

Curriculum Vita **Ian V. MacRae**

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Education:

Oregon State University, Corvallis, OR. Ph.D. (1994) Entomology
University of Victoria, Victoria, B.C. M.Sc. (1988) Biology
University of Prince Edward Island, Charlottetown, PEI. B.Sc. (1980) Biology

Professional Experience:

Associate Professor and Extension Entomologist, University of Minnesota, 2003 – present
MN IPM Program Coordinator, University of Minnesota, 2004-Present
Assistant Professor and Extension Entomologist, University of Minnesota, 1997-2003
Post-doctoral Research Associate, Colorado State University, 1994-1997
Entomologist, Safer, Ltd., Victoria, Canada, 1988-1990
Graduate Research Assistant, Univ. of Victoria, Victoria, BC 1985-1988

Honors:

Amelia Leith Memorial Award, Dept. of Biology, U. Victoria 1986/87
B.C. Job-Trac Supplemental Scholarship, U. Victoria 1986/87, 1987/88
King-Platt Memorial Award, Dept. of Biology, U. Victoria 1987/88
B.C. Science Council G.R.E.A.T. Award, U. Victoria 1988/91
Travel Award, Dept. of Entomology, O.S.U. 1991
Travel Award, Graduate and Professional Student Assoc., O.S.U. 1991
President's Award, Entomol. Soc. Am., National Meeting, 1992
Knud Svenson Award for Outstanding Publication, Dept of Entomology, O.S.U. 1994

Selected Publications:

- Hollingsworth, C., C. Motteberg, J. Machado, I. MacRae, and J. Wiersma. 2005. Evaluating tissue locations of small grain plants for detection of phytoplasma and determining aster yellows distribution in northwestern Minnesota. *Phytopathology* 95: 43.
- Hodgson, E.W., I.V. MacRae, & G.J. Brewer. 2004. Within-field distribution of the sunflower midge (Diptera: Cecidomyiidae). *Environ. Entomol.* 33: 1037-1044.
- Carroll, M.W., E.B. Radcliffe, I.V. MacRae, D.W. Ragsdale, K.D. Olson and R.A. Suranyi. 2004. Reducing organophosphate use in seed potato production: Targeted insecticide application for green peach aphid control. *Valley Potato Grower*, 146: 5 - 17.

