

Mark S. Thorne, Ph.D.

University of Hawaii at Manoa-Cooperative Extension Service  
Human Nutrition, Food and Animal Sciences Department  
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**Education**

**Ph.D., 2002.** Rangeland Ecophysiology. Rangeland Ecosystem Science Dept. Colorado State University, Fort Collins, Colorado 80523.

**M.S., 1998.** Rangeland Ecology and Watershed Management, Dept. Rangeland Ecology and Watershed Management, University of Wyoming, Laramie 82071.

**B.S., 1996.** Range Management, Dept. Rangeland Ecology and Watershed Management, University of Wyoming, Laramie 82071.

**Employment History**

- 8/07 – present **University of Hawaii at Manoa Cooperative Extension Service;** Kamuela Extension Office, 67-5189 Kamamalu Road, Kamuela, Hawaii 96743.  
Associate State Range Extension Specialist (70% Extension, 30% Research)
- 8/03-8/07 **University of Hawaii at Manoa Cooperative Extension Service;** Kamuela Extension Office, 67-5189 Kamamalu Road, Kamuela, Hawaii 96743.  
Assistant State Range Extension Specialist (70% Extension, 30% Research)
- 1/03-6/03 **Cooperative Extension Service and Agricultural Experiment Station;** Colorado State University, P.O. Box 190, Rocky Ford, Colorado 81067.  
Interim Eastern Regional Range-Livestock Extension and Research Specialist
- 8/02-12/02 **Department of Forestry;** Colorado State University, Fort Collins 80523.  
Instructor. Forestry Inquiries (FCC192 Freshman Seminar).
- 5/98-12/02 **Rangeland Ecosystem Science Department;** Colorado State University, Fort Collins 80523.  
Graduate Research Assistant.
- 5/95-5/98 **Department of Renewable Resources: Rangeland Ecology and Watershed Management;** College of Agriculture, University of Wyoming, Laramie, WY 82071.  
Graduate Research Assistant.
- 1/94-5/95 **Department of Renewable Resources: Rangeland Ecology and Watershed Management;** College of Agriculture, University of Wyoming, Laramie, WY 82071.  
Undergraduate Research Assistant.
- 5/93-9/93 **Wyoming Game and Fish Department;** Box 3312, RM 323, Biological Science Bldg. Veterinary Research Service Branch, University of Wyoming, Laramie, WY 82071.  
Field Technician.
- 4/88-4/92 **United States Marine Corps; Rank Achieved:** Corporal (E-4).  
**Served:** Marine Corps Security Force Company; Brunswick Naval Air Station, Brunswick, ME.  
**Served:** 1<sup>st</sup> Battalion, 7<sup>th</sup> Marines 1<sup>st</sup> Marine Division, 29 Palms, CA; Operation Desert Shield and Desert Storm.  
**Served:** 3<sup>rd</sup> Battalion, 7<sup>th</sup> Marines 1<sup>st</sup> Marine Division, 29 Palms, CA;
- 5/84-3/88 Worked for various ranches as a cowboy; calving, branding, and general care of livestock. **Squaw Valley Unit, Ellison Ranch Corp., Tuscarora, Nevada (8/87-3/88), Padlock Ranch, Dayton, Wyoming (2/87-8/87), TS Ranch, Battle Mountain, Nevada (11/86-2/87), Whitehorse Ranch, Fields, Oregon (5/86-11/86), ZX Ranch, Paisley, Oregon (8/85-5/86), Kendrick Cattle Company, Sheridan, Wyoming (5/84-8/85).**

## Consulting

- 08/02-08/04 **Genesis Laboratories, Inc.** 10122 Northwest Frontage Rd. Wellington, Colorado 80549. Pinedale White-Tailed Prairie Dog Survey - Wyoming. Project funded through the U.S. Department of Interior, Bureau of Land Management.
- 05/01-02/02 **National Park Service, Dinosaur National Monument.** Vegetation Survey and review and analysis of National Park Service sampling techniques. Contract awarded to Dr. M.J. Trlica of Colorado State University.

