

Chapter VII – BIBLIOGRAPHY



Bibliography

- **Agnarsson I, Avile's L, Coddington JA, Maddison WP. 2006.** Sociality in therriid spiders: repeated origins of an evolutionary dead end. *Evolution* 60(11): 2342-2351
- **Amalin DM, Pena JE, McSorley R. 2000.** Gut Content Analysis of Three Species of Sac Spiders by Electrophoresis. *Florida Entomol.* 83 (4): 498-492
- **Amano H, Haseeb M. 2001.** Recently-proposed methods and concepts of testing the effects of pesticides on the beneficial mite and insect species: study limitations and implications in IPM. *Appl. Entomol. Zool.* 36 (1): 1-11
- **Avile's, L, Bukowski T. 2006.** Group living and inbreeding depression in a subsocial spider. *Proc. R. Soc. Lond. B* 270: 157-163
- **Aviles L, Maddison WP, Agnarsson I. 2006.** A new independently derived social spider with explosive colony proliferation and a female size sexual dimorphism. *Biotopica* 38(6):743-753
- **Aviles L, Tufino P. 1998.** Colony size and individual fitness in the social spider *Anelosimus eximus* *Amer. Nat.* 152:403-418
- **Aviles's L. 1997.** Causes and consequences of cooperation and permanent-sociality in spiders. Pp. 476-498 in J. C. Choe and B.J. Crespi, eds. *The evolution of social insects and arachnids*. Cambridge Univ. Press, Cambridge, U.K.
- **Babczynska A, Wilczek G, Migula P. 2006.** Effect of Dimethoate on spiders from metal pollution gradient. *Science of Total Environment* 2:352-359

- **Bengtsson J, Ahnström J, Weibull AC. 2005.** The effects of organic agriculture on biodiversity and abundance: a meta-analysis. *J. Appl. Ecol.* 42: 261-269
- **Bengtsson J.1998.** Which species? What kind of diversity? Which ecosystem function? Some problems in studies of relations between biodiversity and ecosystem function. *Applied Soil Ecol.* 10: 191-199
- **Beutler E, Duron O, Kelley BM. 1963.** Improved method for the determination of blood glutathione. *J. Lab. Clin. Med.* 61: 882-888
- **Bianchi FJJA, Booij CJH, Tscharntke T. 2006.** Sustainable pest regulation in agricultural landscapes: a review on landscape composition, biodiversity and natural pest control. *Proc. of the Royal Society B - Biological Sciences* 273: 1715-1727
- **Bilde T, Lubin Y, Smith D, Schneider JM, Maklakov AA. 2005.** The transition to social inbred mating systems in spiders: role of inbreeding tolerance in a subsocial predecessor. *Evolution* 59:160–174
- **Booth LH, Heppelthwaite V, Eason CT. 1998.** Cholinesterase and Glutathione S-Transferase in the earthworm *Aprrorectodea caliginosa* as biomarkers of Organophosphate exposure. *Proc. 51st N.Z. Plant Protection Conf.* 138-142
- **Buege JA, Aust SD. 1978.** Microsomal lipid peroxidation. *Methods Enzymol.* 52:302–310
- **Bueno AF, Freitas S. 2004.** Effect of insecticides abamectin and lufenuron on eggs and larvae of *Chrysoperla externa* under laboratory conditions. *BioControl* 49: 277-283

- **Bugg RL, Ehler LE, Wilson LT. 1987.** Effect of common knotweed (*Polygonum aviculare*) on abundance and efficiency of insect predators of crop pests. *Hilgardia* 55: 1-53
- **Buskirk RE. 1981.** Sociality in Arachnida. *Social insects* 2: 281-367
- **Buskirk, RE.1986.** Orb-weaving spiders in aggregations modify individual web structure. *J.Arachnol.* 14:259-265
- **Caltagirone LE. 1981.** Landmark examples in classical biological control. *Ann. Rev. Entomol.* 26: 213-232
- **Carson R.1962.** *Silent Spring*. Houghton-Misslin, United States.
- **Carter PE, Rypstra AL. 1995.** Top-down effects in soybean agroecosystems: Spider density affects herbivore damage. *Oikos* 72: 433-439
- **Chamberlain DE, Fuller RJ, Bunce RGH, Duckworth JC, Shrubbs M. 2000.** Changes in the abundance of farmland birds in relation to the timing of agricultural intensification in England and Wales. *J.Appl.Ecol.* 37: 771-788
- **Chen B, Wise DH.1999.** Bottom-up limitation of predaceous arthropods in a detritus-based terrestrial food web. *Ecology.* 80: 761-772
- **Cheng GC, Kareiva P.1999.** The case for indigenous generalists in biological control. In:
- **Chiverton PA.1987.** Predation of *Rhopalosiphum padi* (Homoptera: Aphididae) by polyphagous predatory arthropods during the aphids' pre-peak period in spring barley. *Annals Appl. Bio.* 111: 257-269

