



# Indiana Department of Environmental Management Fish Community Assessments

### Site Information

**SubBasin:** Muscatatuck **14 digit HUC:** 05120207090010 **LSite:** WEM090-0003  
**Site:** Vernon Fork Muscatatuck River **Location:** CR 600 South **County:** Jackson  
**Latitude:** 38.793535 **Longitude:** -85.884075 **IASNat Region:** 11A **Topo:** H-61 **Segment:** 83  
**Ecoregion:** Eastern Corn Belt Plains **Drainage Area (sq.miles):** 391.167 **Gradient (ft/mile):** 1.343

### Sample Information

**SampleNumber:** AB47653 **EventID:** 21T001 **Sample Medium Collected:** Fish Community + Water + Macro  
**SampleDate:** 08/24/2021 **SurveyCrewChief:** KAG **SampleTime:** 09:45:00 AM **HydroLabNumber:** P5  
**WaterFlowType:** Pool **WaterAppearance:** Murky **SkyConditions:** 1 - Clear **AirTemperature:** 5 - 76-85  
**WindDirection:** 27 - West (270 degrees) **WindStrength:** 0 - Calm  
**DissolvedO2 (mg/l):** 4.76 **pH:** 7.56 **WaterTemp(°C):** 25.9 **SpecificConductivity (µS/cm):** 435 **Turbidity (NTU):** 21.7  
**SpecialNotes:**

**ElectrofishingEquipment:** Canoe **Voltage:** 260 **Avg.StreamWidth(m):** 15 **DistanceFished (m):** 225  
**SecondsFished:** 2955 **WaterDepthAvg (m):** 1 **WaterDepthMax (m):** 2.25 **TimeAtSite:** 03:00  
**BridgeInReach:**  **ReachRepresentative:**  **WhyReachNotRepresentative:**  
**SpecialComments:** Canoe w/MLES and boom

### Habitat Information

**TotalScore (max100):** 55 **SubstrateScore (max20):** 11 **InstreamCover Score (max20):** 12 **ChannelMorphologyScore (max20):** 9  
**RiparianZoneBankErosion Score(max10):** 4 **Pool/GlideQualityScore(max12):** 9 **Riffle/RunQualityScore(max8):** 4  
**GradientScore (max10):** 6 **%Pool:** 45 **%Riffle:** 20 **%Run:** 35 **%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>
<b>SpeciesCount:</b>	26	5	<b>%TolerantIndividuals:</b>	10.92 5
<b>DarterSpeciesCount:</b>	4	5	<b>%OmnivoreIndividuals:</b>	5.04 5
<b>SunfishSpeciesCount:</b>	6	5	<b>%InsectivoreIndividuals:</b>	78.99 5
<b>SuckerSpeciesCount:</b>	3	3	<b>%CarnivoreIndividuals:</b>	15.97 5
<b>SensitiveSpeciesCount:</b>	8	3	<b>Total # of Individuals (CPUE):</b>	119 1
			<b>%SimpleLithophilicInd.:</b>	21.01 3
			<b>%Ind.withDELT:</b>	0 5

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

<b>Total IBI Score (min 0, max 60)</b>	<b>50</b>
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SampleNumber: AB47653

EventID: 21T001

LSite: WEM090-0003

County: Jackson

StreamName: Vernon Fork Muscatatuck River

LocationDescription: CR 600 South

Common Name	Individual Fish Count	Deformities	Eroded Fins	Lesions	Tumors	Multiple Anomalies
Bigeye Chub	1					
Black Buffalo	1					
Black Crappie	1					
Blackstripe Topminnow	1					
Bluegill	8					
Bluntnose Minnow	2					
Brook Silverside	5					
Bullhead Minnow	4					
Channel Catfish	1					
Common Carp	1					
Dusky Darter	3					
Eastern Sand Darter	1					
Golden Redhorse	14					
Green Sunfish	9					
Largemouth Bass	1					
Logperch	1					
Longear Sunfish	29					
Mississippi Silvery Minnow	2					
Mud Darter	1					
Northern Hog Sucker	3					
Redear Sunfish	2					
Redfin Pickerel	3					
Redfin Shiner	3					
Spotfin Shiner	8					
Spotted Bass	9					
Warmouth	5					



SampleNumber: AB47654

EventID: 21T002

LSite: WEM-07-0010

County: Jackson

StreamName: Grassy Creek

LocationDescription: CR 600

Common Name	Individual Fish Count	Deformities	Eroded Fins	Lesions	Tumors	Multiple Anomalies
Bluegill	8					
Creek Chub	1					
Flier	16					
Longear Sunfish	1					
Redear Sunfish	4					
Redfin Pickerel	20					
Spotted Bass	2					
Spotted Sucker	11					
Striped Shiner	3					
Warmouth	9					
Western Mosquitofish	2					
White Sucker	11					
Yellow Bullhead	2					



SampleNumber: AB47657

EventID: 21T005

LSite: WEM-07-0015

County: Jackson

StreamName: John McDonald Ditch

LocationDescription: CR 125 South

Common Name	Individual Fish Count	Deformities	Eroded Fins	Lesions	Tumors	Multiple Anomalies
Central Mudminnow	13					
Common Carp	4			1		
Golden Shiner	1					
Green Sunfish	9					
Largemouth Bass	3					
Pirate Perch	18				17	
Redfin Pickerel	11	1				



