CURRICULUM VITAE of

Abdulrahman AbdelFattah Faragalla

Professional Vitae

Abdul-Rahman Abdel-Fatttah Faragalla
Department of Medical Biology
Faculty of Medicine
King Abdulaziz University
Jeddah, KSA

Career Objectives

- To pursue a far-reaching objective with the goal of synthesize and coin with blue prints a concerted effort employing and embracing different approaches in an integrated pest management system to guarantee prodigious harvests.
- To increase food production globally through continued research in entomology
- To reduce crop losses through an integrated, multi-dimensional approach to pest control and Integrated Pet Management IPM, while minimizing health hazards and contamination of the environment.
- To educate future generations by teaching college level biology, entomology and related courses.

Contact Information

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Citizenship : U.S. Resident since 07-02-1999

Green Card / NSA #046-821-592

Academic History

Post Doctorate : 1979

Iowa State University / U.S. Department of Agriculture Agricultural Research Service – Corn Insects Research Unit

Doctor of Phyisiology Entomology 1979

Iowa State University

Bachelor of Science / Honors Agriculture / Biology 1971

University of Khartoum

Professional Background

Current Research Summary

Field research on suppressing the outbreak of Dengue Fever by mosquitoes in Western Saudi Arabia. Funded by the Saudi Government.

Discovery and collection of seven species of spiders species novum with an ongoing research project funded by The Research Council of King Abdul-Aziz University.

Termitology – Published more than papers related to termites in the desert ecosystems of the Arabian Peninsula

Exploration of speciation of mosquitoes using DNA characterization.

Additional research describe in vitae.

Post Doctoral Training

lowa State Department of Entomology in collaboration wit the USDA Federal Corn Insect Research Unit. Chemical Control Section, Iowa State University ISU Department of Entomology in cooperation with Corn Insects Research Unit, U.S. Department of Agriculture Science Education and Administration SEA, Agricultural Research Service AR. USDA, Ankeny, Iowa. Initiated and conducted field experiments including collection, analysis and interpretation of data. Involved in mass rearing techniques and infestation methods. Worked with insect suppression methods as alternatives to chemicals, such as, insect growth regulators IGR and evaluated their role in the suppression of the European corn borer populations.

Ankeny, Iowa – Intensive training in the Insect Pathology Section at Ankeny in preparation, propagation, application and evaluation of protozoa Nosema, Verimophia, Autographa on suppressing European corn borer populations. -1979

Associate Professor

King Abdul-Aziz University, Faculty of Medicine Allied Sciences Jeddah, Saudi Arabia

Associate Professor of Biological Science Courses: Introductory and Advanced levels of: Insect Pest Management, Insect Biocontrol, Insect Encology and Population Dynamics, Host-Plant Resistance, Pests of Field Crops, Insect Morphology and Comparative Anatomy – Applied Entomology and Research Techniques.

•	Chairman, Department of Medical Biology	1998 to present
•	Active member, Department of Biology	1990 - 1998
•	Seconded to Department of Biology	1989 - 1990

King Abdul-Aziz University, College of Sciences Department of Biological Science

1985 - 1989

King Saud University Riyadh, Saudi Arabia

1984

Assistant Professor

King Saud University Riyadh, Saudi Arabia

1979 - 1984

<u>Recognition</u>

Golden Certificate for Excellent Research from King Abdul-Aziz City of Science of Technology for Research KACST #atKACST) AT-18-45

Use of natural enemies predators and parasites in suppression of major alfalfa pests.

- Letter of appreciation of the Rector of King Abdul-Aziz University
- Letter of appreciation from Vice-Rector of graduate studies and scientific research.
- Letter of appreciation from Dean, Faculty of Medicine.

Outreach and Beyond

- I am committed to providing students with best clean cut education ever possible.
- Do subjects that conform with curriculum guidelines
- Help student reach their optimal educational levels philosophy
- Students encouraged to develop implement critical thinking skills through collaborative learning techniques and thernatics based on lesson development.
- Have collaboration in critical and paramount to the student intellectual and spiritual development so that each can perch above this full potential.

Special Experience:

- Ecobiological studies (Pest Management and Biological Control)
- Termite Expert (Termintologist)
- Archnologist
- Insect Pest management through applying Biological Control Technologies

Awards

- 1. Awarded and a recipient of the 1982-1983 encouragement remuneration for excellent services rendered for the college of Agriculture, King Saud University, Riyadh, Saudi Arabia.
- 2. Award of Excellence and loyalty (College of Medicine, King Abdul Aziz University 2002) for discovery of many spiders.

New Discoveries on (SPIDERS) and new addition to the Kingdom of Science

Family	Species novum	
 Zodaridae 	<u>Lachesana insensiiblis</u>	sp.n
2. Salticida	<u>Aelurillus faragallai</u>	sp.n
Zodaridae	<u>Langona pallida</u>	sp.n
4. Zodaridae	Pellenes hadae	sp.n
Zodaridae	<u>Stenaelrillus sp</u>	
6. Zodaridae	<u>Vellenus arabicus</u>	sp.n
	<u>Neaetha sp</u>	
	<u>Blanor sp</u>	
	<u>SOIFUGAE</u>	
7. Rhagodidae	Tentatively describe as:	
	 i. Rhagodes rhamanose be finalized. 	A Identification will soon
	ii. Rhagodes ghamidiend	e B. Identification will soon

be finalized.

Honourable Titles and Distinctions:

Awards

- 1. Awarded and a recipient of the 1982-1983 encouragement remuneration for excellent services rendered for the college of Agriculture, King Saud University, Riyadh, Saudi Arabia.
- 2. Excellence and loyalty plaque from King Abdul-Aziz University, Faculty of Science and Allied Sciences, 1422-1423.
- 3. Included in the 1000 intellectuals of the twentieth century (Certificate and Medal by International Biographical Center, Cambridge University, England.
- 4. Distinguished Leadership Award (1999) from the American Biographical Institute, North Carolina, U.S.A.
- 5. Biography included in the International Directory of distinguished leadership 9th edition (2000), U.S.A.
- 6. Included in the Biographical Record of WHO is Who in 21st Century (Awarded Certificate and Medal 2001) International Biographical Center, Cambridge University, England.
- 7. Dedication and inclusion in the 2001 intellectuals of the twenty first century (certificate and medal) by International Biographical Center, Cambridge, England.
- 8. Autobiography included in 500 founders of 21st century First edition by International Biographical Centre, Cambridge England.
- 9. Won the Golden Prize (First Class) for an excellent outstanding research project excuted in the Kingdom from King Abdul-Aziz City for Science and Technology during the years 1424-1426H.

