Native trees

One of our experimental approaches is to determine the growth of different species of tropical trees in our eroded soils.

- We can then incorporate successful species into future restoration experiments.

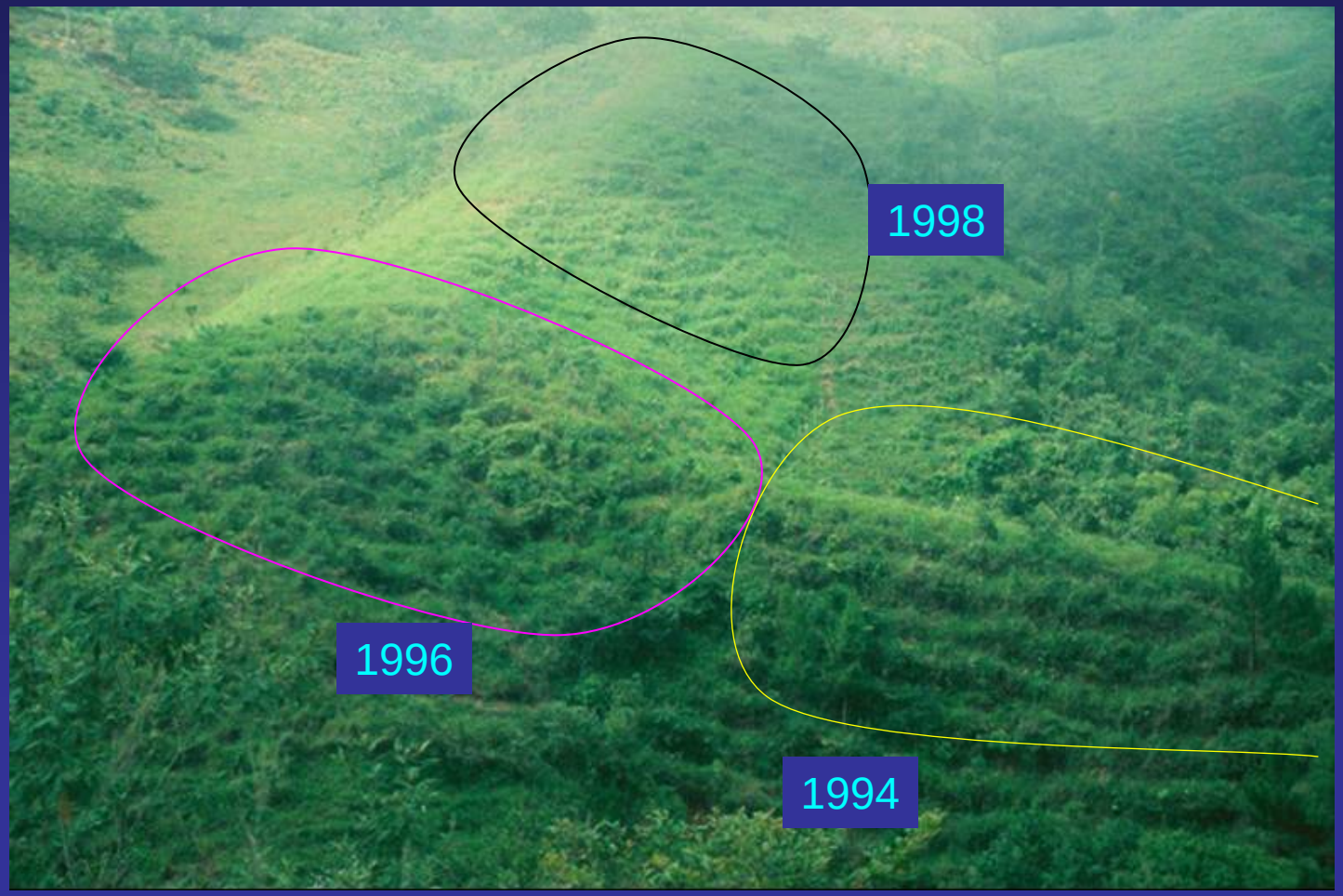
A seed source tree of *Tabebuia ochracea*

Planting *Hyeronima oblonga*

By 2004 we have established four “tree trials” experiments, testing over 30 native species and two non-native species.

- 1994—5 native, 2 non-natives
- 1996—8 natives
- 1998—9 natives (7 legumes and 2 non-legumes)
- 2001—10 natives

This hillside in 2001 has experimental blocks of the tree trials of 1994, 1996 and 1998.



We reported seven-year growth results from our first experiment in Carpenter et al. 2004.

The next two photos illustrate growth in two of the 30 blocks established in this experiment.

Initially in 1994, this was the most deeply eroded of the 30 blocks

2001

- Of the seven tree species, only one grew.
- The successful species was one of the two exotics, a tropical pine.
- The pine grew well in all 30 blocks.

This experimental block was not deeply eroded initially.

- All seven species grew well in this block.
- Averaging over all 30 blocks, three native species performed well enough to be potential restoration species for degraded land.

2001

These trials have stimulated avenues of future research.

- We are determining ways to facilitate the growth of the promising natives.
- We plan experiments to test whether the pine can facilitate establishment of natives in the most deeply eroded sites.