

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



Ant-Loving Scrub Firefly

## THREATENED & NEAR THREATENED SPECIES PROFILE

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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
		Commercial & development	Drought
		Urban & residential development	Sea level rise
		Water quality	

# Pleotomodes needhami

## Ant-Loving Scrub Firefly



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Adult females and larvae are associated with ant nests of several species, including *Trachymyrmex* (note the half-moon shape of the excavated sand) [above inset]; this firefly is found in pine scrub habitat in Florida [above]; adult female [below]. (Photos: Richard Joyce / Xerces Society [inset, below, and on cover]; Judy Gallagher / Flickr [above right]).

### Conservation Status

- » IUCN: EN (tentative, unpublished)
- » NS: G1G2; S1S2 (FL)
- » SGCN: Florida
- » US ESA: Not listed

### Distribution

USA—Florida



7 mm

### Description

The ant-loving scrub firefly is an unusual, range-restricted species found in association with ants in xeric pine and oak scrub forests along the Mid-Florida Ridge region. Larvae, pupae, and adults of both sexes have been found within ant nests. It is unclear how these fireflies evade detection by the ants, if their dispersal is assisted by them, or if they are true ant obligates. Because of their primarily subterranean nature, very little is known about this species. Perhaps, unsurprisingly, it has not been documented from very many localities.

Threats to this species include habitat loss and degradation due to agricultural and residential development as well as light pollution from nearby towns.

### Flash Pattern & Activity Period

Flightless adult females emerge from ant colonies after dark in mid-April, emitting a light for up to an hour to attract glowing males. Note: flash color has not been documented.

	0	1	2	3	4	5	6	Seconds
♂								→ Males glow in response to female signaling, continuing to glow until after mating
♀								→ Females will glow for up to one hour or until after mating