Scientific Societies and Subscriptions

- 1. Entomological Society of America (ESA)
- 2. Arab Journal of Plant Protection
- 3. Sociobiology
- 4. Saudi Biological Society (SBS)
- 5. Young Entomologist Society, Active Member East Lansing, Mi, U.S.A.
- 6. Active member Association Europea De Coeopterologia (EA, C), Barcelona (Espana).
 - Member PIFON (Permanent International File of Naturalists)
- 7. Egyptian Society of Biological Control.
- 8. European Federation of Biotechnology (EFB)

Academic Activities

- 1. The college academic advisory committee (member 1980-1981)
- 2. Academic advisor for the students of the crop protection dept. from 1980-1983.
- 3. Library committee (member) 1981-1982.
- 4. Scholarships and training abroad committee (convener) 1981-1982.
- 5. College sports coordinator 1981-1982.
- 6. Administrative manager of the basketball team of King Saud University for the Championship of Saudi Universities 1981-1982.
- 7. Administrative manager of the table-tennis team of King Saud University for the championship of Saudi Universities 1981-1982.
- 8. The college academic advisory committee (member) 1982-1984, 1984-1985.
- 9. Crop protection Department graduate student committee (member) 983-1984, 1984-1985.
- 10. College Curriculum Committee, Faculty of Medicine (active member) 1998-present.
- 11. Chairman, Department of Medical Biology 1998 present
- 12. Supervisor of Parallel Medical Students in the Department of Medical Biology.

ACADEMIC ACTIVITIES

Supervision of Higher Studies (Graduate Students)

Master of Science (MS)

1.	Co-major Professor Abdulaziz Mohamed AbdulKarim	1983-1985
2.	Co-major Professor Harnad S.Alkady	1981-1985
3.	Co-major Professor Khalid M.S. Al Ghamdy	1985-1989
4.	Co-major Professor Khalid A. Assiri	1997-2000
5.	Co-major Professor Hamad Al Qhatani	1999-2002
6.	Co-major Professor Habeeb Al Salami	2001-2003
7.	Co-major Professor Bander Aloufi	2002-2004

Philosophy Doctor (Ph.D)

1. Co-major Professor Abdullah Zahir Al Shhri

Principal External Examiner (MS Students).

1.	Ilham Yousif Danish	1989
2.	Zakia Jamal Adul Hamid	1994
3.	Salih Ahmad Al Digail	1996
4.	Abdulla Zahir Alshhri	1999
5.	Baker Adam Al Howsa	2001
6.	Rowaida Alawi	2003

Special Interest

- a. Sports (tennis)
- b. Active participation in community services
- c. Photography (video and still)

Conferences, Meeting and Workshops

- 1. Entomological Society of America (ESA) Annual Meeting Nov. 28 Dec. 2, 1975. New Orleans, Louisiana, U.S.A.
- 2. Entomological Society of America (ESA) Annual Meeting Nov. 27– Dec.1, 1978 Washingtom D.C, U.S.A.
- 3. National Insect Pathology Workshop, April 12 April 19, 1979. Ames, Iowa, U.S.A.
- 4. The Fourth Symposium of the Saudi Biological Society (SBS) 10-13 March 1980, Riyadh, Saudi Arabia.
- 5. Scientific Tour to the Institute for Testing Materials (Bundesastait Fur Material Prufung-BAM). Sept 18 Sep. 27, 1981, Berlin, West Germany.
- 6. The sixth symposium of the Saudi Biological Society (SBS) 1-3 March, 1983, Jeddah, Saudi Arabia
- 7. The ninth symposium of the Saudi Biological Society (SBS) 24-27 March, 1986, Regional Agricultural and Research Center, Riyadh, KSA.
- 8. First Symposium on the Potential of Wildlife Conservation in Saudi Arabia, Riyadh, 11-18 Feb. 1987.
- 9. The tenth symposium of the Saudi Biological Society (SBS) 20-24 April, 1987. Meteorology and Environmental Protection Administration, Jeddah, KSA.
- 10. The 11th symposium of the Saudi Biological Society (SBS) Directorate General for Yanbu Project, 30 May 2 June 1988.
- 11. First Symposium of Arab Crop protection, Oct. 10-14, Alain United Arab Emirates (UAE) 1989.
- 12.The 12th Symposium of the Saudi Biological Society (SBS), King Abdulaziz University, Jeddah, 1999.
- 13. The 13th Symposium of the Saudi Biological Society (SBS), Nov. 23-27, Yanbu Industrial City, Saudi Arabia, 1993.

- 14.1st Annual meeting for Scientific Research King Abdulaziz University, 10-14 March 2002.
- 15.2nd Annual Meeting for Scientific Research King Abdulaziz University. 30-31 March 2003.
- 16. Active participant in e-learning and e-Health Care. Workshop, Faculty of Medicine, Allied Sciences, King Abdul-Aziz University on 23-24 April 2002.
- 17. Active participant in Medical Curriculum Development Workshop, King Fahd Medical Research Center (KFMRC), 6-8 May 2002.
- 18. Active participant in (Medical Curriculum Development II) Workshop, Faculty of Medicine and Allied Sciences King Abdulaziz University in premises of King Fahad Medical Research Center on 7-9 October 2002.
- 19. Active participant, First Jeddah Biotechnology Conference during 10-13 March 2001, Jeddah KSA.
- 20. The 21st Symposium of Saudi Biological Society (SBS) Natural Biological Resources. "A Future Look". April 9-11 2002, King Khalid University, Abha Asir Region, Saudi Arabia.
- 21. The improvement of Academic Environment Workshop, Faculty of Medicine, King Fahad Medical Research Center (KFMRC) 15-16 December 2003.
- 22. Co-Supervisor of the model, Cellular and Permanent Histological Preparation Unit within the premises of King Fahad Medical Research Center (KFMRC) at Jeddah, KSA.