- **Chu YI, Ho KK, Peng WK, Lai PW, Chen IH. 1977.** Relative toxicity study on six dust insecticides to planthopper, leafhopper and their predator, the wolf spider. *Phytopathol. Entomol.* 5: 37–45.
- **CIKS. 2007.** Biological pest control methods- spiders as bio-control agents. <http://www.ciks.org/spiders.html>
- **Clough Y, Kruess A, Kleijn D, Tscharntke T. 2005.** Spider diversity in cereal fields: comparing factors at local, landscape and regional scales. *J.Biogeography* 32: 2007-2014
- **Coombes DS, Sotherton NW. 1986.** The dispersal and distribution of polyphagous predatory Coleoptera in cereals. *Annals. Appl. Biol.* 108: 461-474
- **Corbett A, Rosenheim JA. 1996.** Impact of a natural enemy overwintering refuge and its interaction with the surrounding landscape. *Ecol.Entomol.* 21:155-164
- **Crouch TE, Lubin Y.2000.** Effects of Climate and Prey Availability on foraging in a Social Spider, *Stegodyphus Mimosarum* (Araneae, Eresidae). *J. Arachnol.* 28:158–168
- **Dann TT, Tulpule V, Toussaint E. 1994.** Agricultural chemicals, their use in Australian agriculture. *Australian Commodities* 1: 501-507
- **De Barro PJ.1992.** The impact of spiders and high temperatures on cereal aphid (*Rhopalosiphum padi*) numbers in an irrigated perennial grass pasture in South Australia. *Annals Appl. Biol.* 121:19-26

- **DeBach P, Bartlett B.1951.** Effects of Insecticides on biological control of insect pests of citrus. *J.Econ.Entomol.* 44: 372-383
- **DeBach P. 1974.** *Biological Control by Natural Enemies.* Cambridge University, London.
- **DeBach P.1951.** The necessity for an ecological approach to pest control on citrus in California. *J.Econ.Entomol.* 44:443-447
- **Denys C, Tscharntke T. 2002.** Plant-insect communities and predator-prey ratios in field margin strips, adjacent crop fields, and fallows. *Oecologia* 130: 315-324
- **Desneux N, Decourtye A and Delpuech JM. 2007.** The Sublethal Effects of pesticides on beneficial arthropods. *Ann.Rev.Entomol*, 52: 81-106
- **Dinter A, Mausch H, Brauckhoff U. 1998.** Risk assessments for the linyphiid spiders *Erigone atra* and *Oedothorax apicatus* and the pyrethroid Sumicidin 10 resulting from laboratory dose-response studies. *Pesticides and Beneficial Organisms IOBC Bulletin.* 21 (6):77-87.
- **Dinter A, Poehling HM. 1992.** Spider populations in winter wheat fields and the side-effects of insecticides. *Aspects of Appl. Bio.*31:77-85.
- **Dolly Kumar and Shivakumar MS. 2005.** Ecological studies on spiders in rice agroecosystem of Vadodara (Gujarat) with special emphasis on biocontrol aspect. *Ind.J.Entomol.* 66(4): 323-327.
- **Downs CS, Dillon Jr RT, Fauth JE, Woodley CM. 2001.** A molecular biomarker system for assessing the health of gastropods *Ilyanassa obsoleta* exposed to natural and anthropogenic stressors. *J.Exper.Marine Biol.Ecol.* 259: 189-214

