

**Timothy R. Collier**  
*Curriculum vitae*  
tcollier@uwyo.edu

CURRENT POSITION

2002-present                    *Assistant Professor*  
Biological Control and Insect Ecology  
Dept. of Renewable Resources and  
Program in Ecology,  
University of Wyoming  
Laramie, WY, 82071

JOB DESCRIPTION

- Research (52%); Interests:
1. Integrating weed biological control and herbicides
  2. The role of plant nutrition in determining host plant suitability in weed biological control
  3. Nutritional ecology of parasitoids as biological control agents of insect pests
- Service (30%); Activities:
1. Outreach related to weed biological control in Wyoming
  2. Implementation of weed biological control in Wyoming
  3. Subject Editor, Annals of the Entomological Society of America
- Teaching (18%); Courses:
1. Invasive Species Ecology Seminar
  2. Applied Insect Ecology Lecture
  3. Insect Behavior Lecture

PREVIOUS POSITIONS

2001-2002                    *Post-Doctoral Researcher*  
Dept. of Environmental Science, Policy and Management,  
University of California, Berkeley

1998-2000                    *Associate Research Scientist*  
Dept. of Entomology,  
The University of Arizona

1997-1998                    *Assistant Research Scientist*  
Dept. of Entomology,  
The University of Arizona

1994-1997                    *Post-Doctoral Researcher*  
Center for Population Biology,  
University of California, Davis

### COMPETITIVE GRANTS

- 2005 United States Dept. of Agriculture. Cooperative State Research, Education and Extension Service. Western Regional IPM. “Mechanisms and impacts of integrated pest management for sustainable Dalmatian toadflax control in the Western U.S.” CoPI with S. Enloe, P. Meiman, and A. Norton. \$95,000. 25% responsibility. Oct 1, 2005- Sept 31, 2008.
- 2003 University of Wyoming, Agricultural Experiment Station. “Mechanisms and impacts of integrated pest management strategies for sustainable Canada thistle control in riparian corridors.” \$56,002. Co-principle investigator with Stephen Enloe. 50% responsibility. Jan 1, 2004-Dec. 31, 2005.
- 1998 United States Dept. of Agriculture. National Research Initiative – Competitive Grants Program. “Comparative life history and interspecific competition in *Encarsia* parasitoids”. Co-principle investigator with Martha Hunter. \$109,000. 25% responsibility. Dec. 1998-Dec. 2000.
- 1994 United States Dept. of Agriculture. National Research Initiative – Competitive Grants Program. Entomology Postdoctoral Fellowship. “Oviposition strategies in the egg parasitoid, *Trichogramma pretiosum*.” \$80,000. 100% responsibility. Oct. 1994-Nov 1996.

### RESEARCH PUBLICATIONS

- 2007 Collier, T.R., Enloe, S.E., Sciegienka, J.K., and Menhalled, F.D. Combined impacts of *Ceutorhynchus litura* and herbicides for Canada thistle suppression. *Biological Control* 43: 231-235.
- 2007 Collier, T.R., Hunter, M.S., and Kelly, S.J. Heterospecific ovicide influences the outcome of competition between two endoparasitoids, *Encarsia formosa* and *E. luteola*. *Ecological Entomology* 32 (1): 70-75.
- 2006 Ferrero-Serrano, A., Collier, T.R., Meador, B.A., Hild, A.H., and Smith, T. Combination of stem-boring weevil and native grasses reduces root biomass of Canada thistle in greenhouse experiment (Wyoming). *Ecological Restoration* 24(3): 201-202.
- 2006 Collier, T.R., and Van Steenwyk, R.A. How to make a convincing case for augmentative biological control. *Biological Control* 39: 119-120.
- 2004 Collier, T.R., and Van Steenwyk, R.A. A critical review of augmentative biological control. *Biological Control* 31: 245-256.
- 2004 Van Steenwyk, R.A., Fouche, C.F., and Collier, T.R.. Seasonal susceptibility of ‘Bartlett’ pears to codling moth (Lepidoptera: Tortricidae) infestation and notes on diapause induction. *Journal of Economic Entomology* 97(3): 976-980.

RESEARCH PUBLICATIONS (continued)

