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Home / Slowing Australia's Revolving Prison Door through Biodiversity Conservation Projects

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Slowing Australia's Revolving Prison Door through Biodiversity Conservation Projects

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Tiffany Webb / SPP

Inmates take part in an SPP lecture series.

In Australia, two in five people released from prison will end up back behind bars within ten years.¹ For Indigenous people—who have an incarceration rate 15 times that of the general population—the re-imprisonment rate is two in three.^{1,2} This means that the society does a much better job of keeping Indigenous people incarcerated than of keeping them in school or university.^{3,4} Statistics like these illustrate a ‘revolving door’ prison system that grossly over-represents Aboriginal and Torres Strait Islander people and has been described as Australia’s national shame.⁵ The system as it currently operates is incredibly expensive, beyond capacity, and simply not working the way it should. In particular, such high re-incarceration rates suggest a failure to reform, rehabilitate, and support prisoners so that they have a better chance of exiting the system for good.⁶

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Research suggests that factors such as social discrimination, homelessness, economic and social disadvantage, lack of education, unemployment, loss of identity, substance abuse, and mental health problems are predictive of re-imprisonment.⁷⁻¹⁰ The system needs to focus upon providing meaningful, culturally-appropriate rehabilitation and opportunities for education and post-release employment.¹¹ These objectives could be achieved by engaging prisoners in the fight against the critical problem of environmental degradation and biodiversity loss.^{12,13} Biodiversity loss is a planetary boundary that has almost certainly been crossed, and a problem for which mitigation is of extreme importance.^{14,15} Biodiversity is integral to the complex set of ecosystem services provided by the environment, that are vital to quality of life and it represents a fundamental component of ecosystem resilience.¹⁵ The factors driving biodiversity loss are complex but can be addressed.¹⁶ Imagine a large and coordinated network of projects across Australia designed to employ—and develop—the labor and skill of inmates in conservation and science targeting biodiversity issues.

Such a program must be productive at tackling both biodiversity loss and the risk factors for re-imprisonment; thus it should embody five main characteristics. First, it must be voluntary, rehabilitative, educative, and focused upon enhancing the post-release employment prospects of offenders. Inmates need opportunities to gain qualifications, skills, and work experience; thus, avenues for formal and informal education and training in science and conservation are crucial.^{11,17} Inmates also stand to benefit greatly from opportunities to connect with nature, make a meaningful contribution to a critical problem, and improve their social and emotional well-being, strength of identity, and mental health.

Second, it must be large-scale enough to push back against the forces driving environmental degradation and biodiversity loss. If each of the almost 40,000 prisoners in full-time custody and almost 65,000 people in community-based corrections were to contribute in some capacity to conservation projects, the culmination of their activities could make a meaningful difference.

Third, such a program should be developed under Indigenous leadership, harnessing Indigenous ecological knowledge and land management practices. Indigenous people have a strong connection to the land and a rich understanding of how to care for it.¹⁸ Indigenous inmates may benefit from the opportunity to reconnect with cultural knowledge and practices.¹⁹

