

JAVAD KARIMZADEH

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EDUCATION

PhD, Entomology, Imperial College London (UK), 2005. Studies on tritrophic interactions between crucifers, the diamondback moth and an endolarval parasitoid. Supervised by Denis J. Wright, advised by Michael B. Bonsall and Jim Hardie, and examined by Guy M. Poppy and Alan C. Gange.

MSc, Agricultural Entomology, University of Tehran (Iran), 1997

BSc, Plant Protection, Isfahan University of Technology (Iran), 1994

PROFESSIONAL POSITIONS

Feb. 2019- Nov. 2019 **Senior Visiting Scientist**- Department of Agricultural Biology, College of Agricultural Sciences, Colorado State University (Fort Collins, CO, U.S.)

Nov. 2015- Present **Associate Professor**- Isfahan Research and Education Centre for Agriculture and Natural Resources

Apr. 2010- Oct. 2015 **Assistant Professor**- Isfahan Research and Education Centre for Agriculture and Natural Resources (Isfahan, Iran)

Aug. 2006- Mar. 2010 **Assistant Professor**- Iranian Research Institute of Plant Protection (Tehran, Iran)

Aug. 2005- Jul. 2006 **Assistant Professor**- Safi-abad Agricultural Research Centre

Jan. 1998- Sep. 2000 **Entomologist**- Safi-abad Agricultural Research Centre (Dezful, Iran)

TRAINING COURSES

A professional development course on “**Advances in Ecology**” (Department of Biological Sciences & NERC Centre for Population Biology, Imperial College London, 10-28 Nov. 2003)

A short course on “**C Programming**” (Department of Mathematics, Imperial College London, 12-16 May 2003)

A short course on “**The Taxonomy and Biology of Parasitic Hymenoptera**” (Natural History Museum & Imperial College London, 17-25 April 2002)

The 1st module of the “**Certificate in English Language**” course (English Language Centre, King’s College London, 02 Oct.-15 Dec. 2000)

HONOURS AND AWARDS

2021 Best Researcher Award in Agriculture (granted by “Isfahan Research and Education Center for Agriculture and Natural Resources”, Iran)

2017 Outstanding Editor of “Archives of Phytopathology and Plant Protection” (Taylor & Francis, UK)

2017 Best Researcher Award in Agriculture (granted by “AREEO”, Iran)

2012 Best Researcher Award in Agriculture (granted by “the governor general of Isfahan province”, Iran)

A PhD Scholarship (2000-2005, awarded by “AREEO” and “the Ministry of Science, Research and Technology”, Iran)

An MSc Scholarship (1994-1997, awarded by “Agricultural Research, Education and Extension Organization (AREEO)”, Iran)

RESEARCH INTERESTS

Insect Population Ecology (population dynamics of insect herbivores, underlying mechanisms of population fluctuations, cycles and chaos, time series analysis, and statistical/mathematical

modelling, simulation and numerical analysis)

Sustainable/Ecological Pest Management (combining biocontrol agents such as parasitoids with botanical/microbial biopesticides, trap cropping, or host plant resistance)

ADDITIONAL EXPERIENCE AND SKILLS

Multi-trophic (e.g., host-parasitoid, *Bt*-parasitoid, and plant-insect-parasitoid) interactions

Olfactory/phototactic behaviours of parasitoid wasps and whiteflies

Insect immune system (e.g., encapsulation and enzyme assay)

Insect culturing and mass rearing (e.g., Lepidoptera, Hymenoptera and fruit flies)

Systematics of leafhoppers and planthoppers

Software *R*, *S-Plus* and *Mathematica*

Insect demography and life-table analysis

Cold and desiccation tolerance in insects

DNA/RNA extraction, cDNA, PCR, qPCR and electrophoresis

PROJECTS

On Cruciferous crops (cabbages, cauliflower and rapeseed/canola)

Mass production technical know-how of *Cotesia vestalis* (Hymenoptera, Braconidae)

