

A VEGETAL WORLD HIDDEN BY WHITE

The lands inside the Arctic Circle are often vast expanses of snow in winter and patchworks of swamp and bare rock in summer. But hidden in this landscape are hundreds of species of flora — 170 species observed in Spitsbergen and more than 500 in northern Norway) – and that doesn't include the numerous species of algae, moss, lichen and mushroom.

THE TUNDRA, A VAST COLOURED CARPET

The strong wind and the lack of nutritive elements in the soil stunt the vertical growth of most Arctic plants, so instead they grow horizontally, forming a carpet of bilberries and lichens as well as flowering plants like bog-moss, saxifrage, cotton grass, catchfly, buttercups, sedge and Arctic poppies. The only plants that grow any higher than a few centimetres off the ground are trees such as dwarf birch and Arctic willow.

SURVIVING THE LONG, DARK WINTER

Arctic plants have a number of ways to prevent the chill wind from drying them out and blasting them with ice crystals: they spread out along the ground, they grow in tight cushions and thick carpets, and they grow in the lee of rocks and in sheltered hollow spots in the ground. Some are even able to dehydrate themselves so that their "fleshier" parts do not burst when the moisture freezes.

TAKING FULL ADVANTAGE OF THE SHORT NIGHT-LESS SUMMER

Even during the Arctic summer, the ground only thaws on the surface. The deeper levels are permafrost. But the plants, being small and close to the ground, can quickly take advantage of the sun's heat reflected back by the ground. Other factors that help these plants grow and survive are: dark colouration to absorb solar energy, light-oriented leaves and flowers, and hairs to retain heat just like animal fur.