

Personal Profile

With over 35 years of experience in tropical ecosystem management, Nigel Tucker is one of Queensland's more experienced tropical ecologists. As Principal Environmental Scientist Nigel manages Biotropica Australia's major projects, and his botanical and ecological skills are used extensively in field work.

A specialist in tropical restoration ecology, Nigel established the Queensland Parks and Wildlife Service's Centre for Tropical Restoration in the 1990's and spent many years undertaking scientific research; in environments ranging from coral cays to wet and dry tropical forests, on topics as diverse as small mammal genetics, pest management and forest succession; in locations from north Queensland to Indonesia.

Nigel continues to publish within the peer-reviewed literature and lecture at a number of institutions. Nigel is a formation board member of the Australasian chapter of the Society for Ecological Restoration International, an Executive board member and Commissioned Reviews Editor of the journal Ecological Management and Restoration, a member of the Environment Institute of Australia and New Zealand, and an Adjunct within James Cook University's School of Marine and Tropical Biology.

Education / Qualifications

Master of Science (Tropical Biology)	1999 - 2000
Associate Diploma of Applied Science	1990 – 1996

Employment

Director/Senior Environmental Scientist Biotropica Australia, Tarzali, Atherton Tablelands, Queensland, Australia	2002 - current
Manager Queensland Parks and Wildlife Services Centre for Tropical Restoration Lake Eacham, Atherton Tablelands, Queensland	1984-2002
Field Assistant Assistant to Rainforest Ecologist – J.G Tracey (dec) CSIRO – Tropical Forest Research Centre Atherton, Queensland	1983 - 1984

Key Projects

- **Client:** Diatreme Resources (2018-2021)
Project: Wet and Dry Season EIS surveys for proposed Galalar Silica Sand Mine, Cape Bedford, North Queensland
- **Client:** Hydrobiology Pty Ltd (2018-2019).
Project: Terrestrial Ecology Review – Frieda River Ltd: Sepik Development Project Independent Panel EIS Review
- **Client:** BMT WBM Pty Ltd (2017-2018)
Project: Abbott Point Land and Fire Management Plans, Abbott Point, North Queensland
- **Client:** Nambal Resources Pty Ltd (2017)
Project: Quarry Inspection and Rehabilitation Plans – Hope Vale
- **Client:** Satterley Development Group (2018)
Project: Restoration Plan for Smithfield Village Wetlands
- **Client:** Queensland Department of Transport and Main Roads (2017-2018)
Project: Environmental Management Plans for Roads in the Wet Tropics World Heritage Area
- **Client:** Flanagan Consulting Group (2014)
Project: Aquis at the Great Barrier Reef Environmental Impact Statement
- **Client:** ExxonMobil PNG Ltd (2005-2017)
Project: Weeds and Rehabilitation Management: PNG LNG Project, Papua New Guinea
- **Client:** Tablelands Regional Council (2018)
Project: Quarry De-commissioning and Rehabilitation Plans for Selected Tablelands Quarries
- **Client:** OK Tedi Mining Ltd (2014)
Project: Invasive Species Management Plan for OTML assets – Western Province, PNG
- **Client:** Oil Search Ltd (2013-2015)
Project: Invasive Species Survey and Management Plan for Assets in Hela and Southern Highlands Provinces, Papua New Guinea
- **Client:** Coffey Natural Systems (2005-2012)
Project: Environmental survey and advice: PNG LNG Project, Papua New Guinea
- **Client:** Ok Tedi Mining Ltd (2008-2014)
Project: Design and implementation of a rehabilitation strategy for remediation of mine waste at Bige, Western Province, Papua New Guinea

