

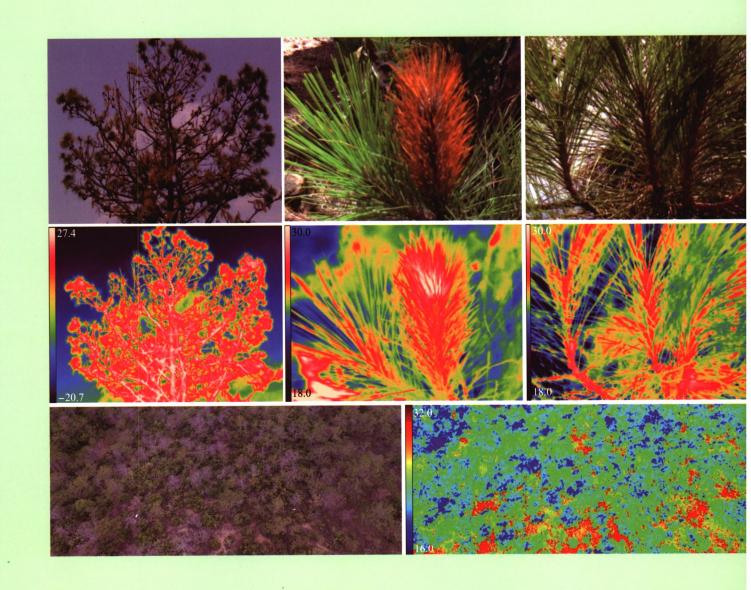




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Zhiwu Shengtai Xuebao

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封面说明: 云南省祥云县普淜镇多尺度下受害云南松针叶、冠层及样地区域的可见光及热红外图像(王景旭摄)。上排为受害云南松可见光图像,从左至右依次为: 受害云南松冠层(左),重度受害云南松针叶梢和健康针叶梢对比(中),轻度受害云南松针叶梢和健康针叶梢对比(右)。第二排为相对应的热红外图像。下排为样地区域内受害云南松的可见光图像(左)和热红外图像(右)。单位: ℃。王景旭等利用红外热辐射技术监测受云南松切梢小蠹虫害后云南松针叶尺度上叶片温度的变化并对其变化机制进行了讨论(本期959–968页)。

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Cover illustration: Visible and thermal infrared images of infested *Pinus yunnanensis* at leaf, canopy and forest stand scales in Pupeng Town, Xiangyun County, Yunnan Province, China (Photographed by WANG Jing-Xu). From left to right, the first and second rows are the color images and the corresponding thermal images (unit: °C) of infested *Pinus yunnanensis* at canopy scale (left), comparison between severely damaged and health needles (middle), and comparison between between lightly damaged and healthy needles (right); and the third row are the color image and thermal image at the forest stand scale. Wang *et al.* monitored the changes of leaf temperature caused by shoot beetle at needle scale of *Pinus yunnanensis* by the infrared thermal radiation technology, and discussed the mechanism of temperature changes (Pages 959–968 of this issue).



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