceFished (m):** 60
SecondsFished: 742 **WaterDepthAvg (m):** .25 **WaterDepthMax (m):** .6 **TimeAtSite:** 01:30
BridgeInReach: **ReachRepresentative:** **WhyReachNotRepresentative:**
SpecialComments:

Habitat Information

TotalScore (max100): 68 **SubstrateScore (max20):** 15 **InstreamCover Score (max20):** 11 **ChannelMorphologyScore (max20):** 15
RiparianZoneBankErosion Score(max10): 6 **Pool/GlideQualityScore(max12):** 6 **Riffle/RunQualityScore(max8):** 5
GradientScore (max10): 10 **%Pool:** 10 **%Riffle:** 20 **%Run:** 70 **%Glide:** 0 **CanopyCover PctOpen:** 55%-<85%
SubjectiveRating: **AestheticRating:** **NOTES:** "NEW RECORD"

Fish Community Index of Biotic Integrity (IBI) Information

Calibration Used: Eastern Corn Belt Plains

	<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:	10	3	%TolerantIndividuals:	25	3
DarterSpeciesCount:	2	3	%OmnivoreIndividuals:	0.93	5
SunfishSpeciesCount:	2	3	%InsectivoreIndividuals:	56.02	5
SuckerSpeciesCount:	1	1	%CarnivoreIndividuals:	2.31	1
SensitiveSpeciesCount:	4	3	Total # of Individuals (CPUE):	216	3
			%SimpleLithophilicInd.:	16.2	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: AB18376

EventID: 14T130

LSite: WMI-04-0011

County: Delaware

StreamName: Pike Creek

LocationDescription: Eaton-Wheeling Pike

Common Name	Individual Fish Count	Deformities	Eroded Fins	Lesions	Tumors	Multiple Anomalies
Central Stoneroller	43					
Creek Chub	45					
Grass Pickerel	4					
Green Sunfish	7					
Greenside Darter	26					
Longear Sunfish	5					
Mottled Sculpin	50					
Rainbow Darter	33					
Smallmouth Bass	1					
White Sucker	2					



Site Information

SubBasin: Mississinewa 14 digit HUC: 05120103030050 LSite: WMI-04-0012
 Site: Mississinewa River Location: CR 364 W County: Delaware
 Latitude: 40.372461 Longitude: -85.456435 IASNat Region: 5C Topo: D-64 Segment: 39
 Ecoregion: Eastern Corn Belt Plains Drainage Area (sq.miles): 424.403 Gradient (ft/mile): 3.063

Sample Information

SampleNumber: AB18375 EventID: 14T131 Sample MediumCollected: Fish Community + Water + Macro
 SampleDate: 08/13/2014 SurveyCrewChief: KAG SampleTime: 08:50:00 AM HydroLabNumber: Q6
 WaterFlowType: Run WaterAppearance: Murky SkyConditions: 1 - Clear AirTemperature: 4 - 61-75
 WindDirection: 27 - West (270 degrees) WindStrength: 0 - Calm
 DissolvedO2 (mg/l): 5.68 pH: 8.11 WaterTemp(°C): 19.24 SpecificConductivity (µS/cm): 782 Turbidity (NTU): 20.6

SpecialNotes:

ElectrofishingEquipment: Canoe Voltage: 200 Avg.StreamWidth(m): 20 DistanceFished (m): 300
 SecondsFished: 2920 WaterDepthAvg (m): 1.5 WaterDepthMax (m): 3 TimeAtSite: 03:00
 BridgeInReach: ReachRepresentative: WhyReachNotRepresentative:

SpecialComments:

Habitat Information

TotalScore (max100): 58 SubstrateScore (max20): 16 InstreamCover Score (max20): 4 ChannelMorphologyScore (max20): 14
 RiparianZoneBankErosion Score(max10): 8 Pool/GlideQualityScore(max12): 8 Riffle/RunQualityScore(max8): 0
 GradientScore (max10): 8 %Pool: # %Riffle: # %Run: 100 %Glide: # CanopyCover PctOpen: 55%<85%
 SubjectiveRating: AestheticRating: NOTES: "NEW RECORD"

