

# State of the Fireflies of the United States and Canada:



Sky Island Firefly

## THREATENED & NEAR THREATENED SPECIES PROFILE

Candace Fallon, Anna Walker, Sara Lewis, and Sarina Jepsen

This species profile was compiled based on information gathered from the IUCN Red List assessments and augmented with new information that has become available since its publication. Full Red List assessments (including range maps) are available at [www.iucnredlist.org/](http://www.iucnredlist.org/).

### KEY TO SPECIES PROFILE

#### Conservation Status

IUCN—Red List ranking

NS—NatureServe Global (G), National (N), and Subnational (S) Conservation Status Rank:

GX   NX   SX	Not located despite intensive searches and virtually no likelihood of rediscovery
GH   NH   SH	Known from only historical occurrences but still some hope of rediscovery
G1   N1   S1	At very high risk of extinction or collapse
G2   N2   S2	At high risk of extinction or collapse
G3   N3   S3	At moderate risk of extinction or collapse
G4   N4   S4	At fairly low risk of extinction or collapse
G5   N5   S5	At very low risk of extinction or collapse
GNA   NNA   SNA	A conservation status rank is not applicable because the species or ecosystem is not a suitable target for conservation activities
GNR   NNR   SNR	Global rank not yet assessed
GU   NU   SU	Currently unrankable due to lack of information or due to substantially conflicting information about status or trends
G#G#   N#N#   S#S#	Numeric range rank (e.g., G2G3, G1G3) is used to indicate uncertainty about the exact status of a taxon or ecosystem type

SGCN—Species of Greatest Conservation Need, legal designation by state

US ESA—Species' legal status under the US Endangered Species Act

#### Male Size Ranges

The documented size range for males of each species has been provided in the profiles as follows:

9–10 mm



With the smallest size in grey ( ) superimposed over the largest size in green ( ). When printed at 100% scale, the bars match the lengths provided.

#### Habitat Threats

Pollution	Agriculture	Habitat Loss, Degradation, Fragmentation	Climate & Severe Weather
Excess light	Crop systems	Habitat loss	Climate change
Energy & mining	Livestock & pasture	Trampling / crushing	Severe storms & flooding
Pesticides & run-off		Invasive species	Rising temperatures
		Water quality	Drought
			Sea level rise

# *Photuris flavicollis*

## Sky Island Firefly



< VULNERABLE >

VU



The Davis Mountains in Texas are one of the documented mountain ranges where sky island fireflies are found [above]; adult sky island firefly [below]. (Photo: Cherie King / flickr [above]; Oscar Johnson / iNaturalist [below and on cover].)

### Conservation Status

- » IUCN: VU
- » NS: G1G3; SH (NM), SNR (TX)
- » SGCN: None
- » US ESA: Not listed

### Distribution

USA—Texas, New Mexico

### Description

The sky island firefly, so named for the unique place in Texas that harbors this species, is associated with spring complexes in remote mountainous areas of western Texas. It has been documented in the Davis Mountains and surrounding mountain ranges. Over a hundred years ago, it was documented in Pecos, New Mexico, as well, so it may be more widespread than currently known.

The major threat to this species is habitat disturbance due to development for oil and gas extraction, light pollution, and drought. Surveys are needed to better understand this species' distribution. Its distinctive morphology and long breeding season may help with species ID, which is notoriously difficult for *Photuris* species.



8.4–11.5 mm

### Flash Pattern & Activity Period

Adults of this species are active from May to early August. Although the flash pattern has not been observed, males probably emit a continuous series of very short greenish-yellow flashes at least once a second, similar to other *Photuris* spp.