

## Introduction

The U.S. Census Bureau reports that the Midwest of the United States comprises 12 states located in the north-central and north-eastern United States, including Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin. The ecological systems that make up these 12 states include plains, lowlands, prairies, conifer, deciduous, and mixed forests. Many upper Midwestern states are also characterized by vast lake and river systems including the Mississippi, Ohio, and Missouri Rivers. Furthermore, the Great Lakes define the coasts of several Midwestern states.

Consequently, the natural features of the Midwest create a diverse environment well-suited to nature enthusiasts and park-goers. As a result, there are a variety of outdoor trails located in each of the 12 states described. The Midwest Outdoor Trail Description (MOTD) is a metadata schema that strives to organize and capture outdoor trail characteristics of this unique region across a variety of state, regional, and national trails. (Please note, this is a fictional metadata schema, and as such does not validate when rendered in XML.)

## Collection

Similar to the data and park information compiled by the National Parks Service for the nation's recreational areas, the MOTD aims to compile trail information for the Midwest region. While open to expansion, this pilot compilation focuses on trails located in Illinois, Michigan, Missouri, Ohio, and Wisconsin. Ideally, this collection would be hosted by a Midwestern trail association (similar to snowmobile trail information and conditions compiled in the state of Wisconsin). The items analyzed for this report include online trail maps and descriptions as provided on individual park websites. The intent of this metadata schema is to enable users to search for recreational trails using characteristics such as region, trail use, length, difficulty level, natural features, and so on.

## User Community

This section will describe potential users of state/regional/national trails in this region of the country. Both primary and secondary users will be identified, along with their information needs when searching for and identifying a trail to visit. Over 150 million visitors annually visit the state parks in the U.S. Midwest. The community of users that will be served by the MOTD comprise a wide range of people looking for multi-purpose outdoor sites, with a variety of interests and skill levels:

- **Outdoor enthusiasts** – these users spend a lot of time outdoors for biking, hiking, and other seasonal sports. This group will be interested in seeking information on a wide range of trail activities, they will probably be interested in trails that offer more moderate to difficult activities, and they will be seeking trails that offer year-round usage. They may also be more likely to travel farther in order to visit trails that are out of their area. They will likely already hold yearly/seasonal trail passes for recreational areas they visit frequently, and they will want to readily find this information for trails they have not yet visited.

- **Naturalists**—these users, either professionals or amateurs, spend a lot of time outdoors to observe nature. They will seek information on the flora and fauna of a particular area, and will probably select trails that are open throughout the year for hiking in order to observe the changes in flora and fauna over the calendar year.
- **Casual/occasional outdoor users**—these users spend some time outdoors and are less likely to look for a wide range of possible activity along trails; they are more likely to choose one activity and one trail that fits their interest and skill level (possibly easy to moderate), for a one-time visit.
- **People with accessibility issues**—these users wish to spend time outdoors but need trails to be equipped with special amenities, such as handicapped accessible bathrooms, a trail surface that will accommodate wheelchairs, trails with little or no inclines, etc., to enable them to access the trails and use them safely.
- **People with children**—these users will have children accompanying them and will need to find trails that match the skill level of the children and that offer handy accommodations such as bathrooms at trailheads and/or portable bathrooms along the trail.
- **People with pets**—these users will need to identify trails that allow pets and will want to know the trail's leash policy.
- **Seasonal users**—these users will be interested in identifying trails that offer the type of seasonal, outdoor activities they enjoy at their skill level.
- **Local users**—these users may be more familiar with what local state parks offer and may already hold a state trail pass; they may be looking for very specific information, such as the name of a park/trail that they haven't been on before.
- **Out-of-area users**—these users will most likely not be familiar with the state parks offered in a county or state that they don't live in and will be looking perhaps initially for more information on parks in general, such as state and county location, and then more specific information in order to select an individual park. They will want more information overall because they will have less information to start with and will be traveling a greater distance to use the park than a local user would.
- **School/tour users**—groups wishing to bring a school group or other tour group will be looking for something local, with an easy difficulty level so all attendees can complete the hike/walk. This set of users will also be looking for trails that are open and accessible during the spring, summer, and fall. They may also wish to set up a guided tour with a naturalist that works on-site.

