

Chapter 1 : Fireflies Quotes (26 quotes)

"Fall is for lovers of old books, bearded men, and introverts." lol that's my Monkey! Fall is the best season and I always feel like Maine rushed through it much too quickly.

A larviform female showing light-emitting organs on abdomen Fireflies tend to be brown and soft-bodied, often with the elytra , or front wings, more leathery than those of other beetles. Although the females of some species are similar in appearance to males, larviform females are found in many other firefly species. These females can often be distinguished from the larvae only because they have compound eyes , although the latter are much smaller than those of their males and often highly regressed. Most diurnal species are not luminescent; however, some species that remain in shadowy areas may produce light. A few days after mating, a female lays her fertilized eggs on or just below the surface of the ground. The eggs hatch three to four weeks later, and the larvae feed until the end of the summer. The larvae are commonly called glowworms not to be confused with the distinct beetle family Phengodidae or the fly genus Arachnocampa. Lampyrid larvae have simple eyes. The term glowworm is also used for both adults and larvae of species such as *Lampyris noctiluca* , the common European glowworm, in which only the nonflying adult females glow brightly and the flying males glow only weakly and intermittently. Play media A video of fireflies Fireflies hibernate over winter during the larval stage, some species for several years. They emerge in the spring. After several weeks of feeding on other insects, snails, and worms, they pupate for 1. The larvae of most species are specialized predators and feed on other larvae, terrestrial snails , and slugs. Some are so specialized that they have grooved mandibles that deliver digestive fluids directly to their prey. Some, like the European glow-worm beetle, *Lampyris noctiluca* , have no mouth. Most fireflies are quite distasteful to eat and sometimes poisonous to vertebrate predators. This is due at least in part to a group of steroid pyrones known as lucibufagins , which are similar to cardiotoxic bufadienolides found in some poisonous toads. Bioluminescence Light production in fireflies is due to a type of chemical reaction called bioluminescence. The enzyme luciferase acts on the luciferin , in the presence of magnesium ions, ATP , and oxygen to produce light. Gene coding for these substances has been inserted into many different organisms see Luciferase " Applications. The genetics of firefly bioluminescence, focusing on luciferase , has been reviewed by John Day. All fireflies glow as larvae. In lampyrid larvae, bioluminescence serves a function that is different from that served in adults. It appears to be a warning signal to predators , since many firefly larvae contain chemicals that are distasteful or toxic. It has been shown that early larval bioluminescence was adopted in adult fireflies, and was repeatedly gained and lost before becoming fixed and retained as a mechanism of sexual communication in many species. Flash signaling characteristics include differences in duration, timing, color, and repetition, and vary interspecifically and geographically. In general, females of the genus *Photinus* do not fly, but do give a flash response to males of their own species. Firefly female Fireflies in Georgia, U. Tropical fireflies, in particular, in Southeast Asia, routinely synchronise their flashes among large groups. This phenomenon is explained as phase synchronization [18] and spontaneous order. At night along river banks in the Malaysian jungles, fireflies synchronize their light emissions precisely. Current hypotheses about the causes of this behavior involve diet, social interaction, and altitude. In the Philippines, thousands of fireflies can be seen all year-round in the town of Donsol called aninipot or totonbalagon in Bicol. In the United States, one of the most famous sightings of fireflies blinking in unison occurs annually near Elkmont, Tennessee , in the Great Smoky Mountains during the first weeks of June. For this reason, *Photuris* species are sometimes referred to as " femme fatale fireflies". Many fireflies do not produce light. Usually these species are diurnal, or day-flying, such as those in the genus *Ellychnia*. A few diurnal fireflies that inhabit primarily shadowy places, such as beneath tall plants or trees, are luminescent. One such genus is *Lucidota*. Non-bioluminescent fireflies use pheromones to signal mates. This is supported by the fact that some basal groups do not show bioluminescence and use chemical signaling, instead. *Phosphaenus hemipterus* has photic organs, yet is a diurnal firefly and displays large antennae and small eyes. These traits strongly suggest pheromones are used for sexual selection, while photic organs are used for warning signals. In controlled experiments, males

