

## **Basking Sites to help the cold-blooded creatures**

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In the summer months we may enjoy finding a great basking site to soak up the warmth of the sunshine. But in these colder winter months, the last thing on our minds is probably finding a nice place to lie out in the sun. In contrast to humans, many species of wildlife require basking sites especially in the winter months. For them, a basking site is simply a warm sunny spot where they can raise their body temperature before venturing out for the day.

Many species of wildlife are unable to control their body temperatures. These animals are commonly referred to as "cold-blooded" species. With a few exceptions, all mammals and birds are warm-blooded, and all reptiles, insects, arachnids, amphibians and fish are cold-blooded, which means that their body temperature is controlled by their surroundings. They are most active when the temperatures are warm and move slower as the temperatures drop in the evening and early morning hours. In northern climates, these animals hibernate or migrate to avoid the harsh winter temperatures.

Warm-blooded animals usually keep the inside of their bodies at a constant temperature. They do this by generating their own heat when they are in a cooler environment, and by cooling themselves when they are in a warmer environment. To generate heat, warm-blooded animals convert the food that they eat into energy. They have to eat a lot of food, compared with cold-blooded animals, to maintain a constant body temperature. Only a small amount of the food that a warm-blooded animal eats is converted into body mass. The rest is used to fuel a constant body temperature.

In contrast, cold-blooded creatures take on the temperature of their surroundings. In hot environments, cold-blooded animals may have blood that is actually warmer than warm-blooded animals. Cold-blooded animals are much more active in warm environments and are very sluggish in cold environments. This is because their muscle activity depends on chemical reactions which run quickly when it is hot and slowly when it is cold. A cold-blooded animal can convert much more of its food into body mass compared with a warm-blooded animal.

Because of the need to boost their metabolism, cold-blooded creatures enjoy basking in the sun. While basking, most reptiles will lie perpendicular to the direction of the sun to obtain the maximum amount of sunlight falling on their skin. They also have the ability to expand their rib cage to increase their surface area and will darken their skin to absorb more heat. Honeybees stay warm by crowding together and moving their wings to generate heat.

Butterflies are cold blooded and move very slowly when the temperatures are low. They tend to be active on sunny days and inactive when it is cloudy. Butterflies can fly as long as the air temperature is between 60°-108° F, although temperatures between 82°-100° F are best. In the early morning and on cool days, butterflies often can be seen with their wings open soaking up the heat. They must increase their body temperature before they are capable of strong flight. A light-colored rock or garden ornament placed to catch the early morning sun can be used as a site for butterflies to perch on while waiting for their body temperatures to rise.

Dragonflies are another type of creature that requires the sunshine to warm up. Some dragonflies have dark patches on their wings. This helps them warm up quickly in the sun because dark bodies warm up more quickly than pale bodies. Dragonflies, bees and butterflies will also shiver in an attempt to warm up.

Another creature that needs basking sites is the Red-eared Slider Turtle. An aquatic turtle and strong swimmer, it is commonly seen basking on rocks and logs near the water. These creatures need external heat sources to warm up and will bask in the sunlight for hours each day. They will also burrow down into the earth and hibernate in the winter months.

Basking sites do not need to be elaborate. In the garden, the basking site can be a few rocks that warm quickly in the morning sun. In addition to providing a spot for animals to warm their bodies, a small pile of rocks also can provide shelter from predators. In a garden pond, a rock or a log can provide a basking site for frogs and turtles.

In addition to serving as basking sites, rocks, old logs, and small brush piles can benefit other wildlife. Rocks and logs placed in shade can provide relief and shelter from the mid-day heat of summer. Many species also seek winter shelter in rock piles, old logs, and brush piles. The common Ladybug Beetle is one insect that will congregate by the thousands under rocks, bark, and even leaves to overwinter in northern climates.

When planning your backyard habitat, be sure to include a few basking sites for those cold-blooded creatures. Rocks and logs not only provide needed habitat for wildlife, but can be used to create interest and diversity of texture in your garden.