

Karl J. Campbell

Island Conservation

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CAREER ASPIRATIONS

To make a significant contribution to island conservation; meeting challenges and taking eradication practice to a new level where cost and time efficient campaigns will allow us to save species and ecosystems at scales never before contemplated.

EDUCATION

Ph.D., University of Queensland, Gatton. Developed field processing methods for Judas goats to increase the efficacy of the Judas goat technique. Methods developed involve surgical sterilization of male and female goats, termination of pregnancy and inducing a prolonged estrus effect. A large scale field trial was conducted on Santiago Island, Galápagos, as part of the goat eradication project. Awarded Doctor of Philosophy in Vertebrate Pest Management on 23rd January, 2007.

Bachelor of Applied Science: Natural Systems and Wildlife Management, University of Queensland, Gatton College. Graduated 1998 with first class honors. Awarded highest grade attainable in final year for a year long study project titled "Factors predisposing islands to the eradication of feral goats (*Capra hircus* L.)."

WORK EXPERIENCE

I've worked for 17 years on some of the world's largest and most complex eradication campaigns of invasive mammals, using a variety of techniques including specialist dogs, trapping, toxic baiting, ground and aerial hunting. My role typically involves detailing a strategy, plan and budget, managing field operations and refining strategies as required. In projects I've been involved with, new techniques or refinements to existing techniques have been made in aerial hunting, dog training, toxic baiting, trapping, Judas animals, detection probability tools, and the use of GPS, GIS and digital data collection and management technologies. Scalability and cost effectiveness are two key philosophies that I attempt to take to each project. In 2011, I initiated Island Conservation's Innovation Program and chair the committee that oversees this initiative.

January 2011 - present

Program Director, Island Conservation

Charged to manage and build a team of project managers, act as their mentor and advance a large body of work on IC's project pipeline. I initiated and am leading Island Conservation's Innovation Program and we are developing a range of projects looking at reducing non-target impacts and increasing the efficiency of eradication campaigns. Led rodent eradication planning and 2012 implementation efforts in conjunction with project partners on Pinzon and Plaza Sur islands, including mitigation efforts for Galapagos hawks, land iguanas,

Pinzon lava lizards, endemic snails. Current efforts are focussed on inhabited Floreana Island (17,200 ha).

August 2009 – January 2011

Island Restoration Expert, Project Manager, Island Conservation, USA.

Managed several projects simultaneously and provided advice and review when required for other projects. Major tasks and milestones achieved include: confirmed eradication of feral cats on Isla de la Plata, Ecuador; managed rodent eradication preparation and implementation for Rabida and 11 smaller islands in Galapagos including operational planning, building partnerships, non-target risk assessment and hawk mitigation; preparation and partnership building with CONAF for rabbit eradication on Chañaral and Choros Islands, Chile; organized and participated in feasibility study for invasive animal and plant eradications in the Juan Fernandez Islands, Chile; oversaw the development of a detection probability model for feral cats on San Nicolas Island, California.

August 2009 – March 2010

South American Region Director, Island Conservation, USA. A revised organizational structure within IC saw me filling three positions. As South American Region Director I identified and initiated a sequence of high value conservation islands impacted by invasive mammals in Chile, a new geography for IC. I formed alliances with key partners, including the protected areas manager CONAF, and initiated preparations for the eradication of European rabbits on Chañaral and Choros Islands, National Humboldt Penguin Reserve. These islands are a stepping stone to more complex projects in the region such as the Desventuradas and Juan Fernández archipelagos. IC hired a SA Regional Director in March 2010, at which time I handed over that role.

July 2007 – present

Adjunct Researcher / Honorary Senior Fellow, University of Queensland.

Maintaining links with academia, including acting as an examiner for PhD theses, interacting and publishing with colleagues, and reviewing manuscripts for journals such as Conservation Biology, Animal Conservation, New Zealand Journal of Ecology, Journal of Wildlife Management, amongst others.

