CRRICULUM VITAE

NAME: Dr. M.S.KRISHNA

DESIGNATION: ASSOCIATE PROFESSOR,

SPECIALIZATION/RESEARCH INTEREST

- **DROSOPHILA GENETICS: 1)**Behavioral, Biochemical ,Biodiversity and evolutionary biology

  2) Understanding human diseases using Drosophila

- **HUMAN GENETICS:** Understand the genetic connection with the neighboring gene pool in the evolution of modern human beings
- **BACTERIAL GENETICS :**Understand the interplay between trafficking, host signaling and Two Component Systems on the survival and growth of *Mycobacterium tuberculosis*

NO.OF PUBLICATIONS: 85 [International=65; National=20]

Cited [GOOGLE SCHOLAR]

	All
Citations	**299**
h-index	**10**
i10-index	**10**

CONTRIBUTIONS TO MY RESEARCH INTEREST

➢ DROSOPHILA MODEL ORGANISM

UNDERSTANDING FACTORS AFFECTING SEXUAL SELECTION IN SPECIES OF DROSOPHILA

The large body of theory on genetic divergence during speciation with gene flow has brought to light fundamental differences in the effects of two types of mating rules on speciation: preference/trait rules, in which divergence in both (female) preferences and (male) mating traits is necessary for assortment, and matching rules, in which individuals mate with like individuals on

the basis of the presence of traits or alleles that they have in common. In our lab **we used Drosophila, the most versatile model organism as our system**

- **Role of body size in sexual selection in species of Drosophila**

One of major investigations in **my thesis** has disclosed the occurrence of **SIZEASSORTATIVE MATING IN *DROSOPHILA MALERKOTLIANA*.** This is the first report in the genus Drosophila and published in reputed journal **ANIMAL BEHAVIOUR,LONDON ,UK (1997**).Based on this study we have proposed an hypothesis **'BIGGER IS BETTER '.**This paper has been **cited in 67 highly reputed publications.**

In our subsequent publications we have also demonstrated that in species of *Drosophila [D. malerkotliana, D. bipectinata and D.nasuta*] occurrence of size assortative mating and greater fitness advantage of large flies over small flies in these species too.

- **Role of male age in sexual selection in species of Drosophila**

Another major investigation from our lab was how females select the males on the basis of male age has been demonstrated in species of *Drosophila*. We demonstrated that female preference for male age differs in different species of *Drosophila*. In *D.melanogaster* ,females prefers to mated more frequently with young males whereas in *D.bipectinata* , and *D.ananassae* females prefers to mated with older males more frequently than young males while in *D.malerkotliana* ,females prefers to mated with middle aged males more frequently than either old or young males .**It was also demonstrated that species difference do exit for female preference for male age in species of *Drosophila* but in all these cases it was clear that females mating with their preferred males[young/middle aged/old] obtained both direct and indirect benefits suggesting that females of *Drosophila* species have evolved differently and adopted different strategies for mate selection.**

- **Role of male diet in sexual selection in species of Drosophila**

Yet another major investigation from our lab was how females select the males on the basis of male diet has been demonstrated in *D.melanogaster*. Protein fed males had significantly greater mating success

Understanding human disease using Drosophila model

- **Inter relationship between aging , oxidativestress and male reproductive fitness in *Drosophila melanogaster***

In the present experiment in *D.melanogaster*, we have analyzed the interrelationship between aging, oxidative stress and its effect on reproductive fitness and metabolic parameters. Our experiment showed a progressive age-dependent decrease in the activity of SOD and CAT which are the major antioxidant enzymes involved in defense mechanisms against oxidative stress, this decrease was accomplished by the increase in ROS levels across age. Results also showed that

females compared to males have lower ROS levels and higher antioxidant enzymes. Reproductive fitness parameters including accessory gland traits and sperm traits decreased across the male age which can also be linked to increased oxidative stress levels.

- **High sugar induced changes diabetic like phenotype, oxidative stress, reproductive fitness, longevityand gutmicrobial diversity in D. melanogaster: Protective role of Gymnema sylvestre**

Adult fly fed with 30% of high sucrose diet showed significantly increased levels of metabolites[glucose, trehalose, triacylglycerol and hydrogen peroxide],antioxidant enzymes [SOD and CAT] ,species of Lactobacillus density [Lactobacillus brevis and L. plantarum] and decreased reproductive fitness and longevity in *D. melanogaster*. The Gymnema sylvestre (GS) leafextract treatment along with 30% high sucrose diet elicited reversal of above changes leading to normaphenotype,biochemical markers and reproductive traits and gutmicrobial diversity in *D.melanogaster*.

- **Creatine (Cr)supplement benefits in PD flies**

Creatine (Cr) is known nutritional supplement having the properties bioenergetics, anti exitoxic and anti-oxidant. We demonstrated that protective effects of creatine supplement against rotenone induced and transgenic PD flies using oxidative stress, mortality and neurotoxicity in *D. melanogaster*. It was noticed that significant reduction in the levels of oxidative markers in whole body homogenates and better performance in a negative geotaxis assay of flies exposed to creatine supplement of rotenone (Rot) induces and transgenic PD (Parkinson's disease) flies. Further dopamine level also increased in creatine supplement of rotenone induced and transgenic PD flies. These studies suggests that protective role of creatine supplement is similar in both rotenone (Rot) induced as well as in transgenic PD models of *D. melanogaster.*

➢ HUMAN GENETICS

Understand the genetic connection with the neighboring gene pool in the evolution of modern human beings

