

CHAPTER 64

ZOOLOGY

Doctoral Theses

686. DHAL (Manas Kumar)
Assessment of Compatibility of Egg Parasitoid Trichogramma Chilonis Ishii with Irradiation Induced F₁ Sterility Technique Towards Management of Noctuid Pest, Spodoptera Litura (Fabricius).
Supervisor : Prof. R. K. Seth
Th 20189

Contents

1. Review of literature. 2. Materials and methods. 3. Locomotor behaviour of egg parasitoid trichogramma chilonis in interaction with F₁ sterility technique. 4. Bioefficacy of egg parasitoid trichogramma chilonis in interaction with F₁ sterility technique. 5. Discussion and conclusion. 6. Summary. References.

687. GOURI
Role of Heme oxygenase 1 in Rodent Embryogenesis.
Supervisor : Dr. Sharmila Basu-Modak
Th 20180

Contents

1. Introduction. 2. Materials and Methods. 3. Establishment of Hmox1 gene-targeted mouse colony. 4. Phenotype analysis during mouse embryogenesis. 5. Investigation into the cause of prenatal lethality. 6. General Discussion. Bibliography.

688. LUNI
Cytoplasmic Reorganization and Hydration in the Oocytes of the African Catfish, Clarias Gariepinus, During Meiotic Resumption.
Supervisor : Dr. Neeta Sehgal
Th 20181

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1. Review of literature. 2. Introduction. 3. Materials and methods. 4. Results. 5. Discussion. Summary. References.

689. MADHU
Biodegradation of Edosulfan and its Induced Alteration in Bacterial Protein Profile and Total RNA Yield.
 Supervisor : Dr. Dileep Kumar Singh
Th 20177

Contents

1. Introduction. 2. Review of literature. 3. Isolation and identification of endosulfan degrading bacteria and effects of environmental parameters on endosulfan biodegradation. 4. Endosulfan degradation in soil and its effects on soil microbial diversity. 5. Endosulfan induced alteration in bacterial protein profile and total RNA yield. 6. Summary. Bibliography.

690. MAHTAB ZARIN
Bio-Efficacy of Gamma Radiation as Phytosanitary Treatment Against Mealybug Species of Quarantine Importance, Viz., Phenacoccus Solenopsis, Maconellicoccus Hirsutus and Paracoccus Marginatus.
 Supervisor : Prof. R. K. Seth
Th 20217

Contents

1. Review of literature. 2. Materials and methods. 3. Efficacy of gamma radiation as phyto-sanitary treatment against the solenopsis mealybug, phenacoccus solenopsis. 4. Efficacy of gamma radiation as phyto-sanitary treatment against the pink hibiscus mealybug, maconellicoccus hirsutus. 5. Efficacy of gamma radiation as phyto-sanitary treatment against the papaya mealybug, paracoccus marginatus. Summary. Conclusion. References.

691. MAYANGLAMBAM THOIBI DEVI
Biodegradation of Endosulfan by Pseudomonas species K2 and Klebsiella pneumoniae IW1 and Endosulfan Sulphate by Klebsiella pneumoniae IW1.
 Supervisor : Dr. D. K. Singh
Th 20178

Contents

1. Introduction. 2. Review of literature. 3. Materials and methodology. 4. Results. 5. Discussion. 6. summary. 7. References. 8. Publication.

692. PIPIL (Supriya)
Expression of Genes (vga, vgb, hsp, era) on Exposure to Estrogens and Characterization of Vitellogenin c in the Indian Freshwater Murrel, Channa Punctatus (Bloch).
Supervisor : Dr. Neeta Sehgal
Th 20262

Contents

1. Review of literature. 2. Introduction. 3. Materials and methods. 4. Results. 5. Discussion. Summary, references and publication.

693. POOJA DEOPA
Studies on Soil Bacterial Diversity of Himachal Pradesh Using 16S rDNA and nif H gene and soil enzyme activities.
Supervisor : Dr. D. K. Singh
Th 20179

Contents

1. Introduction. 2. Review of literature. 3. Methodology. 4. Results and discussion. Summary. Bibliography.

694. PUSHPA LATA
Comparative Metagenomic Analysis of Stressed Microbial communities Assembled Across Hexachlorocyclohexane (HCH) Contaminated Soil Gradients.
Supervisor : Prof. Rup Lal
Th 20184

Contents

1. Review of literature. 2. Material and methods. 3. Results. 4. Discussion. summary. References. Appendix.

695. SHARMA (Sonika)
Molecular Phylogeny and developmental profiles of the Heme Oxygenases.
Supervisor : Dr. Sharmila Basu-Modak
Th 20188

1. Introduction. 2. Molecular phylogeny of the Hmoxs. 3. Developmental profile of the Hmoxs. 4. Discussion. Bibliography.