Fish Community Index of Biotic Integrity (IBI) Information

Calibration Used: Eastern Corn Belt Plains

	<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:	21	5	%TolerantIndividuals:	50.73 1
DarterSpeciesCount:	2	1	%OmnivoreIndividuals:	4.88 5
SunfishSpeciesCount:	4	5	%InsectivoreIndividuals:	87.8 5
SuckerSpeciesCount:	5	5	%CarnivoreIndividuals:	6.34 3
SensitiveSpeciesCount:	7	3	Total # of Individuals (CPUE):	205 1
			%SimpleLithophilicInd.:	20.49 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)	42
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SampleNumber: AB18375

EventID: 14T131

LSite: WMI-04-0012

County: Delaware

StreamName: Mississinewa River

LocationDescription: CR 364 W

Common Name	Individual Fish Count	Deformities	Eroded Fins	Lesions	Tumors	Multiple Anomalies
Black Redhorse	17					
Bluegill	1					
Bluntnose Minnow	4					
Channel Catfish	4					
Common Carp	2					
Creek Chub	2					
Freshwater Drum	2					
Golden Redhorse	15					
Grass Pickerel	2					
Green Sunfish	85					
Johnny Darter	1					
Longear Sunfish	50					
Northern Hog Sucker	5					
Rainbow Darter	2					
River Carpsucker	1					
Rock Bass	2					
Smallmouth Bass	4					
Spotfin Shiner	1					
Spotted Bass	1					
White Sucker	3					
Yellow Bullhead	1					



Indiana Department of Environmental Management

Fish Community Assessments

Site Information

SubBasin: Mississinewa **14 digit HUC:** 05120103040050 **LSite:** WMI-03-0009
Site: Big Lick Creek **Location:** CR 1275 N **County:** Delaware
Latitude: 40.377117 **Longitude:** -85.447868 **IASNat Region:** 5C **Topo:** D-41 **Segment:** 24
Ecoregion: Eastern Corn Belt Plains **Drainage Area (sq.miles):** 76.171 **Gradient (ft/mile):** 4.092

Sample Information

SampleNumber: AB18374 **EventID:** 14T132 **Sample MediumCollected:** Fish Community + Water + Macro
SampleDate: 08/13/2014 **SurveyCrewChief:** KAG **SampleTime:** 11:40:00 AM **HydroLabNumber:** Q6
WaterFlowType: Run **WaterAppearance:** Clear **SkyConditions:** 1 - Clear **AirTemperature:** 4 - 61-75
WindDirection: 0 - North (0 degrees) **WindStrength:** 0 - Calm
DissolvedO2 (mg/l): 8.03 **pH:** 8.18 **WaterTemp(°C):** 18.09 **SpecificConductivity (µS/cm):** 1234 **Turbidity (NTU):** 5.44
SpecialNotes:

ElectrofishingEquipment: Longline **Voltage:** 250 **Avg.StreamWidth(m):** 10 **DistanceFished (m):** 150
SecondsFished: 843 **WaterDepthAvg (m):** .6 **WaterDepthMax (m):** 1 **TimeAtSite:** 01:30
BridgeInReach: **ReachRepresentative:** **WhyReachNotRepresentative:**
SpecialComments:

Habitat Information

TotalScore (max100): 47 **SubstrateScore (max20):** 13 **InstreamCover Score (max20):** 5 **ChannelMorphologyScore (max20):** 11
RiparianZoneBankErosion Score(max10): 6 **Pool/GlideQualityScore(max12):** 6 **Riffle/RunQualityScore(max8):** 0
GradientScore (max10): 6 **%Pool: #** \$ **%Riffle: #** \$ **%Run:** 100 **%Glide: #** \$ **CanopyCover PctOpen:** 55%-<85%
SubjectiveRating: **AestheticRating:** **NOTES:** "NEW RECORD"