## Leadership History

### *Military Awards for Leadership*

3 Letters of Appreciation	3 Meritorious Masts
Letter of Recognition	Letter of Commendation
Good Conduct Medal	National Defense Medal
Navy Achievement Medal	Southwest Asia Service Medal (2 stars)
Kuwait Liberation Medal	Sea Service Deployment Ribbon
Combat Action Ribbon	Meritorious Unit Commendation Ribbon

### *Other Leadership and Community Activities*

- \*Scout Master, BSA Troop 27, Kamuela, Hawaii August 2005 – Present
- \*Assistant Scout Master, BSA Troop 27, Kamuela, Hawaii June 2004 – August 2005
- \*Assistant Scoutmaster, BSA Troop 92, Wellington, Colorado 1998-2000
- \*Assistant Scoutmaster, BSA Troop 135, Laramie, Wyoming 1994-1998
- \*Cub Master, BSA Pack 27, Kamuela, Hawaii 2003- 2004
- \*Cub Master, BSA Pack 92, Wellington, Colorado 2000-2003
- \*Den Leader, BSA Pack 92, Wellington, Colorado 1999-2003
- \*Commander, AWANA International, Youth Program, Kamuela, Hawaii 2004-present
- \*Youth Leader, AWANA International, Youth Program, Wellington, Colo. 2002-2003
- \*Manager/Coach Waimea Canefires, Little League Baseball, Juniors Division, 2007
- \*Manager/Coach Waimea Patriots, Little League Baseball, Majors Division, 2005
- \*Coach, Youth Soccer and Baseball programs, Laramie, Wyo. and Wellington, Colo. 1992 - 2002

## Academic and Professional Awards, Memberships, and Activities

### *Honors and Awards*

- \*Certificate of Appreciation; USDA-FSA, October 25, 2006
- \*Awarded 2<sup>nd</sup> Place, Ph.D. Student Presentations, Society for Range Management (2001)
- \*McNair Scholars Program Graduate Student Mentor (1996-1997)
- \*President's Honor Roll (University of Wyoming): 1993, 1994, 1995
- \*Scholarship Awards: **Preston Dunn Scholarship** 1993, **Gamma Sigma Delta Freshman Award of Merit** 1993, **Frederick E. Clements Scholarship** 1994, **Ira P. Trotter Scholarship** 1994, **Sam Hyatt Memorial Scholarship** 1995, **Alan A. Beetle Scholarship** 1995.

### *Academic Activities*

- \*HNFAS Department – Research and Extension Committee (2004-present)
- \*CTAHR Faculty Senate – Research Committee (2005-2007)
- \*CTAHR Faculty Senate – (2009 – present)
- \*CTAHR Strategic Planning Goal 3 Committee (2005 – 2007)
- \*Associate Graduate Faculty in Animal Science, University of Hawaii at Manoa (2005 – present)
- \*Adjunct Associate Professor, Dept. Wildland Resources, Utah State University (2008-2011)
- \*Rangelands West Partnership (2004-2006)
- \*WERA-1008, Rangelands West Partnership (2006-present)

### ***Graduate Student Committees***

- \*Kevin Buck, Human Nutrition, Food and Animals Science Dept., University of Hawaii at Manoa
- \* Kara Lee, Human Nutrition, Food and Animals Science Dept., University of Hawaii at Manoa
- \* Carolyn Wong, Department of Wildland Resources, Utah State University

### ***Professional Organizations***

- \*Society for Range Management-Wyoming Section (1995-present)
- \*Society for Range Management-Colorado Section (1998-present)
- \*Society for Range Management-California-Pacific Section (2003-present)
- \*Director, California-Pacific Section, Society for Range Management (2009-2011)
- \*American Society of Agronomy (2005- Present)

### ***Community Organizations***

- \*Director, West Hawaii Wildfire Management Organization. 2003 – Present
- \*Director, Pu'u Wa'awa'a Ahupua'a Advisory Council. 2003 – Present
- \*Organizational Representative (SRM &CES), Hawaii Grazing Lands Conservation Coalition

### **Publications**

#### ***Dissertation and Thesis***

- Thorne, M.S. 1998.** Effects of herbivory on willow (*Salix* spp.) canopy volume on mountain rangelands of northern Wyoming. M.S. Thesis, University of Wyoming, Laramie, Wyo.
- Thorne, M.S. 2002.** Carbon dioxide exchange rates and plant-soil responses to soil loss on shortgrass prairie and sagebrush steppe sites. Ph.D. Dissertation, Colorado State University, Fort Collins, Colo.