696. SHILPA BHARTI
Role of Estrogen in Spermatogenesis : A Comparative Study Using a Mammalian and a Reptilian Model.
 Supervisors : Dr. M. M. Misro and Dr. Umesh Rai
Th 20187

Contents

1. Introduction and review of literature. 2. Materials and methods. 3. To study the effect of estrogen on spermatogenesis in Indian wall lizard, hemidactylus flaviviridis. 4. To find out the effects of estrogen induced modulation of expression of aromatase and other steroidogenic enzyme during hypospermatogenesis using a mammalian model. 5. To investigate a suitable and appropriate intervention to counteract the adverse effects on testicular function induced by estrogen administration. 6. Summary. Bibliography. Publications.

697. SINGH (Jasbir)
Ciliated Protists from Sikkim, a Biodiversity Hotspot; Descriptions of Some Ciliate Taxa with Phylogenetic Notes Using Classical and Molecular Methods.
 Supervisor : Dr. Komal Kamra
Th 20183

Contents

1. Systematics of ciliated protists with special emphasis on hypotrichous ciliates: a review. 2. Materials and methods. 3. Biodiversity of ciliated protists from sikkim. 4. Non-dorsomarginalian hypotricha. 5. Dorsomarginalian hypotricha. 6. Molecular phylogeny based on 18S rDNA sequences of selected hypotrichous ciliates from Sikkim. Concluding remarks. Bibliography.

698. SINGH (Shalini Thakur)
Analysis of the Bacterial Endosymbiont Diversity in Different Populations of Bemisia Tabaci in India.
 Supervisor : Dr. Rajagopal Raman
Th 20261

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1. Review of literature. 2. Material and methods. 3. Results. 4. Discussion. Summary and references.

699. SOLANKI (Renu)
Isolation and Characterization of Actinomycetes and Analyses of Their Antimicrobial Potential.
 Supervisor : Dr. Monisha Khanna
Th 20182

Contents

1. Review of literature. 2. Materials and methods. 3. Results. 4. Discussion. References. Annexure.

700. SRIVASTAVA (Praveen Kumar)
Evaluation of Immunostimulatory and Disease Resistance Properties of an Indian Medicinal Plant Achyranthes Aspera in Carps.
 Supervisor : Prof. Rina Chakrabarti
Th 20186

Contents

1. Introduction. 2. Review of literature. 3. Materials and methods. 4. Results. 5. Discussion. 6. Summary and conclusion. References. Publications.

701. TARKESHWAR
Behavioural and Physiological Responses of Spilosoma obliqua (Walker) (Lepidoptera: Arcttidae) Towards Chinaberry, Melia azedarach (L.) (Meliaceae).
 Supervisor : Prof. A. K. Singh
Th 20185

Contents

1. Historical resume. 2. Materials and methods. 3. Effect of melia azedarach fruit extracts on the survival and development of spilosoma obliqua. 4. Effect of melia azedarach fruit extracts on the feeding behaviour of spilosoma obliqua larvae. 5. Effect of melia azedarach fruit extracts on the oviposition and larval orientation of spilosoma obliqua. Discussion. 6. Summary and references.

702. VERMA (Sudhir)
Studies on a Murine Model of Sepsis: Epigenetic Modifications of Histones in Systemically Inflamed / Septic Liver.
Supervisor : Prof. Madan Mohan Chaturvedi
Th 20215

Contents

1. Review of literature. 2. Establishment, optimization and characterization of a murine model of sepsis. 3. Epigenetic modifications of histones in systemically inflamed / septic liver. Conclusions and future perspectives. Summary.

703. ZUBEDA
Appraisal of Crucial Behavioural, Physiological and Biochemical Characteristics of Radio-Sterilized Lepidopteran pest, Spodoptera Litura (Fabr.) and its Progeny to Establish the Quality Traits for a Critical Evaluation of 'F₁ sterility technique' for pest suppression.
Supervisor : R. K. Seth
Th 20216

Contents

1. Review of literature. 2. Material and methods. 3. Behavioural characteristics associated with radiation induced inherited (F₁) sterility technique in spodoptera litura (FABR.). 4. Physiological characteristics associated with radiation induced inherited (F₁) sterility technique in spodoptera litura (FABR.). 5. Biochemical characteristics associated with radiation induced inherited (F₁) sterility technique in spodoptera litura (FABR.). Discussion. Summary. Conclusion and future perspectives. References.