

Gymnosperm Leaf

Pinus (Pine)

Needle

1. Needle
2. Fascicle sheath
3. Fascicle sheath remnant
4. Epidermis (adaxial)
5. Epidermis (abaxial)
6. Hypodermis
7. Mesophyll
8. Resin duct
9. Endodermis
10. Transfusion tissue
11. Vascular bundle
12. Primary xylem
13. Primary phloem
14. Stoma
15. Substomatal cavity

Transverse sections

Bar = 100 μ m



Horton Lai and Carol Wenzel. 2020

