

Project Closure SP 2014-003

Cat eradication on Dirk Hartog Island

Animal Science

Project Core Team

Supervising Scientist

Dave Algar

Data Custodian

Mike Johnston

Site Custodian

Dave Algar

Project status as of Sept. 3, 2020, 1:02 p.m.

Closure pending approval of closure form

Document endorsements and approvals as of Sept. 3, 2020, 1:02 p.m.

Project Team

granted

Program Leader

granted

Directorate

required

Cat eradication on Dirk Hartog Island

Closure goal

completed

Closure reason

This project has been completed with Dirk Hartog Island being declared "cat-free" in October 2018. Documentation of the cat eradication was published last year.

Algar, D., Johnston, M., Tiller, C., Onus, M., Fletcher, J., Desmond, G., Hamilton, N., and Speldewinde, P. (2019). Feral cat eradication on Dirk Hartog Island, Western Australia. *Biological Invasions* **22**, 1037–1054.

Key publications and documents

Publications

Johnston, M., Algar, D., Onus, M., Hamilton, N., Hilmer, S., Withnell, B. and Koch, K. (2009). A bait efficacy trial for the management of feral cats on Dirk Hartog Island. Arthur Rylah Institute for Environmental Research Client Report. Department of Sustainability and Environment, Heidelberg, Victoria.

Hilmer, S.S., Algar, D. and Johnston, M. (2010). Opportunistic observation of predation of Loggerhead turtle hatchlings by feral cats on Dirk Hartog Island, Western Australia. *Journal of the Royal Society of Western Australia* **93**, 141–146.

Algar, D., Hilmer, S., Onus, M., Hamilton, N. and Moore, J. (2011). New national park to be cat-free. *LANDSCOPE* **26(3)**, 39–45.

Algar, D., Johnston, M., and Hilmer, S.S. (2011). A pilot study for the proposed eradication of feral cats on Dirk Hartog Island, Western Australia. In: *Island Invasives: Eradication and Management* (eds. C.R. Veitch, M.N. Clout and D.R. Towns) pp 10–16. IUCN, Gland, Switzerland.

Campbell, K.J., Harper, G., Algar, D., Hanson, C.C., Keitt, B.S. and Robinson, S. (2011). Review of feral cat eradications on islands. In: *Island Invasives: Eradication and Management* (eds. C.R. Veitch, M.N. Clout and D.R. Towns) pp 37–46. IUCN, Gland, Switzerland.

Johnston, M., Algar, D., O'Donoghue, M. and Morris, J. (2011). Field efficacy of the Curiosity® feral cat bait on three Australian islands. In: *Island Invasives: Eradication and Management* (eds. C.R. Veitch, M.N. Clout and D.R. Towns) pp 182–187. IUCN, Gland, Switzerland.

Bode, M., Brennan, K.E.C., Helmstedt, K., Desmond, A., Smia, R., and Algar, D. (2013). Interior fences reduce cost and uncertainty when eradicating invasive species from islands. *Methods in Ecology and Evolution* **4(9)**, 819–827.

Kock, K., Algar, D. and Schwenk, K. (2014). Dispersal, population structure and management implications for invasive cats on Australian islands. *Journal of Wildlife Management* **78(6)**, 968–975.

Kock, K., Algar, D., Searle, J.B., Pfenninger, M. and Schwenk, K. (2015). A voyage to Terra Australis: human-mediated dispersal of cats. *BMC Evolutionary Biology*, 15, 262 DOI 10.1186/s12862-05-0542-7.

Algar, D. and Johnston, M. (2015). Eradication of feral cats from Western Australian islands: success stories. In: *National Feral Cat Workshop Proceedings* (Eds. Tracey J, Lane C, Fleming P, Dickman C, Quinn J, Buckmaster, T and McMahon S). PestSmart Toolkit publication, Invasive Animals Cooperative Research Centre, Canberra, Australia. Canberra 21–22 April 2015. pp. 112–116.