# MOTD Application

## MOTD Metadata Rules and Guidelines

Element	Subelement	2 <sup>nd</sup> -level subelement	Definition	Input Guidelines	Controlled Vocabulary	Local Vocabulary	Specifications
trailName	name		The official trail name.	Use the formal trail name as indicated on the official trail map or website.	None		Required: Y Repeatable: N Searchable: Y
management	name <i>type= "locality"</i>		Name of organization overseeing the management, maintenance, and operation of the trail.	The trail's managing body. Trails associated with state and national parks and recreation areas may be included in the LC Name Authority File. If not listed in NAF, input the formal name of the group responsible for the management of the trail as listed on official trail documentation.	When applicable, use LC Name Authority File		Required: N Repeatable: N Searchable: Y
typeOfResource	none		The type of trails in this collection are outdoor recreational trails.	Use the local term for this element: "outdoor trail". Trails may have a variety of uses (e.g. biking, hiking, etc.) but these terms should be entered in the recreationalAspects element.	Local authority term	outdoor trail	Required: Y Repeatable: N Searchable: Y
language	languageTerm <i>type= "code"</i>		The language in which the record and all related information is expressed.	Language used in all information about and on the trail including maps, signage, official websites, and record information.	ISO639-2b		Required: Y Repeatable: Y Searchable: Y
recreationalAspects	activity		All recreational uses allowed on the trail.	Recreational uses are indicated on the trail map and other official documentation. This element uses a local authority file to extend searching with natural keywords.	Local authority file		Required: Y Repeatable: Y Searchable: Y
trailSubject	-topic -geographic		Describes the trail in topical and geographical subject terms.	Subject terms should fall under the topic or geographic subelement (e.g. types of activities, type of park, recreation area or trail, and	LCSH, local authority file	Local authority file is being developed as records are added.	Required: Y Repeatable: Y Searchable: Y

				geographic location.)		All values should fall under LCSH or be formally added to local vocabulary.	
<b>dateOperation</b>	1. season 2. hours		<p><i>Local element.</i> 1.The time(s) of year when the trail is open for public use.</p> <p>2.The daily operating hours from open to close.</p>	<p>1.Data input for season follows established local vocabulary.</p> <p>2. Operating hours are listed from open to close. See <i>local vocabulary for specific character input</i>. Each subject term/value should be listed individually on separate lines.</p>	Local authority file	<p>1. Season: Month (spelled out) <i>Example: April to October; year-round</i></p> <p>2. Hours: a.m. p.m. use colon only if minutes are indicated (e.g.: 6:30 a.m.; 9 p.m.)</p>	Required: Y Repeatable: Y Searchable: Y
<b>levelOfDifficulty</b>	rated		<p><i>Local element.</i> The rating of a trail's difficulty of use.</p>	<p>See local vocabulary for specific data input of this element. Local terms may be extended with additional free text terms (separated by two [2] dashes regarding the trail difficulty).</p> <p><i>Example:</i> &lt;rated&gt;moderate--steep climbs&lt;/rated&gt;</p>	Local authority file	easy, moderate, intermediate, hard, not rated	Required: Y Repeatable: Y Searchable: Y
<b>note</b>	none		Covers information not included in elements.	Information not included in other elements, but which could be useful to the searcher such as: safety precautions, rules, general contact information, historical information, etc.	Free text		Required: N Repeatable: Y Searchable: N
<b>additionallInfo</b>	-amenities  - TrailRequirements	-form  -fees -pets -permits	-Amenities available to trail users. - Requirements of trail users.	Amenities and requirements as indicated on official trail documentation. If no amenities or requirements are available, this element can be skipped, as it is not required.	Free text		Required: Y (if info available) Repeatable: Y Searchable: Y
<b>physicalDescription</b>	1. naturalFeatures		Physical descriptors	1. Natural features values are entered in free text	1. Free text for		Required: Y Repeatable: Y

