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FLIGHT PERIODS OF CALIFORNIA BUTTERFLIES FOR “RESIDENT SPECIES”, SUBSPECIES AND MOST STRAYS TO THE STATE.

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Abstract: Normal flight periods and early/late records for resident species, subspecies and regular strays of butterflies of California are presented below.. Many subspecies or populations in the state are distinctive and may prove to merit species recognition by specialists in the future.

Introduction: The serious worker is well aware that many butterflies live in specialized habitats where hostplants and suitable conditions occur. Others occur in more general habitats through much of the state. Butterflies may have long flight periods over much of the year or may have very brief flight periods of only a few days or weeks. Life spans of adult butterflies vary from a very few days in some species to nearly a full year in others. Some of the relatively long lived species may “hibernate” through the winter and not be seen during that time, except on rare warm winter days. Many species have a single brood each year while others have an extended flight period because it may have two or more broods. In many cases overlaps in such flights may make it appear a flight is nearly continuous. In others, flights may be markedly divided as with a species that flies in the spring and then again in the fall.

Flights may vary from year to year based on yearly weather patterns (temperature and timing and amounts of rainfall or drainage). Some species in arid regions of the state may have limited emergences or forego emergence in unfavorable years to await years with good rainfall and hostplant growth. Many **early** records have been taken in lowlands or near the coast with **late** records often from the highest elevations the butterfly inhabits. Such records are also influenced by yearly weather patterns of drought, heavy rainfall or unseasonable warm or prolonged cold temperatures

The person seeking to find specific butterflies must know not only **where** to look, but must know **when** to look for them.

History and methods : J. W. Tilden started working on an early/late list of California butterflies many years ago. Robert L. Langston and Ray E. Stanford (both Season Summary Coordinators) continued Tilden’s work and Kenneth E. Davenport also began working on this project in 1983. Museum collections were consulted, Season Summary records provided data, lists of early and late records were sent to many knowledgeable workers who were asked to provide records. Many private collectors and observers contributed records. Published literature including scientific papers, books and other publications were examined to find records. Davenport, Stanford and Langston’s first published list in 2005 was primarily at the species level with some additional well differentiated subspecies included. The current list includes most subspecies as well

The California List: The list below is not an official state list. It does not include every species known to have occurred in the state. Accidental imports and strays of but a single occurrence or of a dubious nature are generally excluded here. A complete list of California butterflies can be found in **Systematics of Western North American Butterflies** (Thomas C. Emmel, editor, 1998). See Chapter 72: A Checklist of the Butterflies and Skippers of California by John F. Emmel, Thomas C. Emmel and Sterling O. Mattoon (pp. 825-836). It would make little sense to say that a species obviously not a regular member of the California butterfly fauna with one or

two collection records has a California flight period. Such butterflies are among those identified as **Rare Strays**. However rarely recorded species or subspecies that may prove to be resident members of the fauna or which have occurred as strays to the state more than once are included.

Early/Late Records: Since collection records cannot yet possibly be based on all butterflies in all museums or private collections, it is a foregone conclusion that our present knowledge is limited. In some cases (as with *Agathymus* species), collections have generally been of immatures and not adults. Collection records in this publication may not seem to fit well with given “normal flights.” This may be due to poor availability of records, or a lack of such records being reported. Readers must also keep in mind, that when fresh individuals are collected on a “late” date, a later flight is implied. The same is true of well worn individuals collected on an “early” date. An earlier flight is implied. In many cases (especially with subspecies), we know records exist to support an earlier or later flight, but those records were not published (many taxa were described from reared material and lack records for adults) or those records have not yet been made available to us.

Subspecies: With so many newly described species and subspecies in the state, many published records are untrustworthy. Revisions are being made on a regular basis. Validity of many published names are being questioned. Subspecies distributions are not well known, not even by those who described them. Few lepidopterists know the new names and many may not know changes have been made. Species and subspecies concepts differ among lepidopterists. It is not possible at present to provide a complete state list which includes ALL subspecies with accurate early/late flight periods. Papers describing new taxa often do not include specific collection data. It is our hope that lepidopterists who have such records will share those with the authors. It is our goal to update this publication on at least a yearly basis.

Names Used: Names generally follow those used by **THE INTERNATIONAL LEPIDOPTERISTS’ SURVEY (TILS)**. Subgenus and alternative scientific names arrangements may be noted in brackets. We acknowledge that the taxonomic issues in many of our butterflies are unresolved and such an approach will help the reader recognize what entity is being considered. The validity of many newly described taxa (especially at subspecies level) are also subject to review by others.

A major problem for the authors in expanding this project to include subspecies is that such names previously applied to many of our butterflies have changed through revisions and the descriptions of new taxa and it is not currently possible to assess what names best apply in some cases based on current knowledge. Individuals reporting records often do not know (or recognize the value of subspecies or care) which subspecies names apply. Museum collections are often not curated to recognize the vast number of newly described butterflies in California over the past ten to twenty years. Sometimes, there are also vast blend zones or clines in which it is not practical to apply subspecies names to such intermediate populations. As these issues are addressed and resolved by taxonomists or scientists researching difficult groups, flight periods can often be sorted out or adjusted. The purpose of this publication is to provide information about flight periods of butterflies. Others may choose to apply names they believe may better apply. The order given follows Ferris (1989): **Supplement to: A Catalogue/Checklist of the Butterflies of America North of Mexico** published by the Lepidopterists’ Society (pp. 1-103).

References: All available papers and publications available were consulted for records. Most are not listed here to conserve space. This publication is intended as a newsletter, not as a “final” comprehensive technical scientific paper. A few comments for the sources of information are made. Especially used were **The Butterflies of Southern California** (1973) by Thomas C. Emmel and John F. Emmel. Natural History Museum of Los Angeles County (148 pp and 10 color plates) and **Systematics of Western North American Butterflies** (1998) by

Thomas C. Emmel. Mariposa Press, 870 pp. The annual Season Summary published annually in the **News of the Lepidopterists' Society** was also a major source of information.

California County Codes: Most counties are given by full names.

Los Angeles: LA

San Diego: SD

San Luis Obispo: SLO

California Collector Codes: Names are generally given in the checklist...but codes are used for those who contributed many records given in this report.

JAC: J. A. Comstock

KD: Ken Davenport

JFE: John F. Emmel

KCH: Keith Hughes

RLL: Robert L. Langston

SOM: Sterling O. Mattoon.

PAO: Paul A. Opler

JGP: John G. Pasko

AMS: Arthur M. Shapiro.

AOS: Allan Oakley Shields

RES: Ray E. Stanford

JWT: J. W. Tilden.

Dates given: Only the last two digits are given for records from the 1900's (except one for 1908). All four digits are given for records from the year 2000 on. A few records given have incomplete data. It is expected that as others become aware of such early and late dates that many of these published dates will be replaced with earlier or later ones. Months are given by giving the first three letters of the English names.

CHECKLIST OF CALIFORNIA BUTTERFLIES WITH FLIGHT PERIODS.

Listings as of January 1, 2006. The first listing of a species gives an aggregate flight period. Subspecies are considered separately afterwards. Subspecies names have been added even in cases where only one subspecies of a species occurs in the state (unless there are no subspecies). The following is essentially a checklist of butterflies occurring in California which excludes accidental imports, most questionable taxa or one time strays. In the case of a tie early or late date...the oldest date has priority.

FAMILY HESPERIIDAE: SKIPPERS.and GIANT SKIPPERS.

Epargyreus clarus californicus MacNeill.

Normal Flight: May to early August.

Early/Late Records: 25 Apr 27 LA JD Gunder to 15 Sep 79 Solano AMS.

Polygonus leo arizonensis (Skinner).

Rare stray: Late August –September. On rare occasions, this migrant has been locally common in the state.

Early/Late Records: 11 Aug 59 SD KCH to 30 Sep 17 Orange T. Hower.

Urbanus proteus proteus (Linnaeus).

Rare stray: Late August to early October.

Early/Late Records: 4 Apr 68 SD R.Gatrelle to 24 Oct 31 Riverside CM Dammers.

General: Formerly a transient “resident” in southern California when beans were cultivated; now occurs only as a rare stray, usually only in the late summer and early fall.

Thorybes pylades indistinctus Austin & J. Emmel..

Normal Flight: April to mid-July.

Early/Late Records: 21 Mar 94 SLO KD to 22 Jul 2000 Kern/Tulare KD.

Thorybes diversus Bell.

Normal Flight: Late May to early July.

Early/Late Records: 16 May 76 El Dorado WD Patterson to 24 Jul 41 Mariposa M Walton.

Thorybes mexicana (Herrich-Schaffer).

Normal Flight: Mid-June to third week of August.

Early/Late Records: 8 Jun 94 Inyo E Ballard to 4 Sep 93 Nevada AMS.

Thorybes mexicana nevada (Scudder).

Normal Flight: Late June to mid-August.

Early/Late Records: 9 Jun 2001 Tulare KD to 4 Sep 93 Nevada AMS.

Thorybes mexicana blanca Scott.

Normal Flight: Late June to mid-August.

Early/Late Records: 8 Jun 94 Inyo E Ballard to 26 Aug 98 Mono KD.

Thorybes mexicana aemilia (Skinner).

Normal Flight: Late June to mid-August.

Early/Late Records: 14 Jun 79 Trinity AMS to 16 Aug 79 Trinity AMS.

Staphylus ceos (W. H. Edwards).

Rare stray: Regularly strays to SE California in May according to Emmel & Emmel (1973).

Early/Late Records: The only specific record we have is 30 May 39 SD W. Hedges.

Systasea zampa (W. H. Edwards).

Normal Flight: March through October.

Early/Late Records: 2 Jan 87 Imperial J Donahue to 31 Oct 74 SD C Sekerman.

General: Timing of flights are likely closely related to temperature and rainfall.

Erynnis icelus (Scudder & Burgess).

Normal Flight: May to early July.

Early/Late Records: 4 May 81 Siskiyou SOM to 16 Jul 74 Siskiyou WD Patterson.

Erynnis brizo (Boisduval & Leconte)

Normal Flight: Late March to mid-June.

Early/Late Records: 6 Mar 2002 SD L Monroe to 4 Jul 80 Lake R Kelson.

Erynnis brizo lacustra (W. G. Wright).

Normal Flight: Late March to mid-June.

Early/Late Records: 6 Mar 2002 SD L Monroe to 4 Jul 80 Lake R Kelson.

Erynnis brizo burgessi (Skinner).

Normal Flight: Probably late March to early May. Few reported records.

Early/Late Records: 18 Apr 82 San Bernardino JFE to 30 Apr 79 San Bernardino JFE.

Erynnis propertius (Scudder & Burgess).

Normal Flight: Late March to mid-July.

Early/Late Records: 1 Feb 2003 Tulare KD to 6 Sep 75 Contra Costa RLL.

Erynnis tristis tristis (Boisduval).

Normal Flight: Late March to early October.

Early/Late Records: 15 Jan 67 SD AOS to 28 Nov 2005 LA B Gendron.

Erynnis pacuvius (Lintner).

Normal Flight: Late May to mid- July. Ssp. *callidus* can have fall flights.

Early/Late Records: 21 Mar 84 Nevada RLL to 31 Oct 76 SD C Sekerman.

Erynnis pacuvius callidus Grinnell.

Normal Flight: Mostly late May to early July in one brood but in mountains of San Diego County *callidus* can be double brooded with earlier and later flights.

Early/Late Records: 21 Mar 94 SLO KD to 31 Oct 76 SD C Sekerman.

Erynnis pacuvius lilius (Dyar).

Normal Flight: Late May to mid-July.

Early/Late Records: 24 Mar 84 Nevada RLL to 31 Jul 95 Kern KD.

Erynnis pacuvius perniger (Grinnell).

Normal Flight: May to early July.

Early/Late Records: 4 Apr 1908 Marin JAC to 24 Jun 90 Santa Cruz C Sekerman.

Erynnis funeralis (Scudder & Burgess).

Normal Flight: February to October.

Early/Late Records: 25 Jan 75 SD FT Thorne to 24 Nov 84 Kern KD.

Erynnis afranius (Lintner).

Normal Flight: Late March to late August.

Early/Late Records: 26 Feb 2000 SD G & L Monroe to 31 Aug 79 Riverside RH Leuschner.

Erynnis persius (Scudder).

Normal Flight: Late March to August.

Early/Late Records: 11 Mar 72 Placer WD Patterson to 16 Sep 78 Trinity AMS.

Pyrgus ruralis (Boisduval).

Normal Flight: April to early August.

Early/Late Records: 10 Mar 34 SLO H Edgecomb to 7 Aug 58 Tuolumne AOS.

Pyrgus ruralis ruralis (Boisduval).

Normal Flight: April to early August.

Early/Late Records: 10 Mar 34 SLO H. Edgecomb to 7 Aug 58 Tuolumne AOS.

Pyrgus ruralis lagunae Scott.

Normal Flight: April to early July.

Early/Late Records: 4 Apr 61 SD KCH to 19 Jul 75 SD FT Thorne.

Pyrgus scriptura (Boisduval).

Normal Flight: Late March through October.

Early/Late Records: 27 Feb 82 Kern KD to 15 Nov 76 Yolo AMS.

Pyrgus scriptura scriptura (Boisduval).

Normal Flight: Late March to early October.

Early/Late Records: 27 Feb 82 Kern KD to 15 Nov 76 Yolo AMS.

Pyrgus scriptura apertorum Austin.

Normal Flight: Late March through October.

Early/Late Records: 22 Mar 2004 SD G & L. Monroe to 10 Oct 87 Imperial JGP.

Pyrgus communis (Grote).

Normal Flight: March to early November.

Early/Late Records: 5 Jan 83 San Mateo RLL to 31 Dec 89 Yolo AMS.

Pyrgus albescens Plotz.

Normal Flight: March to early November.

Early/Late Records: 7 Jan 2003 Orange M. Klein to 31 Dec 64 SD RES.

Heliopyrgus domicella (Erichson).

Normal Flight: September-October. One of the rarest "resident" species in the state.

Early/Late Records: 30 Sep 70 San Bernardino JA Scott to 23 Oct 76 SD S Dvorak.

Heliopetes ericetorum (Boisduval).

Normal Flight: March through October.

Early/Late Records: 21 Feb 65 LA RES to 19 Nov 2005 Tulare KD..

Heliopetes laviana (Hewitson).

Rare stray: Three specimens were reportedly collected in Joshua Tree National Monument, Riverside County on July 13, 1960 per JWT. Emmel & Emmel (1973) doubt the authenticity of this record.

Pholisora catullus (Fabricius).

Normal Flight: April to September.

Early/Late Records: 6 Mar 2003 Kern KD to 6 Nov 93 Yolo AMS.

Hesperopsis libya (Scudder).

Normal Flight: Late March to mid-October (two broods with some subspecies)..

Early/Late Records: 19 Mar 2003 SD G & L Monroe to 17 Oct 2003 SD G & L Monroe.

General: Number of broods varies from one summer brood or two broods with first in the spring and second in late summer and early fall. In very wet years with summer rains, *libya* may fly continuously through the summer as it did near Red Rock Canyon in Kern County in 1984.

Hesperopsis libya libya (Scudder).

Normal Flight: Late March to early June; September to mid-October (two broods).

Early/Late Records: 19 Mar 2003 SD G & L Monroe to 17 October 2003 SD G & L Monroe.

Note: Summer rains can trigger emergences during the summer months.

Hesperopsis libya joaquina J. Emmel, T. Emmel & Mattoon.

Normal Flight: May and early June. There are very few September records.

Early/Late Records: 28 Apr 77 Kern KD to 1 Jul 84 Kern KD; 9 Sep 89 Kern JGP to 12 Sep 80 Kern KD. The main flight is in the spring. Fall records are very rare in the San Joaquin Valley.

Hesperopsis libya (Scudder). Great Basin subspecies.

Note: This population has been known in the literature as *lena* (W. H. Edwards), a name which probably does not apply to California Great Basin populations of the species.

Normal Flight: Late May to early August in north (one brood at northern end of range, double brooded in NE Kern County).

Early/Late Records 30 Apr 82 Kern KD to 30 Sep 83 Kern KD.

Hesperopsis alpheus oricus (W. H. Edwards).

Normal Flight: Late April to early June.

Early/Late Records: 10 Apr 60 San Bernardino OE Sette to 15 Jun 83 Kern KD.

Hesperopsis graciellae (MacNeill).

Normal Flight: Late March to April; July to mid-October (two broods).

Early/Late Records: 14 Mar 26 Riverside JAC to 16 Oct 34 Riverside CM Dammers.

Carterocephalus palaemon (Pallas).

Normal Flight: Mid-May to early July.

Early/Late Records: 5 May 55 Sonoma RLL to 23 Jul 69 Siskiyou PAO.

Carterocephalis palaemon skada (W. H. Edwards).

Normal Flight: Late May to mid-July.

Early/Late Records: 22 May 94 Siskiyou JGP to 23 Jul 94 Siskiyou JGP.

Carterocephalis palaemon magnus Mattoon & Tilden.

Normal Flight: May.

Early/Late Records: 5 May 55 Sonoma RLL to 28 May 79 Sonoma RLL.

Nastra julia (H. A. Freeman).

Normal Flight: Late August to early October.

Early/Late Records: 1 Apr 18 San Bernardino JC Bradley to 28 Oct 73 Riverside KCH.

Copaeodes aurantiaca (Hewitson).

Normal Flight: March to October.

Early/Late Records. 3 Feb 52 SD RLL to 23 Oct 51 SD RLL.

General: Lynn Monroe states she has a SD County sighting in early November.

Hylephila phyleus (Drury).

Normal Flight: Late April to early December.

Early/Late Records: 1 Jan 60 LA KCH to 31 Dec 64 SD RES.

Hylephila phyleus muertovalle J. Scott.

Normal Flight: April to early December. Most common June to October.

Early/Late Records: 1 Jan 60 LA KCH to 31 Dec 64 SD RES.

Hylephila phyleus eureka Austin & J. Emmel.

Normal Flight: Mid-September to mid-November.

Early/Late Records: 15 Sep 88 Humboldt K Hansen to 14 Nov 89 Humboldt K Hansen.

Pseudocopaeodes eunus (W. H. Edwards).

Normal Flight: Late April to September.

Early/Late Records: 8 Apr 61 San Bernardino OE Sette to 18 Oct 70 SD KCH.

General: Timing of flights is tied in with local conditions related to condition of habitat and the desert saltgrass host. Flooding or drought affects when the adults fly. Number of flights in any

given year can vary and so can the dates when they fly. In the Kern River Valley of Kern County, flights vary immensely in terms of timing from one year to the next. In the Owens River Valley of Inyo County where drainage is more consistent, flights are much more predictable and continuous.

Pseudocopaeodes eunus eunus (W. H. Edwards).

Normal Flight: Late April to early October. Varies with location.

Early/Late Records: 12 Apr 2002 Kern S. Steele to 18 Oct. 70 SD KCH.

Pseudocopaeodes eunus flavus Austin & J. Emmel.

Normal Flight: May to late September.

Early/Late Records: 5 May 92 Kern KD to 10 Sep 2005 Inyo KD.

Pseudocopaeodes eunus alinea Scott.

Normal Flight: April to September.

Early/Late Records: 8 Apr 61 San Bernardino OE Sette to 14 Sep 83 San Bernardino JFE.

Pseudocopaeodes eunus obscurus Austin & J. Emmel.

Normal Flight: June-July.

Early/Late Records: No California records available; records needed.

Hesperia uncas W. H. Edwards.

Normal Flight: Late May to early August.

Early/Late Records: 26 May 84 Mono D Giuliani to 11 Aug 96 Mono B & B Boyd.

Hesperia uncas macswaini MacNeill.

Normal Flight: Mid-June to mid-August.

Early/Late Records: 10 Jun 96 Mono B & B Boyd to 11 Aug 96 Mono B & B Boyd.

Hesperia uncas giulianii McGuire.

Normal Flight: Late May to mid-July.

Early/Late Records: 26 May 84 Mono D. Giuliani to 1 Aug 2004 Mono KD.

Hesperia juba (Scudder).

Normal Flight: Late March to October (one or two broods, depending on locality).

Early/Late Records: 11 Mar 97 SD G & L Monroe to 5 Nov 2005 Tulare KD.

Hesperia comma (Linnaeus) complex.

Note: Authorities differ on whether *Hesperia colorado* is conspecific with *Hesperia comma* or not. On this list, *colorado* is recognized as a separate species but closely related to *comma*.

Hesperia (comma) colorado (Scudder).

Normal Flight: Mid-May to early October.

Early/Late Records: 9 May 97 Mono KD to 18 Oct 95 Nevada AMS.

General: Some populations (*tildeni* H. A. Freeman and southern Sierra Nevada segregate) fly only from late August into early October. Two or more species may be represented in this complex in California.

Hesperia (comma) colorado idaho (W. H. Edwards).

Normal Flight: Mid-May to early October.

Early/Late Records: 9 May 97 Mono KD to 18 Oct 95 Nevada AMS.

Note: Long known as *harpalus* (W. H. Edwards).

Hesperia (comma) colorado (Scudder) Sierra Nevada fall flying entity.

Normal Flight: August to early October.

Early/Late Records: 4 Aug 97 Tulare KD to 15 Oct ? Mariposa AOS.

Hesperia (comma) colorado harpalus (W. H. Edwards).

Normal Flight: Late May to early September.

Early/Late Records: 23 May 92 Mariposa KD to 30 Sep 39 Tuolumne JWT.