Ecological control of *Plutella xylostella* (Lepidoptera: Plutellidae) on cauliflower using trap cropping and Bt applications

IPM of *Plutella xylostella* (Lepidoptera: Plutellidae) on cabbage using *Cotesia vestalis* (Hymenoptera, Braconidae) and Bt

Biological control of *Plutella xylostella* (Lepidoptera: Plutellidae) on cabbage using parasitoid wasps

Combining host-plant resistance and Bt applications to control *Plutella xylostella* (Lepidoptera: Plutellidae)

Natural parasitism of *Plutella xylostella* (Lepidoptera: Plutellidae) on cabbage

Efficacy of botanical insecticides against *Plutella xylostella* (Lepidoptera: Plutellidae) on cabbage

Efficacy of microbial insecticides against *Plutella xylostella* (Lepidoptera: Plutellidae) on cabbage

Efficacy of botanical insecticides against *Brevicoryne brassicae* (Hemiptera, Aphididae) on cabbage

Economic injury threshold of *Brevicoryne brassicae* (Hemiptera, Aphididae) on rapeseed

On Cotton, Tomato, Chickpea and Bean

Population dynamics of *Helicoverpa armigera*, *Heliothis peltigera* and *Heliothis virescens* (Lepidoptera, Noctuidae) on cotton, tomato, chickpea and bean

Population dynamics of *Earias insulana* (Lepidoptera, Nolidae) and *Bemisia tabaci* (Hemiptera, Aleyrodidae) on cotton

Cotton IPM strategies

Distribution and host-plant range of *Pectinophora gossypiella* (Lepidoptera, Gelechiidae)

Faunistic studies

Biodiversity of Acridinae *sensu lato* (Orthoptera, Acrididae)

Faunistic studies of leafhoppers (Hemiptera, Cicadellidae) and planthoppers (Hemiptera, Fulgoromorpha)

PUBLICATIONS

* graduate students currently or formerly directly under my supervision

† graduate students in other labs

2022

81. Rezaei M†, Talebi AA, Fathipour Y, **Karimzadeh J**, Mehrabadi M, Reddy GVP (2022) Optimization of mass rearing of *Aphidius matricariae* on tritrophic plant-aphid-parasitoid systems. *Biocontrol* (In press).

80. Afiunizadeh M*, **Karimzadeh J**, Imani S, Moharramipour S (2022) Insecticidal and oviposition deterrent effects of five medicinal plant extracts on the diamondback moth. *Journal of Plant Diseases and Protection* 129, 805-817.
79. Firoozi S*, **Karimzadeh J**, Sahragard A (2022) The role of nutrients and parasitoid on the interaction between the cotton aphid and the parasitoid wasp *Aphidius matricariae*. *Plant Pest Research* 12, 27-41 [in Persian].
78. **Karimzadeh J**, Hufbauer RA, Kondratieff BC, Hardin JG, Norton AP (2022) A survey of the hymenopteran parasitoid complex of Dalmatian toadflax weevils in Colorado. *Biocontrol Science and Technology* 32, 663-669.
77. Heidary M*, **Karimzadeh J**, Jafari S, Negahban M, Shakarami J (2022) Aphicidal activity of urea-formaldehyde nanocapsules loaded with the *Thymus daenensis* Celak essential oil on *Brevicoryne brassicae* L. *International Journal of Tropical Insect Science* 42, 1285-1296.

2021

76. Bąkowski M, **Karimzadeh J** (2021) Morphology of the last instar larva and pupa of *Synanthedon caucasica* (Gorbunov, 1986) (Lepidoptera: Sesiidae), a serious pest of oriental plane and elm trees. *Zootaxa* 4991, 177-184.
75. Rezaei M†, Talebi AA, Fathipour Y, **Karimzadeh J**, Mehrabadi M (2021) Age-dependent functional response of *Aphidius matricariae* (Hymenoptera: Braconidae) on tobacco aphid, *Myzus persicae nicotianae* (Hemiptera: Aphididae). *Journal of Asia-Pacific Entomology* 24, 470-476.