The subsequent human migrations that dispersed out of Africa, both prehistoric and historic and colonization of India by modern humans is unanimous, and phylogeny of major mitochondrial DNA haplogroups have played a key role in assessing the genetic origin of people of India. Human population genetics answers the most antique of questions: who are we, and where do we come from? It examines the patterns and evolutionary changes of genetic variation in Homo sapiens, involving mutation, recombination, genetic drift,

migration, nonrandom mating, and natural selection, which aims to understand the history and current genetic diversity of our species

In our lab series of interesting publications have been made using two south Indian trible populations namely Urali Kuruman and Melakudiya tribe of South india to trace the genetic connecting links in the evolution of modern human beings

- In an interesting investigation in our lab using a complete mitochondrial genomes of 113 individuals from Melakudiya tribe of Southern India have demonstrated that out of 113 individuals 46 individuals showed the presence of west Eurasian autochthonous haplogroups HV14 and U7. Phylogenetic analysis revealed two novel subclades HV14a1b and HV14a1b1 and sequences representing haplogroup U7 were included under previously described subclade U7a3a1a2* specific to India. **From this study mtDNA haplogroup HV14 was identified in India specific to a particular• tribal populations (Melakudiya) sharing genetic relationships with people of the Near East. Further mtDNA lineage HV14 between India and Iran from the present study provides direct genetic evidence that AMH populated through South Asia with several migrations in consensus with the recent analyses of skeletal remains and burial patterns in the region.Coalescence ages of HV14 and U7a3a1a2* trees in the present study dates ~ 16.1 ± 4.3and~ 13.4 ± 5.6 kya respectively.This work has been published in highly reputed journal [Genetica-]**
- Further complete mitogenome sequences analysis of 40 individuals of Urali Kurumans trible population revealed novel sub-lineages of haplogroup R30: R30a1c1, and U1: U1a1c1d2, U1a1c1d2a . Urali Kurumans pooled ancestry with the native Iranians sharing the sub-haplogroups R30a1c and U1a1c1d. The coalescence ages estimated for the sub-haplogroup R30a1c dates ~ 9.4 ± 3.5 Kya and for subclade U1a1c1d dates ~ 9.1 ± 2.7 Kya**. The study revealed a genetic link between Iran and South Asia in the Neolithic time, indicating bidirectional migration and admixture**. **This work has been published in highly reputed journal**

- Y-chromosome analysis [paternal lineages] of 106 male samples from two Dravidian speaking tribal populations of Southern India: Urali Kuruman ($n = 50$) and Melakudiya ($n = 56$) were analyzed. A set of 30 bi-allelic UEP markers of the non-recombining region of the Y-chromosome was also been sequenced by the Sanger sequencing method. The phylogenetic analysis of the two trible populations revealed six Y-chromosome haplogroups: C, F*, H, K*, L*, and R2. The Urali Kuruman Y-chromosome lineage was predominantly of native origin clustering with other Dravidian tribes of the region, whereas the Melakudiya Y-chromosome lineage clustered with the people of Near East, and other Indo-European speakers of India. **This work has been published in highly reputed journal**

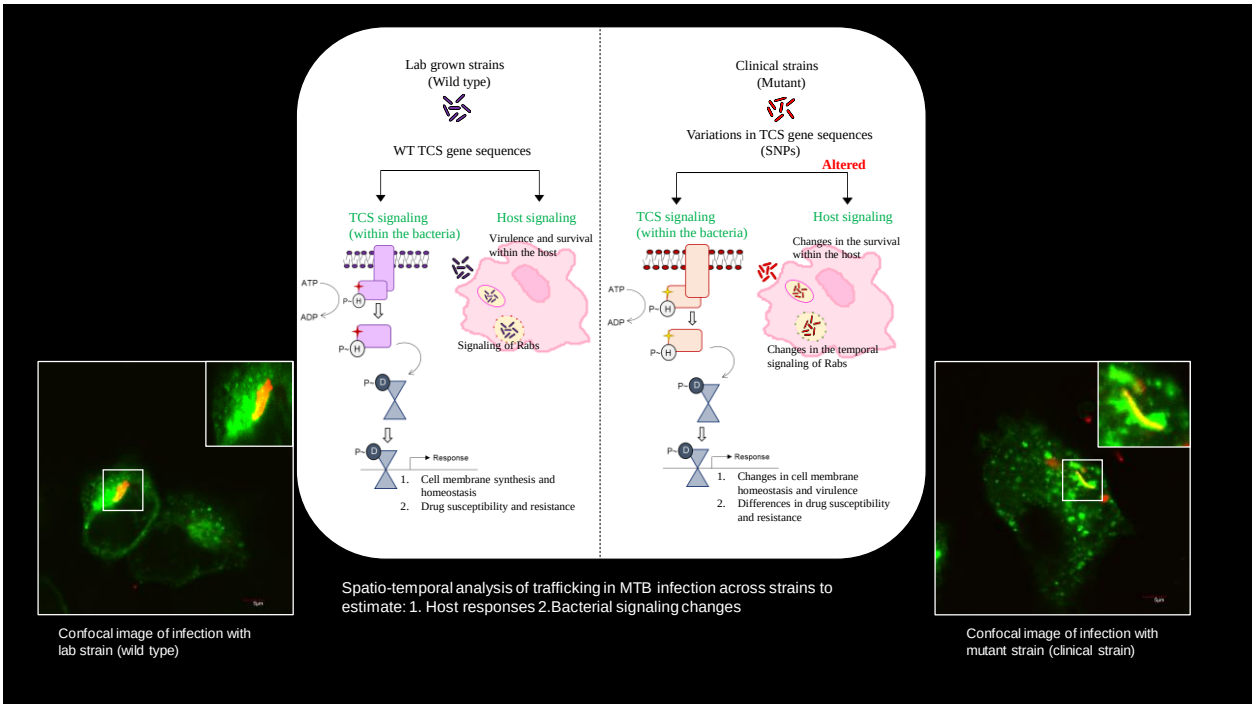
- MtDNA variability of the complete mitochondrial genome was analyzed by the Sanger sequencing method. Our results revealed novel sub-lineages of haplogroup: M2, M3, M6, M35, M65, and an M* lineage, indicating a deep in-situ origin and spread of haplogroup M lineages in India, shared

with many tribal and caste populations. **This work has been published in highly reputed journal**