May 2006 – August 2009

Animal Removal Specialist, Island Conservation, USA. Developed eradication plans, including budgets, timelines and associated contracts for: cat removal on San Nicolas Island, California; rabbits from San Juan Island National Park; and rhesus macaques from Desecheo Island, Puerto Rico. Worked on projects to eradicate a range of invasive vertebrates from islands in the Caribbean, Ecuador and California. Contracted to be part of a team that evaluated the feasibility of eradicating beaver from South America. Collaborated with the Galápagos National Park, contributing to their ongoing plans of eradicating goats and donkeys from the archipelago by being actively involved in their program. Played a key role in developing a 10 person field implementation team, and training them in the field. Initiated implementation and co-managed eradication projects on macaques (Desecheo), cats (San Nicolas, Isla de la Plata) and completed eradication projects on goats (Desecheo, Isla de la Plata).

February 2002 – May 2006

Field Operations Specialist, Isabela Project, Charles Darwin Foundation /

Galápagos National Park Service, Galápagos Islands, Ecuador. Main tasks were: the same as May-Aug. 2001 period, with additional tasks with handling United Nations Development Program (ECU/00/G31) contracts and the Charles Darwin Foundation's UNDP sub-contracts, specifically: preparing technical specifications, developing terms of reference, justification, developing selection criteria, implementing selection procedures and negotiation of technical elements with selected companies. The following contracts associated with Project Isabela were handled: helicopters (US\$ 3.2 million), base camp design, construction and equipment (US\$ 243K), radio telemetry equipment for Judas and dogs (US\$ 120K), ammunitions (US\$ 130K), rifles (US\$ 79K), logistics boat (US\$ 1.2 million), and general hunter's equipment (US\$ 360K). Additional tasks involved coordinating the importation of rifles, shotguns and ammunitions (and associated Ecuadorian importation/US exportation permits and procedures) in a secure and timely manner. Post February 2004, main tasks became field orientated, specifically with the management, strategy and reporting for goat and donkey eradications being conducted consecutively on Santiago (58,465 ha) and Isabela Islands (458,812 ha). Santiago is now the largest island in the world to be eradicated of feral goats. Northern Isabela has been eradicated of goats and the southern section has a small population remaining. A plan is now in place to eradicate goats from the three other (smaller) inhabited islands (totalling >170,000 ha) while simultaneously completing the eradication of goats on southern Isabela.

August 2001 - January 2002

Field Co-ordinator/Technician, Charles Darwin Foundation, Galápagos Islands,

Ecuador. On loan to another department to meet their operational deadlines: achieving field results and training personnel. Main tasks included: planning, training and field supervision of the Baltra Island (2620 ha) feral cat eradication campaign; lethal dose experimentation with cats using 1080 poison in metoclopramide to stop the emetic effect of the 1080; coordinating with Ecuadorian military on Baltra, goat eradication on Baltra, rat eradication from Bainbridge Islets. The cat eradication work on Baltra involved the use of 1080 with metoclopramide in fish baits, trapping with euthanasia, and spot-light shooting. I trained and supervised up to 17 field staff during this operation. At that time, Baltra was the fourth largest island in the world to be eradicated of feral cats.

May 2001 - August 2001

Field Operations Specialist, Isabela Project, Charles Darwin Foundation /

Galápagos National Park Service, Galápagos Islands, Ecuador. Main tasks included: planning and implementation of goat and donkey eradication on Santiago Island by foot, supervision and management of 26-48 hunters, training hunters in all aspects of field work, training 90 specialist goat finder-bailer dogs, equipment selection and ordering, continual evaluation and improvement of all aspects of field activities, keeping abreast of relevant literature and technologies, increasing the effectiveness of existing methods used in goat eradication, assisting in the planning and preparation for goat and donkey eradication on Isabela Island. Conducted the rapid response monitoring of goats on Santa Fe

Island after a sighting, removing the lone individual and searching the rest of the island using GIS derived equi-distant points and dogs.

