

# Firefly Watching in Taiwan

夜螢親親

30 Year-round

Must-visit Firefly Viewing Spots in Taiwan

Taiwan

THE HEART OF ASIA



## Taiwan: A Global Firefly-Watching Hotspot

Did you know that Taiwan is a country of rich biodiversity as well as one of the world's most renowned hotspots for firefly viewing? About 2,000 recorded species of firefly exist in the world; Taiwan has around 65, while neighboring, much-larger Japan has only 52. With a land mass that accounts for only 0.025% of the world's total, Taiwan has an average of 2 species of firefly for every 1,000 square kilometers of land. In firefly density, Taiwan trails only Jamaica (with 4.561 species per sq. km.) and Costa Rica (with 4.893 species). The general public has little knowledge about fireflies, usually believing that these creatures are all aquatic; in fact, except for the 3 aquatic species and 1 semi-aquatic species, all of Taiwan's fireflies are terrestrial. In accordance with their living habits and distribution, there are opportunities to see these "sparkling lights" from Taiwan's plains to high mountains throughout the year.

Firefly research by local scholars in Taiwan started around 1990, and in recent years numerous farms and forest recreation areas have organized seasonal firefly-viewing events. When the government proclaimed 2002 as the Year of Ecotourism, firefly viewing became a popular tourist activity; hundreds of thousands of visitors started flocking to different areas to view fireflies each spring, creating a boom in ecotravel. In addition to promoting the concept of firefly conservation, this trend allows the general public to understand the firefly ecosystem, further advances the protection of natural habitats and fireflies, indirectly boosts local development, and stimulates industrial upgrading and transformation.



# 30 Must-visit Firefly Viewing Spots

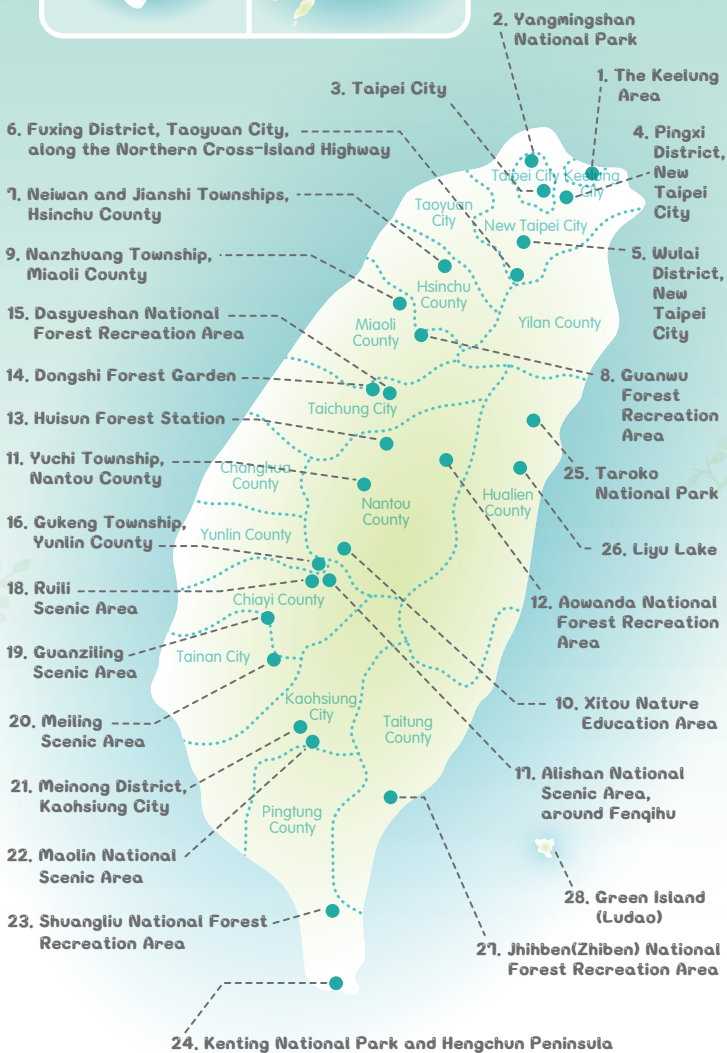
(in Northern, Central, Southern, and Eastern Taiwan, and the offshore islands)

This “Firefly Watching in Taiwan” brochure is more than a map for discovering fireflies; it is also a professional guide enriched with knowledge on conservation. Besides the selected 30 firefly viewing spots in northern, central, southern, and eastern Taiwan, as well as the offshore islands, different commonly seen firefly species are clearly indicated based on level of conservation, habitats, and viewing periods. With additional images profiling the fireflies, this brochure lets you appreciate their beauty while learning in-depth about these “lantern-carrying” insects.

29. Kinmen



30. The Matsu Islands

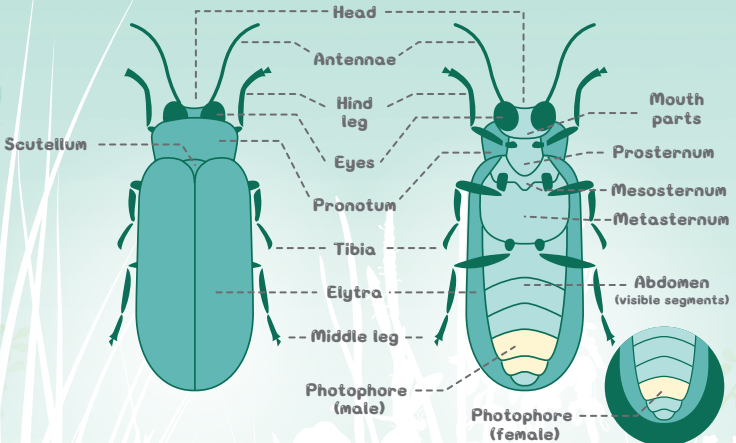


Most male fireflies have two light-emitting organs with two complete sets of wings to enable smooth flying, whereas female fireflies have three different forms:

1. Winged – appearance is similar to that of male fireflies, but the body is normally larger with only one light-emitting organ. Ex: *Abscondita cerata* and *Abscondita anceyl*
2. Sheath-winged – wings are slightly less evolved, but still cover a certain area of the abdomen. Ex: *Luciola curtithorax*
3. Wingless - wings are clearly degraded or even inexistent. Appearance resembles that of a larva known as "Neoteny" (details in OhBear Classroom). The second and the third types of females are flightless, and can only light up on ground level or at the height of grass fields, waiting for male fireflies to mate with them. Ex: *Pyrocoelia praetexta* and *Diaphanes ampyroides*.



**Neoteny:** the phenomenon of adult organisms retaining immature juvenile features.



1. Pterous

(male and female forms are about the same)



2. Brachypterous



3. Apterous



## Mysterious Green Light ?

Most firefly species have light-emitting organs as adults, but some diurnal fireflies are lightless. Not all fireflies will glow! A light-emitting organ that resembles a flashlight is found at the bottom of the abdomen of fireflies. This organ is composed of light-emitting cells, reflection cells, and transparent skin and pipes. The light-emitting cells act as lightbulbs and produce a glow through chemical reaction. The glow is then reflected out by the reflection cells. This light is not hot, and each firefly species can emit different lights at various wavelengths. Besides the commonly seen yellow and green glows, an orange light exists as well! This ray of light is used to exchange information, attract a mate, or alert others. Certain foreign firefly species can even use the light to catch their food.