- **DuPont, MSDS .2007.** http://www2.dupont.com/Crop_Protection/en_CA/assets/downloads/20071010-Lannate%20E%20MSDS.pdf
- **Dyer LE, Landis DA.1997.** Influence of noncrop habitats on the distribution of *Eriborus terebrans* (Hymenoptera: Ichneumonidae) in cornfields. *Environ.Entomol.* 26: 924-932
- **Ellman GL, Courney KD, Andres V, Featherstone RM. 1961.** A new and rapid colorimetric determination of acetylcholinesterase activity. *Biochem. Pharmacol.* 7: 88-95
- **EPPO. 2006.** Review of Agricultural Entomology, 89(7), p 767 (5646). EPPO RS 2000/061, 2000/173, 2002/018
- **Everts JW. 1990.** Sensitive indicators of side-effects of pesticides on the epigeal fauna of arable land. WAU dissertation no, 1346. http://file:///A:\Summary,%20WAU%20dissertation%20no_%201346.htm. Dt.5/30/04
- **FAO/RLAC, 1989:** <http://www.fao.org/rlac/cajanuscajan>. Accessed on 22.8.2005
- **Ffrench-Constant RH, Anthony N, Aronstein K, Rocheleau T, Stilwell G. 2000.** Cyclodiene insecticide resistance: From molecular to population genetics. *Ann.Rev. Entomol.* 45: 449-466
- **Finke DL, Denno, RF. 2004.** Predator diversity dampens trophic cascades. *Nature* 429: 407-410

- **Gerling D, Alomar O, Arno J. 2001.** Biological control of *Bemisia tabaci* using predators and parasitoids. *Crop Proc.* 20: 779-799
- **Greenstone MH. 1999.** Spider predation: how and why we study it. *J. Arachnol.* 27: 333-342
- **Gullan PJ, Cranston PS. 1994.** *The Insects an Outline of Entomology.* Chapman and Hall, London
- **Gurr GM, Wratten SD. 1999.** 'Integrated biological control': A proposal for enhancing success in biological control. *International Journal of Pest Management* 45: 81-84
- **Habig WH, Pabst MJ, Jacoby WB. 1974.** Glutathione-S-transferase, the first enzymatic step in mercapturic acid formation. *J. Biol. Chem.* 249: 7130-7139
- **Hassan SA. 1992.** Guidelines for testing the effects of pesticides on beneficial organisms. Descriptions of test methods. *Bull. IOBC/WPRS* 15: 18-39
- **Hassan SA. 1994.** Activities of the IOBC/WPRS working group "Pesticides and Beneficial Organisms." *Bull. IOBC/WPRS* 17: 1-5
- **Haughton AJ, Bell JR, Boatman ND, Wilcox A. 1999.** The effects of different rates of the herbicide glyphosate on spiders in rable field margins. *J. Arachnol.* 27: 249-254
- **Haughton AJ, Bell JR, Wilcox A, Boatman ND. 2001(a).** The effect of the herbicide glyphosate on non-target spiders: Part I. Direct effects on *Lepthyphantes tenius* under laboratory conditions. *Pest. Manag. Sci.* 57: 1033-1036

- **Haughton AJ, Bell JR, Wilcox A, Boatman ND. 2001(b).** The effect of the herbicide glyphosate on non-target spiders: Part II. Indirect effects on *Lepthyphantes tenius* in field margins. *Pest. Manag. Sci.* 57: 1037-1042.
- **Hawkins BA, Corell HV. 2002.** *Theoretical approaches to biological control.* Cambridge University Press, Cambridge, pp 103-115
- **Haynes KF. 1988.** Sublethal effects of neurotoxic insecticides on insect behavior. *Ann.Rev.Entomol.* 33:149–168
- **Helmuth L.1999.** Spider Solidarity Forever. Social spiders create the communes of the arachnid world. *The Weekly Newsmagazine of Science.* 155 (19)
- **Heong KL, Aquino GB, Barrion AT.1991.** Arthropod community structures of rice ecosystems in the Phillipines. *Bull.Entomol.Res.* 81: 407-416
- **Hickman JM, Wratten SD.1996.** Use of *Phacelia tanacetifolia* strips to enhance biological control of aphids by hoverfly larvae in cereal fields. *J.Econ.Entomol.* 89: 832-840
- **Higley LG, Wintersteen WK. 1992.** A novel approach to environmental risk assessment of pesticides as a basis for incorporating environmental costs into economic injury levels. *Amer. Entomologist.* 38:34–39
- **Hilburn DJ, Jennings DT. 1988.** Terricolous spiders (Araneae) of insecticide-treated spruce-fir forests in west-central Maine. *Great Lakes Entomologist* 21:105–114
- **Holland JM, Perry JN, Winder L.1999.** The within field spatial and temporal distribution of arthropods in Winter wheat. *Bull. Entomol. Res.* 89: 499-513