2020

74. Rezaei M†, Talebi AA, Fathipour Y, **Karimzadeh J**, Mehrabadi M, Reddy GVP (2020) Effects of cold storage on life-history traits of *Aphidius matricariae*. *Entomologia Experimentalis et Applicata* 168, 800-807.
73. Fakhari H*, **Karimzadeh J**, Moharramipour S, Ahadiyat A, Doranian D (2020) Phototactic behavior of *Trialeurodes vaporariorum* Westwood (Hemiptera: Aleyrodidae) under visible wavelengths. *Journal of Asia-Pacific Entomology* 23, 1181-1187.
72. Heidary M*, Jafari S, **Karimzadeh J**, Negahban M, Shakarami J (2020) The effects of pure and nanocapsulated formulations of *Thymus daenensis* Celak. (Lamiaceae) essential oil on life-table parameters of cabbage aphid (*Brevicoryne brassicae* L.) (Hem.: Aphididae). *Plant Pest Research* 10, 15-32 [in Persian].
71. **Karimzadeh J**, Rabiei A* (2020) Larvicidal and oviposition deterrent effects of the jimsonweed (*Datura stramonium* L.) extracts on the diamondback moth, *Plutella xylostella* (L.). *Journal of Agricultural Science and Technology* 22, 1279-1293.
70. Rezaei M†, Talebi AA, Fathipour Y, **Karimzadeh J**, Mehrabadi M, Dindo ML (2020) Effects of constant low-temperature storage on the performance of a commercial strain of *Aphidius colemani*. *Bulletin of Insectology* 73, 125-135.
69. Rezaei M*, **Karimzadeh J**, Shakarami J (2020) Mass rearing optimization of *Cotesia vestalis* (Hymenoptera: Braconidae) based on the host and parasitoid densities. *Neotropical Entomology* 49, 258-267.
68. Fathipour Y, Kianpour R†, Bagheri A, **Karimzadeh J**, Hosseininaveh V, Mehrabadi M (2020) Targeting *Plutella xylostella* digestive enzymes by applying resistant Brassicaceae host cultivars. *Journal of Crop Protection* 9, 65-79.

2019

67. **Karimzadeh J**, Besharatnejad MH (2019) Ecological control of *Plutella xylostella* (Lepidoptera, Plutellidae) using trap cropping and Bt applications. *Archives of Phytopathology and Plant Protection* 52, 1326-1347.
66. Rezaei M†, Talebi AA, Fathipour Y, **Karimzadeh J**, Mehrabadi M (2019) Foraging behavior of *Aphidius matricariae* (Hymenoptera: Braconidae) on tobacco aphid, *Myzus persicae nicotianae* (Hemiptera: Aphididae). *Bulletin of Entomological Research* 109, 840-848.
65. Fathipour Y, Kianpour R†, Bagheri A, **Karimzadeh J**, Hosseininaveh V (2019) Bottom-up effects of *Brassica* genotypes on performance of diamondback moth, *Plutella xylostella* (Lepidoptera: Plutellidae). *Crop Protection* 115, 135-141.

2018

64. Rezaei M*, **Karimzadeh J**, Shakarami J (2018) Size of interacting resource-host-parasitoid populations influences mass rearing of *Cotesia vestalis*. *Journal of Entomological Research Society* 20, 23-32.

