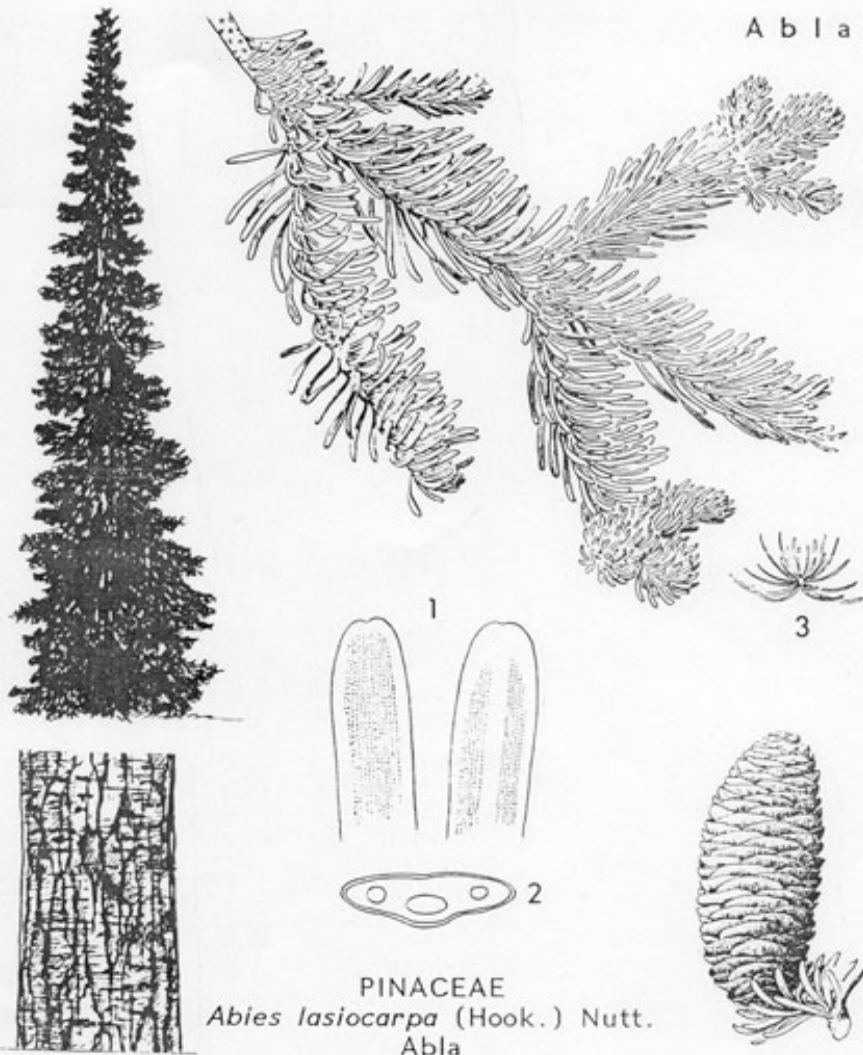


Phma h.t.		
Phma h.t.		
Caru h.t.	Caru	4
Phma h.t.	Aruv	
Phma h.t.	Phma	
Phma h.t.	Smsst	
Phma h.t.	Phma	
Libo h.t.	Cooc	
Libo h.t.	Libo	2
Asca h.t.	Xete	4
Asca h.t.	Asca	1
Asca h.t.	Tabr	1
Asca h.t.	Mefe	2
Setr h.t.		3
Phma	Phma	+
Clun h.t.	Clun	1
Clun h.t.	Tabr	3
Clun h.t.	Mefe	4
Clun h.t.	Xete	3
Xete h.t.	Vagl	6
Xete h.t.	Cooc	5
Clun h.t.	Clun	1
Clun h.t.	Tabr	1
Clun h.t.	Mefe	5
Clun h.t.	Xete	3
Asca h.t.	Asca	1
Asca h.t.	Tabr	
Asca h.t.	Mefe	6
Gydr h.t.		
Adpe h.t.		1
Atfi h.t.	Adpe	
Atfi h.t.	Atfi	2
Opho h.t.		1
Clun h.t.	Clun	2
Clun h.t.	Arnu	
Clun h.t.	Mefe	4
Clun h.t.	Xete	5
Asca h.t.	Asca	1
Asca h.t.	Arnu	
Asca h.t.	Mefe	10
Gydr h.t.		2
Clun h.t.	Mefe	10
Clun h.t.	Xete	7
Mefe h.t.	Xete	10
Mefe h.t.	Luhi	10
Stam h.t.	Mefe	10
Stam h.t.	Luhi	10
Xete h.t.	Vagl	10
Xete h.t.	Luhi	10
Clun h.t.	Clun	10
Clun h.t.	Mefe	10
Clun h.t.	Xete	9
Mefe h.t.	Cooc	10
Mefe h.t.	Xete	10
Mefe h.t.	Vasc	10
Mefe h.t.	Luhi	10
Stam h.t.	Mefe	10
Stam h.t.	Lica	10
Caca h.t.	Caca	10
Caca h.t.	Vaca	10
Caca h.t.	Legl	10
Xete h.t.	Cooc	10
Xete h.t.	Vagl	10
Xete h.t.	Vasc	10
Xete h.t.	Luhi	10
Vasc h.t.		6
Xete c.t.		
Vaca c.t.		



PINACEAE  
*Abies lasiocarpa* (Hook.) Nutt.  
Abla

subalpine fir, alpine fir

**FORM:** Tree, up to 40m (137ft) tall; spirelike crown often extending to the ground; bole extremely tapered; primary branches distinctly opposite.

**IDAHO CHAMPION:** 1981. 49.9in dbh; 156.7in circum. + 137ft tall + 5ft crown = 298pts; Pierce RD, Clearwater NF.

**BARK:** Thin, grey, smooth with resin blisters; shallowly fissured.

**BUDS:** Rounded, light brown, 6mm long.

**LEAVES:** Thick needles, 2-4cm (1-2in) long, apex rounded (1), blue-green with stomatal bands on both surfaces with large resin ducts located midway between leaf margins (2); leaves brushed to upperside (3).

**CONES:** Purplish-grey, cylindrical, 6-10cm (2-4in) long; borne upright, high in the crown and disintegrating on tree; ripens mid-Aug.; seed sheds mid-Sept.

**ENEMIES:** Diseases: *Echinodontium tinctorium*, *Fomes pini*, *Armillaria* species, *Polyporus tomentosus*, and broom rust; Insects: spruce budworm, and tussock moth; Fire: susceptible.

**SIMILAR SPECIES:** *Abies grandis*, p.8; and *Picea engelmannii*, p.16.