#### ***Refereed Publications***

- Meiman, P.J., M.S. Thorne, Q.D. Skinner, M.A. Smith, and J.L. Dodd. (In Review). Wild ungulate herbivory of willow outside of National Parks is a significant management consideration. *Rangeland Ecology and Management*.
- Buck, K., J.R. Carpenter, **M.S. Thorne**. 2007. In situ rates of insoluble Macro-mineral release from alfalfa and tropical grasses, and relationships with dry matter disappearance. *Proceedings, Western Section, American Society of Animal Science*. 58:378-382.
- Gardner, D.R., **M.S. Thorne**, R.J. Molyneux, J.A. Pfister, and A.A. Seawright. 2006. Pyrrolizidine alkaloids in *Senecio madagascariensis* from Australia and Hawaii and assessment of possible livestock poisoning. *Biochemical Systematics and Ecology* 34:736-744.
- Thorne, M.S.**, P.J. Meiman, Q.D. Skinner, M.A. Smith, and J.L. Dodd. 2005. Clipping frequency affects canopy volume and biomass production in planeleaf willow (*Salix planifolia* var. *planifolia* Prush.). *Rangeland Ecology and Management* 58:41-50.
- Thorne, M.S.**, M.J. Trlica, W.C. Leininger, R.D. Child, and D.A. Klein. 2005. Soil CO<sub>2</sub> efflux response to soil loss on 2 rangeland ecosystems. *Rangeland Ecology and Management* 58:27-34.
- Cibils, A.F., D.M. Swift, R.H. Hart, M.J. Trlica, and **M.S. Thorne**. 2005. Gender-specific responses to winter defoliation of greenhouse-grown *Atriplex canescens* clones under contrasting soil moisture regimes. *Journal of Arid Environments* 61:211-226.
- Thorne, M.S.**, Q.D. Skinner, M.A. Smith, J.D. Rodgers, W.A. Laycock, and A. S. Cerekci. 2002. Evaluation of a technique for measuring canopy volume of shrubs. *J. Range Manage.* 55:235-240.
- Thorne, M.S.**, P.J. Meiman, Q.D. Skinner, M.A. Smith, and J.L. Dodd. (In Preparation). Willow utilization and canopy volume on northern Wyoming mountain rangelands. *Rangeland Ecology and Management*
- Thorne, M.S.**, M.J. Trlica, W.C. Leininger, R.D. Child, and D.A. Klein. (In Preparation). Photosynthetic response of bluegrama and western wheatgrass to soil loss. *Plant and Soil*
- Thorne, M.S.**, M.J. Trlica, W.C. Leininger, R.D. Child, and D.A. Klein. (In Preparation). Photosynthetic response of Wyoming big sagebrush and bluebunch wheatgrass to soil loss. *Plant and Soil*