Algar, D. and Johnston, M. (2015). Eradication of feral cats from Western Australian islands: an update. (ABSTRACT) In: Australian Wildlife Management Conference, Perth 23–26 November 2015.

Deller, M., Mills, H.R., Hamilton, N. and Algar, D. (2015). Diet of feral cats, *Felis catus*, on Dirk Hartog Island. *Journal of the Royal Society of Western Australia* **98**, 37–43.

Holdsworth, M., Robinson, S. and Baker, G.B. (2015). Dirk Hartog Island cat eradication program: cat detector dog surveys. Latitude 42, client report to Department of Parks and Wildlife. 13 pp.

Algar, D., Johnston, M., O'Donoghue, M. and Quinn, J. (2016). An update of feral cat control in Western Australia. (ABSTRACT) In: Australian Mammal Society Conference, Alice Springs 26–29 September 2016.

Bengsen, A.J., Algar, D., Ballard, G., Buckmaster, T., Comer, S., Fleming, P.J.S., Friend, A.J., Johnston, M., McGregor, H., Moseby, K. and Zewe, F. (2016). Feral cat home range size varies predictably with landscape productivity and population density. *Journal of Zoology* **298**, 112–120.

Dybing, N.A., Jacobson C., Irwin, P., Algar, D. and Adams, P. (2016). Bartonella species identified in rodent and feline hosts from island and mainland Western Australia. *Vector-Borne and Zoonotic Diseases* **16**, 238–244.

Dybing, N.A., Jacobson C., Irwin, P., Algar, D. and Adams, P. (2016). Ghosts of Christmas past?: absence of trypanosomes in feral cats and black rats from Christmas Island and Western Australia. *Parasitology Open* **2**:e4 (5 pages).

Holdsworth, M., Robinson, S. and Baker, G.B. (2016). Dirk Hartog Island cat eradication program: cat detector dog surveys. Latitude 42, client report to Department of Parks and Wildlife. 16 pp.

Johnston, M., Holdsworth, M., Robinson, S. and Algar, D. (2016). Noses on legs: detector dogs helping with cat control. *LANDSCOPE* **32**(4), 42–47.

Koch, K., Algar, D. and Schwenk, K. (2016). Feral cat globetrotters: genetic traces of historical human-mediated dispersal. *Ecology and Evolution*. doi: 10. 1002/ece3.2261

Dybing, N.A., Jacobson, C., Irwin, P., Algar, D. and Adams, P.J. (2017). *Leptospira* species in feral cats and black rats from Western Australia and Christmas Island. *Vector-Borne and Zoonotic Diseases* **17**(5), 319–324.

Algar, D., Johnston, M. and Pink, C. (2019). Big island feral cat eradication campaigns: an overview and status update of two significant examples. In: C.R. Veitch, M.N. Clout, A.R. Martin, J.C. Russell and C.J. West (eds.) *Island invasives: scaling up to meet the challenge*, pp. 238-243. Occasional Paper SSC no. 62. Gland, Switzerland: IUCN.

Algar, D., Johnston, M., Tiller, C., Onus, M., Fletcher, J., Desmond, G., Hamilton, N., and Speldewinde, P. (2019). Feral cat eradication on Dirk Hartog Island, Western Australia. *Biological Invasions* **22**, 1037–1054.

Johnston, M., Algar, D., Onus, M., Desmond, G., Tiller, C., Fletcher, J. and Hamilton, N. (2019). Declaration on Dirk: feral cats eradicated. *LANDSCOPE* **34**(3), 42–46.

Algar, D., Morris, K., Asher, J. and Cowen, S. (accepted). Dirk Hartog Island 'Return to 1616' Project – the first six years (2014 to 2019). *Ecological Management and Restoration*.

Knowledge Transfer

Knowledge transfer has been achieved through the various publications written documenting the project and presentations at a variety of workshops and conferences.

Dataset links

All datasets are held by the Project Leader.

Hardcopy location

All dataset hardcopies are held by the Project Leader.