

Marina Claudia Caillaud

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ACADEMIC RANK:

Associate Professor. Ithaca College, Department of Biology, Ithaca NY, USA

FIELD OF SPECIALIZATION

Quantitative genetics, insect genetics, Insect-plant interactions, insect behavior.

EDUCATION AND TRAINING

- 1989, **BS** (Major: Biology; Minor: Agricultural Engineering), Ecole Nationale Supérieure Feminine d'Agronomie, Rennes, France
- 1991, **MSc** (Area: Ecophysiology and Population dynamics of land invertebrates), Université Pierre et Marie Curie, Paris, France
- 1994, **PhD** (Area: Genetic Resources and Plant breeding), Université Paris-Sud, Orsay, France
- 1996-2000, **PostDoctoral fellow** (Aphid genetics, Sara Via and Dave Hawthorne), Department of Entomology, Cornell University

ACADEMIC APPOINTMENTS:

- 08/2000... Associate Professor, Department of Biology, Ithaca College
- 08/2002-... Assistant Professor, Department of Biology, Ithaca College
- 11/2002-... Adjunct Assistant Professor, Department of Entomology, Cornell University
- 2002 (6 months) Visiting scientist, Centre de Biologie des Populations, Montpellier, France
- 2000-2001 Senior Research Associate, department of Entomology, Cornell University
- 1994-1996 Research Scientist, Institut National de la Recherche Agronomique, France

TEACHING

1999 (Cornell University)

ENTOM 644. Cornell U. Module 2. Genetics in managed ecosystems. 1 month course. 2 lectures and 1 discussion a week.

ENTOM 470. Cornell U. Ecological Genetics. Spring semester course. 2 lectures and 1 discussion a week.

2002-2008 (Ithaca College)

Fall:

HUMAN GENETICS or INSECTS AND PEOPLE. Lecture course for non-majors. 3 lectures/week

LITERATURE IN BIOLOGY. Seminar course for Biology majors. 1 meeting per week.

Spring:

GENETICS. Lecture/laboratory course for Biology/Biochemistry Majors. 3 lectures and 1-2 lab section every week.

GRANT SUPPORT

- 1991. 3 years PhD fellowship, DGER (Direction Générale de l'Enseignement et de la Recherche) and INRA.
- 1992. Travel fellowship for graduate students, CEE (European Union).
- 1992. Travel fellowship for graduate students, ESF (European Science Foundation).
- 1994. Travel grant, ECOS-CONICYT.
- 1996. Post-doctoral fellowship, NATO.
- 1997. Travel grant, ECOS/CONICYT.
- 1998. USDA-NRI grant (PI was Dave Hawthorne, U. of Maryland). \$150,000
- 1999. Research Grant (Hatch Grant), Cornell University. \$7,000
- 2003. USDA-NRI grant (PI was Stewart Gray, Cornell University). \$250,000
- 2005. USDA-NRI grant (PI was Sara Via, University of Maryland). \$364,000

PUBLICATIONS

- 24. Del Campo, M., Miles C., and M.C. Caillaud, 2008. Effects of experience on the physiology of taste discrimination in insects. Book chapter, in press
- 23. Gray, S, M.C. Caillaud, M. Burrows and D. M. Smith, 2007. Transmission of viruses that cause Barley Yellow Dwarf is controlled by different loci in the aphid, *Schizaphis graminum*. Journal of Insect Science, 7(article 5): 1536-2442.
- 22. Burrows, M.E, Caillaud M.C. Smith, D. and S. Gray. 2006. Biometrical genetic analysis of virus transmission in the aphid *Schizaphis graminum*. Heredity, 98:106-113.
- 21. Burrows, M.E., M.C. Caillaud, D.M. Smith, E.C. Benson, F.E. Gildow and S.M. Gray. 2006. The genetic regulation of luteovirus and polerovirus transmission in the aphid *Schizaphis graminum*. Phytopathology, 96:828-837
- 20. Braendle, C., M. C. Caillaud and D. L. Stern .2005. Genetic mapping of aphicarus - a sex-linked locus controlling a wing polymorphism in the pea aphid (*Acyrtosiphon pisum*). Heredity, 1-8