## *Technical Reports*

- Thorne, M.S.**, L. J.Cox, and G. Fukumoto. 2009. Management of Production Risk for Hawaii Ranchers. University of Hawaii at Manoa. CTAHR – PRM-5, pp 8.
- Thorne, M.S.** and L.J. Cox. 2008. (Editors) Proceedings: 2008 Stockman’s Fall Field Day: Behavior-based grazing management for improved animal performance, pasture condition, and ranch profitability. August 22-23, 2008. University of Hawaii at Manoa, CTAHR Publication, pp. 43.
- Thorne, M.S.** and L.J. Cox. 2007. (Editors) Proceedings: 2007 Mealani Forage Field Day: Risk management for grass-based operations. September 28-29, 2007. University of Hawaii at Manoa, CTAHR Publication, pp.43.
- Thorne, M.S.** and L.J. Cox 2007. Managing production risk for Hawaiian ranchers. pp 11-15. In: Thorne, M.S. and L.J. Cox (eds.), Proceedings: 2007 Mealani Forage Field Day: Risk management for grass-based operations. September 28-29, 2007. University of Hawaii at Manoa, CTAHR Publication.
- Norman, Arnold, **M.S. Thorne**, and M.H. Stevenson. 2007. Monitoring Heifer Development and diet quality of kikuyu – pangola grass using NIRS and NUTBAL PRO. pp 18-24. In: Thorne, M.S. and L.J. Cox (eds.), Proceedings: 2007 Mealani Forage Field Day: Risk management for grass-based operations. September 28-29, 2007. University of Hawaii at Manoa, CTAHR Publication.
- Deenik, J.L., **M.S. Thorne**, L.J. Cox, H.H. Keyser, and M.H. Stevenson. 2007. Best management practices for the remediation of former sugarcane lands for sustainable livestock production in Hawaii. pp 40-44. In: Thorne, M.S. and L.J. Cox (eds.), Proceedings: 2007 Mealani Forage Field Day: Risk management for grass-based operations. September 28-29, 2007. University of Hawaii at Manoa, CTAHR Publication.
- Thorne, M.S.**, and M.H. Stevenson. 2007. Stocking rate: the most important tool in the toolbox. University of Hawaii at Manoa. CTAHR – PRM-4, pp 9.
- Thorne, M.S.**, and L.J. Cox. 2007. Calculating minimum lease rates for grazing in Hawaii. University of Hawaii at Manoa, CTAHR-PRM-3, pp 7.
- Thorne, M.S.**, G.K. Fukumoto, and M.H. Stevenson. 2007. Foraging Behavior and Grazing Management Planning. University of Hawaii at Manoa, CTAHR - PRM-2, pp 11.
- Thorne, M.S.** and L.J. Cox. 2006. Proceedings: 2006 Mealani Forage Field Day: Hawaii Grown Beef: From Pasture to Market. October 7, 2007. University of Hawaii at Manoa, CTAHR Publication, pp.53.
- Thorne, M.S.** 2006. Foraging Behavior and Grazing Management Planning. pp 45-51. In: Thorne, M.S. and L.J. Cox (eds.), Proceedings: 2006 Mealani Forage Field Day: Hawaii Grown Beef: From Pasture to Market. October 7, 2007. University of Hawaii at Manoa, CTAHR Publication, pp. 53.
- Mattos, J., and **M.S. Thorne**. 2006. Slaughter and Market Issues at the Andrade Slaughterhouse. pp 11-12. In: Thorne, M.S. and L.J. Cox (eds.), Proceedings: 2006 Mealani Forage Field Day: Hawaii Grown Beef: From Pasture to Market. October 7, 2007. University of Hawaii at Manoa, CTAHR Publication, pp. 53.
- Cox, L.J., Q.A. Edwards, **M.S. Thorne**, G.K. Fukumoto, and L.Y.T. Ching. 2006. Commercial cow-calf management decisions: Calculating your cost of production with Calf-XL 2006. University of Hawaii at Manoa, CTAHR – LM-12. pp.21.
- Thorne, M.S.**, J.S. Powley, and G.K. Fukumoto. 2005. Fireweed control: an adaptive management approach. University of Hawaii at Manoa, CTAHR PRM-1, pp 8.
- Cox, L.J., Q.A. Edwards, **M.S. Thorne**, G. Fukumoto. 2005. Calculating the cost of production for a cow-calf operation. University of Hawaii at Manoa, CTAHR –LM-11.
- Thorne, M.S.**, L.J. Cox. 2005. Proceedings: 2005 Mealani Forage Field Day: Improved livestock and forage production through sustainable management practices. University of Hawaii at Manoa, CTAHR P-09/05 pp. 60.
- Thorne, M.S.** 2005. Integrated Management for control of fireweed: An adaptive management approach. pp 23 – 30. In: Thorne, M.S., L.J. Cox (eds.), Proceedings: 2005 Mealani Forage Field Day: Improved livestock and forage production through sustainable management practices. University of Hawaii at Manoa, CTAHR P-09/05, pp. 60.
- Trlica, M.J., and **M.S. Thorne**. 2001. Trend in vegetation characteristics and range condition on the Mantle Allotment in Dinosaur National Monument from 1996 to 2001. National Park Service Report, Rangeland Ecosystem Science Department, Ft. Collins, Colo.
- Thorne, M.S.**, and M.J. Trlica. 2001. Comparison between methodologies to measure cover characteristics of plant communities within Dinosaur National Monument. National Park Service Report. Rangeland Ecosystem Science Department, Ft. Collins, Colo.