- Mitochondrial DNA (mtDNA) sequences reveal maternal phylogeny to trace back the demographic histories to construct phylogeny of a population. In this study, we update the phylogeny of the autochthonous Indian-specific mtDNA haplogroup R8 to give regional relationships between the members of haplogroup R8 in India and neighbouring areas. A set of 31 complete mitogenomes sequences from a Melakudiya tribal population of Southern India revealed two subclades of R8-R8a and R8b clustered with other tribal and caste populations of India. The updated coalescence age of haplogroup R8 in South Asia is dated ~43.3 ± 8.1 Kya, subclades R8a and R8b are dated ~40.6 ± 8.8 Kya and 15.4 ± 4.3 Kya, respectively. **This study updated the deep in situ distribution of Indian-specific R8 lineages and added new daughter branches to the previously described branches of the haplogroup R8 in India**. **This work has been published in highly reputed journal**

➢ MYCOBACTERIUM TUBERCULOSIS

Understand the interplay between trafficking, host signalling and Two Component Systems on the survival and growth of *Mycobacterium tuberculosis*



In order to characterize the course of infection of *Mycobacterium tuberculosis* we use the dynamics of the infection process by exploring altered virulence in host cells, caused due to spatial and/ or temporal differences in the trafficking of bacilli within these cells. The differences elicited by trafficking are known to influence the dynamics of phagolysosome generation in the host cell as well as regulate the efficiency of the phagosome and lysosome fusion process, which ultimately regulates the survival and the virulence properties of intracellular bacilli. Using live cell microscopy and different strains of Mycobacteria for infection we examine and characterize these strain wise differences in the host, using trafficking proteins. On the other hand, we check and characterize changes in signaling in different strains of the bacteria and show that the orchestrated changes in both the bacteria and the host contribute to the survival changes in the host, making this disease hard to eradicate.

ARTICLES PUBLISHED JOURNAL NAMES:

Animal behaviour Genetica Zoological studies Journal of Insect Science Italian Journal of Zoology Zoological science Korean Journal of Genetics Proceedings of the National Academy of Sciences Annals of human biology Asian Journal of Pharmacy and Pharmacology Cancer Biol Bulletin of Pure & Applied Sciences-Zoology Homo: internationale Zeitschrift fur die vergleichende Forschung am Menschen Journal of the Anthropological Survey of India Indian Journal of Entomology Egyptian Journal of Forensic Sciences Annals of Entomology Journal of Entomology and Nematology Current science Indian Journal of Experimental Biology Entomon etc.,

CONFERENCES ATTENDED**: 20**

RESEARCH PROJECTS COMPLETED:

1) UGC-MAJOR RESEARCH PROJECT (8.75 Lakhs)

2) University minor project (75 thousands)

Ph.D STUDENTS: AWARDED =08

WORKING=05

M.Phil STUDENTS: 02

CONTRIBUTION TO THE DEPARTMENT:

1) Involved in the establishment of separate department GENETICS AND GENOMICS

2) Involved in all the developmental activities such as departmental projects UGC SAP CAS-1Phase

3) Involved in the establishment of DROSOPHILA STOCK CENTER IN THE DEPARTMENT

4) Involved in the establishment of research lab STRESS BIOLOGY LAB IN THE DEPARTMENT

5) Involved in the conducting National /International conference/seminars in the Department

CONTRIBUTION TO THE SOCIETY (EXTENSION ACTIVITIES):

1) Field studies, Academic tour, guiding major projects students

2) Conducting **orientation /Refresher Course** on cytogenetic of DROSOPHILA to teachers and research and students etc,

3) Teacher –students' interactions, carrier counselling etc,

RECOGNIZED AS RESEARCH GUIDE: IN ZOOLOGY AND GENETICS

AWARD: Young Scientist Award Best paper presentation in the 4th International/16th National symposium on „Recent Trends in Life Sciences held at University of Kerala, Trivandrum, (Indian Society of Life Sciences).

DNA SEQUENCE DATA DEPOSITORY

Complete and partial mitochondrial DNA Sequence Data Depository

The 202 complete and 4 HVR III region sequences of mitochondrial DNA has been submitted to NCBI GenBank https://www.ncbi.nlm.nih.gov/genbank , under the following accession numbers. The sequence data are simultaneously available in European Nucleotide Archive

https://www.ebi.ac.uk/ena and the DNA Data Bank of Japan

https://www.ddbj.nig.ac.jp/index

MF656506 – MF656509

MG649324 – MG649328

MH368695 – MH368735

MH444368 – MH444452

LIST OF PUBLICATIONS

Sl No.	*Name of the Teacher & Designation*	*Title of the Article/ Research paper*	*Name of the Journal or Edited Book in which published*	*Publisher's Name, Place & Year of Publication*	International / National
1995					
1	Hegde, S.N. and M.S. Krishna	Spontaneous Mutation : Mutation in *Drosophila bipectinata*	Dros. Inform. Serve. DIS 76: 80 (USA) .	1995	International
1996					
2	Krishna, M.S. and S.N. Hegde	Incipient sexual isolation in the bottleneck lines of *Drosophila malerkotliana*	Dros. Inform. Serve. 77:70-71 (USA)	1996	International
3	Hegde, S.N. and M.S. Krishna	Effect of bottlenecks on incipient sexual Isolation, mating activity and fertility in *Drosophila malerkotliana*	Indian J. Experimental, Biol. 34: 440-443 (CSIR J. New Delhi)	1996	National
4	Krishna, M.S. and S.N. Hegde	Bottleneck effect on sexual isolation Chromosomally monomorphic and polymorphic populations of *Drosophila malerkotliana*	Cell and Chromosome Res. 19 (1): 1-8.	1996	National
1997					

