

Riparian recovery following the 2022 floods in subtropical Upper Coopers Creek, northeast NSW

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1. 43 Tickles Road Upper Coopers Creek, NSW 2482



Figure 1 (a) Across the creek a bank of 5 to 6 metre trees has been completely lost and (b) a section of mature Bangalow palms has gone



Figure 2. Blue line shows the path of the creek in full flood. Arrows mark the site of the photos. North is upwards.

- ▶ The straightening effect of floodwaters meant that some banks escaped damage (Figure 2, 4), whilst others lost all vegetation present (Figure 1).
- ▶ One bank slipped badly, where the flood waters hit after a long straight run (Figure 3).
- ▶ The road that the slip crossed has not yet been rebuilt due to continual high soil moisture levels making it dangerous for machinery to work



Figure 3 (a) The pile of rocks on the left hand side mark the slip (b) damage done to the internal road

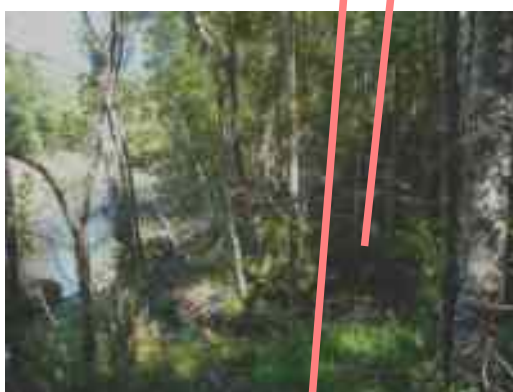


Figure 4 This bank escaped major damage



Figure 5 (a) Regeneration of palms 12 months later, (b) Snake bean orchid washed down the creek



Figure 6 Seedling regeneration 3 years after the flood, creek is to the left



*The two floods of 2022, one month apart were devastating to Upper Coopers Creek, in subtropical north east New South Wales, taking large mature *Elaeocarpus grandis*, *Tristaniopsis laurina*, Bangalow Palms, camphor laurel and other species that were growing along the banks. Greater devastation was to come when the flood waters reached Lismore.*

- ▶ Before the floods the riparian zones contained quality riparian vegetation that was largely lost.
- ▶ Weeds appear first following a natural disaster or clearing in subtropical rainforest.
- ▶ The riparian zones are a crucial part of the ecosystem, although difficult to regenerate due to regular flooding.
- ▶ The most productive regeneration of native vegetation occurred between 10 and 30 metres from the water's edge (Figure 5, 6).
- ▶ Weeding began 12 months after the floods by hand weeding and cut-and-paint.
- ▶ The creek banks close to the water remain damaged, and are recovering slowly more by reshooting.
- ▶ The slip was planted (Richmond Valley Landcare grant), with slow recovery.

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