



Delta State University  
Division of Biological and Physical Sciences

Kimberly  
M.I. Please  
Return  
- Becky

June 16, 2005

Stephen W. Gard  
Project Leader  
Fish and Wildlife Service  
North Mississippi Refuges Complex  
P.O. Box 1070  
Grenada, MS 38902

Dear Mr. Gard,

Thank you so much for your assistance in providing a permit last year for collecting insects for our insect biodiversity inventory in the North Mississippi refuges. I'd like to request a new collecting permit for Dahomey NWR & Tallahatchee NWR for this year. I've met with Becky and Alejandro and discussed ways for my students and I to assist in inventorying some of the insect biodiversity of the refuge. Last year I focused on collecting and inventorying butterflies and dragonflies of the refuge (as well as other species) and have compiled checklists of some of the species collected. For the checklists, I've prepared a list including collected species as well as potential occurrences based on published species range information (similar to the bird list of Dahomey and Tallahatchee NWRs). Enclosed please find the butterfly checklist. I will provide updates to your office per our agreement.

My students and I also conducted a study of the goldenrod-gall fly communities in Dahomey NWR. We found gall fly galls on goldenrod in many parts of the refuge and dissected them finding a hundreds of gall flies and number of different insect predators. We also found a much evidence of birds feeding on the gall insects during the winter. Downy woodpeckers accounted for about half the gall fly mortality near woods edges. Carolina chickadees also exploited this rich insect resource in the winter. We presented preliminary results of this study at the Association of Southeastern Biologist meetings in Florence, AL. Enclosed please find a copy of our poster presentation.

Thanks again, and please let me know if you should need any other information.

Sincerely,

Dr. Donald L. Sudbrink Jr.  
Assistant Professor

Butterflies of North Mississippi National Wildlife Refuges

Family	Common name	Scientific name	potential	potential	collected
			MS	NWRs	NWRs
<b>Swallowtails (Family Papilionidae)</b>					
<b>Swallowtails (Subfamily Papilioninae)</b>					
	Pipevine Swallowtail	<i>Battus philenor</i>	1	1	1
	Zebra Swallowtail	<i>Eurytides marcellus</i>	1	1	1
	Black Swallowtail	<i>Papilio polyxenes</i>	1	1	1
	Giant Swallowtail	<i>Papilio cresphontes</i>	1	1	1
	Eastern Tiger Swallowtail	<i>Papilio glaucus</i>	1	1	1
	Spicebush Swallowtail	<i>Papilio troilus</i>	1	1	1
	Palamedes Swallowtail	<i>Papilio palamedes</i>	1		
<b>Whites and Sulphurs (Family Pieridae)</b>					
<b>Whites (Subfamily Pierinae)</b>					
	Checkered White	<i>Pontia protodice</i>	1	1	1
	Cabbage White	<i>Pieris rapae</i>	1	1	1
	Great Southern White	<i>Ascia monuste</i>	1		
	Falcate Orangetip	<i>Anthocharis midea</i>	1	1	1
<b>Sulphurs (Subfamily Coliadinae)</b>					
	Clouded Sulphur	<i>Colias philodice</i>	1	1	1
	Orange Sulphur	<i>Colias eurytheme</i>	1	1	1
	Southern Dogface	<i>Zerene cesonia</i>	1	1	1
	Yellow Angled-Sulphur	<i>Anteos maerula</i>	1		
	Cloudless Sulphur	<i>Phoebis sennae</i>	1	1	1
	Barred Yellow	<i>Eurema daira</i>	1	1	
	Mexican Yellow	<i>Eurema mexicana</i>	1		
	Little Yellow	<i>Eurema lisa</i>	1	1	1
	Sleepy Orange	<i>Eurema nicippe</i>	1	1	
	Dainty Sulphur	<i>Nathalis iole</i>	1	1	1
<b>Gossamer-wing Butterflies (Family Lycaenidae)</b>					
<b>Harvesters (Subfamily Miletinae)</b>					
	Harvester	<i>Feniseca tarquinius</i>	1	1	
<b>Coppers (Subfamily Lycaeninae)</b>					
	Bronze Copper	<i>Lycaena hyllus</i>	1	1	1
<b>Hairstreaks (Subfamily Theclinae)</b>					
	Atala	<i>Eumaeus atala</i>	1		
	Great Purple Hairstreak	<i>Atlides halesus</i>	1	1	1
	Coral Hairstreak	<i>Satyrium titus</i>	1		
	Banded Hairstreak	<i>Satyrium calanus</i>	1	1	1
	King's Hairstreak	<i>Satyrium kingi</i>	1	1	
	Striped Hairstreak	<i>Satyrium liparops</i>	1	1	
	Southern Hairstreak	<i>Fixsenia favonius</i>	1		
	Brown Elfin	<i>Callophrys augustinus</i>	1	1	
	Henry's Elfin	<i>Callophrys henrici</i>	1	1	
	Eastern Pine Elfin	<i>Callophrys niphon</i>	1	1	
	Juniper Hairstreak	<i>Callophrys gryneus</i>	1		
	White M Hairstreak	<i>Parrhasius m-album</i>	1	1	
	Gray Hairstreak	<i>Strymon melinus</i>	1	1	1
	Red-banded Hairstreak	<i>Calycopis cecrops</i>	1	1	
	Dusky-blue Groundstreak	<i>Calycopis isobeon</i>	1		
<b>Blues (Subfamily Polyommatainae)</b>					
	Eastern Pygmy-Blue	<i>Brephidium isophthalma</i>	1		
	Marine Blue	<i>Leptotes marina</i>	1		
	Ceraunus Blue	<i>Hemiargus ceraunus</i>	1		
	Reakirt's Blue	<i>Hemiargus isola</i>	1		
	Eastern Tailed-Blue	<i>Everes comyntas</i>	1	1	1
	Spring Azure	<i>Celastrina "ladon"</i>	1	1	1
	Summer Azure	<i>Celastrina neglecta</i>	1		

