

Picking on the weakest or feasting on the fittest? Contradicting the long-standing belief that *Hylastes ater* prefers stressed seedlings

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Plant stress from causes such as drought is thought to increase the susceptibility of plants to herbivore attack and damage. Although this forms the basis of the widely-cited plant stress hypothesis, there are few cases where this has been tested thoroughly. We used the interaction between *Pinus radiata* seedlings and an invasive pine bark beetle, *Hylastes ater*, as a model system to test this. Experimentally induced pre-planting stress and systemic insecticide application were used to determine the role of stress in seedling susceptibility to attack and the severity of beetle-induced damage. Contrary to expectations based on the plant-stress hypothesis, twice as many unstressed seedlings were attacked than stressed seedlings. However, unstressed seedlings were much less likely to experience sustained bark beetle feeding resulting in girdling than stressed seedlings, which could be attributed to differences in resin production. Our findings make a valid contribution to the plant-stress hypothesis by highlighting the distinction between insect attack and resulting damage, and further emphasise the importance of maximising seedling vigour to ensure the resilience of planted forests.

