

State of the Fireflies of the United States and Canada:



Belted 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/.

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 or 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	Commercial & development	Severe storms & flooding
Pesticides & run-off		Trampling / crushing	Rising temperatures
		Urban & residential development	Drought
		Invasive species	Sea level rise
		Water quality	

Photuris cinctipennis

Belted Firefly



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This species has been found in moist lowland areas of hardwood forests such as this wooded riparian area in Cedarville State Forest, Maryland [above]; belted firefly male [below]. (Photos: F. Delventhal / Flickr [above]; James E. Lloyd / University of Florida [below and on cover].)

Conservation Status

- » IUCN: EN
- » NS: G1G2; S4 (DE), SNR (MD)
- » SGCN: Delaware
- » US ESA: Not listed

Distribution

USA—Delaware, Maryland



Description

The belted firefly has a very small range in Maryland and Delaware, and it appears to be quite rare. Despite extensive survey efforts and examination of museum collections, it has been documented from only five counties. The belted firefly is found in moist lowland areas in hardwood forests and isolated freshwater forested ephemeral wetlands of the mid-Atlantic coast.

This species is threatened by habitat loss and degradation due to urban development and sea-level rise.

Flash Pattern & Activity Period

Adults are active after dark in June and July and give off single yellow-green flashes at uncertain intervals.

	0	1	2	3	4	5	6	Seconds
♂								→ Very brief single flash repeated every four seconds
♀								→ Female response unknown*

* Due to the aggressive mimicry utilized by some "femme fatale" firefly species—some of which have been documented using multiple flash-pattern responses—it has been difficult to determine which flash-patterns are used to attract mates or, alternately, to lure in unsuspecting prey males from other firefly species.