Circum-Mediterranean firs are evergreen conifers from medium (25 m in height for Abies numidica) to large size (up to over 60 m in height for Abies alba and Abies nordmanniana), with columnar trunk and conical crown, which often becomes flattened or rounded in old trees. The stem is straight, composed of short and horizontal branches regularly spaced. The needles are spirally arranged, radially pendulous and brush-like (Abies nobilis, Abies pinsapo, A. numidica), twisted to point upward (Abies cephalonica, Abies cilicica, A. nordmanniana) or pectinate in two lateral sets (Abies alba). They are from 1 to 4 cm long. Flattened, linear with two white bands of stomata beneath, rounded or less noticeable at the apex. Pollen cones are clustered along the undersides of the current year's twigs, globular or conic, yellow-grey (A. alba, A. nobilis, A. cilicica) or reddish purple (A. cephalonica, A. numidica, A. nordmanniana, A. pinsapo). Cones are ovate to cylindrical, resinous, reddish or dark brown at maturity, with rounded scales which present hidden (A. pinsapo, A. numidica, A. cilicica) or protruding bracts (A. alba, A. nordmanniana, A. cephalonica, A. nobilis). Seeds are held in a membranous winged cup, brown-reddish, from 5 to 20 mm long. Wood is soft, white to light tan, with little difference between sapwood and heartwood.

Distribution
Today most of these fir species are segregated in small areas as relict and endemic populations, separated by geographical barriers. A. pinsapo var. pinsapo occurs in South Spain in the provinces of Malaga and Granada. A. pinsapo var. moroconicus grows in the western Rif Mountains in northern Morocco. A numidica occupies an area on Mounts Babor and Talahor in the Kabylie region of Algeria. A. cilicica occurs in North Syria, Lebanon and South Turkey. A. nordmanniana has a wider range and is native to West Caucasus and the mountains of North-East Turkey along the Black Sea. A. nordmanniana subsp. equi-trojani forms pure stands on mountains in western Anatolia near to the Aegean Sea. Similarly, A. cephalonica has a widespread distribution; it occurs in the Regions of Espirou, Macedonia, Poloponnese, Sterea Ellas and the Ionian Islands. A. x borsigii-regis grows in the mountains of the Balkan Peninsula in Bulgaria, northern Greece, the Republic of Macedonia, Albania and Serbia, overlapping the distribution areas of A. alba and A. cephalonica. A. nobilis is found only in the mountainous area of the north-central part of Sicily.

Habitat and Ecology
Except for A. nordmanniana, which can be found also at sea level, generally the circum-Mediterranean firs occur in mountain habitats at altitudes of above 400 m, up to 2400 m for A. pinsapo var. moroconicus. They are located in humid or even very humid climates with an annual precipitation over 700-800 mm, concentrated principally during the winter period. When well established, mature trees can tolerate long drought periods, but suffer spring frosts. They develop in different parental materials, but grow best on deeper acid soils with high water reserves. Natural regeneration is normally abundant and easy inside their habitat range, but is best below a level of cover which limits the risk of late frost damage and water transpiration losses. Circum-Mediterranean firs commonly form pure stands in their optimal habitat, while at the borders they can be mixed with other tree species, such as beech (Fagus spp.), deciduous and evergreen oaks (Quercus spp.), pines (Pinus spp.), cedars (Cedrus spp.) and junipers (Juniperus spp..)

Importance and Usage
Fir wood is appreciated because it is easy to work with and aesthetically pleasant, due to its soft and light structure. Even if its quality is mediocre compared with other more valuable woods, like spruce (Picea abies), pines and cedars, it has been utilized locally for many purposes. Today A. nordmanniana, A. cilicica and A. x borsigii-regis, where abundant, are still exploited and the wood is widely utilized in the building sector, for furniture manufacture, veneer and plywood. A. nordmanniana is particularly appreciated for its potential large size and regular timbers. Thanks to their aptitude to inter-species breeding, some firs have been used for selecting hybrids and cultivars with particular foliage colours, habit and dimensions, and are widely planted as ornamental trees in gardens and parks. For example, A. pinsapo is particularly appreciated for their brush-shape twigs, A. nordmanniana is a popular Christmas tree because indoors young plants keep their needles longer and A. numidica is sometimes planted in hedges as it takes trimming well. Since most of the circum-Mediterranean firs have no wide commercial interest and due to the threats, endemism and geographically scattered distribution, their preservation as genetic resources is a major challenge. Diverse genetic conservation strategies have been elaborated, complementing the protection of natural stands (national or local parks and reserve) with the conservation of genetic resources outside their natural habitats (plantations, orchards and conservation of genetic material in vitro and cryopreservation). Southern fir populations deserve special attention for their local and global value, particularly in regard to their genetic characters, which may be relevant for future adaptation processes of firs.
accidental fires represent the major cause of forest loss. Fires are particularly sensitive to excessive (anthropogenic) fire disturbance, which is pervasive in most Mediterranean areas. When severe, wild fires can destroy entire stands and degrade the habitat, making it less suitable for fires, so that post-fire regeneration is not always guaranteed. Severe fires pasturing continues under control, but in some isolated A. cilicica stands livestock grazing is still one of the main threats. Forests degraded by fire and grazing activity are more susceptible to pathogens. A. pinsapo has seen an increase in the attack of the red rot fungus Heterobasidion spp. and the coleopteran Cryphalus numicus in recent decades, especially in drought periods.

On the other hand, A. cephalonica needs to be genetically protected, since it is potentially threatened by hybridisation with other fir species, such as A. alba, used in the past for plantations, and their hybrid A. x bonsis-reges, which naturally co-exists in the northern part of A. cephalonica distribution. The latter benefits from wetter conditions, therefore a bonsis-reges ingress may occur influenced by a change toward a warming climate.

The isolation of populations due to fragmentation could give rise to a low genetic flow and therefore genetic diversity, which may represent another important factor weakening populations and making them more susceptible to diseases. This is the case for A. nebrodensis, which is currently one of the rarest conifer species in the world, counting a population of just 24 mature trees. This fir is under an extensive conservation programme locally and abroad for its protection. However, it has not yet been entirely successful, due to the harsh summer conditions and the depleted soil of native areas. New attempts have been planned with the use of compost and summer watering.

The total Sicilian fir (Abies nebrodensis) population counts 24 mature trees which are protected by fences.