

# Gossamers



Named for their soft, delicate wings, gossamers (or gossamer-winged butterflies), are members of the family [Lycaenidae](#), the second largest butterfly family next to Nymphalidae with more than 6,000 species world wide. All are diurnal, small, often brightly colored, with wings that usually have a metallic gloss. Some have "tails" and spots on the hindwings that simulate a head, used as a defense mechanism to confuse predators into attacking the wrong end. For most species, the larva maintain [myrmecophilic](#) relationships (mutual association with ants) that serve to benefit both parties; the caterpillars receive protection from predation and parasitisation, while the ants are rewarded with a sweet "honeydew" secretion produced by the butterfly larva.

A variety of species are quite common in the Mojave Desert region, either as residents or migratory visitors.



# Family LYCAENIDAE (Hairstreaks)

## Gray Hairstreak (*Strymon melinus*)

Measurements:

Average: Length: .75" Wing Span: 1.25"

Distinguishing Field Characteristics:

small size; **dorsal wings** plain dark above, **orange posterior spot** on hindwings; **ventral wings** dark (spring/fall) to pale gray (summer) with thin jagged line of orange, black, and white bars across both hindwings; small black "tail" extends from each hindwing; antennae tips and top of head orange; **(m)** gray above; **orange on abdomen**; **(f)** blue-gray above; blue gray abdomen; larger size

Notes:

very common; generally solitary; several-generation migrations; encountered in virtually any habitat throughout temperate NA, south through CA to northern SA; female lays singular eggs on any suitable host plant flower, though prefers those of the legume (pea) and mallow families; flat, segmented caterpillar (often attended by ants) feeds on flowers and fruits; adults feed on nectar from a variety of flowers

Mojave presence: migratory

Comments:

The Gray is the most abundant of the hairstreaks in North America, and can be encountered almost anywhere throughout most of the year. The small tail on the back of each hindwing serves to entice predators to attack the wrong end of the insect, affording the butterfly a means of escape.

The male specimen shown here, and the lighter ones above, are displaying both summer and fall colorations together in late October, 2016, at the **Red Rock Canyon National Conservation Area** in Clark County, Nevada.



female

Red Rock NCA; Nevada



dark "fall" coloration

South Rim; Grand Cyn NP; AZ



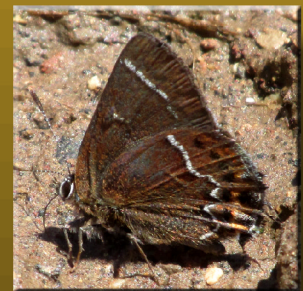
caterpillar



male

light "summer" attire

Red Rock NCA; Nevada



South Rim; Grand Cyn NP; AZ



male



orange on abdomen



# Family LYCAENIDAE (Hairstreaks)

## Great Purple Hairstreak (Atlides Halesus)

### Measurements:

Average: Length: 1" Wing Span: 1.5"

### Distinguishing Field Characteristics:

small size; dark body; **dorsal wings** charcoal with blue iridescence (more extensive on males); **ventral wings** black with **red-orange dots** (1 on forewings, 2 on rear of hindwings; two uneven "tails" on each hindwing with 5 blue dots that comprise a **false head**; abdomen blue (dorsal) and orange (ventral)

### Notes:

common; found in woodlands, forests, suburban areas, etc., in temperate to tropical US coast to coast south to Guatemala; caterpillars feed on mistletoe, while adults feed on nectar of various flowers; female lays singular or groups of eggs on mistletoe; caterpillars consume leaves and flowers of host plant, sequestering protective toxic chemicals they retain through adulthood; spots and "tails" on hind end serve as a false head to misdirect predators

Mojave presence: native

### Comments:

Neither great in size, nor purple in color, the name for this small butterfly is a gross misnomer! And notably, although considered to be a common butterfly in general, I have only encountered a few in the Mojave Desert, including the one pictured above checking out the bounty offered by a **Whitestem Paperflower** at the **Red Rock Canyon National Conservation Area** just west of Las Vegas, Nevada.



**charcoal wings**  
Red Rock Cyn NCA; NV



**false "head"**  
Red Rock Cyn NCA; NV



**caterpillar**



**inspecting a paperflower**  
Red Rock Cyn NCA; NV



**real head**  
Red Rock Cyn NCA; NV



# Family LYCAENIDAE (Blues)

## Western Pygmy Blue (*Brephidium exile*)

Measurements:

Average: Length: .4" Wing Span: .75"

Distinguishing Field Characteristics:

**tiny size**; white body and head; **dorsal wings** copper-brown with bluish-gray base; **ventral hindwings** white at base, copper at tip with black bars; white marginal fringe; dark eyes; long, banded antennae; fast, darting flight

Notes:

common; prefers dry alkaline areas (deserts, prairies, marshes, etc.) of sw NA from OR south to MEX, CA east to Mississippi River; 4 subspecies (several in Caribbean, introduced elsewhere); female lays singular eggs usually on underside of leaves on plants in the amaranth family; caterpillars (often tended by ants) eat all parts of host plants; adults consume only nectar

Mojave presence: native



Dolan Springs, Arizona



Dolan Springs, Arizona



caterpillar



desert marigold



alkalai heliotrope



Hend. Bird Viewing Preserve; NV



Dolan Springs, Arizona



Hend. Bird Viewing Preserve; NV



slender goldenweed



sharing a baccharis

Comments:

The Pygmy Blue is the smallest butterfly in North America, and one of the smallest in the world, so it's not hard to recognize this diminutive beauty.