Fish Community Index of Biotic Integrity (IBI) Information

Calibration Used: Eastern Corn Belt Plains

	<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:	38.84	3
DarterSpeciesCount:	2	3	%OmnivoreIndividuals:	9.09	5
SunfishSpeciesCount:	5	5	%InsectivoreIndividuals:	86.78	5
SuckerSpeciesCount:	3	3	%CarnivoreIndividuals:	4.13	1
SensitiveSpeciesCount:	5	3	Total # of Individuals (CPUE):	121	1
			%SimpleLithophilicInd.:	11.57	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: AB18374

EventID: 14T132

LSite: WMI-03-0009

County: Delaware

StreamName: Big Lick Creek

LocationDescription: CR 1275 N

Common Name	Individual Fish Count	Deformities	Eroded Fins	Lesions	Tumors	Multiple Anomalies
Blackspotted Topminnow	1					
Bluegill	10					
Green Sunfish	37					
Highfin Carpsucker	2					
Johnny Darter	7					
Longear Sunfish	42					
Orangespotted Sunfish	2					
Rainbow Darter	4					
Rock Bass	2					
Smallmouth Bass	3					
Spotted Sucker	1					
White Sucker	9					
Yellow Bullhead	1					

SampleNumber: AB18373

EventID: 14T134

LSite: WMI-03-0005

County: Blackford

StreamName: Townsend Lucas Ditch

LocationDescription: CR 300 S

Common Name	Individual Fish Count	Deformities	Eroded Fins	Lesions	Tumors	Multiple Anomalies
Bluegill	2					
Bluntnose Minnow	8					
Central Stoneroller	105					
Creek Chub	40					
Green Sunfish	13					
Johnny Darter	7					
Rainbow Darter	1					
Spotted Bass	9					
Steelcolor Shiner	1					
Suckermouth Minnow	6					
White Sucker	37					



Indiana Department of Environmental Management
Fish Community Assessments

Site Information

SubBasin: Mississinewa 14 digit HUC: 05120103040040 LSite: WMI-03-0010
Site: Little Joe Creek Location: CR 300 S County: Blackford
Latitude: 40.407111 Longitude: -85.393327 IASNat Region: 5C Topo: D-41 Segment: 24
Ecoregion: Eastern Corn Belt Plains Drainage Area (sq.miles): 4.393 Gradient (ft/mile): 15.163

Sample Information

SampleNumber: AB18944 EventID: 14T135.5 Sample MediumCollected: Fish Community + Water
SampleDate: 09/08/2014 SurveyCrewChief: KJC SampleTime: 04:05:00 PM HydroLabNumber: Q4
WaterFlowType: Run WaterAppearance: Clear SkyConditions: 1 - Clear AirTemperature: 5 - 76-85
WindDirection: 27 - West (270 degrees) WindStrength: 0 - Calm
DissolvedO2 (mg/l): 6 pH: 7.78 WaterTemp(°C): 19.39 SpecificConductivity (µS/cm): 597 Turbidity (NTU): 5.1
SpecialNotes:

ElectrofishingEquipment: Backpack Voltage: 250 Avg.StreamWidth(m): 3 DistanceFished (m): 50
SecondsFished: 409 WaterDepthAvg (m): .3 WaterDepthMax (m): .5 TimeAtSite: 01:00
BridgeInReach: [] ReachRepresentative: [x] WhyReachNotRepresentative:
SpecialComments:

Habitat Information

TotalScore (max100): 57 SubstrateScore (max20): 14 InstreamCover Score (max20): 12 ChannelMorphologyScore (max20): 13
RiparianZoneBankErosion Score(max10): 4 Pool/GlideQualityScore(max12): 4 Riffle/RunQualityScore(max8): 0
GradientScore (max10): 10 %Pool: 40 %Riffle: 10 %Run: 50 %Glide: 0 CanopyCover PctOpen: <10%-Closed
SubjectiveRating: AestheticRating: NOTES: "NEW RECORD"

Fish Community Index of Biotic Integrity (IBI) Information

Calibration Used: Eastern Corn Belt Plains

Table with 2 main columns: Biotic Integrity metrics and Calibration metrics. Rows include SpeciesCount, %TolerantIndividuals, %OmnivoreIndividuals, etc.