Note: Long known as *yosemite* Leussler.

Hesperia (comma) colorado leussleri Lindsey.

Normal Flight: Late May through July.

Early/Late Records: 16 May 71 Orange E. Walter to 5 August 67 San Bernardino KCH.

Hesperia (comma) colorado dodgei (Bell).

Normal Flight: July to early October.

Early/Late Records: 28 Jun 82 San Mateo RLL to 9 Oct 93 San Mateo RLL.

Hesperia (comma) colorado tildeni H. A. Freeman.

Normal Flight: Late August to early October.

Early/Late Records: 3 Aug 87 Kern KD to 9 Oct 93 Kern KD.

Hesperia (comma) colorado oregonia (W. H. Edwards).

Normal Flight: July to September.

Early/Late Records: 3 Jul 80 Siskiyou J Vernon to 30 Sep 76 Trinity AMS.

Hesperia (comma) colorado mattoonorum McGuire.

Normal Flight: Probably late August to early October.

Early/Late Records: 3 Sep 88 Del Norte C Hageman to 10 Sep 80 Del Norte SOM.

Hesperia pahaska martini MacNeill.

Normal Flight: June to early July; September (two broods).

Early/Late Records: 23 Jun 68 San Bernardino JFE to 23 Sep 67 San Bernardino C Henne.

Hesperia columbia (Scudder).

Normal Flight: Late March to early June; late September to October (two broods).

Early/Late Records: 17 Mar 28 Orange T Hower to 5 Nov 2005 Tulare KD.

General: There are occasional summer records at higher elevations in wet years when low spring temperatures delay the flight of the spring brood.

Hesperia lindseyi (Holland).

Normal Flight: Mid-May to second week of July.

Early/Late Records: 5 May 84 Kern KD to 30 Aug 55 Santa Clara CD MacNeill.

Hesperia lindseyi lindseyi (Holland).

Normal Flight: Late May to June.

Early/Late Records: 19 May 2001 Monterey KD to 15 June 97 Contra Costa J. Glassberg.
Extreme: 30 Aug 55 Santa Clara CD MacNeill.

Hesperia lindseyi (Holland). Southern California segregate.

Normal Flight: Mid-May to mid-June.

Early/Late Records: 5 May 84 Kern KD to 12 Jul 83 Kern KD.

Hesperia lindseyi macneilli J. Emmel, T. Emmel & Mattoon.
Normal Flight: Late May to early July.
Early/Late Records: 30 May 2004 Sonoma JGP to 12 Jul 2003 Marin JFE.

Hesperia lindseyi septentrionalis J. Emmel, T. Emmel & Mattoon.
Normal Flight: Early June to mid-July.
Early/Late Records: 21 Jun 87 Siskiyou AMS to 6 Jul 91 Siskiyou AMS.

Hesperia lindseyi eldorado J. Emmel, T. Emmel & Mattoon.
Normal Flight: Late May to mid-July.
Early/Late Records: 3 Jun 80 Nevada AMS to 18 Jun 83 El Dorado AMS.

Hesperia miriamae MacNeill.
Normal Flight: July-August.
Early/Late Records: 1 Jul 79 Mono W McGuire to 31 Aug 67 Inyo PAO.

Hesperia miriamae miriamae MacNeill.
Normal Flight: Late July and August.
Early/Late Records: 9 Jul 88 Mono J Vernon to 31 Aug 67 Inyo PAO.

Hesperia miriamae longaevicola McGuire.
Normal Flight: Late July to mid-August.
Early/Late Records: 1 Jul 79 Mono W McGuire to 12 Aug 80 Mono W McGuire & D. Giuliani.

Hesperia nevada sierra Austin, J. Emmel, T. Emmel & Mattoon.
Normal Flight: Mid-June to mid-August.
Early/Late Records: 9 Jun 92 Mono K Roever & AOS to 31 Aug 67 Inyo PAO.

Polites sabuleti (Boisduval).
Normal Flight: March through October.
Early/Late Records: 16 Feb 58 SD AOS to 29 Nov 96 Contra Costa RLL.

Polites sabuleti sabuleti (Boisduval).
Normal Flight: April to early October.
Early/Late Records: 16 Feb 58 SD AOS to 29 Nov 96 Contra Costa RLL.

Polites sabuleti chusca (W. H. Edwards).
Normal Flight: April to early October.
Early/Late Records: 29 Apr 92 Kern KD to 28 Oct 22 Riverside JAC.

Polites sabuleti channelensis J. Emmel & T. Emmel
Normal Flight: March to September.
Early/Late Records: 18 Mar 90 Santa Barbara J & T. Emmel to 12 May 89 Santa Barbara J & T Emmel. Reportedly flies until "late summer".

Polites sabuleti tecumseh (Grinnell).
Normal Flight: Late June to early September.
Early/Late Records: 26 May 94 Tulare KD to 30 Sep 58 Nevada AMS.

Polites sabuleti albamontana Austin.

Normal Flight: July-August.

Early/Late Records: 7 Jul 2004 Mono KD to 8 Sep 70 Mono P. Herlan.

Polites sabuleti genoa (Plotz).

Normal Flight: Mid-May to early October.

Early/Late Records: Records needed.

Polites sabuleti aestivalis J. Emmel, T. Emmel & Mattoon.

Normal Flight: Early August to early October.

Early/Late Records: 16 Aug 79 Trinity AMS to 1 Oct 76 Trinity AMS.

Polites sabuleti alkaliensis Austin:

Normal Flight: Late May to early October.

Early/Late Records: 17 Aug 30 Modoc (GTA); records needed.

Polites mardon (W. H. Edwards).

Normal Flight: June to July.

Early/Late Records: 4 Jun 92 Del Norte F & J. Preston. to 21 Jul 91 Del Norte M. Rickard.

Polites mardon mardon (W. H. Edwards).

Normal Flight: June to mid-July.

Early/Late Records: 4 Jun 92 Del Norte F & J Preston to 21 Jul 92 Del Norte M Rickard.

Polites mardon klamathensis Mattoon, J Emmel & T. Emmel.

Normal Flight: Mid-June to late July.

Early/Late Records: Records needed.

Polites themistocles turneri Freeman.

Normal Flight: Late June-July.

Early/Late Records: 17 Jun 91 Siskiyou J Vernon to 28 Jun 77 Siskiyou S Peoples.

General: Rarely seen in NE California, lack of July records likely based on little collecting for this species, or lack of reported records.

Polites sonora (Scudder).

Normal Flight: Late May to mid-September.

Early/Late Records: 5 May 55 Sonoma RLL to 14 Oct 67 Shasta JT McBurney.

Polites sonora sonora (Scudder).

Normal Flight: June to mid-September.

Early/Late Records: 20 May 97 Mono KD to 14 Oct 67 El Dorado RLL.

Polites sonora siris (W. H. Edwards).

Normal Flight: Late May to early September.

Early/Late Records: 5 May 55 Sonoma RLL to 12 Sep 83 Butte SOM..

Polites sonora longinqua Austin.

Normal Flight: Late May through August.

Early/Late Records: 21 May 97 Mono GTA to 26 Aug 97 Mono B & B Boyd.

Polites carus (W. H. Edwards).

Rare Stray: Possible "resident." August to September.

Early/Late Records: 6 Aug 39 Riverside FH Rindge to 7 Sep 63 San Bernardino K Roever.

Atalopedes campestris (Boisduval).

Normal Flight: Late March to November.

Early/Late Records: 17 Mar 42 LA RLL to 10 Dec 50 Santa Clara JWT.

Atalopedes campestris campestris (Boisduval).

Normal Flight: Late March to November.

Early/Late Records: 17 Mar 42 LA RLL to 10 Dec 50 Santa Clara JWT.

Atalopedes campestris tenebricosus Austin & J. Emmel.

Normal Flight: October-early November.

Early/Late Records: 3 Oct 89 Humboldt K Hansen to 14 Nov 89 Humboldt K Hansen.

Ochlodes sylvanoides (Boisduval).

Normal Flight: July to mid-October on the mainland. Subspecies *santacruz* Scott as early as late April and May on Santa Cruz Island in Santa Barbara County.

Early/Late Records: 30 Apr 66 Santa Barbara RLL to 11 Nov 2005 San Benito P. Johnson II..

Ochlodes sylvanoides sylvanoides (Boisduval).

Normal Flight: Late July to mid-October.

Early/Late Records: 24 May 30 Orange T. Hower to 21 Nov 2005 LA B. Gendron.

Ochlodes sylvanoides omnigena Austin.

Normal Flight: Late July to September.

Early/Late Records: 9 June 96 Mono GTA to 21 Sep 2001 Tulare KD.

Ochlodes sylvanoides santacruza J. A. Scott.

Normal Flight: Late April to early August.

Early/Late Records: 30 Apr 66 Santa Barbara RLL to 15 Aug 39 Santa Barbara LM Martin.

Note: It is possible coastal populations of *sylvanoides* in Santa Cruz County may be *santacruza*, if so then the flight will extend into October.

Ochlodes sylvanoides catalina J Emmel & T. Emmel.

Normal Flight: Late May to mid-August.

Early/Late Records: 29 May 81 LA Bennett, Gill, Magano, Miller, Paddock, Johnson, Mercer, Moody & Chao to 10 Aug 81 LA S Bennett. & E Rudolph.

Ochlodes agricola (Boisduval).

Normal Flight: May to mid-July.

Early/Late Records: 12 Mar 21 Orange T Hower to 27 Jul 98 Contra Costa R Kelson.

General: There are two rare fall records: 16 Sep 91 San Mateo RLL and 23 Oct 2002 Tulare KD. Most fall records reported have proven to be misidentified *O. sylvanoides*.

Ochlodes agricola agricola (Boisduval).

Normal Flight: May to mid-July.

Early/Late Records: 12 Mar 21 Orange T Hower to 27 Jul 98 Contra Costa R Kelson.

Ochlodes agricola nemorum (Boisduval).

Normal Flight: Late May to third week of July.

Early/Late Records: 4 May 2002 Kern KD to 25 Jul 98 Kern KD.

Ochlodes agricola verus (W. H. Edwards).

Normal Flight: Late May to third week of July.

Early/Late Records: 22 Apr 78 Kern JGP to 25 Jul 93 Kern KD.

Ochlodes yuma (W. H. Edwards).

Normal Flight: Late May to June; September to early October (two broods).

Early/Late Records: 15 May 76 Solano AMS to 19 Oct 74 Sacramento RLL.

Ochlodes yuma yuma (W. H. Edwards).

Normal Flight: Late May to early July; late August to early October (two broods).

Early/Late Records: 26 May 2001 Inyo JGP to 20 Sep 86 Inyo KD.

Ochlodes yuma sacramentorum Austin.

Normal Flight: Late May to early July; late August to early October (two broods).

Early/Late Records: 15 May 76 Sacramento AMS to 19 Oct 74 Sacramento RLL.

Poanes melane melane (W. H. Edwards).

Normal Flight: April to September.

Early/Late Records: 12 Jan 83 Ventura AMS to 22 Dec 50 SD RLL.

Euphyes vestris (Boisduval).

Normal Flight: Late May to July.

Early/Late Records: 5 May 55 Sonoma RLL to 9 Aug 83 Siskiyou AMS.

Euphyes vestris vestris (Boisduval).

Normal Flight: Late May to July.

Early/Late Records: 5 May 55 Sonoma RLL to 9 Aug 83 Siskiyou AMS.

Euphyes vestris harbisoni McGuire & Brown.

Normal Flight: Late May to early July.

Early/Late Records: 23 May 81 SD JW Brown to 16 July 72 Orange G. Felton.

Euphyes vestris osceolata (Lintner).

Normal Flight: May-early June.

Early/Late Records: Records needed.

Amblyscirtes vialis (W. H. Edwards).

Normal Flight: May to early July.

Early/Late Records: 22 Apr 93 Napa WD Patterson to 7 Aug 80 Placer AMS.

Lerodea eufala (W. H. Edwards).

Normal Flight: April to early November (most common summer-fall).

Early/Late Records: 10 Feb 76 Sacramento AMS to 16 Dec 2005 San Bernardino B Gendron.

Calpododes ethlius (Stoll).

Rare stray: Most likely to occur in the state in late summer.

Early/Late Records: 26 Aug 96 LA C Sekerman. to 11 Nov 42 Riverside LACM.

Panoquina errans (Skinner).

Normal Flight: July through September.

Early/Late Records: 21 Mar 73 Orange C Sexton to 7 Nov 72 Orange C Sexton.

Agathymus gentryi Roever.

Normal Flight: Late September to late October.

Early/Late Records: 4 Oct 87 San Bernardino KD to 5 Oct 87 San Bernardino KD.

General: Most specimens have been obtained by rearing. There are reportedly other records of collected adults in private collections.

Agathymus stephensi (Skinner).

Normal Flight: Late September to October.

Early/Late Records: 14 Sep 85 Riverside KD to 28 Oct 51 SD OE Sette.

Agathymus alliae paiute Roever.

Normal Flight: September -October.

Early/Late Records: 5 Oct 69 San Bernardino B.Griffin to 19 Oct 69 San Bernardino JFE.

General: This species is little collected as adults. Most have been obtained as immatures.

Megathymus yuccae (Boisduval & Leconte).

Normal Flight: March to third week of May.

Early/Late Records: 3 Feb 38 LA D. Stallings & Turner to 3 Jun 80 Inyo JFE.

General: Emmel & Emmel (1973) stated that this species flies in January and February in some years.

Megathymus yuccae martini D. Stallings & Turner.

Normal Flight: Late March to early May.

Early/Late Records: 3 Feb 38 LA D Stallings & Turner to 3 Jun 80 Inyo JFE.

Megathymus yuccae maudae D Stallings, Turner & J Stallings.

Normal Flight: March and April.

Early/Late Records: 25 Mar 90 San Bernardino KD to 17 Apr 73 San Bernardino JFE.

Megathymus yuccae harbisoni J. Emmel & T. Emmel.

Normal Flight: Late March to mid-April.

Early/Late Records: 20 Mar 71 San Diego R Breedlove to 5 Apr 53 SD FT Thorne.

FAMILY PAPILIONIDAE: PARNASSIANS and SWALLOWTAILS.

Parnassius clodius Menetries.

Normal Flight: Mid-May to early September.

Early/Late Records: 8 May 76 Sierra RLL to 2 Oct 95 Nevada AMS.

Parnassius clodius clodius Menetries.

Normal Flight: Mid-May to June.

Early/Late Records: 20 May 20 Marin JAC to 21 Aug 77 Glenn W Dawes.

Parnassius clodius baldur W. H. Edwards.

Normal Flight: Late June to late August, to early September in wet years.

Early/Late Records: 9 Jun 88 Tulare KD to 2 Oct 95 Nevada AMS.

Parnassius clodius sol Bryk & Eisner.

Normal Flight: Late May to mid-July.

Early/Late Records: 8 May 76 Sierra RLL to 28 Jul 91 Sierra JGP.

Parnassius clodius strohbeeni Sternitzky.

Normal Flight: Late May-early July.

Early/Late Records: Records needed.

Note: This butterfly formerly occurred in the Santa Cruz Mountains but there have been no records since 1956 and it is likely extinct.

Parnassius clodius near *menetriesi* Hy. Edwards.

Normal Flight: Late June to early August.

Early/Late Records: Records needed.

Parnassius clodius Menetries: Sequoia/Kings Canyon segregate.

Note: This segregate is similar to *sol* and uses *Dicentra nevadensis* as the larval host.

Normal Flight: Late June through July.

Early/Late Records: 12 Jun 90 Tulare KD to 2 Aug 93 Tulare KD.

Parnassius smintheus sternitzkyi McDunnough

Normal Flight: Late June to early September.

Early/Late Records: 25 Jun 76 Trinity AMS to 5 Oct 80 Trinity AMS.

Parnassius behrii W. H. Edwards.

Note: Formerly known as *Parnassius phoebus behrii*. Not all accept that *behrii* merits species status.

Normal Flight: Late June to early September.

Early/Late Records: 19 Jun 47 Tuolumne CD MacNeill to 31 Aug 58 Tuolumne JWT.

General: Fresh condition of late August adults suggests *behrii* flies well into September in wet years with favorable warm weather.

Battus philenor philenor (Linnaeus).

Rare Stray: Late May through September.

Early/Late Records: 26 Apr 31 Orange T Hower to 28 Sep 75 Riverside C Sekerman.

Battus philenor hirsuta (Skinner).

Normal Flight: Late March to early October.

Early/Late Records: 5 Jan 86 Yolo AMS to 2 Dec 2002 Sonoma Louise Hallberg.

General: There is some evidence that *hirsuta* may merit species recognition.

Papilio (Papilio) polyxenes coloro W. G. Wright.

Normal Flight: Late February to mid-October.

Early/Late Records: 9 Feb 64 San Bernardino T Emmel to 1 Nov 51 San Bernardino OE Sette.

Note: This desert butterfly can forego emergence for several years in dry years. An individual that appears to be an *asterius* Stoll was collected along the Colorado River at Needles: 26 May 73 San Bernardino KD.

Papilio(Papilio)(machaon) bairdii W. H. Edwards.

Note: Many believe *bairdii* is conspecific with *Papilio machaon* Linnaeus.

Normal Flight: May to mid-August.

Early/Late Records: 5 Apr 52 San Bernardino JWT to 20 Aug 69 San Bernardino D Beals.

Note: Some believe *bairdii* is conspecific with *Papilio machaon* Linnaeus.

Papilio (machaon) bairdii bairdii W. H. Edwards.

Normal Flight: May to mid-August.

Early/Late Records: 5 Apr 52 San Bernardino JWT to 20 Aug 69 San Bernardino D. Beals.

Papilio(machaon) bairdii hollandi W. H. Edwards.

Normal Flight: May-July.

Early/Late Records: No adult records available, records needed.

Papilio (Papilio) zelicaon zelicaon Lucas.

Normal Flight: February to October.

Early/Late Records: 1 Jan 2003 Ventura M Shepard to 31 Dec 64 SD RES.

Papilio (Papilio) indra Reakirt.

Normal Flight: March to early August depending on population or subspecies.

Early/Late Records: 3 Feb. 2003 San Bernardino M. Raschko to 27 Aug 99 Nevada E Ballard.

Papilio indra indra Reakirt.

Normal Flight: Late April to early August.

Early/Late Records: 7 Apr 2002 Inyo JGP to 27 Aug 99 Nevada E Ballard.

Papilio indra phyllisae J. Emmel.

Normal Flight: April to early July.

Early/Late Records: 29 Mar 86 Kern KD to 30 Jul 82 Kern KD.

Papilio indra near *nevadensis* T. Emmel & J. Emmel.

Normal Flight: May to July.

Early/Late Records: 6 May 85 Inyo KD to 9 Jul 85 Inyo JGP.

Papilio indra calcicola J. Emmel & Griffin.

Normal Flight: Late March to early May.

Early/Late Records: 11 May 91 Inyo JGP, records needed.

Papilio indra pergamus Hy. Edwards.

Normal Flight: April to mid-June.

Early/Late Records: 18 Mar 77 Riverside KD to 15 Jun 91 SD JGP.

Note: Emmel & Emmel (1973) stated that there are records as late as the last week of June.

Papilio indra martini J. & T. Emmel.

Normal Flight: Late March through May.

Early/Late Records: 23 Mar 63 San Bernardino JFE to 15 Jun 77 San Bernardino W Dawes.

General: An extreme record for 10 Oct 64 San Bernardino LACM (illustrated in W. H. Howe's 1975 Butterflies of North America book) may represent an unusual emergence following a severe thunderstorm. Or it may have been a reared individual that emerged on that date.

Papilio indra pygmaeus J. Emmel, T. Emmel & Griffin.

Normal Flight: Likely late March to early May.

Early/Late Records: 3 Apr 93 San Bernardino JFE to 15 Apr 93 San Bernardino JFE.

Papilio indra panamintensis J. Emmel.

Normal Flight: May to early August.

Early/Late Records: 9 May 76 Inyo S Dvorak to 11 Aug 74 Inyo J. Wells.

Papilio indra shastensis Emmel & Emmel

Normal Flight: Late March through July.

Early/Late Records: 6 Mar 88 Napa J Vernon to 6 Aug 78 Trinity AMS.

Papilio indra fordi J. A. Comstock & Martin.

Normal Flight: Late February to early May.

Early/Late Records: 3 Feb 2003 San Bernardino M Raschko to 3 May 92 San Bernardino T Stout.

Papilio (Heraclides) cresphontes Cramer.

Normal Flight: Late March to early November.

Early/Late Records: 24 Jan 2003 SD D Aguiard to 10 Dec 95 Riverside JFE.

Papilio(Pterourus) rutulus rutulus Lucas.

Normal Flight: March to early October.

Early/Late Records: 9 Jan 81 LA W Dawes to 8 Dec 81 LA KD.

Papilio(Pterourus) multicaudatus pusillus Austin & J. Emmel.

Normal Flight: Late March to late August.

Early/Late Records: 10 Mar 79 Mariposa KD to 4 Sep 79 Amador RLL.

Papilio(Pterourus) eurymedon Lucas.

Normal Flight: Late March to early August.

Early/Late Records: 10 Feb 74 Orange L Orsak to 17 Oct 76 Riverside KD.

General: KD has found fresh adults flying in numbers at Los Osos, SLO County in early September. Perhaps fall flying adults occur there at the oceans edge on a yearly basis.

FAMILY PIERIDAE: WHITES, MARBLES, ORANGE-TIPS and SULPHURS.

