



DESCRIPTION OF MAP

The map shows cave openings and generalized areas of karst topography (sinkhole areas and sinking-stream basins) related to strata of Ordovician, Silurian, and Devonian Age in southeastern Indiana. The outlines of karst topography are based on the presence of sinkholes and swallowholes that indicate the development of subterranean drainage. Drainage basins of sinking streams are delimited, but these are not necessarily characterized by abundant sinkholes. Small-scale features, such as solution-enlarged joints or crevices and solution-sculptured bedrock surfaces, are not shown. Likewise, some areas of scattered sinkholes and (or) small sinkholes are omitted. Most cave entrances in the area are entered either through openings in sinkholes or at spring outlets of subterranean streams.

Areas shown as sinkholes generally are agglomerations of sinkholes larger than 1/8 square mile (80 acres). Sinking-stream basins smaller than 1/8 square mile have generally been included with sinkholes. Some sinkholes are present within areas shown as sinking-stream basins and in areas of limestone bedrock where sinkholes are neither dominant nor of sufficient size to be observed on topographic maps or aerial photographs.

Little is known about geologic and geomorphologic controls on the distribution of cave systems in this part of Indiana. Although cave openings may be concentrated along stream valleys, subsurface drainage through fractures may extend for unknown distances beneath adjacent interfluvial areas.

SOURCES OF INFORMATION

Croplines were taken from H. H. Gray, J. L. Forsyth, A. F. Schneider, and A.M. Gooding, 1972, Geologic map of the 1 degree by 2 degree Cincinnati Quadrangle, Indiana and Ohio, showing bedrock and unconsolidated deposits, Indiana Geological Survey Regional Geologic Map 7A (1:250,000 scale); and H. H. Gray, 1972, Geologic map of the 1 degree by 2 degree Louisville Quadrangle, Indiana, showing bedrock and unconsolidated deposits, Indiana Geological Survey Regional Geologic Map 6A (1:125,000 scale). Croplines were digitized by Peter Reehling (formerly of the Indiana Geological Survey). Map projection is Universal Transverse Mercator, Zone 16, NAD 27. Geographic Information System compilation by Denver Harper, using PC ArcInfo software.

Areas drained predominantly through sinkholes and sinking-stream basins were compiled from maps and aerial photographs by Richard Powell (consulting geologist, formerly of the Indiana Geological Survey). 1:24,000 and 1:125,000 scale map data was digitized by Denver Harper.

Locations of cave entrances are from the Indiana Cave Survey, provided by Samuel S. Frushour (Indiana Geological Survey). Locations were plotted by Angela Moeller (formerly of the Indiana Geological Survey) at a scale of 1:100,000 and were digitized by Denver Harper.

Geographic Information System (GIS) coverages for this map, with the exception of the cave entrances coverage, are available through the Publication Sales Office, Indiana Geological Survey, Indiana University. 611 N. Walnut Grove, Bloomington, Indiana 47405. Phone (812) 855-7636. Fax (812) 855-2862.

This map data was compiled in 1997 from information available at the time, but was unpublished until 2002; the map does not reflect any changes in data since 1997. Cave locations are approximate and incomplete. Please provide corrections to Denver Harper or Samuel S. Frushour, Indiana Geological Survey, 611 N. Walnut Grove, Bloomington, IN 47405, FAX (812) 855-2862.

This map was compiled and published by the Indiana Geological Survey, Indiana University, using data believed to be accurate; however, a margin of error is inherent in all maps. This product is distributed "AS-IS" without warranties of any kind, either expressed or implied, including but not limited to warranties of suitability of a particular purpose or use. There is no attempt in either the design or production of this map to define the limits or jurisdiction of any federal, state, or local government. This map is intended for use only at the published scale. A detailed on-the-ground and historical analysis of a single site may differ from this map. This map is not a substitute for an actual survey or a specific site description.



Base map digitized from USGS map of Indiana scale 1:500,000

**DISTRIBUTION OF SINKHOLES, SINKING-STREAM BASINS,
AND CAVE OPENINGS IN SOUTHEASTERN INDIANA**

by
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