Adults enjoy the nectar of a variety of flowers, including marigolds, heliotropes, and baccharis in November, 2021, at the **Henderson Bird Viewing Preserve** in Henderson, Nevada, and a goldenweed in Kingman, Arizona, in August of 2024.



# Family LYCAENIDAE (Blues)



Bullhead City, AZ

## Marine Blue (*Leptotes marina*)

### Measurements

Average: Length: .75" Wing Span: 1.125"

### Distinguishing Field Characteristics:

small size; furry, bluish body above, white below; **dorsal wings** bluish to coppery (males with slight purplish tinge), darker blue near base; **ventral wings** have tan bands (unbroken on forewings) with white borders; white marginal fringe with dark brown submarginal line; hindwings with **2 dark spots**, usually bordered with white inner and orange outer rings; long, banded antennae with dark, scoop-shaped apical knobs; large dark eyes, upturned snout; mostly monomorphic



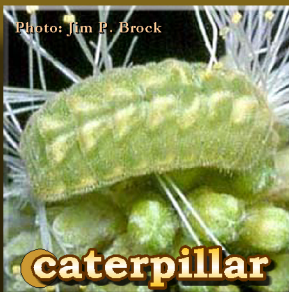
Bullhead City, AZ



Bullhead City, AZ



Bullhead City, AZ



### Notes:

common; found in open areas (fields, meadows, desert scrublands, urban settings, etc.) throughout subtropical regions of NA, mainly in sw quarter of US from Great Plains west to Pacific coast (less common to rare elsewhere), south through MEX to SA; female lays singular, green, spherical eggs on flower buds; multiple broods per year; caterpillars (tan to lime green; ~1") consume flowers



and seedpods of host plants (legumes, milkvetches, etc.); adults consume flower nectar; males patrol their territories for females; fast, erratic flight, seen flying April to September in northern parts of range (year-round elsewhere)

**Mojave presence:** native

### Comments:

While generally a common species, the Marine Blue is rather rare in the Mojave Desert, usually spotted in urban environments, such as Las Vegas. The specimen shown here at **Red Rock Canyon NCA** in June, 2020, had its spots nibbled on by a predator, demonstrating the evolutionary purpose for such decorations; better a wing than a head! This lucky individual, and the one in Bullhead City, AZ, in April, 2024, are the only ones I have seen to date in the region.





# Family LYCAENIDAE (Blues)



Diamond Crk; Grand Cyn

## Reakirt's Blue (*Echinargus isola*)

### Measurements:

Average: Length: .6" Wing Span: 1"

### Distinguishing Field Characteristics:

small size; furry, bluish white body; **dorsal wings** plain, coppery, gray near base (males paler, bluish tinge, dark veins); **ventral wings** brownish white with pale brown markings (chevrons, bars, spots), 3 submarginal dark spots on hindwings, row of **5-6 dark postmedian dots** circled with white on forewings; white marginal fringe with dark brown submarginal line; long, banded antennae with dark apical knobs; large dark eyes, upturned snout



Bullhead City, AZ



Bullhead City, AZ



common; found in open areas (fields, meadows, desert scrublands, urban settings, etc.) in southwestern US south through MEX to CA (occasionally SA), migrating to areas farther north and east in summer; female lays singular, white, turban-shaped eggs on flower buds, mainly in legume family **Fabacea**; 3 broods per year in most of range; caterpillars (variable in color and markings from green to brown; often tended by ants) feed on host plants; adults consume flower nectar; males patrol their territories for females; fast, erratic flight, seen



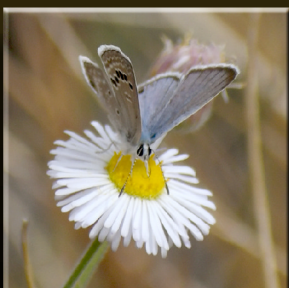
Bullhead City, AZ

flying year-round in TX, March to November elsewhere in residential range

Mojave presence: native

### Comments:

The Reakirt's is easily overlooked and often mistaken at first glance for the **Marine Blue** (previous page)--especially when both are observed during their erratic flights. When a specimen alights on a flower, such as the one shown here inspecting a fleabane in Oatman, AZ, in May of 2023 (left), note the pattern of spots that are unique for each species. Like the marine, the Reakirt's--while generally a common species--is rather rare in the Mojave, usually encountered in urban environments near water. The Arizona specimens are among the few I have positively identified in the region.





# Family LYCAENIDAE (Blues)

## Spring Azure (*Celastrina ladon*)

### Measurements:

Average: Length: .5" Wing Span: 1"

### Distinguishing Field Characteristics:

small size; fast flight; **dorsal wings** pale blue (best displayed in flight); but highly variable throughout regions, seasons, and subspecies; **ventral hindwings** grayish white with small **dark dots** and short **wavy lines**; (**m**) light blue above, (**f**) darker blue dorsal side with prominent black margins on forewings

### Notes:

common; found in a variety of habitats throughout most of NA (except Gulf Coast) from AK/CAN south to Columbia in SA; difficult to distinguish from similar species, numerous forms, and subspecies; female produces several broods per year, laying singular eggs on flower buds of a variety of host plants; flat, segmented caterpillar (often attended by ants) feasts on various flowers and fruit, adults consume only nectar; lifespan of adults just a few days

Mojave presence: native



Great Smoky Mtns NP; TN



Great Smoky Mtns NP; TN



Great Smoky Mtns NP; TN



Great Smoky Mtns NP; TN

### Comments:

While easy to broadly identify this small butterfly, the Spring Azure in all its forms and regional variations presents numerous challenges--even to seasoned experts--when it comes to more precise determinations. About the best the rest of us can do is to be satisfied with generalizations.

