

**TASMANIAN DEVIL FACIAL TUMOUR DISEASE AND
CONSERVATION OF THE TASMANIAN DEVIL
Scientific Publications**

Bergfeld J., Sharpe R., Loh R. and Pyecroft S. (in press) Establishment of haematological and biochemical reference intervals for the Tasmanian Devil (*Sarcophilus harrisi*). *Australian Veterinary Journal*.

Bradshaw, C. J.A. and Brook, B. W. (2005) Disease and the devil : density-dependent epidemiological processes explain historical population fluctuations in the Tasmanian devil. *Ecography*, April. 28 (2): 181-190

Gregory, G.G., Munday, B.L., Beveridge, I., Rickard, M.D. (1975) Studies on *Anoploetaenia dasyuri beddard*, 1911 (Cestoda: Taeniidae), a parasite of the Tasmanian devil: Life-cycle and epidemiology [Abstract only]. *International Journal for Parasitology*, 5 (2): 187-191

Hamede, R., McCallum, H., & Jones, M. (in press) Seasonal, demographic and density-related patterns of contact between Tasmanian devils: Implications for transmission of Devil Facial Tumour Disease. *Austral Ecology* *In press*.

Harington, J. S. and McGlashan, N.D. (2005) The Tasmanian Devil Facial Tumour Disease (DFTD.) - a problem unresolved. *Annals of the Australasian College of Tropical Medicine*, 6 (2), December: 34-34.

Harington, J.S., Obendorf, D.L., McGlashan, N.D. (2006) Researching the Tasmanian devil facial tumour. *Aust. Veterinary Journal* May; 84(5): N26

Hawkins, C.E., Baars, C., Hesterman, H., Hocking, G.J., Jones, M.E., Lazenby, B., Mann, D., Mooney, N., Pemberton, D., Pyecroft, S., Restani, M., Wiersma, J. (2006) Emerging disease and population decline of an island endemic, the Tasmanian devil *Sarcophilus harrisi*. *Biological Conservation*, August 2006. 131 (2): 307-324

Hesterman, H.; Jones, S. M.; Schwarzenberger, F. (2007) Reproductive endocrinology of the largest dasyurids : Characterization of ovarian cycles by plasma and fecal steroid monitoring. Part I. The Tasmanian devil (*Sarcophilus harrisi*). / *General and comparative endocrinology*, In press

Hesterman, H.; Jones, S. M.; Schwarzenberger, F. (2007) Reproductive endocrinology of the largest Dasyurids: Characterization of ovarian cycles by plasma and fecal steroid monitoring.: Part II. The spotted-tailed quoll (*Dasyurus maculatus*). / *General and comparative endocrinology*, In press

Jones, M.E. (1997) Character displacement in Australian dasyurid carnivores: size relationships and prey size patterns. *Ecology* 78(8):2569-2587

Jones, Menna (1998) Function of vigilance in sympatric marsupial carnivores, the eastern quoll and the Tasmanian devil. *Animal Behaviour* 56: 1279-1284

Jones, Menna (2000) Road upgrade, road mortality and remedial measures: impacts on a population of eastern quolls and Tasmanian devils. *Wildlife Research*, 27 (3): 289-96

