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***Current Address:*** *Biological Control Lab,**Department of Entomology, University College of Agriculture, University of Sargodha (Punjab), Pakistan*

***MUHAMMAD SAJJAD KHALIL***

**PROFILE**

Research, Management and young Entomologist with over five year teaching, research, management and extension experience. Possess strong analytical and problem solving skills with the ability to make well thought out decisions. Proven ability in experimentation and pest control.

**EDUCATION**

February 2013 – February 2017. Ph.D in Entomology at University College of Agriculture (UCA), University of Sargodha Punjab, PAKISTAN. CGPA (**4.00/4.00**), Percentage (**86%**).

September 2010 – August 2012 Master of Science (Hons.) in Entomology at UCA, University of Sargodha, PAKISTAN. CGPA (**4.00/4.00**), Percentage (**89%**).

November 2006 – July 2010 Bachelor of Science (Hons.) in Agriculture at UCA, University of Sargodha, PAKISTAN. CGPA (**3.94/4.00**), Percentage (**85.12%**).

September 2004 – November 2006 Intermediate (Science) at Federal Board of Intermediate and Secondary Education Islamabad, PAKISTAN. Percentage (**64.82%**).

April 2001 – June 2003 Matriculation (Science) at Board of Intermediate and Secondary Education, Sargodha PAKISTAN. Percentage (**62.12%**).

**PROFESSIONAL POSITIONS HELD**

7th August 2016 - 16th January 2017 **Research Fellow** (Insect Biological Control Project funded by Higher Education Commission (HEC) of Pakistan) in Department of Entomology at UCA, University of Sargodha, PAKISTAN.

9th February 2016 - 6th August 2016 **Visiting Researcher** in Earth and Life Institute, Biodiversity Research Centre, Université Catholique de Louvain (UCL), BELGIUM.

16th July 2013 - 8th February 2016 **Research Fellow** (Insect Biological Control Project funded by Higher Education Commission (HEC) of Pakistan) in Department of Entomology at UCA, University of Sargodha, PAKISTAN.

3rd October 2012 - 3rd April 2013 **Teaching Assistant** in Department of Entomology at UCA, University of Sargodha, PAKISTAN.

7th October 2010 - 30th June 2011 **Teaching Assistant** in Department of Entomology at UCA, University of Sargodha, PAKISTAN.

15th February 2010 - 15th May 2010 **Internee** at Department of Pest Warning and Quality Control of Pesticides Sargodha, PAKISTAN.

**ACADEMIC BACKGROUND**

Carrying out the desirable idea of becoming a future professional entomologist, I have been always giving my best efforts during my studies to acquire systematic and comprehensive understanding in the fundamentals of entomology and others related subjects. Therefore, I have consistently maintained good academic records. Throughout the entire process in university, I have always combined theory with practice in order to improve my understandings of theoretical knowledge and enrich my hands-on experience. High concentration has been put on achieving wide knowledge not only through the classroom teaching materials but also through other materials such as internet resources. These assisted me largely in gaining the clearer perspective of how to apply the theoretical knowledge to the real activities.

After completing my B.Sc (Hons.) in Agriculture from University of Sargodha, Pakistan in 2010, I continued my M.Sc (Hons.) in Agricultural Entomology and graduated in 2012. Since 2013, I finished my PhD under the guidance of Dr. Abu Bakar Muhammad Raza and Prof. Dr. Thierry Hance (Earth and Life Institute, Biodiversity Research Centre, Université Catholique de Louvain (UCL), BELGIUM) in February 2017. Currently, I am working as "Research Fellow" with Dr. Abu Bakar Muhammad Raza at University of Sargodha, Pakistan.

**AREAS OF EXPERTISE**

* Insect molecular biology
* Insect biological control
* Insects heamocytes morphology/physiology
* Insect pest management of field crops and stored products
* Insect pest scouting.
* Botanical insecticides.
* Expertise in rearing of important bio-control agents (predators & parasitoids) and their hosts.
* Extension meeting programs with Farmer’s community.
* Data compilation and report writing.

**RESEARCH SKILLS**

I have undertaken laboratory practice throughout my time at University and gained experience in using Chromatographic techniques, PCR techniques, Nano-drop, Spectrophotometery, DNA isolation and SDS-PAGE. In addition, I have analyzed insect fitness related and blood samples using Stereo Microscopes. I have good command on statistics software (R software, MS Excel).

**RESEARCH TITLES**

**PhD:** Bitrophic effects of artificial diets of American bollworm (*Helicoverpa armigera* H.) on different biological aspects of *Bracon hebetor* Say.

