

## Reproduction in Conifers

The life cycles of gymnosperms and angiosperms share many similarities. The gymnosperms, however, do not produce flowers. Most of these plants reproduce by means of cones. Male cones contain male gametes and female cones contain female gametes (see Figure 38). Seeds develop in the female cones once the ovules have been fertilized.

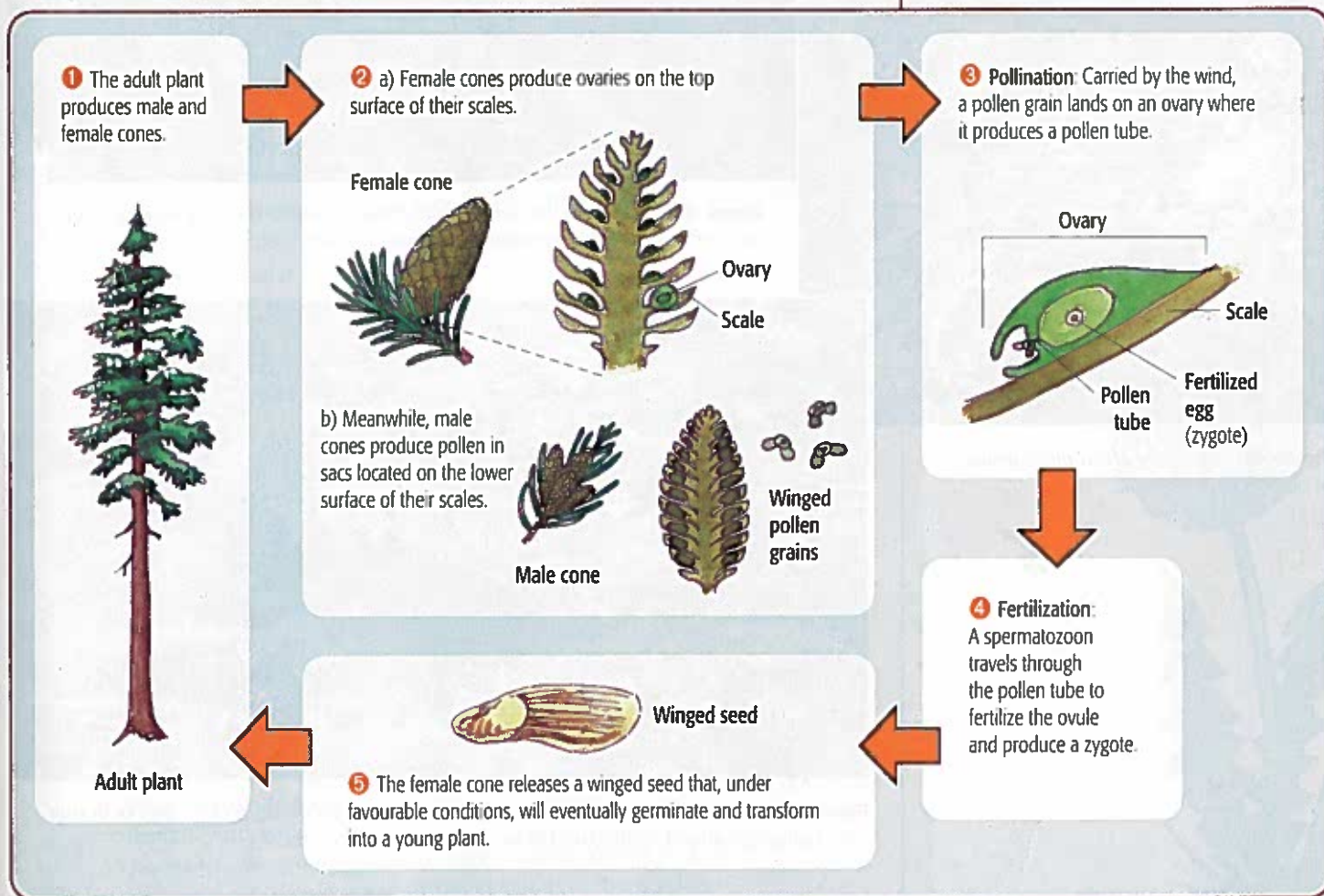


**Figure 38** Leaves (or needles) and cones of a typical gymnosperm

The small male cones of the fir tree grow on the tips of its branches.

The female cones of the pine tree point toward the ground. When they reach maturity, they open and release their seeds.

Some conifer species produce male and female cones on different trees; however, most species produce both types of cones on the same tree. Figure 39 illustrates the process of gymnosperm reproduction.



**Figure 39** Reproduction in gymnosperms (conifers)