

**Rediscovery of the Spotted Darter, *Etheostoma maculatum*,
in Indiana Waters: Blue River; Crawford, Harrison and
Washington Counties; Ohio River Drainage, USA**

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The spotted darter, *Etheostoma maculatum*, originally inhabited the faster, deeper riffles of medium-sized rivers in a triangular range extending from northwestern Indiana to northwestern Pennsylvania to southern Tennessee. Indiana Heritage Program records reveal that, prior to 1900, Jordan may have collected spotted darters from several locations in the northern half of the state (3, 4); however, the only verifiable museum specimens (U.S. National Museum No. 69233) are two spotted darters collected by P. Kirsch on 25 August 1899 near Delong in Fulton County (6). Despite earlier records, the spotted darter was not collected during Gerking's 1945 statewide survey (2), and it was excluded from an annotated key to the fishes of Indiana published in 1968 (5). The purpose of this paper is to report an extant spotted darter population in Indiana waters, and the first collections ever for a stream located in southern Indiana.

Our initial collections were taken from the Blue River near White Cloud in Harrison County downstream from an abandoned bridge and rock dam (Figure 1, Table 1). All specimens were taken by seining a smaller side branch of the main stream which coursed around the right side of an island located below the dam. Unfortunately, changing stream bed morphology and a new canoe access in the center of the dam have resulted in the elimination of this particular habitat. Swift mainstream riffles were suspected to be the darter's preferred habitat, but our collection attempts in the river

TABLE 1. Spotted Darter Records for the Blue River, a Southern Indiana Tributary of the Ohio River.

Location	Date	N	Latitude-Longitude
1. White Cloud below dam	24 SEP 1976	1	38°13'45",86°13'37"
" "	20 JUL 1977	1	" "
" "	11 JUL 1978	3	" "
" "	25 SEP 1977	3	" "
" "	10 JUL 1979	5	" "
" "	17 JUL 1980	1	" "
2. Near Wyandotte Cave	10 OCT 1983	5	38°13'23",86°15'14"
3. Below Rothrock's Dam	13 SEP 1984	5*	38°16'17",86°16'20"
4. Below Milltown Dam	25 JUL 1984	5*	38°20'26",86°16'27"
5. Below Fredericksburg	14 AUG 1984	1	38°25'45",86°11'50"
6. Above Fredericksburg	14 AUG 1984	2	38°26'02",86°11'31"

*Several additional specimens returned to stream

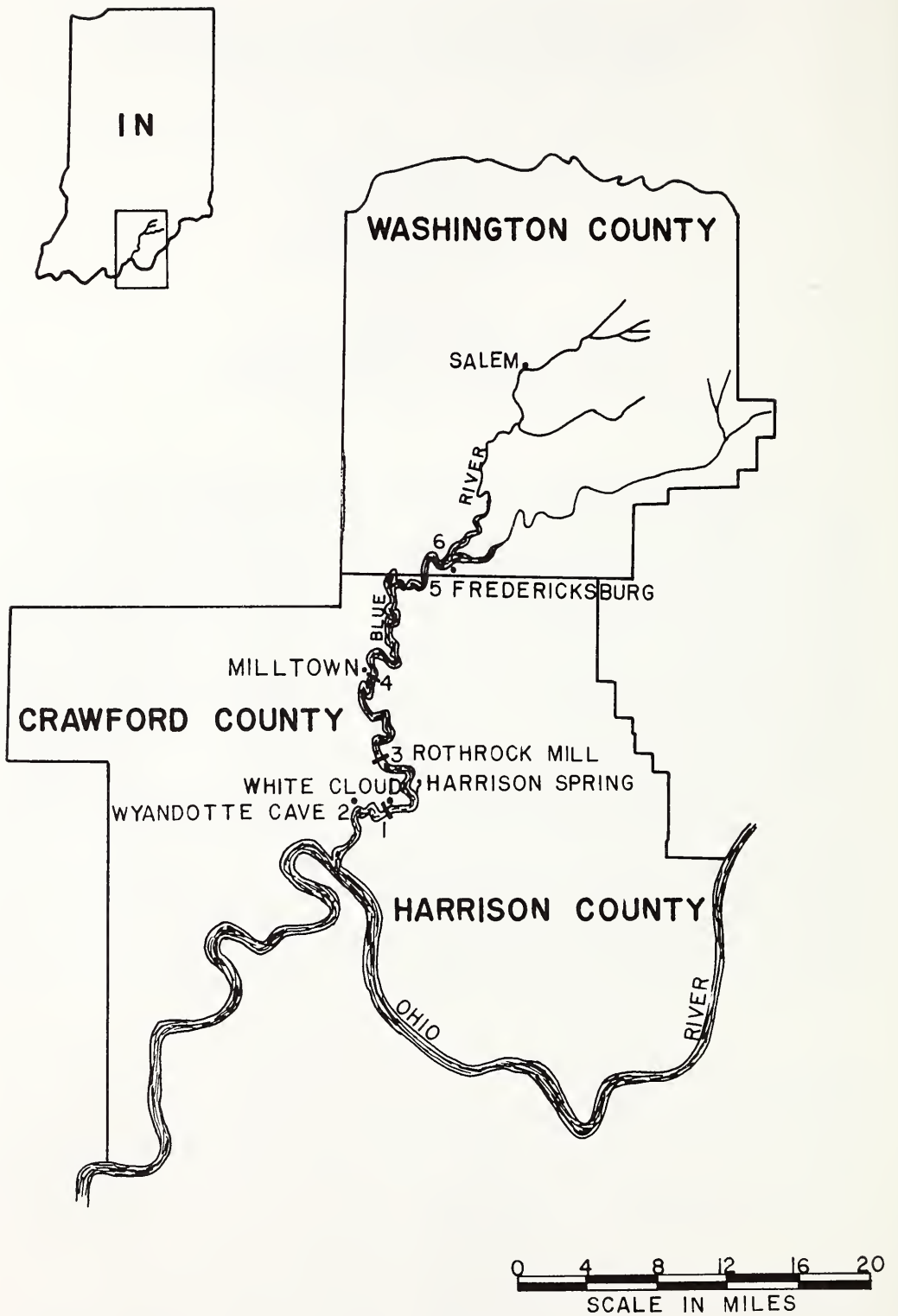


FIGURE 1. Map of Blue River with Spotted Darter Collection Locations. Numbers 1-6 are identified in Table 1.

proper were unsuccessful until an extremely low discharge period in 1983 when we took five additional specimens in a series of mainstream riffles near the entrance to Wyandotte Cave (Figure 1, Table 1).

We hypothesized that the spotted darters apparently prefer the riffles located downstream from old rock dams where the velocity is normally high and the water well-oxygenated. In 1984, we substantiated this hypothesis by locating significant populations below Rothrock's Dam and Milltown Dam (Figure 1, Table 1). In addition, we found specimens in two locations near Fredericksburg which is almost 50 river miles above the Wyandotte Cave location (Figure 1).

At present, the spotted darter is regarded by the Department of Natural Resources as a species of special concern. Since *E. m. maculatum*, the nominate subspecies which our specimens represent, is very difficult to capture throughout most of its former range, and may do well in only a few locations in the upper Ohio drainage of Pennsylvania (1), we feel that aggressive action should be taken to locate this darter in remaining ideal habitats.

Acknowledgments

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