coming from downwind arrived at females first, indicating males travel upwind along a pheromone plume. Males were also found to be able to find females without the use of visual cues, when the sides of test Petri dishes were covered with black tape. This and the facts that females do not light up at night and males are diurnal point to the conclusion that sexual communication in *P.* The five subfamilies listed above are the most commonly accepted ones, though others, such as the Amydetinae and Psilocladinae, have been proposed. This was mainly done in an attempt to revise the Lampyrinae, which bit by bit had become something of a "wastebin taxon" to hold incertae sedis species and genera of fireflies. Other changes have been proposed, such as merging the Otoretinae into the Luciolinae, but the arrangement used here appears to be the most frequently seen and stable layout for the time being. Though most groups appear to be monophyletic, some e. Two groups of subfamilies seem to exist: While the subfamilies as understood here are, in general, monophyletic, a few genera still need to be moved for the subfamilies to accurately represent the evolutionary relationships among the fireflies. The Rhagophthalmidae are a glow-worm-like lineage of Elateroidea. They have in the recent past usually been considered a distinct family, but whether this is correct is still disputed. Indeed, they might be the only close relative of the puzzling firefly genus *Pterotus*, which sometimes is placed in a monotypic subfamily. The genus *Phausis*, usually placed in the tribe Photinini of the Lampyrinae, might represent another rather distinct lineage instead. Conservation[edit] Fireflies, like many other organisms, are directly affected by land-use change e.

Chapter 2 : Watch Grave of the Fireflies Online Free - Movies

Owl City - Fireflies (Lyric Video) This feature is not available right now. Please try again later.

Contact Us Synchronous Fireflies During the shuttle operating period, a parking pass is required for evening access to the Sugarlands Visitor Center parking area and the firefly shuttle to the Elkmont viewing area. Parking Passes will be distributed via a lottery on Recreation. Please see Frequently Asked Questions about the Lottery for more information. You may choose two dates you would like to attend - your preferred choice and an alternate date. Synchronous fireflies *Photinus carolinus* are one of at least 19 species of fireflies that live in Great Smoky Mountains National Park. They are the only species in America whose individuals can synchronize their flashing light patterns. Fireflies also called lightning bugs are beetles. They take from one to two years to mature from larvae, but will live as adults for only about 21 days. While in the larval stage, the insects feed on snails and smaller insects. Once they transform into their adult form, they do not eat. Their light patterns are part of their mating display. Each species of firefly has a characteristic flash pattern that helps its male and female individuals recognize each other. Most species produce a greenish-yellow light; one species has a bluish light. The males fly and flash and the usually stationary females respond with a flash. Peak flashing for synchronous fireflies in the park is normally within a two-week period in late May to mid-June. Synchronous fireflies produce light in their lanterns, the pale area of the abdomen visible on the underside of the insect above. The production of light by living organisms is called bioluminescence. Fireflies are a good example of an organism that bioluminesces, but there are others as well, such as certain species of fungus, fish, shrimp, jellyfish, plankton, glowworms, gnats, snails, and springtails. Bioluminescence involves highly efficient chemical reactions that result in the release of particles of light with little or no emission of heat. Fireflies combine the chemical luciferin and oxygen with the enzyme luciferase in their lanterns part of their abdomens to make light. No one is sure why the fireflies flash synchronously. Competition between males may be one reason: Or perhaps if the males all flash together they have a better chance of being noticed, and the females can make better comparisons. The fireflies do not always flash in unison. They may flash in waves across hillsides, and at other times will flash randomly. Synchrony occurs in short bursts that end with abrupt periods of darkness. Timing of the Display The mating season lasts for approximately two weeks each year. As the season begins, a few insects start flashing, then more join the display as the days pass. They reach a "peak" when the greatest number of insects are displaying. After peak, the numbers gradually decline each day until the mating season is over. Since , this peak date has occurred at various times from the third week of May to the third week in June. During the two week long mating season, the quality of individual nightly displays can be affected by environmental factors. On misty, drippy evenings following rainfall, the insects may not readily display. Moon phase has been observed to affect the timing of nightly displays-on nights with a bright moon, the insects may begin flashing a bit later than usual. The light show is best when you: You can also help protect the fireflies and their habitat:

Chapter 3 : Firefly - Wikipedia

Original lyrics of Fireflies song by Owl City. Explore 74 meanings and explanations or write yours. Find more of Owl City lyrics. When I'm far too tired to fall.

