Curator’s notes on growing cacti
part 1: soils and containers

Introduction

The cacti (family Cactaceae) are arguably one of the most popular taxonomic plant groups cultivated by specialists, alongside other collectable groups such as the orchids (Orchidaceae). Despite the popularity of cacti, the depth of specific knowledge needed to grow them successfully is rather rare among horticulturists. In the vast library of publications on the subject, many are only a repetition of earlier ones (including errors) and advocating methods that are sorely outdated. These include incorporation of too high a percentage of organic matter in soil mixes, deleterious water pH, a poor feeding regime or the use of terracotta pots. In habitat, most cacti species occupy a relatively narrow niche that includes distinctive soil and climate patterns. The key to successfully cultivating these plants is, therefore, understanding the ecological conditions in which the plants grow and how to mimic these with cultural techniques. Because it is impossible to replicate all the natural growing conditions within a glasshouse, some changes are necessary to grow them outside of their natural habitat.

At the Gibraltar Botanic Garden (GBG, Fig. 1), the study of plants in their native habitats is viewed crucial to horticultural excellence, as well as contributing to information about the ecology, distribution and taxonomy of cacti. This approach has been successfully implemented since 2013 to substantially expand and enhance the cacti and succulent collection at GBG. In this article, we summarise some of these horticultural methods, and the ecological basis of their success.

1. Succulent landscape at the Gibraltar Botanic Garden featuring Yucca rostrata, Dracaena draco and various species of cacti and Agave.