Publicity Essays and Miscellaneous

- 1. Food and feeding habits of termites in Dar Al Watan for publishing and information magazines (1984).
- 2. On Aug. 11, 1986 (2nd program Saudi Arabian Radio Station) topic on the program entitled "Academic Research" with Dr. Mohamed O. Taher.
- 3. Talk to the 13th training group in rural development held in the Training Center for Applied Research at Dariyia supervised by the Ministry of Works and Social Welfare, on Dec. 2, 1984 (with other).
- 4. Saudi Arabia Radio Station 2nd Program (Riyadh Debate) on Agricultural Environment and Pesticides put on air Tuesday, Jan. 1, 1985., 2:00 PM (Talk given with others).
- 5. Saudi Arabia Radio Station 2nd Program (Scientific Research) on SANCST project "Termite Problems in Saudi Arabia", An interview given with Dr. A. I. Badawi. Recorded Tuesday, March 19, 1985 put on Air same day 08:15 pm.
- 6. Those fascinating beetles... An Article to the popular magazine "Ahlam Washlan" published by Saudi Arabian Airlines.
- 7. Integrated Pest management systems and their application in Saudi Arabia. Alson-bolla (1) March, 1985.52-53. Published by Dar Alwatan for Publishing and information.
- 8. Termites ... Friends or foes. Al-son-bolla (3) April, 1986..52-53.

Books and References

- 1. Co-author of the Book "Termite Problems in Saudi Arabia". Published 1986, by Scientific Research Administration, King AbdulAziz City for Science and Technology (KACST), King Saud University Printing Press, Riyadh, Saudi Arabia.
- Co-author of the Book "Principles of Crop Protection" Prepared by the staff of the Dept. of Plant Protection, College of Agriculture, King Saud University, Riyadh, KSA.
- 3. "Insect Pest Management System 1987" Simplification of Science and Technology #2 (42 pages). Publication Center, King AbdulAziz Unviersity Printing Press.
- 4. Terites... (the white ants), 1988.
- 5. "True Spiders (*Araneomorphae*) in some ecosystems in the Western Region of Saudi Arabia. 1988. Ibid.
- 6. Co-author. "Subterranean Termites... The untamed problem in the Arabian Peninsula, 1988. Sponsored and Published by Dow Chemical Company. Middle East Area, Jeddah, Saudi Arabia.
- 7. Co-Principal Author, Economic Pests in Saudi Arabia and their Control Sponsored by His Royal Highness Prince Sultan bin AbulAziz Ministry of Defense and Aviation and Inspector General Armed Forces Publication Center 2003, Riyadh (800 pages)
- 8. Blue prints of the Book under preparation title "Dominant Arthropod Fauna in Desert and Arid Ecosystems" 1- Saudi-Spiders.

Funded Projects

Sept. 1980 – Feb. 1984 Co-investigator in a Termite Project under grant no. ST2-

005 under the title "Studies on the Termite Problem in Saudi Arabia". Sponsored by the Saudi Arabian National Center for Science and Technology (SANCT) former and King AbdulAziz City for Science and Technology (KACST)

that covered all over the Kingdom.

Oct. 1987 – Mar. 1988 Evaluation of Dursban 5G against Subterranean termites

On field crops (Jizan Area) sponsored by Dow Chemical company. Title of Research: "Exploring the possible molecule mechanism of spider venoms effects on cultured

heart cells".

Consultations

- 1. On subterranean Termites of the National Guard, King Khalid Hospital, Jeddah, kSA, 1986.
- 2. On Mosquito Control at Taif Municipality, Ministry of Municipalities and Rural Affairs, 1987.
- 3. On Subterranean termites, Makka al Mukaramah Public Housing Project for Contractor Bin Laden/Soyak, J.V.

Current and On-going Fudner Research Projects

- Study on citrus greening in Saudi Arabia. Project No. (AT=-17-50) For 3 years duration (1999-2002) funded by (KACST) (King Abdulaziz City for Science and Technology) Final Report finished and submitted, accepted now under publication as a research book.
- 2. Natural enemies of major key pests in al falfa agro-ecosystem For 3 years duration (2000-2003) funded by (KACST) as above. Final report finished, submitted accepted, now under publication as a research book.
- 3. Study on control of House flies in Jeddah area. Funded by Jeddah Municipality for 2 years duration (200-2001). Final report submitted and accepted.
- 4. Laboratory and field studies on the aphid complex and their natural enemies in alfalfa agro-ecosystem. Funded by Research Center, King Abdulaziz University (2000-2002) 2 years duration. Final report submitted and accepted.
- 5. Studies on the red palm weevil *Rhyncophora ferruiqipennis* on date palm in Saudi Arabia. Submitted to (KACT) 2000. Final report submitted and accepted.
- 6. Webs made by a variety of spider species in Hada Al Sham locality, Makkah Al Mokkawamha area (Western, Saudi Arabia.
- 7. Co-investigator: Exploring the possible molecular mechanism of spider venom effects on rat cultured heart cell.
- 8. Principal investigator. Molecular characterization of mosquito, DNA as a rapid way of mosquitoes control base-line data.

PUBLICATIONS

Published more than 70+ scientific papers in the local and international journal attended a variety of workshops, scientific meetings, and symposia, co-authored 6 books (textbooks and references), two books in the Press.