- Olson, K.D., T. Badibanga, E. B. Radcliffe, M. W. Carroll, I. V. MacRae and D.W. Ragsdale. 2004. Economic analysis of using a border treatment for reducing organophosphate use in seed potato production. Staff paper series. UMN Staff paper P04-8. <http://agecon.lib.umn.edu/mn/p04-08.pdf>
- MacRae, I.V. 2003. Effect of within field topography on emergence of adult sugarbeet root maggot, *Tetanops myopaeformis* (Roder) (Diptera: Otitidae). J. Sugar Beet Res. 40(3): 87-102.
- Radcliffe, E.B., D.W. Ragsdale, and I.V. MacRae. 2003. U of M project seeks to reduce organophosphate insecticide use in potato production. Valley Potato Grower 68: 4-6.
- Zhu, M., E.B. Radcliffe, D.W. Ragsdale and I.V. MacRae. 2002. The possible source areas and over-wintering hosts of green peach aphid, *Myzus persicae*, in the Red River Valley, pp. 249-251, *In*: 15th Conference on Biomet. & Aerobiol. - Amer. Meterol. Soc., Boston, MA.
- Suranyi, R.A, I.V MacRae, D.W Ragsdale and E.B Radcliffe. 2000. Site-Specific Management of Green Peach Aphids in Seed Potatoes, *In*: Proc. 84th Annual Meeting of the Potato Association of America, 23 – 27 July 2000, Colorado Springs, CO. Potato Association of America, Orono ME. Vol. 77 pp. 420
- MacRae, I. And S.A. Armstrong. 2000. Effect of high moisture on pupation of sugarbeet root maggot, *Tetanops myopaeformis* (Roder) (Diptera: Otitidae). J. Sugarbeet Res. 37: 33-40.
- Carter, M., I. MacRae, J. Logan and T. Holtzer. 1998. A population model for *Melanoplus sanguinipes* (Orthoptera: Acrididae) and an analysis of grasshopper population fluctuations in Colorado. Environ Entomol 27: 892-901.
- MacRae, I.V. and B.A. Croft. 1997. Inter- and intraspecific predation by adult female *Metaseiulus occidentalis* and *Typhlodromus pyri* (Acari: Phytoseiidae) at varying densities and proportions of *Tetranychus urticae* (Acari: Tetranychidae) and phytoseiid larvae. Exp. Appl. Acarol. 21: 235-246.
- MacRae, I.V. and B.A. Croft. 1996. Differential impact of egg predation by *Zetzellia mali* (Acari: Stigmaeidae) on *Metaseiulus occidentalis* (Nesbitt) and *Typhlodromus pyri* Schueten (Acari: Phytoseiidae). Exp. Appl. Acarol. 20: 143-154.
- Croft, B.A. and I.V. MacRae. 1993. Biological control of apple mites: impact of *Zetzellia mali* (Acari: Stigmaeidae) on *Typhlodromus pyri* and *Metaseiulus occidentalis* (Acari: Phytoseiidae). Environ. Entomol. 22: 865-873.
- MacRae, I.V. and R.A. Ring. 1993. Life history of *Cricotopus myriophylli* Oliver (Diptera: Chironomidae) in the Okanagan Valley, British Columbia. Can. Entomol. 125: 979-985.
- MacRae, I.V. and B.A. Croft. 1993. Influence of temperature on interspecific predation and cannibalism in *Metaseiulus occidentalis* (Nesbitt) and *Typhlodromus pyri* Scheuten (Acari: Phytoseiidae). Environ. Entomol. 22: 770-775.
- Croft, B.A., MacRae, I.V. and K.G. Currans. 1992. Factors affecting biological control of apple mites by mixes of *Metaseiulus occidentalis* and *Typhlodromus pyri*. Exper. Appl. Acar. 14: 343-355.

- Croft, B.A. and I.V. MacRae. 1992. Biological control of apple mites by mixed populations of *Metaseiulus occidentalis* (Nesbitt) and *Typhlodromus pyri* Scheuten (Acari: Phytoseiidae). *Environ. Entomol.* 21(1): 202-209.
- Croft, B.A. and I.V. MacRae. 1992. Persistence of *Typhlodromus pyri* and *Metaseiulus occidentalis* (Acari: Phytoseiidae) on apple after inoculative release and competition with *Zetzellia mali* (Acari: Stigmaeidae). *Environ. Entomol.* 21 (5): 1168-1177.
- MacRae, I.V., N.N. Winchester, and R.A. Ring. 1990. Feeding and host-preference of *Cricotopus myriophylli* Oliver (Diptera: Chironomidae). *J. Aquat. Plant Mgmt.* 28: 89-92.
- MacRae, I.V., N.N. Winchester, and R.A. Ring. 1989. An evaluation of *Cricotopus myriophylli* as a potential biocontrol for Eurasian Watermilfoil (*Myriophyllum spicatum* L.). *Acta Biol. Debr. Hung.* 3: 241-248.
- MacRae, I.V. and N.N. Winchester. 1988. A new plant host for *Rhopalosiphum nymphaeae* (Homoptera: Aphididae). *J. Entomol. Soc. of B.C.* 85: 98.

Summary Career Statistics:

In excess of US\$1.8M in competitive funding, 18 refereed publications (plus 1 submitted and 5 in progress), 4 book chapters, ~50 Professional & Extension publications (plus miscellaneous articles in Minnesota Crop News, radio and television interviews and pest updates), 85 Professional presentations, ~250 Extension Presentations, taught Introductory & Applied Entomology 1997-present (UMN Crookston campus), 4 graduate students (2 PhD, 2 MS), participation in various undergraduate and graduate courses as curriculum developer and lecturer.