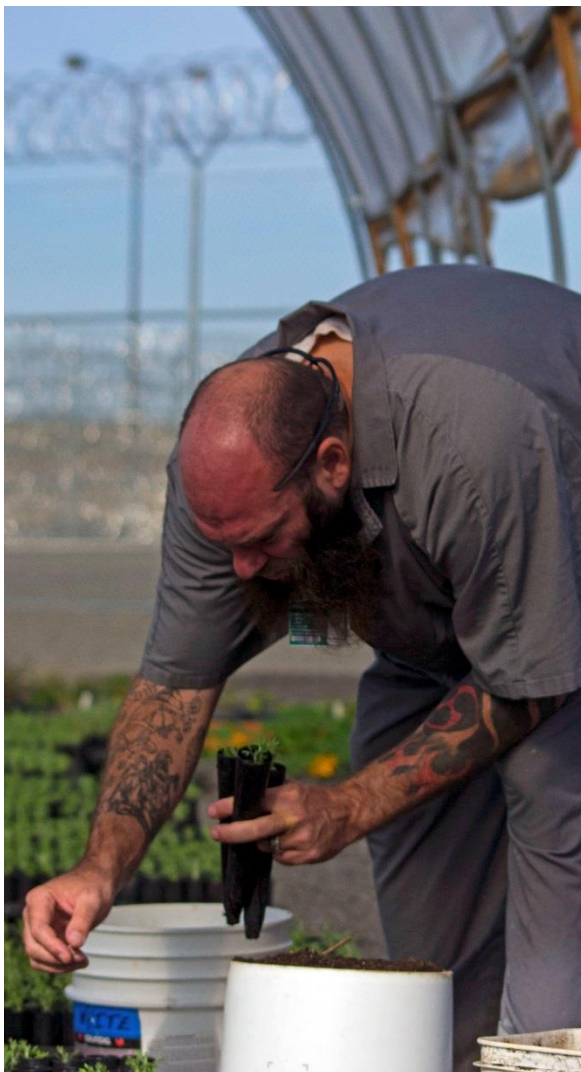
Fourth, it needs to be economically viable, delivering cost-effective outcomes for the community. Long-term costs of the program must be balanced with the benefits derived from cost savings related to lower unemployment rates among those who have been released from prison, reduced re-imprisonment, and improved ecosystem services.

Finally, the implementation of such a project needs to be viable from the perspective of community safety. There are inherent risks involved in engaging with inmates, particularly those who have a history of violent offenses. However, such risks can be

managed by engaging inmates in projects that are appropriate to their circumstances and having corrective services staff play an integral role.

To be effective and sustainable, such a prison-based conservation program must ultimately be embedded in Australia's collective effort against biodiversity loss, operating in collaboration with ecological scientists, universities, community and non-profit groups, government departments, and prison staff. On the ground, it should be flexible and tailored to the conditions, resources, and security level of each prison; specific to the region's environmental concerns; and appropriately incentivized so inmates who exhibit a great deal of interest and effort have opportunities to increase their responsibilities. Existing examples of prison-based environmental programs provide ideas and optimism about the possibilities.²⁰

The Sustainability in Prisons Project and Australian Examples



An inmate at Coyote Ridge Corrections Center in Washington thinning sagebrush plants. Photo: Jeff Clark, BLM

A rather famous and inspiring model of how prisoners can contribute to science and conservation is the Sustainability in Prisons Project (SPP), an ongoing partnership between the Washington State Department of Corrections and Evergreen State College in the United States.^{21,22} The project has succeeded in bringing together ecological scientists, inmates, students, prison staff, and environment organizations to implement projects for biodiversity conservation, science education and training, and prison sustainability improvement.²³ Among SPP's successes are rearing facilities for the endangered Taylor's Checkerspot butterfly and Oregon spotted frog, native plant conservation nurseries, and an impressive list of improved sustainable practices such as waste reduction and lower water use within the prisons. Inmates have opportunities to get involved in the projects, attend lectures by visiting scientists, and participate in job training workshops.

Though Australia has no equivalent to SPP, a few small-scale projects engage prisoners in conservation-related work. Inmates from the minimum-security Karnet Prison Farm assist in the rehabilitation of black cockatoos, by building fences and aviaries,

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and conducting revegetation work at the Kaarakin Black Cockatoo Conservation Centre in Western Australia.²⁴

In another Australian example, a three-way partnership between the Northern Agricultural Catchments Council, the Durack Institute of Technology, and the Department of Corrections has enabled inmates from the Greenough Regional Prison to conduct conservation and education activities in the Greater Geraldton region.²⁵ Minimum security prison participants have the opportunity to undertake a Conservation and Land Management certification and conduct environmental restoration work, assisting local farmers and government projects. This partnership is special because it emphasizes engaging Aboriginal prisoners, with the goal of developing their employability in land management work.