- **Hooks CRR, Pandey RR, Johnson MW. 2003.** Impact of avian and arthropod predation on lepidopteran caterpillar densities and plant productivity in an ephemeral agroecosystem. *Ecol.Entomol.* 28: 522- 532
- **Jackson CC, Joseph KJ. 1973.** Life history, Bionomics and behavior of the social spider *Stegodyphus sarasinorum* Karsch. *Insectes Sociaux Paris* 20(2):189-204
- **Jeanneret Ph, Schüpbach B, Pfiffner L, Walter TH.2003.** Arthropod reaction to landscape and habitat features in agricultural landscapes. *Landscape Ecol.*18: 253-263
- **Johnson NF, Triplehorn CA. 2004.** *Borror and DeLong's Introduction to the study of insects.* Seventh Edition, Brooks/Cole Publishers.
- **Jones TC, Parker PG. 2000.** Costs and benefits of foraging associated with the delayed dispersal in the spider *Anelosimus studiosus* (Araneae, Therididae) *J.Arachnol.* 28:61-69
- **Kampichler C, Barthel J, Wieland R. 2000.** Species density of foliage-dwelling spiders in field margins: a simple, fuzzy rule-based model. *Ecol.Modell.* 129: 87-99
- **Kannan M, Uthamasamy s, Mohan S.2004.** Impact of insecticides on sucking pests and natural enemy complex of transgenic cotton. *Current Science* 86(5):726-729

- **Krebs JR, Wilson JD, Bradbury RB, Siriwardena GM.1999.** The second silent spring? *Nature* 400: 611-612
- **Kreissl S, Bicker G. 1989.** Histochemistry of acetylcholine esterase and immunohistochemistry of an acetylcholine receptor like antigen in the brain of honeybee. *J.Comp.Neurol.* 286:71-84
- **Kromp B.1999.** Carabid beetles in sustainable agriculture: a review on pest control efficacy, cultivation impacts and enhancement. *Agri.Eco.Env.*74: 187-228
- **Kruess A, Tschardt T.2000.** Species richness and parasitism in a fragmented landscape: experiments and field studies with insects on *Vicia sepium*. *Oecologia* 122:129-137
- **Landis DA, Wratten SD, Gurr GM.2000.** Habitat management to conserve natural enemies of arthropod pests in agriculture. *Ann.Rev.Entomol.*45:175-201
- **Lefroy MH. 1909.** *Indian Insect Life: a Manual of the Insects of the Plains (Tropical India)* Thacker and Spink, Calcutta. Pp 786
- **Lemke A, Poehling HM.2002.** Sown weed strips in cereal fields: overwintering site and "source" habitat for *Oedothorax apicatus* (Blackwall) and *Erigone atra* (Blackwall) (Araneae: Erigonidae). *Agri.Eco.Env.* 90: 67-80
- **Lewis WJ, van Lenteren JC, Phatak SC, Tumlinson JH.1997.** A total system approach to sustainable pest management. *PNAS* 94: 12243-12248
- **Lowry OH, Rosebrough NJ, Parr AL, Randall RJ. 1951.** Protein measurement with the folin phenol reagent. *J. Biol.Chem.* 193: 265-275

- **Lubin Y, Klaus B, Reut B, Bilde T. 2009.** Limited male dispersal in social spider with extreme inbreeding. *Biol.J.Linn.Soc.* 97(2): 227-234
- **Ludy C. 2007.** Prey selection of orb-web spiders (Araneidae) on field margins. *Agri.Eco.Env.* 119 (3-4):368-372
- **Lys JA, Zimmermann M, Nentwig W.1994.** Increase in activity density and species number of carabid beetles in cereals as a result of strip management. *Entomol.Exp.et.Appl.*73:1-9
- **Mäder P, Fliessbach A, Dubois D, Gunst L, Fried P, Niggli U.2002.** Soil fertility and biodiversity in organic farming. *Science* 296: 1694-1697
- **Maloney D, Drummond FA, Alford R. 2003.** Spider predation in agroecosystems: Can spiders effectively control pest populations? *Maine Agricultural and Forestry Experiment Station Technical Bulletin* 190. 32 pp
- **Mansour F, Heimbach U.1993.** Evaluation of Lycosid, Micryphantid and Linyphiid spiders as predators of *Rhopalosiphum padi* (Hom.:Aphididae) and their functional response to prey density - laboratory experiments. *Entomophaga* 38: 79-87
- **Mansour F, Nentwig W. 1988.** Effects of agrochemical residues on four spider taxa: Laboratory methods for pesticide tests with web building spiders. *Phytoparasitica* 16: 317–326
- **Mansour F, Rosen D, Shulov A, Plaut HN.1980.** Evaluation of spiders as biological control agents of *Spodoptera litralis* larvae on apple in Israel. *Acta Oecol.et Appl.* 1:225 –232