**M.Sc (Honos):** Biochemical studies on digestive enzymes of Dhora beetle (*Callosobruchus chinensis* L.)

**TEACHING**

* ***As******Teaching Assistant***

Worked as ***Teaching Assistant*** in Department of Entomology at UCA, University of Sargodha, PAKISTAN.

***Duties:***

1. Teaching and practical demonstration to graduate students.

**PROJECTS**

* ***As******Research Fellow***

Worked as **Research Fellow** in the project entitled: **Biodiversity of braconidae (Hymenoptera) and parasitic potential of few most diverse species in Sargodha region, Pakistan*"*** inSargodha (Punjab), Pakistan funded by Higher Education Commission, PAKISTAN.

***Duties:***

1. Field surveillance of various localities/areas in Sargodha region (Punjab) Pakistan for the Braconids collection and taxonomic identification.
2. Collection of Braconids along with respective hosts for laboratory culture development and experimentation purposes.
3. Data analysis and report writing.
4. Project funds utilization and record management.

**VISITING RESEARCHER**

* ***As******Visiting Researcher***

Worked as ***Visiting Researcher*** in Earth and Life Institute, Biodiversity Research Centre, Université Catholique de Louvain (UCL), Louvain-La-Neuve, BELGIUM.

***Duties:***

1. Benificial insect (*Bracon hebetor*) rearing with respective hosts species.
2. Experimentation

**LIST OF PUBLICATIONS**

1. Sohail, M., Aqueel M.A., Rehman F., Afzal M., Raza A.M., Kamran M. and Khalil M.S. (2014). Biochemical Studies on the Amylase of Mango Mealybug (*Drosicha Stebbingi* Green). *Turkish Journal of Entomology*. 38(3):307-321. **(IF: 0.375)**
2. Sohail, M., Aqueel, M.A., Assi,M.S., Javed,M., Khalil,M.S., Khalil,H. and Ahmad,M.H. (2015).Food and ovipositional preference of oriental fruit fly *Bactrocera dorsalis* Hendel (Diptera: Terphritidae) on different fruit and vegetable hosts. *European Academic Research*. 3(1):45-60. **(IF: 0.21)**
3. Khalil, H., Raza, A.M., Afzal, M., Aqueel, M.A., Khalil, M.S. andMansoor, M. (2015). Effects of plant morphology on the incidence of sucking pests complex in few genotypes of cotton. *Journal of the Saudi Society of Agricultural Sciences*. 1-6.
4. Sarmad, S.A., Afzal, M., Raza, A.M., Khalil, M.S., Khalil, H., Aqueel, M.A. and Mansoor, M. (2015). Feeding efficacy of *coccinella septempunctata* and *Propylea quatuordecimpunctata* against *Macrosiphum rosae*. *Scientia Agriculturae*. 12(2):105-108.
5. Khalil, M.S., Raza A.M., Afzal M., Aqueel M. A., Khalil H. and Hance T. (2016). Effects of different hosts species on the biological aspects of *Bracon hebetor*. *Animal Biology*. 66(3-4) 403-414. **(IF: 0.617)**
6. Khalil, M.S., Raza A.M., Afzal M., Aqueel M. A., Khalil H. Saddiq, M. and Mansoor, M. (2016). Bitrophic effects of artificial diets of American bollworm (*Helicoverpa armigera* H.) on different biological aspects of *Bracon hebetor* Say. Entomological Research. **(Submitted IF: 0.646)**
7. Khalil, M.S., Raza A.M., Majeed, Z., Afzal M., Aqueel M. A., Pons-Guillouard, I., Khalil, H. and Hance, T. (2016). Species-specific effects of parasitism of ectoparasitoid, *Bracon hebetor* (Hymenoptera: Braconidae) on the larval haemocyte counts of *Corcyra cephalonica* and *Ephestia kuehniella* (Lepidoptera: Pyralidae). Journal of the Entomological Research Society. **(Submitted IF: 0.40)**
8. Khalil, F., Rauf, S., Teixeira da Silva, J.A., Iqbal, Z. and Khalil, S. (2015). Response of ABA tolerant and ABA-sensitive lines of sunflower (Helianthus annuus L.) and maize (Zea mays ssp. mays L.) to three abiotic stresses (heat, salinity, and drought). Field Crops Research. **(Submitted IF: 2.927)**

