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# Arkansas Butterflies and Skippers

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## ABSTRACT

Since 1955 the writer has been compiling information on Arkansas butterflies and skippers. A list of species is presented from data obtained from personal collecting, extensive contacts with contemporary collectors, and a concerted literature search. A total of 151 species are listed on a chart which also shows from which of five designated areas in the state each species has been reported.

In 1893 The Rev. John Davis, after a "somewhat diligent canvass of the suburbs of Little Rock," reported collecting 30 species of butterflies (Davis, 1894). There have been few other published reports on Arkansas butterflies—none of a comprehensive nature for the state as a whole. A regional list for Northeast Arkansas by Masters (1967) and, earlier, lists of Hesperiidæ (1945) and Theclinae (1951) by H. A. Freeman and a short list by Rowley (1892) constitute the known published lists. The writer has been collecting in Arkansas, mainly in the northwest, since 1955 and has kept records not only of personal findings but also of those of contemporary collectors contacted and those found in a diligent search of the literature. The current list contains names of 151 species and is short by an estimated 8-10 species that are likely to be found eventually.

Topographically the two main features of Arkansas are the forest highlands of the northwest "half" triangle of the state and the flatlands of the southeast "half" triangle of the state. The forest highlands are bisected by the Arkansas River which runs west to east between the Ozark Highlands on the north and the Ouachita Mountains on the south. Elevation of the highlands ranges upward from 140 m (450 ft) in the Arkansas River Valley to peaks of about 850 m (2800 ft). The flatlands are separated conveniently into the Gulf Coastal Plains on the south and southwest, and the Mississippi Alluvial Plains and Terraces of the eastern "third" of the state along the Mississippi River. Elevation of these areas is mostly from 65 to 90 m (200-300 ft) above sea level. Thus, Arkansas can be divided into five areas which coincide in a general way with the major physiographic, soil and vegetation regions of the state (Dale, 1963; see map, Fig. 1). The northern forests, the Ozarks, are mainly the upland oak-hickory type with some pine. The southern forests, in part the Ouachitas but also the Gulf Coastal Plains, are composed largely of oak-pine or pine woods. The Mississippi Alluvial Plains and Terraces region is mainly cultivated with rice, cotton, soybeans and other crops which have largely supplanted the native vegetation of pine, oak-pine and bottomland oak-gum-cypress woods. The northwest, west and southeast sections of the state are dotted with once-designated prairies, some of which still retain the prairie features of vegetation, hardpan soil and absence of trees (Armstrong and Moore, 1957; Ruby, 1953; and Wackerman, 1929). Thus, the state has a wide variety of habitats and they are reflected in a varied spectrum of insects. The main body of

the lepidoptera fauna is characteristically that of the so-called Appalachian subregion, but in Arkansas is considerably overlaid with essentially southern and southwestern species.

Resident collectors in the state have been relatively very few, and therefore much of the state still has not been well collected. The most intensive collecting has been in the northeast, northwest, southwest, and central parts of the state; only the southeast is relatively unaccounted for. Even there, however, the scattered records can be augmented by accurate extrapolative inferences based on other known Arkansas records and those of adjacent Mississippi (Mather and Mather, 1958, 1959) and Louisiana (Lambremont, 1954; Lambremont and Ross, 1965; Ross and Lambremont, 1963). Because records are from widely separated and strategically located areas, the present list is a fairly comprehensive one for the whole state.