- **Marc P, Canard A, Ysnel F.1999.** Spiders (Araneae) useful for pest limitation and bioindication. *Agri.Eco.Env.*74: 229-273
- **Marino PD, Landis DA.1996.** Effect of landscape structure on parasitoid diversity and parasitism in agroecosystems. *Ecol.Appl.* 6: 276-284
- **Marshall EJP. 2002.** Introducing field margin ecology in Europe. *Agri.Eco.Env.* 89: 1-4
- **Matteson PC. 1995.** The "50% pesticide cuts" in Europe: A glimpse of our future? *Amer.Ento.* 211-220
- **Miliczky ER, Calkins CO. 2001.** Prey of the spider, *Dictyna coloradensis* on apple, pear, and weeds in central Washington (Araneae: Dictynidae). *Pan-pacific. Entomol.* 77(1): 19-27
- **Murdoch WW, Chesson J, Chesson PL. 1985.** Biological control in theory and practice. *Am. Nat.* 125:344–66
- **Naranjo SE. 2001.** Conservation and Evaluation of natural enemies in IPM systems for *Bemisia tabaci*. *Crop Proc.* 20: 835-852
- **Nentwig W. 1985.** Social spiders catch larger prey: a study of *Anelosimus eximius* (Araneae; Theridiidae). *Behav. Ecol. Sociobiol.* 17:79-85
- **New TR.2002.** *Insect and Pest Management in Australian Agriculture*. Oxford University Press, Melbourne.
- **Nielsen SA, Clausen J, Toft S. 1997.** Detoxification strategies of two types of spiders revealed by cypermethrin application. *Alternatives to Lab. Animals* 25: 255-261

- **Nielsen SA, Toft S, Clausen J. 1999.** Cypermethrin effects on detoxification enzymes in active and hibernating wolf spiders (*Pardosa amentata*). *Ecol. Appl.* 9: 463-468
- **Nielsen SA, Toft S. 2000.** Responses of a detoxification enzyme to diet quality in the wolf spider, *Pardosa prativaga*. *Eur.Arachnol. Proceedings of the 19th European Colloquium of Arachnology*, Pp 65-70.
- **Oberg S. 2007.** *Spiders in the Agricultural landscape. Diversity, Recolonisation and Body Condition*. Ph.D., Thesis submitted to the Swedish University of Agricultural Sciences; Uppsala Pp.9 -29.
- **Östman Ö, Ekbom B, Bengtsson J.2001.** Landscape heterogeneity and farming practice influence biological control. *Basic Appl. Ecol.* 2: 365-371
- **Östman Ö, Ekbom B, Bengtsson J.2003.** Yield increase attributable to aphid predation by ground-living polyphagous natural enemies in spring barley in Sweden. *Ecol.Econo.* 45:149-158
- **Ostman O. 2002.** *Landscape and Farm Management influence Generalist Predators. Effects on condition, abundance and biological control*. Ph.D. Thesis. Submitted to the Swedish university of Agricultural Sciences; Uppsala
- **Pasquet A, Krafft B. 1992.** Cooperation and prey capture efficiency in a social spider, *Anelosimus eximius* (Araneae, Theridiidae). *Ethology* 90:121-133
- **Pearson PG, Wienkers LC. 2009.** *Handbook of Drug Metabolism* 2nd eds Informa healthcare publishers, US Inc. Pp - 679

- **Pedersen LF, Dall LG, Sorenson BC, Mayntz D, Toft S. 2002.** Effects of hunger level and nutrient balance on survival and acetylcholinesterase activity of dimethoate exposed wolf spiders. *Entomol. Exp. Appl.* 103 (3):197-204
- **Pekar S, Benes J. 2008.** Aged pesticide residues are detrimental to agrobiont spiders (Araneae). *J.Appl.Entomol.* 132: 614-622
- **Pekar S, Haddad CR. 2005.** Can agrobiont spiders (Araneae) avoid a surface with pesticide residues? *Pest Management Science* 61:1179-1185
- **Pekár S. 1999.** Foraging mode: a factor affecting the susceptibility of spiders (Araneae) to insecticide applications. *Pest. Sci.* 55:1077-1082
- **Pekar S. 2000.** Webs, diet and fecundity of *Theridion impressum* (Araneae: Theridiidae). *Eur. J. Entomol.* 97: 47-50
- **Perry AS, Ishaaya I, Perry R. 1998.** Insecticides in agriculture and environment: Retrospects and Prospects. Springer-Verlag Berlin Heidelberg.
- **Pfannenstiel RS, Yeargan KV.2002.** Identification and diel activity patterns of predators attacking *Helicoverpa zea* (Lepidoptera: Noctuidae) eggs in soybean and sweet corn. *Environ. Entomol.* 31: 232-241.
- **Platnick NI. 2008.** The world spider catalog, version 7.0. American Museum of Natural History, online
<http://research.amnh.org/entomology/spiders/catalog/index.html>
- **Preap V, Zalucki MP, Nesbitt HJ, Jahn GC. 2001.** Effect of fertilizer, pesticide treatment and plant variety on the realized fecundity and survival rates of brown

