

INSECT SURVEY

for

SIBLEY'S BURR OAK GROVE

Sibley, Ford County, Illinois

Vernon LaGesse
1619 S. Pasfield
Springfield, Illinois 62704

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 deposited at the Illinois State Museum Zoology Department, Springfield Illinois.

Results

During this survey 10 species of Odonates 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 insect 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 larva 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.

Species

Ischnura verticalis
Epithea (Tetragoneuria) cynosura
Lestes unguiculatus
Libellula pulchella
L. lydia
L. quadrimaculata
Epithea (Epicordulia) princeps
Sympetrum rubicundulum
Anax junius
Pachydiplax longipennis

Dates observed

15-June-96, 31-July-96
15-June-96, 29-June-96
15-June-96, 31-July-96
15-June-96
31-July-96
15-June-96
29-June-96
31-July-96
31-July-96
31-July-96

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 adults 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
Ancyloxypha numitor
Atrytone logan

Common Sooty Wing Skipper
Least Skipper
Delaware Skipper

Papilionidae

Papilio polyxenes
Pterourus glaucus

Black Swallowtail Butterfly
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

Anagrapha falcifera

Scroliopteryx libartrix

Zale lunata

Zale aeruginosa

Catocala ultronia

Catocala cara

Catocala dejecta

Pachypolia atricornis

Acronicta hasta

Abargrotis alternata

Bellura Sp.

Ogdoconta 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

White-Dotted Prominent Moth

Oblique Heterocampa Moth

Geometridae

Xanthotype urticaria

Probole americaria

Nematocampa limbata

Besma quercivoraria

Buttercup Moth

Friendly Probole

Horned Spanworm Moth

Oak Besma Moth

Tortricidae

Choristoneura rosaceana

Oblique-Banded Leafroller Moth

Oecophoridae

Mathildana newmanella

NA