Here are a few fascinating facts you may not know. Fireflies talk to each other with light. Fireflies emit light mostly to attract mates, although they also communicate for other reasons as well, such as to defend territory and warn predators away. In some firefly species, only one sex lights up. In most, however, both sexes glow; often the male will fly, while females will wait in trees, shrubs and grasses to spot an attractive male. Luciferin is heat resistant, and it glows under the right conditions. Luciferase is an enzyme that triggers light emission. All living things, not just fireflies, contain ATP. In some species, the larvae and even the eggs emit light. Firefly eggs have been observed to flash in response to stimulus such as gentle tapping or vibrations. This is an image of a firefly larvae just emerging from the egg. Fireflies are primarily carnivorous. Larvae usually eat snails and worms. Some species of fireflies feed on other fireflies—most notable is the genus *Photuris*, which mimics female flashes of *Photinus*, a closely related species, in order to attract and devour the males of that species. But adult fireflies have almost never been seen feeding on other species of bugs. They may feed on plant pollen and nectar, or they may eat nothing. Fireflies have short lifespans. An adult firefly lives only long enough to mate and lay eggs—so they may not need to eat during their adult life stage. The larvae usually live for approximately one to two years, from mating season to mating season, before becoming adults and giving birth to the next generation. Fireflies imitate each other. Sometimes male *Photuris* imitate male *Photinus* to attract females of their own species. She shows up looking for food, but instead he gets a mate. Even more interesting, scientists believe some *Photinus* males imitate *Photuris* females giving off bad impressions of *Photinus* male flashes, scaring off other *Photinus* males and reducing competition. Fireflies are found on almost every continent. Fireflies love warm, humid areas. Because of this, they thrive in tropical regions as well as temperate zones—they come out in the summertime in these environments—on all continents except Antarctica. Fireflies thrive in forests, fields and marshes near lakes, rivers, ponds, streams and vernal pools. They need a moist environment to survive. Some species of firefly larvae are generally aquatic—they even have gills—while others live almost entirely in trees. Fireflies are medically and scientifically useful. Every animal has ATP in its cells in amounts that are more or less constant—or should be. In diseased cells, the amount of ATP may be abnormal. If the chemicals from fireflies are injected into diseased cells, they can detect changes in cells that can be used to study many diseases, from cancer to muscular dystrophy. Electronic detectors built with these chemicals have been fitted into spacecraft to detect life in outer space, as well as food spoilage and bacterial contamination on earth. Because of this, many animals learn to avoid eating fireflies. Pet owners should never feed fireflies to lizards, snakes and other reptilian pets. Fireflies start appearing as early as April and May in the US. Learn tips on how best to catch and release fireflies. These numbers are going up as new *Lampyridae* species are described by scientists. The purpose of blinking is so that male fireflies can find potential mates. If you watch long enough you will be able to pick up on their unique flash pattern. Try to remember it so that next time you see a firefly flash you can identify it.

Chapter 4 : Grave of the Fireflies () - IMDb

Fireflies eat other fireflies. Fireflies are primarily carnivorous. Larvae usually eat snails and worms. Some species of fireflies feed on other fireflies—most notable is the genus photuris, which mimics female flashes of photinus, a closely related species, in order to attract and devour the males of that species.

