**Introduction**

Does the presence of decaying plants have an effect on the diversity of an area?

Intermediary Disturbance Hypothesis

Are the effect of decaying plants consistent with the IDH?

Hypothesis: At an intermediate disturbance of decaying plants there will be the highest amount of species diversity.

**Methods**

<table>
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<tr>
<th>Statistics Used</th>
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<tbody>
<tr>
<td>1. Compared means of species richness for two different habitats using unpaired t-test</td>
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<td>2. Species accumulation curves to track the addition of new species for the two different habitats</td>
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<tr>
<td>3. Shannon-Weiner diversity index (H) to compare the diversity of the two habitats</td>
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\[ H = \sum \ln P_i \]

4. Compared means of decaying species in each habitat using unpaired t-test

Survey conducted in Mid-September of 2010 at Hafner Meadows in Lake Forest, IL

Photo Courtesy of Sean Menke

**Results**

**Species accumulation curves of plant diversity**

**Shannon-Weiner Diversity Index (H)**

**Species richness**

**Average number of dead species**

**Future Studies**

- Continue survey on a larger scale to acquire more data
- Comparison between different habitats to generalize findings
- Examination of the different types of possible habitat disturbances.

**Conclusions**

- Null hypothesis is not supported
- High levels of plant decay was consistent with low species diversity
- Low levels of plant decay was consistent with high species diversity
- Consistent with Intermediate Disturbance Hypothesis

**References**

- SB Menke, B Guenard, JD Sexton, MD Weiser, RR Dunn, J Silverman. 2010. Urban areas may serve as habitat and corridors for dry-adapted, heat tolerant species: an example from ants. Urban Ecosystem.

**Further Information**

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