5	Hegde, S.N. and M.S. Krishna	Size- Assortative mating in *Drosophila malerkotliana*.	Anim.Behav.54: 419-426, U.K. (London) Academic Press.	1997	International
6	Krishna, M.S. and S.N. Hegde	Body size, mating success and advantage of large flies in *Drosophila bipectinata* species complex.	Indian J. Experimental Biol. 35: 1341-1347 (CSIR J. New Delhi)	1997	National
7	Krishna, M.S. and S.N. Hegde	Reproductive success of large and small flies in *Drosophila bipectinata* complex.	Current Sci. 72: 747 – 750	1997	National
1998					

8	Krishna, M.S. and S.N. Hegde	A spontaneous mutation in *Drosophila malerkotliana*	Dros. Inform. Serve. 81 (USA).	1998a	International
9	Hegde S.N., V.V.Vasudev, V. Shakunathala and M.S. Krishna	*Drosophila* fauna of Palini Hills: Tamilnadu, India,	Droso. Inform. Serv. 81: 138 (USA)	1998b	International
1999					
10	Hegde, S.N. and M.S. Krishna	A spontaneous double mutation in *Drosophila bipectinata*	Dros. Inform. Serve. 81 (USA)	1999	International
11	Hegde, S.N. and M.S. Krishna	Body size and fitness characters in *Drosophila malerkotliana*,	Current Sci. 77: 178-179	1999	National
12	Hegde, S.N. and M.S. Krishna	Bottleneck effect on intra and inter specific Competition in *Drosophila malerkotliana*,	Indian J. Experimental Biol. 37:359-364. (CSIR J. New Delhi).	1999	National
13	Hegde, S.N., V.Vasudev, M.S. Krishna and V. Shakuntala	Description of two new species of *montium* subgroup of *Drosophila* (Diptera : Drosophiladae) from South – India	Entomon. 24(2): 149 – 156.	1999	National
2000					
14	Hegde, S.N., M.K. Naseerulla and M.S. Krishna	Variability of Morphological traits in *Drosophila bipectinata* complex	Indian J. Experimental Biol. 38:797-806.	2000	National
15	Hegde, S.N. and M.S. Krishna	Evidence of rare-male mating advantage in *Drosophila malerkotliana*.	Cell and Chromosome Res. 21 (2): 38-42.	2000	National
2001					
16	Krishna, M.S. and S.N. Hegde	Bottleneck effect on courtship behaviour in *Drosophila malerkotliana*,.	Droso. Inform, Serve. DIS 84: 54-55	2001	International
17	Sharath Chand raY., Hegde, S.N., M.S. Krishna	Courtship behaviour of *phorticella striata* (Drosophilidae)	Droso. Inform. Serve. DIS 84:5-6	2001	International

	and Venkateswaralu				
2002					
18	Sharath Chandra, Y., Hegde, S.N. and M.S. Krishna	A preliminary report of Drosophilidae of mokokchung (Nagaland State, India)	Droso. Inform. Serve. DIS 85:16-17.	2002	International
2003					
19	Krishna M.S. and S.N. Hegde	Influence of body size in mating success: In three sympatric species *Drosophila.*	Italian Journal, 70: 47-52.	2003	International
2005					
20	Hegde S.N., B.K. Chethan, and M.S. Krishna	Mating Success of males with and without wing patch in *Drosophila biarmipes*	Indian J. Experimental Biol. 43: 902 – 909.	2005	National
2006					
21	Saratchandra, Y., S.N. Hegde., M.Venkateswarlu and M.S. Krishna	Phenotype plasticity of sexual behavior at different temperatures in a Drosophilids*: Phorticella striata.*	Korean J. Genetica. 25(4): 395- 401	2006	International
22	Jayaramu, S.C., S.N.Hegde., S.R.Ramesh and M.S.Krishna	Relationship between inversion polymorphism and sexual activity in *Drosophila ananassae.*	National J. Life Sci. 3(1): 163-168.	2006	National
2007-08					
23	B.R.Guru Prasad, S.N. Hegde and M.S. Krishna	Relationship body size and male remating ability in *Drosophila bipectinata*	National J. Life Sci. 4(1):	2007 (Referred Journal)	National
24	B.K.Chetan, S.N.Hegde and M.S.Krishna	Evidence of sexual isolation among different geographic populations of *D.rajasekari*	J. Cytol. and Gen. Volume 8(NS): 31-40	2007 (Referred Journal)	National
2008-09					
25	Guruprasad B.R., S.N. Hegde and M.S. Krishna	Positive correlation between male body size and remating in *D.bipactinata*of some	Zoological Studies. 47	2008 (Referred Journal)	International

