INSECT SURVEY

for

SIBLEY'S BURR OAK GROVE

Sibley, Ford County, Illinois

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1996

Funded by Illinois Department of Natural Resources
Small Projects Program
Introduction

In October on 1995 the Nature Conservancy (TNC) received a land donation of a Burr Oak Grove in Ford County, near the town of Sibley, Illinois. At that time management started with removal of non-native species of trees. Aging of windfallen oaks in the grove started in early 1996 with the assistance from William McClain from the Illinois Department of Natural Resources (IDNR). One individual Bur Oak (100cm.) was aged at 325 years old. This resulted in a timber inventory conducted by McClain and John Ebinger, Ph.D from Eastern Illinois University in 1996. It was determined that 38 acres of old growth timber were present. This, combined with the age of the trees, made Sibley’s Bur Oak Grove the only example of a pre-settlement prairie grove in Central Illinois. Before controlled fires could be introduced, an insect survey was conducted by the author and was funded by IDNR’s Small Project Program.

Methods
Between May to October, 1996, 15 day and nocturnal surveys were conducted. Day surveys were conducted by random routes through the grove and wetlands by observing insects and capturing species with aerial nets for identification. Nocturnal surveys were performed between dusk to 1:00 to 2:00 AM, and consisted of suspended white sheets illuminated with portable batteries and 15 watt blacklights. Suspended white sheets also were illuminated with a generator and a 400 watt metal-halide light. Sugar baiting was used for Noctuid Moths. This was performed by mixing beer, brandy, brown sugar and rotten fruit. This mixture was left to ferment for two months, then thickened with more brown sugar and painted onto trees and posts in the grove. Individuals were collected off painted areas by capturing with collecting jars. Voucher specimens were collected and preserved. These specimens were deposition at the Illinois State Museum Zoology Department, Springfield Illinois.

Results
During this survey 10 species of Odanates were documented. All determinations were made by Tim Vogt, Of The Illinois State Museum, Springfield, Illinois. For Lepidoptera 58 species were found, and 46 of these confirmed to species. A total of 56 other insects were collected and identified to family consisting of 11 orders. These are being sent off for further consulting from specialist in their field.
INSECTS OF SIBLEY’S BURR OAK GROVE

ODONATES

Dragonflies and Damselflies are insects that live in wetlands and timbers throughout Illinois. As larvae these insects live in aquatic systems for an average of two to three years, before they emerge as adults. In fishless ponds or wetlands they are the primary predators. They feed on aquatic insects as larvae and as adults they prey on other flying insects. Many of these species are not very tolerable to pollutants and can be used as indicators of water quality.

<table>
<thead>
<tr>
<th>Species</th>
<th>Dates observed</th>
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</thead>
<tbody>
<tr>
<td><em>Ischnura verticalis</em></td>
<td>15-June-96, 31-July-96</td>
</tr>
<tr>
<td><em>Epitheca (Tetraneuria) cynosura</em></td>
<td>15-June-96, 29-June-96</td>
</tr>
<tr>
<td><em>Lestes unguiculatus</em></td>
<td>15-June-96, 31-July-96</td>
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<tr>
<td><em>Libellula pulchella</em></td>
<td>15-June-96</td>
</tr>
<tr>
<td><em>L. lydia</em></td>
<td>31-July-96</td>
</tr>
<tr>
<td><em>L. quadriraculata</em></td>
<td>15-June-96</td>
</tr>
<tr>
<td><em>Epitheca (Epicordulia) princeps</em></td>
<td>29-June-96</td>
</tr>
<tr>
<td><em>Sympetrum rubicundulum</em></td>
<td>31-July-96</td>
</tr>
<tr>
<td><em>Anax junius</em></td>
<td>31-July-96</td>
</tr>
<tr>
<td><em>Pachydiplax longipennis</em></td>
<td>31-July-96</td>
</tr>
</tbody>
</table>

LEPIDOPTERA

Approximately 2000 species of Lepidoptera (Butterflies and Moths) occur in Illinois. These species are important to the ecosystem because of their association with flora of this area. The caterpillars are primary consumers, and the adult stages are pollinators. In addition, they are common food resource for many species of birds, mammals, and other arthropods. Many species, especially those with restricted hostplants requirements, serve as indirect indicators of habitat quality (LaGesse, et. al. 1996). With the current interest in land management and in maintaining plant and animal diversity, a formal survey was initiated in 1996 to document the Lepidoptera fauna in Sibley’s Burr Oak Grove.

BUTTERFLIES

Hesperiidae
*Pholisora catullus* Common Sooty Wing Skipper
*Ancyloxpha numitor* Least Skipper
*Atrytone logan* Delaware Skipper

Papilionidae
*Papilio polyxenes* Black Swallowtail Butterfly
*Pterourus glaucus* Tiger swallowtail Butterfly

Pieridae
*Atrogeia rapae* European Cabbage Butterfly
BUTTERFLIES cont.

Colias philodice
Colias eurytheme
Lycanidae
Everes comyntas
Celastrina argiolus
Nymphalidae
Phyciodes tharos
Polygonia interrogationis
Nymphalis antiopa
Vanessa cardui
Basilarchia arthemis
Apaturidae
Asterocampa celtis
Satyridae
Megisto cymela
Danaidae
Danaus plexippus

Clouded Sulphur Butterfly
Alfalfa Butterfly
Eastern-Tailed Blue Butterfly
Spring Azure
Pearl Crescent Butterfly
Question Mark Butterfly
Mourning Cloak Butterfly
Painted Lady Butterfly
Red-Spotted Purple Butterfly
Hackberry Butterfly
Little Wood Satyr Butterfly
Monarch Butterfly

Moths
Sphingidae
Ceratomia hageni
Paonias myops
Arctidae
Hypoprepia miniata
Grammia oithona
Pyrrharctia isabella
Noctuidae
Schinia rivulosa
Spodoptera ornithogalli
Galgula partita
Acronicta ovata
Anagapha falcifera
Scroliopteryx librartrix
Zale lunata
Zale aeruginosa
Catocala ultronia
Catocala cara
Catocala dejecta
Pachypolia atricornis
Acronicta hasta
Abargrotis alternata
Bellura Sp.
Ogdoconia cinereola

Osage Orange Sphinx Moth
Small-Eyed Sphinx Moth
Scarlet-Winged Lichen Moth
Straight-Lined Tiger Moth
Isabella Tiger Moth
Ragweed Flower Moth
Yellow-Striped Armyworm Moth
The Wedgeling Moth
Ovatate dagger Moth
Celery Looper Moth
Herald Moth
Lunate Zale Moth
Green-Dusted Zale Moth
Ultronia Underwing Moth
Darling Underwing Moth
Dejected Underwing Moth
Pachypolia Moth
Speared Dagger Moth
Greater Red Dart Moth
NA
Common Pinkband Moth
MOTHS cont.
Notodontidae
*Nadata gibbosa*
*Heterocampa obliqua*

Geometridae
*Xanthotype urticaea*
*Probole americaria*
*Nematocampa limbata*
*Besma quercivoraria*

Tortricidae
*Choristoneura rosaceana*

Oecophoridea
*Mathildana newmanella*

White-Dotted Prominent Moth
Oblique Heterocampa Moth

Buttercup Moth
Friendly Probole
Horned Spanworm Moth
Oak Besma Moth

Oblique-Banded Leafroller Moth

NA