- 1. Faragalla, A.A., E.C. Berry and W.D. Cuthrie, 1980. Ovicidal activity of Diflubenzuron on Euroepean corn boere Ostrinia nubilalis (Hb). J. Econ, Entomol. 73:573-574.
- 2. Berry, E.C., A.A. Faragall, and W.D. Guthrie, 1980. Field evaluation of Diflubenzuron for control of 1st and 2nd generation European corn borer. . Econ.Entomol. 73:634-636.
- 3. Faragalla, A.A., E.C. Berry, L.C. Lewis and W.D. Guthrie, 1984. Chemo sterilization of European corn borer adults with diflubenzuron. Journal Agric. Entomol (14): 371-375.
- 4. Berry, E.C., A.A. Fargalla, L.C. Lewis and W.D. Guthrie. 1986. Effects of diflubenzuron on European corn borer larvae. Iowa State J. Res. 61 (1): 91-97.
- 5. Mostafa, S.A.S, A.I. Badawi, A.I. Dabbour and A.A. Faragalla. 1982. Levels of esterase enzymes indifferent castes of the termite Psammotermes hybostoma Desneus and their inhibition by some pesticides. Sociobiology, 7(1): 129-133.
- 6. Badawi, A.I., A.A., Faragalla and A.I. Dabbour. 1982. The role of termites in changing certain chemical characteristic of the soil. Ibid. 7(10): 135-144.
- 7. Badawi, A.I., A.I. Dabbour and A.A., Faragalla. 1982. A contribution to the termite fauna (Isoptera) of Saudi Arabia. Ibid. 7(2): 259-260.
- 8. Badawi, A.I., A.A., Faragalla and A.I. Dabbour. 1982. Field evaluation of different preservatives on local woods against subterranean termites in the central region of Saudi Arabia. Ibid. 8(2): 127-135.
- 9. Faragalla, A.A., 1983. Termite problems in Saudi Arabian ecosystem: Ibid 8(2): 127-135.
- 10. Faragalla, A.A. 1983. Potential insect pest threat for Saudi Arabian agriculture. 6th Symposium on the biological aspects of Saudi Arabia. Saudi Biological Society (SBS). Paper No. 459. King Abdulaziz University, Faculty of Science, Jeddah, KSA, 1-3 March.
- 11. Faragalla, A.A. 1983. S.A.S. Mostafa and M.A. Ibrahim, 1984. The ovicidal effects of the insect growth regulator (Dimilin) on eggs of two flour beetles of the genus Tribolium. Journal of Insecticide and Acaricide Test (Entomological Society of America-ESA). Vol. 9, 1984.
- 12. Badawi, A.I, A.A. Faragalla, and A.I. Dabbour. 1984. The distribution of foraging territories in densities of colonies of two species o subterranean termites in Al-Khari Oasis, Central Region of Saudi Arabia. Z. Angew, Entomol. 97 H. 4,387-393.
- 13. Badawi, A.I., A.A. Faragalla and A.I. Dabbour. 1984. Population studies of some species of termites in Al Kharj Oasis, Central Region of Saudi Arabia Z. Angew, Entomol. 97 H. 3,253-261.

- 14. Faraglla,A.A. 2004. The role of some major aphidophagous predators on major aphid species in Alfalfa Agroecosystem, Western Saudi Arabia. Assiut Journal of Agricultural Science, Vo. 35, No. 3. 261-287.
- 15. Faragalla, A.A. 2004. Entomophagous endoparasitoids and their level of field parasitism on major aphid species in Alfalfa agroecosystem. Assuit Journal of Agricultural Science, Vol. 35 No. 3:250-259.
- 16. Faragalla, A.A. 2000. Contribution to the knowledge of the weevil complex (Coleopatera: Curculionidae) in the Western Saudi Arabia. Arch. Phytopath. Pflanz, Vol. 33, 49-60.
- 17. Faragalla, A.A. 2000. Ecozoogeography of termites (Isoptera) in Saudi Arabia. Sociobiology, Vol. 39, No. 2. 195-212.
- 18. Faragalla, A.A. 2000. Major Speices of the dung beetles (Superfamily: Scarabaeoidea) in three ecological systems in Western Saudi Arabia. Arch. Phytopaht. Pflanz. Vol. 33, 225-237.
- 19. Faragalla, A.A. 1999. Habitat preference of tenebrionid beetles (Coleoptera: Tenebrionidae) in Khulais valley, Western Saudi Arabia. Elytron, Vol. 13: 49-55.
- 20. Faragalla, A.A. 1999. Ground dwelling pradaceous and parasitic arthopods in alfalfa fields, western Saudi Arabia Egyptian Journal of Biological Pest Control, 9(1): 17-20.
- 21. Faragalla, A.A. 1998. Seasonal occurrence and habitat distribution od tenebrionid beetles (Coleoptera: Tenebrionidae) in Khulais valley, Western Saudi Arabia. Elytron, Vol. 12: 105-112.
- 22. Faragalla, A.A. 1990. A short note on a dipterous parasite infesting the local locust Poecilocerus bufonius Klug (Pergomorphidae) in Central Saudi Arabia. J. King Saud University, Vol. 2, Agric Sci. (2) 333-337.
- 23. Faragalla, A.A> 1998. Impact of agrodesert on a desert ocosystem. Journal of Arid Environment, 15, 99-102.
- 24. Faragalla, A.A. 1989. A germ plasm bank for wildlife. Wildlife Conservation and Development in Saudi Arabia. Proceedings of the first symposium, Riyadh, Publication No. 3. 122-125.
- 25. Faragalla, A.A. and K.M. Al Ghamdi. 2001. A study on relative abundance of the wolf spiders (Araneae: Lycosidae) in western Saudi Arabia. Arch. Phytopath. Pflanz. 34:123-132.
- 26. Faragalla, A.A. and K.M. Al Ghamdi. 2001. Major species of the indigenous ant fauna (Hymenoptera: Formicidae) in three habitats in Western Saudi Arabia. Sociobiology Vol. 37, No. 1, 95-109.
- 27. Faragalla, A.A. and Al Ghamdi, K.M.S. 2001. Comparison of the seasonal occurrence of the major true spiders (Araneidae) in some crop systems and a natural habitat, in Western Saudi Arabia. Arch. Phytopath. Pflanz. Vol. 34, 361-377.
- 28. Faragalla, A.A. and K. M. Al Ghamdi. 2001. Some accounts on th sp;pugid Galeodes araba C. koch. (Galeodidae: Arachnida) in the semi-arid ecosystems in Western Saudi Arabia. Arch. Phytopath. Pflanz., Vol. 34, 111-121.