		population.			
26	Jayaramu, S.C., S.N.Hegde., S.R.Ramesh and M.S.Krishna	Geographic variation in inversion frequencies, mating behaviour and morphometric traits of *Drosophila ananassae.*	National J. Life Sci.5(1): 1-6	2008 (Referred Journal)	National
2009-10					
27	Guruprasad B.R., S.N. Hegde and M.S. Krishna	Seasonal and altitudinal changes in population density of 20 species *of Drosophila* in Chamundi Hills.	J. Insect Sci. 10: 1-12	2010 (Referred Journal)	International
28	M. Prathibha and M.S. Krishna	Greater mating success of middle aged females of *Drosophila ananassae*.	Zoological Studies. 49(b): 805-814.	2010 (Referred Journal)	International
29	Krishna, M.S., H.T. Santhosh and S.N Hegde	Male age influence on son mating success in low and high larval densities in *Drosophila bipectinata.*	Droso. Info. Serve (USA)	2010 (Referred Journal)	International
30	Krishna, M.S., and Somashekar, K.	Greater son mating success of old age male in *Drosophila bipectinata.*	Drosophila Info. Serve.	2010	International
2010-11					
31	Somashekar .K and M.S. Krishna	Evidence of Female Preference for Older Males in *Drosophila bipectinata*.	Zoological Studies. 50(1): 1-15	2011 (Referred Journal)	International
32	Prathibha. M., Krishna M.S and S.C. Jayaramu	Male age influence on male reproductive success in *Drosophila ananassae*(Diptera: Drosophilidae).	Italian J. Zool.	2011 (Referred Journal)	International
33	K Somashekar, M.S Krishna, SN Hegde and SC Jayaramu	Effects of age on female reproductive success in *Drosophila bipectinata.*	J. Insect Sci. 11: 132.	2011 (Referred Journal)	International
2011-12					
34	Krishna, M.S., H.T. Santhosh and S.N Hegde	Offspring of Older Males are Superior in *Drosophila bipectinata*	Zoological Studies. 51(1): 72-84	2012 (Referred Journal)	International
35	M.S. Krishna and KoushikPonnanna, C.R	Biodiversity of *Drosophilidae* of Western Ghats (Coorg District) of Karnataka, India	Dros. Info. Serve. 95	2012	International
36	M.S. Krishna, Prathibha, M. and	Female age influence on mating activities in outbred	Dros. Info. Serve. 95	2012	International

	S.C. Jayaramu	populations of *Drosophila ananassae*			
37	M.S. Krishna, Prathibha, M. and S.C. Jayaramu	Male age influence on pre-adult fitness in *Drosophila ananassae*	Dros. Info. Serve. 95	2012	International
38	Krishna, M.S., S.C. Jayaramu, and H.L. Venkatesh	Female size does not determine ovariole number in *Drosophila*	Dros. Info. Serve. 95	2012	International
39	Krishna, M.S., S.C. Jayaramu and M.Prathibha	Importance of non genetic factor (male age) in mating success of *Drosophila bipectinata*	Dros. Info. Serve. 95	2012	International
40	Krishna, M.S., S.C. Jayaramu and M.Prathibha	Inversion polymorphism in a few south Indian populations of *Drosophila ananassae*	Dros. Info. Serve. 95	2012	International
41	Krishna, M.S., S.C. Jayaramu and M.Prathibha	Role of inversion system on morphometric and fitness traits in *Drosophila ananassae*	Dros. Info. Serve. 95	2012	International
42	K. Somashekar and M.S. Krishna	Mother‟s age influence on son‟s fitness traits in *Drosophila bipectinata*	National J. Life Sci.	2012 (Referred Journal)	National
2012-13					
43	Santhosh H T and Krishna M S	Relationship between male age, accessory gland, sperm transferred, and fitness traits in *Drosophila bipectinata*	J. Insect Sci. 13:	2013 (Referred Journal)	International
44	Koushik P and Krishna M S	Biodiversity of *Drosophila* in three different altitudes of Brahmagiri Wildlife Sanctuary, Western Ghats	J. Entomol. and Nematol. 5(4):	2013 (Referred Journal)	International
45	M.S. Krishna	Evidence of selective mating in *D. malerkotliana* : greater reproductive success of wild flies than Spw mutant.	Drosophila Information Service Vol. 96,	2013	International
46	Uchenna M.W and Krishna M.S	The effect of pyrogallol on the pre-adult fitness of *Drosophila bipectinata*.	Drosophila Information Service Vol. 96	2013	International
47	Uchenna M.W and Krishna M.S	The effect of pyrogallol on the resistance to starvation in *Drosophila bipectinata*.	Drosophila Information Service Vol. 96,	2013	International
48	Prathibha M, Jayaramu S C	Male age influence on mating activities of monomorphic and	Droso. Info. Serve.	2013	International