Neophasia menapia (C. & R. Felder).

Normal Flight: Late June to early September.

Early/Late Records: 29 May 88 Sonoma WL Swisher to 1 Oct 76 Trinity AMS.

Neophasia menapia menapia (C & R Felder).

Normal Flight: Late June to early September.

Early/Late Records: 15 Jun 84 Madera PAO to 1 Oct 76 Trinity AMS.

Neophasia menapia melanica Scott.

Normal Flight: June and July.

Early/Late Records: 29 May 88 Sonoma WL Swisher to 13 Jul 64 Mendocino JA Scott.

Neophasia menapia tehachapina J. Emmel, T. Emmel & Mattoon.

Normal Flight: Mid-July and first three weeks of August.

Early/Late Records: 9 Jul 99 Kern KD to 27 Aug 83 Kern KD.

Pontia beckerii (W. H. Edwards).

Normal Flight: March to early November.

Early/Late Records: 27 Jan 98 Kern KD to 25 Dec 57 SD AOS.

Pontia sisymbrii (Boisduval).

Normal Flight: Late February to early August.

Early/Late Records: 9 Feb 58 SD FT Thorne to 18 Aug 52 Tuolumne JWT.

Pontia sisymbrii sisymbrii (Boisduval).

Normal Flight: Late February to early August.

Early/Late Records: 9 Feb 58 SD FT Thorne to 18 Aug 52 Tuolumne JWT.

Pontia sisymbrii elivata (Barnes & Benjamin).

Normal Flight: April and May.

Early/Late Records: 22 Apr 81 Modoc SOM to 19 May 2002 Modoc JGP.

Pontia sisymbrii nigravenosa Austin & J. Emmel.

Normal Flight: Mid-March through May.

Early/Late Records: 23 Mar 90 San Bernardino KD to 19 May 97 Inyo KD.

Pontia protodice (Boisduval & Leconte).

Normal Flight: January to December.

Early/Late Records: 1 Jan 92 Yolo AMS to 31 Dec 64 SD RES.

Pontia occidentalis occidentalis (Reakirt).

Normal Flight: May-early September.

Early/Late Records: 23 Mar 84 Sierra AMS to 23 Oct 72 Nevada AMS.

Pieris napi (Linnaeus) complex.

Note: Many hold to the view that all North American populations are the same as “old world” *napi*. Others divide North American “*napi*” into several different species. That latter view is followed here.

Pieris (napi) marginalis (Scudder).

Normal Flight: Late February to early July. Later flights occur under cool, moist or wet conditions.

Early/Late Records: 18 Jan 88 SLO W. Bouton to 23 Nov 90 SLO RP Meyer.

Pieris (napi) marginalis venosa Scudder..

Normal Flight: February to early June (one to two broods).

Early/Late Records: 18 Jan 2005 SLO W Bouton to 23 Nov 90 SLO RP Meyer.

General: There are rare records from summer and fall months. Winter rains and warm coastal temperatures can trigger winter flights. Ssp. *sequoia* J. Emmel, T. Emmel & Mattoon appears to be allied to *venosa*. Some believe *venosa* may merit species status.

Pieris (napi) marginalis sequoia J. Emmel, T. Emmel & Mattoon.

Normal Flight: April to June (two broods).

Early/Late Records: 15 Mar 2005 Del Norte A Warren to 16 Jun 82 Humboldt A & P Tuskes.

Pieris (napi) marginalis microstriata J. A. Comstock.

Note: Also known as *castoria* (Reakirt).

Normal Flight: Late February to mid-July.

Early/Late Records: 23 Feb 92 Nevada AMS to 7 Aug 95 Solano AMS.

Pieris (napi) marginalis (Scudder). Warner Mtns. segregate.

Normal Flight: May to mid-July.

Early/Late Flight: 10 May 90 Siskiyou AMS to 12 July 77 Siskiyou M Smith.

Pieris rapae (Linnaeus).

Normal Flight: January to December.

Early/Late Records: 1 Jan 2003 SD M Klein to 31 Dec 48 LA RLL.

Euchloe ausonides (Lucas).

Normal Flight: March to mid-July.

Early/Late Records : 9 Feb 74 Santa Clara RLL to 28 Sep 83 San Mateo RLL.

Euchloe ausonides ausonides (Lucas).

Normal Flight : March to June.

Early/Late Records : 9 Feb 74 Santa Clara RLL to 28 Sep 83 San Mateo RLL.

Euchloe ausonides transmontana Austin & J. Emmel.

Normal Flight : Late May to mid-July.

Early/Late Records : 8 May 97 Inyo KD to 23 Jul 92 Tulare KD.

Euchloe hyantis (W. H. Edwards).

Normal Flight : April to July.

Early/Late Records : 27 Feb 74 Placer WD Patterson to 6 Aug 78 Trinity AMS.

Euchloe hyantis hyantis (W. H. Edwards).

Normal Flight : Late March to mid-July.

Early/Late Records : 27 Feb 74 Placer WD Patterson to 6 Aug 78 Trinity AMS.

Euchloe hyantis andrewsi Martin.

Normal Flight : Late May to early July

Early/Late Records : 8 May 47 San Bernardino R. Reid to 20 Jun 77 San Bernardino JFE.

Euchloe lotta Beutenmuller.

Normal Flight : Late February to early June.

Early/Late Records : 4 Feb 2005 Inyo M Leski to 29 Jun 95 Tulare E. Atamian..

Note : Long viewed as a subspecies of *Euchloe hyantis*.

Anthocharis cethura C. & R. Felder.

Normal Flight : February to early May.

Early/Late Records : 11 Jan 59 SD FT Thorne to 4 Jun 91 Inyo WD Patterson.

Note : This species can forego emergence for several years under drought conditions.

Anthocharis cethura cethura C & R Felder.

Normal Flight : February to early May.

Early/Late Records : 11 Jan 59 SD FT Thorne to 2 May 80 San Bernardino KD.

Anthocharis cethura morrisoni W. H. Edwards.

Normal Flight : February to mid-April.

Early/Late Records : 1 Feb 2003 Tulare & Kern KD to 1 May 78 Kern KD.

Anthocharis cethura hadromarmorata J. Emmel, T. Emmel & Mattoon.

Normal Flight : Late February to early May.

Early/Late Records : 7 Feb 92 Kern RP Meyer to 4 Jun 91 Inyo WD Patterson.

Anthocharis cethura catalina Meadows.

Normal Flight : March-April.

Early/Late Records : 11 Mar 28 LA D Meadows to 20 Apr 75 LA L Orsak.

Anthocharis cethura pima W. H. Edwards.

Normal Flight : Late February through April.

Early/Late Records : 27 Feb 95 Imperial WL Swisher to 23 Mar 78 Imperial JFE.

Anthocharis cethura mojavensis J. Emmel, T. Emmel & Mattoon.

Normal Flight: Late February to early May.

Early/Late Records: 20 Feb 2005 San Bernardino M Leski to 1 May 2004 San Bernardino D. Wikle.

Anthocharis sara sara Lucas.

Normal Flight: Late February to third week of June.

Early/Late Records: 24 Dec 2004 SD C Edwards to 13 Jul 77 Placer/Nevada AMS.

Anthocharis (sara) thoosa (Scudder).

Normal Flight: March through April in SE deserts to early July on east slope of Sierra Nevada.

Early/Late Records: 25 Mar 90 San Bernardino KD to 11 Jul 96 Mono B & B Boyd.

General: Taxonomic status unresolved, possibly a subspecies of *A. sara*. Also, it is NOT clear where in Inyo County that *thoosa* becomes *pseudothoosa*.

Anthocharis (sara) thoosa thoosa (Scudder).

Normal Flight: March and April.

Early/Late Records: 25 Mar 90 San Bernardino KD to 24 Apr 79 Inyo JFE.

Anthocharis (sara) thoosa pseudothoosa Austin.

Normal Flight: April to early July.

Early/Late Records: 10 Apr 88 Sierra AMS to 11 Jul 96 Mono B & B Boyd.

Anthocharis stella stella W. H. Edwards.

Normal Flight: June-July.

Early/Late Records: (Extreme: 25 Mar 65 Tuolumne RLL) 17 Apr 77 Nevada AMS to 25 Aug 56 Mono KCH.

Note: DNA work and field data support separation from *sara*.

Anthocharis lanceolata (Lucas).

Normal Flight: March to late June.

Early/Late Records: 1 Feb 58 SD AOS to 24 Jul 95 Tulare KD.

Anthocharis lanceolata laneolata (Lucas).

Normal Flight: Late March to late June.

Early/Late Records: 28 Feb 86 Tulare KD to 24 Jul 95 Tulare KD.

Anthocharis lanceolata australis (Grinnell).

Normal Flight: Late March to May.

Early/Late Records: 14 Mar 96 LA W Dawes to 14 Jun 79 San Bernardino KD.

Anthocharis lanceolata desertolimbus J. Emmel, T. Emmel & Mattoon.

Normal Flight: Late February to early April.

Early/Late Records: 1 Feb 58 SD AOS to 15 Apr 89 SD JFE.

Colias philodice eriphyle W. H. Edwards.

Note: The name *eriphyle* probably does not apply to California populations.

Normal Flight: May to early October.

Early/Late Records: 17 Apr 90 Siskiyou J Vernon to 13 Oct 82 Sierra AMS.

Colias eurytheme Boisduval.

Normal Flight: February to November.

Early/Late Records : 1 Jan 80 Yolo AMS to 31 Dec 64 SD RES.

Colias harfordii Hy. Edwards.

Normal Flight : Late March to early October (three broods).

Early/Late Records : 3 Feb 77 Riverside JFE to 26 Dec 2001 San Bernardino B Gendron.

Note : It is only recently that workers have taken note of a fall brood September-early October.

Colias occidentalis chrysomelas Hy. Edwards.

Normal Flight : May to July.

Early/Late Records : 5 May 73 Glenn JR Mori to 12 Aug 90 Humboldt S North.

Colias alexandra edwardsii W. H. Edwards.

Normal Flight : Late May to July (sometimes August in wet years).

Early/Late Records : 17 May 86 Plumas AMS to 28 Aug 83 Mono R Robertson.

General : Flights may depend on yearly rainfall and temperature patterns.

Colias behrri W. H. Edwards.

Normal Flight : July-August.

Early/Late Records : 30 Jun 66 Mono H Holmes to 31 Aug 65 Inyo PAO..

General : Timing of flights depend on snowmelt and growth of alpine grasses.

Zerene eurydice (Boisduval).

Normal Flight : February to October. Number of broods vary from one (Mt. Pinos) to three or more (SLO County), depending on locality.

Early/Late Records : 4 Jan 2003 SLO W Bouton to 23 Dec 2005 Los Angeles B Gendron..

Zerene cesonia cesonia (Stoll).

Regular Stray : Occurs in the state as occasional to regular strays which sometimes establish transient breeding populations in the state. Most records are from March to October.

Early/Late Records : 26 Feb 30 Orange T Hower to 17 Nov 63 Riverside KCH.

Phoebis sennae marcellina (Cramer).

Normal Flight : Usually April to early October; sometimes all year in coastal San Diego County. This species is a rare stray in most of the state.

Early/Late Records : 2 Jan 2003 SD D Aguiard to 22 Dec 40 LA RLL.

General : This species becomes transiently established on Cassia plants; may be absent or very scarce in dry or unfavorable years.

Phoebis agarithe fisheri (Hy. Edwards).

Rare stray : Rarely reported in the state. Most likely occurs September to October.

Early/Late Records : 19 Apr 17 Santa Barbara leg. T. Lehmann (male in Santa Barbara County Museum). Other specific dates not available.

General : Some reported female *agarithe* records are probably based on misidentifications of orange hind-winged female *P. sennae marcellina* (Cramer).

Phoebis philea philea (Johansson).

Rare stray : Most likely August into October.

Early/Late Records : No substantiated specific records are available. Vouchered records are badly needed. Some reports of *philea* are likely based on orange hind winged female *Phoebis sennae marcellina*.

Kricogonia lyside (Godart).

Rare stray :There are only three known records from the state.

Early/Late Records: 15 Jul 72 Imperial K. Roever to 15 Sep 35 Orange CN Rudkin.

Eurema mexicana (Boisduval).

Regular stray:: Most records are from May and September/October.

Early/Late Records: 6 May 62 SD AOS to 30 Nov 2005 LA B Gendron.

General: Emmel & Emmel (1973) state there are late March and April records for canyons of the Providence Mtns.

Eurema lisa lisa (Boisduval & LeConte).

Rare stray: There are apparently some old records for this species. More recently in 1992, Robert Allen reported collecting five individuals (dates not given) in Big Morongo Canyon in a nature preserve on the Riverside and San Bernardino County line in the spring of that year. John Emmel reported seeing one that year along the Colorado River in late April.

Eurema nise nelphe (R. Felder).

Rare stray: Rarely strays into California.

Early/Late Records: 18 Apr 92 San Bernardino JFE to 13 May 92 Orange JFE.

Eurema (Abaeis) nicippe (Cramer).

Normal Flight: February to November.

Early/Late Records: 10 Jan 42 LA RLL to 31 Dec 64 SD RES.

General: This species appears to overwinter as adults in some favorable years and will fly on warm winter days.

Nathalis iole Boisduval.

Normal Flight: March to early November.

Early/Late Records: 12 Feb 77 SD R Breedlove to 26 Dec 83 Riverside JFE.

FAMILY LYCAENIDAE: COPPERS, HAIRSTREAKS and BLUES.

Lycaena(Tharsalea) arota (Boisduval).

Normal Flight: May to August.

Early/Late Records: 20 Mar 71 Santa Clara D Sorg to 18 Oct 95 Nevada AMS.

Lycaena arota arota (Boisduval).

Normal Flight: May to July.

Early/Late Records: 20 Mar 71 Santa Clara D Sorg to 20 Sep 79 Trinity AMS.

Lycaena arota nubila J. A. Comstock.

Normal Flight: Late May to July.

Early/Late Records: 22 May 93 Ventura JGP to 15 Jul 22 LA JAC.

Lycaena arota virginiensis (W. H. Edwards).

Normal Flight: June to August.

Early/Late Records: 3 June 92 Nevada AMS to 18 Oct 95 Nevada AMS.

Lycaena (Lycaena) phlaeas alpestris J. Emmel & Pratt .

Normal Flight: July-August.

Early/Late Records: 2 Jul 94 Mono JFE to 31 Aug 65 Inyo PAO.

Lycaena (Lycaena) cuprea (W. H. Edwards).

Normal Flight: Late June to early August.

Early/Late Records: 7 May 87 Plumas L Crabtree to 16 Sep 95 Nevada AMS.

Lycaena cuprea cuprea (W. H. Edwards).

Normal Flight: Late May –July.

Early/Late Records: 7 May 87 Plumas L Crabtree to 26 Jul 2002 Modoc JGP.

Lycaena cuprea lapidicola J. Emmel & Pratt.

Normal Flight: Late May to mid-August.

Early/Late Records: 24 May 66 El Dorado WD Patterson to 16 Sep 95 Nevada AMS.

Lycaena (Chalceria) xanthoides (Boisduval).

Normal Flight: May to early August.

Early/Late Records: 24 Apr 2004 Santa Barbara KD to 5 Sep 2005 Kern KD.

General: There is an extreme record for 9 Oct 95 Glenn AMS.

Lycaena xanthoides xanthoides (Boisduval).

Normal Flight: May to early August.

Early/Late Records: 24 Apr 2004 Santa Barbara KD to 5 Sep 2005 Kern KD.

Lycaena xanthoides obsolescens J. Emmel & Pratt.

Normal Flight: Late June to early August.

Early/Late Records: 9 Jul 79 Inyo JFE & AOS, records needed.

Lycaena xanthoides nigromaculata J. Emmel & Pratt.

Normal Flight: June to early July.

Early/Late Records: 14 Jun 82 Colusa C Hageman to 22 Jun 88 Lake R Gattelle.

Lycaena (Chalceria) editha (Mead).

Normal Flight: Mid- June through August.

Early/Late Records: 8 Jun 92 Mariposa KD to 29 Sep 93 Nevada AMS.

Lycaena editha editha (Mead).

Normal Flight: Mid-June through August.

Early/Late Records: 8 Jun 92 Mariposa KD to 29 Sep 93 Nevada AMS.

Lycaena editha (Mead). White Mountains segregate.

Normal Flight: July-August.

Early/Late Records: 7 Jul 2004 Mono KD to 26 Aug 98 Mono KD.

Lycaena editha pseudonexa J. Emmel & Pratt.

Note: Status of *pseudonexa* is controversial. James Scott believes that these are a blend zone between *xanthoides* and *editha* and that the two are conspecific.

Normal Flight: Late June through August.

Early/Late Records: 24 Jun ? Tuolumne AOS to 4 Sep ? Tuolumne AOS.

Lycaena (Chalceria) gorgon (Boisduval).

Normal Flight: May to early July.

Early/Late Records: 23 Mar 92 Sacramento AMS to 31 Jul 23 Modoc JAC.

General: J. Emmel and G. Pratt (1998) state this species flies into early August in northern California.

Lycaena gorgon gorgon (Boisduval).

Normal Flight: Late May to early July.

Early/Late Records: 23 Mar 92 Sacramento AMS to 18 Jul 92 Kern KD.

Lycaena gorgon micropunctata J. Emmel & Pratt.

Normal Flight: May to mid-July.

Early/Late Records: 9 May 99 Kern KD to 21 Jul 95 Mono JGP.

Lycaena gorgon jacquelinae J. Emmel & Pratt.

Normal Flight: Late June to early August.

Early/Late Records: 7 Jul 70 Modoc S Dvorak & AOS to 31 Jul 23 Modoc JAC.

Lycaena gorgon dorothea J. Emmel & Pratt.

Normal Flight: June-early August.

Early/Late Records: Described from Oregon, no California records available.

Lycaena (Chalceria) rubida (Behr).

Normal Flight: Late June through August.

Early/Late Records: 31 May 69 Lassen WD Patterson to 5 Sep 93 El Dorado WD Patterson.

Lycaena rubida rubida (Behr).

Normal Flight: June through August.

Early/Late Records: 31 May 69 Lassen WD Patterson to 5 Sep 93 El Dorado WD Patterson.

Lycaena rubida monachensis (J. Johnson & Balogh).

Normal Flight: Late May through August.

Early/Late Records: 18 Jun 2004 Mono KD to 1 Sep 65 Mono PAO.

Lycaena rubida incana Austin.

Normal Flight: Mid-July to late August.

Early/Late Records: 24 Jul 80 Inyo GTA to 24 Aug 83 Inyo GTA.

Lycaena (Chalceria) heteronea (Boisduval).

Normal Flight: Late June to August.

Early/Late Records: 14 May 77 Marin RLL to 8 Oct 93 Nevada AMS.

Lycaena heteronea heteronea (Boisduval).

Normal Flight: Late May to early July.

Early/Late Records: 14 May 77 Marin RLL to 7 Jul 2000 Sonoma JGP.

Lycaena heteronea submaculata J. Emmel & Pratt.

Normal Flight: July and August.

Early/Late Records: 28 Jun 87 Lassen L Crabtree to 29 Aug 67 Tuolumne PAO.

Lycaena heteronea "klotsi" Field.

Note: Sierra Nevada populations were long known as nominotypical *heteronea* which is actually a coastal subspecies. The application of the name *klotsi* to those populations has proven controversial.

Normal Flight: Late July to early September.

Early/Late Records: 10 Jul 94 Inyo KD to 8 Oct 93 Nevada AMS.

Lycaena heteronea clara (Hy. Edwards).

Normal Flight: July to early August.

Early/Late Records: 5 Jun 2004 Ventura J Brock to 25 Aug 2005 Ventura C. Hanzlik.

Lycaena heteronea northi J. Emmel & Pratt.

Normal Flight: Late June to early September.

Early/Late Records: 30 Jun 76 Trinity AMS to 30 Sep 76 Trinity AMS.

Lycaena heteronea gravenotata Klots.

Normal Flight: Late July to early September.

Early/Late Records: 22 Jul 90 Siskiyou AMS to 10 Aug 85 Siskiyou AMS.

Lycaena (Epidemia) helloides helloides (Boisduval).

Normal Flight: April to October.

Early/Late Records: 4 Mar 29 Orange T Hower to 26 Nov 95 Marin J Vernon.

Lycaena (Epidemia) nivalis (Boisduval).

Normal Flight: Late June to August.

Early/Late Records: 13 Jun 87 Sierra WD Patterson to 18 Oct 95 Nevada AMS.

Lycaena nivalis nivalis (Boisduval).

Normal Flight: Late June to early September.

Early/Late Records: 13 Jun 87 Sierra WD Patterson to 18 Oct 95 Nevada AMS.

Lycaena nivalis bichroma J. Emmel & Pratt.

Normal Flight: Late June to early September.

Early/Late Records: 17 Jun 76 Trinity AMS to 20 Sep 76 Trinity AMS.

Lycaena nivalis warnermontana J. Emmel & Pratt.

Normal Flight: Late June to August.

Early/Late Records: 21 June 87 Siskiyou AMS to 15 Aug 79 Modoc SOM.

Lycaena (Epidemia) mariposa mariposa (Reakirt).

Normal Flight: Late July to August.

Early/Late Records: 21 Jun 86 Trinity AMS to 23 Sep 78 Nevada AMS.

Lycaena (Hermelycaena) hermes (W. H. Edwards).

Normal Flight: Late May to mid-July.