Publications

- Catterall, C., Kanowski, J., Wardell-Johnson, G., Proctor, H., Reis, T., Harrison, D., and Tucker, N. (2004). Quantifying the Biodiversity Values of Reforestation: Perspectives, Design Issues and Outcomes in Australian Rainforest Landscapes. In: *Conservation of Australia's Forest Fauna* (2nd edition) Lunney, D. (Ed) Mosman, NSW: Royal Zoological Society of New South Wales.
- Goosem, S. and Tucker, N. (2013). *Repairing the Rainforest* (2nd Edition). Cairns: Biotropica Australia and the Wet Tropics Management Authority.
- Goosem, S. and Tucker, N. (1998). Current Concerns and Management Issues of Phytophthora Cinnamomi in the Rainforests of the Wet Tropics. pp 9-16 In: *Patch Deaths in Tropical Queensland Rainforests: Association and Impact of Phytophthora cinnamomi and Other Soil Borne Organisms*. (Ed) Gadek.P. Cairns: CRC for Tropical Rainforest Ecology and Management, Technical Report.
- Goosem, S. and Tucker, N. (1995). *Repairing the Rainforest*. Theory and Practice of Rainforest Re-establishment in North Queensland's Wet Tropics. Cairns: Wet Tropics Management Authority. pp. 80.
- Grove, S. and Tucker, N. (2000). Importance of Mature Timber Habitat in Forest Management and Restoration: What Can Insects Tell Us? *Ecological Management and Restoration*, 1:1. pp. 63-65.
- Harvey, C., Tucker, N. and Estrada, A. (2004). Live Fences, Isolated Trees, and Windbreaks: Tools for Conserving Biodiversity in Fragmented Tropical Landscapes In: *Agroforestry and Biodiversity Conservation in Tropical Landscapes*. (Eds: Scroth, G., da Fonseca, G., Harvey, C., Gascon, C., Vasconcelos, H. and Izac, A.) Washington, D.C: Island Press.
- Kanowski, J., Catterall, C., Proctor, H., Reis, T., Tucker, N. and Wardell-Johnson, G. (2005). Biodiversity Values of Timber Plantations and Restoration Plantings for Rainforest Fauna in Tropical and Subtropical Australia. In: *Reforestation in the Tropics and Subtropics of Australia Using Rainforest Tree Species* (Eds: Erskine, P., Lamb, D. and Bristow, M.). pp.183-205 RIRDC Publication No 05/087, Canberra: Rural Industries Research and Development Corporation.
- Kanowski, J. and Tucker, N. (2002). Trial of Shelter Poles to Aid the Dispersal of Tree Kangaroos on the Atherton Tablelands, North Queensland. *Ecological Management and Restoration*. 2:3, pp.137-138.
- Kanowski, J., Winter, J., Simmons, T., and Tucker, N. (2003). Conservation Strategy for Lumholtz's Tree-Kangaroo on the Atherton Tablelands. *Ecological Management and Restoration*. 4:3, pp. 220-221.
- Lamb, D., Parrotta, J., Keenan, R and Tucker, N. (1997). Rejoining Habitat Remnants: Restoring Degraded Rainforest Lands. In: *Tropical Forest Remnants: Ecology, Management and Conservation of Fragmented Communities*. (Eds: Bierregaard, R. and Laurance, W.). Chicago: University of Chicago Press. pp. 366-385.
- Murphy, T. and Tucker, N. (2000). Restoration in North Queensland – A Local Perspective. *Ecological Management and Restoration*. 1:2, pp. 140-142.
- Paetkau, D., Vasquez, E., Tucker, N. and Moritz, C. (2009). Monitoring Movement into and Through a Newly Planted Rainforest Corridor Using Genetic Analysis of Natal Origin. *Ecological Management and Restoration*. 10:3, pp. 210-216.
- Simmons, T. and Tucker, N. (2002). The Rat's Tale – Use of Small Mammals as Bioindicators in a Restored Forest Linkage in Far North Queensland. In: *Ecology 2002: Handbook of the 2nd Joint Meeting of the Ecological Society of Australia Inc., and the New Zealand Ecological Society Inc*. Landsberg, J. (ed). pp. 141. Cairns, Australia.
- Tucker, N. (1996). *Foster Ecosystems: Early Observations on the Ability of a Pioneer Monoculture to Accelerate Succession on Degraded Tropical Lands*. Paper presented at the 'Conference on World Heritage Tropical Forest Management.' Cairns: Wet Tropics Management Authority.