	and Krishna M.S	polymorphic strains of *Drosophila ananassae*.	96.		
2013-14					
50	Abol Hassan Rezaei and Krishna M.S	Age effect of male on male mating ability and progeny production in *D. melanogaster*	New York Sci. J. 7(1):	2014 (Referred Journal)	International
51	Abol Hassan Rezaei and Krishna M.S	Male age effect on male fitness is independent of rearing temperatures in D.melanogaster	Nature and Sci. 12(2):	2014 (Referred Journal)	International
52	Latha M and Krishna M. S	Male age effect on male remating and fitness in Phorticellastriata	American J. Biosci. and Bioeng. 2(1):	2014 (Referred Journal)	National
53	Shivkumar P and Krishna M S	Evidence of female preference for middle aged male in Drosophila malerkotliana	International J. Current Res. 6 (3):	2014 (Referred Journal)	National
54	Latha M and Krishna M. S	Age based female mate preference in Phorticellastriata	International J. Current Res. 6 (1):	2014 (Referred Journal)	National
55	Shivkumar P and Krishna M S	Male age influence on male remating and progeny production in *D. malerkotliana*	American J. Biosci. 2(3):95-101.	2014 (Referred Journal)	International
56	Koushik P and Krishna M S	Short term sub lethal temperature treatment increases starvation Resistance in *D. melanogaster*	J. Entomol. and Zoology Studies. 2 (2): 163-170	2014 (Referred Journal)	National
2014-15					
57	Vijay Kumar B R and Krishna M.S.	Evidence for male mate choice for female age in *D. nasuta*	American J. Biosci. 2 (4): 157-164	2014 (Referred Journal)	International
58	Abolhasan Rezaei, MS Krishna & H T. Santhosh	Male Age Affects Female Mate Preference, Quantity of Accessory Gland Proteins, and Sperm Traits and Female Fitness in *D. melanogaster*	Zoological Science 32(1):16-24.	2015 (Referred Journal)	International
59	Abolhasan Rezaei, M. S. Krishna., S. C. Jayaramu	Age related changes in male accessory gland and female fitness are independent of rearing temperatures in *D. melanogaster*	Nature and Sci. 13(1):	2015 (Referred Journal)	International
60	Abolhasan	Trans generational effects of	New York Sci. J.	2015	

	Rezaei, M. S. Krishna	male age on son‟s mating success, Acps and sperm traits in *D. melanogaster*	8(1):	(Referred Journal)	International
61	Prathibha M, Jayaramu S C and Krishna M.S	Male age effects on fitness are independent of inversion system in *Drosophila ananassae* (Diptera: Drosophilidae).	Droso.Info. Serve. 97.	2015	International
62	Savin, P., N. Prashanth, and M.S. Krishna	Biodiversity of Drosophilidae in Biligiriranga Hills wildlife sanctuary	Droso. Info. Serve. 97.	2015	International
63	M.S. Krishna	Effect of nutritional regime on reproductive performance in Phorticellastraiata	Droso. Info. Serve. 97	2015	International
2015-16					
64	M.S. Krishna	Organically grown banana fruit effects on reproductive fitness of *Phorticella straiata*	Droso. Info. Serve. 97.	2015	International
65	M.S. Krishna	Age based male mate preference in *Phorticella straita*	Droso. Info. Serve. 97.	2015	International
66	Wafa Faroki and M.S. Krishna	Organically grown fruits‟ effect on reproductive fitness of *Drosophila melanogaster*	Cancer Biol. 4(4):	2015 (Referred Journal)	International
67	M. S. Geetha. And M. S. Krishna	Effect of organic fruits (chikku and watermelon) on pre adult fitness in *Drosophila melanogaster.*).	Cancer Biol. 5(2):	2015 (Referred Journal)	International
68	Alwyn D‟souza and Krishna, M. S.	Effect of Energy Drinks‟ (Synthetic and Natural) on locomotor activity of *D.melanogaster*	International J. Current Res. in Life Sci.4(7): 252-255 (July, 2015)	2015 (Referred Journal)	National
69	Alwyn D‟souza and Krishna, M.S	Energy Drinks‟ effect on Pre Adult development of *Drosophila melanogaster*	Cancer Biol. 5(2):	2015 referred journal	International
70	Alwyn D‟souza and Krishna, M.S	Effect of energy drinks on resistance to starvation of *Drosophila melanogaster*	*International Journal of Current Research Vol. 7, Issue, 06, pp.17234-17239, June, 2015*	2015 referred journal	National

71	Neethu Raj and M S Krishna	Biodiversity of drosophila in three different regions of karapuzhadam,waynad district, kerala (western ghats)	*International Journal of Recent Scientific Research Vol. 6, Issue, 6, pp.4491-4494, June, 2015*	2015 referred journal	National
72	Savin Prakash. V. and M. S. Krishna	Effect of organic fruits (banana and papaya) on locomotor ability and resistance to eitherizatoin in *Drosophila melanogaster*	*International Journal of Recent Scientific Research Vol. 6, Issue, 6, pp.4656-4660, June, 2015*	2015 referred journal	National
73	SanthosH.T.and Krishna, M. S.	Effect of rearing temperature on offspring fitness in of *Drosophila bipectinata*	Asian Journal of Biological and Life Sciences	2015 referred journal	National
74	Deepak D and M S Krishna	Effect of chronic exposure of monosodium glutamate (msg) on viability and rate of feeding in two different strains of *Drosophila melanogaster*	I *International Jou* *Vol. 6, Issue*nternat	n2015 referre onal Journal V	International d journal *al of I* of Recent Scien if l. 6, Issue, 6, p .

2016-17

75	Alwyn D"souza and Krishna, M.S	Effect of energy drinks(Natural and Synthetic) on ovariole number and body size of *Drosophila melanogaster*	*International Journal of information Research and review*	2016 referred journal	International
76	Alwyn D"souza and Krishna, M.S	Effect of energy drinks" (natural and synthetic) on lifespan of *D.melanogaster.*	*International Journal of Current ResearchVol. 9, Issue, 12,*	2017 referred journal	International

2017-18

77	Cleona Alexander and *M. S. Krishna	**.Effect of avocado and yogurt on pupal behavior of*drosophila melanogaster*..**	*Ann. Entomol*., 36 (01) : 19-25 .	2018 referred journal	International
78	Cleona	Effect of avocado and yogurt	*Ann. Entomol*., 36	2018	International