2017

63. Besharatnejad MH*, Moeeny-Naghadeh N, **Karimzadeh J** (2017) The effect of perturbation on the population equilibrium of the carob moth (*Apomyelois ceratoniae*) in natural conditions. *Journal of Agroecology* 7, 69-80 [in Persian].
62. Emami MS*, **Karimzadeh J**, Shishehbor P (2017) Investigating the effect of pear variety on the population equilibrium level of pear psylla, *Cacopsylla pyricola* (Foerster), in field. *Plant Protection Research* 40, 97-106 [in Persian].
61. **Karimzadeh J**, Besharatnejad MH (2017b) Integrated management of diamondback moth (*Plutella xylostella* (L.)) using *Cotesia vestalis* (Haliday) and *Bacillus thuringiensis* Berliner. *Plant Protection Research* 40, 81-96 [in Persian].
60. Rabiei A*, Shakarami J, **Karimzadeh J**, Jafari S (2017) Study on some biological characteristics of parasitoid wasp *Cotesia vestalis* in different mass-rearing conditions. *Biocontrol in Plant Protection* 4, 99-108 [in Persian].
59. **Karimzadeh J**, Besharatnejad MH (2017a) Ecological management of the diamondback moth (*Plutella xylostella* (L.)) using trap cropping strategy. *Journal of Agroecology* 6, 212-224 [in Persian].

2016

58. **Karimzadeh J**, Kazemzadeh Z*, Ghajariyeh-Najaribashi H (2016) Studies on the stability of population equilibrium of the diamondback moth (*Plutella xylostella* (Lep., Plutellidae)) using perturbation method. *Journal of Entomological Society of Iran* 36, 39-48 [in Persian].
57. Mobarakian M*, Zamani AA, **Karimzadeh J**, Moeeny-Naghdeh N, Emami MS (2016) Insecticidal effects of six medicinal plant extracts on *Callosobruchus maculatus* (Col., Bruchidae). *Journal of Plant Protection* 29, 499-510 [in Persian].
56. Mohammadi-Tabar H†, Talaei-Hassanloui R, Allahyari H, **Karimzadeh J**, Ashouri A (2016) Study on the life table parameters of diamondback moth, *Plutella xylostella* (Lep., Plutellidae) on three plant hosts under laboratory conditions. *Iranian Journal of Plant Protection* 46, 277-284 [in Persian].
55. Mosazadeh M*, Mohammadi H, Sedaratian A, **Karimzadeh J** (2016) Different trap plants could affect biological parameters of *Plutella xylostella* Linnaeus, 1758 (Lepidoptera: Plutellidae). *Entomofauna* 37, 685-696.
54. Nematollahi MR†, Fathipour Y, Talebi AA, **Karimzadeh J**, Zalucki MP (2016) Comparison of degree-day distribution models for predicting emergence of the cabbage aphid on canola. *Crop Protection* 80, 138-143.
53. Jafari M*, **Karimzadeh J**, Farazmand H, Rezapanah M (2016) Plant-mediated vulnerability of an insect herbivore to *Bacillus thuringiensis* in a plant-herbivore-pathogen system. *Biocontrol Science and Technology* 26, 104-115.

2015

52. Nematollahi MR†, Fathipour Y, Talebi AA, **Karimzadeh J**, Zalucki MP (2015) Population variation of a specialist versus a generalist aphid sharing the same host plant in field. *Journal of Agricultural Science and Technology* 17, 1529-1538.
51. Nobakht Z*, **Karimzadeh J**, Shakarami J, Jafari S (2015) Identification of parasitoids of *Apomyelois ceratoniae* (Zeller) (Lepidoptera, Pyralidae) on pomegranate in Isfahan province. *Journal of Entomology and Zoology Studies* 3, 287-289.
50. Afiunizadeh M*, **Karimzadeh J** (2015) Assessment of naturally-occurring parasitism of diamondback moth in field using recruitment method. *Archives of Phytopathology and Plant Protection* 48, 43-49.

49. Nasiri R*, **Karimzadeh J**, Jalalizand AR (2015) Comparison of the several biological, hormonal and chemical insecticides on diamondback moth. *Iranian Journal of Entomological Research* 7, 51-59 [in Persian].