The cost is minimal and it is a natural phenomenon that will amaze you. This breathtaking show put on by nature resembles a psychedelic combination of stars falling and fireworks exploding — It is an immersive experience you will never forget. The tens-of-thousands of lightning bugs gather in swarms and flash in harmony as the entire forest alternates between light and darkness. Right here in the Smoky Mountains, near the Elkmont campground, is the largest population of synchronous fireflies in the Western Hemisphere. Fireflies Or Lightning Bugs? While people commonly call these amazing creatures fireflies or lightning bugs, they are actually small flying beetles with an abdomen that lights up. There are over 2, species of the bioluminescent beetles in the world with in North America alone and 19 species found within the Smoky Mountains National Park. Although it takes the lightning bugs one to two years to mature from larvae into adults, the lifespan of an adult is extremely short. Why Do They Flash? The distinct flashing pattern of the synchronous fireflies is difficult to describe and nearly impossible to photograph or catch on film. The pattern includes five to eight bursts of light in a short time period followed by complete darkness for approximately five seconds. The light they emit, which produces no heat, is due to a chemical reaction of luciferin and oxygen and is used to attract a mate. The lottery period for the synchronous fireflies official park passes was just announced! The lottery will take place beginning at 7:30 ET on Friday, April 27th. The synchronous fireflies lottery will end on April 30th at 8: The Lottery has now closed. Once the passes go on sale, you will be able to purchase them from Recreation. For each of the seven evenings, there are advance parking passes first-come, first-serve and 36 large vehicle passes first-come, first-serve. On Wednesday, May 9th each of the lottery applicants will receive notification on whether or not a vehicle pass will be awarded. If you do not procure a ticket from Recreation. What To Expect The parking pass that you purchased will allow one vehicle to park at the Sugarlands Visitor Center must have pass. After parking your vehicle, you and your group will ride the trolley to the Elkmont campground area. Since flashlights disrupt the fireflies and are an annoyance to other visitors, the Rangers and National Park require that the lens is covered in red or blue cellophane and that the flashlights are only used to navigate to and from the viewing area. The entire trip will last between three and six hours. Once you are seated, get comfortable and expect activity of synchronized fireflies to start up around dusk. However, if the moon is bright, expect this to delay the start of the show by 30 minutes or more. We highly recommend bringing some small chairs or a blanket to sit on. Unfortunately, only approximately 1, fortunate people per evening get to visit the Elkmont area while the lightning bugs are at their peak. However, all is not lost. The synchronous fireflies can also be found at the backend of Cades Cove near the Abrams Falls trailhead or at Catalooche Valley. ET on Friday, April 27th and will end on April 30th at 8: The synchronous fireflies event will occur nightly from Thursday, June 7th to Thursday, June 14th, but requires advance reservations. Since the first shuttle back to the parking area is typically 9: It is highly recommended to bring bug spray and chairs or a blanket to sit on. Did you fail to procure a pass? Consider visiting within three days either side of the event when passes are not required.

Chapter 5 : 14 Fun Facts About Fireflies | Science | Smithsonian

Updated: 6/12/ Located just a few minutes from the hustle and bustle of downtown Gatlinburg and its millions of summertime visitors is an incredible natural phenomenon known as synchronous fireflies.

Chapter 6 : 6/12/18 Update: Synchronous Fireflies In The Smoky Mountains

Falling flowers special occasion dress is imported. Embroidered flowers add texture to the bodice and waist of this

DOWNLOAD PDF THE FALLING FIREFLIES

unforgettable dress. With a classic neckline and layered skirt, which is given fullness by an attached crinoline, it's a flattering choice.

Chapter 7 : Fireflies Uke tab by Owl City

All you ever get from the sonnet is the count of the fallen man You were in the kind of game that put the force in me I was ever chasing fireflies Submit Corrections.

Chapter 8 : Fireflies (Owl City song) - Wikipedia

Lyrics to "Fireflies" song by Owl City: You would not believe your eyes If ten million fireflies Lit up the world as I fell asleep 'Cause th.

Chapter 9 : Facts About Fireflies â€“ blog.quintoapp.com

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