How Could Inmates Contribute to Conservation?

The Convention of Biological Diversity suggests that biodiversity loss is caused by five main factors, which include habitat loss, fragmentation, and degradation; climate change; excessive nutrient load and pollution; overexploitation and unsustainable use of resources; and invasive pests.¹⁵ Australia is vast in size and suffers from many sources of environmental degradation that threaten biodiversity and the performance of various ecosystem services.¹⁶ The list of ways that inmates—across all levels of corrective services—can contribute is endless, but they depend upon the needs and priorities of the local region. Here are a few ideas:

Population control of invasive animal species including feral cats, rabbits, toads, and foxes.



Young sagebrush plants are tended in a prison as part of the SPP's Sagebrush Conservation Nursery Program. Photo: Jeff Clark, BLM

Introduced pests have very severe and deleterious impacts upon the native animals whose habitats they have invaded. Feral cats, for example, have devastated bird, reptile, marsupial, rodent, and frog populations.^{26,27} They have been identified as the most serious threat to biodiversity in the Kimberley; each day a feral cat can kill

between five and ten small native animals, and there are approximately one million of them in the region.²⁸ Inmates could be involved in trapping and baiting the pests, collecting data on numbers, and designing and building trapping systems.²⁹

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Rearing seedlings, reforestation with native trees, and clearing of invasive plant species. A serious threat to Australia's biodiversity is loss of habitat for native animals, and prison-based programs could work to mitigate this issue. It is possible that even inmates confined to higher levels of security could undertake seedling rearing within prison grounds.

Rearing and rehabilitating threatened species for release into the wild. Inmates could be involved in the rearing and release of endangered animals such as frogs and birds, or partake in rehabilitating sick or injured native animals in conjunction with local community rescue organizations as is done at Kaarakin Black Cockatoo Conservation Centre. The SPP's success in raising frogs for release demonstrates that it is possible to conduct such activities within the prison environment.

Data collection and basic data analysis activities. Inmates could be of assistance for scientific or government organizations involved in biodiversity research—particularly in cases where more boots on the ground are required to collect adequate data. This could include data collection on water quality, endangered flora and fauna species, pest populations, soil quality, or vegetation.

Restoration of sensitive ecosystems around rivers, lakes, and mangroves. These are biodiversity hotspots and breeding grounds for many species, and improving the condition of these environments through cleaning and planting of appropriate vegetation could build the resilience of the environment and reduce risks for biodiversity loss.

Bee conservation. Australian native bees are under threat from pesticide use, clearing of their natural habitat, climate change, and the spread of invasive vegetation species.³⁰ Inmates could play a role in bee conservation by building and maintaining nests and boxes—and potentially harvesting native honey.

Improving the sustainability of prison facilities. Projects such as recycling, composting, waste and water-use reduction, land-scaping with native trees, vegetable gardening and farming for food, and installing solar panels or other sources of renewable energy can enhance the sustainability of prison facilities, reduce operation costs, and provide an opportunity for inmates to be creative and productive within the prison environment.²³ The SPP has demonstrated that such projects can be highly successful.

Clearly, engagement in several of these activities would require inmates to leave the prison. This requires careful selection and allocation of activities to inmates and adequate supervision by prison staff to ensure compliance and community safety.

Providing Educational Opportunities

Beyond the on-the-job training required to engage in various conservation and science projects, formal education and training opportunities are vital to the value of a prison-based conservation project.^{11,31} These could be developed in conjunction with local

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tertiary education centers such as universities and the vocational training organization TAFE (Technical and Further Education). These institutions provide a vast range of study options in the areas of conservation, biology, agriculture, and environmental science and management. Importantly, educational programs for prisoners would need to be focused on practical and job-relevant topics, presented in an appropriate and engaging style,³² and tailored to the average education level of the participating inmates. They could potentially be taught by interested lecturers or students who are willing to visit the prison for this purpose, as is done in the SPP. Critically, educational participation activities should be geared to enable interested inmates to continue to participate after they leave the prison.

