

# Plants of Oman

*Delonix elata.*



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**F**or nearly two and a half millennia *Al Jazirat Al Arabiyah* (the Island of the Arabs) has attracted botanists, naturalists and travellers from far and wide. The interest began as early as 420 BC, when frankincense was traded from Dhofar to Egypt and through to Europe. Later on botanical observations were made by Arab explorers of the 9<sup>th</sup> to the 14<sup>th</sup> centuries, noteworthy amongst them being Ash Sharif Al Idrisi (1100–1165/66), Abbas Annabati (c.1216) and Ibn Baithar (d.1248 AD), as well as Ibn Battuta (1304–1368/9), who visited the eastern coast of Oman. The only professional plant collector to visit Oman in the 19<sup>th</sup> century (in 1838) was P.R.M. Aucher-Eloy, a Frenchman, who collected over 250 species

from northern Oman of which many were new to science, and it was through his collections from Egypt to Iran, that the first account of plants of the 'Orient' was written. Aucher-Eloy wrote. '... to sum up, I have not collected more than 250 species over the whole of the Immamat of Muscat. The local people say that very shortly after the rains (which occur once or twice a year) the land is covered with flowers. In any case I am convinced that in this country, the most barren in the world, it would be difficult to find more than 500 species.' He was not far wrong from the c.600 species found in the northern mountains and foothills. In all 1206 species have been recorded so far from the Sultanate of Oman, about 800 are

*Left: Rhazya stricta.*



*Right: Calotropis procera.*

found in Dhofar and less than 200 in the central gravel desert.

The Sultanate of Oman enjoys the floristic influence of two continents: Africa and Asia. The close proximity of Africa to Arabia and Southwest Asia means that much of the flora of southern Oman is African in origin and several floral groups in northern Oman have their origins in Iran and southwest Pakistan. Separated by some 500 kilometres of desert (the central desert of Oman) these two plant entities have remained distinct by this ecological and climatic barrier, and give the country its unique floristic identity.

The predominant vegetation of southern Oman, represented by the *Commiphora-Acacia* shrubland is reminiscent of a similar type of vegetation found in northeast Africa. Species of *Commiphora* and *Acacia* are found more or less throughout Oman; the acacias, *Acacia tortilis* (Arabic: *sami*) and *Acacia ehrenbergiana* (Arabic: *salam*) extend from the foothills of the Hajar mountains to the coastal plains of Dhofar, and are believed to have spread from western Arabia through flow cut channels when the climate was wetter.

The dominant vegetation of the northern mountains at the highest altitude is the juniper (Arabic: *al alari*), and its associate, the wild olive. The olive, *Olea*



*europaea* (Arabic: *itm*) is native to the mountains of Oman and yields small inedible fruit. Associated species such as *Astragalus fasciculifolius* (Arabic: *anora*), *Helianthemum lippii* (Arabic: *biqan*), *Ephedra pachyclada* (Arabic: *ansab*), *Sageretia thea* (Arabic: *nimt*) and the grass *Cymbopogon schoenanthus* (Arabic: *gus gus*) affirm the close floristic links with southwest Asia. It is believed that migration of this type of vegetation took place some 17,000 to 13,000 years BP (Before Present) when sea levels were low and the Arabian Sea virtually dry. In the foothills, *Ziziphus spina-christi* (Arabic: *sidh*) is common, associated with several species of

No more than 200 species are found there and these are specialised to live in sandy and saline soils, utilising moisture from dew and developing features to protect themselves against strong sunlight. The only woody species common there is *Prosopis cineraria* (Arabic: *al ghaf*), believed to be more widespread than its patchy distribution at present. The tree not only provides shade but nutritious fodder for livestock.

Being isolated from the African and Asiatic floras and subject to climatic changes over the last several thousands of years, the flora of Oman has

*Left: Ruttya fruticosa.*



shrubs and woody herbs.

The vegetation of Dhofar, especially that of the mountains, which are dominated by *Anogeissus dhofarica*, an endemic, is a good example of a dry deciduous tropical woodland. Mixed with this tree species is a rich assemblage of trees, shrubs and woody herbs giving the characteristic features of Dhofar vegetation. This vegetation is to a large extent an extension of that found in Mahra region of southern Yemen. Grasses are not abundant, but after rain, many annual grasses come up and constitute a major part of the mountain summit.

The poorest area in species richness is the central part of Oman and the sandy deserts, Sharqiyah Sands (*Ramlat Sharqiyah*) and those bordering the Rub' Al Khali in western Oman.

developed its own identity that is portrayed by about 60 endemic species. These are scattered throughout Oman, but are more concentrated in the equable regions: the northern and southern mountains, and the fog affected plateau of central Oman, the Jiddat al Harasis.

Man has used plants since millennia for his own benefit, including shelter, food and medicine, and the plants of Oman are no exception. Several plants are used in everyday life for making utilitarian objects such as baskets, mats, fences, perfumes, soap and dyes. Several plants are used as medicines, such a *shu'*, *harmal*, *rehan*, and *subr*, among others, and many species are rangeland or fodder plants for livestock on which the livelihood of many people depends.

*Right: Ziziphus spina-christi.*



The ecosystems of Oman, like any other desert, are very fragile. Plants have adapted and modified themselves to best fit the desert life, which is exemplified by low rainfall and high temperatures. It is important to take care of these ecosystems and conserve their biological diversity. Once disturbed, important species that bind the plant communities together, both

for other associated floral and animal life that thrive amongst these communities, may be lost. The Sultanate has several programs for the conservation of its flora and fauna, and with good developmental practices, the biological richness can be protected and conserved effectively for a long time to come.

*Clockwise from top left:*  
*Acridocarpus orientalis,*  
*Prosopis cineraria,*  
*Dionysia mira,*  
*Acacia tortilis,*