# Life of a Firefly

Fireflies belong to the order Coleoptera. They undergo complete metamorphosis, with four stages in their life cycle: egg, larva, pupa, and adult. Most larvae are carnivorous, having a large thorny jaw to capture prey and eat. A newly hatched larva is in the first stage of development, and it progresses one stage with each molting. Larvae usually undergo 5-7 moltings (depending on species) before pupation occurs.

Terrestrial firefly eggs are laid within crevices in dark and damp stones, mosses, or soils. Once larvae are hatched, they grow in the forest understory. As they gradually mature, they begin entering into crevices or the soil to get ready for pupation. Aquatic firefly eggs, on the other hand, are found near damp grass or moss along waterways. Once larvae are hatched, they enter the water to capture small or medium sized shellfish or snails as food. Once they mature, they climb onto the ground, searching for damp and dark areas to pupate. The stages of pupation allow the body organs to completely develop and wings to grow, following which the insects emerge from the pupae to look for other fireflies to mate with and produce the next generation.

Adult



## Firefly

four stages in their life cycle

Aquatic



Terrestrial

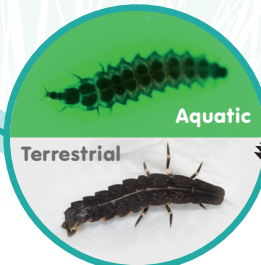
Egg



Pupa

Aquatic

Terrestrial



Larva





# Firefly Viewing in Northern Taiwan



## 1. The Keelung Area

| *Absccondita cerata*, *Absccondita chinensis*, *Pyrocoelia analis* and *Diaphanes citrinus* |

## 2. Yangmingshan National Park

| *Aquatica ficta*, *Absccondita cerata*, *Absccondita anceyi*, *Luciola kagiana*, |  
| *Luciola filiformis*, *Diaphanes formosus*, and *Pyrocoelia analis* |

## 3. Taipei City

| *Aquatica ficta*, *Absccondita cerata*, *Luciola kagiana*, *Pyrocoelia analis*, and *Absccondita chinensis* |

## 4. Pingxi District, New Taipei City

| *Absccondita cerata*, *Aquatica ficta*, *Absccondita chinensis*, *Diaphanes citrinus*, |  
| *Luciola filiformis*, *Absccondita anceyi* and *Luciola kagiana* |

## 5. Wulai District, New Taipei City

| *Absccondita cerata*, *Luciola filiformis*, *Luciola curtithorax*, *Diaphanes citrinus*, |  
| *Pyrocoelia praetexta*, *Aquatica hydrophila* |

## 6. Fuxing District, Taoyuan City, along the Northern Cross-Island Highway

| *Absccondita cerata*, *Luciola filiformis*, *Luciola curtithorax*, *Lamprigera yunnana*, |  
| *Diaphanes lampyroides*, *Diaphanes ampyroides*, *Diaphanes nubilus*, |  
| *Diaphanes flavilateralis*, and *Lychnuris formosana* |

## 7. Neivan and Jianshi Townships, Hsinchu County

| *Absccondita cerata*, *Absccondita anceyi*, *Luciola satoi*, *Pyrocoelia praetexta*, |  
| *Lamprigera yunnana*, and *Diaphanes lampyroides* |

## 8. Guanwu Forest Recreation Area

| *Diaphanes nubilus*, *Absccondita cerata*, *Absccondita anceyi*, *Diaphanes flavilateralis*, and *Luciola filiformis* |





## 1. The Keelung Area

### 1-1. Longgang Trail, Ocean University

Longgang Trail is a circular trail of about 2km combining natural resources, landscapes, and recreational spots. Each spring, *Abscondita cerata* fireflies are seen here in great numbers, and a series of nighttime firefly-watching tours are offered.

◆ Commonly seen: *Abscondita cerata*, *Abscondita chinensis*, and *Pyrocoelia analis*

◆ Transportation: Take a TRA train or Keelung Bus (codeshare service with Guanghua Bus) No. 9006, Taipei Bus No. 1070, KuoKuang Bus No. 1813, 1802, 1801, or 1800, Fuho Bus No. 1550, 1551, or 1558, or Capital Bus No. 1573 or 1880 to Keelung Railway Station (Keelung Ocean Plaza). After arrival, transfer to a taxi or go to the Keelung City Bus Terminal and take any bus heading toward Ocean University. After arriving at the Ocean University stop, follow the signs to Longgang Trail.

### 1-2. Badouzi Coastal Park

The Badouzi Coastal Park is located on a hill next to the Badouzi Harbor. *Pyrocoelia analis* fireflies can be encountered here in great numbers. It is especially easy to spot their bright yellowish-green lights in the autumn.

◆ Commonly seen: *Pyrocoelia analis* and *Diaphanes citrinus*

◆ Transportation: Take a TRA train to the Ruifang Train Station and transfer to the Shen'ao railway line. You can also transfer to Bus No. R66 at Qidu Train Station or take bus No. 103, 791, or 1051 at Keelung Train Station.



## 2. Yangmingshan National Park

Yangmingshan National Park is a great location for nurturing a rich variety of animals and plants; this is also a great outdoor spot for Taipei City residents. Diverse types of fireflies are found in many areas of the park, such as *Aquatica ficta* at Zhuzihu; *Abscondita cerata*, *Abscondita anceyi*, *Luciola kagiana*, and *Luciola filiformis* at the Qingshan Nature Center and *Abscondita cerata*, *Luciola kagiana*, *Diaphanes formosus*, and *Pyrocoelia analis* at Datun Nature Park.

◆ Commonly seen: *Aquatica ficta*, *Abscondita cerata*, *Abscondita anceyi*, *Luciola kagiana*, *Luciola filiformis*, *Diaphanes formosus*, and *Pyrocoelia analis*

◆ Transportation: Take Bus No. 260 at Taipei Railway Station (North Exit 2), or take Bus No. R5 or S15 at MRT Shilin Station (Exit 1) or at MRT Jiantan Station (left side of Exit 1), or take bus No. 230 or S9 at MRT Xinbeitou Station (at Beitou Park bus stop on nearby Guangming Street or Xinbeitou bus stop on Quanyuan Road) to Yangmingshan National Park.



### 3. Taipei City

Taipei sits in a basin surrounded by mountains, making it easy for residents to embrace greenery and nature within a short drive. Several ecological inlets and wetlands are also hidden amongst the busy hustle and bustle of the city. You can view fireflies right in the city, at Mucha Park, Xianjiyan Hiking Trail, or Fuyang Eco Park, where these insects glow at night between April and October each year.

- ◆ Commonly Seen: *Aquatica ficta*, *Abscondita cerata*, *Luciola kagiana*, *Pyrocoelia analis*, and *Abscondita chinensis*
- ◆ Transportation: Mucha Park (No. 50, Xinlong Road, Section 4, Wenshan District, Taipei). Take bus No. 237 or 611 at MRT Wangfang Hospital Station (going toward Taipei City Zoo) or bus No. 671 or G2L/G2R (going toward Taipei Jingmei Girls High School). Get off at the Mucha Park bus stop.
- Fuyang Eco Park (Wolong Street, Da'an District, Taipei)
- Take bus No. 3, 5, 18, 36, 72, 285, 292, 293 or 294 to MRT Linguang Station. Leave the station at Exit 1 and walk to the corner of Fuyang Street. Turn left and continue on to the park.