Nov. 1998 - April 2001

Ungulate Eradication Technician, Isabela Project, Charles Darwin Research Station / Galápagos National Park Service, Galápagos Islands, Ecuador.

Special duties included: Planning, development and implementation of Judas goat program for Pinta Island (5940 ha), training hunters in eradication tactics and use of radio telemetry equipment, supervising all field work associated with the eradication of feral goats from Pinta Island. Pinta was declared goat free in November 2000 when Judas goats were removed after over one year of monitoring. Other duties included: supervision and planning of field trips and associated logistics related to pig eradication on Santiago Island, data management and analysis, management and preparation of 1080 and warfarin poisons, implementing feral pig detection systems, management and ordering of field and office equipment, development of new methods and increasing the effectiveness of existing methods for ungulate control. The last pig was killed on Santiago Island in October 2000, making Santiago the largest island in the world to have an established population of feral pigs removed.

Aug. 1997 - Feb. 1998

Assistant to the Isabela Project Coordinator, Charles Darwin Foundation / Galápagos National Park Service, Galápagos Islands, Ecuador. *Voluntary work* as part of the University subject *Industrial Placement*.

1995 - 1996

Vitra Constructions Pty Ltd, Mt Isa, Qld. Employed as a *Trades Assistant*. This involved various tasks associated with building construction and concreting.

1995

Rials Construction Pty Ltd, Gladstone, Qld. Employed as a *Trades Assistant*.

Duties included: preparation, laying and screeding of concrete, as well as general building construction and excavation work.

Malawi National Parks and Wildlife Service, (Central Africa), Liwonde National Park. *Voluntary full-time work*, involving; the formulation of patrolling programmes, conducting law enforcement/anti-poaching patrols with the field force, tracking and gathering data for determining wildlife densities. Four weeks duration.

1992 - 1995

Australian Army, Ready Reserve Scheme, Royal Australian Corp of Transport.

Served 1 year of full-time and 2 years of part-time service. Duties included: driving, maintenance and repair of vehicles, supervision of others, and a wide variety of miscellaneous tasks and soldierly duties. Honourably discharged May 1995.

TECHNICAL PUBLICATIONS:

