

## The comfort of the forest written in our DNA

The forest; a place that heals the bodies and minds of busy city dwellers, conferring its natural riches upon us. Our senses sharpen, bathed in the pure, foliage-scented air, and the taught feeling inside us melts away. That sensation is not just our imagination at work. We now know from research conducted by the Forestry and Forest Products Research Institute (FFPRI), that the forest fragrance emitted by trees ( $\beta$ -phellandrene) soothes tension and reduces stress.

Clean air in the forest is no hallucination either. Data from actual measurements show that the concentration of NO<sub>2</sub>(an air pollutant) is clearly lower in the forest than it is in the city.

## Better health with the healing forest. The culture of “natural remedies”

People in the West have long been aware of the healing power of the forest, incorporating it into their lives as a natural remedy. A prime example is Kneipp Therapy, which boasts a history of over 100 years in use. Underlying a variety of Kneipp programs, which use water and the forest, is the “harmony of mind and body with nature”. Public health insurance even applies to the treatment in some countries, as it has widely permeated Western nations.

Guides lead “forest bathing” tours through the Forest of Tronçais in France, and forest walking paths with the purpose of promoting good health are now in place in the UK, where they are called “fitness trails”, and Switzerland, where they are called “vita parcours”.

Conversely, the power of the forest has only entered the limelight recently in Japan. In 1982 the Ministry of Agriculture, Forestry and Fisheries proposed the “forest therapy initiative”, and forest therapy has become quite popular since. Simultaneously, research on forests has been conducted from many angles, and we now have scientific evidence proving the stress-reducing and air-purifying effects of forests.

## The Forest: A Natural Air-Purifying Filter

The forest not only heals our minds and bodies, but plays many roles in the protection of our lifestyle. The forest collects water. The forest prevents landslides. And the forest purifies our air.

Comparing the air in urban areas and in the forest, we find that the concentration of NO<sub>2</sub>, an atmospheric pollutant found in automobile exhaust, is decisively different. This is because the forest possesses a unique air purification system. The forest fragrance produced by trees ( $\beta$ -phellandrene) constantly cleans the air by binding with NO<sub>2</sub> (an air pollutant) to form larger particles, then dropping those particles to the ground. Japan, which is 70% covered in forests, could also be said to have its own natural air purification filter.

## Making a positive future with the power of the forest

Recently, in response to such societal problems as air pollution, forestry research is now conducted quite actively. However, there are still many facts left unexplained about what positive effects forest fragrance ( $\beta$ -phellandrene) has on people. As research advances further, it is expected to be of use in removing a wide variety of harmful substances, inactivating viruses, and even in anti-aging measures. The forest still hides infinite possibilities. It is indeed an irreplaceable treasure for all of humanity.