SampleNumber: AB47658

EventID: 21T006

LSite: WEM-07-0021

County: Jennings

StreamName: Tea Creek

LocationDescription: CR 650 South

Common Name	Individual Fish Count	Deformities	Eroded Fins	Lesions	Tumors	Multiple Anomalies
Bluntnose Minnow	33					
Central Stoneroller	63					
Creek Chub	80					
Fantail Darter	11					
Johnny Darter	16					
Largemouth Bass	2					
Orangethroat Darter	14					
Silverjaw Minnow	6					
White Sucker	1					





SampleNumber: AB47659

EventID: 21T007

LSite: WEM070-0029

County: Jennings

StreamName: Tea Creek

LocationDescription: CR 650 West

Common Name	Individual Fish Count	Deformities	Eroded Fins	Lesions	Tumors	Multiple Anomalies
American Brook Lamprey	4					
Blackstripe Topminnow	1					
Bluegill	3					
Bluntnose Minnow	19					
Central Stoneroller	3					
Creek Chub	6					
Golden Redhorse	2					
Green Sunfish	13					
Johnny Darter	22					
Largemouth Bass	4					
Longear Sunfish	15					
Longnose Gar	1					
Orangethroat Darter	4					
Redfin Pickerel	2					
Silverjaw Minnow	25					
Spotted Sucker	3					
Striped Shiner	4					
Western Mosquitofish	7					
Yellow Bullhead	3					



SampleNumber: AB47660

EventID: 21T008

LSite: WEM070-0039

County: Jennings

StreamName: Vernon Fork Muscatatuck River

LocationDescription: CR 500 South

Common Name	Individual Fish Count	Deformities	Eroded Fins	Lesions	Tumors	Multiple Anomalies
Bigeye Chub	1					
Black Redhorse	4					
Blackstripe Topminnow	5					
Bluegill	5					
Bluntnose Minnow	51					
Brindled Madtom	6					
Channel Catfish	1					
Chestnut Lamprey	1					
Dusky Darter	17					
Eastern Sand Darter	3					
Golden Redhorse	7					
Green Sunfish	29					
Greenside Darter	5					
Longear Sunfish	100					
Mimic Shiner	2					
Mud Darter	2					
Northern Hog Sucker	5					
Orangethroat Darter	4					
Rainbow Darter	2					
Rock Bass	2					
Silver Redhorse	1					
Silver Shiner	1					
Slenderhead Darter	5					
Spotfin Shiner	7					
Spotted Bass	8					
Spotted Sucker	6					
Suckermouth Minnow	1					
Western Mosquitofish	7					
Yellow Bullhead	6					



SampleNumber: AB47661

EventID: 21T009

LSite: WEM070-0020

County: Jackson

StreamName: Vernon Fork Muscatatuck River

LocationDescription: US 31

Common Name	Individual Fish Count	Deformities	Eroded Fins	Lesions	Tumors	Multiple Anomalies
Bigeye Chub	99					
Black Redhorse	8					
Bluntnose Darter	1					
Bluntnose Minnow	31					
Brindled Madtom	5					
Brook Silverside	2					
Bullhead Minnow	32					
Central Mudminnow	1					
Channel Catfish	13					
Chestnut Lamprey	1					
Creek Chub	1					
Dusky Darter	1					
Eastern Sand Darter	2					
Emerald Shiner	1					
Flathead Catfish	2					
Golden Redhorse	2					
Green Sunfish	33					
Greenside Darter	8					
Harlequin Darter	4					
Largemouth Bass	3					
Logperch	2					
Longear Sunfish	14					
Longnose Gar	1					
Mud Darter	1					
Northern Hog Sucker	8					
Rainbow Darter	5					
Redfin Shiner	1					
Rock Bass	1					
Silverjaw Minnow	1					
Slenderhead Darter	2					
Smallmouth Bass	1					
Spotfin Shiner	56					
Spotted Bass	1					
Steelcolor Shiner	26					
Striped Shiner	1					
Suckermouth Minnow	15					
Warmouth	1					
Western Mosquitofish	2					



SampleNumber: AB47662

EventID: 21T010

LSite: WEM090-0015

County: Jackson

StreamName: Vernon Fork Muscatatuck River

LocationDescription: CR 50 North

Common Name	Individual Fish Count	Deformities	Eroded Fins	Lesions	Tumors	Multiple Anomalies
Black Crappie	3					
Bluegill	2					
Bluntnose Minnow	1					
Brook Silverside	1					
Bullhead Minnow	10					
Channel Catfish	3					
Chestnut Lamprey	1					
Common Carp	1					
Freshwater Drum	2					
Gizzard Shad	1					
Golden Redhorse	9					
Green Sunfish	2					
Longear Sunfish	17					
Silver Redhorse	18					
Smallmouth Bass	1					
Smallmouth Buffalo	1					
Spotted Bass	3					
Spotted Sucker	1					