On the accompanying list (Table I), the species of butterflies and skippers of Arkansas are presented and numbered in order according to dos Passos' synonymic list (dos Passos, 1964, 1965) and its revisions of the Melitaeinae (dos Passos, 1969) and the Lycaenidae (dos Passos, 1970). Other modifications have been incorporated for certain name changes and recognition of specific status of some heretofore designated

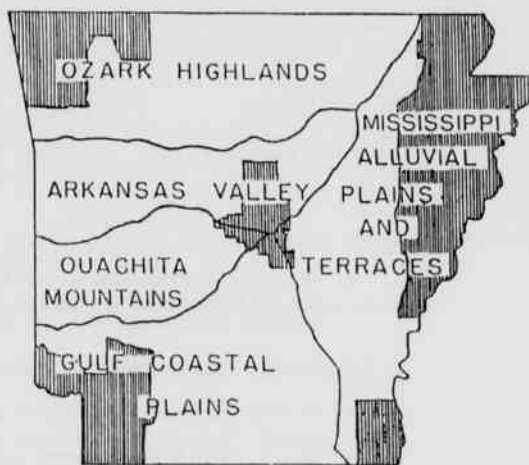


Figure 1. Topographic regions of Arkansas. Shaded areas correspond to counties from which butterfly and skipper records are shown in Table I. (From Dale, 1963, whose permission to use is gratefully acknowledged.)

This article is taken from a report by the writer which has been accepted for publication in the Mid-Continent Lepidoptera Series (Paulissen, 1975). It was thought desirable to give the material statewide circulation by publishing it in the *Proceedings*.

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Table I. List of Butterfly and Skipper Species Found in Designated Areas of Arkansas. Numbers correspond to dos Passos' synonymic list (1964) including revisions (1965, 1969, 1970). Certain verified subspecific designations have been included.