30. Ramsey, D.S.L., Campbell, K.J., Lavoie, C., Morrison, S.A., in prep. Quantifying the probability of detection of vertebrate pests using the 'Judas' technique.
29. Campbell, K. J., et al. In prep. A review of the Judas method for detecting social vertebrate pests at low densities. *Wildlife Research*
28. Jones, Kappes, Holmes, Campbell In prep. Response threatened species to insular mammal eradications
27. Holmes et al. In prep. Threatened island biodiversity conservation and invasive vertebrate eradication, a global review.
26. Campbell, K. J., J. Beek, C. T. Eason, A. S. Glen, J. Godwin, F. Gould, N. D. Holmes, G. R. Howald, F. M. Madden, J. B. Ponder, D. W. Threadgill, A. Wegmann, and G. S. Baxter. In press. The next generation of rodent eradications: Innovative technologies and tools to improve species specificity and increase their feasibility on islands. *Biological Conservation*
25. Will, D.J., K.J. Campbell, and N.D. Holmes. In press. Using digital data collection tools to improve overall cost-efficiency, and timely analysis for decision making, during invasive species eradication campaigns. *Wildlife Research*
24. Hanson C.C., W.J. Jolley, G. Smith, D.K. Garcelon, B.S. Keitt, A.E. Little, K.J. Campbell (2014) Feral cat eradication in the presence of endemic San Nicolas Island foxes. *Biological Invasions*. in press
23. Glen, A.S., Atkinson, R., Campbell, K.J., Hagen, E., Holmes, N.D., Keitt, B.S., Parkes, J.P., Saunders, A., Sawyer, J., Torres, H., 2013. Eradicating multiple invasive species on inhabited islands: the next big step in island restoration? *Biological Invasions*. 15(12): 2589-2603
22. Campbell, K. J., V. Carrion, and C. Sevilla. (2013). Increasing the scale of successful invasive rodent eradications in the Galápagos Islands. Galapagos Report 2011-2012. GNPS, GCREG, CDF and GC, Puerto Ayora, Galapagos, Ecuador (In English and Spanish)
21. Nogales, M., E. Vidal, F. M. Medina, E. Bonnaud, B. R. Tershy, K. J. Campbell, and E. S. Zavaleta. (2013). Feral cats and biodiversity conservation: The urgent prioritization of island management. *Bioscience* 63(10): 804-810
20. Jolley, W.J., Campbell, K.J., Holmes, N.D., Garcelon, D.K., Hanson, C.C., Will, D., Keitt, B.S., Smith, G. and Little, A.E. (2012). Mitigating impacts to critically endangered San Nicolas Island foxes by conditioned trap aversion and modifying padded leg-hold traps to facilitate feral cat eradication on San Nicolas Island, California, USA. *Conservation Evidence* 9: 43-49
19. Carrion, V., C. J. Donlan, K. J. Campbell, C. Lavoie, and F. Cruz (2011). Archipelago-wide island restoration in the Galápagos Islands: Reducing costs of invasive mammal eradication programs and reinvasion risk. *PLoS ONE* 6(5): e18835.
18. Howald, G. R., C. J. Donlan, P. McClelland, N. Macdonald, and K. J. Campbell (2011). Advantages and challenges of government, non-profit and for-profit approaches to eradications: leveraging synergies by working together. Pages 432-436 in C. R. Veitch, M. N. Clout, and D. R. Towns, editors. *Island invasives: Eradication and management*. IUCN, (International Union for Conservation of Nature), Gland, Switzerland.
17. Barun, A., C. C. Hanson, K. J. Campbell, and D. Simberloff (2011). A review of small Indian mongoose management and eradications on islands. Pages 17-25 in C. R. Veitch, M. N. Clout, and D. R. Towns, editors. *Island invasives: Eradication and management*. IUCN, (International Union for Conservation of Nature), Gland, Switzerland.