# Indiana Department of Environmental Management Fish Community Assessments

## Site Information

**SubBasin:** Muscatatuck **14 digit HUC:** 05120207080020 **LSite:** WEM080-0014  
**Site:** Mutton Creek Ditch **Location:** CR 400 North **County:** Jackson  
**Latitude:** 38.940733 **Longitude:** -85.815623 **IASNat Region:** 11B **Topo:** H-39 **Segment:** 83  
**Ecoregion:** Eastern Corn Belt Plains **Drainage Area (sq.miles):** 29.807 **Gradient (ft/mile):** 2.112

## Sample Information

**SampleNumber:** AB47664 **EventID:** 21T012 **Sample MediumCollected:** Fish Community + Water + Macro  
**SampleDate:** 08/17/2021 **SurveyCrewChief:** KAG **SampleTime:** 11:39:00 AM **HydroLabNumber:** P7  
**WaterFlowType:** Glide **WaterAppearance:** Sheen **SkyConditions:** 4 - Cloudy **AirTemperature:** 5 - 76-85  
**WindDirection:** 9 - East (90 degrees) **WindStrength:** 0 - Calm  
**DissolvedO2 (mg/l):** 1.4 **pH:** 7.21 **WaterTemp(°C):** 23.4 **SpecificConductivity (µS/cm):** 405.5 **Turbidity (NTU):** 8.52  
**SpecialNotes:**

**ElectrofishingEquipment:** Canoe **Voltage:** 250 **Avg.StreamWidth(m):** 10 **DistanceFished (m):** 150  
**SecondsFished:** 2622 **WaterDepthAvg (m):** 1 **WaterDepthMax (m):** 2 **TimeAtSite:** 03:00  
**BridgeInReach:**  **ReachRepresentative:**  **WhyReachNotRepresentative:**  
**SpecialComments:** several beaver dams; sheen on surface of water; canoe w/MLES

## Habitat Information

**TotalScore (max100):** 47 **SubstrateScore (max20):** 7 **InstreamCover Score (max20):** 14 **ChannelMorphologyScore (max20):** 4  
**RiparianZoneBankErosion Score(max10):** 10 **Pool/GlideQualityScore(max12):** 8 **Riffle/RunQualityScore(max8):** 0  
**GradientScore (max10):** 4 **%Pool:** 10 **%Riffle:** 0 **%Run:** 0 **%Glide:** 90 **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:	19.44	5
DarterSpeciesCount:	0	1	%OmnivoreIndividuals:	16.67	5
SunfishSpeciesCount:	5	5	%InsectivoreIndividuals:	44.44	3
SuckerSpeciesCount:	2	3	%CarnivoreIndividuals:	38.89	3
SensitiveSpeciesCount:	1	1	Total # of Individuals (CPUE):	108	1
			%SimpleLithophilicInd.:	27.78	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.

<b>Total IBI Score (min 0, max 60)</b>	<b>38</b>
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SampleNumber: AB47664

EventID: 21T012

LSite: WEM080-0014

County: Jackson

StreamName: Mutton Creek Ditch

LocationDescription: CR 400 North

Common Name	Individual Fish Count	Deformities	Eroded Fins	Lesions	Tumors	Multiple Anomalies
Bluegill	22					
Bluntnose Minnow	1					
Bowfin	2					
Golden Shiner	2					
Green Sunfish	1					
Largemouth Bass	4					
Longear Sunfish	3					
Redear Sunfish	4					
Redfin Pickerel	16					
Spotted Sucker	13					
Warmouth	20					
Western Mosquitofish	3					
White Sucker	17					



# Indiana Department of Environmental Management Fish Community Assessments

## Site Information

**SubBasin:** Muscatatuck **14 digit HUC:** 05120207080020 **LSite:** WEM-07-0016  
**Site:** Tributary of Mutton Creek **Location:** CR 700 North **County:** Jackson  
**Latitude:** 38.983945 **Longitude:** -85.828548 **IASNat Region:** 11B **Topo:** H-39 **Segment:** 83  
**Ecoregion:** Eastern Corn Belt Plains **Drainage Area (sq.miles):** 5.117 **Gradient (ft/mile):** 11.518

## Sample Information

**SampleNumber:** AB47665 **EventID:** 21T013 **Sample MediumCollected:** Fish Community + Water + Macro  
**SampleDate:** 08/16/2021 **SurveyCrewChief:** KAG **SampleTime:** 02:53:00 PM **HydroLabNumber:** P7  
**WaterFlowType:** Run **WaterAppearance:** Clear **SkyConditions:** 3 - Partly **AirTemperature:** 5 - 76-85  
**WindDirection:** 27 - West (270 degrees) **WindStrength:** 1 - Light  
**DissolvedO2 (mg/l):** 10.38 **pH:** 8.04 **WaterTemp(°C):** 25.9 **SpecificConductivity (µS/cm):** 416.5 **Turbidity (NTU):** 4.9  
**SpecialNotes:**