- 29. Faragalla, A.A. and Al Ghamdi, K.M.S. 1999. Ecology of major predatory arthropod complex in field and sweet corn in Hada Al_Sham locality, western Saudi Arabia. Arab Gulf Journal of Scientific Research 17(2): 231-244.
- 30. Faragalla, A.A. and K.M. Al GHamdi. 1999. Monitoring field populations of the harvester termite Anacathotermes ochraceus (Burmeister) in two locations in Western Saudi Arabia (Isoptera: Hodotermitidae). Sociobiology, Vol. 34, No. 3:419-427.
- 31. Faragalla, A.A. aand Al Ghamdi, K.M. 1998. Population dynamics and time of activity of certain soil inhabiting predaceous arthropods (Insecta and Araneida) recovered from pitfall traps in three ecosystems in western Saudi Arabia. Annals of Agric. Sc. 36(2): 1125-1134.
- 32. Faragalla, A.A., and Al Ghamdi K.M. 1999. Abundance of foliage dwelling predaceous and parasitic arthropods (Insecta and Araneida) in alfalfa agroecosystem, western Saudi Arabia. Egyptian Journal of Biological Pest Control. 9(1): 11-15
- 33. Faragalla, A.A.; K.M. Al Ghamdi and M.O. Taher. 1998 Performance of some insecticides against subterranean termites infesting field crops om SPuthern Saudi Arabia. Annals of Agric. Sci. Moshtohor. Vol. 36 (2): 1115-1124.
- 34. Faragalla, A.A. and Taher, M.O. 1991. Predaceous and parasitic ground dwelling arthropods indifferent ecosystems in western Saudi Arabia J.K.A.U. Sci. Vol. 3, 57-64.
- 35. Faragalla, A.A. and M.A. Ibrahim. 1990. A preliminary response fo exotic versus local corn hybrids to natural infestation of two stem borers (Lepidoptera: Noctiudae). J.K.A.U., Sci., Vol. 2: 79-85.
- 36. Faragalla, A.A. and K.M. Al Ghamdi. 1989. Seasonal occurrence of dominant lady bird beetles (Coleoptera: Coccinellidaw) in alfalfa agroecosystem, Western Saudi Arabia. Elytron, Vol. 3: 175-179.
- 37. Faragalla, A.A. and M.F. Alzegt. 1991. A hymenopterous parasitre affecting the gall midge Schizomyia sp. (Dlptera: Cecidomyiidae) infestation on Acacia origena in Assir region of Saudi Arabia. J. King Saud Univ. Vol. 3, Agri. SCi. (1) 169-173.
- 38. Faragalla, A.A.; A.I. Badawi and A.I. Dabbour. 1985. Field evaluation of the effects of the Juvenile hormone analogues (JHA's and Diflubenzuron (Dimilin) on termites of the genus Microcerotermes (Isoptera: Termitidae) in central region of Saudi Arabia Sociobioloogy vol. 11 (No. 1) 29-37.
- 39. Faragalla, A.A. and E.E. Adam. 1985. Pitfall trapping of tenebrionid and carabid beetles (Coleoptera) in different habitats of the central region of Saudi Arabia. ZEitschrift fur angewandte Entomologie. SOnderdruck aus Bd. 99, H.5, S. 466-471.
- 40. Faragalla, A.A.; M.A. Ibrahim and S.A.S. Mostafa. 1985. Reproductive inhibition of F₁ [rogeny of some stored grains treated with the antimoulting inhibitor Dimilin. Zeitschrift fur angewandte Entomolgie. SOnderdruck aus Bd. 100, H. 1, 4. 57-62.
- 41. Faragalla, A.A. and Taher M.O. 1987. Taxonomic list of true spiders (Araneomorphae) of Khulais valley in the western region of Saudi Arabia. Proc. Saudi Bio. Soc. 10:367-372.

- 42. Faragalla, A.A., A.M. Moussa, A.I. Badawi and A.A. Ibrahim. 1985. Partial list of beneficial insect species of two localities in the central region of Saudi Arabia. Tropical pest Manag. 6:139 143.
- 43. Faragalla, A.A. and A.I. Badawi. 1988. Arthropod ectosymbionts recovered from subterranean termite nests in Saudi Arabia. Sociobiology. Vol. 14(2) 341-345.
- 44. Al Ghamdi, K.M. and A.A. Faragalla 2000. Parasitism of Diaphorina citri (Kuwayama) (Hemoptera:Psyllidae) by Diaphorencyrtus aligarhensis (Hymenoptera: Encyrtida) on Mexican lime trees, Western Saudi Arabia. Bio-Science Research Bulletin Vol. 16 (No. 2): 99-105.
- 45. Al Ghamdi, K.M., and A.A. Faragalla. 2000/ Synchrony between populations of the citrus psylla Dlaphorina citri (Kuwayama) (Homoptera: Psyllidae) and its nymphal parasitoid Diaphorencyrtus aligarhensis (Hymenoptera:Encyrtidae) on Mexican lime trees, Western Saudi. Bio-Science Research Bulletin. Vol. 16 (No. 2): 91-98.
- 46. Al Ghamdi, K.M. and A.A. Faragalla. 2001. Symptoms of infestation on fruits of the Ushar plant Calotropis procera (Ait) Alt. By the cucurbit fruit fly Dacus longistylus (Wiedemann) (Diptera:Tephritidae) Western Saudi Arabia. JKAU: Met., Env. And Arid Land Agric. Sci., Vol. 12:89-101.
- 47. Ghamdi, K.M.S. and A.A. Faragalla. 1999. Occurrence of jumping spiders (Araneae:Salticidae) in Alfalfa agro-ecosystems in Saudi Arabia. Arab Gulf Journal of Sicentific Research. 17(2):245-254.
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I. TERMITE ARENA

The research in this filed of study has yielded up-to-date new information that throws light on termites as dangerous pests, assessment of their damage as insidious pests in agriculture and human valued commodities, their ecology, biology, behaviors, ecozoogeography, The variegated problems and complaints and the public outery has led King Abdul Aziz City of Science and Technology (KACST) to sponsor and funded a research project under the title "Termite Problem in Saudi Arabia", a national project covering all regions of Saudi Arabia for 3 years. The executed project has led to first hand valuable information that squarely framed the problem from its different dimensions.

Proper taxonomic, identification, distribution, ecobiological studies, population dynamics, control and management procedures were enacted promptly to avoid severe losses. 6-10 species were considered 1st records and 20+ papers has been published international journals especially "Sociobiology, a renowed journal of California for Social Insects". The information recovered was widely disseminated for public and concerned company audience in the field of management and control. Realization of the problem and enaminate from recommendation one legislative by Jeddah Municipality for pre-soil site treatment for any new house or other buildings establishment before actual start of building to deter against any expected future infestation by termites. Extra community services and citizen awareness were delivered in the form of public lectures, pamphlets and consultations were also provided. The outcome of this research project exhibited as: more than 20 published papers, extension books published through a series "simplification of technological information published by the publication center of King Abdul Aziz University and one Research Book published by King Abdul Aziz City of Science and Technology (KACST) at Riyadh Saudi Arabia.