2014

48. Nematollahi MR†, Fathipour Y, Talebi AA, **Karimzadeh J**, Zalucki MP (2014b) Parasitoid- and hyperparasitoid-mediated seasonal dynamics of the cabbage aphid (Hemiptera: Aphididae). *Environmental Entomology* 43, 1542-1551.
47. Rezaei M*, **Karimzadeh J**, Shakarami J, Jafari S (2014b) Side effects of insecticides on the adult longevity of *Cotesia vestalis*, a larval parasitoid of the diamondback moth, *Plutella xylostella*. *Journal of Entomology and Zoology Studies* 2, 49-51.
46. Kermani P†, Farazmand H, **Karimzadeh J**, Avand-Faghih A (2014) The population fluctuations of *Euzophera bigella* (Zeller) and *Cydia pomonella* (L.) at quince orchards. *Iranian Journal of Entomological Research* 6, 167-177 [in Persian].
45. Nematollahi MR†, Fathipour Y, Talebi AA, **Karimzadeh J**, Zalucki MP (2014a) Sampling procedure and temporal-spatial distribution of the cabbage aphid, *Brevicoryne brassicae* L. (Hemiptera: Aphididae), on canola. *Journal of Agricultural Science and Technology* 16, 1241-1252.
44. Kazemzadeh Z*, Shaw MR, **Karimzadeh J** (2014) A new record for Iran of *Dolichogenidea appellator* (Hym.: Braconidae: Microgastrinae), a larval endoparasitoid of diamondback moth, *Plutella xylostella* (Lep.: Plutellidae). *Journal of Entomological Society of Iran* 33, 81-82.
43. Emami MS*, Shishehbor P, **Karimzadeh J** (2014b) Functional response of *Anthocoris nemoralis* (Hemiptera: Anthocoridae) to the pear psylla, *Cacopsylla pyricola* (Hemiptera: Psyllidae): effect of pear varieties. *Journal of Crop Protection* 3, 597-609.
42. Rezaei M*, **Karimzadeh J**, Shakarami J, Jafari S (2014a) The influences of space and plant-host biomass on some biological key factors of *Cotesia vestalis* in mass-rearing conditions. *Journal of Entomology and Zoology Studies* 2, 31-34.
41. Mobarakian M*, Zamani AA, **Karimzadeh J**, Moeeny-Naghdeh N, Emami MS (2014) Modelling development of *Callosobruchus maculatus* and *Anisopteromalus calandrae* at various constant temperatures using linear and non-linear models. *Biocontrol Science and Technology* 24, 1308-1320.
40. Soufbaf M†, Fathipour Y, **Karimzadeh J**, Zalucki MP (2014) Effects of plant availability on population size and dynamics of an insect community: diamondback moth and two of its parasitoids. *Bulletin of Entomological Research* 104, 418-431.
39. Heidary M*, **Karimzadeh J** (2014) Relative influences of plant type and parasitoid initial density on host-parasitoid relationships in a tritrophic system. *Archives of Phytopathology and Plant Protection* 47, 2392-2399.
38. Emami MS*, Shishehbor P, **Karimzadeh J** (2014a) The influences of plant resistance on predation rate of *Anthocoris nemoralis* (Fabricius) on *Cacopsylla pyricola* (Förster). *Archives of Phytopathology and Plant Protection* 47, 2043-2050.
37. Daniarzadeh S*, **Karimzadeh J**, Jalalizand A (2014) The strategy of trap cropping for reducing the populations of diamondback moth in common cabbage. *Archives of Phytopathology and Plant Protection* 47, 1852-1859.
36. Saadat D†, Seraj AA, Goldansaz SH, **Karimzadeh J** (2014) Environmental and maternal effects on host selection and parasitism success of *Bracon hebetor*. *Biocontrol* 59, 297-306.
35. Kianpour R†, Fathipour Y, **Karimzadeh J**, Hosseiniaveh V (2014) Influence of different host plant cultivars on nutritional indices of *Plutella xylostella* (Lepidoptera: Plutellidae). *Journal of Crop Protection* 3, 43-49.