planthopper, *Nilparvata lugens*, generating outbreaks in Cambodia. *J.Asia-Pacific Entomol.* 4(1):75-84

- **Purtauf T, Roschewitz I, Dauber J, Thies C, Tscharntke T, Wolters V. 2005.** Landscape context of organic and conventional farms: Influences on carabid beetle diversity. *Agri.Eco.Env.* 108: 165-174.
- **Rajeshakar KP, Raghavendra N. 2001.** An overview of spider diversity in India. www.wii.gov.in/envis/rainforest/chapter7.htm
- **Ramoutar D, Cowles RS, Alm SR. 2009.** Pyrethroid Resistance Mediated by Enzyme Detoxification in *Listronotus maculicollis* (Coleoptera: Curculionidae) from Connecticut. *J.Econo.Entomol.* 102(3):1203-1208.
- **Randall JB. 1982.** Prey records of the Green Lynx spider, *Peucetia viridans* (Hentz) (Araneae, Oxyopidae). *J. Arachnol.* 10:19-22
- **Riechert SE, Bishop L.1990.**Prey control by an assemblage of generalist predators: Spiders in garden test systems. *Ecology* 71:1441-1450
- **Riechert SE, Lawrence K.1997.** Test for predation effects of single versus multiple species of generalist predators: spiders and their insect prey. *Entomol.Exp.et.Appl.*84:147-155.
- **Riechert SE, Lockley T.1984.** Spiders as biological control agents. *Ann.Rev.Entomol.* 29 : 299-320
- **Riechert SE. 1998.** *The role of spiders and their conservation in the agroecosystem.* Pp. 211–237. In *Enhancing Biological Control: Habitat*

Management to Promote Natural Enemies of Agricultural Pests. (C.H. Pickett & R.L. Bugg, eds.)

- **Riechert SE.1999.**The hows and whys of successful pest suppression by spiders: Insights from case studies. *J.Arachnol.* 27: 387-396
- **Rumpf S, Hetzel S, Frampton C.1997.** Lacewings (Neuroptera: Hemerobiidae , Chrysopidae) and integrated pest mannagment: enzyme activity as biomarker of sublethal insecticide exposure. *J.Econ.Entomol.* 90:102-108
- **Rypstra AL, Tirey RS. 1989.** Observations on the social spider, *Anelosimus domingo* (Araneae, Theridiidae) in southwestern Peru. *J. Arachnol.* 17: 368-371
- **Rypstra AP, Carter E, Balfour RA, Marshall SD. 1999.** Architectural features of Agricultural habitats and their impact on the spider inhabitants. *J. Arachnol.* 27: 371-377
- **Sagara Y, Dargusch R, Chambers D, Davis J, Schubert D, Maher P. 1998.** Cellular mechanism of resistance to chronic oxidative stress. *Free Radical Biol. Med.* 24: 1375–1389
- **Salomon M, Mayntz D, Lubin Y. 2008.** Colony nutrition skews reproduction in social spider. *Behav. Ecol.* 19(3):605-611
- **Samu F, Sunderland KD, Szinetár C.1999.** Scale-dependent dispersal and distribution pattern of spiders in agricultural systems: a review. *J.Arachnol.* 27: 325-332
- **Samu F, Vollrath F. 1992.** Spider orb web as bioassay for pesticide side effects. *Entomol.Exper.et. Appl.* 62: 117–124

