

Wattles and Casuarinas are fast growing pioneer trees. These trees are fixing the barren wastelands that our hwy constructions leave behind.

These species grow as easy as weeds from their seeds- any one can do it. They prefer terrible soil. They are drought resistant. Their roots dig deep, stabilising it and preventing erosion. The roots have nodules that foster bacteria who suck nitrogen from the atmosphere to exchange for the sugar the tree roots make. This nitrogen is stored in the nodules to be released when the tree dies. The leaf and branch waste material adds humus to the shitty soil that also slows water runoff- making the soil hold water rather than erode. They grow incredibly quickly. They create shade for the soil beneath to improve moisture and therefore soil-fauna in the form of fungus, bacteria and worms. They create flowers that attract insects. These insects attract birds. These birds bring seeds from small fruits in their droppings that then sprout in the soil that the Wattle and Casuarina have been nurturing and repairing, and these seeds bring more diversity to that spot in the form of different shrubs, trees, flowers and fruits. So, now a wider variety of birds and animals, that also bring seeds in their droppings, will come to this spot. Eventually a creature's droppings will have a seed in it from a giant rainforest tree. The soil, shade and moisture will be exactly perfect for it to germinate and grow tall to create a canopy. This will happen repeatedly and quite quickly after the Wattle and Casuarinas were planted- perhaps two to four yrs. Eventually, the precious parents (the Wattle and the Casuarina) of this newly forming rain forest will be shaded out by its giant tree children. Then they will die and release all the nitrogen and phosphorus they have stored in their plant material as one final, selfless gift to its beloved forest family. This will enrich the soil, feed its soil-fauna and nourish the taller trees- perpetuating this microclimate's stability.

But all the while, these weedy and fast growing Wattles and Casuarinas have been sucking carbon out of the atmosphere to make their leaves, branches and roots systems. They grow almost as fast as grasses. (FYI tall grasses are the ultimate carbon trap species)

If you observe any bare patch of soil along a hwy, these are the first two tree species that will grow there. And they will do it with gusto. Their job is to prepare the soil and its microclimate for what will naturally become a forest, if left to do so. Thus, they are pioneers.