**Thorne, M.S.,** Q.D. Skinner, M.A. Smith, W.A. Laycock, and J.L. Dodd. 1997. Effects of herbivory on willow (*Salix* spp.) canopy volume on mountain rangelands of northern Wyoming. Pp. 144-149 IN: Proceedings Wyoming Water 1997 Conference; What's new in the toolbox? Applied research for management of Wyoming's water resources: A statewide conference. April 21-23, 1997. Casper, WY.

### *Popular Articles*

**Thorne, M.S.** 1996. Land owner control of access to public land. Wyo. Stockman-Farmer 102(4):18-19.

### *Published Abstracts*

**Thorne, M.S.** (2009). Content Development Process for Rangelandswest.org, Symposium on Western Rangelands Partnership: using the internet for information transfer. 62<sup>nd</sup> Annual Meeting of the Society for Range Management, Albuquerque, New Mexico, February 8-13, 2009.

Friel, G., **M.S. Thorne**, and M. Stevenson. (2009). Haleakala Ranch: Managing for resource stability, economic productivity, and community wellbeing in Hawaii. 62<sup>nd</sup> Annual Meeting of the Society for Range Management, Albuquerque, New Mexico, February 8-13, 2009.

Meiman, P.J., **M.S. Thorne**, Q.D. Skinner, M.A. Smith, and J.L. Dodd. 2009. Wild ungulate herbivory of willow outside of national parks is a significant management consideration. 62<sup>nd</sup> Annual Meeting of the Society for Range Management, Albuquerque, New Mexico, February 8-13, 2009.

**Thorne, M.S.,** D.R. Gardner, J.S. Powley, G.K. Fukumoto, and M.H. Stevenson. 2008. Fireweed (*Senecio madagascariensis* Poiret) control: an adaptive management approach. 2008 Extension Galaxy III Conference, Joint Council of Extension Professionals, Indianapolis, Indiana, September 15-19, 2008.

**Thorne, M.S.,** J.L. Deenik, H.H. Keyser, L.J. Cox, and M.H. Stevenson. 2008. Remediation of former sugarcane lands for sustainable forage production. 2008 Joint meeting of the Society for Range Management and the American Forage and Grassland Council, Louisville, Kentucky, January 26-31, 2008.

**Thorne, M.S.,** D.R. Gardner, J.S. Powley, G.K. Fukumoto, and M.H. Stevenson. 2008. Fireweed (*Senecio madagascariensis* Poiret) control: an adaptive management approach. 2008 Joint meeting of the Society for Range Management and the American Forage and Grassland Council, Louisville, Kentucky. January 26-31, 2008.

Castillo, M., M. Nakahara, D. Weise, R. Vihnanek, G. Enriques, A. McAdams, L. Ford, R. Moraga, B. Babb, **M. Thorne**, E. Nonner, D. Frohlich. (2007). The Puu Anahulu wildfire management study: Development of roadside fuels reduction techniques for leeward Hawaii. Proceedings 23rd Tall Timbers Fire Ecology Conference, Tallahassee, FL. Tall Timbers Research Station.

**Thorne, M.S.,** M.J. Trlica, W.C. Leininger, R.D. Child, and D.A. Klein. 2003. CO<sub>2</sub> exchange rates and plant-soil responses to soil loss on shortgrass prairie and sagebrush steppe sites. Society for Range Management 56<sup>th</sup> Annual Meeting, Feb. 1-6, 2003. Casper, Wyoming.

