

were common at Bend, May 19, while larvæ and pupæ were found at Ashland, June 20. Many were found dead, imbedded in pitch on the stumps. The egg galleries are usually 7 to 8 inches long, though it is not uncommon to find them 12 to 18 inches or even more in length. These galleries are usually fairly straight, running parallel with the grain of the wood. Occasionally they are irregular, crossing and recrossing other galleries, making a complex pattern. The typical work consists of an irregular round chamber, about half an inch in diameter from which the egg galleries run up or down the tree trunk. Each female has her own gallery in which 20 to 40 eggs are deposited along the sides and carefully covered with fine borings.

*Ips pini* Lec.

Reported from Oregon by Leconte in 1868.

*Ips interruptus* Mannh.

A single specimen taken from *Picea sitchensis* at Marshfield, Oregon.

*Ips interpunctatus* Eich.

Collected from *Pinus contorta* on the Whitman National Forest in July, 1914.

*Ips concinnus* Mannh.

This species ordinarily attacks *Pinus contorta* and *Picea sitchensis*, and it was very unusual to take several adults from a fire-injured Douglas fir sapling at Astoria in April, 1915. This is probably an accidental host, and it is interesting to note that the broods failed to develop.

*Ips calatus* var.

Collected from *Picea engelmanni*, Grant County, Oregon, June, 1914.

*Ips confusus* Lec.

Occurs in the extreme southern part of the State in pine.

*Leperisinus aculeatus* Lec.

A single specimen collected at Corvallis. Host not known. *Orthotomicus ornatus* Swaine.

A few specimens taken from *Pinus ponderosa* on the Whitman National Forest, July, 1914.

(To be continued.)

Mailed September 1st, 1917.