

Corylaceae

Trees, or shrubs with leaves deciduous; medium-sized; alternate; spiral; flat; petiolate; simple.

Lamina entire; pinnately veined (the laterals straight); cross-venulate. Leaves stipulate; caducous.

Lamina margins serrate, or dentate; flat. Vegetative buds scaly Flowers aggregated in 'inflorescences': in catkins (the female catkins terminal, the males representing short-shoots).



Male flower



Ostrya carpinifolia fruit



Carpinus betulus fruit

Carpinus betulus L. European hornbeam

the male flower in long catkins with bracts and the flowers non-involucrate, female flowers each with a large, membranous involucre formed of the bract and two bracteoles.

Flowers bracteate; bracteolate (female), or ebracteolate (male); small.

Fruit non-fleshy; indehiscent; a nut (small, 1-seeded, shed with the accrescent, trilobed 'involucre').

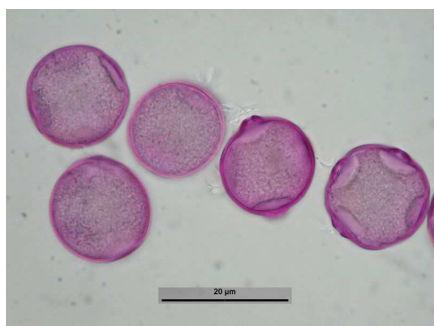
Pollen tri- tetra-pentaporate. Isopolar grain, oblate spheroidal;

Medium size (30-45 μm)

Exine psilate scabrate, rather thin, thickens near pores. Intine forms wide onci a bit convex near pori

Interoncium < onci

It blooms since early April to the end of May



Ostrya carpinifolia Scop. hop hornbeam

the male flower in long catkins with bracts and the flowers non-involucrate,
Female flowers are also produced in catkins, which are a bit shorter and erect on the branches, but eventually droop. The small, nut-like fruits are each encased by a papery, flattened, scale-like bract, and are produced in small, pendant clusters resembling fruits of the hop vine

Pollen tri- tetra-porate.

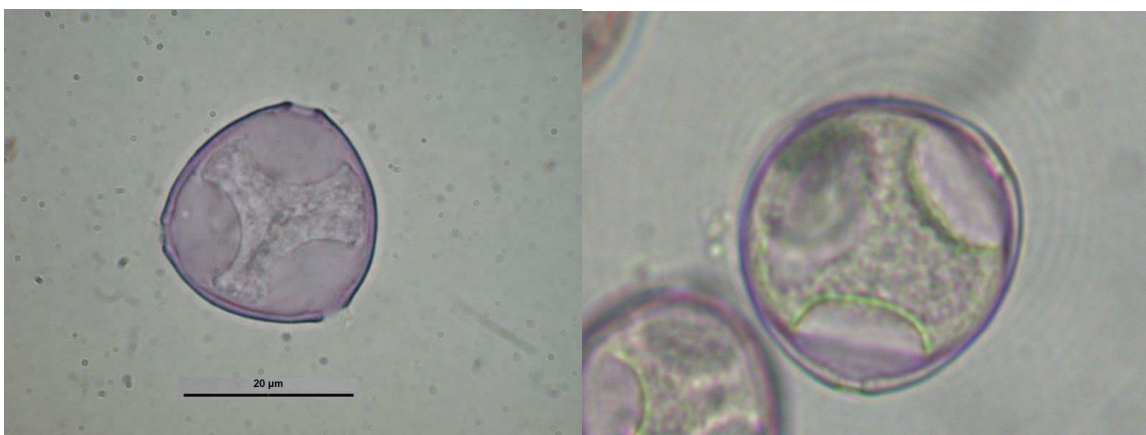
Isopolar grain, oblate spheroidal; small size (19-29 μm). Exine granulate forms aspides around pores near pores Intine forms marked onci a bit convex near pores

Interoncium > onci

It blooms at the end of march to the end of may

In polar view it is circular with three pores with little apparent vestibulum

In equatorial view pores are circular



Fam. OLEACEAE *Olea europea* (olive tree)

Olives are large, evergreen shrubs in their native state, but are trained as stout trees on massive trunks, especially in older plantings. Most trees have round, spreading crowns, but tall, cylindrical trees are grown in some parts of Europe.