**Thorne, M.S.,** M.J. Trlica, W.C. Leininger, and R.D. Child. 2001. Soil loss effects on photosynthetic rates of western wheatgrass and blue grama. Society for Range Management 54<sup>th</sup> Annual Meeting, Feb. 17-23, 2001. Kailua-Kona, Hawaii.

**Thorne, M.S.,** M.J. Trlica, W.C. Leininger, and R.D. Child. 2001. Soil loss effects on soil respiration rates of two rangeland ecosystems. Society for Range Management 54<sup>th</sup> Annual Meeting, Feb. 17-23, 2001. Kailua-Kona, Hawaii.

**Thorne, M.S.,** J.D. Rodgers, Q.D. Skinner, M.A. Smith, W.A. Laycock, J.L. Dodd, and S. Cerekci. 1998. Estimates of the variability in measuring canopy volume among observers and within observations. Society for Range Management 51<sup>st</sup> Annual Meeting, Feb. 8-12, 1998. Guadalajara, Jalisco. Mexico.

**Thorne, M.S.,** Q.D. Skinner, M.A. Smith, W.A. Laycock, and J.L. Dodd. 1998. Final Report-Effects of herbivory on Willow (*Salix* spp.) canopy volume on mountain rangelands of northern Wyoming. Society for Range Management 51<sup>st</sup> Annual Meeting, Feb. 8-12, 1998. Guadalajara, Jalisco. Mexico.

**Thorne, M.S.,** Q.D. Skinner, M.A. Smith, W.A. Laycock, and J.L. Dodd. 1998. Final Report-Effects of the frequency of simulated browsing events on Willow (*Salix* spp.) biomass production. Society for Range Management 51<sup>st</sup> Annual Meeting, Feb. 8-12, 1998. Guadalajara, Jalisco. Mexico.

**Thorne, M.S.,** Q.D. Skinner, M.A. Smith, and W.A. Laycock. 1997. Effects of herbivory on Willow (*Salix* spp.) canopy volume on mountain rangelands of northern Wyoming. Society for Range Management 50<sup>th</sup> Annual Meeting, Feb. 16-21, 1997. Rapid City, South Dakota.

### History of Research and Extension Grants

USDA-NRCS; 2004. Thorne, M.S. 2004 Mealani Forage Field Day: Grassfed, Meeting A World of Demand.	\$10,500	6/04–12/04
USDA-NRCS; 2005. Thorne, M.S. 2005 Mealani Forage Field Day: Improved Livestock and Forage Production Through Sustainable Management Practices	\$8,800	6/05–12/05
USDA-NRCS; 2006. Thorne, M.S. 2006 Mealani Forage Field Day: Hawaii Grown Beef: From Pasture to Market	\$13,122	6/06-12/06
USDA-NRCS; 2007. Thorne, M.S. 2007 Mealani Forage Field Day: Risk Management for Grass-Based Operations.	\$14,209	7/07 – 3/08
USDA-NRCS; 2008. Thorne, M.S. 2008 Stockman’s Fall Field Day: Behavior-Based Grazing Management for Improved Animal Performance, Pasture Condition, and Ranch Profitability.	\$15,930	7/08-6/09
USDA-NRCS: 2005. Thorne, M.S. 2005 Sheep Producers Sustainable Grazing Management Workshop	\$7,810	6/05–12/05
USDA-NRCS: 2006. Thorne, M.S. 2006 Sheep Producers Sustainable Grazing Management Workshop	\$12,242	6/06–12/06
USDA-NRCS; 2004. Thorne, M.S. Hawaiian Grazing and Livestock Management Academy	\$53,152	10/04–10/07
USDA-NRCS; 2005. Thorne, M.S. J.R. Carpenter. Hawaii Animal Nutrition and Forage Production Profiling Project	\$17,110	6/05-5/07
USDA-NRCS; 2007. Thorne, M.S. L. Metz. Hawaii Rainfall and Forage Production Index Project	\$73,334 <sup>1</sup> \$73,334 <sup>2</sup> \$146,668	10/07 – 9/10
USDA-CSREES; 2004. Thorne, M.S. Best Management Practices for the Sustainable Productivity of Hawaii’s Range and Pasture Lands	\$50,000	10/04-10/09
USDA-CSREES; 2008. Thorne, M.S., J.L. Deenik, R. Godfrey. Extension Outreach and Assistance in Improved Pasture and Livestock Management Practices for Pacific Islanders	\$297,224	12/08-11/11
USDA – T-STAR; 2005. Thorne, M.S., L.J. Cox, H.H. Keyser, J.L. Deenik. Best Management Practices for the Remediation of Former Sugarcane and Pineapple Lands for Sustainable Livestock Production in Hawaii	\$262,013	8/05-8/08
USDA-T-STAR; 2006. Thorne, M.S., J.D. Arthington, C.N. Lee, and L.J. Cox. Forage and calf management considerations for optimizing the economic significance of early weaning in tropical environments	\$215,381	Not Funded
USDA-T-STAR; 2005. Thorne, M.S., J.D. Arthington, C.N. Lee, and L.J. Cox. Strengthening Forage and Calf Management Considerations		