2013

34. Afiunzadeh M*, **Karimzadeh J**, Lotfalizadeh H (2013) *Mokrzeckia obscura* (Hym.: Pteromalidae), a hyperparasitoid of diamondback moth and a new record from Iran. *Journal of Entomological Society of Iran* 33, 91-91.
33. **Karimzadeh J**, Broad G (2013) Amendment to "report of the parasitoid wasp, *Diadegma*

- anurum* (Hym.: Ichneumonidae), from Iran". *Journal of Entomological Society of Iran* 33, 91-92 [in Persian].
32. Soufbaf M†, Fathipour Y, Zalucki MP, **Karimzadeh J** (2013) Relevance of reproductive correlates in response of diamondback moth (Lepidoptera: Plutellidae) to plant quality. *Journal of Entomological and Acarological Research* 45, 52-56.
 31. Jalalizand AR, Gavanji S†, **Karimzadeh J**, Besharatnejad MH, Emami MS, Larki B† (2013) The effect of silver nanoparticles on *Tetranychus urticae*. *International Journal of Agriculture and Crop Sciences* 5, 820-827.
 30. Jalalizand AR, Hashemi-Fesharaki S†, **Karimzadeh J**, Besharatnejad MH, Gavanji S† (2013) Study of damage of *Ectomyelois ceratoniae* in three pomegranate cultivars. *Technical Journal of Engineering and Applied Sciences* 3, 344-348.
 29. **Karimzadeh J**, Hardie J, Wright DJ (2013) Plant resistance affects the olfactory response and parasitism success of *Cotesia vestalis*. *Journal of Insect Behavior* 26, 35-50.

2012

28. Dnyalzadeh E†, Avand-Faghieh A, Farazmand H, **Karimzadeh J** (2012) Investigation on *Spodoptera* spp. (Lep., Noctuidae) and its population fluctuation using phero-traps in beetroot farms of Isfahan region. *Iranian Journal of Entomological Research* 4, 227-237 [in Persian].
27. Ghorbani R, Mousavi SK, Ghiasvand M, **Karimzadeh J** (2012) The effect of sowing date and plant density on population and infestation of chickpea pod borers in Lorestan province. *Iranian Journal of Pulses Research* 3, 85-96 [in Persian].
26. Emami MS, Tavanapour S†, **Karimzadeh J** (2012) Resistance of greenhouse cucumber cultivars to vegetable leafminer, *Liriomyza sativae* (Dip.: Agromyzidae), in greenhouse. *Seed and Plant Improvement Journal* 28, 419-428 [in Persian].
25. Alizadeh M*, **Karimzadeh J**, Rassoulilian GR, Farazmand H, Hosseini-Naveh V, Pourian HR† (2012) Sublethal effects of pyriproxyfen, a juvenile hormone analog, on *Plutella xylostella* (Lepidoptera: Plutellidae): life table study. *Archives of Phytopathology and Plant Protection* 45, 1741-1763.
24. Soufbaf M†, Fathipour Y, Hui C, **Karimzadeh J** (2012) Effects of plant availability and habitat size on the coexistence of two competing parasitoids in a tri-trophic food web of canola, diamondback moth and parasitic wasps. *Ecological Modelling* 244, 49-56.
23. Jafary M*, **Karimzadeh J**, Farazmand H, Rezapanah MR (2012) The role of host-plants resistance on development of *Plutella xylostella* (L.) (Lepidoptera, Plutellidae) in laboratory. *Iranian Journal of Entomological Research* 3, 285-293 [in Persian].
22. Gulzar A†, Sayyed AH, **Karimzadeh J**, Wright DJ (2012) Lack of cross resistance to non-*Bt* insecticides in a mode-1, Cry1Ac-resistant population of *Plutella xylostella* (Lepidoptera: Plutellidae). *Applied Entomology and Phytopathology* 79, 29-35.
21. Namvar P†, Safaralizadeh MH, Baniameri V, Pourmirza AA, **Karimzadeh J** (2012) Estimation of larval density of *Liriomyza sativae* Blanchard (Diptera: Agromyzidae) in cucumber greenhouses using fixed precision sequential sampling plans. *African Journal of Biotechnology* 11, 2381-2388.