**ElectrofishingEquipment:** Backpack **Voltage:** 200 **Avg.StreamWidth(m):** 3 **DistanceFished (m):** 50  
**SecondsFished:** 536 **WaterDepthAvg (m):** .25 **WaterDepthMax (m):** .75 **TimeAtSite:** 01:00  
**BridgeInReach:**  **ReachRepresentative:**  **WhyReachNotRepresentative:**  
**SpecialComments:** MLES backpack

## Habitat Information

**TotalScore (max100):** 65 **SubstrateScore (max20):** 11 **InstreamCover Score (max20):** 16 **ChannelMorphologyScore (max20):** 12  
**RiparianZoneBankErosion Score(max10):** 3 **Pool/GlideQualityScore(max12):** 9 **Riffle/RunQualityScore(max8):** 6  
**GradientScore (max10):** 8 **%Pool:** 30 **%Riffle:** 10 **%Run:** 60 **%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:	14	5	%TolerantIndividuals:	8.09	5
Darter/Madtom/SculpinSpeciesCount:	2	3	%OmnivoreIndividuals:	4.41	5
%HeadwaterIndividuals:	0	1	%InsectivoreIndividuals:	64.71	5
MinnnowSpeciesCount:	4	3	%PioneerIndividuals:	33.82	3
SensitiveSpeciesCount:	1	1	Total # of Individuals (CPUE):	136	3
			%SimpleLithophilicInd.:	5.15	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.

<b>Total IBI Score (min 0, max 60)</b>	<b>40</b>
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SampleNumber: AB47665

EventID: 21T013

LSite: WEM-07-0016

County: Jackson

StreamName: Tributary of Mutton Creek

LocationDescription: CR 700 North

Common Name	Individual Fish Count	Deformities	Eroded Fins	Lesions	Tumors	Multiple Anomalies
Bluegill	10					
Bluntnose Minnow	1					
Central Stoneroller	31					
Creek Chub	2					
Green Sunfish	3					
Johnny Darter	6					
Largemouth Bass	2					
Longear Sunfish	64					
Orangethroat Darter	2					
Redear Sunfish	1					
Redfin Pickerel	7					
Silverjaw Minnow	1					
Western Mosquitofish	1					
White Sucker	5					



SampleNumber: AB47666

EventID: 21T014

LSite: WEM080-0027

County: Jackson

StreamName: Mutton Creek

LocationDescription: CR 800 North

Common Name	Individual Fish Count	Deformities	Eroded Fins	Lesions	Tumors	Multiple Anomalies
Black Crappie	1					
Blackstripe Topminnow	6					
Bluegill	45					
Bluntnose Minnow	3					
Brook Silverside	1					
Brown Bullhead	1					
Central Mudminnow	1					
Green Sunfish	2					
Johnny Darter	5					
Largemouth Bass	5					
Longear Sunfish	175	2				
Redear Sunfish	2					
Redfin Pickerel	4					
Striped Shiner	10					
Warmouth	1					
White Sucker	9					
Yellow Bullhead	2					



SampleNumber: AB47667

EventID: 21T015

LSite: WEM080-0025

County: Jennings

StreamName: Mutton Creek

LocationDescription: CR 300 North

Common Name	Individual Fish Count	Deformities	Eroded Fins	Lesions	Tumors	Multiple Anomalies
Blackstripe Topminnow	2					
Bluegill	66					
Bluntnose Minnow	79					
Central Stoneroller	229					
Creek Chub	108					
Green Sunfish	2					
Johnny Darter	17					
Largemouth Bass	7					
Longear Sunfish	39					
Orangethroat Darter	19					
Redear Sunfish	1					
Redfin Shiner	4					
Silverjaw Minnow	31					
White Sucker	41					
Yellow Bullhead	2					





**SampleNumber:** AB47668

**EventID:** 21T016

**LSite:** WEM080-0013

**County:** Jackson

**StreamName:** Storm Creek Ditch

**LocationDescription:** CR 400 North

<b>Common Name</b>	<b>Individual Fish Count</b>	<b>Deformities</b>	<b>Eroded Fins</b>	<b>Lesions</b>	<b>Tumors</b>	<b>Multiple Anomalies</b>
Bluegill	4					
Bowfin	1					
Flier	1					
Golden Shiner	1					
Redear Sunfish	3					
Redfin Pickerel	14					
Spotted Sucker	1					
Warmouth	4					



**SampleNumber:** AB47669

**EventID:** 21T017

**LSite:** WEM080-0005

**County:** Jennings

**StreamName:** Tributary to Richart Lake

**LocationDescription:** CR 900 West

<b>Common Name</b>	<b>Individual Fish Count</b>	<b>Deformities</b>	<b>Eroded Fins</b>	<b>Lesions</b>	<b>Tumors</b>	<b>Multiple Anomalies</b>
Bluegill	1					
Central Mudminnow	13					
Creek Chub	55					
Green Sunfish	1					
White Sucker	10					