16. Campbell, K. J., G. Harper, C. C. Hanson, D. Algar, B. S. Keitt, and S. Robinson (2011). Review of feral cat eradications on islands. Pages 37-46 in C. R. Veitch, M. N. Clout, and D. R. Towns, editors. *Island invasives: Eradication and management*. IUCN, (International Union for Conservation of Nature), Gland, Switzerland.
15. Keitt, B., K. Campbell, A. Saunders, M. Clout, Y. Wang, R. Heinz, K. Newton, and B. Tershy (2011). The Global Islands Invasive Vertebrate Eradication Database: A tool to improve and facilitate restoration of island ecosystems. Pages 74-77 in C. R. Veitch, M. N. Clout, and D. R. Towns, editors. *Island invasives: Eradication and management*. IUCN, (International Union for Conservation of Nature), Gland, Switzerland.
14. Ramsey, D. S. L., J. P. Parkes, D. Will, C. C. Hanson, and K. J. Campbell (2011). Quantifying the success of feral cat eradication, San Nicolas Island, California. *New Zealand Journal of Ecology* 35(2): 163-173
13. Hansen, D. M., C. J. Donlan, C. J. Griffiths, K. J. Campbell (2010). Ecological history and latent conservation potential: Large and giant tortoises as a model system for taxon substitutions. *Ecography* 33: 272-284
12. Cruz, F., V. Carrion G., K. Campbell, C. Lavoie, C. J. Donlan (2009). Bio-economics of large-scale eradication of feral goats from Santiago Island, Galápagos. *Journal of Wildlife Management* 73(2): 191-200
11. Campbell, K. J. (2007). Manipulation of the reproductive system of feral goats (*Capra hircus*) to increase the efficacy of Judas goats: field methods utilising tubal sterilisation, abortion, hormone implants and epididymectomy. 65 pp. PhD Thesis, School of Natural and Rural Systems Management. University of Queensland, Gatton.
10. Donlan, C. J., K. Campbell, W. Cabrera, C. Lavoie, V. Carrion, F. Cruz (2007). Recovery of the Galápagos Rail (*Laterallus spilonotus*) from non-native mammals. *Biological Conservation* 138(3-4): 520-524
9. Lavoie, C., C. J. Donlan, K. Campbell, F. Cruz (2007). Geographic tools for facilitating the management of insular non-native mammal eradication programs. *Biological Invasions* 9(2): 139-148
8. Campbell, K. J., G. Baxter, P. Murray, B. Coblenz, C. J. Donlan (2007). Development of a prolonged estrus effect for use in Judas goats. *Applied Animal Behaviour Science* 102(1-2): 12-23
7. Carrion, V., C. J. Donlan, K. Campbell, C. Lavoie, F. Cruz (2007). Feral donkey (*Equus asinus*) eradications in the Galápagos. *Biodiversity and Conservation* 16(2): 437-445
6. Campbell, K. J., G. Baxter, P. Murray, B. Coblenz, C. J. Donlan, V. Carrion G. (2005). Increasing the efficacy of Judas goats by sterilisation and pregnancy termination. *Wildlife Research* 32(8): 737-743
5. Campbell, K. J., C. J. Donlan (2005) A review of feral goat eradication on islands. *Conservation Biology* 19(5): 1362-1374
4. Phillips, R.B., B.D. Cooke, K. Campbell, V. Carrion, C. Marquez, and H.L. Snell (2005) Eradicating feral cats to protect Galapagos land iguanas: methods and strategies. *Pacific Conservation Biology* 11: 57-66
3. Cruz, F., C. J. Donlan, K. Campbell, V. Carrion (2005) Conservation action in the Galápagos: Feral pig (*Sus scrofa*) eradication from Santiago Island. *Biological Conservation* 121(3): 473-478
2. Campbell, K., C. J. Donlan, F. Cruz, V. Carrion. (2004) Eradication of feral goats (*Capra hircus*) from Pinta Island, Galápagos, Ecuador. *Oryx* 38(3): 1-6

1. Donlan, C. J., B. R. Tershy, K. J. Campbell, F. Cruz. (2003) Research for requiems: the need for more collaborative action. *Conservation Biology* 17: 1-2.