	<p>2. length</p> <p>3. trailConditions</p> <p>4. flora</p> <p>5. fauna</p>	<p>-surface</p> <p>-plant</p> <p>-animal</p>	<p>of the trail including natural features (i.e. caves, waterfalls), length, material condition, and flora and fauna native to and viewable from the trail.</p>	<p>format.</p> <p>2. Trail length is given in number of miles (use decimal point for length not in whole numbers).</p> <p>3. Physical conditions are matched to a local vocabulary. Since this is a new collection, check local vocabulary. If a &lt;surface&gt; value is not listed, initiate process for adding term to, and updating local vocabulary.</p> <p><i>Examples:</i> paved, unpaved, blacktop, grass, logging roads, etc.</p> <p>4. Flora</p> <p>If applicable, list flora viewed on or from trail. Use common <u>and</u> scientific names. <i>Examples:</i> &lt;plant&gt;American witch hazel&lt;/plant&gt; &lt;plant&gt;Hamamelis virginiana&lt;/plant&gt;.</p> <p>5. Fauna</p> <p>If applicable, list fauna viewed on or from trail. Use common <u>and</u> scientific names. <i>Examples:</i> &lt;animal&gt;cottontail&lt;/animal&gt;, &lt;animal&gt;Sylvilagus floridanus&lt;/animal&gt;</p> <p>Some, most, or all of this information will be available on the trail map. If necessary, some additional research may need to be done.</p>	<p>natural features;</p> <p>2. In miles</p> <p>3. Local vocabulary</p> <p>4-5. LCSH for flora and fauna.</p>	<p>3. Current vocabulary:</p> <ul style="list-style-type: none"> <li>-paved</li> <li>-unpaved</li> <li>-stream crossings</li> </ul>	Searchable: Y
<b>location</b>	<p>- state</p> <p>- county</p> <p>- region</p>		<p>Location of the trail in geographic terms.</p>	<p>Provides trail's geographic information by state, county, and region. The region subelement is not required as not all regional areas are listed in the NAF.</p>	<p>LC Name Authority File</p>		<p>Required: Y</p> <p><i>Region subelement not required.</i></p> <p>Repeatable: N</p> <p>Searchable: Y</p>
<b>relatedItem</b>	<p>- title</p> <p>- URL</p>		<p>The official information from which the metadata was derived.</p>	<p>This element uses a URL to link the metadata record to official online information of the trail such as digital maps, brochures and websites.</p>			<p>Required: Y</p> <p>Repeatable: Y</p> <p>Searchable: N</p>

## Crosswalk: MOTD/MODS

MOTD element	MODS element	Notes
<trailName>	<titleInfo><title>	Each subelement should be entered on a separate line, rather than as a string of text.
.....<name>		
<management>	<name><namePart>	Each subelement should be entered on a separate line, rather than as a string of text.
.....<name>	.....<role>	
<typeOfResource>	<typeOfResource>	
<language>	<language>	1. Language as represented here refers to trail signage, websites, map information, and language of metadata records. 2. Each subelement should be entered on a separate line, rather than as a string of text.
.....<languageTerm>	.....<languageTerm>	
<recreationalAspects>	<subject>	Each subelement should be entered on a separate line, rather than as a string of text.
.....<activity>		
<trailSubject>		<trailSubject> maps to <subject> in MODS. Each subelement should be entered on a separate line, rather than as a string of text.
.....<topic>	.... <topic>	
.....<geographic>	<geographic>	
<dateOperation>		Each subelement should be entered on a separate line, rather than as a string of text.
.....<hours>		
.....<season>		
<levelOfDifficulty>		Each subelement should be entered on a separate line, rather than as a string of text.
.....<rated>		
<note>	<note>	
<additionalInfo>	<note>	Each subelement should be entered on a separate line, rather than as a string of text.
.....<amenities>		
.....<trailRequirements>		
<physicalDescription>	<physicalDescription>	Each subelement should be entered on a separate line, rather than as a string of text.
.....<trailConditions>		
.....<length>	.....<extent>	
.....<naturalFeatures>		
.....<flora>		
.....<fauna>		
<location>	<location>	Each subelement should be entered on a separate line, rather than as a string of text.
.....<state>	.....<physicalLocation>	
.....<county>		
.....<region>		
<relatedItem>	<relatedItem>	Each subelement should be entered on a separate line, rather than as a string of text.
.....<title>		
.....<url>	.....<url>	