2011

20. **Karimzadeh J**, Dworakowska I (2011) Differentiation of two closely related species of the genus *Empoasca* (Hem.: Cicadellidae). *Journal of Entomological Society of Iran* 30, 89-91.
19. **Karimzadeh J**, Sayyed AH (2011) Immune system challenge in a host-parasitoid-pathogen system: interaction between *Cotesia plutellae* (Hym.: Braconidae) and *Bacillus thuringiensis* influences parasitism and phenoloxidase cascade of *Plutella xylostella* (Lep.: Plutellidae). *Journal of Entomological Society of Iran* 30, 27-38.
18. Hashemi-Fesharaki S†, **Karimzadeh J**, Jalalizand AR, Besharatnejad MH, Modaresi M (2011) Studying on damage of carob moth in three pomegranate cultivars of Isfahan (Iran). *Procedia Environmental Sciences* 8, 257-261.
17. Namvar P†, Safaralizadeh MH, Baniameri V, Pourmirza AA, **Karimzadeh J** (2011) Spatial distribution and fixed-precision sequential sampling of *Liriomyza sativae* Blanchard (Diptera: Agromyzidae) on cucumber greenhouse. *Middle-East Journal of Scientific Research* 10, 157-163.

16. Rafiei-Karahroodi Z†, Moharramipour S, Farazmand H, **Karimzadeh J** (2011b) Oviposition deterrence and ovicidal activity of eighteen medicinal plant essential oils on *Plodia interpunctella* Hübner (Lepidoptera: Pyralidae). *Iranian Journal of Medicinal and Aromatic Plants* 27, 460-470 [in Persian].
15. **Karimzadeh J**, Farazmand H (2011) Ecological pest management. *Zeitun* 31, 11-16 [in Persian].
14. Alizadeh M*, Rassoulia GR, **Karimzadeh J**, Hosseini-Naveh V, Farazmand H (2011) Biological study of *Plutella xylostella* (L.) (Lep., Plutellidae) and its solitary endoparasitoid, *Cotesia vestalis* (Haliday) (Hym., Braconidae), under laboratory conditions. *Pakistan Journal of Biological sciences* 14, 1090-1099.
13. **Karimzadeh J** (2011) Sample size calculation in entomological studies using R language of statistical computing. Part 1: comparison of means and proportions. *Iranian Journal of Entomological Research* 3, 51-61 [in Persian].
12. Afiunizadeh M*, **Karimzadeh J**, Shojai M (2011) Naturally-occurring parasitism of diamondback moth in central Iran. *Proceedings of the 6th International Workshop on Management of the Diamondback Moth and Other Crucifer Insect Pests. Nakhon Pathom, Thailand, 21-25 March 2011*, pp. 93-96.
11. Golestan-Hashemi F†, Farazmand H, **Karimzadeh J**, Marouf A (2011) Effect of Iranian formulation of diatomaceous earth on confused flour beetle, *Tribolium confusum* Duval (Col., Tenebrionidae), under laboratory conditions. *Iranian Journal of Entomological Research* 2, 307-317 [in Persian].
10. Rafiei-Karahroodi Z†, Moharramipour S, Farazmand H, **Karimzadeh J** (2011a) Insecticidal effect of six native medicinal plants essential oil on Indian meal moth, *Plodia interpunctella* Hübner (Lep.: Pyralidae). *Munis Entomology and Zoology* 6, 339-345.

