**Introduction**

- A drumlin is an elongated hill formed by the streamlined movement of glaciers. Drumlins form a blunt end toward the head of the feature, while retaining a tapered end toward the direction of glacial flow.
- The Green Bay Lobe is responsible for much of the creation of the Menominee Drumlins Field during the Wisconsinan Glaciation Stage (~14,000 years BP).
- Menominee County is home to thousands of drumlins which are mostly tapered in a southeasterly direction.
- This study examines the drumlins in northern Menominee County by analyzing each feature's height, length, width, and mass. The goal is to find a correlation or a pattern within the data which might indicate changes in glacial flow, movement, or contact.

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**Methodology**

- Initially a ‘point’ layer was created in ArcCatalog, points were placed at the maximum elevation for each drumlin.
- Using ArcMap, ‘contour’ (5 foot intervals), ‘hillshade’, and ‘kernel density’ layers were created for the project.
- The ‘measure’ tool was then used to record each drumlins length and width in feet. Height was identified by counting the drumlins last enclosed contour to its maximum elevation. Mass was calculated by multiplying (Height*Length*Width) for each drumlin.
- Data was then entered into the point layers ‘attribute table’ so that kernel density tests could be run for each factor.

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**Results**

A total of 1,574 drumlins were examined by the end of the study. When mapping the individual factors geographically, noticeable linear patterns oriented toward the southeast (glacial flow) were recognized. These areas may be where the Green Bay Lobe may have been thicker, experienced more landmass obstruction, or varying fluctuations in the lobes advance. When the data was entered into SPSS, noticeable positive correlations appeared for every factor.

<table>
<thead>
<tr>
<th>Factor</th>
<th>Correlation Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Height</td>
<td>.667**</td>
</tr>
<tr>
<td>Length</td>
<td>.546**</td>
</tr>
<tr>
<td>Width</td>
<td>.548**</td>
</tr>
<tr>
<td>Mass</td>
<td>.714**</td>
</tr>
</tbody>
</table>

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**Acknowledgements**

Dr. Robert Regis

**References**


**Contact Information**

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