### 4. Pingxi District, New Taipei City

Pingxi is one of the most famous tourist spots of New Taipei City. Rows of traditional street houses are still visible on the street. Each year in April and May, in areas along Xiping Road up to Pingxi Street, Pingxi Elementary School and Pingxi District Office, it is easy to observe quite a good number of *Aquatica ficta* and *Abscondita cerata* glowing where there is little light pollution or street lights are not installed. The Pingxi District Office organizes regular guided firefly tours and activities.

- ◆ Commonly seen: *Abscondita cerata*, *Aquatica ficta*, *Abscondita chinensis*, *Diaphanes citrinus*, *Luciola filiformis*, *Abscondita anceyi* and *Luciola kagiana*
- ◆ Transportation: Take a TRA North Link Line train to Ruifang Train Station and transfer to the Pingxi Line, or go to the MRT Mucha Station and take a Taiwan Tourist Shuttle going to the Shifen Visitor Center (Shifen Waterfalls) and get off at Pingxi.





## 5. Wulai District, New Taipei City

Wulai District is surrounded by spectacular mountains, winding rivers, and hot springs. The area is known for its magnificent waterfalls and wonderful landscapes. This is another great spot in suburban Taipei for viewing fireflies. Xinxian Village along Provincial Highway 9, the Xinxian Trail, and Neidung Forest Recreation Area are where many firefly species are visible throughout the year except in winter. Some of the species seen here are *Abscondita cerata*, *Luciola filiformis*, *Luciola curtithorax*, *Luciola kagiana*, *Diaphanes citrinus*, and *Pyrocoelia praetexta*.

◆ Commonly seen: *Abscondita cerata*, *Luciola filiformis*, *Luciola curtithorax*, *Diaphanes citrinus*, *Pyrocoelia praetexta* and *Aquatica hydrophila*

◆ Transportation: Take a Taiwan High Speed Rail (THSR) or TRA train to Taipei Main Station. Transfer to the MRT Xindian Line and get off at MRT Xindian Station. Take bus No. 849 on the Wulai Line and get off at the Wulai Terminal.



## 6. Fuxing District, Taoyuan City, along the Northern Cross-Island Highway

The Northern Cross-Island Highway is a mecca for aficionados of amphibians, birds, and insects. A good variety of fireflies are found in this area, such as *Abscondita cerata*, *Luciola filiformis*, *Luciola curtithorax*, *Lamprigera yunnana*, *Diaphanes lampyroides*, and *Diaphanes ampyroides*, so many different events are organized throughout the year. The Qilan Forest Recreation Area has dense forests with great biodiversity. Walk along the hiking trails here and you can observe a great number of *Abscondita cerata* fireflies, sometimes accompanied by other species such as *Luciola satoi*, *Abscondita chinensis*, and *Abscondita anceyi*. The Mingchi Forest Recreation Area is cool and humid. From mid-October on, species like *Diaphanes lampyroides* and *Diaphanes ampyroides* are active in the area; other fireflies such as *Diaphanes flavilateralis* and *Lychnuris formosana* can also be seen, making this a great spot for firefly-watching during autumn and winter.

◆ Commonly seen: *Abscondita cerata*, *Luciola filiformis*, *Luciola curtithorax*, *Lamprigera yunnana*, *Diaphanes lampyroides*, *Diaphanes ampyroides*, *Diaphanes nubilus*, *Diaphanes flavilateralis*, and *Lychnuris formosana*

◆ Transportation: Take a TRA train to Yilan Train Station. Exit station and take a taxi for about an hour. Alternatively, take a Capital Bus, Kamalan Bus or KuoKuang e-Bus to Yilan Bus Terminal and transfer to KuoKuang e-Bus No. 1744, 1745, 1750, or 1751 to the Qilan Forest Recreation Area. A walk of about 300 meters brings you to the Qilan Forest Recreation Area and the Qilan Villa.



## 7. Neiwán and Jiánshì Townships, Hsinchu County

Residents of Neiwán in Hsinchu County are mostly Hakkinese. From April to May, Neiwán is also a favorite firefly-viewing spot; after an afternoon of fine food, a walk along the hilly trail behind the old street lets you observe a large number of *Abscondita cerata*. Continue on in the direction of Yulao in Jiánshì Township, and you can also see a good number of fireflies such as *Abscondita anceyi*, *Luciola satoi*, *Pyrocoelia praetexta*, and *Lamprigera yunnana*. Mt. Lidong is also a good place to view *Diaphanes lampyroides*.

- ◆ Commonly seen: *Abscondita cerata*, *Abscondita anceyi*, *Luciola satoi*, *Pyrocoelia praetexta*, *Lamprigera yunnana*, and *Diaphanes lampyroides*
- ◆ Transportation: Take a TRA train to the North Hsinchu Train Station. Transfer to the Neiwán Line and get off at Zhudong Train Station. Take another local train to Neiwán Train Station. You can also take a Hsinchu Bus on the Naluo, Neiwán, or Meihua line to Neiwán Station; then walk along Guangfú Road to Neiwán's old street.



## 8. Guanwu Forest Recreation Area

The Guanwu Forest Recreation Area is a habitat for Taiwan's own unique and endangered species. Viewing fireflies in the area is best during winter, particularly around December, when large numbers of *Diaphanes nubilus* provide enchanting sights. Keep an eye out along the roads that give access to the Guanwu Forest Recreation Area, because many commonly seen fireflies such as *Abscondita cerata*, *Abscondita anceyi*, *Diaphanes flavilateralis*, and *Luciola filiformis* can be observed here, with *Abscondita cerata* being greatest in number.

- ◆ Commonly seen: *Diaphanes nubilus*, *Abscondita cerata*, *Abscondita anceyi*, *Diaphanes flavilateralis*, and *Luciola filiformis*
- ◆ Transportation: There is currently no public transport to the area. If driving on your own is not possible, you can contact a local hotel or travel agency to arrange a package tour.



# Firefly Viewing in Central Taiwan



## 9. Nanzhuang Township, Miaoli County

| *Abscondita cerata*, *Abscondita anceyi*, *Diaphanes citrinus*, *Pyrocoelia analis*,  
*Pyrocoelia praetexta*, and *Lamprigera yunnana* |

## 10. Xitou Nature Education Area

| *Abscondita cerata*, *Abscondita anceyi*, *Pyrocoelia praetexta*, *Lamprigera yunnana*,  
*Diaphanes lampyroides* and *Diaphanes citrinus* |

## 11. Yuchi Township, Nantou County

| *Abscondita cerata*, *Abscondita chinensis*, *Aquatica ficta*, *Pyrocoelia praetexta*,  
*Diaphanes citrinus*, and *Curtos sauteri* |

## 12. Aowanda National Forest Recreation Area

| *Pyrocoelia praetexta* |

## 13. Huisun Forest Station

| *Abscondita cerata*, *Luciola filiformis*, *Luciola curthorax*, *Diaphanes citrinus*,  
*Pyrocoelia praetexta*, and *Diaphanes formosus* |

## 14. Dongshi Forest Garden

| *Abscondita cerata*, *Abscondita chinensis*, and *Pyrocoelia praetexta* |

## 15. Dasyueshan National Forest Recreation Area

| *Pyrocoelia praetexta*, species of the genus *Curtos*, *Diaphanes lampyroides*,  
*Diaphanes nubilus*, and *Diaphanes formosus* |

## 16. Gukeng Township, Yunlin County

| *Abscondita cerata*, *Abscondita chinensis*, and *Pyrocoelia praetexta* |





## 9. Nanzhuang Township, Miaoli County

Located in the northeastern part of Miaoli County, Nanzhuang is mainly populated by Hakka and Saisiyat peoples. March and April are not just the tung blossom season, but also the time for fireflies to emerge in large numbers here. Xiangtian Lake, the Penglai River banks, and Luchang are some of the recommended places to see the fireflies.