The published papers included:

- 1. Levels of esterase enzymes in different castes of the termite <u>Psammotermes</u> <u>hybostoma</u> Desneus and their inhibition by some pesticides.
- 2. The role of termites in changing certain chemical characteristics of the soil.
- 3. A contribution to the termite fauna (Isoptera) of Saudi Arabia.
- 4. Field evaluation of different preservatives on local woods against subterranean termites in the central region of Saudi Arabia.
- 5. Termite problems in Saudi Arabia ecosystem.
- 6. The distribution of foraging territories in densities of colonies of two species of subterranean termites in Al-Kharj Oasis, Central Region of Saudi Arabia.
- 7. Population studies of some species of termites in Al-Kharj Oasis, Central Region of sAudi Arabia.
- 8. Arthopod ectosymbionts recovered from termite nests.
- 9. Field evaluation of the effects of the juvenile hormone analogues (JHAs) and diflubenzuroin (Dimilin) on termites of the genus <u>Microcerotermes</u> (Termitidae: Isoptera) in the central region of Saudi Arabia.
- 10. Termites (Isoptera) of Saudi Arabia, their hosts and geographical distribution.

- 11. Some factor affecting the distribution and abundance of termites in Saudi Arabia.
- 12. Identification of termites of Saudi Arabia.
- 13. Record of some flagellated protozoa from the intestine of two species
- 14. The natural resistance of some imported wood species to subterranean termites in Saudi Arabia.
- 15. The relative protective effectiveness of some wood preservatives in ground contract against subterranean termites.
- 16. Evaluation of different termicides against <u>Microterms najdensis</u> on green peppers in Jizan area, southern region of Saudi Arabia.
- 17. Field Study on gallery shapes of the harvester termite, <u>Anacanthotermes</u> <u>ochraceus (Burmeister)</u> (Isopteria: Hodotermitidae) from different localities in Western Saudi Arabia.
- 18. Performance of some insecticides against subterranean termites infesting filed crops in Southern Saudi Arabia.
- 19. Monitoring field populations of the harvester termite. <u>Anacanthotermes</u> <u>ochraceaus</u> Burmesiter in two locations in Western Saudi Arabia (Isoptera: Hodotermidae).
- 20. Ecozoogeography of Termites (Isoptera) in Saudi Arabia.

II. FAUNISTIC ECOBIOLOGICAL ARENA

As a student of nature and in interacting manner in pursuit to decipher and delineate environmental pulse through field studies of endemic invertebrate (arthropods) some funded research has been conducted through out the years including major pests their impact on agrodesert (first coinage) and arid domains, coleopterous beetles as mighty dominant members of natural fauna, seasonal distribution, population fluctuation, indigenous fauna, predatory-parasitoid relationships, found composition. Research has led to an appreciable understanding showing major dominant species and their interactions.

Published works included:

- 1. Potential insect pest threat for Saudi Arabian agriculture.
- Pitfall trapping of tenebrionid and carabid beetles in the central region of Saudi Arabia.
- 3. Impact of agro desert on a desert ecosystem.
- 4. A preliminary response of exotic Vs local corn hybrids to natural field populations of two stem borers.
- 5. Tenebrionid beetles in different ecosystems in Western Saudi Arabia.
- 6. Seasonal occurrence of dominant lady bird beetles (Coleoptera: Coccinellidae) in alfalfa agroecosystem, Western Saudi Arabia.
- 7. A partial list of beneficial insect species in the Central Region of Saudi Arabia.

- 8. A short note on a dipterous parasire infesting the local locust <u>Peocilocerus</u> <u>bufonius</u> Klug. (Orthoptera:Pergomorphidae) in Central Saudi Arabia.
- 9. A hymenopterous parasite affecting the gall midge <u>Schizomyia</u> sp. (Diptera: Cecidomyiidae) infestation of <u>Acacia orignea</u> in Assir, Saudi Arabia.
- 10. Incidence of infestation on the native tree (Araak) by the psyllid <u>Euphyllura</u> <u>obsolete</u> Mathur (homoptera:Psyllidae) in Southern Saudi Arabia.
- 11. Seasonal occurrence and habitat distribution of tenebrionid beetles (Coleoptera: Tenebrionidae) in Khulais Valley, Western Saudi Arabia.
- 12. Faunastic composition of Insecta and Araneida on <u>Colotropis procera</u> (Ait.) AIT., in different ecological localities in Western Saudi Arabia.
- 13. Major species of the indigenous ant fauna (Hymenoptera: Formacidae) in three habitats in Western Saudi Arabia.
- 14. Habitat preference of tenebrinoid beetles (Coleoptera: Tenebrionidae), in Khulais Valley, Western Saudi Arabia.
- 15. Ecology of major predatory arthropod complex in field and sweet corn in Hada Al-Sham locality, Western Saudi Arabia.
- 16. Occurrence of jumping spiders (Araneae:Salticidae) in Alfalfa agro-ecosystems in Saudi Arabia.
- 17. Parasitism of Diaphorina citri (Kuwayama) (Homoptera: Psyllidae) by Diaphorencyrtus aligarhesis (Hymenoptera: Encyrtidae) on Mexican lime trees, Western Saudi Arabia.
- 18. Synchrony between populations of the citrus psylla, Diaphorina citri (Kuwayma). (Homoptera: Psyllidae) and its nymphal parasitoid *Diaphorencyrtus aligarhesis* (Hymenoptera: Encyrtidae) on Mexican lime trees, Western Saudi Arabia.
- 19. A study on relative abundance of the wolf spiders (Araneae: Lycosidae) in Western Saudi Arabia.
- 20. Comparison of the seasonal occurrence of the major true spiders (Araneidae) in some crop systems and a natural habitat, in western Saudi Arabia.
- 21. Major species of the dung beetles (Superfamily: Scaraboidea) in three ecological system in Western Saudi Arabia.
- 22. Effect of stip harvesting on the foliage dwellers spiders in alfalfa agroecosystems, Western Saudi Arabia.
- 23. Synchronization of a populations coccenillids on major species of aphids in alfalfa agroecosystems, Western Saudi Arabia.
- 24. Field study between populations of foliage and soil dwellers spider in alfalfa agroecosystems, Western Saudi Arabia.

ARACNOLOGY ARENA

Not strange enough as student of nature monitoring natural fauna, their biology and ecology to bump on major remarkable outstanding groups of arthoropods that make a valuable position of this natural assemblage. True spiders (Araneida) mostly shy, stealth, mostly unnoticeable vagrants their role comes a part of the saga and equation implied (eat and be eaten!).