- Jones, Menna** (2003) Disease decimates the devil. *Wilderness news*, (164 (Summer)): 14-15
- Jones, M.E.** (2003) Predators, pouches and partitioning: ecomorphology and guild structure of marsupial and placental carnivores. Pp. 281-292 in: *Predators with Pouches: The Biology of Carnivorous Marsupials*. (Editors: Jones, M., Dickman, C. and Archer, M.).
- Jones, Menna E., and Rose, Robert, K.** (2001) *Dasyurus viverrinus*. *Mammalian species*, 677: 1 - 9
- Jones, Menna E., Barmuta, Leon A.** (1998) Diet overlap and relative abundance of sympatric dasyurid carnivores: a hypothesis of competition. *Journal of Animal Ecology* 67(3): 410-421
- Jones, Menna E., Barmuta, Leon A.** (2000) Niche differentiation among sympatric Australian dasyurid carnivores. *Journal of Mammalogy*, May 2000. 81 (2): 434-447
- Jones, M.E., Grigg, G.C., Beard, L.A.** (1997) Body temperatures and activity patterns of Tasmanian devils (*Sarcophilus harrisii*) and eastern quolls (*Dasyurus viverrinus*) through a subalpine winter. [Abstract only]. *Physiological Zoology*, 70 (1): 53-60
- Jones, M., P. Jarman, C. Lees, H. Hesterman, R. Hamede, N. Mooney, D. Mann, C. Pukk, J. Bergfeld, and H. McCallum.** 2007. Conservation management of Tasmanian devils in the context of an emerging, extinction-threatening disease: Devil Facial Tumor Disease. *EcoHealth* In Press.
- Jones, Susan M., Lockhart, Tammy J., Rose, Randolph W.** (2005) Adaptation of wild-caught Tasmanian devils (*Sarcophilus harrisii*) to captivity: evidence from physical parameters and plasma cortisol concentrations. *Australian journal of zoology*, 53 (5): 339-344
- Jones, M. E., Oakwood, M., Belcher, C., Morris, K., Murray, A., Woolley, P. A., Firestone, K. B., Johnson, B., Burnett, S.** (2003) Carnivore concerns: problems, issues and solutions for conserving Australasia's marsupial carnivores. Pp. 418-430 in: *Predators with Pouches: The Biology of Carnivorous Marsupials*. (Editors: Jones, M., Dickman, C. and Archer, M.).
- Jones, Menna E., Paetkau, David, Geffen, Eli, Moritz, Craig** (2003) Microsatellites for the Tasmanian devil (*Sarcophilus laniarius*). *Molecular Ecology Notes* 3: 177-279
- Jones, Menna E., Paetkau, David, Geffen, Eli, Moritz, Craig** (2004) Genetic diversity and population structure of Tasmanian devils, the largest marsupial carnivore. *Molecular ecology*, 13: 2197-2209
- Jones, M. E., Smith, G. C. and Jones, S. M.** (2004) Is anti-predator behaviour in Tasmanian eastern quolls (*Dasyurus viverrinus*) effective against introduced predators? *Animal Conservation* 7 (2): 155-160
- Jones, M.E. & Stoddart, D.M.** (1998) Reconstruction of the predatory behaviour of the extinct marsupial thylacine. *Journal of Zoology*, London 246(2):239-246.
- Lachish, S., M. E. Jones, and H. I. McCallum.** 2007 . The impact of devil

facial tumour disease on the survival and population growth rate of the Tasmanian devil. *Journal of animal ecology* 76(5): 926-36 (Sept. 2007).

Loh R., Bergfeld J., Hayes D., O'Hara A., Pyecroft S., Raidal S. and Sharpe R. (2006) The pathology of Devil Facial Tumor Disease (DFTD) in Tasmanian Devils (*Sarcophilus harrisii*). *Veterinary Pathology* 2006 43: 890-895

Loh R., Hayes D., Mahjoor A., O'Hara A., Pyecroft A. and Raidal S. (2006) The immunohistochemical characterization of Devil Facial Tumor Disease (DFTD) in the Tasmanian Devil (*Sarcophilus harrisii*). *Veterinary Pathology* 43: 896-903

McCallum H. and Jones M. (2006): To lose both would look like carelessness: Tasmanian devil facial tumour disease Unsolved Mystery; Public Library of Science, *Biology* 4 (10): 1671 – 1674.

McCallum, H., D. M. Tompkins, M. Jones, S. Lachish, S. Marvanek, B. Lazenby, G. Hocking, J. Wiersma, and C. Hawkins. 2007. Distribution and impacts of Tasmanian devil facial tumor disease. *EcoHealth* In press.

McGlashan, N.D., Obendorf, D.L., Harington, J.S. (2006) Aspects of the fatal malignant disease among the Tasmanian devil population (*Sarcophilus lanarius*). *European Journal of Oncology* 11(2):95-102.

McGlashan, N.D., Obendorf, D.L., Harington, J.S. (2007) Update on the devil facial tumour in Tasmania. *European Journal of Oncology* 12(2):75-80.

Obendorf, D.L., Handlinger, J.H., Mason, R.W., Clarke, K.P., Forman, A.J., Hooper, P.T., Forman, A.J., Hooper, P.T., Smith, S.J., Holdsworth, M. (1990) *Trichinella pseudospiralis* infection in Tasmanian wildlife. *Australian veterinary journal*, 67 (3): 108-110

Pearse, Anne-Maree, Swift, Kate (2006) [Allograft theory :]Transmission of devil facial-tumour disease. *Nature*, 2/2/2006. 439: 549

Siddle, Hannah V., Kreiss, Alexandre, Eldridge, Mark D. B., Noonan, Erin, Clarke, Candice J., Pyecroft, Stephen, Woods, Gregory M., Belov, Katherine (2007). Transmission of a fatal clonal tumor by biting occurs due to depleted MHC diversity in a threatened carnivorous marsupial. *Proceedings of the National Academy of Sciences of the United States of America (PNAS)*, 104 (41) : 16221 - 16226

Siddle, Hannah V.; Sanderson, Claire; Belov, Katherine (2007) Characterization of major histocompatibility complex class I and class II genes from the Tasmanian devil (*Sarcophilus harrisii*). *Immunogenetics*, Online first

Soulé, M. E., Mackey, B. G., Recher, H. F., Williams, J. E., Woinarski, J. C. Z., Driscoll, D., Dennison, W. C., and Jones, M. E. (2006) "The role of connectivity in Australian conservation." in *Connectivity Conservation* (Ed. Crooks, K. & Sanjayan, M.), *Conservation Biology* 14. Cambridge University Press, pp. 649-675.