Early/Late Records: 12 May 2004 SD Daniel Marshalek to 20 Jul 23 SD GH Field.

Habrodais grunus (Boisduval).

Normal Flight: Late June to mid-September.

Early/Late Records: 10 May 2000 Inyo JFE to 7 Oct 95 Riverside JFE. There is an extreme record for 4 Nov 95 Nevada AMS.

Habrodais grunus grunus (Boisduval).

Normal Flight: Late June to third week of September.

Early/Late Records: 6 Jun 58 LA KCH to 7 Oct 95 Riverside JFE. Extreme record: 4 Nov 95 Nevada AMS.

Habrodais grunus lorquini Field.

Normal Flight: Mid-June to mid-September.

Early/Late Records: 31 May 87 Solano AMS to 15 Sep 94 Monterey KD.

Atlides halesus estesi Clench

Note: Some believe the name *corcorani* dos Passos is the correct name for subspecies.

Normal Flight: Late February to October.

Early/Late Records: 12 Feb 77 Riverside JT McBurney to 6 Dec 2005 LA B.Gendron.

Chlorostrymon simaethis simaethis (Drury).

Rare stray: Most records in the state are in October. Rather regular in Hemet (Riverside Co.) where it breeds on hostplant grown in JFE's yard.

Early/Late Records: 16 Apr 92 San Bernardino KM Richers to 27 Nov 67 SD R Breedlove.

General: Rare in California, there was a very unusual large influx of this species into southern California in late April and May of 1992. Andrew Warren reports (pers. comm.) that *sarita* (Skinner) is a synonym of *simaethis*.

Harkenclenus (Satyrium) titus occidentalis Austin & J. Emmel.

Note: Ron Gatrell's recent revision of the species put *titus* back in *Harkenclenus*.

Normal Flight: July-August.

Early/Late Records: 2 Jul 72 Modoc R Imig to 1 Aug 69 Siskiyou JR Mori.

Satyrium behrii behrii (W. H. Edwards).

Normal Flight: Late June to mid-August.

Early/Late Records: 9 May 97 Inyo KD to 25 Aug 83 Mono RLL.

Satyrium fuliginosum (W. H. Edwards).

Normal Flight: Late June to early September.

Early/Late Records: 14 Jun 80 Trinity AMS to 20 Sep 79 Trinity AMS.

General: Paul Opler, Andrew Warren and George T. Austin have provisionally separated *fuliginosum* and *semiluna* as two separate species. See Andrew Warren's Oregon (2005) book for discussion. A formal publication is pending: "The *Satyrium fuliginosum* Complex: Species-level assessment and characterization." Manuscript is in preparation.

Satyrium fuliginosum fuliginosum (W. H. Edwards).

Normal Flight: Mid-June to early September.

Early/Late Records: 14 Jun 31 Sierra (in PAO/CSU collection) to 9 Aug 60 Placer J & T Emmel.

Note: If the **Late** record for 9 Aug 60 Placer refers to *semiluna*, then the **Late** record would be 8 Aug 42 El Dorado G. Heid.

Satyrium fuliginosum tildeni Mattoon & Austin.

Normal Flight: Mid July-Early September.

Early/Late Records: 12 Jul 75 Siskiyou SOM to 28 Aug 46 Siskiyou CD MacNeill.

Satyrium fuliginosum albolineatum Mattoon & Austin.

Normal Flight: Mid-June to mid-July.

Early/Late Records: 20 Jun 81 Lake R Kelson to 29 Jul 2002 Mendocino JFE.

Satyrium fuliginosum (W. H. Edwards). Trinity Mtns. population.

Normal Flight: Late June to early September.

Early/Late Records: 14 Jun 80 Trinity AMS to 20 Sep 79 Trinity AMS.

Satyrium (fuliginosum) semiluna Klots.

Normal Flight: Late June to mid-August.

Early/Late Records : 5 June 70 Lassen Calif. Insect Survey to 11 August 84 Amador RLL & D. Parkinson.

Satyrium (fuliginosum) semiluna semiluna Klots.

Normal Flight : Late June to mid-August.

Early/Late Records : 8 Jun 97 Lassen JFE & G Pratt to 11 Aug 84 Amador RLL & D Parkinson.

Satyrium (fuliginosum) semiluna maculadistinctum Mattoon & Austin.

Normal Flight : June-early August.

Early/Late Records : 5 Jun 70 Lassen Calif. Insect Survey to to 10 Aug 96 Mono B & B Boyd.

Satyrium californicum (W. H. Edwards).

Normal Flight : May to early August.

Early/Late Records : 2 May 70 Placer WD Patterson to 22 Aug 65 Lassen RLL.

Satyrium californicum californicum (W. H. Edwards).

Normal Flight : May to mid-August.

Early/Late Records : 2 May 70 Placer WD Patterson to 22 Aug 65 Lassen RLL.

Satyrium californicum cygnus (W. H. Edwards).

Normal Flight : Late June to mid-August.

Early/Late Records : 14 Jun 96 Mono B & B Boyd to 17 Aug 2000 Mono KD.

Satyrium sylvinum (Boisduval).

Normal Flight : Late May to mid-August.

Early/Late Records : 13 May 85 Yolo J Vernon to 18 Oct 95 Nevada AMS.

Satyrium sylvinum sylvinum (Boisduval).

Normal Flight : Late May to early September.

Early/Late Records : 13 May 85 Yolo J Vernon to 18 Oct 95 Nevada AMS.

Satyrium sylvinum desertorum (Grinnell).

Normal Flight : Late May to mid-August.

Early/Late Records : 4 May 2004 Kern W. Bouton to 27 Aug 99 San Bernardino B Gendron..

Satyrium sylvinum megapallidum Austin.

Normal Flight : July-August.

Early/Late Records : 5 Jul 96 Mono GTA to 30 Aug 97 Mono GTA.

Satyrium sylvinum dryope (W. H. Edwards).

Normal Flight : June to early August.

Early/Late Records : 1 Jun 77 Kern KD to 28 Aug 98 Kern KD.

Satyrium auretteorum (Boisduval).

Normal Flight : Late May to early August.

Early/Late Records : 26 Apr 86 Yolo J Vernon to 6 Sep 99 Tulare KD.

Satyrium auretteorum auretteorum (Boisduval).

Normal Flight : May to early August.

Early/Late Records : 26 Apr 86 Yolo J Vernon to 6 Sep 99 Tulare KD.

Satyrium auretteorum spadix (Hy. Edwards).

Normal Flight: May to early August.

Early/Late Records: 27 Apr 65 LA RES to 13 Aug 39 LA RLL.

Satyrium auretteorum fumosum J. Emmel & Mattoni.

Normal Flight: May -June.

Early/Late Records: 27 Apr 89 LA R Allen to 18 Jun 90 LA JGP.

Satyrium tetra (W. H. Edwards).

Normal Flight: June-July.

Early/Late Records: 22 Apr 65 LA RES to 21 Aug 61 Modoc KCH.

Satyrium saepium (Boisduval).

Normal Flight: May to August.

Early/Late Records: 17 Apr 2004 Ventura JGP to 25 Sep 77 Trinity AMS.

Satyrium saepium saepium (Boisduval).

Normal Flight: Late May to early September.

Early/Late Records: 25 May 89 Tulare KD to 25 Sep 77 Trinity AMS.

Satyrium saepium chalcis (W. H. Edwards).

Note: It appears that *fulvescens* (Hy. Edwards) is a synonym of *chalcis*.

Normal Flight: May to early August.

Early/Late Records: 17 Apr 2004 Ventura JGP to 16 Aug 85 Tulare KD.

Satyrium saepium subaridum J. Emmel, T. Emmel & Mattoon.

Normal Flight: Late June to August.

Early/Late Records: 12 Jun 2004 Inyo JGP to 1 Sep 2002 Inyo KD.

Satyrium saepium rubrotenebrosum J. Emmel, T. Emmel & Mattoon.

Normal Flight: Mid-June to mid-August.

Early/Late Records: 13 Jun 83 San Mateo RLL to 16 Aug 82 San Mateo RLL.

Satyrium saepium chlorophora Watson & W. P. Comstock.

Normal Flight: June-July.

Early/Late Records: 18 Jun 24 SD JAC, records needed.

Satyrium saepium caliginosum J. Emmel, T. Emmel & Mattoon.

Normal Flight: June to August.

Early/Late Records: 27 Apr 66 Santa Barbara RLL to 24 Aug 73 SLO RLL.

Ministrymon leda (W. H. Edwards).

Normal Flight: April to October.

Early/Late Records: 1 Jan 2004 SD P Johnson Jr. to 12 Nov 45 SD JAC.

Callophrys (Callophrys) perplexa Barnes & Benjamin.

Normal Flight: March to early May.

Early/Late Records: 21 Jan 2005 SLO W Bouton to 22 May 82 Tulare KD.

General: A record for 21 Jun 82 Tulare KD may be this species. Taken west of Sherman Pass at 8000', it may be *lemberti*.

Callophrys perplexa perplexa Barnes & Benjamin.

Normal Flight: Late February to early May.

Early/Late Records: 21 Jan 2005 SLO W. Bouton to 22 May 82 Tulare KD.

Callophrys perplexa superperplexa J. Emmel, T. Emmel & Mattoon.

Normal Flight: Late March through May.

Early/Late Records: 22 Mar 74 Inyo D Giuliani to 28 May 2005 Inyo JGP.

Callophrys sheridanii (W. H. Edwards) complex.

Note: Recent studies by Andrew Warren and Jonathan Pelham suggest that *dumetorum*, *lemberti* and *comstocki* are conspecific with *sheridanii*. Others view these as separate species.

Normal Flight: March to early August. Second brood August-September possible (following summer rains) in eastern Mojave Desert for *comstocki*.

Early/Late Records: 19 Feb 91 San Mateo RLL to 10 Sep 78 San Bernardino JFE & AOS.

Callophrys (Callophrys) (sheridanii) dumetorum (Boisduval).

Normal Flight: March to early May.

Early/Late Records: 19 Feb 91 San Mateo RLL to 16 May 58 Marin JA Powell. A few later records extend to 30 Jul 87 Monterey RLL.

Callophrys (sheridanii) dumetorum dumetorum (Boisduval).

Normal Flight: March to early May.

Early/Late Records: 19 Feb 91 San Mateo RLL to 30 Jul 87 Monterey RLL.

Callophrys (sheridanii) dumetorum pseudodumetorum J. Emmel, T. Emmel & Mattoon.

Normal Flight: Late March to mid-May.

Early/Late Records: 22 Feb 97 Stanislaus JA Powell & RLL to 29 Apr 79 Siskiyou SOM.

Note: Originally viewed as conspecific with *Callophrys dumetorum*. While named (1998) as a subspecies of *perplexa*, both John Emmel and Andrew Warren presently concur that these differ from *perplexa*. Andrew Warren (2005) proposed that *pseudodumetorum* is allied with *sheridanii*.

Callophrys (Callophrys) (sheridanii) comstocki Henne.

Normal Flight: March –April, sometimes can have additional flights into September depending on summer rainfall.

Early/Late Records: 21 Mar 64 San Bernardino RES to 10 Sep 78 San Bernardino JFE.

Callophrys (sheridanii) comstocki comstocki Henne.

Normal Flight: March to April with later summer or fall flights dependent on summer rains.

Early/Late Records: 21 Mar 64 San Bernardino RES to 30 Apr 79 San Bernardino JFE & AOS; 4 Jul 79 San Bernardino JFE & AOS to 10 Sep 78 San Bernardino JFE.

Callophrys (sheridanii) comstocki interrupta Austin.

Note: It is questionable if the name *interrupta* applies to any California populations. Michael Smith has reported a record (31 May 79) from Hot Creek, Mono County. John Emmel believes that record more likely represents *lemberti*. The name *interrupta* may also be applied by some to populations of green *Callophrys* in the White Mountains.

Callophrys (Callophrys) (sheridanii) lemberti lemberti Tilden.

Normal Flight: May to early August.

Early/Late Records: 9 Apr 88 El Dorado RLL to 8 Sep 82 Nevada AMS.

Callophrys (sheridanii) lemberti Tilden. High elevation White Mtns. and Warner Mtns. at high elevation.

Normal Flight: June-July.

Early/Late Records: 28 Jun 2005 Mono M Stangeland & K Davis to 21 Jul 2005 Mono M Stangeland. & K Davis.

Callophrys (Cisincisalia) spinetorum spinetorum (Hewitson).

Normal Flight: Late March to September.

Early/Late Records: 21 Feb 88 Napa J Vernon to 22 Oct 71 El Dorado R Wells.

Callophrys (Cisincisalia) johnsoni (Skinner).

Normal Flight: April to early August.

Early/Late Records: 27 Feb 72 Yolo AOS to 17 Aug 83 Mariposa AOS..

Callophrys (Mitoura) grynea (Hubner) complex.

Note: Many workers believe *nelsoni*, *siva*, *loki*, *muiri*, and *thornei* are conspecific with *grynea* (Hubner). Others treat these as several species. They are so treated here pending further research.

Normal Flight: March to mid-July.

Early/Late Records: 2 Feb 2005 SD M Klein to 16 Oct 32 SD San Diego County Museum.

Callophrys (Mitoura)(grynea) nelsoni nelsoni (Boisduval).

Normal Flight: May to mid- July.

Early/Late Records: 9 Apr 88 Nevada J Vernon to 17 Sep 84 Mariposa AOS.

Callophrys (Mitoura)(grynea) muiri muiri (Hy. Edwards).

Note: Coastal populations on Sargent Cypress are considered to be this taxa. Long viewed as a subspecies of *Mitoura nelsoni*.

Normal Flight: Late March to early June.

Early/Late Records: 19 Mar 84 SLO R Allen to 14 Jun 74 SLO C Henne.

Callophrys muiri (Hy. Edwards) or *Mitoura siva* (W. H. Edwards).

Note: Inner Coast Range populations on California Juniper have been viewed as either an inland subspecies of *muiri* or as a subspecies of *grynea* or *siva* (P. Opler).

Normal Flight: Late March to early May.

Early/Late Records: 4 Mar 88 Kern RP Meyer to 1 May 87 Kern KD.

Callophrys (Mitoura)(grynea) siva (W. H. Edwards).

Normal Flight: Late March-early June and sometimes late June to August. Usually single brooded in the spring. Later flights depend on summer rainfall.

Early/Late Records: 23 Feb 47 LA RLL to 21 Aug 83 Kern PD Nordin.

Callophrys (grynea) siva siva (W. H. Edwards).

Normal Flight: April and May, later flights dependent on summer rainfall.

Early/Late Records: 9 Apr 66 San Bernardino C Sekerman to 28 Jul 83 Inyo JFE & AOS.

Callophrys (grynea) siva juniperaria J A Comstock.

Normal Flight: March to third week of June.

Early/Late Records: 23 Feb 47 LA RLL to 30 Jul 82 Kern KD.

Callophrys (grynea) siva mansfieldi Tilden.

Normal Flight: Late March to early July.

Early/Late Records : 10 Mar 2005 Santa Barbara KD to 21 Aug 83 Kern P. Nordin.

Callophrys s(grynea) siva chalcosiva (Clench) Andrew Warren (2005) recommends that what was formerly known as *Mitoura barryi* K. Johnson be known as “nr. *chalcosiva*” pending further study.

Normal Flight: May through July.

Early/Late Records: 30 May 99 Modoc JGP to 30 Jul 91 Modoc JGP.

Callophrys (Mitoura)(grynea) loki (Skinner).

Normal Flight: Late February to early October.

Early/Late Records: 12 Feb 77 Riverside JT McBurney to 16 Oct 32 SD San Diego County Museum.

General: Emmel & Emmel (1973) reported an occasional November flight.

Callophrys (Mitoura)(grynea) thornei (J. W. Brown).

Normal Flight: Late February through June.

Early/Late Records: 2 Feb 2005 SD M Klein to 13 Jun 94 SD RLL.

General: Lab reared material emerged 28 Oct 79 SD JW Brown and it is likely *thornei* emerges into the fall in years of favorable summer rains.

Callophrys (Deciduphagus) augustinus (Westwood).

Normal Flight: Late February to mid-July.

Early/Late Records:: 29 Jan 74 Solano AMS to 6 Aug 78 Trinity AMS.

General: Many believe *iroides* (Boisduval) warrants species status.

Callophrys augustinus iroides (Boisduval).

Normal Flight: February to mid-July.

Early/Late Records: 29 Jan 74 Solano AMS to 6 Aug 78 Trinity AMS.

General: There are fall flight records supported by photographs: 15 to 17 Nov 2004 Monterey David Styer.

Callophrys augustinus nr. annetteae dos Passos.

Normal Flight: Likely late February to early May.

Early/Late Records: 21 Mar 34 San Bernardino C Henne, records needed.

Callophrys augustinus (Westwood). Eastern Sierra Nevada segregate.

Normal Flight: April to June.

Early/Late Records: 5 Apr 2002 Inyo JGP to 12 Jun 2004 Inyo JGP.

Callophrys (Deciduphagus) fotis mojavensis Austin.

Normal Flight: Late March to May.

Early/Late Records: 20 Mar 25 San Bernardino M Walton to 3 Jun 80 Inyo JFE.

Callophrys (Deciduphagus) mossii (Hy. Edwards).

Normal Flight: Coastal populations mostly March to April, June.in Trinity Alps.

Early/Late Records: 25 Feb 85 San Mateo RLL to 27 Jul 93 Trinity JFE.

Callophrys mossii mossii (Hy. Edwards).

Normal Flight: March to June.

Early/Late Records: 8 June 91 Siskiyou AMS to 28 Jun 81 Del Norte SOM.

Callophrys mossii windi Clench.

Normal Flight: March to early June depending on elevation.

Early/Late Records: 13 Mar 76 Placer WD Patterson to 27 Jul 93 Trinity JFE.

Callophrys mossii duodoroffi dos Passos.

Normal Flight: Late March to early May.

Early/Late Records: 31 Mar ? SLO R Allen to 26 May 57 Monterey JWT. One extreme record:
29 Jun 63 Monterey K Brown Jr.

Callophrys mossii bayensis (R. M. Brown).

Normal Flight: March-April.

Early/Late Records: 25 Feb 85 San Mateo RLL to 29 Apr 82 San Mateo RLL.

Callophrys mossii hidakupa J. Emmel, T. Emmel & Mattoon.

Normal Flight: Late March to early April, based on larval emergences.

Early/Late Records: To our knowledge, no one has ever collected adults.

Callophrys mossii marinensis J. Emmel, T. Emmel & Mattoon.

Normal Flight: April.

Early/Late Records: No records available.

Callophrys (Deciduphagus) polios maritima J. Emmel, T. Emmel & Mattoon..

Normal Flight: Late March through April

Early/Late Records: 13 Mar 2005 Del Norte A Warren to 21 Apr 90 Del Norte SOM.

General: Recently discovered in state. Few records for adults.

Callophrys (Incisalia) eryphon (Boisduval).

Normal Flight: May to July.

Early/Late Records: 6 Mar 96 Alameda JA Powell to 5 Sep 95 Nevada AMS.

Callophrys eryphon eryphon (Boisduval).

Normal Flight: Late April to July.

Early/Late Records: 15 Mar 2005 Del Norte A Warren to 5 Sep 95 Nevada AMS.

Callophrys eryphon purpurascens Austin & J. Emmel.

Normal Flight: Late March to May.

Early/Late Records: 6 Mar 96 Alameda JA Powell to 29 May 60 Sonoma PAO.

Callophrys eryphon pallescens Austin.

Normal Flight: Late May to early July.

Early/Late Records: 9 Jun 96 Mono GTA to 5 Jul 96 Mono GTA.

Strymon melinus Hubner.

Normal Flight: February to early November.

Early/Late Records: 12 Jan 83 Ventura AMS to 31 Dec 64 SD RES.

Strymon melinus pudicus (Hy. Edwards).

Normal Flight: February to early November.

Early/Late Records: 12 Jan 83 Ventura AMS to 31 Dec 64 SD RES.

Strymon melinus setonia McDunnough.

Normal Flight: March-October.

Early/Late Records: It is difficult to know which northern California records represent this subspecies. Records needed.

Strymon avalona (W. G. Wright).

Normal Flight: February to October.

Early/Late Records: 16 Mar 39 LA JD Gunder to 13 Sep 93 LA J Glassberg.

Strymon istapa clenchi Austin & J. Emmel.

Normal Flight: August to October.

Early/Late Records: 19 Mar 60 SD D Dirks to 25 Nov 35 Imperial CM Dammers.

General: Long known as *Strymon columella* (Fabricius) which is a different species.

Brephidium exile (Boisduval).

Normal Flight: February to November.

Early/Late Records: 1 Jan 78 Riverside JFE to 31 Dec 53 SD RLL.

Leptotes marina (Reakirt).

Normal Flight: March to October.

Early/Late Records: 1 Jan 2003 LA J. McGregor to 31 Dec 64 SD RES.

Note: Appears later in northern California: 18 Apr 86 Tulare KD to 2 Dec 95 Contra Costa K Hintsa.

Hemiargus ceraunus gyas (W. H. Edwards).

Normal Flight: March to October.

Early/Late Records: 22 Feb 2001 SD G & L Monroe to 17 Nov 63 Riverside KCH..

Echinargus isola (Reakirt).

Normal Flight: April to October.

Early/Late Records: 26 Mar 72 Riverside L Orsak to 22 Oct 99 Riverside B Gendron.