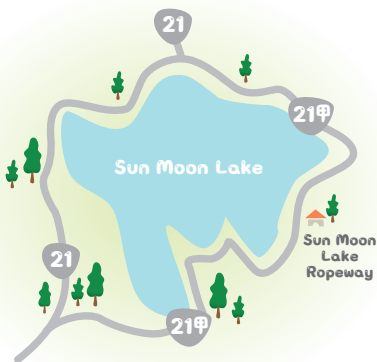
- ◆ Commonly seen: *Abscondita cerata*, *Abscondita anceyi*, *Diaphanes citrinus*, *Pyrocoelia analis*, *Pyrocoelia praetexta*, and *Lamprigera yunnana*
- ◆ Transportation: Take KuoKuang e-Bus from the Taipei Bus Station to Toufen. Transfer to a Miaoli Bus to Nanzhuang. You can also take a TRA train to Zhunan Train Station. Another choice is to take the Nanzhuang Line of the Taiwan Tourist Shuttle directly to Nanzhuang (terminal stop).



## 10. Xitou Nature Education Area

This forest recreation area is located in Lugu Township, Nantou County and is part of the Experimental Forest of the College of Bio-Resources and Agriculture, National Taiwan University. The *Abscondita cerata* can be seen in abundance from April to May each year; the *Pyrocoelia praetexta*, *Lamprigera yunnana*, and *Abscondita anceyi*, among others, are present during the transition from summer to autumn, while the *Diaphanes lampyroides* appears in winter. Fireflies can be observed by the University Pond and Conifer Specimen Arboretum, among other spots.

- ◆ Commonly seen: *Abscondita cerata*, *Abscondita anceyi*, *Pyrocoelia praetexta*, *Lamprigera yunnana*, *Diaphanes lampyroides*, and *Diaphanes citrinus*
- ◆ Transportation: Take a KuoKuang e-Bus at the Taipei Bus Station to the Nantou area. You may also take a TRA train to Taichung Train Station or THSR Taichung Station and then transfer to a bus to your destination in Nantou. You can also choose to get a bus from the Puli Bus Terminal to Qingjing, Sun Moon Lake, or Xitou. Xitou can also be reached via the Taiwan Tourist Shuttle.



## 11. Yuchi Township, Nantou County (Lotus Pond, Sun Moon Lake)

Yuchi Township is a mountainous area located in central Nantou County and comprising multiple basins. Two major spots for viewing fireflies here are Sun Moon Lake and Lotus Pond. *Abseondita cerata* and *Curtos sauteri* fireflies can be seen under the trees by Sun Moon Lake's lakeside trails every spring and summer. *Abseondita cerata*, *Diaphanes citrinus*, *Pyrocoelia praetexta*, and *Aquatica ficta* are some of the fireflies that can be seen in summer and autumn at Lotus Pond.

- ◆ Commonly seen: *Abseondita cerata*, *Abseondita chinensis*, *Aquatica ficta*, *Pyrocoelia praetexta*, *Diaphanes citrinus*, and *Curtos sauteri*
- ◆ Transportation: Take a TRA train to Taichung Train Station or a THSR train to THSR Taichung Station, and transfer to a bus. You can also take a Taiwan Tourist Shuttle bus to Sun Moon Lake.



## 12. Aowanda National Forest Recreation Area

The Aowanda National Forest Recreation Area is located in the valley where the Wanda South River and the Wanda North River meet in Ren'ai Township, Nantou County. Autumn is the ideal firefly season in Aowanda. The main firefly species here is the *Pyrocoelia praetexta*, of which both the adults and larvae can be seen flickering among the grass along the trails.

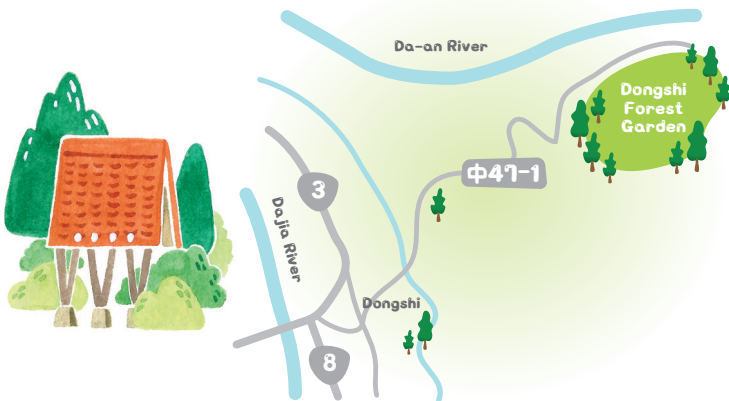
- ◆ Commonly seen: *Pyrocoelia praetexta*
- ◆ Transportation: Take a KuoKuang e-Bus to Puli Station. Transfer to a Nantou Bus to the Wanda Stop, then walk 11 km to the Aowanda National Forest Recreation Area. You can also take a TRA train to Taichung Train Station or Nantou Train Station and transfer to a Nantou Bus going to Puli and get off at the Aowanda National Forest Recreation Area stop.



### 13. Huisun Forest Station

A wide variety of fireflies can be seen at the Huisun Forest Station starting in spring: there are the *Abscondita cerata* from March to April, *Luciola filiformis*, *Luciola curtithorax*, and *Diaphanes citrinus* in summer, and *Pyrocoelia praetexta*, *Diaphanes formosus*, and more in autumn.

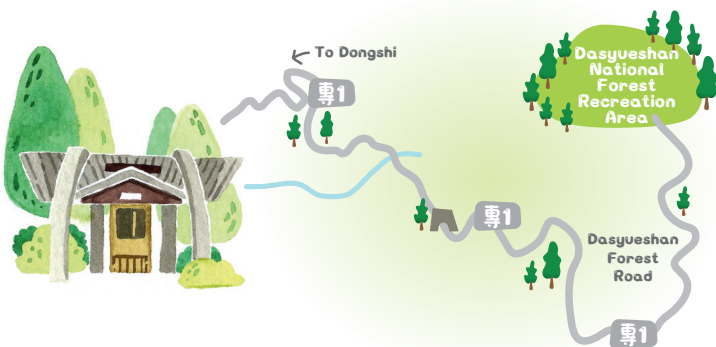
- ◆ Commonly seen: *Abscondita cerata*, *Luciola filiformis*, *Luciola curtithorax*, *Diaphanes citrinus*, *Pyrocoelia praetexta*, and *Diaphanes formosus*
- ◆ Transportation: Take a THSR train to THSR Taichung Station and transfer to a Nantou Bus going to Puli Bus Terminal; there, catch a shuttle bus to Huisun Forest Station. Or you may take a Nantou Bus from Taichung Bus Station (Gancheng Station).