<b>Metalmarks (Family Riodinidae)</b>					
	Little Metalmark	<i>Calephelis virginiensis</i>	1	1	

<b>Brush-footed Butterflies (Family Nymphalidae)</b>					
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<b>Snouts (Subfamily Libytheinae)</b>					
	American Snout	<i>Libytheana carinenta</i>	1	1	1

<b>Heliconians &amp; Fritillaries (Subfamily Heliconiinae)</b>					
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	Gulf Fritillary	<i>Agraulis vanillae</i>	1	1	1
	Zebra Heliconian	<i>Heliconius charithonius</i>	1		
	Variiegated Fritillary	<i>Euptoieta claudia</i>	1	1	
	Diana	<i>Speyeria diana</i>	1		
	Great Spangled Fritillary	<i>Speyeria cybele</i>	1	1	

<b>True Brush-foots (Subfamily Nymphalinae)</b>					
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	Gorgone Checkerspot	<i>Chlosyne gorgone</i>	1		
	Silvery Checkerspot	<i>Chlosyne nycteis</i>	1	1	1
	Texan Crescent	<i>Phyciodes texana</i>	1		
	Phaon Crescent	<i>Phyciodes phaon</i>	1	1	1
	Pearl Crescent	<i>Phyciodes tharos</i>	1	1	1
	Baltimore	<i>Euphydryas phaeton</i>	1	1	
	Question Mark	<i>Polygonia interrogationis</i>	1	1	1
	Eastern Comma	<i>Polygonia comma</i>	1	1	1
	Mourning Cloak	<i>Nymphalis antiopa</i>	1	1	1
	American Lady	<i>Vanessa virginiensis</i>	1	1	1
	Painted Lady	<i>Vanessa cardui</i>	1	1	1
	Red Admiral	<i>Vanessa atalanta</i>	1	1	1
	Mimic	<i>Hypolimnas misippus</i>	1		
	Common Buckeye	<i>Junonia coenia</i>	1	1	1
	White Peacock	<i>Anartia jatrophae</i>	1		

<b>Irises and Relatives (Subfamily Limenitidinae)</b>					
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	Red-spotted Purple	<i>Limenitis arthemis</i>	1	1	1
	'Astyanax' Red-spotted Purple	<i>Limenitis arthemis astyanax</i>	1		
	Viceroy	<i>Limenitis archippus</i>	1	1	1

<b>Leafwings (Subfamily Charaxinae)</b>					
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	Goatweed Leafwing	<i>Anaea andria</i>	1	1	1
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<b>Emperors (Subfamily Apaturinae)</b>					
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	Hackberry Emperor	<i>Asterocampa celtis</i>	1	1	1
	Tawny Emperor	<i>Asterocampa clyton</i>	1	1	1

<b>Satyrs (Subfamily Satyrinae)</b>					
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	Southern Pearly Eye	<i>Enodia portlandia</i>	1	1	1
	Northern Pearly Eye	<i>Enodia anthedon</i>	1	1	1
	Creole Pearly Eye	<i>Enodia creola</i>	1	1	
	Appalachian Brown	<i>Satyroides appalachia</i>	1		
	Gemmed Satyr	<i>Cyllopsis gemma</i>	1	1	
	Carolina Satyr	<i>Hermeuptychia sosybius</i>	1	1	
	Georgia Satyr	<i>Neonympha areolata</i>	1	1	
	Little Wood Satyr	<i>Megisto cymela</i>	1	1	1
	Common Wood Nymph	<i>Cercyonis pegala</i>	1	1	1

<b>Monarchs (Subfamily Danainae)</b>					
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	Monarch	<i>Danaus plexippus</i>	1	1	1
	Queen	<i>Danaus gilippus</i>	1		