International Conference Papers

Bergfeld J., Loh R., Sharpe R. and Pyecroft S. 2005 Baseline physiological parameters for Tasmanian Devils. In *Wildlife health in a shrinking world: ecology, management and conservation*, eds. Youl J, McClelland D, Young S, poster 132, pg 243. Wildlife Disease Association International Conference Proceedings, Rainforest CRC, Cairns, Australia,. (poster)

Hawkins, C.E., Jones, M.E., Mooney, N., Lazenby, B., Wiersma, J. (2005). Epidemiological features of a new disease in the Tasmanian devil (*Sarcophilus harrisii*). In: *Wildlife health in a shrinking world: ecology, management and conservation*, eds. Youl J, McClelland D, Young S, abstract 16 p58. Wildlife Disease Association International Conference Proceedings, Rainforest CRC, Cairns, Australia.

Hawkins, C.E. Cost/benefit analysis of threat mitigation strategies for a rapidly declining population: the Tasmanian devil (*Sarcophilus harrisii*). Society for Conservation Biology, Port Elizabeth, South Africa July 2007.

Jones, M. (2004) Paper at Wildlife Diseases Association, San Diego. Devil Facial Tumour Disease.

Jones, Menna (2005) Paper at Society for Conservation Biology, Brasilia, Brazil. Devil Facial Tumour Disease.

Loh R., Hayes D., Mahjoor A., O'Hara M., Pyecroft S.B., Raidal S. 2005 Devil Facial Tumour Disease (DFTD) in Tasmanian devils (*Sarcophilus harrisii*) – the gross, histological, ultrastructural and immunohistochemical characteristics of the neoplasm. In *Wildlife health in a shrinking world: ecology, management and conservation*, eds. Youl J, McClelland D, Young S, poster 152, pg 266. Wildlife Disease Association International Conference Proceedings, Rainforest CRC, Cairns, Australia. (poster)

McCallum, H., Jones, M., Lachish, S. & Hamede, R. (2006) 11th International Congress of Parasitology, Glasgow, Scotland, 6-11 August 2006. A parasitic clonally reproducing mammal? Tasmanian Devil facial tumour disease.

McCallum, H. Quantifying field transmission of Tasmanian devil facial tumor disease. Fifth International Workshop and Conference on the Ecology and Evolution of Infectious Disease, Cornell, May 2007.

McCallum, H., Lachish, S., Jones, M. Demographic impacts of Tasmanian devil facial tumour disease and implications for management. Society for Conservation Biology, Port Elizabeth, South Africa July 2007.

Pearse, A.M. 2005 The Cytogenetics of the Tasmanian Devil Facial Tumour DFTD in Wildlife Disease Association International Conference (CSIRO Publishing, Cairns,).

Pearse, A.M. & Swift, K. 2006 The Tasmanian Devil (*Sarcophilus harrisii*) and an Hypothesis for Transmission of Devil Facial Tumour Disease (DFTD). in Australasian Society of Cytogeneticists, 12th Annual Interim Meeting (Melbourne, Australia,).

Pyecroft S.B. 2005 Research into the Tasmanian Devil Facial Tumour Disease (DFTD), Australian Society of Veterinary Pathologists & Wildlife Diseases Association, International Annual Conference, Cairns, July

National Conference Papers

Edwards, L. (2006) A devil's occupation. The first Australasian Regional Environmental Enrichment Conference 2006: Combining the theory and the fun of enrichment 1st and 2nd November 2006, Melbourne Zoo, Melbourne, Victoria.

Hamede R., Jones M. & McCallum H. (2006) Australian Veterinary Association, Hobart. Seasonal, demographic and density-related patterns of contact between devils: implications for transmission of devil facial tumour disease.

Hawkins, C.E. (2005) Epidemiological features of a new disease in the Tasmanian devil (*Sarcophilus harrisii*). Australian Veterinary Association, Hobart.

Hawkins, C.E. (2006) Epidemiological features of a new disease in the Tasmanian devil (*Sarcophilus harrisii*). Australian Veterinary Association, Hobart.

Hesterman, H. (2006) Tasmanian devil captive management strategy. Australian Veterinary Association, Hobart.

Jones, M. (2003) Ecological Society of Australia, Armidale. Genetic diversity, population structure and the current cancer epidemic in Tasmanian devils.

Jones, M. (2005) Australasian Wildlife Management Society, Hobart. Captive and wild management of Tasmanian devil populations affected by Devil Facial Tumour Disease.