### 14. Dongshi Forest Garden

Different species of fireflies can be seen in the spring and summer-autumn seasons: *Abscondita cerata* are active from March to April, when groups of this species appear by the firefly trails and roads in the Garden, while larger species like the *Pyrocoelia praetexta* emerge in summer and autumn.

- ◆ Commonly seen: *Abscondita cerata*, *Abscondita chinensis*, and *Pyrocoelia praetexta*
- ◆ Transportation: Take a TRA train to Fengyuan Train Station and switch to a No. 209 Fengyuan Bus to the Station.



## 15. Dasyueshan National Forest Recreation Area

The Dasyueshan National Forest Recreation Area is located in Hoping District of Taichung City on the rear part of the main southwest ridge of the Xueshan Range. Every year starting in April, fireflies of the genus *Curtos* can be seen flickering the blue-green lights from the 20k to 32k marks of the Dasyueshan Forest Road. Other species such as the *Diaphanes lampyroides*, *Diaphanes nubilus*, and *Diaphanes formosus* appear from autumn to winter.

◆ Commonly seen: *Pyrocoelia praetexta*, species of the genus *Curtos*, *Diaphanes lampyroides*, *Diaphanes nubilus*, and *Diaphanes formosus*

◆ Transportation: Take a TRA train to Taichung Train Station and transfer to a Fengyuan Bus (for Dongshi). At the Dongshi Stop, catch another Fengyuan Bus (for the Dasyueshan Forest Recreation Area) and get off at Dasyueshan Stop.



## 16. Gukeng Township, Yunlin County

Gukeng Township, located in northern Yunlin County, is home to the Caoling and Shibi scenic areas which are ideal for watching fireflies. Spring and summer are firefly season in this area, with *Abscondita cerata*, *Luciola satoi*, and *Abscondita anceyi* appearing around April to May, and *Diaphanes citrinus* and *Pyrocoelia praetexta*, among other species, emerging after mid-summer.

◆ Commonly seen: *Abscondita cerata*, *Abscondita chinensis*, and *Pyrocoelia praetexta*

◆ Transportation: Take a TRA train to Douliu Train Station and transfer to a Solar Bus to Caoling and Shibi.

Yunlin County



18

17



19

Chiayi County



20

Tainan City



21



22



Kaohsiung City

Pingtung County

Taitung County

## 17. Alishan National Scenic Area, around Fenqihu

| *Diaphanes lampyroides*, *Abscondita cerata*, *Curtos obscuricolor*, *Pyrocoelia praetexta*, and *Diaphanes nubilus* |

## 18. Ruili Scenic Area

| *Abscondita cerata*, *Abscondita anceyi*, *Abscondita chinensis*, *Luciola kagiana*, and *Pyrocoelia praetexta* |

## 19. Guanziling Scenic Area

| *Abscondita cerata*, *Abscondita chinensis*, *Luciola satoi*, *Lamprigera yunnana*, *Luciola kagiana*, *Luciola filiformis*, and *Abscondita anceyi* |

## 20. Meiling Scenic Area

| *Abscondita cerata*, *Luciola kagiana*, *Abscondita anceyi*, *Abscondita chinensis*, *Pyrocoelia praetexta*, *Pyrocoelia analis*, *Pyrocoelia formosana*, *Lychnuris formosana*, *Lamprigera yunnana*, *Stenocladus bicoloripes*, *Curtos*, *Luciola filiformis*, and *Luciola curtithorax* |

## 21. Meinong District, Kaohsiung City

| *Abscondita anceyi*, *Abscondita cerata*, and *Luciola kagiana* |

## 22. Maolin National Scenic Area

| *Abscondita cerata*, *Luciola kagiana*, *Luciola satoi*, *Abscondita anceyi*, *Curtos sauteri*, and *Pyrocoelia praetexta* |

## 23. Shuangliu National Forest Recreation Area

| *Abscondita cerata*, *Luciola kagiana*, *Abscondita anceyi*, *Lamprigera yunnana*, and *Pyrocoelia praetexta* |

## 24. Kenting National Park and Hengchun Peninsula

| *Abscondita chinensis*, *Curtos impolitus*, *Luciola satoi*, and *Pyrocoelia analis* |



23



24



Firefly Viewing in Southern Taiwan



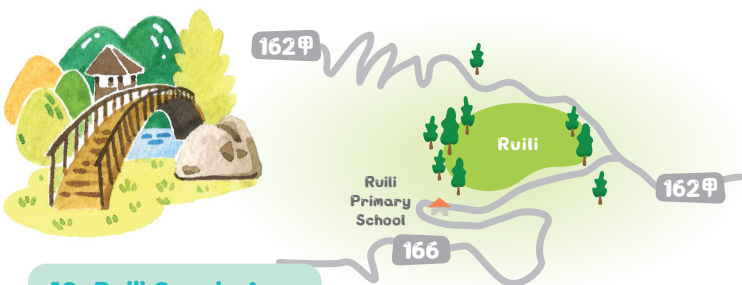




## 17. Alishan National Scenic Area, around Fenqihu

Fenqihu-- “Dustpan Lake”-- is named for the shape of its terrain. Each year, a vast number of *Diaphanes lampyroides* appear from October to December, when swarms of these fireflies are seen everywhere. *Abcondita cerata*, *Curtos obscuricolor*, and *Pyrocoelia praetexta* can be observed from spring to autumn. In addition, the Alishan National Scenic Area is accessible from Fenqihu via the No. 18 Provincial Highway. Lush, precious primeval hinoki cypress forest grows on Alishan; as this is a high-elevation area, the dominant firefly species are winter-active ones like the *Diaphanes lampyroides* and *Diaphanes nubilus*.

- ◆ Commonly seen: *Diaphanes lampyroides*, *Abcondita cerata*, *Curtos obscuricolor*, *Pyrocoelia praetexta*, and *Diaphanes nubilus*
- ◆ Transportation: Take KuoKuang e-Bus to Chiayi Station then transfer to a bus for Alishan Station, or you may choose to catch a bus for Shihjhuo-Fengchihu, Alishan, or Dabang at Chiayi Bus Station. You may also take a THSR train to Chiayi and catch an Alishan Line bus of the Taiwan Tourist Shuttle at THSR Chiayi Station.



## 18. Ruili Scenic Area

Primeval forests of Ruili Scenic Area occupying large proportions of the area along with humid climate conditions contribute to an ideal environment for firefly reproduction, resulting in large populations which make this area a popular spot for firefly-watching in southern Taiwan. From early spring to late autumn, fireflies can be seen everywhere by the trails and under the trees. On top of that, *Abcondita cerata* appear in large groups from March to May, attracting grownups and children alike to observe the fireflies as well as the stars.

- ◆ Commonly seen: *Abcondita cerata*, *Abcondita anceyi*, *Abcondita chinensis*, *Luciola kagiana*, and *Pyrocoelia praetexta*
- ◆ Transportation: Take a Ruifeng-bound bus at Chiayi Bus Station. The bus passes through Meishan and Taiping before arriving at Ruili.