- Tucker, N. and Murphy, T. (1997). The Effects of Ecological Rehabilitation on Biodiversity Recruitment: Some Observations from the Wet Tropics of North Queensland. *Forest Ecology and Management*. 99 ½, pp.133–152.
- Tucker, N. (1999). Wildlife Corridors: Three Restoration Case Studies from the Wet Tropics of North Queensland. In: *Tropical Restoration for the New Millennium Handbook of the Annual Meeting of the International Society for Ecological Restoration*. Puerto Rico, U.S.A. pp. 119.
- Tucker, N. (2000). Linkage Restoration: Interpreting Fragmentation Theory for the Design of a Restored Habitat Linkage in Tropical North-Eastern Queensland. *Ecological Management and Restoration*. 1:1, pp. 35-42.
- Tucker, N. (2000). Evaluating Effectiveness of Restored Habitat Linkages at Donaghy's Corridor: Measures Used and Questions Asked. *Ecological Management and Restoration*. 1:1, pp. 61-62.
- Tucker, N. (2000). *Vanishing Vegetation of Far North Queensland – Mabi Forest (Type 5b)*. Atherton: Hedges and Simpson Printery, pp. 20.
- Tucker, N. (2001). Wildlife colonization on restored tropical lands: What can it do, how can we hasten it and what can we expect? In: *Forest Restoration for Wildlife Conservation* (Eds: Elliott, S., Kerby, J., Blakesley, D., Hardwicke, K., Woods, K. and Anusarnsunthorn, V.). Chiang Mai University, Thailand: International Tropical Timber Organisation and the Forest Restoration Research Unit, pp. 279-295.
- Tucker, N. (2002). *Vegetation Recruitment in a Restored Habitat Linkage in the Wet Tropics of North-Eastern Qld*. MSc Thesis. Cairns: James Cook University.
- Tucker, N., Wardell-Johnson, G., Catterall, C. and Kanowski, J. (2004). Agroforestry and Biodiversity: Improving Conservation Outcomes in Tropical Northeastern Australia. In: *Tropical Biodiversity and the Role of Agroforestry*. (Eds: Scroth, G., Gascon, C., Izac, A. and Harvey, C.). Washington, D.C: Island Press.
- Tucker, N. and Simmons, T. (2004). Animal-Plant Interactions in Tropical Restoration: Observations and Questions from North Queensland. In: *Animal-Plant Interactions in Conservation and Restoration*. (Eds: Kanowski, J., Catterall, C., Dennis, A. and Westcott, D). Cairns: Cooperative Research Centre for Tropical Rainforest Ecology and Management.
- Tucker, N. (2005). Healing Country and Healing Relationships. *Ecological Management and Restoration*. 6:2, pp. 83-84.
- Tucker, N. (2008). Restoration in North Queensland: Recent Advances in the Science and Practice of Tropical Rainforest Restoration In: Stork, N. and Turton, S. *Living in a Dynamic Tropical Forest Landscape*, UK: Blackwell Publishing. Pp. 485-493.
- Tucker, N. and Simmons, T. (2009). Restoring a Rain Forest Habitat Linkage in North Queensland: Donaghy's Corridor. *Ecological Management and Restoration*. 10:2, pp. 98-112.
- Tucker, N. (2009). The Circuit Breaker. In: *From the Heart* (Ed. Clarke, C.). Cairns: Wet Tropics Management Authority.
- Tucker, N. (2010). Some non-Timber Values from Rainforest Species Australian Forest Grower. 33:3, pp. 37-38.
- Tucker, N. (2015). *Restoration Options for West Java*. Paper presented at the 2nd International Conference on Tropical Biology, Bogor, Jakarta.
- Tucker N. (2017). *Exotic Plants of the Kikori River Basin: National Quarantine Inspection Authority*. Port Moresby.
- Vasquez-Dominguez, E., Paetkau, D., Tucker, N., Hinten, G. and Moritz, C. (2001). Resolution of Natural Groups Using Iterative Assignment Tests: An Example from two Species of Australian Native Rats (*Rattus*). *Molecular Ecology*. 1098, pp.2069-2075.

- Wardell-Johnson, G., Tucker, N., Kooyman, R., Catterall, C. and Kanowski, J. (2001). Rainforest Restoration and Recovery: Exploration of Plant Assemblages. Paper presented at the 2001 Annual Conference of the Rainforest CRC. Cairns, Australia.
- Ward, D., Tucker, N. and Wilson, J. (2003). Cost-Effectiveness of Revegetating Degraded Riparian Habitats Adjacent to Macadamia Orchards in Reducing Rodent Damage. *Crop Protection*. Vol 22:7, pp. 935-940.
- White, E., Tucker, N., Wilson, J. and Meyers, N. (2004). Seed Dispersal to Revegetated Isolated Rainforest Patches in North Queensland. *Forest Ecology and Management*. 192, pp.409-426.

Mr. Tucker has been Project Manager for the following Cape York Peninsula projects completed on behalf of the Qld Department of Transport and Main Roads, on the Peninsula Development Road (PDR).

- 2009 - CYP Existing Waterpoints ecological survey and report
- 2010 – CYP Gravel Pits (Merluna/Wallaby) ecological survey and report: Coen
- 2010 – CYP Gravel Pits ecological survey and report: Archer River
- 2010 – PDR Upgrades ecological survey and report: Deadhorse Creek to Morehead River
- 2011 – PDR Culverts Survey and report: Laura River
- 2013 – PDR Watercourse survey and report: Laura to Coen
- 2014 – PDR Water Storage sites Sect B, C ecological surveys: (Musgrave to Coen)
- 2014 – PDR Water Storage sites Sect B, C ecological surveys (2nd round): (Musgrave to Coen)
- 2014 – Bourne Creek Clearing Rehabilitation Plan
- 2014 – Battle Camp Road Gravel Pits ecological survey and report
- 2015 – PDR Water Storage sites Sect D ecological survey and report: (Coen to Archer River)
- 2015 – PDR Laura River Bridge Upgrade ecology report: Laura
- 2015 – Ecological survey and report to support nomination to downgrade EPBC Act/NC Act listing of the Vulnerable-listed plant *Stemona angusta*
- 2016 – PDR Waterpoints ecological survey and report: Morehead River to the Rio Boundary
- 2016 - Ecological survey and report to support nomination to downgrade EPBC Act/NC Act listing of the Endangered-listed plant *Cajanus mareebensis*
- 2017 – PDR Sealing Project ecological survey and report: Morehead River to Musgrave (Saltwater Creek)
- 2020 – PDR Vegetation Assessment and report: Yarraden to Three Sisters