- **Samu F. 2003.** Can Field –Scale habitat diversification enhance the Biocontrol potential of spiders? *Pest.Manag.Sci.* 59: 437-442
- **Schmidt MH, Lauer A, Purtauf T, Thies C, Schaefer M, Tscharntke T. 2003.** Relative importance of predators and parasitoids for cereal aphid control. *PNAS.* 270:1905-1909
- **Schmidt MH, Roschewitz I, Thies C, Tscharntke T. 2005.** Differential effects of landscape and management on diversity and density of ground-dwelling farmland spiders. *J.Appl.Ecol.* 42: 281-287
- **Schmidt MH, Tscharntke T. 2005a.** The role of perennial habitats for Central European farmland spiders. *Agri.Eco.Env.* 105: 235-242
- **Schmidt MH, Tscharntke T. 2005b.** Landscape context of sheetweb spider (Araneae: Linyphiidae) abundance in cereal fields. *J.Biogeo.* 32: 467-473
- **Schweiger O, Maelfait JP, Van Wingerden W, Hendrickx F, Billeter R, Speelmans M, Augenstein I, Aukema B, Aviron S, Bailey D, Bukacek R, Burel F, Diekötter T, Dirksen J, Frenzel M, Herzog F, Liira J, Roubalova M, Bugter R. 2005.** Quantifying the impact of environmental factors on arthropod communities in agricultural landscapes across organizational levels and spatial scales. *J.Appl.Ecol.* 42:1129-1139
- **Shah, P.A., Brooks, D.R., Ashby, J.E., Perry, J.N. & Woiwod, I.P. 2003.** Diversity and abundance of the coleopteran fauna from organic and conventional management systems in southern England. *Agri.Forest.Entomol.* 5:51-60

- **Shankar, KJNG. 2002.** Experiments with spiders, ants and other indigenous practices. *Leisa Magazine*, October 2002
- **Shanower TG, Romeis J, Minja EM. 1999.** Insect pest of Pigeon pea and their management. *Ann. Rev. Entomol.* 44:77-96
- **Shaw EM, Waddicor M, Langan AM.2006.** Impact of cypermethrin on feeding behavior and mortality of the spider *Pardosa amentata* in arenas with artificial vegetation. *Pest Manag.Sci.* 62: 64-68
- **Shivakumar MS. 2006.** *Role of spiders in selected agroecosystems of Gujarat: An Eco-environmental and IPM approach.* Ph.D., Thesis submitted to “*The M.S.University of Baroda*”, Vadodara.
- **Sies H. 1999.** Glutathione and its role in cellular functions. *Free Radic. Biol. Med.* 27: 916-21
- **Sigsgaard L. 2000.** Early Season natural biological control of insect pests in Rice by spiders – and some factors in the management of the cropping system that may affect this control. *Proceedings of the 19th European colloquium of Arachonoloy, European Arachnology.* Aarhus University Press. Pp 57-64.
- **Siliwal M and Dolly Kumar, 2002.** Occurrence of spiders *Triaeris manii* and *Triaeria poonanensis* (Family: Oonopidae) in the Banana agroecosystem of Vadodara, Gujarat. *BNHS.* 99(2): 352-355
- **Siliwal M, Molur S, Biswas BK. 2005.** Indian spiders (Arachnida:Araneae): updated checklist 2005. *Zoos Print.* 20(10):1999-2049.

- **Siliwal M. 2000.** *Taxonomic Study on the spiders in agroecosystems of Baroda, with special emphasis on the biological control of Insect Pests.* Ph.D Thesis submitted to “The MS University of Baroda”, Vadodara.
- **Smith D, Engel MS. 1994.** Population structure in an Indian cooperative spider, *Stegodyphus sarasinorum* Karsch (Eresidae) *J.Arachnol.* 22(2): 108-113
- **Snyder WE, Snyder GB, Finke DL, Straub CS. 2006.** Predator biodiversity strengthens herbivore suppression. *Ecol.Lett.* 9: 789-796
- **Stern VM, Smith RF, Van Den Bosch R, Hagen KS.1959.** The integrated control concept. *Hilgardia* 29: 81-101
- **Straub CS, Snyder WE. 2006.** Species identity³ dominates the relationship between predator biodiversity and herbivore suppression. *Ecology* 87: 277-282
- **Sunderland KD, Greenstone MH.1999.** Summary and future directions for research on spiders in agroecosystems. *J. Arachnol* 27: 397–400
- **Symondson WOC, Sunderland KD, Greenstone MH. 2002.** Can generalist predators be effective biocontrol agents? *Ann.Rev.Entomol.* 47: 561-594
- **Tanaka K, Endo S, Kazano H. 2000.** Toxicity of insecticides to predators of rice planthoppers: Spiders, the mired bug and the dryinid wasp. *Appl. Entomol. Zool.* 35: 177-187
- **Tembhare DB. 1997.** Modern Entomology. Himalaya Publishing House, Mumbai
- **Thies C, Tscharntke T. 1999.** Landscape structure and biological control in agroecosystems. *Science* 285: 893-895