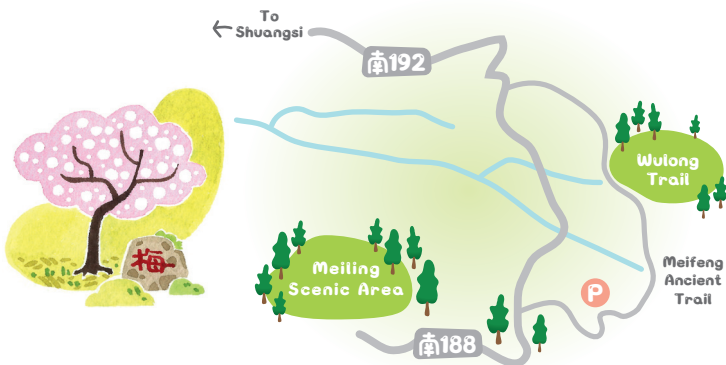


## 19. Guanziling Scenic Area

Located in eastern Baihe, Tainan City, the Guanziling Scenic Area is embraced by mountains and famous for hot springs. Because the surrounding mountains and forests are able to remain primeval with little human intervention, fireflies can be seen in abundance in the area.

◆Commonly seen: *Abscondita cerata*, *Abscondita chinensis*, *Luciola satoi*, *Lamprigera yunnana*, *Luciola kagiana*, *Luciola filiformis*, and *Abscondita anceyi*

◆Transportation: Take a TRA train to Xinying Train Station. Transfer to a Yellow Line bus and get off at Baihe Stop. Catch a Yellow 12 or Yellow 13 bus to the Baoquan Bridge, Haohanpo or Guanziling stop. You may also take Chiayi Bus No. 7214 (Chiayi-Guanziling) at Chiayi Train Station and get off at the Guanziling, Fungo House, or Lingding Park stop. Another way to go is by taking the Wusanto-Guanziling Line of the Taiwan Tourist Shuttle at Xinying Bus Station.

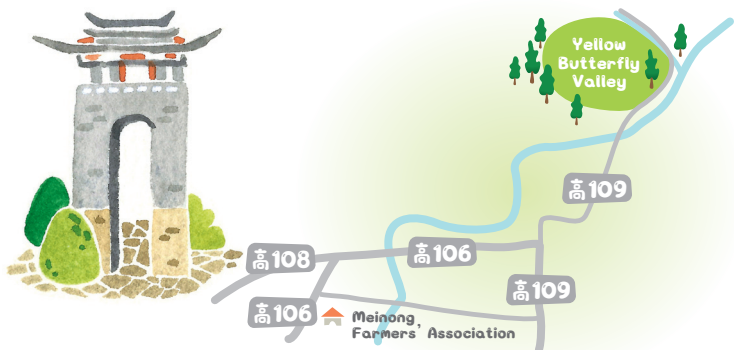


## 20. Meiling Scenic Area

The firefly season of Meiling lasts from April to June, with *Abscondita cerata* being the majority species and Chushuikeng on the Wulong Trail being the hot observation site.

◆Commonly seen: 13 species including *Abscondita cerata*, *Luciola kagiana*, *Abscondita anceyi*, *Abscondita chinensis*, *Pyrocoelia praetexta*, *Pyrocoelia analis*, *Pyrocoelia formosana*, *Lychnuris formosana*, *Lamprigera yunnana*, *Stenocladus bicoloripes*, *Curtos*, *Luciola filiformis*, and *Luciola curtithorax*

◆Transportation: Public transport gets you only as far as the Meiling Information Center Stop: Take a TRA train to Tainan Train Station, then catch a Green Line bus to the Yujing Stop. You can also take an Orange Line bus from Shanhua Train Station to the Yujing Stop, transfer to a Green 22 bus, and get off at the Meiling Stop. Follow the signs once you alight and walk to your destination.



## 21. Meinong District, Kaohsiung City

Meinong is ideal for getting close to animals and nature, with the Yellow Butterfly Valley being a must-visit location for ecology observers. The firefly season lasts from March to September, and *Absccondita anceyi*, *Absccondita cerata*, and *Luciola kagiana* are the majority species seen here.

- ◆ Commonly seen: *Absccondita anceyi*, *Absccondita cerata*, and *Luciola kagiana*
- ◆ Transportation: Take a THSR train to THSR Zuoying Station and transfer to a "THRS Zuoying Station-Qishan South-Meinong" express bus. You can also take a TRA train to Kaohsiung Train Station (Kaohsiung Bus, Kaohsiung Stop) and catch Kaohsiung Bus No. 8028 to Yellow Butterfly Valley.



## 22. Maolin National Scenic Area

The Maolin National Scenic Area encompasses important butterfly valleys for the winter migration of Purple Crow Butterflies (*Euploea tulliolus*), an event that attracts domestic as well as foreign butterfly lovers. Besides butterflies, fireflies are abundant here, with swarms of *Absccondita cerata* appearing in Maolin Valley starting in April. Magnificent species can be seen in the Colored Butterfly Valley in Liugui.

- ◆ Commonly seen: *Absccondita cerata*, *Luciola kagiana*, *Luciola satoi*, *Absccondita anceyi*, *Curtos sauteri*, and *Pyrocoelia praetexta*
- ◆ Transportation: Take a THSR train to THSR Zuoying Station and catch bus No. 8025 (Kaohsiung-Liugui) to Xinwei Elementary School. There, catch the Xinwei Elementary School-Maolin bus to reach your destination. You can also use the North Pingtung Route of the Taiwan Tourist Shuttle service.



## 23. Shuangliu National Forest Recreation Area

Located by the Southern Cross-Island Highway, this area of tropical monsoon climate features creeks, waterfalls, and plant diversity enhanced by lush primeval woods. The dark, humid conditions under the trees make this an ideal hideout for fireflies and small animals. Many species of fireflies can be seen here from March to October, with *Abscondita cerata*, *Luciola kagiana*, *Abscondita anceyi*, and *Lamprigera yunnana* being the most common. October is the peak of activity for the *Pyrocoelia praetexta*, the males of which can be seen flying in swarms along the river valley.

◆ Commonly seen: *Abscondita cerata*, *Luciola kagiana*, *Abscondita anceyi*, *Lamprigera yunnana*, and *Pyrocoelia praetexta*

◆ Transportation: Take a TRA train to Kaohsiung Train Station. From the South Exit catch a bus for Taitung, or take a bus on the Taitung-Fenggang line, get off at Shuangliu Stop, and take a brief walk to the destination.



## 24. Kenting National Park and Hengchun Peninsula

Kenting National Park is one of Taiwan's top tourist attractions with rich natural wonders and convenient transportation, it welcome millions of visitors each year. The fireflies here are different from those seen elsewhere, with *Abscondita chinensis* being in the majority around Sheding Village, and *Abscondita anceyi* and *Lamprigera yunnana* appearing occasionally.