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

Summary box: Total IBI Score (min 0, max 60) 44

SampleNumber: AB18944

EventID: 14T135.5

LSite: WMI-03-0010

County: Blackford

StreamName: Little Joe Creek

LocationDescription: CR 300 S

Common Name	Individual Fish Count	Deformities	Eroded Fins	Lesions	Tumors	Multiple Anomalies
Bluegill	1					
Bluntnose Minnow	18					
Central Stoneroller	52					
Creek Chub	54					
Green Sunfish	12					
Johnny Darter	8					
Longear Sunfish	1					
Orangethroat Darter	12					
Rainbow Darter	1					
Silverjaw Minnow	15					
Western Blacknose Dace	22					
White Sucker	11					
Yellow Bullhead	1					



Indiana Department of Environmental Management

Fish Community Assessments

Site Information

SubBasin: Mississinewa **14 digit HUC:** 05120103040040 **LSite:** WMI-03-0010
Site: Little Joe Creek **Location:** CR 300 S **County:** Blackford
Latitude: 40.407111 **Longitude:** -85.393327 **IASNat Region:** 5C **Topo:** D-41 **Segment:** 24
Ecoregion: Eastern Corn Belt Plains **Drainage Area (sq.miles):** 4.393 **Gradient (ft/mile):** 15.163

Sample Information

SampleNumber: AB18372 **EventID:** 14T135 **Sample MediumCollected:** Fish Community + Water + Macro
SampleDate: 08/11/2014 **SurveyCrewChief:** KAG **SampleTime:** 12:30:00 PM **HydroLabNumber:** Q6
WaterFlowType: Run **WaterAppearance:** Clear **SkyConditions:** 2 - Scattered **AirTemperature:** 5 - 76-85
WindDirection: 27 - West (270 degrees) **WindStrength:** 2 - Mod./Light
DissolvedO2 (mg/l): 6.21 **pH:** 7.98 **WaterTemp(°C):** 21.8 **SpecificConductivity (µS/cm):** 603 **Turbidity (NTU):** 11.8
SpecialNotes: Q6 TURB = 8.3

ElectrofishingEquipment: Backpack **Voltage:** 250 **Avg.StreamWidth(m):** 3 **DistanceFished (m):** 50
SecondsFished: 488 **WaterDepthAvg (m):** .2 **WaterDepthMax (m):** .5 **TimeAtSite:** 01:00
BridgeInReach: **ReachRepresentative:** **WhyReachNotRepresentative:**
SpecialComments:

Habitat Information

TotalScore (max100): 58 **SubstrateScore (max20):** 14 **InstreamCover Score (max20):** 10 **ChannelMorphologyScore (max20):** 12
RiparianZoneBankErosion Score(max10): 4 **Pool/GlideQualityScore(max12):** 5 **Riffle/RunQualityScore(max8):** 3
GradientScore (max10): 10 **%Pool:** 10 **%Riffle:** 15 **%Run:** 75 **%Glide:** # \$ **CanopyCover PctOpen:** <10%-Closed
SubjectiveRating: **AestheticRating:** **NOTES:** "NEW RECORD"

Fish Community Index of Biotic Integrity (IBI) Information

Calibration Used: Eastern Corn Belt Plains

	<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:	65.63	1
Darter/Madtom/SculpinSpeciesCount:	3	5	%OmnivoreIndividuals:	7.03	5
%HeadwaterIndividuals:	12.11	3	%InsectivoreIndividuals:	22.66	1
MinnnowSpeciesCount:	3	3	%PioneerIndividuals:	75.39	1
SensitiveSpeciesCount:	1	1	Total # of Individuals (CPUE):	256	5
			%SimpleLithophilicInd.:	25.78	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)	36
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SampleNumber: AB18372