- 2003 Legg, D. E., Van Vleet, S.M., Ragsdale, D.W., Hansen, R.W., Skinner, L.C., Collier, T.R., and Lloyd, J.E. Roles of bootstrap resampling, measure of central tendency, and method for calculating thermal units when developing phenology models for pest management. *International Journal of Pest Management* 49: 319-325.
- 2002 Collier, T., Kelly, S., and Hunter, M. Egg size, intrinsic competition and lethal interference in the parasitoids *Encarsia pergandiella* and *Encarsia formosa*. *Biological Control* 23: 254-261.
- 2002 Hunter, M., Kelly, S., and Collier, T. Does an autoparasitoid disrupt host suppression provided by a primary parasitoid? *Ecology* 83(5): 1459-1469
- 2001 Collier, T.R., and Hunter, M.S. Lethal interference competition in the whitefly parasitoids *Eretmocerus eremicus* and *Encarsia sophia*. *Oecologia* 129: 147-154.
- 2001 Briggs, C.J., and Collier, T.R. Autoparasitism, interference and pest-parasitoid population dynamics. *Theor. Pop. Biol.* 60: 33-57.
- 1998 Murdoch, W.W., Briggs, C.J., and Collier, T.R. Biological control of insects: implications for theory in population ecology. pp. 167-186 in *Insect Populations in Theory and in Practice* (eds. J.P. Dempster and I. F. G. McLean). Kluwer.
- 1996 Heimpel, G.H., and Collier, T.R. The evolution of host-feeding behavior in insect parasitoids. *Biol. Reviews* 71: 373-400.
- 1995 Collier, T.R. Host feeding, egg maturation, resorption and longevity in the parasitoid, *Aphytis melinus* (Hymenoptera; Aphelinidae). *Annals Ent. Soc. America* 88:206-214.
- 1995 Collier, T.R. Adding physiological realism to dynamic state variable models of parasitoid host feeding. *Evol. Ecology* 9:217-234.
- 1995 Briggs, C.J., Nisbet, R.M., Murdoch, W.W., Collier, T.R., and Metz, J.A.J. Dynamical effects of host-feeding in parasitoids. *J. of Animal Ecology* 64:403-416.
- 1994 Collier, T.R., Murdoch, W.W., and Nisbet, R.M. Egg load and the decision to host-feed in the parasitoid *Aphytis melinus*. *J. of Animal Ecology* 63:299-306.

SERVICE/EXTENSION PUBLICATIONS

- 2006 Collier, T., Schaffner, U. and Littlefield, J. A petition for cage- and open-field release of the gall midge *Jaapiella ivannikovi* (Diptera: Cecidomyiidae) for biological control of Russian knapweed in North America. Submitted for Review by the Technical Advisory Group, USDA PPQ.
- 2006 Collier, T.R. *Weed Biological Control in Wyoming*. (Pamphlet)
- 2006 Collier, T.R. Chinese beetles munch salt cedar. WyoBio. Biocontrol News and Views for Wyoming. Spring 2006. (Article)
- 2005 Collier, T.R. Schaffner, U. and Littlefield, J. A petition for cage- and open-field release of the gall wasp *Aulacidea acroptilonica* (Hymenoptera: Cynipidae) for biological control of Russian knapweed in North America. Submitted for Review by the Technical Advisory Group, USDA PPQ.
- 2004 Collier, T.R. WYO BIO Handbook. A Guide to Weed Biological Control in Wyoming. 23 pp.
- 2003 Collier, T.R. News Update on the Wyoming Biocontrol Steering Committee. WyoBio. Biocontrol News and Views for Wyoming. Spring 2003. (Article)
- 2003 Collier, T.R., and Van Steenwyk, R.A. 2003. Olive fruit fly in California: prospects for integrated control. *California Agriculture* 57(1): 28-32. (Article)
- 2003 Collier, T.R. *Apththona* and the Successful Control of Leafy Spurge. WyoBio. Biocontrol News and Views for Wyoming. Spring 2003. (Article)
- 2003 Collier, T.R. A New Agent for Leafy Spurge in Wyoming? WyoBio. Biocontrol News and Views for Wyoming. Winter 2003. (Article)
- 2003 Collier, T.R. Releases of a New Knapweed Agent in Wyoming. WyoBio. Biocontrol News and Views for Wyoming. Winter 2003. (Article)
- 2003 Collier, T.R. and Schaffner, U. A update on Russian knapweed biological control. WyoBio. Biocontrol News and Views for Wyoming. Winter 2003. (Article)
- 2002 Collier, T.R. Toadflax Biological Control. WyoBio. Biocontrol News and Views for Wyoming. Fall 2002. (Article)

### GRADUATE STUDENTS

2003-present      Karla Lopez-Coreas, M.S. Entomology (co-major advisor)  
2005-2007         Diana Dean, M.S. Entomology (co-major advisor)  
2004-2006         Angel Ferrero-Serrano, M.S. Rangeland Ecology and Watershed  
Management (co-major advisor)

### COURSES TAUGHT

ENTO 4884/5884 Insect Behavior  
ENTO 4300/5300 Applied Insect Ecology  
RNEW 4852/5852 Invasive Species Ecology Seminar

### UNIVERSITY SERVICE

2007-present      Program in Ecology Steering Committee  
2003-present      Committee on Committees  
2007                 Search Committee, Range Extension Specialist Position  
2006                 Search Committee, Range Extension Specialist Position  
2003-2005         Plant Sciences Greenhouse Committee  
2003                 Search Committee, Weed Extension Specialist Position

### PROFESSIONAL SERVICE

2004-present      Subject Editor, Annals of the Entomological Society of America  
2002-present      Peer Reviews; 48 journal manuscripts for 21 Journals

### PROFESSIONAL SOCIETIES

1998-present      Entomological Society of America