2010 and before

9. Emami MS, **Karimzadeh J**, Kallies A (2010) *Synanthedon caucasica* (Lepidoptera, Sesiidae): a new pest on plane trees in Isfahan, Iran. *Plant Protection Journal* 2, 313-318 [in Persian].
8. Besharatnejad MH, Emami MS, **Karimzadeh J** (2010) The role of plant protection clinics on the optimum usage of production resources and the development of sustainable agriculture. *Agriculture and Industry* 12, 12-13 [in Persian].
7. Afiunizadeh M*, **Karimzadeh J** (2010) Larval and pupal parasitoids of *Plutella xylostella* (Lep.: Plutellidae) in Isfahan province, Iran. *Plant Protection Journal* 2, 79-97 [in Persian].
6. Rafiei-Karahroodi Z†, Moharramipour S, Farazmand H, **Karimzadeh J** (2010) Repellent activity and fumigant toxicity of 18 essential oil on Indian meal moth, *Plodia interpunctella* Hübner (Lep., Pyralidae). *Journal of Plant Protection* 24, 165-172 [in Persian].
5. Soufbaf M†, Fathipour Y, **Karimzadeh J**, Zalucki MP (2010b) Bottom-up effect of different host plants on *Plutella xylostella* (Lepidoptera: Plutellidae): a life-table study on canola. *Journal of Economic Entomology* 103, 2019-2027.
4. Soufbaf M†, Fathipour Y, **Karimzadeh J**, Zalucki MP (2010a) Development and age-specific mortality of diamondback moth on *Brassica* host plants: pattern and causes of mortality under laboratory conditions. *Annals of Entomological Society of America* 103, 574-579.
3. Rafiei-Karahroodi Z†, Moharramipour S, Farazmand H, **Karimzadeh J** (2009) Effect of eighteen plant essential oils on nutritional indices of *Plodia interpunctella* Hubner (Lep., Pyralidae) larvae. *Iranian Journal of Entomological Research* 1, 209-219 [in Persian].
2. **Karimzadeh J**, Wright DJ (2008) Bottom-up cascading effects in a tritrophic system: interactions between plant quality and host-parasitoid immune responses. *Ecological Entomology* 33, 45-52.
1. **Karimzadeh J**, Bonsall MB, Wright DJ (2004) Bottom-up and top-down effects in a tritrophic system: the population dynamics of *Plutella xylostella* (L.)-*Cotesia plutellae* (Kurdjumov) on different host plants. *Ecological Entomology* 29, 285-293.

Advising graduate student

Current students

PhD: Maryam Afiunizadeh and Somayeh Firoozi

Former students

PhD: Marzieh Alizadeh, Mohammad-Saeed Emami, Massoud Heidary and Hajar Fakhari

MSc: Maryam Jafary, Maryam Afiunizadeh, Maryam Mobarakian, Masoumeh Nasiri-Moghadam, Zohreh Hojaji, Zahrah Kazemzadeh, Reza Nejad-Ahmadi, Razieh Nasiri, Shaghayegh Daniarzadeh, Mehran Rezaei, Fariba Behzadi, Masoumeh Mousazadeh, Zohreh Nobakht, Mina Nejadi, Adel Rabiei and Sahar Asgarnia

Serving on graduate student committee**Current students**

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Former students

PhD: Zahra Rafiei-Karahroodi, Mahmoud Soufbaf, Roja Kianpour, Mohammad-Reza Nematollahi, Mohammad-Hassan Besharatnejad and Mehran Rezaei

MSc: Hosna Mohammadi-Tabar, Somayeh Hosseini, Farahnaz-Sadat Golestan-Hashemi, Ehsan Danialzadeh, Parisa Kermani, Sareh-Sadat Hashemi-Fesharaki, Samaneh Safavi, Massoud Heidary and Mahsa Shiribabadi

Teaching

Specialized English language in entomology (3 credits for MSc students of agricultural entomology)

Specialized English language in agriculture (2 credits for BSc students of IPM technology)

Specialized English language in agriculture (2 credits for ASc students of plant protection)

Advanced toxicology (3 credits for MSc students of agricultural entomology)

Data Analysis using R (a workshop in 22nd Iranian plant protection congress)

Mathematical modelling of population dynamics in interacting systems (a workshop in 22nd Iranian Plant Protection Congress)

Modern statistical approaches (private courses for PhD/MSc students of entomology and agriculture)

Statistical analyses using R (private courses for PhD/MSc students of entomology and agriculture)