Note: Andrew Warren states that *alce* (W. H. Edwards) is a synonym of *isola*.

Everes comyntas sissona (W. G. Wright).

Normal Flight: Late March to early October.

Early/Late Records: 20 Mar 86 Kern KD to 5 Dec 90 Solano AMS.

Everes amyntula (Boisduval).

Normal Flight: March to early September.

Early/Late Records: 25 Jan 75 SD FT Thorne to 20 Sep 79 Trinity AMS.

General: There are extreme records for 4 Nov 31 Orange E Walter to 17 Dec 2004 Ventura F. Heath.

Everes amyntula amyntula (Boisduval).

Normal Flight: Late February to early July.

Early/Late Records: 25 Jan 75 SD FT Thorne to 5 Sep 69 SLO R. Allen.

Note: Extreme "winter" records for 4 Nov 31 Orange E. Walter to 17 Dec 2004 Ventura F. Heath.

Everes amyntula montanorum Austin.

Normal Flight: May - August.

Early/Late Records: 8 May 97 Inyo KD to 14 Aug 70 Mono KD.

Everes amyntula nesiotis J. Emmel & T. Emmel.

Normal Flight: Late March-May.

Early/Late Records: 17 Mar 90 Santa Barbara JFE to 12 May 89 Santa Barbara JFE.

Everes amyntula (Boisduval). Trinity Mountains segregate.

Normal Flight: Late May to September.

Early/Late Records: 28 May 77 Trinity AMS to 20 Sep 79 Trinity AMS.

Celastrina echo echo (W. H. Edwards).

Normal Flight: Late February through July.

Early/Late Records: 5 Jan 2003 LA B Gendron to 6 Aug 78 Trinity AMS.

General: There is an exceptional record for 12 Sep 91 San Mateo RLL and some extreme “winter” records of 24 Oct 75 Solano AMS to 30 Dec 2000 LA B Gendron.

Celastrina echo “cinerea” (W. H. Edwards).

Normal Flight: March to early July.

Early/Late Records: 25 Mar 80 San Bernardino KD to 13 Jun 87 Inyo KD.

General: The correct taxonomic understanding of the eastern Mojave and east slope of the Sierra Nevada *Celastrina* is unknown. It is also unclear how far north on the east side of the Sierra Nevada “*cinerea*” ranges before it is replaced by *echo*. It is doubtful that the name *cinerea* applies to any California *Celastrina*.

Philotes sonorensis (C. & R. Felder).

Normal Flight: February to mid-April.

Early/Late Records: 11 Jan 59 SD FT Thorne to 2 Jul 17 SD Bulletin Allyn Museum.

Philotes sonorensis sonorensis (C & R Felder).

Normal Flight: February to early May.

Early/Late Records: 11 Jan 59 SD FT Thorne to 2 Jul 17 SD Bulletin Allyn Museum.

Philotes sonorensis extincta Mattoni.

Normal Flight: Late February to early April.

Early/Late Records: 16 Feb 30 LA CM Dammers to 21 Apr 22 LA JAC.

Note: This blue is now believed to be extinct and was named based on that belief.

Philotes sonorensis (C & R Felder) Sierra Nevada segregate.

Normal Flight: February –May.

Early/Late Records: 31 Jan 76 Placer R. Wells to 2 Jun 74 Nevada AMS.

Philotes sonorensis (C & R Felder). Desert edge segregate.

Normal Flight: Late February to April.

Early/Late Records: 1 Feb 58 SD D. Dirks & AOS to 15 Apr 62 San Bernardino RM Brown & RLL.

Euphilotes battoides (Behr) complex.

Taxonomic Note: Recent studies strongly suggest that *battoides* and the *glaucon* group are two separate species. Many other members of the group have already been given species status based on research by Gordon Pratt, John Emmel and others.

Euphilotes battoides battoides (Behr).

Normal Flight: Late June to August.

Early/Late Records: 23 Jun 97 Tulare KD to 11 Sep 83 Tulare P Nordin & G. Pavlik.

Euphilotes (battoides) glaucon (W. H. Edwards) complex.

Normal Flights: Mid-May to third week of July.

Early/Late Records: 9 May 97 Mono KD to 22 Sep 78 Nevada AMS.

General: Research by Andrew Warren and others suggests that *glaucon* probably merits species status.

Euphilotes (battoides) glaucon glaucon (W. H. Edwards).

Normal Flight: Late June to early July.

Early/Late Records: 23 Jun 62 Mono JWT to 21 Jul 58 Mono AOS.

Euphilotes (battoides) glaucon australoglaucon Pratt & J. Emmel.

Normal Flight: Mid-May to late June.

Early/Late Records: 9 May 97 Mono KD to 21 Jun 98 Inyo JGP.

Euphilotes (battoides) glaucon comstocki Shields.

Normal Flight: Late June to early August.

Early/Late Records: 19 June 2002 Tulare KD to 5 Aug 82 Tulare KD.

Euphilotes (battoides) glaucon argocyanea Pratt & J. Emmel.

Normal Flight: Late May and June.

Early/Late Records: 20 May 84 Inyo JFE to 3 June 95 Inyo JGP.

Euphilotes (battoides) glaucon panamintensis Pratt & J. Emmel.

Normal Flight: July.

Early/Late Records: 10 Jul 78 Inyo JFE to 17 Jul 82 Inyo JFE.

Euphilotes (battoides) glaucon mazourka Pratt & J. Emmel.

Normal Flight: July.

Early/Late Records: 17 Jul 92 Inyo JFE, records needed.

Euphilotes (battoides) glaucon intermedia (Barnes & McDunnough).

Normal Flight: June to early August.

Early/Late Records: 29 May 77 Trinity AMS to 22 Sep 77 Nevada AMS.

Euphilotes (battoides) glaucon oregonensis (Barnes & McDunnough).

Normal Flight: Late June to early August.

Early/Late Records: Records needed.

Euphilotes (battoides)(centralis) glaucon hadrochilus Pratt & J. Emmel.

Normal Flight: July.

Early/Late Records: 7 Jul 70 Inyo AOS. To 21 Jul 95 Inyo JGP.

Euphilotes bernardino (Barnes & McDunnough).

Normal Flight: Late April to July.

Early/Late Records: 20 Feb 77 SD D Hawks to 6 Oct 2002 Ventura JGP.

Euphilotes bernardino bernardino (Barnes & McDunnough).

Normal Flight: May to early August.

Early/Late Records: 20 Feb 77 SD D Hawks to 29 Aug 72 Riverside JFE.

Euphilotes bernardino inyomontana Pratt & J. Emmel.

Normal Flight: May to early July.

Early/Late Records : 7 Apr 85 San Bernardino G Pratt to 8 Jul 83 Kern KD.

Euphilotes bernardino martini (Mattoni).

Normal Flight: Late April to early June.

Early/Late Records: 18 Apr 97 San Bernardino J Levy to 11 May 2005 San Bernardino JGP.

Euphilotes bernardino allyni (Shields).

Normal Flight: July to August.

Early/Late Records: 22 Jun 88 LA R Mattoni to 21 Sep ? LA R Mattoni.

Euphilotes bernardino near *garthi* Mattoni.

Normal Flight: March to April.

Early/Late Records: Records needed.

Euphilotes bernardino (Barnes & McDunnough). Santa Monica Mtns. segregate.

Normal Flight: Late June to September.

Early/Late Records: 27 Jun 93 Ventura JGP to 6 Oct 2002 Ventura JGP.

Euphilotes baueri (Shields).

Normal Flight: Late April to early June.

Early/Late Records :: 16 Apr 89 San Bernardino G Pratt to 3 Sep 65 Inyo JA Powell.

Euphilotes baueri baueri (Shields).

Normal Flight: May to early June.

Early/Late Records: 6 May 85 Inyo KD to 3 Sep 65 Inyo JA Powell.

Euphilotes baueri vernalis Pratt & J. Emmel.

Normal Flight: Late April to May.

Early/Late Records: 16 Apr 89 San Bernardino G Pratt to 9 May 87 San Bernardino G Pratt.

Euphilotes ellisi (Shields).

Normal Flight: Mid-July to early October.

Early/Late Records: 14 Jul 93 San Bernardino G Pratt to 20 Sep 93 San Bernardino KD.

Euphilotes ellisi euromojavensis Pratt & J. Emmel.

Normal Flight: September and October.

Early/Late Records: 8 Sep 93 San Bernardino G Pratt to 20 Sep 93 San Bernardino KD.

Euphilotes ellisi avawatz Pratt & J. Emmel.

Normal Flight: July to September.

Early/Late Records: 14 Jul 93 San Bernardino G Pratt to 31 Aug 93 San Bernardino G Pratt.

Euphilotes enoptes (Boisduval).

Normal Flight: April to early October.

Early/Late Records: 27 Mar 77 Kern J Brock to 9 Oct 82 Kern KD.

Euphilotes enoptes enoptes (Boisduval).

Normal Flight: Mid-June through August.

Early/Late Records: 17 May 85 Tulare KD to 18 Sep 74 Nevada AMS.

Euphilotes enoptes tildeni (Langston).

Normal Flight: Late March to early October. Main flight late August- September.

Early/Late Records : 27 Mar 77 Kern J. Brock to 9 Oct 82 Kern KD.

Euphilotes enoptes smithi (Mattoni).

Normal Flight : Late June to early September.

Early/Late Records : 15 June 78 Monterey RLL to 4 Sep 69 Monterey RLL.

Euphilotes enoptes arenacola Pratt & J. Emmel.

Normal Flight : Early June.

Early/Late Records : 5 Jun 76 Monterey G. Gorelick. Records needed.

Euphilotes enoptes bayensis (Langston).

Normal Flight : May to early July.

Early/Late Records : 12 Apr 76 Contra Costa RLL to 17 Jul 71 Sonoma RLL.

Euphilotes enoptes langstoni (Shields).

Normal Flight : Mid-May through June.

Early/Late Records : 30 Apr 87 Kern KD to 6 Jul 83 Tulare KD.

Euphilotes enoptes dammersi (J. A. Comstock & Henne).

Normal Flight : Late August to mid-October.

Early/Late Records : San Bernardino Mtns population: 11 Jun 2005 San Bernardino KD, B. Gendron & G Chatman. Usual desert localities: 5 Aug 67 San Bernardino KCH to 19 Oct 30 Riverside CM Dammers.

Note : A population phenotypically similar to *dammersi* flies near Baldwin Lake in the San Bernardino Mtns. mid-May to mid-June.

Euphilotes enoptes opacapulla Austin.

Normal Flight : September to early October.

Early/Late Records : 15 Sep 90 San Bernardino JGP to 20 Sep 93 San Bernardino KD.

Euphilotes enoptes cyptorufes Pratt & J. Emmel.

Normal Flight : May to early July.

Early/Late Records : 26 May 81 Riverside G Pratt to 6 Jun 83 Riverside G Pratt, records needed. Known primarily from reared material.

Euphilotes mojave (Watson & W. P. Comstock).

Normal Flight : Late March to May.

Early/Late Records : 10 Mar 63 Riverside RLL to 22 Jun 64 LA T Emmel.

Euphilotes ancilla (Barnes & McDunnough).

Normal Flight : Late June to mid-July.

Early/Late Records : 21 Jun 85 Nevada G Pratt to 17 Jul 82 Inyo D Giuliani.

Euphilotes ancilla pseudointermedia Pratt & J. Emmel.

Normal Flight : June-July.

Early/Late Records : 21 Jun 85 Nevada G Pratt to 15 Jul 84 Nevada G. Pratt.

Euphilotes ancilla shieldsi Austin.

Normal Flight : June-July.

Early/Late Records : No California records available, records needed.

Euphilotes ancilla giuliani Austin.

Normal Flight: Late June-July.

Early/Late Records: 1 Jul 79 Inyo JFE to 17 Jul 82 Inyo D Giuliani.

Euphilotes ancilla gilvatunica Austin.

Normal Flight: Late May through early August (mostly June).

Early/Late Records: No California records available, records needed.

Euphilotes pallescens (Tilden & Downey).

Normal Flight: July to early October.

Early/Late Records: 7 Jul 66 LA C Henne to 30 Sep 97 Kern KD.

General: Gordon Pratt states there are some mid-May and June records.

Euphilotes pallescens (Tilden & Downey). Mono County population.

Normal Flight: Late July to early September.

Early/Late Records: 14 Jul 93 Mono JGP to 5 Aug 2000 Mono JGP.

Euphilotes pallescens elvirae (Mattoni).

Normal Flight: Late July to early September.

Early/Late Records: 7 Jul 66 LA C Henne to 30 Sep 97 Kern KD.

Euphilotes pallescens confusa Pratt & J. Emmel.

Normal Flight: July to early September.

Early/Late Records: 10 Jul 83 Inyo G Pratt & JFE to 15 Jul 82 Inyo G Pratt & JFE.

Euphilotes pallescens calneva J. Emmel & T. Emmel.

Normal Flight: Early July to mid-August.

Early/Late Records: 23 Jul 95 Lassen JGP to 1 Aug 93 Lassen SOM & C. Hageman.

Philotiella speciosa (Hy. Edwards).

Normal Flight: Late March to May in deserts, flights into June in desert ranges.

Early/Late Records: 8 Mar 59 SD W Hedges to 8 Aug 61 Inyo C Henne.

Note: This species can forego emergence for many years during drought years.

Philotiella speciosa speciosa (Hy. Edwards).

Normal Flight: Late March to early May, June in high elevations of desert ranges.

Early/Late Records: 8 Mar 59 SD W Hedges to 8 Aug 61 Inyo C Henne.

Philotiella speciosa bohartorum (Tilden).

Normal Flight: Second week of April to early June.

Early/Late Records: 11 Apr 70 Mariposa JR Mori to 3 June 38 Mariposa RM Bohart.

Note: Very rare and not seen in many years. Probably waiting to be rediscovered somewhere in the western foothills of the Sierra Nevada.

Philotiella speciosa purisima Priestaf & J. Emmel.

Normal Flight: Late April to early June.

Early/Late Records: 17 Apr 97 Santa Barbara JGP to 22 May 92 Santa Barbara R Priestaf.

Glaucopsyche piasus (Boisduval).

Normal Flight: Late March to July.

Early/Late Records: 28 Feb 2002 Tulare KD to 19 Aug 52 Tuolumne JWT.

Glaucopsyche piasus piasus (Boisduval).

Normal Flight: June–July.

Early/Late Records: 4 Apr 82 Siskiyou SOM to 19 Aug 52 Tuolumne JWT.

Glaucopsyche piasus sagittigera (C & R Felder).

Normal Flight: Mid-March to early May.

Early/Late Records: 12 Mar 23 LA JAC to 1 May 2004 Santa Barbara KD.

Glaucopsyche piasus nevada F. M. Brown.

Normal Flight: Mid-June-early August.

Early/Late Records: 10 June 96 Mono B & B Boyd to 9 Aug 98 Mono KD.

Glaucopsyche piasus excubita J. Emmel, T. Emmel & Mattoon.

Normal Flight: March to early June.

Early/Late Records: 28 Feb 2002 Tulare KD to 15 Jul 99 Inyo B Gendron.

Glaucopsyche piasus umbrosa J. Emmel, T. Emmel & Mattoon.

Normal Flight: April-mid-May.

Early/Late Records: 24 Apr 85 SD JFE to 16 May 76 SD “GS.”

Glaucopsyche piasus gabrielina J. Emmel, T. Emmel & Mattoon.

Normal Flight: April to early July.

Early/Late Records: 28 Apr 95 LA J. Glassberg to 22 Jun 74 LA JFE.

Glaucopsyche piasus toxema F. M. Brown.

Normal Flight: May to July.

Early/Late Records: 10 May 90 Siskiyou AMS to 6 July 91 Siskiyou AMS.

Glaucopsyche lygdamus (Doubleday).

Normal Flight: March to early August.

Early/Late Records: 25 Jan 88 Monterey JA Powell to 25 Aug 82 Nevada AMS.

General: There is an extreme record for 20 Dec 81 LA W Dawes.

Glaucopsyche lygdamus australis F. Grinnell.

Normal Flight: Late February to late June.

Early/Late Records: 2 Feb 2005 SD M Klein to 14 Jul 70 Kern KD.

Note: The extreme record of 20 Dec 81 LA W Dawes is for this subspecies.

Glaucopsyche lygdamus palosverdesensis E. M. Perkins & J. Emmel.

Normal Flight: February-March.

Early/Late Records: 30 Jan ? LA R Mattoni to 25 Mar 78 LA AOS.

Glaucopsyche lygdamus incognita Tilden.

Normal Flight: March to early July.

Early/Late Records: 25 Jan 88 Monterey JA Powell to 19 Aug 88 Contra Costa JA Powell.

Glaucopsyche lygdamus sabulosa J. Emmel, T. Emmel & Mattoon.

Normal Flight: March-April.

Early/Late Records: 12 Mar 84 SLO JGP to 7 Apr 94 SLO KD.

Glaucopsyche lygdamus pseudoxerces T. Emmel & J. Emmel.

Normal Flight: March-April.

Early/Late Records: 17 to 19 Mar 90 Santa Barbara J & T Emmel., records needed.

Glaucopsyche lygdamus deserticola Austin & J. Emmel.

Normal Flight: March to early May.

Early/Late Records: 4 Apr 31 San Bernardino R Reid to 17 May 36 Inyo LM Martin.

Glaucopsyche lygdamus (Doubleday) Arid eastern slope southern Sierra Nevada segregate.

Normal Flight: Mid-March to early May.

Early/Late Records: 12 Mar 97 Kern KD to 25 May 83 Kern KD.

Glaucopsyche lygdamus (Doubleday) High elevation Sierra Nevada segregate.

Normal Flight: June to early August.

Early/Late Records: 9 Jun 2001 Tulare KD to 25 Aug 82 Nevada AMS.

Glaucopsyche lygdamus near *oro* (Scudder).

Normal Flight: April-June.

Early/Late Records: 6 May 85 Inyo KD to 13 Jun 87 Inyo J McBurney.

Glaucopsyche (lygdamus) xerces (Boisduval).

Normal Flight: March to April.

Early/Late Records: 20 Mar 32 San Francisco JWT to 24 Apr 17 San Francisco J Gunder.

General: Extinct for many years. Historically, *xerces* has been viewed as species. Many now believe it was a local *G. lygdamus* population.

Plebejus (Lycaeides) anna (W. H. Edwards).

Normal Flight: Second week of June to early September.

Early/Late Records: 8 Jun 92 Mariposa KD to 18 Oct 95 Nevada AMS.

Plebejus anna anna (W. H. Edwards).

Normal Flight: Second week of June to early September.

Early/Late Records: 8 Jun 92 Mariposa KD to 18 Oct 95 Nevada AMS.

Plebejus anna lotis (Lintner).

Normal Flight: July-August.

Early/Late Records: 18 Jun 53 Mendocino JC Downey, records needed.

Note: This blue may be extinct.

Plebejus anna ricei (Cross).

Normal Flight: July-August.

Early/Late Records: 3 Jul 85 Siskiyou AMS to 16 Aug 79 Trinity AMS.

Plebejus anna azureus J. Emmel, T. Emmel & Matttoon.

Normal Flight: Late June to early August.

Early/Late Records: 4 Jul 79 Trinity SOM to 9 Jul 2001 Trinity JGP.

Plebejus (Lycaeides) melissa (W. H. Edwards).

Normal Flight: June to October.

Early/Late Records: 3 Apr 77 Kern KD to 24 Nov 95 Riverside JFE.

Lycaeides melissa melissa (W. H. Edwards).

Normal Flight: May to early October.

Early/Late Records: 29 May 77 Trinity AMS to 28 Oct 90 Alpine AMS.

Plebejus melissa paradoxa (Chermock).

Note: Includes *inyoensis* Nabokov which may warrant subspecies recognition.

Normal Flight: April to October.

Early/Late Records: 3 Apr 77 Kern KD to 24 Nov 95 Riverside JFE.

Plebejus (Lycaeides)(melissa) fridayi (Chermock).

Normal Flight: Late June through August.

Early/Late Records: 12 Jun 96 Mono KD to 29 Aug 67 Tuolumne PAO.

General: Preliminary studies and field data suggests *fridayi* and *melissa* are separate species.

Plebejus (Plebejus) saepiolus (Boisduval).

Normal Flight: May (coastal); late May to early September.(mountains).

Early/Late Records: 5 May 55 Sonoma RLL to 22 Sep 2001 Tulare KD.

Plebejus saepiolus saepiolus (Boisduval).

Normal Flight: May-June.

Early/Late Records: 5 May 55 Sonoma RLL to 11 Jun 65 San Mateo K Brown Jr.

Plebejus saepiolus aehaja (Behr).

Normal Flight: June-early September.

Early/Late Records: 22 May 2002 Plumas JGP to 22 Sep 2001 Tulare KD.

Plebejus saepiolus rufescens (Boisduval).

Note: Emmel, Emmel & Mattoon did not recognize *rufescens* as a valid subspecies in the state.

Normal Flight: Late May to early September.

Early/Late Records: 21 May 97 Mono GTA to 26 Aug 97 Mono KD.

Plebejus saepiolus hilda J. & F. Grinnell.

Normal Flight: Late June to early August.

Early/Late Records: 28 May 83 San Bernardino JGP to 8 Aug 98 San Bernardino B. Gendron.

Plebejus saepiolus littoralis J. Emmel, T. Emmel & Mattoon.

Normal Flight: Early May to mid-June.

Early/Late Records: 13 May 79 Del Norte SOM to 21 Jun 99 Del Norte J. Glassberg.