## Sample Metadata Records

### 1. Old Indian Trail/Michigan

```
<motd xmlns="http://www.loc.gov/motd/v1" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:schemaLocation="http://www.loc.gov/motd/v1 http://www.loc.gov/standards/motd/v1/motd-1-1.xsd">

<trailName>
    <name>Old Indian Trail</name>
</trailName>

<management>
    <name type="locality" authority="naf">Michigan. National Park Service</name>
</management>

<typeOfResource>outdoor trail</typeOfResource>

<language>
    <languageTerm type="code" authority="ISO639-2b">eng</languageTerm>
</language>

<recreationalAspects>
    <activity>hiking</activity>
    <activity>cross-country skiing</activity>
    <activity>snowshoeing</activity>
</recreationalAspects>

<trailSubject authority="lcsh">
    <topic>Trails</topic>
    <geographic>Michigan</geographic>
</trailSubject>

<dateOperation>
    <season>year-round</season>
</dateOperation>

<levelOfDifficulty>
    <rated>easy--flat to gently rolling</rated>
    <rated>intermediate--steep hills and sharp curves</rated>
</levelOfDifficulty>

<note>Trail is made up of two loops. The Green Loop is easy while the Black Loop is rated intermediate. Least utilized trail in the park. One to two hour trail roundtrip.</note>

<additionallInfo>
    <amenities>
        <form>parking</form>
        <form>accessible vault toilet</form>
    </amenities>
    <trailRequirements>
        <fees>entrance permit required</fees>
```

```

        <pets>prohibited</pets>
    </trailRequirements>
</additionalInfo>

<physicalDescription>
    <naturalFeatures>Lake Michigan</naturalFeatures>
    <naturalFeatures>2 island views</naturalFeatures>
    <naturalFeatures>different terrain; some hills</naturalFeatures>
    <length>2 loops</length>
    <length>2.5 miles</length>
    <trailConditions>sand dunes</trailConditions>
    <trailConditions>forest floor</trailConditions>
    <flora authority="lcsh">
        <plant>Evergreens</plant>
        <plant>Sempervirens</plant>
        <plant>Maple</plant>
        <plant>Aceraceae</plant>
        <plant>Hemlock</plant>
        <plant>Pinaceae</plant>
    </flora>
    <fauna authority="lcsh">
        <animal>Cougars</animal>
        <animal>Puma concolor</animal>
    </fauna>
</physicalDescription>

<location authority= "naf">
    <state>Michigan</state>
    <county>Benzie County (Mich.)</county>
    <region type="recreation area">Sleeping Bear Dunes-National Lakeshore,
    Mich.</region>
</location>

<relatedItem>
    <title>Old Indian Trail Map</title>
    <url>http://michigantrailmaps.com/Benzie/OldIndian/EnlargedOldIndMap.html</url>
</relatedItem>
<relatedItem>
    <title>Sleeping Bear Dunes: Old Indian Trail</title>
    <url>http://www.nps.gov/slbe/planyourvisit/trailoldindian.htm</url>
</relatedItem>

</motd>

```

## 2. Starved Rock State Park / Illinois

```

<motd xmlns="http://www.loc.gov/motd/v1" xmlns:
xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="http://www.loc.gov/motd/v1/motd-1-1.xsd">

<trailName>
    <name>Starved Rock State Park Trail</name>

```

```
</trailName>

<management>
    <name type="locality" authority="naf">Illinois. Department of Natural
        Resources</name>
</management>

<typeOfResource>outdoor trail</typeOfResource>

<language>
    <languageTerm type="code" authority="ISO639-2b">eng</languageTerm>
</language>

<recreationalAspects>
    <activity>hiking</activity>
    <activity>fishing</activity>
    <activity>boating</activity>
    <activity>picnicking</activity>
    <activity>camping</activity>
</recreationalAspects>

<trailSubject authority="lcsh">
    <topic>Trails</topic>
    <topic>Hiking--Illinois--Starved Rock State Park</topic>
    <topic>State parks</topic>
    <geographic>Illinois</geographic>
    <geographic>Illinois River (Ill.)</geographic>
</trailSubject>

<dateOperation>
    <season>year-round</season>
    <hours>6:30 a.m. to 9 p.m. daily</hours>
</dateOperation>

<levelOfDifficulty>
    <rated>not rated</rated>
</levelOfDifficulty>

<note>No alcohol is allowed at any time on the trails. Biking on the trails is prohibited. Trails may be
closed due to maintenance or weather conditions. Permits may be obtained at the permit booth. Contact
the Visitor Center at (815) 667-4726.</note>

<additionalInfo>
    <amenities>
        <form>restrooms-seasonal</form>
        <form>parking</form>
        <form>visitor center</form>
        <form>ranger center</form>
        <form>showers</form>
        <form>wheelchair access</form>
        <form>first aid</form>
        <form>food service</form>
        <form>playgrounds</form>
    </amenities>
    <trailRequirements>
```

```

        <pets>leashed only</pets>
    </trailRequirements>

    <trailRequirements>
        <permits>camping</permits>
        <permits>boating</permits>
    </trailRequirements>
</additionalInfo>

<physicalDescription>
    <naturalFeatures>15 canyons</naturalFeatures>
    <naturalFeatures>15 waterfalls</naturalFeatures>
    <naturalFeatures>6 overlooks</naturalFeatures>
    <naturalFeatures>sandstone rock formations</naturalFeatures>
    <naturalFeatures>Illinois River</naturalFeatures>
    <length>12.3 miles</length>
    <trailConditions>unpaved</trailConditions>
    <flora authority="lcsh">
        <plant>American witch hazel</plant>
        <plant>Hamamelis virginiana</plant>
        <plant>Bush huckleberry</plant>
        <plant>Gaylussacia dumosa</plant>
        <plant>Rocky Mountain iris</plant>
        <plant>Iris pariensis</plant>
        <plant>Small-leaf spiderwort</plant>
        <plant>Tradescantia</plant>
    </flora>
    <fauna authority="lcsh">
        <animal>White-tailed deer</animal>
        <animal>Odocoileus virginianus</animal>
        <animal>Red-tailed hawk</animal>
        <animal>Buteo jamaicensis</animal>
        <animal>Yellow-bellied sapsucker</animal>
        <animal>Sphyrapicus varius</animal>
        <animal>Indigo painted bunting</animal>
        <animal>Passerina cyanea</animal>
    </fauna>
</physicalDescription>

<location authority="naf">
    <state>Illinois</state>
    <county>LaSalle County (Ill.)</county>
</location>

<relatedItem>
    <title>Starved Rock State Park Brochure and Trail Map</title>
    <url>http://dnr.state.il.us/publications/pdf/0000005.pdf</url>
</relatedItem>

<relatedItem>
    <title>Illinois Department of Natural Resources Starved Rock State Park</title>
    <url>#Picnicking</url>
</relatedItem>