	Alexander and *M. S. Krishna	on pre-adultdevelopment of *drosophila melanogaster**...**	(01) : 51-59 . .	referred journal	
79	Charles Sylvester; M S Krishna , J S Rao and A Chandrasekar.	.Allele frequencies of mitochondrial DNA HVR III 514-524 (CA)n dinucleotide repeats in Urali Kuruman tribal population of South India**.**	Egyptian Journal of Forensic Sciences.Springer publication . .	2018 referred journal	International
80	Charles Sylvester; M S Krishna	Neolithic phylogenetic continuity inferred from complete mitochondrial DNA sequences in a tribal population of Southern India	*Genetica. An International Journal of Genetics and Evolution*. DOI 10.1007/s10709-018-0030-2.Springer Nature group . .	2018 referred journal	International
81	H.R. Harshavardhana and M. S. Krishna	Inter relationship between aging , oxidativestress and male reproductive fitness in*drosophila melanogaster*	***Ann. Entomol.,*** 36 (02) : 129-140	2018 referred journal	International
2018-19					
82	**H.**R. Harshavardhana and M. S. Krishna	.Protective role of leaf extract on high sucrose diet-induced diabetic Gymnema sylvestrelike phenotype, oxidative stress, reproductive fitness and longevity in Drosophilamelanogaster.	***Asian Journal of Pharmacy and Pharmacology*** 2019; 5(3):	2019 referred journal	International
83	Charles Sylvester; M S Krishna , J S Rao and A Chandrasekar	.Maternal Genetic link of a South Dravidian tribe with native Iranians indicating bidirectional migration *ster*	Annals of Human Biology.London(Accepted)	2019referred journal	International

84	Amrutha .M.R and Krishna M.S	. Synthetic energy drink(BURN)effects on life span of *Drosophila melanogaster*	International Journal of Scientific Research and Review vol8,(2))	2019 referred journal	International

85	Amrutha .M.R and Krishna M.S	Synthetic energy drink(BURN)effects onmale mating ability and progeny production in *Drosophila melanogaster*	International Journal of Scientific Research and Review vol8,(2))	2019 referred journal	International

Book articles

33. 2000 Hegde, S.N., V. Vasudev and M.S. Krishna
Biodiversity of Drosophila of South India.
Trends in wild life Biodiversity conservation
And management by B. B. Hosetti and M.Venkateshwaralu
Vol. II, 55-73

Conferences/seminars attended

01 1993 Krishna, M.S. and S.N. Hegde
Effect of larval density of locomotors activity and mating
Success in two species of *Drosophila bipectinata* complex. II Drosophila meeting, P.24, Organized by Drosophila Stock Center Department of Zoology, University of Mysore , Manasagangothri Mysore.

02 1995 Krishna,M.S. and H.N. Hegde,
The effect of bottlenecks on incipient sexual isolation,
Mating speed and fertility in *Drosophila malerkotliana*,
III Drosophila meting, P.25, Organized by Drosophila Stock Center Department of Zoology, University of Mysore, Manasagangothri Mysore,

o3 1997 Hegde S.N. and M.S. Krishna
Evidence for non-random mating in *Drosophila*
Malerkotliana: High reproductive success of large males and females. IV Drosophila meeting, C6, Organized by Drosophila Stock Center Department of Zoology, University of Mysore, Manasagangotri, Mysore.

04 2000 Hegde S.N. and M.S. Krishna

Size-assortative mating in *Drosophila malerkotliana* II. 4th International / 16th National Symposium on Recent trends in life sciences. Sponsored by CSIR New Delhi and University of Kerala, Trivandrum.

05 2000 Krishna M.S. and S.N. Hegde
Bottleneck effect on sexual isolation, mating activities and fitness in *Drosophila malerkotliana* 4thIntrnational/16th National Symposium ion recent trends in life sciences. Sponsored by CSIR New Delhi and University of Kerala, Trivandrum

06 2001 Krishna M.S, and S.N. Hegde
Role of male back wing patch in courtship, mating and reproductive success in *Drosophila rajasekari*. National symposium on "Recent trends in life sciences and Biotechnology" Nov. 20th –22nd 2001. Organized by Indian Society of Life Sciences at Department of Life Sciences and Bio-Technology, University of Mumbai.

07 2007. B.R. Guru Prasad , S.N. Hegde and M.S. Krishna
Clinal variation in morphometric traits in *D..malerkotliana* of Chamundi Hill. National symposium on "Recent trends in Zoology"Sept 26th-28th 2007. Organised by Department Zoology. P.E.S. College, University of Bangalore.

08 2009 M.S.Krishna
National Conference on Recent Trends in Animal Physiology.Organized by Dept. of Zoology. Univ. of Mysore.

09 2009 Somashekar. K and M.S. Krishna
Male age influence on offspring qualities in *Drosophila bipectinata* organized by University of Mumbai, Bordi, Mumbai.

10 2009 Somashekar. K and M.S. Krishna
Evidence for male preference for middle age female in Drosophila bipectinata. Organized by University of Behrampur, Behrampur, Orissa.

11 2010 Prathibha M and M.S. Krishna
Greater mating success of middle aged females in *Drosophila ananassae.* Sixth Drosophila meeting, University of Mysore, Mysore

12 2011 Santhosh H.T and M.S. Krishna
Male age influence on offspring qualities is independent of larval rearing densities in *Drosophila bipectinata*
International symposium on endocrine and reproductive health, university of Mysore, Mysore

13 2012 Santhosh H.T and M.S. Krishna
Positive relation between male age and son‟s fitness traits in *Drosophila bipectinata*
National seminar on Advances in Zoology and Life processes, Goa University, Goa