EventID: 14T135

LSite: WMI-03-0010

County: Blackford

StreamName: Little Joe Creek

LocationDescription: CR 300 S

Common Name	Individual Fish Count	Deformities	Eroded Fins	Lesions	Tumors	Multiple Anomalies
Central Stoneroller	62					
Creek Chub	118					
Green Sunfish	1					
Johnny Darter	9					
Orangethroat Darter	3					
Rainbow Darter	14					
Western Blacknose Dace	31					
White Sucker	18					

SampleNumber: AB18371

EventID: 14T136

LSite: WMI-03-0006

County: Blackford

StreamName: Big Lick Creek

LocationDescription: CR 100 W

Common Name	Individual Fish Count	Deformities	Eroded Fins	Lesions	Tumors	Multiple Anomalies
Bluegill	4					
Bluntnose Minnow	2					
Central Stoneroller	13					
Creek Chub	24					
Green Sunfish	12					
Greenside Darter	1					
Johnny Darter	16					
Logperch	1					
Longear Sunfish	5					
Orangethroat Darter	24					
Rainbow Darter	29					
Sand Shiner	2					
Silverjaw Minnow	2					
Spotted Bass	2					
Suckermouth Minnow	5					
White Sucker	4					
Yellow Bullhead	2					



Indiana Department of Environmental Management Fish Community Assessments

Site Information

SubBasin: Mississinewa **14 digit HUC:** 05120103040040 **LSite:** WMI-03-0007
Site: Moore Prong **Location:** CR 100 W **County:** Blackford
Latitude: 40.441793 **Longitude:** -85.389175 **IASNat Region:** 5C **Topo:** D-41 **Segment:** 24
Ecoregion: Eastern Corn Belt Plains **Drainage Area (sq.miles):** 5.167 **Gradient (ft/mile):** 10.565

Sample Information

SampleNumber: AB18370 **EventID:** 14T137 **Sample MediumCollected:** Fish Community + Water + Macro
SampleDate: 07/16/2014 **SurveyCrewChief:** KJC **SampleTime:** 02:45:00 PM **HydroLabNumber:** Q6
WaterFlowType: Run **WaterAppearance:** Clear **SkyConditions:** 4 - Cloudy **AirTemperature:** 4 - 61-75
WindDirection: 0 - North (0 degrees) **WindStrength:** 1 - Light
DissolvedO2 (mg/l): 7.63 **pH:** 8.24 **WaterTemp(°C):** 21.06 **SpecificConductivity (µS/cm):** 711 **Turbidity (NTU):** 9.44
SpecialNotes: Q6 Turb: 10.1 NTU

ElectrofishingEquipment: Backpack **Voltage:** 200 **Avg.StreamWidth(m):** 3 **DistanceFished (m):** 50
SecondsFished: 324 **WaterDepthAvg (m):** .3 **WaterDepthMax (m):** .6 **TimeAtSite:** 01:00
BridgeInReach: **ReachRepresentative:** **WhyReachNotRepresentative:** Recent construction created a large dug out pool.
SpecialComments:

Habitat Information

TotalScore (max100): 34 **SubstrateScore (max20):** 10 **InstreamCover Score (max20):** 3 **ChannelMorphologyScore (max20):** 6
RiparianZoneBankErosion Score(max10): 2 **Pool/GlideQualityScore(max12):** 5 **Riffle/RunQualityScore(max8):** 0
GradientScore (max10): 8 **%Pool:** 30 **%Riffle:** 30 **%Run:** 40 **%Glide:** # \$ **CanopyCover PctOpen:** 55%-<85%
SubjectiveRating: **AestheticRating:** **NOTES:** "NEW RECORD"

Fish Community Index of Biotic Integrity (IBI) Information

Calibration Used: Eastern Corn Belt Plains

	<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	5	%TolerantIndividuals:	44.8	3
Darter/Madtom/SculpinSpeciesCount:	2	3	%OmnivoreIndividuals:	18.1	5
%HeadwaterIndividuals:	0.45	1	%InsectivoreIndividuals:	28.05	3
MinnnowSpeciesCount:	5	5	%PioneerIndividuals:	79.19	1
SensitiveSpeciesCount:	2	3	Total # of Individuals (CPUE):	221	5
			%SimpleLithophilicInd.:	16.74	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: AB18370