for Optimizing the Economic Significance of Early Weaning in Tropical Environments – An Inter-Basin T-STAR Research Cooperation	\$207,364	Not Funded
USDA/HDOA; 2006. Thorne, M.S. CES Outreach and Education Program for the NAIS Implementation Project.	\$81,200	10/05-4/07
USDA/HDOA; 2007. Thorne, M.S. CES Outreach and Education Program for the NAIS Implementation Project.	\$49,000	7/07 – 6/08
USDA – NRI; 2006. Thorne, M.S., T. Miura, and J.L. Deenik. Ecology, Toxicology, and Management of Madagascar Fireweed ( <i>Senecio madagascariensis</i> Poiret) in Tropical and Sub-tropical Rangelands.	\$387,000	Not Funded
USDA-NRI; 2004. Thorne, M.S., L.J. Cox, H.H. Keyser, J.L. Deenik. Best Management Practices for the Conversion of Abandoned Crop Lands into Sustainable Forage Production Systems	\$797,846	Not Funded
USDA-WSARE; 2004. Launchbaugh, K. (PI, University of Idaho), Thorne, M.S., E. Herring UH Rangelands West Incentive Grant – Building Knowledge of Sustainable Rangeland Management Using Information Technology.	\$4,000	6/04-4/07
West Hawaii Wildfire Management Organization; 2006. Thorne, M.S. A Survey of the Natural Resources, Fine-Fuel Loads, and Extent of Fountain Grass Invasion on Rangelands in the Pu'u Wa'awa'a Area of West Hawaii.	\$86,241	7/06 – 06/08
Maui County Research and Development; 2007. Thorne, M.S., J.L. Deenik, T. Miura, D.R. Gardner, and J.A. Pfister. Development of Best Management Practices for Control of Madagascar Fireweed ( <i>Senecio madagascariensis</i> Poiret) in Maui County.	\$34,056	9/07 – 8/08
Maui County Research and Development; 2008. Thorne, M.S., J.L. Deenik, T. Miura, D.R. Gardner, and J. A. Pfister. Development of Best Management Practices for Control of Madagascar Fireweed ( <i>Senecio madagascariensis</i> Poiret) in Maui County.	\$19,929	7/08-6/09
Hawaii Farm Bureau Federation Research and Market Development Program; 2007. Thorne, M.S., J.L. Deenik, T. Miura, D.R. Gardner, and J.A. Pfister. Development of Best Management Practices for Control of Madagascar Fireweed ( <i>Senecio madagascariensis</i> Poiret) in Hawaii.	\$80,313 (requested) \$40,000 (funded)	9/07-8/08

<sup>1</sup>USDA-NRCS Contract award amount

<sup>2</sup>University of Hawaii at Manoa match amount