◆ Commonly seen: *Abscondita chinensis*, *Curtos impolitus*, *Luciola satoi*, and *Pyrocoelia analis*

◆ Transportation: Take a TRA train to Kaohsiung Train Station, then transfer onto a bus (codeshare service by iBus, Kaohsiung Bus, Pingtung Bus, and KuoKuang e-Bus) directly to Kenting. You can also take a THSR train to THSR Zuoying Station, where express buses to Kenting are available.

Yilan County

Taichung City



25

26



Nantou County

### 25. Taroko National Park

| *Abscondita cerata*, *Luciola kagiana*,  
*Pyrocoelia praetexta*, and *Lamprigera yunnana* |

### 26. Liyu Lake

| *Abscondita cerata*, *Luciola kagiana*, *Luciola satoi*,  
*Abscondita anceyi*, and *Curtos impolitus* |

### 27. Jhihben(Zhiben) National Forest Recreation Area

| *Abscondita chinensis*, *Abscondita cerata*, *Aquatica hydrophila*,  
*Lamprigera yunnana*, and *Diaphanes citrinus* |

Hualien County

### 28. Green Island (Ludao)

| *Curtos costipennis* and *Curtos fulvocapitalis* |

Taitung County



27



28



29



30

### 29. Kinmen

| *Pyrocoelia analis* and *Sclerotia substriata* |

### 30. The Matsu Islands

| *Pyrocoelia analis*, *Rhagophthalmus beigansis*, and *Rhagophthalmus giallolateralis* |



## Firefly Viewing in Eastern Taiwan and on Offshore Islands





## 25. Taroko National Park

Within Taroko National Park, both Buluowan and Mysterious Valley Trail (Shakadang Trail) are ideal for watching fireflies. These two spots are accessible via the Provincial Highway No. 8 (Central Cross-Island Highway) from Xiulin Township, Hualien County; as the Shakadang Trail is a mountain track and quite uneven, visitors are advised to look out for their safety.

- ◆ Commonly seen: *Abscondita cerata*, *Luciola kagiana*, *Pyrocoelia praetexta*, and *Lamprigera yunnana*
- ◆ Transportation: Take a TRA train to Hualien Train Station or Xincheng Train Station. At Hualien Train Station, catch a Hualien Bus to Taroko or Chongde, or take the Taroko Line of the Taiwan Tourist Shuttle. At Xincheng Train Station (Taroko), exit and walk to Xingtian Bus Stop to catch a bus for the park.



## 26. Liyu Lake

Liyu Lake is located in Shoufeng Township, Hualien County and is managed by the East Rift Valley National Scenic Area Administration. Biodiversity is high in the surrounding areas, thanks to the temperate environment and clean waters. Fireflies can be seen along the road encircling the lake every spring to autumn, with *Abscondita cerata* outbreaks occurring around April to May.

- ◆ Commonly seen: *Abscondita cerata*, *Luciola kagiana*, *Luciola satoi*, *Abscondita anceyi*, and *Curtus impolitus*
- ◆ Transportation: Take a TRA train to Hualien Train Station and catch a bus on the Hualien Bus line that goes to Shoufeng and Chinan. Get off at the Liyu Lake Stop.



## 27. Jhiben(Zhiben) National Forest Recreation Area

Every year starting in April and May, *Abscondita cerata* and *Abscondita chinensis* fireflies can be seen flying in groups by the trails, whereas other species like *Aquatica hydrophila*, *Lamprigera yunnana*, and *Diaphanes citrinus* appear around summer to autumn.

- ◆ Commonly seen: *Abscondita chinensis*, *Abscondita cerata*, *Aquatica hydrophila*, *Lamprigera yunnana*, and *Diaphanes citrinus*
- ◆ Transportation: Take a TRA train to Taitung Train Station or Zhiben Train Station and transfer to the Mountain Line of the Diing Dong Bus. Get off at Hot Springs Stop and walk straight ahead for 300 meters.



## 28. Green Island (Ludao)

Fireflies can be seen in swarms here in April, with the section of round-the-island road near Guanyin Cave being the main observation place. Since there is no road lighting, the absence of light pollution means that the nighttime mating of the fireflies goes undisturbed.

- ◆ Commonly seen: *Curtos costipennis* and *Curtos fulvocapitalis*
- ◆ Transportation: Take a domestic flight from Taitung Airport or take a ferry from Taitung Fugang Fishery Harbor or Kenting's Houbiu Pier to the island.



## 29. Kinmen

Two major species of fireflies in Kinmen are the ubiquitous *Pyrocoelia analis*, which can be observed throughout the year, and the unique aquatic firefly *Sclerotia substriata*, appearing mainly along the waterways of Kinmen. Although salt water and fresh water meet and mix in the waterways, *Sclerotia substriata* are at home there as they are able to adapt to salt, and the primeval vegetation provides a habitat for their larvae.

◆ Commonly seen: *Pyrocoelia analis* and *Sclerotia substriata*

◆ Transportation: Kinmen Airport is connected by domestic flights from several airports on Taiwan. Three airlines (UNI Air, Far Eastern Air Transport, and Mandarin Airlines) serve Kinmen from Taipei, Taichung, Chiayi, Tainan and Kaohsiung.



## 30. The Matsu Islands

The Matsu Islands are the northernmost islands of Taiwan. Besides *Pyrocoelia analis*, which can be observed throughout the whole year here, two extraordinary luminescent beetles that do not belong to the Lampyridae Family are also present: the *Rhagophthalmus beigansis* and *Rhagophthalmus giallolateralus*. These belong to the Rhagophthalmidae Family, and their apterous and larviform females crawl up and glow on branches as they wait for males to fly in and mate. Females of the Rhagophthalmidae Family stay to protect their eggs and glow green as an alarm. After hatching, the larvae feed mainly on millipedes.

◆ Commonly seen: *Pyrocoelia analis*, *Rhagophthalmus beigansis* (April to May), and *Rhagophthalmus giallolateralus* (February to April)

◆ Transportation: Take a domestic flight from Taipei Songshan Airport to Matsu. You can also use ferry service from Keelung Port.



# 9 Rules for Firefly Watching

Fireflies prefer being in a natural environment without or with minimal disturbances. In such areas, fireflies, as well as other animals, gather in great numbers. As opportunities of firefly viewing increase, we sincerely hope that all visitors respect the two "Do Nots" when watching fireflies.

## Do Not Disturb

- 1 Do not startle snakes. When you encounter a snake, please do not panic. Be calm and retreat or wait patiently until it passes by. Never attack or harm snakes.
- 2 Fireflies are beautiful, but please refrain from using flash when taking photos.
- 3 Wear light, long pants and long-sleeve tops that are easy on body movement. Avoid the use of perfume and clothing with bright colors.
- 4 Keep your movements light and your noise down.
- 5 Do not catch or interfere with fireflies. Removal from their natural habitat means an acceleration of their death.
- 6 Please follow the instructions of the guide and park regulations.

## Do Not Damage

- 7 Keep off the soil and firefly habitats. Do not damage the natural environment.
- 8 Do not break off any plants and do not interfere with wild animals.
- 9 Remove your own trash to keep the environment clean and beautiful.