POPULAR ARTICLES, TECHNICAL REPORTS & PROCEEDINGS

25. Fisher, P. and K. Campbell (2012). Non-target risk assessment for rodenticide application on Pinzón and Plaza Sur, Galápagos Islands. Invasive Species International, Lincoln, New Zealand.
24. Ponder, J.B., P.G. Parker, F. Cunningham, M. Gardener, K. Campbell (2011) A Mitigation Strategy for the Galapagos Hawk (*Buteo galapagoensis*) during Rodent Eradication. Pages 327-327 in Proceedings of the Association of Avian Veterinarians, 32nd Annual Conference, Seattle. 6-12 August 2011
23. Saunders, A., A. Glen, K. Campbell, R. Atkinson, J. Sawyer, E. Hagen, and H. Torres (2011). Feasibility of managing invasive species in the Juan Fernández Archipelago, Chile. 156 pages. Invasive Species International, Lincoln, New Zealand.
22. Donlan, C. J., V. Carrion, K. J. Campbell, C. Lavoie and F. Cruz (2012). Biodiversity conservation in the Galápagos Islands, Ecuador: Experiences, lessons learned, and policy implications. Pages 221-240 in E. Figueroa and P. Reyes, editors. Successful and failed experiences in biodiversity conservation: Lesson and policy recommendations from the American continent. Santiago, Chile. [In English, Spanish and Portuguese]
21. Simberloff, D., P. Genovesi, P. Pyšek, and K. Campbell (2011). Recognizing conservation success. *Science* 332(22 April): 419 [In response to Vince, G. (2011) Embracing invasives. *Science* 331(18 March): 1383-1384]
20. Hanson, C. C., and K. Campbell (2010). Rabbit eradication on Lehua Rock, Hawaii. Pages 22-25 in E. Murphy, M. Crowell, and W. Henderson, editors. Workshop Proceedings: Improving the efficiency of rabbit eradications on islands. Invasive Animals Cooperative Research Centre, Canberra.
19. Campbell, K., F. Cunningham, and J. Ponder (2010). Mitigation Plan for Galapagos Hawks 2010 (*Buteo galapagoensis*). Island Conservation, Charles Darwin Foundation and The Raptor Center, Puerto Ayora. (English and Spanish)
18. IC / CDF (2010). Non-target risk assessment for rodenticide applications in the Galapagos Islands. Island Conservation and Charles Darwin Foundation, Puerto Ayora. (English and Spanish) (Author)
17. Island Conservation (2010). Project Pinzón Phase II. Operational Plan for eradication of introduced rodents (*Rattus* spp., *Mus musculus*) on Rábida, Bartolomé and 8 smaller islands, Galápagos, Ecuador. , Santa Cruz, CA. (English and Spanish) (Author)
16. Hanson, C. C., K. J. Campbell, J. E. Bonham, B. S. Keitt, A. E. Little, and G. Smith (2010). The removal of feral cats from San Nicolas Island: Methodology. Pages 72-78 in R. M. Timm, and K. A. Fagerstone, editors. 24th Vertebrate Pest Conference, Sacramento, California.
15. Will, D., C. C. Hanson, K. J. Campbell, D. K. Garcelon, and B. S. Keitt (2010). A trap monitoring system to enhance efficiency of feral cat eradication and minimize adverse effects on non-target endemic species on San Nicolas Island. Pages 79-85 in R. M. Timm, and K. A. Fagerstone, editors. 24th Vertebrate Pest Conference, Sacramento, California.

14. Campbell, K., L. Cayot, G. Banda, F. Cruz, and V. Carrion (2009). Proyecto Isabela: Restauración de Ecosistemas a través de un Megaerradicación. Páginas 206-212 in T. De Roy, editor. Galápagos: Cincuenta Años de Ciencia y Conservación. Parque Nacional Galápagos (versión en Español), Puerto Ayora, Galápagos. [In English and Spanish]
13. Campbell, K. (2008) Chile Program Proposal. Island Conservation, Santa Cruz, CA. August 8, 2008. Proposal to Island Conservation's Board of Directors. 16 pp.
12. Hanson, C., Campbell, K. (2008) Special Taxa Eradication Prioritization: Indian Mongoose v2.3. Island Conservation, Santa Cruz, CA. Internal Report. 30 pp.
11. Campbell, K. (2008) Special Taxa Eradication Prioritization: Non-Hominid Primates. Island Conservation, Santa Cruz, CA. Internal Report. 23 pp.
10. Campbell, K. (2008) Opportunities for Island Conservation in Chile. Island Conservation, Santa Cruz, CA. Internal Report. 12 pp.
9. Parkes, J. P., Paulson, J., Donlan, C. J., Campbell, K. (2008) Control of North American Beavers in Tierra del Fuego: Feasibility of Eradication and Alternative Management Options. Landcare Research Contract Report LC0708. Prepared for Comité Binacional para la Estrategia de Erradicación de Castores de Patagonia Austral.
8. Campbell, K. (2007) Restoring Desecheo Island National Wildlife Refuge: Macaque Eradication Plan. Island Conservation. Santa Cruz, CA. December 2007. 76 pp.
7. Island Conservation (2007) San Nicolas Island Seabird Restoration: Project Plan for Cat Eradication. February 2007 (Co-authored with Brad Keitt)
6. Donlan, C. J., K. Campbell, V. Carrion, C. Lavoie, F. Cruz. (2005) Project Isabela: Update on introduced herbivore eradications in the Galápagos islands. IUCN *Aliens* 21: 8.
5. Campbell, K. (2002) Advances in Judas goat methodology in the Galápagos Islands: manipulating the animals. New Zealand Department of Conservation, Proceedings of a workshop on the use of radio telemetry for animal pest control. Dunedin, New Zealand, 14-16 May, 2002.
4. Campbell, K. (2002) Annotated bibliography of Judas goat and related literature, New Zealand Department of Conservation, Proceedings of a workshop on the use of radio telemetry for animal pest control. Dunedin, New Zealand, 14-16 May, 2002.
3. Campbell, K. (1999/2000) Update – Ecuador: Galapagos Judas Goats, IUCN Species Survival Commission, Invasive Species Specialist Group, *Aliens* No. 10: 18
2. Campbell, K. (1999) Feral goats on islands – a request for help, IUCN Species Survival Commission, Caprinae Specialist Group, *Caprinae* January 1999, p. 6
1. Campbell, K. (1999) Santiago's pigs and Isabela's goats: El Niño's implications for management and the environment. *Noticias de Galápagos* No. 60: 21 December 1999