	ME	LE	CR	SH	SE	LY		MA	CO	SE	LY
<b>MEGATHYRIDAE</b>											
13 <i>Megathymus yuccae</i> (Boisduval & Le Conte)						1					
<b>HESPERIIDAE</b>											
<b>Hesperinae</b>											
24 <i>Panoquina ocola</i> (Edwards)	x	x	x	x	e						
27 <i>Calpodus ethlius</i> (Stoll)		x	x		e						
29 <i>Lerodes eufala</i> (Edwards)	x	x	x	x	e						
34 <i>Amblyscirtes linda</i> H. A. Freeman	x	x	x								
37 <i>Amblyscirtes samoset</i> (Scudder)	x	x	x								
40 <i>Amblyscirtes aesculapius</i> (Fabricius)	x				e						
43 <i>Amblyscirtes nysa</i> Edwards	x					2					
45 <i>Amblyscirtes vialis</i> (Edwards)	x	x	x	x	e						
46 <i>Amblyscirtes belli</i> H. A. Freeman	x	x	x	x	e						
47 <i>Amblyscirtes alternata</i> (Grote & Robinson)					e						
50 <i>Atrytonopsis hianna</i> (Scudder)	x				e						
62 <i>Euphyes alabamae</i> (Lindsey)		x	x	e							
63 <i>Euphyes dukesi</i> (Lindsey)		x	x	e							
67 <i>Euphyes vestris metacomel</i> (Harris)	x	x	x	x	e						
73 <i>Poanes hobomok</i> (Harris)	x	x	x								
74 <i>Poanes zabulon</i> (Boisduval & Le Conte)	x	x	x								
77 <i>Poanes yehl</i> (Skinner)	x				e						
78 <i>Poanes viator</i> (Edwards)						3					
83 <i>Problema bussus</i> (Edwards)	x										
86 <i>Atrytone delaware delaware</i> (Edwards)	x	x	x								
87 <i>Atalopedes campestris</i> (Boisduval)	x	x	x	x	e						
88 <i>Pompeius verna sequouah</i> (H. A. Freeman)		x	x	x	e						
89 <i>Wallengrenia otho</i> (Smith)	x	x	x	x	e						
90 <i>Wallengrenia ogeromet</i> (Scudder)	x				e						
99 <i>Folites coras</i> (Cramer)	x	x									
95 <i>Folites themistocles</i> (Latreille)	x	x	x	x	e						
96 <i>Folites origines origines</i> (Fabricius)	x	x	x	e							
99 <i>Folites vibex</i> (Geyer)		x	x	e							
101 <i>Hesperia metea licinus</i> (Edwards)	x	x	x	e							
115 <i>Hesperia meskei</i> (Edwards)	x	x									
117 <i>Hesperia leonardus</i> Harris	x	x									
122 <i>Hylephila phyleus</i> (Drury)	x	x	x	x	e						
125 <i>Copaecoides aurantiaca</i> (Hewitson)											
126 <i>Copaecoides minima</i> (Edwards)					e						
130 <i>Ancyloxypha numitor</i> (Fabricius)	x	x	x	e							
134 <i>Lerema accius</i> (Smith)	x	x	x	e							
137 <i>Nastra lherminier</i> (Latreille)	x	x	x	e							
<b>Pyrginae</b>											
168 <i>Pholisora catullus</i> (Fabricius)	x	x	x	x	e						
161 <i>Pyrgus communis</i> (Grote)	x	x	x	e							
162 <i>Pyrgus citius</i> (Linnaeus)					e						
163 <i>Erynnis icelus</i> (Scudder & Burgess)	x										
164 <i>Erynnis brizo</i> (Boisduval & Le Conte)	x	x	x	x	e						
165 <i>Erynnis peresus</i> (Scudder)		x									
167 <i>Erynnis baptisiae</i> (Forbes)	x	x									
168 <i>Erynnis zarucco</i> (Lucas)		x									
168 <i>Erynnis funeralis</i> (Scudder & Burgess)	x	x	x								
169 <i>Erynnis martialis</i> (Scudder)	x	x	x	e							
173 <i>Erynnis horatius</i> (Scudder & Burgess)											
174 <i>Erynnis juvenalis</i> (Fabricius)	x	x	x	x	e						
181 <i>Achlyodes thraso</i> (Hübner)	x	x									
188 <i>Staphylus hayhursti</i> (Edwards)	x	x	x	x	e						
193 <i>Cogia outis</i> (Skinner)	x										4
200 <i>Thorybes bathyllus</i> (Smith)	x	x	x	x	e						
201 <i>Thoryben pylades</i> (Scudder)	x	x	x	x	e						
204 <i>Thorybes confusus</i> Bell	x	x	x	x							
207 <i>Achalarus lyciades</i> (Geyer)	x	x	x	x	e						
211 <i>Auchton cellus</i> (Boisduval & Le Conte)	x	x									
217 <i>Urbanus proteus</i> (Linnaeus)											
236 <i>Epargyreus clarus</i> (Cramer)	x	x	x	x	e						
<b>PAPILIONIDAE</b>											
<b>Papilioninae</b>											
246 <i>Battus philenor</i> (Linnaeus)	x	x	x	x	x						
247 <i>Battus polydamas</i> (Linnaeus)		x									
248 <i>Papilio polyxenes</i> Fabricius	x	x	x	x	e						5
24 <i>Papilio joanae</i> J.R. Heitzman	x										
256 <i>Papilio cressphontes</i> Cramer	x	x	x	x	e						
262 <i>Papilio glaucus</i> Linnaeus	x	x	x	x	e						
267 <i>Papilio troilus</i> Linnaeus	x	x	x	x	e						
268 <i>Papilio palamedes</i> Drury					e						
269 <i>Eurytides marcellus</i> (Cramer)	x	x	x	x	e						
<b>PIERIDAE</b>											
<b>Pierinae</b>											
274 <i>Appias druzilla</i> (Cramer)											
277 <i>Pieris protodice</i> Boisduval & Le Conte	x	x	x	x	x						
280 <i>Pieris rapae</i> (Linnaeus)	x	x	x	x	x						
281 <i>Ascia monuste</i> (Linnaeus)											
<b>Colladinae</b>											
286 <i>Colias eurytheme</i> Boisduval	x	x	x	x	x						
287 <i>Colias philodice</i> Godart	x	x	x	x	x						
299 <i>Colias cesonia</i> (Stoll)	x	x	x	x	x						
302 <i>Phoebis sennae eubule</i> (Linnaeus)	x	x	x	x	x						
303 <i>Phoebis philea</i> (Johannsen)											
305 <i>Phoebis agarithe</i> (Boisduval)	x	x									
310 <i>Eurema daira</i> (Godart)											
312 <i>Eurema mexicana</i> (Boisduval)	x	x									
315 <i>Eurema lisa</i> Boisduval & Le Conte	x	x	x	x	x						
319 <i>Eurema nicippe</i> (Cramer)	x	x	x	x	x						
320 <i>Bathalis tole</i> Boisduval	x	x	x	x	x						
<b>Euchloeinae</b>											
323 <i>Anthecaris midea</i> Hübner	x	x	x	x	e						
329 <i>Euchloe olympia</i> (Edwards)	x	x									
<b>RIODINIDAE</b>											
<b>Riodininae</b>											
343 <i>Calophelis muticum</i> (McAlpine)	x										