SampleNumber: AB47670

EventID: 21T018

LSite: WEM-07-0014

County: Jennings

StreamName: Storm Creek

LocationDescription: Base Road

Common Name	Individual Fish Count	Deformities	Eroded Fins	Lesions	Tumors	Multiple Anomalies
Blackside Darter	1					
Bluegill	6					
Bluntnose Minnow	2					
Central Mudminnow	4					
Creek Chub	4					
Flier	4					
Green Sunfish	10					
Johnny Darter	1					
Largemouth Bass	1					1
Longear Sunfish	81					
Orangethroat Darter	6					
Pirate Perch	4				1	
Redfin Pickerel	8					
Redfin Shiner	5					
Warmouth	3					
Western Mosquitofish	1					
White Sucker	3					
Yellow Bullhead	5					



# Indiana Department of Environmental Management Fish Community Assessments

## Site Information

**SubBasin:** Muscatatuck **14 digit HUC:** 05120207070060 **LSite:** WEM-07-0017  
**Site:** Sixmile Creek **Location:** CR 500 South **County:** Jennings  
**Latitude:** 38.911153 **Longitude:** -85.762327 **IASNat Region:** 11A **Topo:** H-39 **Segment:** 83  
**Ecoregion:** Eastern Corn Belt Plains **Drainage Area (sq.miles):** 30.679 **Gradient (ft/mile):** 2.423

## Sample Information

**SampleNumber:** AB47671 **EventID:** 21T019 **Sample MediumCollected:** Fish Community + Water + Macro  
**SampleDate:** 08/16/2021 **SurveyCrewChief:** CWY **SampleTime:** 02:05:00 PM **HydroLabNumber:** P5  
**WaterFlowType:** Run **WaterAppearance:** Clear **SkyConditions:** 1 - Clear **AirTemperature:** 5 - 76-85  
**WindDirection:** 27 - West (270 degrees) **WindStrength:** 1 - Light  
**DissolvedO2 (mg/l):** 8.44 **pH:** 7.9 **WaterTemp(°C):** 25.2 **SpecificConductivity (µS/cm):** 340 **Turbidity (NTU):** 14.4  
**SpecialNotes:**

**ElectrofishingEquipment:** Backpack **Voltage:** 250 **Avg.StreamWidth(m):** 7 **DistanceFished (m):** 105  
**SecondsFished:** 849 **WaterDepthAvg (m):** .3 **WaterDepthMax (m):** .75 **TimeAtSite:** 01:15  
**BridgeInReach:**  **ReachRepresentative:**  **WhyReachNotRepresentative:**  
**SpecialComments:** smithroot backpack

## Habitat Information

**TotalScore (max100):** 49 **SubstrateScore (max20):** 7 **InstreamCover Score (max20):** 13 **ChannelMorphologyScore (max20):** 11  
**RiparianZoneBankErosion Score(max10):** 3 **Pool/GlideQualityScore(max12):** 9 **Riffle/RunQualityScore(max8):** 2  
**GradientScore (max10):** 4 **%Pool:** 25 **%Riffle:** 15 **%Run:** 60 **%Glide:** 0 **CanopyCover PctOpen:** >85%-Open  
**SubjectiveRating:** **AestheticRating:** **NOTES:** "NEW RECORD"

## Fish Community Index of Biotic Integrity (IBI) Information

## Calibration Used:

	<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:	24	5	%TolerantIndividuals:	28.31	3
DarterSpeciesCount:	3	5	%OmnivoreIndividuals:	5.29	5
SunfishSpeciesCount:	4	5	%InsectivoreIndividuals:	87.83	5
SuckerSpeciesCount:	3	3	%CarnivoreIndividuals:	3.7	1
SensitiveSpeciesCount:	6	5	Total # of Individuals (CPUE):	378	5
			%SimpleLithophilicInd.:	7.14	1
			%Ind.withDELT:	0.26	3

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

<b>Total IBI Score (min 0, max 60)</b>	<b>46</b>
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SampleNumber: AB47671

EventID: 21T019

LSite: WEM-07-0017

County: Jennings

StreamName: Sixmile Creek

LocationDescription: CR 500 South

Common Name	Individual Fish Count	Deformities	Eroded Fins	Lesions	Tumors	Multiple Anomalies
Bigeye Chub	3					
Blackstripe Topminnow	1					
Bluegill	12				1	
Bluntnose Minnow	19					
Brindled Madtom	2					
Bullhead Minnow	2					
Central Stoneroller	12					
Channel Catfish	12					
Fantail Darter	1					
Golden Redhorse	1					
Green Sunfish	68					
Johnny Darter	5					
Largemouth Bass	1					
Longear Sunfish	109					
Mud Darter	8					
Northern Hog Sucker	7					
Rock Bass	1					
Silverjaw Minnow	21					
Spotfin Shiner	25					
Striped Shiner	13					
Suckermouth Minnow	2					
Western Mosquitofish	45					
White Sucker	1					
Yellow Bullhead	7					





**Site Information**

SubBasin: Muscatatuck      14 digit HUC: 05120207070060      LSite: WEM-07-0018  
 Site: Sixmile Creek      Location: CR 200 South      County: Jennings  
 Latitude: 38.954384      Longitude: -85.732138      IASNat Region: 11A      Topo: H-40      Segment: 83  
 Ecoregion: Eastern Corn Belt Plains      Drainage Area (sq.miles): 24.444      Gradient (ft/mile): 9.117

