

The Bradley Method for Control of Invasive Plants **As summarized by**

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An interesting approach to control of invasive plants in natural habitats is the Bradley Method, first developed in Australia by the late Joan Bradley and her sister Eileen. Outside of Australia it has apparently only been used in California, but it should be applicable to most parts of the world. The Bradley method is first of all a strategy for, or even a “philosophy” of, long-term control of invasive plants.

There are three basic principles of the Bradley Method:

Always begin control work in undisturbed natural areas, and then work out toward areas more heavily infested with invasives.

According to the Bradleys, if native plants are given a chance they will recover the ground that has been taken from them by invasive plants. The principal here is to start in areas where the native plants are thriving and gradually clear into the more heavily invaded areas. Non-natives do not invade readily into areas where the native plants are already well established. If one clears invasives in the worst areas first, this may not only be ineffective, it may be harmful. Removing non-natives in such areas exposes bare ground, tipping the balance in favor of the weeds. On the other hand, weeding a little at a time within and adjacent to good stands of native plants, then moving outward toward the most invaded areas, gives the natives a chance to move in and thrive.

While removing invasive plants, try to keep from disturbing the environment any more than necessary.

Large numbers of invasive plant seeds rain down on natural areas. If the ground is opened, these seeds can thrive. Undisturbed native soil, with its natural mulch, is resistant to invasion by non-native plants.

Do not over-clear.

Leave the natural area as undisturbed as possible. If a large team of workers is available, people should spread out and weed small amounts in many places, rather than having the entire crew work in one place. The total area cleared of invasives will be as large, but regeneration by native plants will be greater. The Bradley method emphasizes that removing invasive plants from a natural area involves two different kinds of time, *working time* and *waiting time*. Patience is not only a virtue; it is essential.

The Bradley plan of approach

1) Start with areas where native plants are dominant. Invasive plants may be scattered throughout, singly or in small groups. The risk of over-clearing here is nil, so this is the place to start. After clearing all the invasives, return once or twice a year and remove any that were missed, or which have colonized by seed.

2) After the least disturbed areas are cleared of non-natives, move into areas more heavily invaded, where there is some native undergrowth. Choose an area of substantial native plant growth, where native plants are pushing up against a mixture of invasive plants and natives. Remove non-natives in a strip about 10 feet across, then stop and give the natives time to move into the weeded areas. As the natives take hold, extend the strip along the boundary.

3) Maintain the advantage already gained. It is important to resist the temptation to clear more deeply into the heavily invaded areas before regenerating natives have become established. Invasive plant seeds will continue to germinate in newly cleared areas, so they should be removed as soon as possible. This is more important than starting to clear new areas.

4) Be very cautious when moving into the worst areas. However ugly an area of solid invasive plants may look, do not start clearing it until the native vegetation has been brought right up to its border. Although Joan and Eileen Bradley were trained as chemists, their method makes very little use of herbicides. "We regenerate [native vegetation] by using methods that give us the most effective kill of weeds and the most bountiful growth of natives; that is, by skilful manual weeding. This can be laborious, and we are often asked, especially when we are having to spend a long time extracting a big weed, 'Why don't you poison it?' We prefer not to use poisons if we can avoid it, and we certainly condemn their indiscriminate use." Their reasoning is that herbicides are not truly selective, may have detrimental effects on the environment, and do not always work. However, they do admit that for some invasive plants, or for some areas, herbicides may be necessary. However, their hand weeding technique is perfectly safe, highly effective, and reliable. It does require one trait that we do not always have or want to use: staying power. Details of the Bradley method, including many practical suggestions for weeding, have been published:

Bradley, Joan. 1997. *Bringing back the bush: The Bradley method of bush regeneration.*

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