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ネット資材の目合いと色彩が クビアカツヤカミキリの産卵に及ぼす影響

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Effects of netting material mesh size and color on oviposition by the red-necked longhorn beetle, *Aromia bungii*.

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Abstract

The red-necked longhorn beetle, *Aromia bungii*, is an invasive pest that causes significant damage to rosaceous fruit trees, particularly peaches. This study focused on the use of netting materials as a physical control method and evaluated the effects of mesh size, color, and gaps between the netting and bark on oviposition and larval feeding. Netting with different mesh sizes (0.3 mm, 0.4 mm) and colors (white, black) were wrapped around peach branches in outdoor cages, with some treatments having an approximately 10-mm gap between the bark and the netting. Mated adult female beetles were released, and the number of eggs laid and larvae feeding were investigated. The results showed that total oviposition was significantly reduced in all treatments compared with the control, with white nets having a higher suppressive effect than black nets. The treatment with a 0.3-mm white net wrapped with an approximately 10-mm gap had the lowest number of eggs laid on the bark, and larval feeding was completely suppressed. Therefore, netting materials with these specifications are considered the most promising physical control measure against *A. bungii* damage in peach orchards.

摘　要

クビアカツヤカミキリ *Aromia bungii* はモモなどのバラ科果樹に大きな被害をもたらす侵入害虫である．本研究では，物理的防除法としてネット資材の利用に着目し，目合い，色，樹皮とネットの隙間が成虫の

枝への定位，産卵および，ふ化幼虫の樹皮下への食入に与える影響を評価した．異なる目合い（0.3 mm, 0.4 mm）と色（白，黒）のネットを屋外ケージ内のモモ枝に巻き付け，一部は樹皮と約 10 mm の隙間を設けた．交尾済み雌成虫を放虫し，産卵数や幼虫食入数を調査した結果，全処理区で無処理と比べ総産卵数が有意に減少し，白ネットは黒ネットより産卵抑制効果が高かった．目合い 0.3 mm の白ネットを約 10 mm の隙間を設けて巻いた区では樹皮上の産卵数が最も少なく，幼虫食入は完全に抑制された．したがって，このような仕様のネット資材が最も有望な物理的防除資材と考えられた．