14	2012	Shivakumar P., M.S. Krishna and Santhosh H.T Greater reproductive success of females mated to old age males in *Drosophilamalerkotliana* National seminar on Advances in Zoology and Life processes, Goa University, Goa
15	2012	Santhosh H.T., M.S. Krishna and S.N. Hegde Evidence of old age advantage in *Drosophila bipectinata* International conference on Entomology, Punjabi University, Patiala, Punjab.
16	2013	Koushik P and Krishna M S Biodiversity of *Drosophila* of western ghats (Coorg district) of Karnataka, India. Western ghats, biogeography and conservation. *Calicut University*
17	2014	Shivakumar P and Krishna M S Evidence of age based female mate preference in *Drosophila malerkotliana.* National Symposium on Innovations in Science and Technology for Inclusive Development. University of Mysore. Mysore
18	2014	Santhosh H T and Krishna M S Male age effects on accessory glands and sperm traits in *Drosophila bipectinata.* National Symposium on Innovations in Science and Technology for Inclusive Development. University of Mysore. Mysore
19	2014	santhosh H T and Krishna M S Male age influence on qualitative and quantitative analysis of accessory gland and sperm traits in *Drosophila bipectinata.* KSTA- Regional Conference on 'Science and Technology for Education and Health Care. JSS college, Mysore
20	2014	shivakumar P and Krishna M S Female preference for middle aged male in *Drosophila malerkotliana.* KSTA-Regional Conference on 'Science and Technology for Education and Health Care. JSS college, Mysore
21	*2014*	Latha M and Krishna M S Male age influence on qualitative and quantitative analysis of accessory gland and sperm traits in *Drosophila bipectinata.* KSTA- Regional Conference on 'Science and Technology for Education and Health Care. JSS college, Mysore
22	2015	Seminar (Two days) "Benefits on nuclear and material sciences in day to day life (BNMS – 2015) on 21st and 22nd Aug 2015. Organizedat RaniBahadur Auditorium, Mysore.

23 2015 UGC sponsored one day National seminar -2015. “Boon and curse of Biotechnology” on 27th. Organized by Bharathicollege, Bharathinagar, Mandya dist., Karnataka.

24 2017 UGC- Sponsored State level conference on Frontiers in Life Science” Government Science College, Hassan on 28th March 2017

25 2017 UGC- Sponsored National Conference on “ Recent Advances in Aquaculture” Organized by Post graduate, Department of Applied Zoology and Department of Zoology, from 30th and 31st March, 2017

26 2017 Science Academy Lecture Workshop on “ Current Trends in Biological Science” Organized by Institution of Excellence, from April 27th-28th 2017

27 2017 One- Day National Conference “Biology of Microbes: Evolution along Technology” held on 25th April 2017 at JSS University, Mysuru, India

28 2018 Worked as Organizing Secretaries “Teaching and Learning Biology with *Drosophila”* Department of Studies in Zoology, Manasagangotri. Date; 26-02-2018

29 2018 Worked as resource person in National Workshop and Hands on training on “ Teaching and Learning Biology with *Drosophila”* Department of studies in Zoology, Manasagangotri, from 26th – 28thFebruary 2018

Refresher/orientation courses/one week short term courses attended

012007**Orientation program in Life Science Organized** by UGC
Academic staff College, University of Mysore (3rd to 30th May 2007)

02 2010 **Refresher course in life sciences organized by UGC**
academic staff college, BangaloreUniversity (15th February to 8th March 2010)

03 2013 **8th refresher course in Life sciences organized by UGC** Academic Staff College, UOM, Mysore from 12-2-13 to 4-3-13

04 2014 Refresher course on "Life Sciences (Zoology) from 21st Jan 2014 to 14th Feb 2014. Organized by UGC Grants Commission at Academic Staff College, UOM, Mysore..

05 2015 One week short term course on media and human rights (30th Sep **2015 to 06th Oct 2015) Conducted** at: UOM, UGC-Human resource development centre.

06 2015 one week workshop on NMR conducted at IOC,UOM,MYSORE

072017 UGC- Sponsored one week workshop on ICT from 7-13 March 2017 **Conducted** at: UOM, UGC-Human resource development centre.

08 2017Eight days National training on "Application and trouble shooting of Scientific Equipment" Organized by Institution of Excellence, from 01 to 08 December 2017

09 2018 UGC- Sponsored one week short term course on „Gender Sensitization" From 14-12-2018 to 20-12-2018 Conducted at: UOM, UGC-Human resource development centre.

10 2018 UGC- Sponsored Refresher Course in the subject " Basic Sciences(Zoology)" Department of studies in Zoology, Manasagangotri, from 08-03-2018 to 28-03-2018 Conducted at: UOM, UGC-Human resource development centre.

Candidate Involved in Following Orientation Courses/Drosophila meetings /Refresher Courses Conducted by the Drosophila Stock Center

Department of Studies in Zoology and academic stuff college, UOM

Sl. No.	Date	Orientation Courses
1	24th to 29th May, 1993	1st Orientation Course on Cytogenetics of Drosophila
2	21st to 29th March, 1994	2nd Orientation Course on Cytogenetics of Drosophila
3	19th to 24th February, 1996	3rd Orientation Course on Cytogenetics of Drosophila
4	1st to 6th March, 1997	4th Orientation Course on Cytogenetics of Drosophila

Sl. No.	Date	Drosophila Meetings
1	6th to 7th March, 1992	1st Drosophila meeting
2	5th to 6th Aug. 1993	2nd Drosophila meeting
3	17th to 18th March, 1995	3rd Drosophila meeting
4	21st to 22nd March 1997	4th Drosophila meeting

Sl. No.	Date	Refresher Course
1	10th to 22nd Sep. 2001	Genetics and Evolution
2	December, 2003	Orientation Course in Life Science Organized by UGC Academic staff College, UOM
3	10th to 22nd July 2006	Refresher Course on Phylogenetic Biology at University of Mysore