```

```
</motd>
```

### 3. Madeline Lake Trail/Wisconsin

```
<motd xmlns="http://www.loc.gov/motd/v1" xmlns:  
xsi="http://www.w3.org/2001/XMLSchema-instance"  
xsi:schemaLocation="http://www.loc.gov/motd/v1  
http://www.loc.gov/standards/motd/v1/motd-1-1.xsd">  
  
<trailName>  
    <name>Madeline Lake Trail</name>  
</trailName>  
  
<management>  
    <name type="locality" authority="naf">Wisconsin. Department of Natural  
    Resources</name>  
</management>  
  
<typeOfResource>outdoor trail</typeOfResource>  
  
<language>  
    <languageTerm type="code" authority="ISO639-2b">eng</languageTerm>  
</language>  
  
<recreationalAspects>  
    <activity>hiking</activity>  
    <activity>biking</activity>  
    <activity>cross-country skiing</activity>  
</recreationalAspects>  
  
<trailSubject authority="lcsh">  
    <topic>Trails</topic>  
    <geographic>Wisconsin</geographic>  
</trailSubject>  
  
<dateOperation>  
    <season>year-round</season>  
</dateOperation>  
  
<levelOfDifficulty authority="local">  
    <rated>moderate--steep climbs</rated>  
</levelOfDifficulty>  
  
<note>Excellent trail for all levels of skiers.</note>  
  
<additionalInfo>  
    <amenities>  
        <form>parking</form>  
        <form>shelter with fire ring</form>  
    </amenities>  
    <trailRequirements>  
        <fees>cross-country skiing</fees>  
        <fees>biking</fees>  
        <pets>leashed when no snow</pets>  
    </trailRequirements>
```

```

</additionalInfo>

<physicalDescription>
    <naturalFeatures>3 lakes</naturalFeatures>
    <naturalFeatures>steep hills</naturalFeatures>
    <length>9.5 miles</length>
    <trailConditions>
        <surface>grass</surface>
        <surface>logging roads</surface>
    </trailConditions>
</physicalDescription>

<location authority= "naf">
    <state>Wisconsin</state>
    <county>Oneida County (Wis.)</county>
    <region type="recreation area">Northern Highland-American Legion State Forest, Wis.</region>
</location>

<relatedItem>
    <title>Northern Highland American Legion State Forest Trail Descriptions</title>
    <url>http://dnr.wi.gov/topic/StateForests/nhal/trails.html</url>
</relatedItem>
<relatedItem>
    <title>Madeline Lake Trail</title>
    <url>http://dnr.wi.gov/topic/StateForests/nhal/documents/madeline.pdf</url>
</relatedItem>

</motd>