Indigenous Leadership

Aboriginal people have lived in Australia for around 60,000 years,³³ and despite the devastation of British colonization and the Stolen Generation, many still hold a great degree of traditional knowledge about caring for the environment and a strong cultural connection with the land.^{18,34} There is great value in integrating this ecological knowledge into Australia's efforts toward environmental restoration and land management.³⁵ There is already a collection of Commonwealth-funded Indigenous Ranger groups in Australia, called the *Working on Country* program.^{36,37} The program trains and employs Indigenous rangers to provide a wide range of environmental services in accordance with traditional land management knowledge and practice. It has already demonstrated substantial economic, employment, and social benefits for the community, environment, and participants.³⁸⁻⁴⁰

A prison-based conservation program could harness this incredible network, and others like it, to set priorities, share knowledge, develop projects, and support inmates to engage in biodiversity conservation work. Given the extreme over-representation of Indigenous people in Australian prisons, Indigenous-led programs may provide opportunities for supporting social and cultural identity, reconnection with the land and traditional knowledge, and perhaps ultimately contribute to reduced rates of imprisonment and re-imprisonment in this population.

Cost Effectiveness

Biodiversity underpins the priceless services provided by healthy, well-functioning ecosystems. While environmental restoration is expensive, it is rarely as expensive as trying to replace the services provisioned naturally by nature once they have been destroyed.⁴¹ Repetitively incarcerating people is also expensive—both from an economic and social perspective. Mobilizing prisoners to conduct biodiversity conservation has the potential to be a cost-effective strategy for society to get enough boots on the ground to make tangible environmental and social achievements. Clearly, all projects need to be designed with economic viability in mind—but we need to remember to account for the long-term cost savings inherent in environmental and social investments.

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A Whole-systems Approach

A large-scale, prison-based conservation program in Australia would represent a truly whole-systems approach to both prison reform and environmental restoration. It would have the capacity to contribute to all forms of capital as defined by the ecological economics model of sustainable human well-being:

Natural capital. Biodiversity is improved and protected, and ecosystem services restored or improved through invasive species control, tree planting, rearing and release of endangered species, etc.

Human capital. A typically under-served population can benefit from human capital enrichment in the form of: science and conservation education and training; improved social and emotional well-being; connection with nature; land management skills; and better employment prospects – especially if post-release employment can be offered to interested people.

Built capital. Built capital contributions can include improvements to the sustainability of corrective services facilities, building facilities for rearing seedlings and rehabilitating and rearing animals; building and designing traps for invasive pests; and the potential for sustainable business models for products produced by inmates (e.g., honey).

Social capital. Social capital contributions may include: respect for, and integration of, Indigenous land management knowledge and practice; improved community safety as offenders have a more rehabilitative experience with corrective services; better community perception of inmates upon release thanks to the high importance of the work; and lower recidivism rates as prisoners will be more likely to have enhanced education and employment prospects upon release.

Final Thoughts

Australia needs to harness the valuable opportunities that are available to address pressing social and environmental problems through innovative, whole systems approaches.

Undoubtedly, there are enormous complexities involved in developing a prisons-based conservation system that is simultaneously large enough in scope to make a real difference to the environment and well-designed enough to effectively address the revolving prison door. However, it is high time that both issues were addressed with the ambition and resources that they deserve, and for Australia, this could be one step in the right direction.