SELECTED PRESENTATIONS & WORKSHOPS:

- Workshop Co-Organizer.** Applying genetic technologies to eradicate mice as a model for benefiting human health, agricultural production and biodiversity. Raleigh, North Carolina, USA. 10-11 May, 2012
- Workshop Organizer. Feral cat eradication planning for Floreana Island, Galápagos.** Galápagos Islands, Ecuador. Attendees included international and local experts. 8-16 May, 2009
- Workshop Co-Organizer/Speaker. Feral cat eradication workshop.** Island Conservation and Grupo de Ecología y Conservación de Islas. Ensenada, Mexico. 8-12 May, 2007
- Co-author.** Donlan, C. J., C. Wilcox, C. Lavoie, **K. Campbell**, F. Cruz, B. Tershy. **Island Conservation: Where we are, where we are going, and what we need to get there.** Annual meeting of the Society for Conservation Biology, Brasilia, Brazil, July 2005
- Instructor – Judas goat sterilization, pregnancy termination, estrus induction and field deployment training course,** Guadalupe Island, Mexico, 2005.
- Instructor – Project Isabela Professional Hunters’ Courses** (annual, 1999-2004). **Instructor for several subjects, including Judas goats in theory and practice, goat biology related to hunting, eradication tactics, hunting strategy, poisons theory, map interpretation.** Project Isabela, Galápagos Islands, Ecuador.
- Workshop Invited Speaker. Judas Workshop 2002: The use of radio telemetry for animal pest control.** Dunedin, New Zealand, 14-16 May, 2002. Presentation entitled “Advances in Judas goat methodology in the Galápagos Islands: Manipulating the animals”
- Symposium Invited Speaker. Removal of Exotic Animals from Islands in the Americas.** Society for Conservation Biology Annual Meeting. Hilo, Hawaii, 28 July – 1 August 2001. Presentation entitled “Feral Goats in the Galápagos Islands: Present Situation, Eradication Efforts, and the Future.”
- Workshop Facilitator and Chair. Research directions for the sexual manipulation and field processing of Judas goats.** May 2001. Workshop with reproductive specialist veterinarians at Texas A&M University, College Station, Texas, USA. Results included identifying appropriate methods for how to achieve sterility and terminate pregnancy in the field, and identifying areas requiring further research, such as how to potentially increase estrus behavior.
- Participant. Galápagos Workshop: Feral Goat Eradication Program for Isla Isabela,** September 9-18, 1997, Charles Darwin Foundation / Galápagos National Parks Service, Galápagos Islands, Ecuador.

MEMBERSHIPS

- Lifetime Member** of the **Golden Key National Honour Society**, for academic achievement in being within the top 15% of bachelor’s degree students, after completing at least one year of study. Awarded in 1997.