```

#### 4. Richland B&O Trail/Ohio

```

<motd xmlns="http://www.loc.gov/motd/v1" xmlns:
xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="http://www.loc.gov/motd/v1
http://www.loc.gov/standards/motd/v1/motd-1-1.xsd">

<trailName>
    <name>Richland B&O Trail</name>
</trailName>

<management>
    <name type="locality" authority="local">Richland County Park District</name>
</management>

<typeOfResource>outdoor trail</typeOfResource>

<language>
    <languageTerm type="code" authority="ISO639-2b">eng</languageTerm>
</language>

<recreationalAspects>
    <activity>biking</activity>
    <activity>hiking</activity>
</recreationalAspects>

```

```

<trailSubject authority="lcsh">
    <topic>Trails</topic>
    <geographic>Ohio</geographic>
</trailSubject>

<dateOperation>
    <season>year-round</season>
</dateOperation>

<levelOfDifficulty>
    <rated>easy</rated>
</levelOfDifficulty>

<note>The B & O is primarily a rural rail-trail with short sections through three small towns and the west end of Mansfield. In Lexington, there is a bike shop close to the trail. The bikeway is mostly flat with a few squiggly turns here and there. Elevation gain is minimal but noticeable between North Lake Park and Millsboro Road in Mansfield. Waterways include Mohican River, Clear Form River, and Touby Run. The Mansfield trailhead begins in the North Lake Park.</note>

<additionalInfo>
    <amenities>
        <form>restrooms</form>
        <form>water fountain</form>
        <form>parking</form>
    </amenities>
</additionalInfo>

<physicalDescription>
    <naturalFeatures>3 rivers</naturalFeatures>
    <length>18.5 miles</length>
    <trailConditions>paved</trailConditions>
    <trailConditions>19 road crossings</trailConditions>
</physicalDescription>

<location authority="naf">
    <state>Ohio</state>
    <county>Richland County (Ohio)</county>
</location>

<relatedItem>
    <title>Richland B&O Trail Map</title>
    <url>http://www.mansfieldtourism.com/upload/images/members/sports\_and\_recreation/action\_adventure\_sports/richland\_bando\_bike\_trail/BO\_Trail\_map\_final\_version\_August\_24\_2011.jpg</url>
</relatedItem>

</motd>

```

## 5. Courtois Section of the Ozark Trail/Missouri

```

<motd xmlns="http://www.loc.gov/motd/v1" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:schemaLocation="http://www.loc.gov/motd/v1 http://www.loc.gov/standards/motd/v1/motd-1-1.xsd">

<trailName>

```

```
<name>Courtois Section of the Ozark Trail</name>
</trailName>

<management>
    <name type="locality" authority="naf">U.S. Forest Service</name>
</management>

<typeOfResource>outdoor trail</typeOfResource>

<language>
    <languageTerm type="code" authority="ISO639-2b">eng</languageTerm>
</language>

<recreationalAspects>
    <activity>hiking</activity>
    <activity>backpacking</activity>
    <activity>canoeing</activity>
    <activity>camping</activity>
</recreationalAspects>

<trailSubject authority="lcsh">
    <topic>Trails</topic>
    <geographic>Missouri</geographic>
</trailSubject>

<dateOperation>
    <season>year-round</season>
</dateOperation>

<levelOfDifficulty>
    <rated>moderate</rated>
</levelOfDifficulty>

<note> Located approximately 500 feet south of the trail at mile 2.6 are the ruins of the old Scotia Ironworks smelter, built in 1870. Western end of one-mile road trip at the entrance to Bass' River Resort. Register at the office if you wish to park. Watch for vehicles if traveling on the road. Portions of the trail may be seasonally closed for special hunts. Caves include Onondaga Cave, Cathedral Cave, Bear Cave, and Bat Cave. Waterways include Huzzah Creek, Courtois Creek, and Meramec River.</note>

<additionalInfo>
    <amenities>
        <form>restrooms</form>
        <form>camping available 15 September to 15 May</form>
        <form>parking</form>
    </amenities>
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        <fees>parking</fees>
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    <naturalFeatures>scenic view from bluffs</naturalFeatures>
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<trailConditions>unpaved</trailConditions>
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    <state>Missouri</state>
    <county> Crawford County (Missouri)</county>
    <region>Mark Twain National Forest (Agency : U.S.)</region>
</location>

<relatedItem>
    <title>Courtois section of the Ozark Trail - Mile0-14</title>
    <url>http://www.ozarktrail.com/planner/maps/detailed/
        Courtois1mile0to13.jpg</url>
</relatedItem>

</motd>
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