EventID: 14T137

LSite: WMI-03-0007

County: Blackford

StreamName: Moore Prong

LocationDescription: CR 100 W

Common Name	Individual Fish Count	Deformities	Eroded Fins	Lesions	Tumors	Multiple Anomalies
Bluegill	7					
Bluntnose Minnow	23					
Central Stoneroller	90					
Creek Chub	29					
Green Sunfish	28					
Johnny Darter	4					
Longear Sunfish	1					
Rainbow Darter	19					
Silverjaw Minnow	1					
Western Blacknose Dace	1					
White Sucker	17					
Yellow Bullhead	1					



Indiana Department of Environmental Management Fish Community Assessments

Site Information

SubBasin: Mississinewa **14 digit HUC:** 05120103040030 **LSite:** WMI040-0003
Site: Little Lick Creek **Location:** SR 3, S of Hartford City **County:** Blackford
Latitude: 40.442253 **Longitude:** -85.370074 **IASNat Region:** 5C **Topo:** D-42 **Segment:** 24
Ecoregion: Eastern Corn Belt Plains **Drainage Area (sq.miles):** 12.939 **Gradient (ft/mile):** 2.39

Sample Information

SampleNumber: AB18400 **EventID:** 14T138 **Sample MediumCollected:** Fish Community + Water + Macro
SampleDate: 07/16/2014 **SurveyCrewChief:** KJC **SampleTime:** 11:25:00 AM **HydroLabNumber:** Q6
WaterFlowType: Run **WaterAppearance:** Brown **SkyConditions:** **AirTemperature:**
WindDirection: **WindStrength:**
DissolvedO2 (mg/l): 6.18 **pH:** 7.84 **WaterTemp(°C):** 21.27 **SpecificConductivity (µS/cm):** 775 **Turbidity (NTU):** 11.3
SpecialNotes: Q6 Turb: 5.8 NTU

ElectrofishingEquipment: Backpack **Voltage:** 200 **Avg.StreamWidth(m):** 5 **DistanceFished (m):** 75
SecondsFished: 637 **WaterDepthAvg (m):** .3 **WaterDepthMax (m):** .5 **TimeAtSite:** 01:00
BridgeInReach: **ReachRepresentative:** **WhyReachNotRepresentative:**
SpecialComments:

Habitat Information

TotalScore (max100): 29 **SubstrateScore (max20):** 9 **InstreamCover Score (max20):** 3 **ChannelMorphologyScore (max20):** 5
RiparianZoneBankErosion Score(max10): 5 **Pool/GlideQualityScore(max12):** 3 **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: Eastern Corn Belt Plains

	<u>Actual Observation</u>	<u>Metric Score</u>		<u>Actual Observation</u>	<u>Metric Score</u>
SpeciesCount:	9	3	%TolerantIndividuals:	66.67	1
Darter/Madtom/SculpinSpeciesCount:	2	3	%OmnivoreIndividuals:	4.76	1
%HeadwaterIndividuals:	0	1	%InsectivoreIndividuals:	71.43	1
MinnnowSpeciesCount:	2	1	%PioneerIndividuals:	57.14	1
SensitiveSpeciesCount:	0	1	Total # of Individuals (CPUE):	21	1
			%SimpleLithophilicInd.:	4.76	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: AB18400

EventID: 14T138

LSite: WMI040-0003

County: Blackford

StreamName: Little Lick Creek

LocationDescription: SR 3, S of Hartford City

Common Name	Individual Fish Count	Deformities	Eroded Fins	Lesions	Tumors	Multiple Anomalies
Blackstripe Topminnow	3					
Bluegill	1					
Central Stoneroller	1					
Creek Chub	4					
Green Sunfish	6					
Johnny Darter	1					
Tadpole Madtom	1					
White Sucker	1					
Yellow Bullhead	3					