**ABSTRACT PUBLISHED**

1. Sohail, M., Rehman, F.U., Khalil, S., Naveed, N.H., Batool, A.I., Raza, A.B.M. and Kamran, M. (2012). Effect of Heavy Metals Ions on Digestive Enzymes of *Callosobruchus Chinensis* (L). National Science Conference: roadmap of cutting edge technologies UAAR, Rawalpindi, PAKISTAN.
2. Khalil, M. S., Raza, A. B. M., Afzal, M., Khalil, H., Aqueel, M. A., Zubair, M., Saddiq, M. A. and Hance, T. (2016). Effects of different host species on the biological aspects of *Bracon hebetor* Say. Ecology and Behaviour Meeting (June 27th- July 1st). 12th Edt., Lyon, FRANCE.
3. Khalil, H., Pons, I., Renoz, F., Hance, T., Khalil, M. S., Afzal, M., Aqueel, M. A. and Raza, A. B. M. (2016). Does the presence of the secondary symbiont *Serratia symbiotica* in the aphid *Aphis fabae* change the behavior of its parasitoid *Lysiphlebus testaceispes* and *Aphidious colemani*? Ecology and Behaviour Meeting (June 27th- July 1st). 12th Edt., Lyon, FRANCE.

**ARTICLE**

1. Huma Khalil, Sajjad Khalil, Dr. Abu-Bakar Muhammad Raza, Dr. Muhammad AnjumAqueel, Dr. Muhammad Afzal and Dr. Rashad M. Balal. Natural Plant Extracts; A Good Source to Get Rid from Mosquitoes. [www.agrihunt.com](http://www.agrihunt.com).

**CONFERENCES**

1. International Wheat Conference attended as a young researcher held at University College of Agriculture Sargodha (2010, 2011 & 2012).
2. National Science Conference: roadmap of cutting edge technologies UAAR, Rawalpindi, PAKISTAN (2012).
3. DNA Barcoding: A promising tool for species identification and biodiversity digitization held at National Institute for Biotechnology and Genetic Engineering (NIBGE) Faisalabad, PAKISTAN (2013).
4. International Symposium on Strategies for Overcoming Food Security Problems through Utilization of Rain-Fed Areas (26-28 March, 2014) in University of Sargodha, PAKISTAN.
5. Workshop “VECTOLAND” in Earth and Life Institute Biodiversity (ELIB) June 7-9, 2016, Université Catholique de Louvain (UCL), Louvain-la-Neuve, BELGIUM.
6. Ecology and Behaviour meeting (12th Edition) June 27th - July 1st 2016, Lyon, FRANCE.

**CONFERENCES ATTENDED COUNTRIES**

1. Belgium
2. France
3. Holland
4. Pakistan
5. Saudi Arabia
6. Switzerland

**UNIVERSITY OF SARGODHA RADIO TALKS (FM 98.2) IN FARMER’S AGRICULTURE PROGRAM** **“LOK RITTAL”**

***TALKS***

1. Insects pests, rodent’s pests problems associated with harvested field crops in storage/godowns and their control/solutions.
2. Field crops insects pests control through their natural insect enemies (predator and parasitoids).

**ACHIEVEMENTS/AWARDS**

1. Wined HEC [International Research Support Initiative Program](https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&cad=rja&uact=8&ved=0CB0QFjAAahUKEwj4kZ-zsrXHAhVF1xoKHXcTBUA&url=http%3A%2F%2Fwww.hec.gov.pk%2Finsidehec%2Fdivisions%2Fhrd%2Fforeignfellowships%2Firsip&ei=nJfUVfjTHsWua_emlIAE&usg=AFQjCNEhzDpwlyEh0eoHDClseNNDx1mVRA&bvm=bv.99804247,d.d2s) (IRSIP) Scholarship for Six months Training at BELGIUM (2015).
2. University Merit scholarship in M.Sc (Hons) Agri. Entomology 2011.
3. University Merit scholarship in B.Sc (Hons) Agri. Entomology 2008-10.
4. 2nd position in “Fine Arts” contest (2008) at UCA, University of Sargodha, Pakistan.

**KEY SKILLS AND COMPETENCIE**

1. Ability to build good relationships with the staff.
2. Excellent knowledge about relating subjects.
3. Have the confidence and energy to successful handle difficult behavior.
4. Strong behavioral management skills.

**PERSONAL STRENGTH**

1. I am an adaptable person.
2. I can acquire new skills quickly.
3. I have good English skills.

**REFERENCES**

1. **Prof. Dr. Thierry Hance**

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Biodiversity Research Centre,

Université Catholique de Louvain (UCL),

Louvain-La-Neuve, BELGIUM.

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1. **Dr. Abu Bakar Muhammad Raza**

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1. **Prof. Dr. Muhammad Afzal**

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