**Sample Information**

SampleNumber: AB47672      EventID: 21T020      Sample MediumCollected: Fish Community + Water + Macro  
 SampleDate: 08/18/2021      SurveyCrewChief: CWY      SampleTime: 08:25:00 AM      HydroLabNumber: P5  
 WaterFlowType: Pool      WaterAppearance: Clear      SkyConditions: 1 - Clear      AirTemperature: 4 - 61-75  
 WindDirection: 27 - West (270 degrees)      WindStrength: 0 - Calm  
 DissolvedO2 (mg/l): 6.86      pH: 7.76      WaterTemp(°C): 23      SpecificConductivity (µS/cm): 333.9      Turbidity (NTU): 9.26  
 SpecialNotes: Photos taken of 2 Hagenius brevistylus, then released.

ElectrofishingEquipment: Backpack      Voltage: 250      Avg.StreamWidth(m): 9      DistanceFished (m): 135  
 SecondsFished: 998      WaterDepthAvg (m): .3      WaterDepthMax (m): .75      TimeAtSite: 01:30  
 BridgeInReach:       ReachRepresentative:       WhyReachNotRepresentative:  
 SpecialComments: Smithroot backpack

**Habitat Information**

TotalScore (max100): 62      SubstrateScore (max20): 14      InstreamCover Score (max20): 13      ChannelMorphologyScore (max20): 11  
 RiparianZoneBankErosion Score(max10): 3      Pool/GlideQualityScore(max12): 7      Riffle/RunQualityScore(max8): 4  
 GradientScore (max10): 10      %Pool: 60      %Riffle: 10      %Run: 30      %Glide: 0      CanopyCover PctOpen: 30%-<55%  
 SubjectiveRating:      AestheticRating:      NOTES: "NEW RECORD"

**Fish Community Index of Biotic Integrity (IBI) Information**

**Calibration Used:**

	<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:	23	5	%TolerantIndividuals:	12.32	5
DarterSpeciesCount:	5	5	%OmnivoreIndividuals:	12.32	5
SunfishSpeciesCount:	4	5	%InsectivoreIndividuals:	83.28	5
SuckerSpeciesCount:	4	5	%CarnivoreIndividuals:	2.35	1
SensitiveSpeciesCount:	8	5	Total # of Individuals (CPUE):	341	5
			%SimpleLithophilicInd.:	11.73	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: AB47672

EventID: 21T020

LSite: WEM-07-0018

County: Jennings

StreamName: Sixmile Creek

LocationDescription: CR 200 South

Common Name	Individual Fish Count	Deformities	Eroded Fins	Lesions	Tumors	Multiple Anomalies
Bigeye Chub	10					
Black Redhorse	1					
Blackside Darter	3					
Blackstripe Topminnow	1					
Bluegill	53					
Bluntnose Minnow	42					
Central Stoneroller	7					
Fantail Darter	6					
Golden Redhorse	4					
Greenside Darter	7					
Johnny Darter	4					
Largemouth Bass	3					
Logperch	2					
Longear Sunfish	161					
Northern Hog Sucker	7					
Redear Sunfish	1					
Redfin Pickerel	1					
Rock Bass	2					
Spotfin Shiner	10					
Spotted Bass	2					
Spotted Sucker	3					
Striped Shiner	10					
Tadpole Madtom	1					



SampleNumber: AB47673

EventID: 21T021

LSite: WEM-07-0019

County: Jennings

StreamName: Sixmile Creek

LocationDescription: CR 175 North

Common Name	Individual Fish Count	Deformities	Eroded Fins	Lesions	Tumors	Multiple Anomalies
Bluegill	8					
Bluntnose Minnow	8					
Central Stoneroller	17			2		
Creek Chub	24					
Fantail Darter	2					
Green Sunfish	4					
Greenside Darter	9					
Johnny Darter	1					
Longear Sunfish	40					
Northern Hog Sucker	4					
Orangethroat Darter	5					
Spotfin Shiner	2					
Striped Shiner	4					
Western Mosquitofish	1					
White Sucker	9					
Yellow Bullhead	1					



SampleNumber: AB47674

EventID: 21T022

LSite: WEM-07-0020

County: Jennings

StreamName: Sixmile Creek

LocationDescription: CR 415 North

Common Name	Individual Fish Count	Deformities	Eroded Fins	Lesions	Tumors	Multiple Anomalies
Bluegill	8	3		2		
Bluntnose Minnow	8					
Central Stoneroller	48					
Creek Chub	14	1				
Green Sunfish	28					
Johnny Darter	61					
Largemouth Bass	3					
Longear Sunfish	5					
Orangethroat Darter	6					
Redear Sunfish	2					
Tadpole Madtom	1					



# Indiana Department of Environmental Management Fish Community Assessments

## Site Information

**SubBasin:** Muscatatuck **14 digit HUC:** 05120207070020 **LSite:** WEM070-0036  
**Site:** Vernon Fork Muscatatuck River **Location:** CR 400 West **County:** Jennings  
**Latitude:** 38.954294 **Longitude:** -85.684985 **IASNat Region:** 11A **Topo:** H-40 **Segment:** 83  
**Ecoregion:** Eastern Corn Belt Plains **Drainage Area (sq.miles):** 218.283 **Gradient (ft/mile):** 1.437