# Taiwan

THE HEART OF ASIA

## Tourism Bureau

24hr. Tourist Hotline: 0800-011-765

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URL: <http://taiwan.net.tw> e-mail: [tbroc@tbroc.gov.tw](mailto:tbroc@tbroc.gov.tw)

### Travel Information Service Center

240 Dunhua N. Rd., Taipei

TEL: 0800-011-765

FAX: (02)8712-9173

### Taichung Travel Section

1F, 95 Gancheng St., Nantun Dist., Taichung

TEL: (04)2254-0809, 0800-422-022

FAX: (04)2254-5485

### Tainan Travel Section

10F, 243 Mingyuan Rd., Sec.1, Tainan

TEL: (06)226-5681, 0800-611-011

FAX: (06)226-4905

### Kaohsiung Travel Section

5F-1, 235 Zhongzheng 4th Rd., Kaohsiung

TEL: (07)281-1513, 0800-711-765

FAX: (07)281-4660

### Taiwan Taoyuan International Airport

Tourist Service Center

Terminal 1: (03)398-2194

Terminal 2: (03)398-3341

TEL: (03)398-2956

FAX: (03)383-4250

### Kaohsiung International Airport

Tourist Service Center

TEL: (07)805-7888

FAX: (07)802-7053

### National Scenic Areas

#### Northeast and Yilan Coast National Scenic Area Administration

36 Xinglong St., Fulong Village, Gongliao District, New Taipei City

TEL: (02)2499-1115

URL: <http://www.necoast-nsa.gov.tw>

#### North Coast and Guanyinshan National Scenic Area Administration

33-6 Xinyuankeng, Demao Village, Shimen District, New Taipei City

TEL: (02)8635-5100

URL: <http://www.northguan-nsa.gov.tw>

#### Tri-Mountain National Scenic Area Administration

738 Zhongzheng Rd., Wufeng District, Taichung City

TEL: (04)2331-2678

URL: <http://www.trimt-nsa.gov.tw>

#### Sun Moon Lake National Scenic Area Administration

599 Zhongshan Rd., Shuishe Village, Yuchi Township, Nantou County

TEL: (049)285-5668

URL: <http://www.sunmoonlake.gov.tw>

#### Alihail National Scenic Area Administration

51 Checheng, Chukou Village, Fanlu Township, Chiayi County

TEL: (05)259-3900

URL: <http://www.ali-nsa.net>

#### Southwest Coast National Scenic Area Administration

119 Jiucheng, Beimen Village, Beimen District, Tainan City

TEL: (06)786-1000

URL: <http://swcoast-nsa.travel/>

#### Siraya National Scenic Area Administration

1-1 Xiancao, Xiancao Village, Baihe District, Tainan City

TEL: (06)684-0307

URL: <http://www.siraya-nsa.gov.tw>

#### Maolin National Scenic Area Administration

120 Lane Saijia, Saijia Village, Sandimen Township, Pingtung County

TEL: 0800-600-766

URL: <http://www.maolin-nsa.gov.tw>

#### Dapeng Bay National Scenic Area Administration

169 Datain Rd., Dapeng Village, Donggang Township, Pingtung County

TEL: (08)833-8100

URL: <http://www.dbsa.gov.tw/>

#### East Coast National Scenic Area Administration

25 Xincun Rd., Xinyi Village, Chenggong Township, Taitung County

TEL: (089)841-520

URL: <http://www.eastcoast-nsa.gov.tw>

#### East Rift Valley National Scenic Area Administration

168 Xinghe Rd., Sec. 2, Hegong Village, Ruisui Township, Hualien County

TEL: 0800-000-115

URL: <http://www.erv-nsa.gov.tw>

#### Penghu National Scenic Area Administration

171 Guanghua Village, Magong City, Penghu County

TEL: (06)921-6521

URL: <http://www.penghu-nsa.gov.tw>

#### Matzu National Scenic Area

95-1 Renai Village, Nangan Township, Lienchiang County

TEL: (0836)256-31

URL: <http://www.matsu-nsa.gov.tw>

### Useful Telephone Numbers

- A Police 110
- B Emergency 119
- C Chinese Directory 104
- D English Directory 106
- E Foreign Affairs Police (02)2321-3175
- F 24hr. Tourist Hot line 0800-011-765



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### Firefly Watching in Taiwan

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## 1. *Abscondita chinensis*

Lampyridae | Abscondita

T JUN-AUG



Taiwan endemic species

## 2. *Abscondita cerata*

Lampyridae | Abscondita

T MAR-JUN



Conservation of wild animals

## 3. *Pristolytus kanoi*

Diurnal

Lampyridae | Pristolytus

A/T MAR-JUN

Shimmer



## 4. *Pyrocoelia analis*

Lampyridae | Pyrocoelia

T MAR-NOV



## 5. *Pyrocoelia formosana*

Diurnal

Lampyridae | Pyrocoelia

T MAR-JUN

Shimmer



## 6. *Abscondita anceyi*

Nocturnality

Lampyridae | Abscondita

T APR-JUN



## 7. *Aquatica ficta*

Lampyridae | Aquatica

A MAR-MAY/SEP-OCT



## 8. *Luciola kagiana*

Lampyridae | *Luciola*

T APR-JUN



## 9. *Luciola curtithorax*

Lampyridae | *Luciola*

T MAY-JUL



## 10. *Aquatica hydrophila*

Lampyridae | *Aquatica*

A MAR-MAY



## 11. *Sclerotia substriata*

Lampyridae | *Sclerotia*

A APR-OCT



## 12. *Diaphanes formosus*

Lampyridae | *Diaphanes*

T SEP-OCT



## 13. *Curtos sauteri*

Lampyridae | *Curtos*

T MAR-OCT



## 14. *Curtos obscuricolor*

Lampyridae | *Curtos*

T APR-JUL



Taiwan endemic species



## 15. *Drilaster olivieri*

Diurnal

Lampyridae | Drilaster

T APR-JUN Not glowing



Taiwan endemic species



## 16. *Rhagophthalmus beigansis*

Rhagophthalmidae | Rhagophthalmus

T APR-JUN



Taiwan endemic species



## 17. *Rhagophthalmus giallolateralus*

Rhagophthalmidae | Rhagophthalmus

T MAR-MAY



Taiwan endemic species



## 18. *Luciola satoi*

Lampyridae | Luciola

T APR-JUN



## 19. *Luciola filiformis*

Lampyridae | Luciola

T APR-JUL



## 20. *Curtos impolitus*

Lampyridae | Curtos

T MAY-SEP



## 21. *Pyrocoelia praetexta*

Lampyridae | Pyrocoelia

T SEP-NOV



## 22. *Diaphanes lampyroides*

Lampyridae | Diaphanes

T OCT-DEC



## 23. *Diaphanes niveus*

Lampyridae | Diaphanes

T OCT-DEC



## 24. *Diaphanes nubilus*

Lampyridae | Diaphanes

T NOV-MAR(The following year)



## 25. *Lamprigera yunnana*

Lampyridae | Lamprigera

T OCT-DEC



## 26. *Diaphanes citrinus*

Lampyridae | Diaphanes

T SEP-OCT



### Illustration Table

**Habitual:** T Terrestrial A Aquatic A/T Aquatic/terrestrial

**Emergence period:** JAN-DEC

**Color:** Green Yellow-green Orange Yellow-Orange

**Habitat type:** Grassland Pond Farmland Paddy fields Flat ground Stream Mountain stream Forest edge Forest

**Region:** N Northern C Central S Southern E Eastern I Islands