Jones, M. (2006) Australian Veterinary Association, Hobart. Conservation management of wild devil populations: Devil Facial Tumour Disease.

Ladds P., Loh R., Jones M. and Tucker P. 2003 Probable lymphosarcoma in the Tasmanian devil (*Sarcophilus harrisii*). In Australian Society for Veterinary Pathology Annual Conference Proceedings, Elizabeth Macarthur Agricultural Institute, Menangle, New South Wales, Australia, 38, 12-13 April.

Loh, R. (2004) Devil Facial Tumour Disease devastating the Tasmanian icon. Proceedings of the Annual Conference of the Australian Association of Veterinary Conservation Biologists. Canberra. (Ed. R. Woods): May, 126-7.

Loh R., Raidal S., O'Hara A., Pyecroft S. & Sharpe R. (2004) Devil Facial Tumour Disease. In: What is happening to our devils? Murdoch University, Perth, November. (poster)

Loh R., O'Hara A., Raidal S. (2005) The Pathology & Characterisation of Devil Facial Tumour Disease (DFTD) in Tasmanian Devils (*Sarcophilus harrisii*). Murdoch University, Perth, November. (poster)

Loh R. (2006) The pathology of Devil Facial Tumour Disease in Tasmanian Devils (*Sarcophilus harrisii*). Australian Veterinary Association Annual Conference Proceedings, May, Hobart.

McCallum, H. Devils and frogs: when can disease lead to extinction? Parasites, Conservation, and Evolutionary Ecology; Connecting some disparate threads. Symposium Adelaide June 2007

Pearse, A.M. & Swift, K. 2006 The Tasmanian Devil (*Sarcophilus harrisii*) and an Hypothesis for Transmission of Devil Facial Tumour Disease (DFTD). in Lorne Cancer Conference (Lorne, Australia,).

Pyecroft S.B. 2006 Research into the Tasmanian Devil Facial Tumour Disease (DFTD), Central Victorian Branch of the Australian Veterinary Association Annual General Meeting and Scientific Session, February

Pyecroft S.B. 2005 Research into the Tasmanian Devil Facial Tumour Disease (DFTD), Australian Association of Veterinary Laboratory Diagnosticians, Melbourne, September.

Tribe, A. [Editor] (2006) Proceedings of the 2006 Conference of the Australian Association of Veterinary Conservation Biologists, Hobart, Tasmania May 2006. 2006.

Other Publications on the Tasmanian Devil

Jones, M.E. (1994) Dining with the Devil. Australian Natural History 24 (11):32-41

Jones, M.E. (1995) Tasmanian Devil. In: (Ed.) Strahan, R. The Australian Museum Complete Book of Australian Mammals. Second Edition. Reed Books, Australia.

Jones, M.E. (1996) Clash of the Carnivores. Nature Australia 25 (5):46-55

Jones, M.E. (1997) Quolls and Tasmanian devil. Reader's Digest Encyclopaedia of Australian Wildlife.

Jones, M. E. (2001) Large marsupial carnivores. Pp. 814-817. In The New Encyclopedia of Mammals (ed by DW MacDonald), 930 pp., Oxford University Press.

Jones, M. E. (2003) Disease decimates the devil. Wilderness News (The Wilderness Society) 164: 14-15.

Jones, M. E. (2003) Dasyuromorphia, Dasyuridae, Myrmecobiidae, and Thylacinidae. Grzimek's Animal Life Encyclopaedia (2nd edition--English), Gale Group, Michigan, USA.

Jones, M. E. (2004) Tasmanian devil disease investigation under way. Wilderness News (The Wilderness Society) 166: 22.

Jones, M. E. (2007) Tasmanian devil In "A fragile balance: the extraordinary story of Australian marsupials". Mallon Publishing / University of Chicago Press. Editor C.R. Dickman

Jones, M. E. (2007) Tasmanian devil, *Sarcophilus harrisii* (Boitard, 1841). In Mammals of Australia, 3rd Edition. Ed. Van-Dyck, S.

Jones, M. E. (2007) Research Profile. In Attiwell, P. and Wilson, B. "Ecology: An Australian Perspective", Oxford University Press (invited profile of research for undergraduate textbook).

Jones, M.E. & Rose, R.K. (1996) Preliminary assessment of distribution and habitat associations of the spotted-tailed quoll (*Dasyurus maculatus maculatus*) and eastern quoll (*D. viverrinus*) in Tasmania to determine conservation and reservation status. Report to the Tasmanian RFA (Regional Forest Agreement) Environment and Heritage Committee, November, 1996. Public Land Use Commission, Hobart.

Owen, D. and Pemberton, D. (2005) The Tasmanian Devil: A unique and threatened species. Allen and Unwin, 225pp.