## Sample Information

**SampleNumber:** AB47675 **EventID:** 21T023 **Sample MediumCollected:** Fish Community + Water + Macro  
**SampleDate:** 08/18/2021 **SurveyCrewChief:** CWY **SampleTime:** 10:17:00 AM **HydroLabNumber:** P5  
**WaterFlowType:** Riffle **WaterAppearance:** Clear **SkyConditions:** 2 - Scattered **AirTemperature:** 5 - 76-85  
**WindDirection:** 27 - West (270 degrees) **WindStrength:** 1 - Light  
**DissolvedO2 (mg/l):** 6.85 **pH:** 7.67 **WaterTemp(°C):** 24.5 **SpecificConductivity (µS/cm):** 468.6 **Turbidity (NTU):** 8.81  
**SpecialNotes:** Photo taken of 1 Hagenius brevistylus, then released

**ElectrofishingEquipment:** Canoe **Voltage:** 200 **Avg.StreamWidth(m):** 25 **DistanceFished (m):** 375  
**SecondsFished:** 3071 **WaterDepthAvg (m):** .5 **WaterDepthMax (m):** 2 **TimeAtSite:** 04:10  
**BridgeInReach:**  **ReachRepresentative:**  **WhyReachNotRepresentative:**  
**SpecialComments:** Canoe w/Infinity box; portion of reach non-wadeable

## Habitat Information

**TotalScore (max100):** 73 **SubstrateScore (max20):** 15 **InstreamCover Score (max20):** 16 **ChannelMorphologyScore (max20):** 16  
**RiparianZoneBankErosion Score(max10):** 4 **Pool/GlideQualityScore(max12):** 11 **Riffle/RunQualityScore(max8):** 5  
**GradientScore (max10):** 6 **%Pool:** 40 **%Riffle:** 25 **%Run:** 35 **%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:	31	5	%TolerantIndividuals:	7.96	5
DarterSpeciesCount:	6	5	%OmnivoreIndividuals:	6.92	5
SunfishSpeciesCount:	3	3	%InsectivoreIndividuals:	85.64	5
SuckerSpeciesCount:	5	5	%CarnivoreIndividuals:	3.39	1
SensitiveSpeciesCount:	16	5	Total # of Individuals (CPUE):	766	5
			%SimpleLithophilicInd.:	33.81	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.

<b>Total IBI Score (min 0, max 60)</b>	<b>52</b>
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SampleNumber: AB47675

EventID: 21T023

LSite: WEM070-0036

County: Jennings

StreamName: Vernon Fork Muscatatuck River

LocationDescription: CR 400 West

Common Name	Individual Fish Count	Deformities	Eroded Fins	Lesions	Tumors	Multiple Anomalies
Bigeye Chub	121					
Black Redhorse	12					
Bluegill	3					
Bluntnose Minnow	53					
Brindled Madtom	2					
Brook Silverside	3					
Central Stoneroller	31					
Channel Catfish	6					
Chestnut Lamprey	1					
Dusky Darter	14					
Eastern Sand Darter	4					
Golden Redhorse	25					
Greenside Darter	46					
Johnny Darter	8					
Largemouth Bass	3					
Logperch	3					
Longear Sunfish	217					
Longnose Gar	1					
Northern Hog Sucker	33					
Rainbow Darter	22					
River Redhorse	1					
Rock Bass	9					
Silver Redhorse	1					
Silverjaw Minnow	3					
Smallmouth Bass	2					
Spotfin Shiner	106					
Spotted Bass	4					
Steelcolor Shiner	8					
Striped Shiner	5					
Suckermouth Minnow	18					
Yellow Bullhead	1					





# Indiana Department of Environmental Management Fish Community Assessments

## Site Information

**SubBasin:** Muscatatuck **14 digit HUC:** 05120207070010 **LSite:** WEM070-0001  
**Site:** Vernon Fork Muscatatuck River **Location:** CR 60 South **County:** Jennings  
**Latitude:** 38.976361 **Longitude:** -85.619826 **IASNat Region:** 11A **Topo:** H-41 **Segment:** 83  
**Ecoregion:** Eastern Corn Belt Plains **Drainage Area (sq.miles):** 197.56 **Gradient (ft/mile):** 4.424

## Sample Information

**SampleNumber:** AB47676 **EventID:** 21T025 **Sample MediumCollected:** Fish Community + Water + Macro  
**SampleDate:** 08/17/2021 **SurveyCrewChief:** CWY **SampleTime:** 12:40:00 PM **HydroLabNumber:** P5  
**WaterFlowType:** Riffle **WaterAppearance:** Clear **SkyConditions:** 2 - Scattered **AirTemperature:** 5 - 76-85  
**WindDirection:** 27 - West (270 degrees) **WindStrength:** 2 - Mod./Light  
**DissolvedO2 (mg/l):** 8.62 **pH:** 8.35 **WaterTemp(°C):** 24.5 **SpecificConductivity (µS/cm):** 466.8 **Turbidity (NTU):** 3.2  
**SpecialNotes:**

