





Technical Bulletin for: Spruce Beetle

Dendroctonus rufipennis (Kirby) • Coleoptera, Scolytidae • DENRUF



DISTRIBUTION	Native to South and Southeast Asia. Introduced to Java, Mauritius, Réunion, Madagascar, Comoros, and Mozambique.
HOSTS	Several species of spruce, notably Sitka, Colorado Blue, White and Engelmann Spruce.
DESCRIPTION	
Adult	Adults average 4 to 7 mm in length. They are cylindrical and are blackish-brown to black with reddish-brown or black elytra.
Larvae	White, c-shaped, legless, with an amber head capsule
Eggs	Smooth, ovoid, white and translucent, 1-2 mm long
LIFE HISTORY	The beetles are attracted strongly to blowdowns, cull logs, and freshly-cut logs. Females bore through the outer bark and, after attracting a male and mating, construct egg galleries in the cambium layer and inner bark. Egg galleries are slightly wider than the adults and are tightly packed with frass and boring dust except for the terminal portion of the gallery. Larvae bore outward from the egg gallery, and feed communally for the first two instars. The third and fourth instars feed in individual galleries. The larval stage is the predominant life stage during the first winter, although some parent adults and eggs may also be present. Two-year cycle spruce beetles pupate about 1 year after attack by the parent adults. Pupation generally lasts 10-15 days and takes place in cells at the end of the larval galleries.

MONITORING INFORMATION

LURE ACTIVE INGREDIENTS, SUBSTRATE & FIELD LIFE	Frontalin in a Plastic Vial and Alpha-Pinene in Plastic Bulb in netting. Lure longevity: 30 Days.	
TRAP TO USE	Panel Trap	
MONITORING STRATEGY	Check with local Forestry Service for information and recommendations	
CULTURAL & PHYSICAL CONTROL	Infested and susceptible spruce can be removed from the overstory to encourage regeneration of a new, healthy, vigorous forest. Partial cuts can be used to remove infested and susceptible trees to improve the growth of the residual stand. Trap trees, green trees of large diameter (>46 cm), can be felled before adult flight to attract flying beetles. Trap trees must be removed from forests before the brood completes development and emerges.	

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