Plebejus saepiolus albomontanus Austin & J. Emmel.

Normal Flight: Late June to mid-August.

Early/Late Records: 18 Jun 61 Mono JA Powell to 26 Aug 98 Mono KD.

Plebejus saepiolus aureolus J. Emmel, T. Emmel & Mattoon.

Normal Flight: Early June to late July.

Early/Late Records: 18 Jun 70 LA C Henne to 15 Jul 80 LA JFE.

Plebejus (Plebulina) emigdionis (F. Grinnell).

Normal Flight: Late April to early September. Later broods depend on rainfall.

Early/Late Records: 8 Apr 65 San Bernardino RES to 24 Sep 2005 Kern KD.

Note: This species can apparently forego emergences in very dry years at some localities.

Plebejus (Icaricia) icarioides (Boisduval).

Normal Flight: April through August.

Early/Late Records: 3 Mar 85 San Mateo RLL to 27 Aug 67 Tuolumne PAO.

Plebejus icarioides icarioides (Boisduval).

Normal Flight: May through August.

Early/Late Records: 21 Apr 97 Tulare KD to 27 Aug 67 Tuolumne PAO.

Plebejus icarioides evius (Boisduval).

Normal Flight: Late April to July.

Early/Late Records: 29 Mar 99 Kern KD to 19 Aug 80 LA JFE.

Plebejus icarioides eosierra J. Emmel, T. Emmel & Mattoon.

Normal Flight: April to July.

Early/Late Records: 3 Apr 77 Kern KD to 10 Jul 94 Inyo KD.

Plebejus icarioides fulla (W. H. Edwards).

Normal Flight: May through August.

Early/Late Records: 29 Apr 2000 Mono KD to 31 Aug 65 Mono PAO.

Plebejus icarioides moroensis (Sternitzky).

Normal Flight: Late April to early July.

Early/Late Records: 1 Apr 2005 SLO W. Bouton to 30 Jul 83 SLO R. Allen.

Plebejus icarioides santana J. Emmel, T. Emmel & Mattoon.

Normal Flight: Late April to June.

Early/Late Records: 26 Apr 75 Orange L Orsak to 26 Jun 75 Orange R. Vanderhoff.

Plebejus icarioides argusmontana J. Emmel, T. Emmel & Mattoon.

Normal Flight: May-June.

Early/Late Records: 4 May 51 Inyo R. Reid to 11 Jun 33 Inyo JAC.

Plebejus icarioides inyo J. Emmel, T. Emmel & Mattoon.

Normal Flight: June-July.

Early/Late Records: "June" to 11 Jul 79 Inyo JFE. & AOS.

Plebejus icarioides panamintina J. Emmel, T. Emmel & Mattoon.

Normal Flight: June to early July.

Early/Late Records: 19 Jun 76 Inyo JFE to 10 Jul 78 Inyo JFE.

Plebejus icarioides albihalos J. Emmel, T. Emmel & Mattoon.

Normal Flight: June to August.

Early/Late Records: 19 Jun 76 Inyo JFE to 26 Aug 98 Mono KD.

Plebejus icarioides pardalis (Behr).

Normal Flight: Late April to June.

Early/Late Records: 25 Apr 93 Monterey KD to 28 Jun 95 Contra Costa RLL.

Plebejus icarioides atascadero J. Emmel, T. Emmel & Mattoon.

Normal Flight: Late March to early June.

Early/Late Records: 5 Mar 35 SLO V Clemence to 1 Jun 98 Fresno KD.

Plebejus icarioides missionensis (Hovanitz).

Normal Flight: Late March to mid-July.

Early/Late Records: 3 Mar 85 San Mateo RLL to 13 Jul 89 San Mateo RLL.

Plebejus icarioides pheres (Boisduval).

Normal Flight: Late April to early July.

Early/Late Records: 23 Apr 16 San Francisco JAC to 4 Jun 20 San Francisco JAC.

Plebejus icarioides parapheres J. Emmel, T. Emmel & Mattoon.

Normal Flight: Mid- April to early July.

Early/Late Records: 8 May 74 Marin C Henne 18 Jul 56 Marin OE Sette.

Plebejus icarioides near *pembina* (W. H. Edwards).

Normal Flight: May to July.

Early/Late Records: 18 May 2002 Modoc JGP, records needed.

Plebejus (Icaricia) shasta (W. H. Edwards).

Normal Flight: Late June through August.

Early/Late Records: 19 Jun 58 Mono AOS to 6 Sep 47 Fresno CD McBurney.

General: There are extreme records for 25 Oct 95 Nevada AMS and 24 Nov 95 Alpine JA DeBenedictus.

Plebejus shasta shasta (W. H. Edwards).

Normal Flight: Late June through August.

Early/Late Records: 19 Jun 58 Mono AOS to 6 Sep 47 Fresno CD McBurney. There are extreme records for 25 Oct 95 Nevada AMS and 24 Nov 95 Alpine JA DeBenedictus.

Plebejus shasta calchas (Behr).

Normal Flight: July-August.

Early/Late Records: 18 Jul 57 Mono AOS to 26 Jul 74 Mono JFE.

Plebejus shasta near *pallidissima* Austin.

Normal Flight: Late June to late August.

Early/Late Records: 22 Jun 85 Inyo JGP to 26 Aug 98 Mono KD.

Plebejus (Icaricia) acmon acmon (Westwood & Hewitson).

Normal Flight: February to early November.

Early/Late Records: 7 Jan 2003 Orange M Klein to 14 Dec 2004 LA B. Gendron.

Plebejus (Icaricia) (acmon) texana (Goodpasture).

Normal Flight: March to early November.

Early/Late Records: 25 Mar 90 San Bernardino KD to 6 Oct 93 San Bernardino KD.

Plebejus (Icaricia) (acmon) dedeckera Emmel, Emmel & Mattoon.

Normal Flight: Late May to mid-June.

Early/Late Records: 12 May 2000 Inyo JFE & G. Pratt to 1 Jun 88 Inyo D Giuliani.

General: Likely will receive species status. Very distinctive.

Plebejus (Icaricia) lupini (Boisduval) complex.

Normal Flight: Late April to August.

Early-Late Records: 14 Mar 65 LA KCH (*monticola*) to 29 Sep 93 Nevada AMS (*alpicola*).

Note: It appears what is now called *lupini* is actually a complex of species. Both *monticola* and *chlorina* are sympatric and overlap flight periods somewhat in the southern Sierra Nevada and Tehachapi Mountains. The two use different buckwheat hosts.

Plebejus lupini lupini (Boisduval).

Normal Flight: June to August.

Early/Late Records: 24 May 56 Modoc RLL to 20 Sep 79 Trinity AMS.

Plebejus lupini monticola (Clemence).

Normal Flight: April to early July.

Early/Late Records: 14 Mar 65 LA KCH to 17 Jul 2002 San Bernardino B Gendron..

Plebejus lupini alpicola (J. Emmel, T. Emmel & Mattoon).

Normal Flight: Late June to August.

Early/Late Records: 23 Jun 97 Tulare KD to 29 Sep 93 Nevada AMS.

Plebejus (lupini) chlorina (Skinner).

Normal Flight: Late June to third week of July.

Early/Late Records: 17 Jun 96 Tulare KD to 31 Jul 2000 Kern KD.

Note: Recent field work shows *chlorina* is far more extensively distributed than previously believed. This may affect the status of *argentata*, *goodpasturei* and other unnamed populations.

Plebejus (lupini) argentata J. Emmel, T. Emmel & Mattoon.

Normal Flight: Early May to mid-July.

Early/Late Records: 2 Jun 80 Inyo JFE & AOS to 9 Jul 79 Inyo JFE & AOS.

General: There is a strong probability that *argentata* is allied with, or even a synonym of *chlorina*. Piute Mtns (Kern County) “*argentata*” appear to be the same as *chlorina*.

Plebejus lupini (Boisduval): Mono County/Eastern Sierra Nevada.

Normal Flight: Late May to mid-August.

Early/Late Records: 9 May 97 Mono KD to 26 Aug 98 Mono KD.

General: Populations of “*lupini*” using *Eriogonum umbellatum* appear to be allied with *chlorina* and *argentata* and there may be more than one entity in the *lupini* complex east of the Sierra Nevada and western Great Basin.

Plebejus (lupini) goodpasturei Austin.

Normal Flight: Late May to mid-August.

Early/Late Records: No reliable records available.

General: Considerable confusion exists over what *goodpasturei* is in California. The records given above may actually represent *P. lupini lupini*. It is also possible that some Mono County populations represent *goodpasturei*. Those in turn, may actually be allied with *chlorina* (which may be a different species) and NOT *lupini*.

Plebejus (Icaricia) neurona (Skinner).

Normal Flight: Late April to July, rarely into August.

Early/Late Records: 13 Apr 85 Kern PJ Savage to 10 Sep 2005 Ventura F. Heath..

Plebejus (Agriades) podarce (C. & R. Felder).

Normal Flight: Mid-June through August.

Early/Late Records: 6 Jun 86 Tulare KD to 5 Sep 76 Trinity AMS.

Plebejus podarce podarce (C & R Felder).

Normal Flight: Mid-June to early August.

Early/Late Records: 15 Jun 60 El Dorado JFE to 15 Jul 60 El Dorado JFE.

Plebejus podarce cilla (Behr).

Normal Flight: June through August.

Early/Late Records : 6 Jun 86 Tulare KD to 30 Aug 58 Mono JWT.

Plebejus podarce klamathensis J. Emmel & T. Emmel.

Normal Flight : Late June to August.

Early/Late Records : 14 Jun 80 Trinity AMS to 5 Sep 76 Trinity AMS.

Plebejus (Agriades) cassiope J. Emmel & T. Emmel.

Normal Flight : Late July- August.

Early/Late Records : 29 Jun 2001 El Dorado JFE to 17 Aug 75 Mono KD.

Plebejus cassiope cassiope J. Emmel & T. Emmel.

Normal Flight : Late July- August.

Early/Late Records : 29 Jun 2001 El Dorado JFE to 17 Aug 75 Mono KD.

Plebejus cassiope kelsoni J. Emmel & T. Emmel.

Normal Flight : Late July to early August.

Early/Late Records : 21 Jul 68 Siskiyou JFE & AOS to 25 Jul 90 Siskiyou R. Kelson.

FAMILY RIODINIDAE. METALMARKS.

Calephelis nemesis (W. H. Edwards).

Normal Flight : February to October.

Early/Late Records : 23 Jan 58 Orange JR Mori to 13 Nov 2005 Ventura F Heath.

Note : Apparently, *californica* is a synonym of *dammersi* per Andrew Warren. The two taxa are considered separately here until this can be confirmed.

Calephelis nemesis dammersi McAlpine.

Normal Flight : July-September.

Early/Late Records : 29 Sep 33 Riverside C Henne, records needed.

Calephelis nemesis californica McAlpine.

Normal Flight : February to October.

Early/Late Records : 23 Jan 58 Orange JR Mori to 13 Nov 2005 Ventura F Heath.

Calephelis wrighti Holland.

Normal Flight : March to October.

Early/Late Records : 24 Jan 75 Riverside JT McBurney to 26 Dec 83 Riverside JFE.

Apodemia mormo (C. & R. Felder).

Note : Some authorities lump *virgulti*, *deserti* and *cythera* and other taxa with *mormo*. The following arrangement in this group is tentative pending a revision of the group. It is likely that some of the other names listed here will be given species or changed status.

Normal Flight : Late July to early October.

Early/Late Records : 21 Jun 90 Monterey RLL to 19 Nov 2005 San Benito P. Johnson II.

Apodemia mormo mormo (C & R Felder). Great Basin.

Normal Flight : Late July to early October.

Early/Late Records : 20 Jul 58 Mono AOS to 8 Oct 78 Nevada AMS.

Apodemia mormo near *mormo* (C.& R. Felder) Coast Ranges.

Normal Flight : July-early October.

Early/Late Records : 21 Jun 90 Monterey RLL to 19 Nov 2005 San Benito P Johnson II.

Apodemia mormo near *mormo* (C & R Felder). San Bernardino Mtns. segregate.

Normal Flight: Late July through September.

Early/Late Records: 23 Jul 2005 San Bernardino B Gendron to 24 Sep 2001 San Bernardino B Gendron. This entity was formerly believed to be a second brood of *dialeucoides* J. Emmel, T. Emmel & Pratt.

Apodemia mormo autumnalis Austin.

Normal Flight: Late August-early October.

Early/Late Records: 31 Aug 63 San Bernardino AOS to 6 Oct 93 San Bernardino KD.

Apodemia mormo langei J. A. Comstock.

Normal Flight: Late July to September.

Early/Late Records: 17 Jul 47 Contra Costa RLL to 25 Sep 37 Contra Costa W. Hovanitz.

Apodemia mormo/virgulti (Behr) complex:

Apodemia (mormo) peninsularis Emmel, Emmel & Pratt.

Normal Flight: Late April to late June.

Early/Late Records: 30 Apr ? SD J & T Emmel to 29 Jun 2002 SD D. Faulkner.

General: This entity occurs near *virgulti* on a different host without apparent intergrades. May merit species status. There is a reported record for 25 Sep 2001 SD D. Faulkner which may represent a later brood than reported in the original description.

Apodemia virgulti (Behr).

Normal Flight: March to October in two-three broods in SD County area.

Early/Late Records: 25 Jan 75 SD FT Thorne to 17 Dec 2004 SD M Klein.

General: This is a very difficult complex with many newly described or undescribed entities that cannot yet be placed taxonomically with assurance. The following arrangement is tentative.

Apodemia virgulti virgulti (Behr).

Normal Flight: March to October (multiple-brooded)..

Early/Late Records: 25 Jan 75 SD FT Thorne to 17 Dec 2004 SD M Klein.

Apodemia virgulti (Behr) complex. Kernville/Eastern Greenhorn Mountains

Normal Flight: Late May to late June; Late September to early November. Two broods.

Early/Late Records: 13 May 2001 Kern KD & JGP to 3 Jul 2004 Kern S. Steele; 17 Sep 2001 Kern KD to 6 Nov 2002 Kern KD. Sharply double brooded.

General: Previously placed in the *mormo* group by KD. John F. Emmel & Gordon Pratt believe this is in the *virgulti* group. It could also be a species itself.

Apodemia virgulti nigrescens J. Emmel & T. Emmel.

Normal Flight: Late March to early November (multiple-brooded).

Early/Late Records: 22 Apr 95 San Bernardino JGP to 8 Sep 90 San Bernardino JFE & G. Ballmer, records needed.

Apodemia (virgulti) arenaria J. Emmel, T. Emmel & Pratt.

Normal Flight: April to late September or October (multiple-brooded).

Early/Late Records: 10 Jun 95 Santa Barbara JGP to 25 Sep 99 SLO JGP.

Note: Central Coast populations are included within the concept of *arenaria* here.

Apodemia (virgulti) davenporti J. Emmel, T. Emmel & Pratt.

Normal Flight: April and May (one brood).

Early/Late Records: 29 Mar 77 Kern KD to 13 June 99 Tulare Kevin Davenport.

General: Since both the black Kernville/Greenhorn Mountains metalmark and *davenporti* overlap ranges and the latter is single-brooded. It appears that these must represent separate species.

Apodemia (virgulti) dialeucooides J. Emmel, T. Emmel & Pratt.

Normal Flight: Late May to early July (one brood).

Early/Late Records: 26 May 68 San Bernardino J Lane to 24 Jun 78 San Bernardino KD.

Apodemia (virgulti) pratti J. Emmel & T. Emmel.

Normal Flight: May-mid-June (one brood).

Early/Late Records: 9 May 87 San Bernardino G Pratt to 15 Jun 87 San Bernardino G Pratt.

Apodemia (virgulti) mojavelimbus J. Emmel, T. Emmel & Pratt.

Normal Flight: Late March to May (one brood).

Early/Late Records: 21 Mar 2003 San Bernardino JGP to 15 May 97 San Bernardino 97 JFE.

Apodemia (mejicanus) deserti Barnes & McDunnough.

Note: James Scott and others question if *deserti* is allied with *mejicanus*. Its multi-brooded biology distinguishes it from *mormo*.

Normal Flight: March through October.

Early/Late Records: 11 Feb 77 SD R Breedlove to 17 Nov 63 Riverside KCH.

Apodemia cythera (W. H. Edwards).

Normal Flight: Late July through October.

Early/Late Records: (1 Jun 47 Inyo C Smith, questionable identification) 4 Jul 47 Mono CD MacNeill to 19 Nov 2005 Tulare KD.

Note: The flight periods for *cythera* and *tuolumnensis* are very long in comparison with a very brief flight period for similar looking *davenporti* which flies in many of the same areas in the spring.

Apodemia cythera cythera (W. H. Edwards).

Normal Flight: Second week of July to early October.

Early/Late Records: (1 Jun 47 Inyo C. Smith) 4 Jul 47 Mono CD MacNeill to 20 Sep 86 Inyo KD & RP Meyer.

Apodemia cythera tuolumnensis Opler & Powell.

Normal Flight: Late July through October.

Early/Late Records: 12 Jul 03 Kern KD to 19 Nov 2005 Tulare KD.

Apodemia palmerii palmerii (W. H. Edwards).

Normal Flight: April to early November.

Early/Late Records: 29 Mar 10 SD V Clemence to 1 Nov 20 Riverside JAC.

FAMILY NYMPHALIDAE. BRUSH-FOOTED BUTTERFLIES.

Libytheana carinenta streckeri (Field).

Regular Stray: September-early November.

Early/Late Records: 29 Jan 89 Riverside JFE to 29 Dec 63 Santa Barbara D Davenport..

Agraulis vanillae incarnata (Riley).

Normal Flight: Late February to November.

Early/Late Records: 1 Jan 78 Riverside JFE to 31 Dec 53 SD RLL.

Euptoieta claudia (Cramer).

Rare Stray: June to early October.. Sometimes breeds in eastern Mojave Desert.

Early/Late Records: 1 Jun 68 San Bernardino J & T Emmel to 23 Oct 88 Mariposa AOS.

Speyeria (cybele) leto (Behr).

Note: While most authorities treat *cybele* and *leto* as one species, others view them as separate species.

Normal Flight: July-August.

Early/Late Records: 25 Jun 49 Plumas RLL to 12 Sep 82 Tuolumne RLL.

Speyeria (cybele) leto leto (Behr).

Normal Flight: July-August.

Early/Late Records: 25 Jun 49 Plumas RLL to 12 Sep 82 Tuolumne RLL.

Speyeria (cybele) leto eileenae J. Emmel, T. Emmel & Mattoon.

Normal Flight: July-August.

Early/Late Records: 1 Jul 70 Humboldt SOM to 2 Sep 90 Humboldt S North.

Speyeria nokomis (W. H. Edwards).

Normal Flight: Late July to September.

Early/Late Records: 12 Jul 76 Mono KD to 12 Oct 2003 Mono S Steele.

Speyeria nokomis apacheana (Skinner).

Normal Flight: Late July to September.

Early/Late Records: 12 Jul 76 Mono KD to 12 Oct 2003 Mono S. Steele.

Speyeria nokomis carsonensis Austin.

Normal Flight: Late July-September.

Early/Late Records: Records needed.

Speyeria coronis (Behr).

Normal Flight: June to early October.

Early/Late Records: 11 Apr 73 Monterey JB Walsh to 8 Oct 95 Santa Cruz RES. There is an extreme record for 21 Oct 78 SD CD Nagano.

Speyeria coronis coronis (Behr).

Normal Flight: Late May to mid- September.

Early/Late Records: 11 Apr 73 Monterey JB Walsh to 8 Oct 95 Santa Cruz RES.

Speyeria coronis semiramis (W. H. Edwards).

Normal Flight: Late May to early September.

Early/Late Record: 18 May 66 San Bernardino RES to 21 Oct 78 SD C Nagano.

Speyeria coronis hennei (Gunder).

Normal Flight: June to early September.

Early/Late Records: 31 May 92 Kern JGP to 22 Sep 2005 Ventura C. Hanzlik.

Speyeria coronis snyderi (Skinner).

Normal Flight: June to early September.

Early/Late Records: 8 Jun 97 Plumas RH Leuschner to 16 Sep 80 Nevada AMS.

Speyeria coronis near *simaetha* dos Passos & Grey.

Normal Flight: June to early September.

Early/Late Records: 15 Jun 80 Trinity AMS to 20 Sep 79 Trinity AMS.

Speyeria zerene (Boisduval).

Normal Flight: June to early September.

Early/Late Records: 3 Jun 24 Modoc JAC to 22 Oct 81 Mariposa AOS.

Speyeria zerene zerene (Boisduval).

Note: There is considerable confusion over what nominotypical *zerene* now includes. The TL is in the Feather River drainage in Plumas County. What has been considered nominotypical *zerene* is actually **monticola** and much of what has been called *conchyliatus* is probably *zerene*.

Speyeria zerene monticola (Behr).

Normal Flight: Late June to early September.

Early/Late Records: 9 Jun 62 Mariposa AOS to 22 Oct 81 Mariposa AOS.

Speyeria zerene malcolmi (J. A. Comstock).

Normal Flight: Late May to early September.

Early/Late Records: 16 Jun 96 Mono B & B Boyd to 2 Sep 58 Mono JWT.

Speyeria zerene gunderi (J. A. Comstock).

Normal Flight: June to early September.

Early/Late Records: 3 Jun 24 Modoc JAC to 7 Aug 62 Lassen LACM.