<b>Skippers (Family Hesperidae)</b>					
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<b>Spread-wing Skippers (Subfamily Pyrginae)</b>					
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	Silver-spotted Skipper	<i>Epargyreus clarus</i>	1	1	1
	Long-tailed Skipper	<i>Urbanus proteus</i>	1		
	Dorantes Longtail	<i>Urbanus dorantes</i>	1		
	Golden Banded-Skipper	<i>Autochton cellus</i>	1		
	Hoary Edge	<i>Achalarus lyciades</i>	1	1	

	Southern Cloudywing	<i>Thorybes bathyllus</i>	1	1	1
	Northern Cloudywing	<i>Thorybes pylades</i>	1	1	
	Confusing Cloudywing	<i>Thorybes confusus</i>	1	1	
	Hayhurst's Scalopwing	<i>Staphylus hayhurstii</i>	1	1	
	Sleepy Duskywing	<i>Erynnis brizo</i>	1	1	
	Juvenal's Duskywing	<i>Erynnis juvenalis</i>	1	1	
	Horace's Duskywing	<i>Erynnis horatius</i>	1	1	
	Mottled Duskywing	<i>Erynnis martialis</i>	1	1	
	Zarucco Duskywing	<i>Erynnis zarucco</i>	1	1	
	Funereal Duskywing	<i>Erynnis funeralis</i>	1		
	Wild Indigo Duskywing	<i>Erynnis baptisiae</i>	1	1	
	Common Checkered-Skipper	<i>Pyrgus communis</i>	1	1	1
	Tropical Checkered-Skipper	<i>Pyrgus oileus</i>	1		
	Common Sootywing	<i>Pholisora catullus</i>	1	1	
<b>Grass Skippers (Subfamily Hesperinae)</b>					
	Swarthy Skipper	<i>Nastra lherminier</i>	1		
	Neamathla Skipper	<i>Nastra neamathla</i>	1		
	Clouded Skipper	<i>Lerema accius</i>	1	1	1
	Least Skipper	<i>Ancyloxypha numitor</i>	1	1	1
	Southern Skipperling	<i>Copaeodes minima</i>	1	1	
	Fiery Skipper	<i>Hylephila phyleus</i>	1	1	
	Cobweb Skipper	<i>Hesperia metea</i>	1		
	Dotted Skipper	<i>Hesperia attalus</i>	1		
	Tawny-edged Skipper	<i>Polites themistocles</i>	1	1	1
	Crossline Skipper	<i>Polites origenes</i>	1	1	
	Whirlabout	<i>Polites vibex</i>	1	1	
	Southern Broken-Dash	<i>Wallengrenia otho</i>	1	1	
	Northern Broken-Dash	<i>Wallengrenia egeremet</i>	1	1	
	Little Glassywing	<i>Pompeius verna</i>	1	1	
	Sachem	<i>Atalopedes campestris</i>	1	1	
	Arogos Skipper	<i>Atrytone arogos</i>	1		
	Delaware Skipper	<i>Anatrytone logan</i>	1	1	
	Byssus Skipper	<i>Problema byssus</i>	1		
	Hobomok Skipper	<i>Poanes hobomok</i>	1		
	Zabulon Skipper	<i>Poanes zabulon</i>	1	1	
	Yehl Skipper	<i>Poanes yehl</i>	1	1	
	Broad-winged Skipper	<i>Poanes viator</i>	1	1	
	Palmetto Skipper	<i>Euphyes arpa</i>	1		
	Palatka Skipper	<i>Euphyes pilatka</i>	1		
	Dion Skipper	<i>Euphyes dion</i>	1	1	
	Bay Skipper	<i>Euphyes bayensis</i>	1		
	Dukes' Skipper	<i>Euphyes dukesi</i>	1	1	
	Dun Skipper	<i>Euphyes vestris</i>	1	1	
	Dusted Skipper	<i>Atrytonopsis hianna</i>	1	1	
	Pepper and Salt Skipper	<i>Amblyscirtes hegon</i>	1	1	
	Lace-winged Roadside-Skipper	<i>Amblyscirtes aesculapius</i>	1		
	Carolina Roadside-Skipper	<i>Amblyscirtes carolina</i>	1	1	
	Reversed Roadside-Skipper	<i>Amblyscirtes reversa</i>	1		
	Common Roadside-Skipper	<i>Amblyscirtes vialis</i>	1		
	Bell's Roadside-Skipper	<i>Amblyscirtes belli</i>	1		
	Dusky Roadside-Skipper	<i>Amblyscirtes alternata</i>	1		
	Eufala Skipper	<i>Lerodea eufala</i>	1	1	
	Twin-spot Skipper	<i>Oligoria maculata</i>	1		
	Brazilian Skipper	<i>Calpodes ethlius</i>	1		
	Salt Marsh Skipper	<i>Panoquina panoquin</i>	1		
	Ocola Skipper	<i>Panoquina ocola</i>	1	1	1
<b>Giant-Skippers (Subfamily Megathyminae)</b>					
	Yucca Giant-Skipper	<i>Megathymus yuccae</i>	1		
		<i>totals</i>	<b>145</b>	<b>98</b>	<b>50</b>