**ElectrofishingEquipment:** Canoe **Voltage:** 230 **Avg.StreamWidth(m):** 33 **DistanceFished (m):** 500  
**SecondsFished:** 3388 **WaterDepthAvg (m):** .4 **WaterDepthMax (m):** 1 **TimeAtSite:** 03:30  
**BridgeInReach:**  **ReachRepresentative:**  **WhyReachNotRepresentative:**  
**SpecialComments:** canoe w/MLES

## Habitat Information

**TotalScore (max100):** 80 **SubstrateScore (max20):** 16 **InstreamCover Score (max20):** 17 **ChannelMorphologyScore (max20):** 15  
**RiparianZoneBankErosion Score(max10):** 7 **Pool/GlideQualityScore(max12):** 9 **Riffle/RunQualityScore(max8):** 6  
**GradientScore (max10):** 10 **%Pool:** 30 **%Riffle:** 30 **%Run:** 40 **%Glide:** 0 **CanopyCover PctOpen:** 55%<85%  
**SubjectiveRating:** **AestheticRating:** **NOTES:** "NEW RECORD"

## Fish Community Index of Biotic Integrity (IBI) Information

## Calibration Used:

	<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:	28	5	%TolerantIndividuals:	4.46	5
DarterSpeciesCount:	5	5	%OmnivoreIndividuals:	0.97	5
SunfishSpeciesCount:	5	5	%InsectivoreIndividuals:	92.44	5
SuckerSpeciesCount:	4	5	%CarnivoreIndividuals:	6.4	3
SensitiveSpeciesCount:	14	5	Total # of Individuals (CPUE):	516	5
			%SimpleLithophilicInd.:	18.99	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.

<b>Total IBI Score (min 0, max 60)</b>	<b>54</b>
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SampleNumber: AB47676

EventID: 21T025

LSite: WEM070-0001

County: Jennings

StreamName: Vernon Fork Muscatatuck River

LocationDescription: CR 60 South

Common Name	Individual Fish Count	Deformities	Eroded Fins	Lesions	Tumors	Multiple Anomalies
Bigeye Chub	7					
Bigeye Shiner	10					
Black Bullhead	1					
Black Crappie	2					
Black Redhorse	19					
Bluegill	9					
Bluntnose Minnow	5					
Brindled Madtom	4					
Central Stoneroller	1					
Channel Catfish	1					
Golden Redhorse	19					
Green Sunfish	12					
Greenside Darter	40					
Johnny Darter	2					
Largemouth Bass	1					
Logperch	7					
Longear Sunfish	292					
Northern Hog Sucker	18					
Rainbow Darter	6					
Rock Bass	26					
Sand Shiner	1					
Slenderhead Darter	1					
Smallmouth Bass	3					
Spotfin Shiner	12					
Spotted Bass	2					
Spotted Sucker	1					
Striped Shiner	10					
Yellow Bullhead	4					



SampleNumber: AB48036

EventID: 21T018.5

LSite: WEM-07-0014

County: Jennings

StreamName: Storm Creek

LocationDescription: Base Road

Common Name	Individual Fish Count	Deformities	Eroded Fins	Lesions	Tumors	Multiple Anomalies
Black Bullhead	1					
Bluegill	7					
Bluntnose Minnow	4					
Central Mudminnow	3					
Creek Chub	1					
Green Sunfish	12	1		1		
Johnny Darter	4					
Longear Sunfish	69					
Orangethroat Darter	5					
Pirate Perch	3					
Redfin Pickerel	3		1			
Redfin Shiner	2					
Silverjaw Minnow	1					
Warmouth	1					
Yellow Bullhead	2					



SampleNumber: AB48037

EventID: 21T014.5

LSite: WEM080-0027

County: Jackson

StreamName: Mutton Creek

LocationDescription: CR 800 North

Common Name	Individual Fish Count	Deformities	Eroded Fins	Lesions	Tumors	Multiple Anomalies
Blackstripe Topminnow	3					
Bluegill	50					
Bluntnose Minnow	2					
Brook Silverside	1					
Creek Chub	1					
Green Sunfish	1					
Johnny Darter	2					
Largemouth Bass	6					
Longear Sunfish	116					
Orangethroat Darter	1					
Redear Sunfish	1					
Redfin Pickerel	1					
Striped Shiner	1					
Tadpole Madtom	2					
Warmouth	1					
White Sucker	1					
Yellow Bullhead	2					



SampleNumber: AB48619

EventID: 21T022.5

LSite: WEM-07-0020

County: Jennings

StreamName: Sixmile Creek

LocationDescription: CR 415 North

Common Name	Individual Fish Count	Deformities	Eroded Fins	Lesions	Tumors	Multiple Anomalies
Bluegill	14					
Bluntnose Minnow	2					
Central Stoneroller	32					
Creek Chub	4					
Green Sunfish	23			2		
Johnny Darter	35					
Largemouth Bass	7		1			
Longear Sunfish	3					
Orangethroat Darter	1					
Yellow Bullhead	6					