Speyeria zerene conchyliatus (J. A. Comstock).

Normal Flight: June to mid-September.

Early/Late Records: 4 Jun 21 Siskiyou J. Cottle to 21 Sep 79 Trinity AMS.

Speyeria zerene myrtleae dos Passos & Grey.

Normal Flight: Late June to early August.

Early/Late Records: 20 Jun 91 Marin D. Murphy to 5 Oct 91 Marin D. Murphy.

Speyeria zerene sonomensis J. Emmel, T. Emmel & Mattoon.

Normal Flight: Mid-May to early July.

Early/Late Records: 28 May 1992 A. Launer to 11 Jul 80 Sonoma RLL & D. Parkinson.

Speyeria zerene puntareyes J. Emmel & T. Emmel.

Normal Flight: July to early August.

Early/Late Records: 2 Jul 45 Marin T Davies to 7 Aug 56 Marin E. Hulbirt.

Speyeria zerene gloriosa Moeck.

Normal Flight: July to early September.

Early/Late Records: Records needed.

Speyeria zerene behrensii (W. H. Edwards).

Normal Flight: July to early September.

Early/Late Records: 19 Jul 20 Mendocino JAC, records needed.

Speyeria zerene hippolyta (W. H. Edwards).

Normal Flight: July to early September.

Early/Late Records: Records needed.

Speyeria callippe (Boisduval).

Normal Flight: Late May to mid-August.

Early/Late Records: 4 Apr 83 San Mateo RLL to 7 Sep 76 Trinity AMS.

Speyeria callippe callippe (Boisduval).

Normal Flight: May-June.

Early/Late Records: 12 Apr 88 San Mateo D Reeburg to 12 Aug 91 San Mateo RLL.

Speyeria callippe comstocki (Gunder).

Normal Flight: May to mid-July.

Early/Late Records: 5 Apr 2005 SD M Klein & B. Gendron to 19 Jul 92 SLO KD.

Speyeria callippe macaria (W. H. Edwards).

Normal Flight: Late May-July.

Early/Late Records: 13 May 85 Kern KD to 3 Aug 83 Kern KD.

Note: A reported record for 25 Aug 2005 Ventura C. Hanzlik is questionable.

Speyeria callippe laurina (W. G. Wright).

Normal Flight: Late May to July.

Early/Late Records: 14 May 99 Kern KD to 7 Aug 95 Kern KD.

Speyeria callippe nevadensis (W. H. Edwards).

Normal Flight: Late June to August.

Early/Late Records: 8 Jun 96 Mono GTA to 20 Aug 96 Mono GTA.

Speyeria callippe liliana (Hy. Edwards).

Normal Flight: June-July.

Early/Late Records: 30 May 82 Solano RES to 25 Jul 82 Lake R. Reid.

Speyeria callippe rupestris Behr.

Note: Long known as *inornata* (W. H. Edwards).

Normal Flight: June-July.

Early/Late Records: 23 May 58 Mariposa AOS to 26 Jul 63 Tuolumne K Brown Jr.

Speyeria callippe inornata (W. H. Edwards).

Normal Flight: Late June to early August.

Early/Late Records: Records needed.

Speyeria callippe juba (Boisduval).

Normal Flight: June-July.

Early/Late Records: 8 Jun 97 Plumas RH Leuschner to 6 Jul 2000 Sierra JGP.

Speyeria callippe shasta J. Emmel, T. Emmel & Mattoon.

Normal Flight: Late May to July.

Early/Late Records: 25 May 68 Shasta SOM to 28 Jul 56 Siskiyou "MPM".

Speyeria callippe hagemani J. Emmel, T. Emmel & Mattoon.

Normal Flight: Late May to July.

Early/Late Records: 24 May 62 Shasta SOM to 24 Jul 61 Shasta SOM.

Speyeria callippe elaine dos Passos & Grey.

Normal Flight: Late May to early August.

Early/Late Records: 28 Jun 82 Del Norte SOM, records needed.

Speyeria callippe semivirida (McDunnough).

Normal Flight: Late May to early August.

Early/Late Records: Records needed.

Speyeria callippe adiateoides J. Emmel, T. Emmel & Mattoon.

Normal Flight: June - July.

Early/Late Records: 2 Jul 2000 Mendocino JGP to 10 Jul 93 Mendocino K Hansen.

Speyeria egleis (Behr).

Normal Flight: Late June to early September..

Early/Late Records: 2 Jun 97 Tulare KD to 1 Oct 2005 Tulare KD.

Speyeria egleis egleis (Behr).

Normal Flight: Late June to early September.

Early/Late Records: 2 Jun 97 Tulare KD to 1 Oct 2005 Tulare KD.

Speyeria egleis tehachapina (J. A. Comstock).

Normal Flight: Late July to early August.

Early/Late Records: 27 Jun ? Kern (collector unknown) to 4 Aug 98 Kern KD.

Speyeria egleis oweni (W. H. Edwards).

Normal Flight: Late June to September.

Early/Late Records: 12 Jun 85 Siskiyou AMS to 30 Sep 76 Trinity AMS.

Speyeria egleis mattooni J. Emmel & T. Emmel.

Normal Flight: Early July to late August.

Early/Late Records: 3 Aug 74 Siskiyou SOM, records needed.

Speyeria egleis yolaboli J. Emmel & T. Emmel.

Normal Flight: Early July-mid-August.

Early/Late Records: 7 Jul 68 Tehama SOM to 9 Jul 2001 Tehama JGP.

Speyeria adiate (W. H. Edwards).

Normal Flight: Late June to early August.

Early/Late Records: 28 May 47 SLO C. H. Dickenson to 5 Sep 30 Kern M Walton.

Speyeria adiate adiate (W. H. Edwards).

Normal Flight: Late June to early August.

Early/Late Records: 6 Jun 76 Santa Cruz M Smith to 16 Jul 76 Santa Cruz M Smith.

Speyeria adiate clemencei (J. A. Comstock).

Normal Flight: June-July.

Early/Late Records: 3 Jun 73 Monterey WL Swisher to 6 Aug 58 Monterey RLL.

Speyeria adiate atossa (W. H. Edwards).

Normal Flight: June to early August.

Early/Late Records: 27 May 23 LA CM Dammers to 5 Sep 30 Kern M Walton.

Note: Probably extinct, last collected in 1959.

Speyeria hesperis (W. H. Edwards).

Normal Flight: July-early September.

Early/Late Records: 4 Jul 68 Tehama SOM to 25 Oct 95 Nevada AMS.

Speyeria hesperis irene (Boisduval).

Normal Flight: July-September.

Early/Late Records: 6 Jul 94 Inyo E Ballard to 25 Oct 95 Nevada AMS.

Speyeria hesperis cottlei J. A. Comstock.

Note: Long known as *dodgei* (Gunder), a ssp. which occurs northward.

Normal Flight: Late June to September.

Early/Late Records: 12 Jun 85 Siskiyou AMS to 1 Oct 76 Trinity AMS.

Speyeria hesperis hanseni J. Emmel, T. Emmel & Mattoon.

Normal Flight: Late June to early August.

Early/Late Records: 4 Jul 68 Tehama SOM to 13 Jul 2002 Glenn JGP.

Speyeria hydaspae (Boisduval).

Normal Flight: June to early September.

Early/Late Records: 26 May 97 Tulare KD to 30 Sep ? Plumas L Crabtree.

Speyeria hydaspae hydaspae (Boisduval).and *purpurescens* Hy. Edwards.

Note: Most of what had been known as nominotypical *hydaspae* is now viewed as *viridicornis*.

Most of what has been known as *purpurescens* Hy. Edwards would now be known as *hydaspae*..

The two taxa are combined here because of confusion over distributions of the two taxa.

Normal Flight: Late June to early September.

Early/Late Records: 17 Jun 76 Trinity AMS to 30 Sep ? Plumas L Crabtree.

Speyeria hydaspae viridicornis (J. A. Comstock).

Normal Flight: Late June to August.

Early/Late Records: 26 May 97 Tulare KD to 3 Sep 83 Tulare KD.

Speyeria hydaspae tehama J. Emmel, T. Emmel & Mattoon.

Normal Flight: July-early August.

Early/Late Records: 5 Jul 65 Tehama SOM to 9 Jul 2001 Tehama JGP.

Speyeria hydaspae davisii J. Emmel, T. Emmel & Mattoon.

Normal Flight: Early July to mid-August.

Early/Late Records: 25 Jul 87 Humboldt SOM, records needed.

Speyeria mormonia (Boisduval).

Normal Flight: July to late September.

Early/Late Records: 8 Jun 92 Mariposa KD to 25 Oct 95 Nevada AMS.

Speyeria mormonia mormonia (Boisduval).

Normal Flight: July to late September.

Early/Late Records: 8 Jun 92 Mariposa KD to 25 Oct 95 Nevada AMS.

Speyeria mormonia obsidiana J. Emmel, T. Emmel & Mattoon.

Normal Flight: Late July-August.

Early/Late Records : 2 Aug 2004 Mono KD to 5 Aug 2000 Mono JGP.

Boloria epithore (W. H. Edwards).

Normal Flight: Mid-May through July.

Early/Late Records : 28 Mar 70 Mendocino RLL to 16 Aug 78 Trinity AMS.

Boloria epithore epithore (W. H. Edwards).

Normal Flight: May to early July.

Early/Late Records: 22 Apr 56 Santa Cruz PAO to 10 Jul 86 Santa Cruz RLL.

Boloria epithore sierra (E. Perkins).

Normal Flight: Late May to July.

Early/Late Records: 28 Mar 70 Mendocino RLL to 15 Aug 53 Plumas T Davies.

Boloria epithore chermocki (E. & S. Perkins).

Normal Flight: June to early August.

Early/Late Records: 19 May 2004 Del Norte JFE, SOM & K. Hansen to 16 Aug 78 Trinity AMS.

Poladryas arachne monache (J. A. Comstock).

Normal Flight: Mid-June to mid-July.

Early/Late Records: 8 Jun 85 Tulare KD to 7 Aug 17 Tulare JAC.

Chlosyne (Thessalia) leanira (C. & R. Felder).

Normal Flight: Late April through June.

Early/Late Records: 4 Mar 34 Orange E. Walter to 3 Aug 54 Tuolumne JWT.

General: There are unusual fall records 3 Sep 84 Inyo D Giuliani to 23 Oct 76 SD R Breedlove.

Chlosyne leanira leanira (C & R Felder).

Normal Flight: May to early July.

Early/Late Records: 4 May 68 Mariposa KCH to 3 Aug 54 Tuolumne JWT.

Chlosyne leanira obsoleta (Austin & Smith).

Normal Flight: Mid-May to mid-June.

Early/Late Records Published records: 6 Jun 56 Marin W Hammer to 26 Jun 19 Marin JAC. Specimens at the LACM are labeled from mid-May to late June. Ssp. *obsoleta* is likely extinct as a result of human development.

Chlosyne leanira nebulorum (Austin & M Smith)

Normal Flight: May-June.

Early/Late Records: 9 Apr 88 Sonoma WL Swisher to 6 Jul 98 Contra Costa R Kelson.

Chlosyne leanira elegans (Priestaf & J. Emmel).

Normal Flight: April to mid-May; Late June-July (two, possibly three broods).

Early/Late Records: 4 Apr 79 SLO JR Mori to 7 Jun 76 SLO WL Swisher.

Chlosyne leanira wrightii (W. H. Edwards).

Normal Flight: Late April to mid-June.

Early/Late Records: 4 Mar 34 Orange E Walter to 19 Jun 83 Tulare KD. There is a fall record: 23 Oct 76 SD R Breedlove.

Chlosyne leanira oregonensis (Bauer)

Normal Flight: Late May-June.

Early/Late Records: 15 May 80 Trinity AMS to 22 Jun 81 Mendocino SOM.

Chlosyne leanira alma (Strecker)

Normal Flight: Mostly late March to mid-May, to early June in mountains of Tulare and Mono Counties in southeastern Sierra Nevada.

Early/Late Records: 25 Mar 68 Inyo DL Bauer to 19 Jun 76 Tulare D Mullens. There is a fall record: 3 Sep 84 Inyo D Giuliani.

Chlosyne leanira basinensis (Austin & Smith).

Normal Flight: May to early June.

Early/Late Records: 26 May 79 Mono JR Mori to 12 Jun 80 Mono JR Mori.

Chlosyne (Chlosyne) californica (W. G. Wright).

Normal Flight: March to May. June to early November flights depend on summer and fall rainfall.

Early/Late Records: 18 Feb 67 SD AOS to 17 Nov 63 Riverside KCH.

Chlosyne (Chlosyne) lacinia crocale (W. H. Edwards).

Normal Flight: April through October.

Early/Late Records: 26 Mar 77 Riverside KD to 25 Oct 58 Imperial OE Sette.

Chlosyne (Charidryas) palla (Boisduval).

Normal Flight: Mid- April to late July.

Early/Late Records: 18 Mar 88 Alameda JA Powell to 3 Aug 44 Plumas RLL.

Chlosyne palla palla (Boisduval).

Normal Flight: Late April to mid-July.

Early/Late Records: 7 Apr 97 Tulare KD to 3 Aug 44 Plumas RLL.

Chlosyne palla eremita (W. G. Wright).

Normal Flight: Late March-May.

Early/Late Records: 18 Mar 88 Alameda JA Powell to 19 Jun 2000 Contra Costa RLL.

Chlosyne palla altasierra J. Emmel, T. Emmel & Mattoon.

Normal Flight: Mid-June to mid-July.

Early/Late Records: 16 May 92 Nevada AMS to 30 Jul 83 Tulare KD.

Chlosyne palla australomontana J. Emmel, T. Emmel & Mattoon.

Normal Flight: May to mid-July.

Early/Late Records: 13 Apr 81 Kern KD to 22 Jul 88 Tulare KD.

Chlosyne (Charidryas) acastus (W. H. Edwards).

Normal Flight: Late April to early July.

Early/Late Records: 29 Apr 2000 Inyo KD to 23 Jul 2000 Nevada E Ballard.

Chlosyne acastus acastus (W. H. Edwards).

Normal Flight: Late April to early July.

Early/Late Records: 29 Apr 2000 Inyo KD to 23 Jul 2000 Nevada E Ballard.

Chlosyne acastus vallismortis (J. W. Johnson).

Normal Flight: June to early July.

Early/Late Records: 11 Jun 39 Inyo W Hovanitz to 26 Jun 66 Inyo DL Bauer.

Chlosyne acastus waucoba J Emmel, T .Emmel & Mattoon.

Normal Flight: Mid-June to mid-July.

Early/Late Records: 12 Jun 2004 Inyo JGP to 15 Jul 76 Inyo D Giuliani.

Chlosyne acastus neumogeni (Skinner).

Normal Flight: March to early May.

Early/Late Records: 22 Feb 2003 Kern S Steele to 16 Jun 21 Inyo JAC.

Note: There are rare fall records following summer rains: 20 Aug 81 San Bernardino JP Fitter to 15 Nov 74 LA C Henne.

Chlosyne (Charidryas) gabbii (Behr).

Normal Flight: Late March to early July.

Early/Late Records: 2 Mar 70 Santa Barbara RLL to 4 Sep 75 Monterey JB Walsh.

General: Summer rains or wet years may lead to later flights.

Chlosyne gabbii gabbii (Behr).

Normal Flight: Late March to early July.

Early/Late Records: 4 Mar 39 LA JD Gunder to 4 Sep 75 Monterey JB Walsh.

Chlosyne gabbii atrifasciata Hawks & J. Emmel.

Normal Flight: March to early June.

Early/Late Records: 2 Mar 70 Santa Barbara RLL to 26 Aug 71 Santa Barbara C Remington.

Chlosyne (Charidryas) whitneyi whitneyi (Behr).

Normal Flight: Second week of July to early August.

Early/Late Records: 25 Jun 61 Tuolumne AOS to 25 Aug 91 Mono JFE.

General: Long known as *Chlosyne damoetas malcolmi* Comstock.

Chlosyne (Charidryas) hoffmanni (Behr).

Normal Flight: July to early August.

Early/Late Records: 21 May 2000 Nevada E Ballard to 26 Aug 76 Placer PM Thompson.

Chlosyne hoffmanni hoffmanni (Behr).

Normal Flight: July to early August.

Early/Late Records: 21 May 2000 Nevada E Ballard to 26 Aug 76 Placer PM Thompson.

Chlosyne hoffmanni segregata (Barnes & McDunnough).

Normal Flight: July to early August.

Early/Late Records: 22 Jun 99 Siskiyou J Vernon to 9 Aug 76 Trinity AMS.

Dymasia dymas imperialis (Bauer).

Normal Flight: March -April; September-October. Second brood is dependent on summer rains.

Early/Late Records: 4 Jan 22 Riverside G Malcolm to 17 Nov 63 Riverside KCH.

Anthanassa texana texana (W. H. Edwards).

Rare Stray: All published records are in May.

Early/Late Records: 3 May 92 San Bernardino JFE to 24 May 92 Kern JGP.

Phyciodes phaon jalapeno Scott.

Normal Flight: Mid-March through October.

Early/Late Records: 3 Feb 68 SD RES to 2 Nov 36 Riverside CM Dammers.

Phyciodes tharos (Drury).

Normal Flight: March to October.

Early/Late Records: 7 Mar 26 Imperial JP Fitter to 9 Oct 35 Imperial C Henne.

Note: The current status of this butterfly in the state is unknown. We know of no recent records.

Phyciodes pulchellus (Boisduval).

Note: Also known as *P. campestris* (Boisduval).

Normal Flight: March to early October.

Early/Late Records: 22 Feb 83 San Mateo RLL to 23 Oct 2002 Tulare KD.

General: There is an extreme record for 9 Dec 91 San Mateo RLL.

Phyciodes pulchellus pulchellus (Boisduval).

Normal Flight: March to early October.

Early/Late Records: 22 Feb 83 San Mateo RLL to 9 Dec 91 San Mateo RLL.

Phyciodes pulchellus (Boisduval). Southern Sierra Nevada segregate.

Normal Flight: Late April to early October.

Early/Late Records: 7 Apr 97 Tulare KD to 23 Oct 2002 Tulare KD.

Phyciodes pulchellus deltarufa Scott.

Normal Flight: April to early October.

Early/Late Records: 28 Mar 68 San Joaquin KD to 19 Oct 75 Sacramento AMS.

Phyciodes pulchellus vallis Austin.

Normal Flight: June to September.

Early/Late Records: 26 May 97 Mono GTA to 29 Aug 57 Mono JS Garth.

Phyciodes pulchellus (Boisduval). Inyo/Mono County segregate.

Normal Flight: May to early September.

Early/Late Records: 9 May 97 Mono KD to 8 Sep 84 Inyo KD.

Phyciodes pulchellus montanus (Behr).

Normal Flight: June through August.

Early/Late Records: 21 May 92 Sierra WD Patterson to 15 Sep 87 Tulare KD.

Phyciodes orseis W. H. Edwards.

Normal Flight: Late April to July.

Early/Late Records: 14 Mar 2005 Siskiyou A Warren to 16 Aug 90 Mono PM Thompson.

Phyciodes orseis orseis W. H. Edwards.

Normal Flight: April-June.

Early/Late Records: 14 Mar 2005 Siskiyou A Warren to 26 Jul 80 Trinity AMS.

Phyciodes orseis herlani Bauer.

Normal Flight: Late June-July.

Early/Late Records: 10 June 96 Mono B & B Boyd to 16 Aug 90 Mono PM Thompson.

Phyciodes mylitta mylitta (W. H. Edwards).

Normal Flight: Late February through October.

Early/Late Records: 4 Feb 2001 LA B Gendron to 21 Nov 2005 SLO W Bouton.

Euphydryas anicia (Doubleday & Hewitson).

Note: Many consider *anicia* and *colon* to be conspecific with *chalcedona*. They are treated separately here.

Normal Flight: Late April to mid-August.

Early/Late Records: 23 Apr 82 Lassen SOM to 29 Aug 67 Tuolumne PAO.

Euphydryas anicia wheeleri (Hy. Edwards).

Normal Flight: Mid-May to early July.

Early/Late Records: 15 May 90 Mono RP Meyer to 17 Jul 82 Mono JR Mori.

Euphydryas anicia near *veazieae* Fender & Jewett.

Normal Flight: Late April-May.

Early/Late Records: 23 Apr 82 Lassen SOM to 23 May 94 Modoc JGP.

Euphydryas anicia variicolor Baughman & Murphy.

Normal Flight: July-August.

Early/Late Records: 23 Jun 79 Mono D Bowers to 29 Aug 67 Tuolumne PAO.

Euphydryas chalcedona (Doubleday).

Normal Flight: March to early August.

Early/Late Records: 22 Feb 88 Monterey JA Powell to 22 Aug 63 El Dorado K Brown Jr.

Euphydryas chalcedona chalcedona (Doubleday).

Normal Flight: March to early July.

Early/Late Records: 22 Feb 88 Monterey JA Powell to 16 Aug 2004 LA B Gendron.

Note: There is an unusual fall record: 14 Oct 85 San Mateo RLL.

Euphydryas chalcedona olancha (W. G. Wright). Olancha Peak (TL) phenotype.

Normal Flight: Late April to mid-July.

Early/Late Records: 3 Apr 2002 Kern V Covlin to 30 Jul 98 Tulare JGP.

Euphydryas chalcedona near *olancha* (W. G. Wright) Eastern Sierra Nevada segregate.