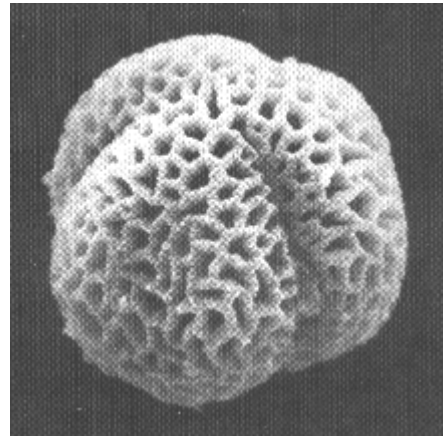
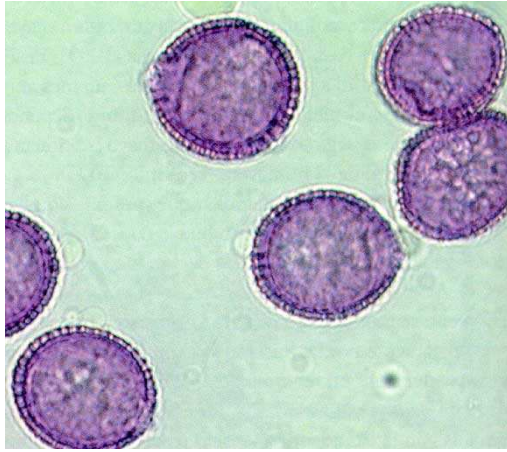


Small flower, off-white flowers are borne in racemose panicles of 15-30 flowers in axils of 1-yr-old wood. Most flowers are staminate by pistil abortion, leaving only 1-2 perfect flowers per inflorescence, which may set fruit. The ovary is superior, and there are 4 sepals and petals, and 2 stamens. Flowering occurs in May rather late relative to other tree crops.

The fruit type is a drupe. Fruit are oblong with smooth, waxy surfaces. Color is green when immature, turning yellow-green in autumn, with red, purple, or black coloration at full maturity. Olives require 6-8 months for full maturation.

Leaves are small, linear, with entire margins and acute tips, silver-green in color, and fairly thick. Leaf arrangement is opposite. Leaves live about 2 years.





Isopolar Pollen, oblate spheroidal in polar view subcircular, in equatorial view: depressed oval, about 19-22 μ . Tricolporate Colpus: 13x3 μ m; with sharp edges and pointed end
 Exina: Semitectate-medium reticulate heterobrochate 2 μ Intine: Thin, till 3 μ near the aperture

Fam. MYRTACEAE

Eucalyptus globulus (Tasmania blue gum)

Eucalyptus globulus now includes several subspecies of which *E. globulus* subsp. *globulus* is the Tasmanian emblem.

The genus *Eucalyptus* numbers about 800 species which are widely distributed in Australia, with a few species occurring in some of the islands to the north. It belongs to the family Myrtaceae, which is widespread in Australia and tropical regions of the Americas.

Tasmanian Blue Gum is a tall, straight tree growing to 70 metres in height and 2 metres in trunk diameter under favourable conditions. The rough, deeply furrowed, grey bark is persistent at the base of the trunk but above this level it is shed in strips leaving the branches and the greater length of the trunk smooth-barked.



The broad juvenile leaves, borne in opposite pairs on square stems, are about 6 to 15 cm long and covered with a blue-grey, waxy bloom.

This is the origin of the common name 'blue gum'. The mature leaves are narrow, sickle-shaped and dark shining green.

They are arranged alternately on rounded stems and range from 15 to 35 cm in length. The buds are top-shaped, ribbed and warty and have a flattened operculum bearing a central knob.

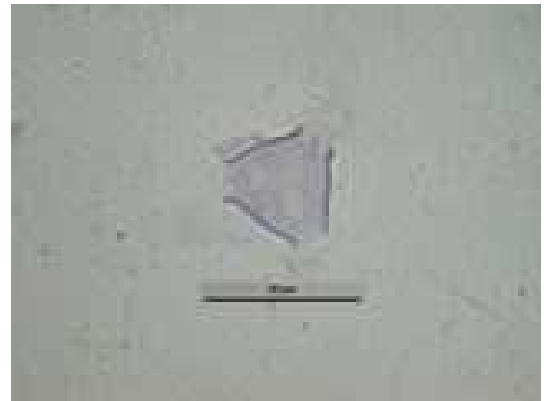
The cream flowers are borne singly in the leaf axils and produce copious nectar which tends to yield a strongly flavoured honey. The woody fruits range from 1.5 to 2.5 cm in diameter. Numerous small seeds are shed through valves which open on the top of the fruit.

Pollen trizone sincolporate, isopolar, oblate, small size 16-18 μ m

In polar view they are triangular with apertures (goniotreme) at angles. Sexinix insulae at apocolpium in equatorial view: rectangular.

Aperture Tricolporate-syncolpate Pore: 3 μ , circular Exina: Tectate-psilate 1 μ

Intine: thin, till 3 μ near the aperture Cytoplasm smooth Close



Gen. Myrthus



Pollen with radial symmetry, isopolar, oblate, in polar view triangular, in equatorial view depressed oval. Size: 10-13 μM x 15-18 μM
 Aperture: Tricolporate-syncolpate Colpi with sharp edges Exina: Tectate-psilate-scabrate <1 μ Intine: Thin cytoplasm smooth