1. *M. yuccae*. Until recently, the only known specimen from Arkansas was one captured by Mr. D. Paxon in his backyard in Ft. Smith in April 1940 (pers. comm.). A second specimen was collected in Nevada County in 1973 by Ed Gage (1974).
2. *A. nysa*. The only record is in Field (1938, p. 265) for Carroll County.
3. *P. viator*. Ed Gage (1974) reported taking specimen in Lafayette County in 1973.
4. *C. outis*. Taken by H.A. Freeman in Sharp County, north central Arkansas (*in litt.*) and by J.R. Heitzman at Eureka Springs, Carroll County, in northwest Arkansas (*in litt.*).

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	SP	NE	CO	IN	SI	TX		MO	NE	KS	OK	TX
<b>LYCAENIDAE</b>												
<b>Theclinae</b>												
355 <i>Harkencloonus titus</i> (Fabricius)	x	x	x									
361 <i>Satyrrium liparops</i> (Le Conte)	x		x	x								
362 <i>Saturium kingi</i> (Klots & Clench)						6						
363 <i>Satyrrium calanus</i> (Hübner)	x	x	x	x								
364 <i>Satyrrium caryaevorus</i> (McDunnough)	x											
365 <i>Satyrrium edwardsii</i> (Saunders)	x	x	x									
379 <i>Calycopis cecrops</i> (Fabricius)	x	x	x	x	e							
383 <i>Callophrys irus</i> (Godart)												
384 <i>Callophrys heurici</i> (Grote & Robinson)	x	x	x	x	e							
388 <i>Callorhynchus niphon</i> (Hübner)	x	x	x	x	e							
394 <i>Callophrys gryneus</i> (Hübner)	x	x	x	x	e							
408 <i>Atlides halesus</i> (Cramer)	x	x	x	x	e							
412 <i>Euristrymon ontario</i> (Edwards)	x	x	x									
414 <i>Pantheia m-album</i> (Boisduval & Le Conte)	x	x	x	e								
417 <i>Strumon melinus</i> Hübner	x	x	x	x								
<b>Gerydinae</b>												
429 <i>Fenesica tarquinius</i> (Fabricius)	x				e							
<b>Lycaeninae</b>												
433 <i>Lycaena thea</i> Guérin-Méneville		x										
443 <i>Lycaena phlaeas</i> (Linnaeus)	x	x	x									
<b>Plebejinae</b>												
446 <i>Brephidium exilis</i> (Boisduval)	x		x									
448 <i>Leptotes cassius</i> (Cramer)					x							
449 <i>Leptotes marina</i> (Reakirt)	x		x									
453 <i>Hemiarctus isola</i> (Reakirt)	x	x	x	x	e							
469 <i>Everes comantas</i> (Godart)	x	x	x	x	x							
479 <i>Glaucopsyche lydamus</i> (Doubleday)	x											
481 <i>Celastrina argiolus</i> (Linnaeus)	x	x	x	x	x							
<b>LIBYTHEIDAE</b>												
<b>Libytheinae</b>												
482 <i>Libytheana bachmanii</i> (Kirtland)	x	x	x	x	e							
<b>NYMPHALIDAE</b>												
<b>Charaxinae</b>												
484 <i>Anaea andria</i> Scudder	x	x	x	x	e							
<b>Apaturinae</b>												
492 <i>Asterocampa celtis</i> (Boisduval & Le Conte)	x	x	x	x	e							
494 <i>Asterocampa clyton</i> (Boisduval & Le Conte)	x	x	x	x	e							
<b>Eurytelinae</b>												
502 <i>Nestra amymone</i> (Ménétrids)						7						
<b>Limenitidinae</b>												
517 <i>Limenitis astyanax</i> (Fabricius)	x	x	x	x	e							
518 <i>Limenitis archippus</i> (Cramer)	x	x	x	x	x							