References

1. Australian Bureau of Statistics. Repeat imprisonment. ABS Social Trends 2010, Cat no. 4102.0. 5 (2010).

<https://www.thesolutionsjournal.com/article/slowing-australias-revolving-prison-door-biodiversity-conservation-projects/>

2. Australian Bureau of Statistics. Corrective Services, Australia, June Quarter 2016. Cat. no 4512.0. (2016).
3. Kidd, J. Number of Indigenous Australians in prison a catastrophe, says Mick Gooda, the Aboriginal and Torres Strait Islander Social Justice Commissioner. ABC [online] (December 5, 2014). <http://www.abc.net.au/news/2014-12-04/number-of-indigenous-australians-i...>
4. Cunneen, C. Time to arrest rising Aboriginal prison rates. *Insight* 8, 22-24 (2013).
5. The Senate Select Committee on Regional and Remote Indigenous Communities. *Indigenous Australians, Incarceration and the Criminal Justice System* [online] (2010). <http://www.alsnswact.org.au/media/BAhbBlSHOgZmSSJhMjAxMS8wOC8xNS8yM18yNF....>
6. Willis, M. Reintegration of indigenous prisoners: key findings. *Trends and Issues in Crime and Criminal Justice* 364 (2008).
7. Indig, D, Frewen, A & Moore, E. Predictors and correlates of re-incarceration among Australian young people in custody. *Australia and New Zealand Journal of Criminology* 49, 73 (2016).
8. Weatherburn, D & Holmes, J. Re-thinking Indigenous Over-representation in Prison. *Australia Journal of Social Issues* 559–576 (2010).
9. Hsu, CI, Caputi, P & Byrne, MK. Level of Service Inventory-Revised: Assessing the Risk and Need Characteristics of Australian Indigenous Offenders. *Psychiatry, Psychology Law* 17, 355–367 (2010).
10. Weatherburn, D. *Arresting Incarceration: Pathways Out of Indigenous Imprisonment*. (Aboriginal Studies Press, 2014).
11. Giles, M. Study in prison reduces recidivism and welfare dependence: A case study from Western Australia 2005-2010. *Trends and Issues in Crime and Criminal Justice* 514, 1–9 (2016).
12. Kaye, TN, Bush, K, Naugle, C, Leroy, CJ & Kaye, TN. Conservation Projects in Prison : The Case for Engaging Incarcerated Populations in Conservation and Science. *Natural Areas Journal* 35(1), 90–97 (2015).
13. Ulrich, C & Nadkarni, NM. Sustainability research and practices in enforced residential institutions: Collaborations of ecologists and prisoners. *Environmental Development and Sustainability* 11, 815–832 (2009).
14. Rockstrom, J et al. Planetary boundaries: exploring the safe operating space for humanity. *Ecological Sociology* 14, 32 (2009).
15. Secretariat of the Convention on Biological Diversity. *Global Biodiversity Outlook 3* (2010).
16. Natural Resource Management Ministerial Council. *Australia's Biodiversity Conservation Strategy 2010-2030* (2010).
17. Nadkarni, NM. Not preaching to the choir: Communicating the importance of forest conservation to nontraditional audiences. *Conservation Biology* 18, 602–606 (2004).
18. Saunders, B. Caring for country: the eco-wisdom of Australian Aboriginal poetry: an overview. *Five Bells* 16, 52–59 (2009).
19. Ganesharajah, C. *Indigenous Health and Wellbeing: The Importance of Country*. *Native Title Research Report Report No. 1/2009*(2009).
20. Khatib, D & Krasny, ME. Greening Programs to Facilitate Prisoner Reentry (Cornell University Civic Ecology Lab, Cornell, 2015).
21. Leroy, CJ, Trivett, JR, Bush, K, Vanneste, J & Pacholke, D. *The Sustainability in Prisons Project Handbook : Protocols for the SPP Network Protocols for the SPP Network , 1st Edition The Sustainability in Prisons Project Handbook* (2016).
22. Johnson, K. Raising Frogs for Freedom, Prison Project Opens Doors. The New York Times [online] (September 27, 2012). <http://www.nytimes.com/2012/09/28/us/raising-frogs-for-freedom-prison-pr...>

<https://www.thesolutionsjournal.com/article/slowing-australias-revolving-prison-door-biodiversity-conservation-projects/>