The tip of this iceberg manifested during field monitoring of injurious pests then their role as biological entity and presence started to be documented into our scouting book registry. More species started to show off leading to display of a rich fauna of spiders. Like we hit the "jackpot" started to look for a far-fetched identification, which is a cumbersome process due to the very renowned authorities in this field worldwide. We were fortunate to get few authorities involved especially in sorting out families, genera and speciation. A number of scientists have extended a helping hand and we are better off. Heaven has descended on us its blessings through discovery and 1st record of species in what might be described as a "virgin land". Without the help of these authorities we could have done very little and not really bragging about what got but at least something new is added. Those authorities and to mention a few includes:

- 1. Dr. Jerzy Proszynski of Zakiad Zoologist at (Siedice, Poland) and Zoology Department (Eastern Illinois University at Charleston III.
- 2. Dr. Rudy Jocque of the Musee Royal L'Afrique Centrale, Tervuren, Belgium.
- 3. Dr. M. Alderweireldt of the Laboratorium voor Oecologieder Dieren at Gent Belgium.
 - Dr. Normal Platnick Curator of the New York Natural History Museum, New York, U.S.A.

The fieldwork has culminated into the discovery of 7 species (species novum) from two families Zodariidae and Salticidae. Most of these works including data, field and ecological information faunal interrelationships were jointly provided and the work is published in the fauna of Saudi Arabia volume 19.

Most of the other work culminated in initiation of research proposals of spider venoms, study of spider webs and included role of spiders in the overall predatory habits feeding on a variety of injurious pests, i.e. "the annual chunck" from the total biota specially in terrestrial habitats.

To further community services pamphlets, extension information to raise public awareness and understanding.

One book published by the publication center, King Abdulaziz University of spiders in Western Saudi Arabia under the theme "Simplification of Technological information", and another book under preparation under the title "Dominant Fauna in Desert and Arid Ecosystems: 1-Saudi Spiders.

An important published work about Salticid (jumping spiders) including all new species published in "Fauna of Saudi Arabia".

Field surveys has yield a number of specimen belonging to the Solifugae (wind scorpions or sun spiders). Two new species belonging to family Rhagodidae were recognized then confirmed by renowned authority Dr. Laura Delle Cave of the Diparmento Di Scienze of the University of Degli at Firenze, Italy hence, tentatively named as Rhagodes rhamanose (suggested), Rhagodes gamadiense (Suggested).

Published works included:

- 1. Taxonomic list of tru spiders (Araneomorphae) of Khulais valley in the western region of Saudi Arabia.
- 2. Pfedaceous and parasitic ground-dweling arthropods in different ecosystems in western Saudi Arabia.
- 3. A pictorial key of some families of true spiders (Araneomorphae) in the western Saudi Arabia.
- 4. A scanning electron microscopy of the chorion of spider <u>Lycorma ferox</u> (Luc) family (Lycosidae).
- 5. Faunastic composition of Insecta and Araneida on <u>Colotropis procera</u> (Ait) AIT., in different ecological localities in western Saudi Arabia.
- 6. Population dynamics and time of activity of certain soil-inhibiting predaceous arthropods (Insecta and Araneida) recovered from pitfall traps in three ecosystems in western Saudi Arabia.
- 7. Abundance of foliage-dwelling predaceous and parasitic arthropods (Insecta and Araneida) in alfalfa agroecosystem, western Saudi Arabia.
- 8. Ground dwelling predaceous and parasitic arthropodsin alfalfa filed, western Saudi Arabia.
- 9. Ecology of major predatory arthropod complex in field and sweet corn in Hada Al Sham locality, western Saudi Arabia.
- 10. Occurrence of jumping spiders (Araneae: Salticidae) in Alfalfa agroecosystems in Saudi Arabia.
- 11. A study on relative abundance of the wolf spiders (Araneae: Lycosidae) in western Saudi Arabia.
- 12. Some accounts on the solpugid Galeodes arabs C. Koch (Galeodidae: Arachida) in the semi-arid ecosystems in the western Saudi Arabia.
- 13. Ecozoogeography of Termites (Isoptera) in Saudi Arabia.

Crop Protection and Pest Management

This CV would not be complete without delving into the field of pest infestation and avenues of suppression. The strategy and tactics endorsed in this endeavor based on insect pest damage assessments. Economic Threshold (ET). Economic Injury Levels (EIL) and suppressive methods enacted to curb down pest populations and sustain low ceilings for populations of injurious species. Methods of control applied should be carefully selected from the best compatible that can work complimentary in concerted manner while keeping a vigilant cognizant eye for safe, clean uncontaminated environment. Both ecological and biological methods are consummated of joining efforts including innovative particulars including crop phenology, environmental milieu, crop resistance etc, maximizing on the annual bite! Of both predator-parasitoid complex feeding on major injurious pests.

Practical application has the opportunity to be monitored and applied on a couple of funded projects by King AbdulAziz City of Science and Technology (KACST). Cotis Greening by Psylla vectors (a national project extended for 3 years and Management of key Insect Pests of Alfalfa by Natural Enemies (Predators and Parasitoids). Both projects have led to voluminous piles of information. Final reports were accepted and the policy of (KASCT) to publish results in a book after been referred by peer reviewers. Necessary procedures were dealt with to implement this objective. Data recovered from each projects during the 3 years is destined to 10 publications from each project since each final report is up of approximately 700 pages plus.

Over all invaluable up-to-date information is recovered and the recommendations were clearly under consideration.

Extension work and public awareness of farmers included preparation of pamphlets, recommendations and finally culminated in books including.

- 1. Co-author of the textbook "Principles of Crop Protection" published by publication center, King Saud University, Riyadh, KSA.
- 2. Integrated Insect Pest Management Systems published by the publication Center, King AbdulAziz University, 1987.