SampleNumber: AB18401

EventID: 14T139

LSite: WMI040-0009

County: Blackford

StreamName: Big Lick Creek

LocationDescription: SR 3 S of Hartford City

Common Name	Individual Fish Count	Deformities	Eroded Fins	Lesions	Tumors	Multiple Anomalies
Bluegill	4					
Bluntnose Minnow	19					
Central Stoneroller	12					
Creek Chub	20					
Grass Pickerel	1					
Green Sunfish	10					
Greenside Darter	2					
Johnny Darter	14					
Largemouth Bass	1					
Longear Sunfish	16					
Rainbow Darter	11					
Silverjaw Minnow	28					
White Sucker	2					
Yellow Bullhead	13					



Indiana Department of Environmental Management Fish Community Assessments

Site Information

SubBasin: Mississinewa **14 digit HUC:** 05120103040030 **LSite:** WMI-03-0008
Site: Little Lick Creek **Location:** CR 75 E **County:** Blackford
Latitude: 40.449229 **Longitude:** -85.355736 **IASNat Region:** 5C **Topo:** D-42 **Segment:** 24
Ecoregion: Eastern Corn Belt Plains **Drainage Area (sq.miles):** 12.075 **Gradient (ft/mile):** 2.39

Sample Information

SampleNumber: AB18369 **EventID:** 14T140 **Sample MediumCollected:** Fish Community + Water + Macro
SampleDate: 07/16/2014 **SurveyCrewChief:** KJC **SampleTime:** 10:15:00 AM **HydroLabNumber:** Q6
WaterFlowType: Run **WaterAppearance:** Murky **SkyConditions:** 3 - Partly **AirTemperature:** 4 - 61-75
WindDirection: 27 - West (270 degrees) **WindStrength:** 1 - Light
DissolvedO2 (mg/l): 3.24 **pH:** 7.58 **WaterTemp(°C):** 18.49 **SpecificConductivity (µS/cm):** 802 **Turbidity (NTU):** 14.5
SpecialNotes: Q6 Turb: 14.5 NTU

ElectrofishingEquipment: Backpack **Voltage:** 200 **Avg.StreamWidth(m):** 4 **DistanceFished (m):** 60
SecondsFished: 346 **WaterDepthAvg (m):** .3 **WaterDepthMax (m):** .5 **TimeAtSite:** 01:00
BridgeInReach: **ReachRepresentative:** **WhyReachNotRepresentative:**
SpecialComments:

Habitat Information

TotalScore (max100): 46 **SubstrateScore (max20):** 13 **InstreamCover Score (max20):** 7 **ChannelMorphologyScore (max20):** 8
RiparianZoneBankErosion Score(max10): 5 **Pool/GlideQualityScore(max12):** 4 **Riffle/RunQualityScore(max8):** 5
GradientScore (max10): 4 **%Pool:** 20 **%Riffle:** 10 **%Run:** 70 **%Glide:** # \$ **CanopyCover PctOpen:** >85%-Open
SubjectiveRating: **AestheticRating:** **NOTES:** "NEW RECORD"

Fish Community Index of Biotic Integrity (IBI) Information

Calibration Used: Eastern Corn Belt Plains

	<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:	70.27 1
Darter/Madtom/SculpinSpeciesCount:	1	1	%OmnivoreIndividuals:	10.81 5
%HeadwaterIndividuals:	0	1	%InsectivoreIndividuals:	51.35 5
MinnnowSpeciesCount:	3	1	%PioneerIndividuals:	72.97 1
SensitiveSpeciesCount:	2	1	Total # of Individuals (CPUE):	37 1
			%SimpleLithophilicInd.:	16.22 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)	26
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SampleNumber: AB18369

EventID: 14T140

LSite: WMI-03-0008

County: Blackford

StreamName: Little Lick Creek

LocationDescription: CR 75 E

Common Name	Individual Fish Count	Deformities	Eroded Fins	Lesions	Tumors	Multiple Anomalies
Bluntnose Minnow	1					
Central Stoneroller	5					
Creek Chub	9					
Green Sunfish	12					
Longear Sunfish	3					
Rainbow Darter	3					
White Sucker	3					
Yellow Bullhead	1					