Normal Flight: Late April to mid-July.

Early/Late Records: 30 Apr 2000 Inyo KD to 11 Jul 95 Inyo JGP.

Euphydryas chalcedona macglashanii (Rivers).

Normal Flight: Late April to early July.

Early/Late Records: 13 Apr 85 Nevada AMS to 29 Jul 91 Modoc JGP.

Euphydryas chalcedona hennei J. Scott.

Normal Flight: Late February to early May, later flights may occur following favorable rainfall patterns.

Early/Late Records: 1 Feb 58 SD KCH to 31 May 58 SD AOS; 4 Oct 86 SD KD to 23 Oct 76 SD R Breedlove (one or two broods).

Euphydryas chalcedona corralensis T. Emmel & J. Emmel.

Normal Flight: Late March-April. Fall flights rarely occur following summer rains.

Early/Late Records: 18 Mar 36 San Bernardino CM Dammers to 17 Apr 2001 San Bernardino B Gendron.

Euphydryas chalcedona kingstonensis T Emmel & J. Emmel.

Normal Flight: Late April to early May. Fall flights rarely occur following summer rains.

Early/Late Records: 18 Mar 87 San Bernardino JFE to 28 May 79 San Bernardino W Dawes;
15 Sep 90 San Bernardino JGP to 13 Oct 84 San Bernardino G Pavlik.

Euphydryas chalcedona sierra (W. G. Wright).

Normal Flight: Late June-July.

Early/Late Records: 25 Jun 77 Tuolumne M Smith to 22 Aug 63 El Dorado K Brown Jr.

Euphydryas chalcedona irelandi Gunder.

Normal Flight: Late June to third week of July.

Early/Late Records: 23 Jun 97 Tulare KD to 25 Jul 75 Tulare JR Mori.

Euphydryas chalcedona trinitina Baughman & Murphy.

Normal Flight: Late June to early August.

Early/Late Records: 25 Jun 76 Trinity AMS to 10 Aug 76 Trinity AMS.

Euphydryas colon (W. H. Edwards).

Note: Many consider *colon* and *chalcedona* to be conspecific.

Normal Flight: June-July.

Early/Late Records: 10 May 90 Siskiyou AMS to 2 Aug 2000 Siskiyou JFE & G. Pratt..

Euphydryas colon wallacensis Gunder.

Normal Flight: Late June-July.

Early/Late Records: 10 May 90 Siskiyou AMS to 22 Jun 86 Siskiyou AMS.

Euphydryas colon sperryi F. & R. Chermock.

Normal Flight: Late June-July.

Early/Late Records: 26 Jun 84 Siskiyou JGP to 2 Aug 2000 JFE & G Pratt.

Euphydryas colon dwinellei (Hy. Edwards).

Note: Many treat *dwinellei* as a *chalcedona*.

Normal Flight: Late June to July.

Early/Late Records: 26 Jun 84 Shasta JGP to 30 Jul 67 Siskiyou DL Bauer.

Euphydryas editha (Boisduval).

Normal Flight: Late February through August depending on elevation.

Early/Late Dates: 28 Jan 2003 SD M Klein to 29 Aug 67 Mono PAO.

General: There is an extreme 17 Dec 2004 SD M Klein record for ssp. *quino*, early for the 2005 season.

Euphydryas editha editha (Boisduval).

Note: Includes *bayensis* Sternitzky.

Normal Flight: Late March to April.

Early/Late Records: 22 Feb 85 Santa Clara R Wells to 25 Apr 82 SLO R Skalski.

Euphydryas editha (Boisduval). SE Sierra Nevada segregate.

Note: This includes upper Kern River, Walker Pass and Piute Mtns. populations in Kern & Tulare Cos.

Normal Flight: Late April to early July.

Early/Late Records: 24 Mar 2001 Kern S Steele to 20 Jul 95 Kern JGP.

Euphydryas editha ehrlichi Baughman & Murphy.

Normal Flight: Late March to early May.

Early/Late Records: 12 Apr 92 San Bernardino JGP to 4 May 93 San Bernardino J Baughman & D Murphy.

Euphydryas editha augustina (W. G. Wright).

Normal Flight: Late May –June.in San Bernardino Mtns. Similar southern Sierra populations fly from second week of June to mid-July.

Early/Late Records: 13 May 2000 San Bernardino JGP to 1 Jul 67 San Bernardino R Breedlove. Similar populations are known at high elevations on the Kern Plateau with records from 6 Jun 86 Tulare KD to 14 Jul 85 Tulare JGP.

Euphydryas editha rubicunda (Hy. Edwards).

Normal Flight: Late March to early July.

Early/Late Records: 10 Mar 79 Mariposa KD to 17 Jul 59 Sierra RES.

Euphydryas editha quino (Behr).

Normal Flight: February to early May.

Early/Late Records: 28 Jan 2003 SD M Klein to 20 May 98 SD G Pratt. There was an unusual winter emergence 17 Dec 2004 SD M Klein.

Ruphydryas editha luestherae Murphy & Ehrlich.

Normal Flight: April to mid-June.

Early/Late Records: 21 Mar 88 Contra Costa R Kelson to 22 Jun 77 SLO KD.

Euphydryas editha baroni (W. H. Edwards).

Normal Flight: May-June.

Early/Late Records: 23 May 18 Mendocino JAC to 9 Jun 62 Mendocino “HBJ.”

Euphydryas editha colonia (W. G. Wright).

Normal Flight: May-July.

Early/Late Records: 5 May 2002 Siskiyou JGP to 27 Jul 89 Tehama R Kelson.

Euphydryas editha edithana (Strand).

Normal Flight: Late May-early July.

Early/Late Records: 29 May 99 Lassen JGP to 10 Jul 92 Shasta L Crabtree.

Euphydryas editha monoensis Gunder.

Normal Flight: Late April to early July.

Early/Late Records: 27 Mar 88 Alpine R Wells to 27 Aug 83 Mono JR Mori.

Euphydryas editha nubigena (Behr).

Normal Flight: July-August.

Early/Late Records: 22 Jun 57 Alpine RES to 29 Aug 67 Mono PAO.

Euphydryas editha taхоensis Austin & Murphy.

Normal Flight: Late June to early August.

Early/Late Records: Records needed.

Euphydryas editha (Boisduval). Sequoia/Kings Cyn. high elevation segregate.

Normal Flight: Second week of June –August.

Early/Late Records: 31 May 86 Tulare KD to 23 July 92 Tulare KD.

Euphydryas editha aurilacus Gunder.

Normal Flight: Late May to early August.

Early/Late Records: 20 May 76 El Dorado R Wells to 28 Jul 91 Sierra JGP.

Euphydryas editha karinae Baughman & Murphy.

Normal Flight: April-May.

Early/Late Records: 3 Apr 85 Mendocino R Skalski to 31 May 70 Mendocino PAO.

Euphydryas editha bingi Baughman & Murphy.

Normal Flight: July.

Early/Late Records: 13 Jul 79 Modoc SOM, records needed.

Euphydryas editha mattooni Austin & Murphy.

Normal Flight: Mid-May to early July.

Early/Late Records: 4 May 80 Modoc S & E Mattoon to 19 May 2002 Modoc JGP.

Euphydryas editha insularis T. Emmel & J. Emmel.

Normal Flight: March-April.

Early/Late Records: 31 Mar 41 Santa Barbara C Henne to 1 Apr 41 Santa Barbara, C Henne.
Records needed, status unknown.

Polygonia satyrus (W. H. Edwards).

Note: The name *neomarsyas* dos Passos is sometimes applied to California populations.

Normal Flight: Late February through October.

Early/Late Records: 19 Jan 67 Santa Clara RLL to 24 Dec 2005 Riverside B Gendron.

Polygonia faunus (W. H. Edwards).

Normal Flight: Late March to early October.

Early/Late Records: 15 Mar 59 San Mateo RES to 16 Oct 2004 Tulare ML Leski..

Polygonia faunus rusticus (W. H. Edwards).

Normal Flight: Late March to October.

Early/Late Records: 31 Mar 94 Madera KD to 16 Oct 2004 Tulare M Leski.

Note: Adults emerge in September, overwinter and fly the following spring. Few adults survive past mid-July and there are very few August records.

Polygonia faunus fulvescens J. Emmel, T. Emmel & Mattoon.

Normal Flight: Overwintering adults appear March-April; June-July; September-October.

Early/Late Records: 15 Mar 59 San Mateo RES to 10 Jun 45 Santa Cruz OE Sette.

Polygonia gracilis zephyrus (W. H. Edwards).

Normal Flight: March to early October.

Early/Late Records: 1 Feb 2005 Tulare KD to 30 Oct 2005 Tulare KD.

Polygonia oreas (W. H. Edwards).

Normal Flight: March to early October.

Early/Late Records: 17 Feb 73 Monterey JB Walsh to 20 Nov 95 Colusa J Vernon & RLL.

Polygonia oreas oreas (W. H. Edwards).

Normal Flight: Late February –early May; late June-July; September-October.

Early/Late Records: 17 Feb 73 Monterey JB Walsh to 20 Nov 95 Colusa J Vernon & RLL.

Polygonia oreas near *silenus* (W. H. Edwards).

Normal Flight: June-July.

Early/Late Records: 22 Jun 86 Siskiyou AMS to 5 Jul 80 Trinity J. Hayes.

Nymphalis californica californica (Boisduval).

Normal Flight: March to early October.

Early/Late Records: 5 Jan 2003 Ventura T Dimock to 25 Dec 89 Mariposa AOS.

Nymphalis antiopa antiopa (Linnaeus).

Normal Flight: Late February to November.

Early/Late Records: 3 Jan 2002 SD D Aguillard to 28 Dec 2001 SD D Aguillard.

Nymphalis milberti subpallida (Cockerell).

Normal Flight: February to mid-August; rarely seen in the fall.

Early/Late Records: 19 Jan 2003 Tulare KD to 1 Nov 93 Solano AMS.

Vanessa virginiensis (Drury).

Normal Flight: Late February to early November.

Early/Late Records: 2 Jan 95 Riverside JFE to 31 Dec 64 SD RES.

Vanessa cardui (Linnaeus).

Normal Flight: March to November.

Early/Late Records: 1 Jan 96 Kern KD to 31 Dec 64 SD RES.

Vanessa annabella (Field).

Normal Flight: Late February to November.

Early/Late Records: 1 Jan 62 Orange JS Kent to 31 Dec 64 SD RES.

Vanessa atalanta rubria (Fruhstorfer).

Normal Flight: Late February to November.

Early/Late Records: 1 Jan 75 Alameda RLL to 31 Dec 91 San Mateo RLL.

Junonia coenia grisea Austin & J. Emmel.

Normal Flight: March to early November.

Early/Late Records: 1 Jan 56 Contra Costa RLL to 31 Dec 64 SD RES.

Junonia (evarete) nigrosuffusa Barnes & McDunnough.

Note: The correct species name for this taxa is controversial and a complex matter.

Rare Stray: SE Mojave Desert in late September and October.

Early/Late Records: 17 Sep 84 San Bernardino JFE to 13 Oct 84 San Bernardino G. Pavlik.

Limnitis archippus obsoleta (W. H. Edwards).

Normal Flight: April-October.

Early/Late Records: 10 Apr 21 Riverside JAC to 31 Aug 57 Riverside KCH, Larry Orsak stated there was a September record for Orange County.

Note: This species may no longer occur in the state. Colorado River populations may have been extirpated. A recent Monterey County record is likely an accidental import.

Limnitis weidemeyerii latifascia E & S Perkins.

Normal Flight: Late June to mid- August.

Early/Late Records: 26 Jun 61 Mono AOS to 17 Aug 75 Mono KD.

Limnitis lorquini (Boisduval).

Normal Flight: April to early October.

Early/Late Records: 25 Feb 31 Orange T Hower to 27 Nov 2005 Riverside B. Gendron..

Limenitis lorquini lorquini (Boisduval).

Normal Flight: Mid-April to mid-October.

Early/Late Records: 11 Apr 54 Contra Costa RLL to 3 Nov 74 Contra Costa RLL.

Limenitis lorquini powelli (Field).

Normal Flight: March to late October.

Early/Late Records: 25 Feb 31 Orange T. Hower to 27 Nov 2005 Riverside B. Gendron.

Limenitis lorquini near *burrisoni* (Maynard).

Normal Flight: June to mid-September.

Early/Late Records: 28 May 77 Trinity AMS to 21 Sep 74 Trinity AMS.

Limenitis lorquini pallidafacies Austin & J. Emmel.

Normal Flight: June to early September.

Early/Late Records: 27 Jun 99 Mono KD & JGP to 10 Sep 2005 Inyo KD.

Adelpha bredowii Geyer complex.

Note: Recently, evidence has been presented that *eulalia*, *californica* and *bredowii* are actually better viewed as three separate species.

Adelpha (bredowii) californica (Butler).

Normal Flight: April through October.

Early/Late Records: 5 Mar 93 LA RJ Wuttken to 23 Dec 2005 LA B Gendron.

Adelpha (bredowii) eulalia (Doubleday & Hewitson).

Normal Flight: Late May to July in SE California according to Emmel & Emmel (1973).

Early/Late Records: 17 Jun 88 San Bernardino JFE. Records needed.

Coenonympha tullia Muller complex. Some view the *tullia* group as a single species. Others divide them into six or more species. Three of those are recorded in California. They are treated separately here.

Coenonympha (tullia) ochracea W. H. Edwards.

Normal Flight: June to July.

Early/Late Records: 27 Jun 76 Inyo D. Mullens. Records needed.

General: Questionable status. Possible resident in Panamint Mtns., Inyo County.

Coenonympha (tullia) ampelos W. H. Edwards.

Normal Flight: Late June to early September.

Early/Late Records: 27 Apr 85 Lassen L Crabtree to 29 Aug 83 Mono RLL.

Coenonympha (tullia) ampelos ampelos W. H. Edwards.

Normal Flight: Late May to early September.

Early/Late Records: 27 Apr 85 Lassen L Crabtree to 26 Aug 83 Mono RLL.

Coenonympha (tullia) ampelos mono Burdick.

Normal Flight: Late May to early September.

Early/Late Records: 10 May 97 Mono JGP to 29 Aug 83 Mono RLL.

Coenonympha (tullia) californica Westwood.

Normal Flight: Late February through October.

Early/Late Records: 30 Jan 2005 SLO W Bouton to 28 Nov 89 San Mateo RLL.

Coenonympha (tullia) californica californica Westwood.

Normal Flight: Late February through October.

Early/Late Records: 30 Jan 2004 SLO W Bouton to 28 Nov 89 San Mateo RLL.

Coenonympha (tullia) californica eryngii Hy. Edwards.

Normal Flight: May-September.

Early/Late Records: 5 May 2002 Siskiyou JGP to 1 Oct 76 Trinity AMS.

Coenonympha (tullia) californica yontucket Porter & Mattoon.

Normal Flight: Late May to September.

Early/Late Records: 30 May ? Del Norte SOM to 6 Jul 2005 Del Norte JGP, records needed.

Cercyonis pegala (Fabricius).

Normal Flight: Late June to early September.

Early/Late Records: 27 Apr 84 Marin RLL to 1 Oct 76 Trinity AMS.

Cercyonis pegala ariane (Boisduval).

Normal Flight: July-August.

Early/Late Records: 30 Jun 85 Plumas GTA to 15 Aug 23 Plumas JAC.

Cercyonis pegala (Fabricius). Southern Sierra Nevada segregate.

Normal Flight: Late July to early September.

Early/Late Records: 12 Jul 2000 Tulare KD to 10 Sep 2000 Tulare KD.

Cercyonis pegala boopis (Behr).

Normal Flight: May-August.

Early/Late Records: 27 Apr 84 Marin RLL to 26 Aug 93 Napa WD Patterson.

Cercyonis pegala gabbii (W. H. Edwards).

Normal Flight: June-August.

Early/Late Records: 30 May 2004 Modoc JGP to 30 Jul 91 Modoc JGP.

Cercyonis pegala stephensi (W. G. Wright).

Normal Flight: Late June to late August.

Early/Late Records: 30 Jun ? Modoc (in GTA) to 8 Aug 81 Modoc GTA.

Cercyonis pegala walkerensis Austin.

Normal Flight: July-August.

Early/Late Records: 7 Jul 96 Mono B & B Boyd to 26 Aug 97 Mono GTA.

Cercyonis pegala (Fabricius) Trinity Alps segregate.

Normal Flight: Late July-September.

Early/Late Records: 14 Jul 79 Trinity AMS to 1 Oct 76 Trinity AMS.

Cercyonis pegala wheeleri (W. H. Edwards).

Normal Flight: July-August.

Early/Late Records: No records available.

Note: Apparently once occurred at Owens Lake in Inyo County. The Owens River water was long ago diverted to Los Angeles and the once lush Owens Lake is now dry. This ssp. is now apparently extinct.

Cercyonis meadii (W. H. Edwards).

Normal Flight: July to early October in NW Arizona.

Early/Late Records: 28 Jun 85 Riverside SS McKown is the only state record. Ray Stanford has seen the specimen and vouches for its authenticity. John Emmel believes the specimen was likely mislabeled. This taxa is included here based on the possibility it may be a “resident” species.

Cercyonis sthenele (Boisduval).

Normal Flight: Late May to mid- September.

Early/Late Records: 14 May 2004 Madera KD to 8 Oct 95 Alameda RLL. & RES.

Cercyonis sthenele sthenele (Boisduval).

Normal Flight: Late May to early September.

Early/Late Records: No records available.

Note: This butterfly was limited to the San Francisco area and is now extinct. Some believe newly described *hypoleuca* D. Hawks & J. Emmel is identical to **sthenele**.

Cercyonis sthenele hypoleuca D. Hawks & J. Emmel.

Normal Flight: June to August.

Early/Late Records: “6 June to 25 August” per D Hawks & J. Emmel.

Cercyonis sthenele behrii (F. Grinnell).

Normal Flight: Late May to early September.

Early/Late Records: 17 May 2002 Fresno JFE to 8 Oct 95 Alameda RES & RLL.

Cercyonis sthenele silvestris (W. H. Edwards).

Normal Flight: Late May to early September.

Early/Late Records: 14 May 2004 Madera KD to 5 Oct 97 Mariposa AOS.

Cercyonis sthenele paulus (W. H. Edwards).

Normal Flight: Late June to mid-September.

Early/Late Records: 22 Jun 85 Inyo JGP to 22 Sep 01 Tulare KD.

Cercyonis sthenele masoni Cross.

Normal Flight: Late June-August.

Early/Late Records: 17 Jun 88 San Bernardino JFE, records needed.

Cercyonis sthenele sineocellata Austin.& J. Emmel.

Normal Flight: July-August.

Early/Late Records: 20 Jul 2002 Modoc JGP, records needed.

Cercyonis oetus (Boisduval).

Normal Flight: Late June through August.

Early/Late Records: 17 Jun 80 Modoc J Vernon to 1 Sep 65 Mono PAO.

Cercyonis oetus oetus (Boisduval).

Normal Flight: Second week of July to early September.

Early/Late Records: 17 Jun 80 Modoc J Vernon to 1 Sep 65 Mono PAO.

Cercyonis oetus near *pallescens* T. Emmel & J. Emmel.

Normal Flight: July-August.

Early/Late Records: Records needed.

Neominois ridingsii (W. H. Edwards).

Normal Flight: Late June to early August.

Early/Late Records: 4 Jun 53 Mono JW MacSwain to 28 Aug 83 Inyo PJ Russell.

Neominois ridingsii pallidus Austin.

Normal Flight: Late June to early August.

Early/Late Records: 4 Jun 53 Mono JW MacSwain to 28 Aug 83 Inyo PJ Russell.

Neominois ridingsii nr stretchii (W. H. Edwards).

Normal Flight: June-early August.

Early/Late Records: 12 Jul 93 Lassen L Crabtree, records needed.

Oeneis nevadensis (C. & R. Felder).

Normal Flight: May to July.

Early/Late Records: 5 May 2002 Siskiyou JGP to 28 Jul 50 Nevada DL Bauer.

Oeneis nevadensis nevadensis (C & R Felder).

Normal Flight: May to mid-July.

Early/Late Records: 5 May 2002 Siskiyou JGP to 28 Jul 50 Nevada DL Bauer.

Oeneis nevadensis iduna (W. H. Edwards).

Normal Flight: May-June.

Early/Late Records: 10 May 81 Sonoma RLL to 27 Jun 2001 Del Norte SOM.

Oeneis chryxus (Doubleday & Hewitson).

Normal Flight: Late June to early September.

Early/Late Records: 12 Jun 69 Placer JFE to 16 Sep 83 Mono W Dawes.

Oeneis chryxus stanislaus (Hovanitz).

Normal Flight: Second week of July to August.

Early/Late Records: 18 Jun 81 Alpine JR Mori to 29 Aug 67 Mono PAO.

Oeneis chryxus ivallda (Mead).

Normal Flight: July to early September.

Early/Late Records: 12 Jun 69 Placer JFE to 16 Sep 83 Mono W Dawes.

Danaus plexippus (Linnaeus).

Normal Flight: All months.

Early/Late Records: 1 Jan 96 Alameda RLL to 31 Dec 64 SD RES.

Danaus gilippus thersippus (Bates).

Normal Flight: Late March to early November.

Early/Late Records: 11 Jan 92 Riverside JFE to 31 Dec 64 SD RES.

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REQUEST FOR RECORDS:

Send any early or late records with complete locality data to Ken Davenport at flutterflies@juno.com