**Location**

Intersection of Kimball and Macedonia roads, Erie Co., Venango Twp., lat: 42.0718, lon: -79.7816; Wattsburg 7.5-minute quadrangle.

Erie County has the only drumlins in Pennsylvania. Their orientation is approximately S35°E. The drumlins are part of the Chautauqua drumlin field that extends into Pennsylvania from western New York.

Topographic relief in the area shown at right is less than 200 feet. The drumlins here are about 60 to 110 feet higher than the surrounding landscape.

**Geology**

Drumlins are glacial topographic features (landforms) and are typically shaped as spoon-shaped elongate hills or low ridges. A drumlin has a blunt nose that points in the direction of ice approach (here, the north-northwest), and a gentler slope in the direction of ice advance. They may be especially noticeable from the air, on a topographic map, or a shaded-relief map. The drumlin's long axis is typically parallel to the direction of ice movement. Drumlins are generally two to three times longer than they are wide.

The specific mechanism of drumlin formation has been studied for decades. Drumlins apparently formed under special topographic conditions; they were molded under the ice and shaped as the ice advanced. The composition of drumlins can be very diverse, having bedrock cores, till, or sorted sands and gravels in various ratios. In their formation, they can be depositional and erosional. They often occur in “swarms.”

**Recommended Reading**


For information regarding outstanding geologic features, contact the Pennsylvania Geological Survey:

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717-702-2017  www.dcnr.state.pa.us/topgeo