



Apollo butterfly

Parnassius apollo

The lovely Apollo is the largest butterfly of its genus in Europe. Although the great variability of its wing patterns has made the Apollo a long-time favourite of collectors, it has suffered more from the disappearance and degradation of its preferred habitat – the same dry, sunny mountain slopes coveted by skiers, wine-growers and developers.

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Where to look: The Apollo is found primarily, but not exclusively, between 700m and the tree line (about 1800m). Its ideal habitat is a dry, sunny mountain slope with boulders and adjacent meadows containing a variety of wildflowers.

What to look for: Adult butterflies can be seen from May through September. They are whitish, with black spots on their forewings and two large red ocelli on each hindwing. Females can reach 10 cm in length; males are lighter and smaller than the females, have smaller black markings and are covered with greyish-white hair. The female ports a keel-shaped appendage, called a sphragis, which consists of chitinous material secreted by the male during mating. She flies less often than the male, and can live for more than three weeks – during which time she can lay up to 150 eggs, if she is sufficiently nourished.

Caterpillars hatch from the eggs in spring. They are ivory black with red-orange spots down each side. They prefer to feed in the sunshine, and a favourite food is the stonecrop *Sedum album*. When attacked, the caterpillar extrudes a fork-like structure from its neck, which presumably releases an unpleasant smell. After about a month it finds a protected place on the ground to pupate, and spins its cocoon. In another couple of days, it is transformed into a dark brown chrysalis, seemingly covered with a blueish-white powder. Several weeks later, the butterfly emerges, climbs into the vegetation and dries its wings in the sunshine.

Threats: Today most butterfly collectors are aware of the need to protect the species; however, small, isolated populations in accessible locations could still be in danger.

A major threat is the disappearance of the butterfly's preferred habitat. Over the last couple of decades, a great deal of nutrient-poor and "nonproductive" land has been planted with trees, or naturally colonized by woody vegetation. Many open meadows have been turned over to developing tourist accommodations. In some regions expanding agriculture has bombarded prime butterfly habitat with pesticides and fertilizers; wine-growers in particular have encroached upon sunny, well-drained slopes.

What we can do:

Protect butterfly habitat. If the Apollo is to be saved, we must protect what remains of its rapidly disappearing habitat.

Enforce current laws. The Apollo is protected by law in many parts of Europe. But even the best laws must be rigorously enforced to be effective.

Increase public awareness. We should try to make everyone aware of the protected status of this beautiful representative of the Alpine fauna.

Based on material provided by Dr Jürg Schmid, Ilanz, Switzerland.