23. LeRoy, CJ, Bush, K, Trivett, J & Gallagher, B. *The Sustainability in Prisons Project: An overview (2004-2012)* (Gorham Publishing, Olympia, 2012).
24. Martin, L. Prisoners help rehabilitate black cockatoos at Kaarakin Conservation Centre. ABC [online] (May 31, 2014). <http://www.abc.net.au/news/2014-05-30/prison-inmates-looking-after-cocka...>
25. Prisoners take lead in landmark conservation project. Northern Agricultural Catchments Council [online] (2015). <http://www.nacc.com.au/prisoners-take-lead-in-landmark-conservation-proj...>
26. Doherty, T. Killer cats: the devastating impact of feral cats on Australian biodiversity, Synthesis. *Ecological Society of Australia* [online] (2016) <http://www.ecolsoc.org.au/hot-topics/killer-cats>.
27. Frank, ASK et al. Experimental evidence that feral cats cause local extirpation of small mammals in Australia's tropical savannas. *Journal of Applied Ecology* 51, 1486–1493 (2014).
28. Feral cats threaten biodiversity in the Kimberley. ABC Radio National Bush Telegraph [online] (July 23, 2014). <http://www.abc.net.au/radionational/programs/busstelegraph/csiro-kimberl...>
29. Department of the Environment Water Heritage and the Arts. Threat abatement plan for predation by feral cats [online] (2008). <https://www.environment.gov.au/system/files/resources/91832626-98e3-420a...>
30. Batley, M & Hogendoorn, K. Diversity and conservation status of native Australian bees. *Apidologie* 40, 347–354 (2009).
31. Lipshutz, S, Stearns, K, Labella, S, Ness, PJ & Turner, B. *Breaking In: Educating Prisoners through Environmental Literacy* (Skidmore University, 2013).
32. Weber, SR, Hayes, MP, Webb, T & Leroy, CJ. Environmental education in prison : a comparison of teaching methods and their influence on inmate attitudes and knowledge of environmental topics. *Interdisciplinary Environmental Review* 16, 267–284 (2015).
33. Roberts, RG et al. The human colonisation of Australia: optical dates of 53,000 and 60,000 years bracket human arrival at Deaf Adder Gorge, Northern Territory. *Quarterly Science Review* 13, 575–583 (1994).
34. Caring for Country. Central Land Council. Indigenous Ecological Knowledge [online]. <http://www.clc.org.au/articles/info/indigenous-ecological-knowledge>.
35. May, K. *Indigenous cultural and natural resource management and the emerging role of the Working on Country program*. CAEPR Working Paper No. 65/2010 (2010).
36. Australian Government Department of the Prime Minister and Cabinet. Indigenous Rangers – Working on Country | Department of the Prime Minister and Cabinet. [online] (2016). <http://www.dpmc.gov.au/indigenous-affairs/environment/indigenous-rangers...>
37. Australian Government Department of the Environment. Working on Country – Factsheet. Caring for our Country 2 [online] (2013). <http://www.environment.gov.au/indigenous/workingoncountry/publications/p...>
38. Commonwealth of Australia. Reporting back... 2013-14 Working on Country and Indigenous Protected Areas programmes. Australian Government [online] (2015). <https://www.dpmc.gov.au/sites/default/files/publications/reporting-back-....>
39. Urbis Pty Ltd. *Assessment of the social outcomes of the Working on Country program*. Environment.gov.au [online] (2012). <https://www.environment.gov.au/indigenous/workingoncountry/publications/....>
40. Allen Consulting Group. *Assessment of the economic and employment outcomes of the Working on Country program*. Environment.gov.au [online] (October 2011). <https://www.environment.gov.au/indigenous/workingoncountry/publications/....>
41. Costanza, R et al. The value of the world's ecosystem services and natural capital. *Nature* 387, 253–260 (1997).

<https://www.thesolutionsjournal.com/article/slowing-australias-revolving-prison-door-biodiversity-conservation-projects/>