<b>Vanessinae</b>												
527 <i>Vanessa atalanta</i> (Linnaeus)								x	x	x	x	x
528 <i>Cynthia virginianensis</i> (Drury)								x	x	x	x	x
529 <i>Cynthia cardui</i> (Linnaeus)								x	x	x	x	x
531 <i>Junonia coenia</i> (Hübner)								x	x	x	x	x
<b>Nymphalinae</b>												
535 <i>Nymphalis milberti</i> (Godart)												8
536 <i>Nymphalis antiopa</i> (Linnaeus)								x	x	x	x	e
537 <i>Polugonia interrogationis</i> (Fabricius)								x	x	x	x	x
538 <i>Polugonia comma</i> (Harris)								x	x	x		e
546 <i>Polugonia progne</i> (Cramer)								x	x	x		
<b>Melitaeinae</b>												
548 <i>Chlosyne nycteis</i> (Doubleday)								x	x	x	x	e
549 <i>Chlosyne gorgone</i> (Hübner)								x	x	x	x	e
563 <i>Phyciodes texana</i> (Edwards)								x				
566 <i>Phyciodes tharos</i> (Drury)								x	x	x	x	e
568 <i>Phyciodes phaon</i> (Edwards)								x	x	x	x	e
592 <i>Euphydryas phaeton ozarkae</i> Masters								x				
<b>Argynniinae</b>												
611 <i>Speyeria idalia</i> (Drury)								x	x			
621 <i>Speyeria diana</i> (Cramer)								x	x	x	e	
622 <i>Speyeria cybele</i> (Fabricius)								x	x			
624 <i>Euptoieta claudia</i> (Cramer)								x	x	x	x	
<b>Heliconiinae</b>												
626 <i>Heliconius charitonius</i> (Linnaeus)								x				
628 <i>Dryas julia</i> (Fabricius)									x			
630 <i>Agraulis vanillae</i> (Linnaeus)								x	x	x	x	e
<b>DANAIDAE</b>												
<b>Danainae</b>												
631 <i>Danaus plexippus</i> (Linnaeus)								x	x	x	x	
633 <i>Danaus gilippus strigosus</i> (Bates)									x			9
<b>SATYRIDAE</b>												
<b>Lethinae</b>												
636 <i>Lethe portlandia missarkae</i> J. R. Heitsman & dos Passos								x				
636 <i>Lethe anthedon</i> (Clark)								x	x			
637 <i>Lethe creola</i> (Skinner)								x	x			
<b>Satyriinae</b>												
639 <i>Euptychia gemma</i> (Hübner)								x	x	x	x	e
643 <i>Euptychia areolata</i> (Smith)												x
645 <i>Euptychia hermes sosybius</i> (Fabricius)								x	x	x	e	
646 <i>Euptychia cymela</i> (Cramer)								x	x	x	x	
656 <i>Cercyonis pegala</i> (Fabricius)								x	x	x		

x = present or reported  
e = expected

- B. polydamas*. Reported for north central Arkansas (Masters, 1976) and for Hot Springs, Garland County, central Arkansas, by Renie Mallory (*in litt.*).
- S. kingi*. Malcolm Douglas (*in litt.*) reported collecting specimen near Sheridan, Grant County, in 1974.
- M. amymone*. Five specimens were taken south of Texarkana, Miller County, in southwest Arkansas by Masters (1970).
- N. milberti*. Reported from near Harrison, Arkansas, before the 1930's (Masters, *in litt.*).
- D. gilippus*. Besides being reported for central Arkansas by H.A. Freeman (*in litt.*), it also was taken at Ft. Smith by D. Paxon during the drouthy years of the 1930's (pers. comm.). In 1972 Randy Lewis collected specimens near the Arkansas River south of Alma.