19. Braendle, C., I. Friebe, M.C. Caillaud and D.L. Stern. 2005. Genetic variation in an aphid wing polyphenism is genetically linked to a naturally occurring wing polymorphism. Proc R Soc B, 272: 657-664
18. Caillaud, M.C., G. Mondor-Genson, S. Levine-Wilkinson, L. Mieuze, A. Frantz, J.C. Simon and A. Coeur d'Acier, 2004. Microsatellite DNA markers for the pea aphid: *Acyrtosiphon pisum* (Harris, 1776) [Homoptera, Sternorrhynca]. Molecular Ecology Notes, vol. 4, issue. 3, pp. 446-448(3)
17. Del Campo, M., S. Via and M.C. Caillaud, 2003. Recognition of host specific stimulants mediates host specificity and assortative mating in two host races of the pea aphid. Ecological Entomology, 28/4, 405-412
16. Caillaud, C.M., M. Boutin, C. Braendle and J.C. Simon, 2002. A sex-linked locus controls wing polymorphism in males of the pea aphid, *Acyrtosiphon pisum* (Harris). Heredity, 89, 346-352
15. Dedryver, C-A., M. Hulle, J.F. Le Gallic, M.C. Caillaud and J-C. Simon. 2001. Coexistence in space and time of different life-cycle variants of a cyclical parthenogen: the cereal aphid *Sitobion avenae* in France. Oecologia, 128, 379-388
14. Caillaud, C.M. and S. Via. 2000. Specialized feeding behavior influences both ecological specialization and assortative mating in sympatric host races of pea aphids. The American Naturalist, 156 (6), 606-621.
13. Caillaud, C.M. 1999. Behavioral correlates of genetic divergence due to host specialization in *Acyrtosiphon pisum*. Entomologia experimentalis et applicata, 91 (1), 227-232.
12. Caillaud, C.M. & Rahbé, Y. 1999. Aposymbiosis in a cereal aphid : reproductive failure and influence on plant utilisation. Ecological Entomology, 24 (1), 111-114.
11. Di Pietro, J.P., Caillaud, C.M., Pierre, J.S. & Trottet, M. 1998 Sources of resistance to the cereal aphid *Sitobion avenae* in ancient species of *Triticum*. In. pp. 529-534, Aphids in managed and natural ecosystems. Ed by J. Nieto Nafria and A.F.G Dixon.
10. Di Pietro, J.P. & Caillaud, C.M., Chaubet, B., Pierre, J.S. & Trottet, M. 1998. Variation in resistance to *Sitobion avenae* (Sternorrhynca: Aphididae) among diploid wheat genotypes : multivariate analysis of agronomic data. Plant breeding, 117/5, 407-412.
9. Di Pietro, J.P. & Caillaud, C.M., 1998. Response to intraclonal selection for adaptation to the resistant wheat *Triticum monococcum* in the English grain aphid *Sitobion avenae*. Environmental Entomology, 27 (1), 80-85.

8. Gianoli, E., Caillaud, C.M., Chaubet, B., Di Pietro, J.P. & Niemeyer, H.M., 1997. Variability in grain aphid (Homoptera: Aphididae) performance and aphid-induced phytochemicals responses in wheat. Environmental Entomology, 26 (3), 638-641
7. Plantegenest, M., Pierre, J.S., Caillaud, C.M., Simon, J.C., Dedryver, C.A. & Cluzeau, 1997. A model to describe the reproduction rate of the grain aphid, *Sitobion avenae* F. (Homoptera : Aphididae). European Journal of Entomology, 93 (4), 545-553.
6. Caillaud, C.M. & Niemeyer, H.N., 1996. Possible involvement of the phloem sealing system in the acceptance of a plant as host by an aphid. Cellular and Molecular Life Sciences, (52), 9, 927-931
5. Caillaud, C.M., Dedryver, C.A., Di Pietro, J.P., Fima, F., Simon, J.C. & Chaubet, B., 1995c. Clonal variability in the response of *Sitobion avenae* (Homoptera : Aphididae) to resistant *Triticum monococcum* wheat lines. Bulletin of Entomological Research, 85, 189-195.
4. Caillaud, C.M., Di Pietro, Chaubet, B., & Pierre, J.S., 1995b. Application of discriminant analysis to Electrical penetration Graphs of the aphid *Sitobion avenae* feeding on resistant and susceptible wheat. Journal of Applied Entomology, 119, 103-106.
3. Caillaud, C.M., Pierre, J.S., Chaubet, B. & Di Pietro, J.P., 1995a. Analysis of wheat resistance to the cereal aphid *Sitobion avenae* using electrical penetration graph and flow charts combined with correspondence analysis. Entomologia experimentalis et applicata, 75, 9-18.
2. Caillaud, C.M., Dedryver, C.A. & Simon, J.C., 1994. Development and reproductive potential of the cereal aphid *Sitobion avenae* on resistant wheat lines (*Triticum monococcum* line). Annals of Applied Biology, 125, 219-232.
1. Pham-Delegue, M.H., Trouiller, J. Caillaud, C.M., Roger, B. & Masson, C., 1993. Effect of queen pheromone on worker bees of different ages: behavioural and electrophysiological responses. Apidologie, 24: 267-281.