- **Thomas MB, Wratten SD, Sotherton NW. 1991.** Creation of "island" habitats in farmland to manipulate populations of beneficial arthropods: predator densities and emigration. *J.Appl.Ecol.* 28: 906-917
- **Thomas MB, Wratten SD, Sotherton NW. 1992.** Creation of "island" habitats in farmland to manipulate populations of beneficial arthropods: predator densities and species composition. *J. Appl.Ecol.* 29: 524-531
- **Tietjen WJ. 2006.** Pesticides affect the mating behavior of *Rabidosa rabida* (Araneae, Lycosidae) *J.Arachnol.* 34:285-288
- **Tikader BK, Malhotra MS. 1980.** Lycosidae (wolf-spiders) Fauna India (Araneae). 1:248-447
- **Tikader BK. 1982a.** Family Araneidae (Argiopidae), typical orb-weavers. Fauna India (Araneae). 2:1-293
- **Tikader BK. 1982b.** Family Gnaphosidae Fauna India (Araneae) 2: 295-536
- **Tikader BK. 1987.** Handbook of Indian Spiders, Zoological Survey of India, Calcutta India. pp251
- **Turnbull AL. 1973.** Ecology of the true spiders (Araneomorphae) *Ann.Rev.Entomol.*18: 305-348.
- **Uetz GW. 1977.** Coexistence in a guild of wandering spiders. *J.Anim.Ecol.* 46: 531-542
- **Van Erp S, Booth L, Gooneratne R, O'Halloran K.2002.** Sublethal responses of wolf spiders (Lycosidae) to organophosphorous insecticides. *Environ. Toxicol.* 17: 449-456

- **VanDenBerg AM, Dippenaar-Schoeman AS, Schoonbee HJ. 1990.** The effect of two pesticides on spiders in South African cotton fields. *Phytophylactica* 22: 435–441
- **Wallin H, Chiverton PA, Ekbom BS, Borg A. 1992.** Diet, fecundity and egg size in some polyphagous predatory carabid beetles. *Entomol.Exp.et.Appl.* 65: 129-140
- **Walter GH. 2003.** Insect Pest Management and Ecological Research. Cambridge Univ. Press, U.K.
- **Widiarta IN, Marsumara M, Suzuki Y, Nakasuji F. 2001.** Effects of sublethal doses of Imidacloprid on the fecundity of green leafhoppers, *Nephotettix* spp. Hemiptera: Cicadellidae) and their natural enemies. *Appl. Entomol. Zool.* 36(4): 501–507
- **Wiedenmann RN, Smith Jr JW. 1997.** Attributes of natural enemies in ephemeral crop habitats. *Biol.Cont.* 10:16-22
- **Wilczek G, Babczynska A, Agusdtyniak M, Migula P.2004.** Relations between metals (Zn,Pb,Cd and Cu) and glutathione dependent detoxifying enzymes in spiders from aheavy metal pollution gradient. *Environ. Pollu.* 132: 453-461
- **Wilczek G, Babczynska A, Wilczek P, Dolezych B, Migula P, Mlynska H. 2008.** Cellular stress reactions assessed by gender and species in spiders from areas variously polluted with heavy metals. *Ecotoxicol. Environ. Saftey*, 70: 127-137
- **Winterblyth MA. 1986.** *A book of Indian Butterfly. Today and Tomorrow* Printers and Publishers. Delhi.

- **Wise DH. 1993.** *Spiders in Ecological Webs*. Cambridge University Press, United Kingdom. pp 1-523.
- **Wissinger SA. 1997.** Cyclic colonization in predictably ephemeral habitats: a template for biological control in annual crop systems. *Biol.Cont.* 10: 4-15
- **Wyss E, Niggli U, Nentwig W. 1995.** The impact of spiders on aphid populations in a strip-managed apple orchard. *J. Appl. Entomol.* 119:473–78
- **Yip EC, Powers KS, Avilés L. 2008.** Cooperative capture of large prey solves scaling challenge faced by spider societies *PNAS*. 105(33): 11818–11822.
- **Young OP, Edwards GB. 1990.** Spiders in United States field crops and their potential effect on the crop pests. *J. Arachnol.* 18: 1-27