

Japan

Japan is an island country in the Far East. Though small in area, it is home to sixteen wild roses classified into twelve species, three varieties and one forma. Ten taxa belong to the sect. *Synstylae*. *R. multiflora* and *R. luciae* (syn.= *R. wichurana*) are distributed in China and Korea, too. A variety of *R. sambucina* is also found in Taiwan. The other seven taxa are endemic to Japan. Among the four species of the sect. *Rosa*, *R. nipponensis* is endemic. *R. acicularis* (sect. *Rosa*) is a plant of the circumpolar arctic element. It is widely distributed in the coldest parts of northern Russia,

China, Europe and America. On the other hand, *R. bracteata* (sect. *Bracteatae*) is a subtropical plant, native to Ishi-gaki Island in Japan, and to southern China and the Philippines. This is the most heat-tolerant species rose in the world. It continues to flower all through the year if the temperature is high enough.

R. hirtula (subgen. *Platyrrhodon*)

is a rare species endemic to Japan, a fitting choice to have the honour of closing this travelogue. Unlike the other roses, it grows very large and, when fully grown, becomes what might be called a tree. The largest one I have seen is as high as five metres. It bears very prickly hips and those of the three related species in China have similar features. However, the Chinese species do not grow

so large and *R. hirtula* is also distinguishable by the number of its leaflets and the presence of soft hairs on its leaves.

Though the number of species roses in Japan is just sixteen, their diversity is remarkable and interesting.

Please enjoy the details of their beauty through the unique botanical photographs on the pages of this handbook, which have been taken using the focus-stacking technique.

* The classification of subgenera and sections in this book follows the system used by A. Rehder (1940) and G. de la Roche (1978).



R. hirtula



The Handbook of Wild Roses in Japan

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Species Roses around the World

— The Introductory Chapter of the Book (pp. 2-5) —

The number of species in the genus *Rosa* is estimated to be 150 to 200. They are distributed only in the northern hemisphere, mostly in its temperate zone. Let us travel around the world in search of species roses.

China

China boasts the largest number of native rose species. According to the *Flora of China* (vol. 9, p.339), there are 95 rose species in China, 65 of them being endemic. In the Xinjiang Uighur autonomous region in north-west China, we

can see *Rosa persica* (subgenus *Hulthemia*) along “karez” (underground irrigation tunnels) in the desert. Because of its distinctive features, including simple leaves without stipules and yellow flowers with a dark red eye in the centre, this species is separated from the others and placed in the subgen. *Hulthemia*. It is found in the desert areas from Xinjiang to Iran along the Silk

Road.

South-west China, including the provinces of Sichuan and Yunnan is a paradise for species roses. *R. chinensis* var. *spontanea* and *R. gigantea* (section *Chinenses*) are the most famous as the ancestors of Chinese old garden roses.



Rosa chinensis var. *spontanea*

Their descendants were introduced to Europe in ca 1800, and gave birth to European China roses and Tea roses. *R. roxburghii* f. *normalis* (subgen. *Platyrhodon*), *R. omeiensis* (sect. *Pimpinellifoliae*), *R. moyesii* (sect. *Rosa*), and *R. banksiae*

var. *normalis* (sect. *Banksiae*) are also found in south-west China. *R. laevigata* (sect. *Laevigatae*, see p.138-140) and *R. bracteata* (sect. *Bracteatae*, see p.114-119) are native to southern China, including the provinces of Fujian and Guangdong.

Other Asian countries and Africa

On the banks of the Ayeyarwady (aka Irrawaddy) River in Myam-

mar, *R. clinophylla* (sect. *Bracteatae*) is found. It does not mind being submerged by floodwater, and gives white flowers like water lilies on the surface of the water. The Indian sub-continent, however, is a blank zone for species roses; we find just one species, *R. leschenaultiana* (sect. *Synstylae*) in southern India. A scented white rambler, *R. brunonii* (sect. *Synstylae*), found in regions around the Himalayas, is considered to be the ancestor of musk roses cultivated in western Asia and Europe.

In the western Asian countries, from Iran to Turkey, and in the northernmost region of the Caucasus Mountains, bright yellow roses, *R. foetida*

(sect. *Pimpinellifoliae*), are distributed. In Africa, the world's southernmost species, *R. abyssinica* (sect. *Synstylae*), is found in the highlands of Ethiopia.

Europe

The most common species rose in Europe is the dog rose, *R. canina* (sect. *Caninae*). Roses in the sect. *Caninae* are pentaploid, with 35 chromosomes (the base

chromosome number of *Rosa* species is seven), and their unique way of meiosis is known as the Caninae meiosis. *R. gallica* (sect. *Gallicanae*) is native to central & southern Europe. It has been used throughout history as a medicinal plant. Forms of *R. gallica* and its hybrids with other species became the ancestors of old roses in Europe. *R. spinosissima* with prickles like needles is widely seen in the UK and north-

ern Europe. Species in the sect. *Synstylae* in Europe amount to just two, *R. arvensis* and *R. sempervirens*.

North America

Some species in North America are classified into a section and a subgenus not found in the other continents. *R.*

carolina and *R. virginiana* in the eastern states look similar to the species in the sect. *Rosa*. However, because of the deciduousness of their sepals as their hips mature, they are classified into a different section: the sect. *Carolinae*. *R. stellata* and *R. minutifolia* in the subgen. *Hesperhodos* are native to the deserts in the southwest region of North America, growing alongside cacti.



R. foetida