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"subspecies." Name changes include *Eurytides* in place of *Graphium* (Munroe, 1960), *Calephelis* for *Lephelissa* (McAlpine, 1971) and *Cynthia* for *Vanessa* (Field, 1971). Specific status is recognized for *Euphyes alabamiae* (Shapiro, 1970), *Erynnis funeralis* (Burns, 1964) and *Lethe anthedon* (Heitzman and dos Passos, 1974). The table also shows which species are found in each of the five separate areas of the state. The northwest area comprises Benton, Carroll and Washington Counties; the records are derived mainly from those of the writer with a significant contribution from those of the Heitzmans. The northeast comprises Clay, Craighead, Crittenden, Cross, Greene, Lee, Mississippi, Phillips, Poinsett and St. Francis Counties; the records mostly were supplied by J.H. Masters (1967, *in litt.*) but also include those from the late Otis Hite and Dr. Maxine (Hite) Manley (*in litt.*). The central section comprises Faulkner and Pulaski Counties; records are mostly from H.A. Freeman (1945, 1951, *in litt.*) but also include those from Dr. John Redman (*in litt.*). The southwest section comprises Hempstead, Lafayette, Little Rock and Miller Counties; records are derived almost entirely from those of Fay Karpuleon (*in litt.*). These areas are shaded on the map (Fig. 1). The southeast area listings are derived from actual but scattered records and extrapolations from Arkansas, Mississippi and Louisiana records. These inferred records are designated by "e" on the chart. A sixth column denotes individual and unusual species collected elsewhere in the state. The totals for each area, 122 for the northwest, 88 for the northeast, 119 for the central, 91 for the southwest and estimated 91 for the southeast, reflect the fairly extensive and concentrated coverage of these separate areas.

One other area of the state has been well collected and deserves notice—the Batesville area in Independence County where Dr. Veryl Board reports collecting more than 60 species. This area would be within the northeast quadrant if the state were simply divided into quarters; actually it does not belong with the area designated Mississippi Alluvial Plains and Terraces but rather with the Ozark Highlands region. Therefore it was not included in the report for the northeast area. Some species collected by Board are absent from reports for the northeastern counties.

Species which are anticipated to be found in the state eventually include *Atrytone arogos*, *Kricogonia lyside*, *Calephelis virginienis*, *Calycopis beon*, *Phaeostrymon alcestitis* and *Lycaena xanthoides*. Besides these, because of the proximity to Texas which at times is invaded by tropical and subtropical species from Mexico, strays from these areas would be expected, especially during widespread or prolonged hurricane activity. In the hurricane year 1968, for example, *Ascia monuste* and *Dryas julia* were reported from Little Rock, and in 1971 *Phoebis agarithe* and *Appias drusilla* were found in northwest Arkansas.

## ACKNOWLEDGEMENTS

As with all lists of this kind, many people and their contributions make it possible. Those to whom the most debt is owed are Dr. Veryl Board, H.A. Freeman, J.R. Heitzman, Fay Karpuleon, J.H. Masters, Bryant Mather and Dr. John Redman. The writer also is indebted to the following for their help, records and interest: Richard Brown, Malcolm Douglas, Ruth Eason, John Fuller, Ed Gage, A.W. Haddox, William Howe, Otis Hite, Maxine (Hite) Manley, Randy Lewis, Renie Mallory, D. Paxon, Kilian Roefer, E. Phil Rouse, Charles Selman,

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