Published papers:

- 1. Ovicidal activity of Diflubenzuron on European corn borer (Ostrinia nubilalis (Hb).
- 2. Filed evaluation of Diflubenzuron for control of 1st and 2nd generation European corn borer.
- 3. Chemosterilization of European corn borer adults with diflubenzuron.
- 4. Effects of diflubenzuron on European corn borer larvae.
- 5. Levels of esterase enzymes indifferent castes of the termite <u>Psammotermes</u> <u>hybostoma</u> Desneus and their inhibition by some pesticides.
- 6. Field evaluation of different preservatives on local woods against subterranean termites in the central region of Saudi Arabia.
- 7. Potential insect pest threat for Saudi Arabian ariculture. 6th Symposium on the biological aspects fo Saudi Arabia, Saudi Biological Sccociety (SBS).
- 8. The ovicidal effects of the insect growth regulator (Dimilin) on eggs of two flour beetles of the genus <u>Triolium.</u> Journal of Insecticide and Acaricide Test (Entomological Society of America-ESA).
- 9. Pitfall trapping of tenebrionid and carabid beetles in the central region of Saudi Arabia.
- 10. Impact of agro desert on a desert ecosystem.
- 11. A preliminary response of exotic Vs local corn hybrids tonatural field populations of two stem borers. (Lepidoptera: Noctuidae)
- 12. Tenebrionid beetles in different ecosystems in Western Saudi Arabia.
- 13. Seasonal occurrence of dominant lady bird beetles (Coleoptera: Coccinellidae) in alfalfa agroencosystem, western Saudi Arabia.
- 14. A partial list of beneficial insect species in the central region of Saudi Arabia.
- 15. A short note on a dipterous parasite infesting the local locust <u>Peocilocerus</u> <u>bufonius</u> Klug. (Orthoptera: Pergomorphidae) in central Saudi Arabi.
- 16. Field evaluation of the effects of the juvenile hormone analogues (JHAs) and diflubenzuroin (Dimilin) on termites of the genus <u>Microcerotermes</u> (Termitidae:Isoptera) in the central region of Saudi Arabia.
- 17. A hymenopterous parasite affecting the gall midge <u>Schizomyia</u> sp (Diptera:Cecidomyiidae) infestation of <u>Acacia orignea</u> in Assir, Saudi Arabia.
- 18. Predaceous and parasitic ground-dwelling arthropods in different ecosystems in western Saudi Arabia.
- 19. Reproductive inhibition of F1 progeny of some stored grain pest fed on grains.
- 20. Incidence of infestation on the native tree (Araak) by the psyllid <u>Euphyllura</u> <u>obsolete</u> Mathus (homoptera: Psyllidae) in southern Saudi Arabia.
- 21. The natural resistance of some imported wood species to subterranean termites in Saudi Arabia.
- 22. A germplasm bank for wildlife. 1st Symp. Wildlife Conservation and Developmentin Saudi Arabia.

- 23. The relative protective effectiveness of some wood preservatives in gound contact against subterranean termites.
- 24. Evaluation of different termicides against <u>Microterms najdensis</u> on green peppers in Jizan area, southern region of Saudi Arabia.
- 25. Seasonal occurrence and habitat distribution of tenebrionid beetles (Coleoptera: Tenebrionidae) in Khulais Valley, western Saudi Arabia.
- 26. Performance of some insecticides against subterranean termites infesting field crops in southern Saudi Arabia.
- 27. Abundance of foliage-dwelling predaceious and parasitic arthropods (Insecta and Araneida) in alfalfa agroecosystem, western Saudi Arabia.
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- 31. Parasitism of *Diaphorina citri* (Kuwayama) (Homoptera: Psyllidae) by *Diaphorencyrtus aligarhesis* (Hymenoptera: Encyrtidae) on Mexican lime trees, western Saudi Arabia.
- 32. Synchrony between populations of the citrus psylla, *Diaphorina citri* (Kuwayama) (Homoptera, Psyllidae) and its nymphal parasidoid *Diaphorenchyrtus aligarhesis* (Hymenoptera-Encyrtidae) on Mexican lime trees, western Saudi Arabia.
- 33. A study on relative abundance of the wolf spiders (Araneae: Lycosidae) in western Saudi Arabia.
- 34. Some accounts on the solpugid Galeodes arabs C. Koch. (Galeodidae: Arachida) in the semi-arid ecosystems in the western Saudi Arabia.
- 35. Ecozoogeography of Termites (Isoptera) in Saudi Arabia.
- 36. New record list of the most insect parasitoids (hymenopterous wasps) in alfalfa agroecosystems, western Saudi Arabia.
- 37. Effect of strip harvesting on the foliage dwellers spiders in alfalfa agroecosystems, western Saudi Arabia.
- 38. Synchronization of a populations coccenillids on major species of aphids in alfalfa agroecosystems, western Saudi Arabia.
- 39. First record of a foliage-dwelling spider (Micaria-Gnaphosidae) in Saudi Arabia.

A more comprehensive detailed exact work in the overall textbook "Insect Pest of Saudi Arabia and their Control" referred by Wild-Life Commission sponsored by His Royal Highness Prince Sultan Bin Abdul Aziz, Minister of Defense and Avians and Inspector General and published under his patronage by the Armed Forces printing press (800 pages) Riyadh, KSA.

The outcome of these research projects has yielded overwhelming amount of data concerning an array of innocus and injurious species in addition to discovery of new species and first records, especially predatory parasitoid complex. Recovered collection sorted, categorized to respective families, genera whereas the unidentified species were sent to International authorities for proper identification in Canada Dr. John Huber at the Canadian National Collection of Insects (CNSI). Biological Resources Program, Ottawa, Ontario, Canada who wrote back saying "Hymenoptera represent and important contribution to collection and knowledge of this group for the Arabian Peninsula particularly of parasitic species many reference new species (species novum) and first record to Saudi Arabia. Parasitic wasps (Ichnumonoidea, Chalcidoidea, Platygasteroidea, Cynipoidea) make most of the valuable collection but needed more time and specialist because faunas of these groups are generally so poorly known for the region.

Dr. Hassan Dawash (Taxonomist and Specialist) British Museum Natural History at London replied back saying "Sorting out received material indicated many of these are new species (new to science) and needed more time to arrive at correct identification.

Finally nature rich with all living entities, though meager and utterly few when compared in desert domain and arid land with lush tropical rainforest, but still (in the desert domains) hidden with its facets astronomical behaviors, beauty, wonders not seen by ordinary layman eye, but needed close up focus to bring what was hidden after zooming and bring ti up to focus, variegated beauties and breath taking wonders exhibited by remarkable creatures of the Almighty Allah the most compassionate most merciful. Students of nature are nurtured by these miraculous wonders and their aesthetic values have no bounds, every giving, everlasting.

But the use of photos and colors directly from nature samples of these arthropod wonders were delineated in the current book. "Wonderful Behaviors of Insect World in Saudi Arabia".