

NATURE'S PALETTE

The Torgnon area offers an opportunity to study a **suggestive expression of nature**. In autumn, the season that is generally associated with plants taking a rest, the crowns of certain trees acquire new life with magnificent colours. Hence, you will step into the autumn atmosphere.

Foliage is the phenomenon by which the leaves of certain species of trees change their colour before falling and allowing the tree to enter vegetative rest for the whole of winter. This only occurs in deciduous plants, which lose their leaves, and not in evergreens, such as spruce and pine, whose needle-shaped leaves remain in place all year round as a result of a gradual change that never leaves the tree deprived of its crown.

The **colour of leaves** depends on certain natural substances they contain, precisely **pigments**, such as chlorophyll, which conveys the green hue, carotene, which produces yellow and orange shades, and anthocyanin, which endows leaves with a red nuance.

The temperature drops in **autumn**, and the hours of light too diminish. This causes the leaves to produce less chlorophyll that conceals other pigments. At this point the carotene pigments surface, colouring the leaves with shades of yellow and orange. In late autumn, when nights get colder, the flow of nutrients to the leaves is interrupted and the production of anthocyanins increases, conveying the red hue.

The capacity of the plants to adapt to seasonal changes is related to their **life cycle** that leads them to perform the main phenological phases over the year. In evergreen plants, such as trees, a vegetative period is yearly followed by a reproductive one. The reproductive phase commences with flowering, induced by the long hours of daylight we observe every day (photoperiod). The leaf is the sensitive organ of the photoperiod, and the substance that mediates the plant's biological clock is a pigment called phytochrome.

When the reproductive parts of the flower are mature, several hormones cause the petal to open in order to expose the reproductive organs to the agents of pollination. After fecundation, other hormones regulate the ripening of fruits. At the end of this phase, the plant moves towards senescence or the ageing process that manifests with the falling of fruits and leaves. This marks the beginning of a dormancy period of during which the plant slows down its metabolism to face winter. Before the leaf falls, most of its organic material is transferred to the roots to be stored there. The leaves lose chlorophyll and change colour.

Each plant differs from another in terms of the quantity of various pigments contained in the leaves. Hence, the shades and intensity of the various colours are not the same if we compare plants.

Autumn in Torgnon offers fascinating landscapes that are ideal for leaf peeping and to admire the fall foliage. Leaving summer, the most crowded season of all, behind, you will experience a personal and suggestive atmosphere with refreshing temperatures, cobalt blue skies, cows returning to the valley after a summer spent in high altitude pastures, and woods presenting a **colour progression** that will lead them to winter.