

DEEPA JAISWAL, Ph.D.

Scientist – D
Freshwater Biology Regional Centre
Zoological Survey of India,
Plot 366/1,Attapur
Hyderabad,Telangana
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Research Interest

Freshwater faunal diversity and Conservation
Systematics of Insects with special reference to Aquatic Coleoptera and Hemiptera

PERSONAL DETAILS

Date of Birth : 22nd January,1972

Sex : Female

Nationality : Indian

Religion : Hinduism

Marital Status : Married

Permanent Address : H.No. 4-6-18/1/F,Vasudev Reddynagar,Hyderabad-500048

EDUCATION

Ph.D. in Zoology 1994 – 1998
Osmania University
Hyderabad

Title: Certain Physiobiochemical Studies in *Mus musculus* infected with *Heligmosomides polygyrus* and treated with Albendazole. Supervisor: Dr.Aruna Karemungikar, Dept.of Zoology, Osmania University.

Masters of Science in Zoology 1992 -1994
Osmania University, Hyderabad

Bachelor of Science in Biology 1989 – 1992
Osmania University, Hyderabad

PROFESSIONAL EXPERIENCES

RESEARCH

Scientist –D
Zoological Survey of India, Hyderabad, India 2015-Present

Survey, collection and identification and maintenance of zoological specimens; publication of research results; identification and advisory services; administrative work like O/C.Molecular lab, DDO, O/C. Technical.

Scientist-C

Zoological Survey of India, Hyderabad, India

2010-2015

Survey, collection and identification and maintenance of zoological specimens; publication of research results; identification and advisory services; administrative work like DDO, O/C. Technical, Stores *etc.*

Scientist-B

Zoological Survey of India, Hyderabad, India

2004-2010

Survey, collection and identification and maintenance of zoological specimens; publication of research results; identification and advisory services; administrative work like DDO, O/C. Technical, Library .

TEACHING

Lecturer in Zoology

1998-2004

Post Graduate College,Osmania University,Hyderabad

Lectures for MSc. Zoology, subjects *viz.*Animal Diversity, Fisheries & aquaculture, Histochemistry and Environmental Biology.Developed curriculum activities and coordinated the postgraduate students for 6 years in Zoology, and general Biology. Conducted laboratory experiments, seminars, and exams

TRAINING & COURSES

- Training on DNA Protocols at Paul Hebaut Centre for DNA Barcoding and Biodiversity Studies (PHCDBS), Aurangabad. From 14th to 18th December,2010
- “*Hands on Training on Molecular Taxonomy of Insects*” at Entomology Division, Indian Agricultural Research Institute, Pusa, New Delhi from 17-22nd October, 2011.
- Training in Genetic Analyser ABI 3730 sponsored by Invitrogen services & Labindia, Gurgaon for three days from 20th to 22nd June, 2012.
- An Inhouse training programme was conducted for officers and staff of FBRC, ZSI, on Molecular Techniques and Initiatives of DNA Barcoding from 16th -20th July, 2012.
- Training programme on “Service Matter” from 19th-23rd September,2016 at Institute of Government Accounts and Finance, Kolkata

KNOWLEDGE & SKILLS

- Aquatic bugs & beetles identification and preservation techniques
- DNA isolation, PCR, sequencing and molecular phylogenetic analysis
- Data analysis, presenting and publishing research in meetings and scientific journals
- Computer skills: Windows operating system, MS office Imaging techniques: Photography, photo editing, Adobe Photoshop

SCIENTIFIC PUBLICATIONS

- Rao, D.V., **Deepa, J.** and Chandrasekhar, S.V.A., and. **2016.** Faunal studies of Krishnaraja Sagar Reservoir, Karnataka w.s.r. to Zooplankton, Aquatic insects and Fishes. *Wetland Ecosystem Series*, 19:1-82+16 plates. (Pub.: Director, ZSI, Kolkata).
- Chandrasekhar, S.V.A., D.V.Rao and **Deepa, J.** **2016.** Faunistic Studies on Cumbum Lake, Prakasam District, Andhra Pradesh w.s.r. to Zooplankton, Aquatic Insects and Fishes. *Wetland Ecosystem Series*, 20:1-52 + 16 plates. (Pub.: Director, ZSI, Kolkata).
- **Deepa, J.** **2016.** Aquatic Hemiptera of Palair lake, Khammam district, A.P. *Wetland Ecosystem Series:18:* 37-48. (Pub.: Director, ZSI, Kolkata).
- **Deepa, J.** **2016.** Aquatic Coleoptera of Palair lake, Khammam district, A.P. *Wetland Ecosystem Series:18:* 49-62 (Pub.: Director, ZSI, Kolkata).
- **Deepa, J.** & Chandrasekhar, S.V.A **2016.** Mollusca: Palair lake, Khammam district, A.P. *Wetland Ecosystem Series: 18:* 69-76 (Pub.: Director, ZSI, Kolkata).
- Chandrasekhar, S.V.A & **Deepa, J.** **2016.** Ichthyofauna: Palair lake, Khammam district, A.P. *Wetland Ecosystem Series:18:* 77-90 (Pub.: Director, ZSI, Kolkata).
- **Deepa, J.** **2015.** Aquatic Entomofauna: Bug and Beetle diversity of Hyderabad. Published in M. Rawat et al. (eds.), *Aquatic Ecosystem: Biodiversity, Ecology and Conservation*, 101, DOI 10.1007/978-81-322-2178-4_8, © Springer India 2015
- **Deepa, J.** Chandra, K., Rao, C. A. N. and Ghosh, S. K. 2015. On a Collection of Aquatic Beetles (Coleoptera: Gyrinidae, Haliplidae, Noteridae, Dytiscidae, Hydrophilidae and Hydrochidae) of Madhya Pradesh, India. *Rec. Zool. Surv. India.* 114 (1): 89-103.
- **Deepa, J.** , Sravanthi Machina and S.K. Rehanuma Sulthana 2015. A preliminary study on Molecular phylogenetic analysis of aquatic beetles, *International Journal for Life Sciences and Educational Research*, Vol. 3(2), pp. 21 - 24, April – 2015 (E-ISSN : 2321-1229; P-ISSN : 2321-1180).
- Ghosh, S.K., Chandra, K. and **Deepa, J.** **2014.** Aquatic Beetles (Coleoptera) of Chhattisgarh, India. *Rec. Zool. Surv. India.* 114 (1): 105-110.
- **Deepa, J.** **2013.** Aquatic Insects of Hyderabad, *Records of Zoological Survey of India*, Occasional paper no. 350: 1-52. (Book)
- **Deepa, J.**, Karuthapandi & R. Sultana. **2013.** Aquatic Coleoptera from Durgam Cheruvu, Hyderabad. *International Journal of Applied Life Sciences*, Feb. 2013: Vol. 6(1): 145-148.
- **Deepa, J.** **2013.** . Aquatic Insects (Hemipter & Coleoptera) Faunistic and limnological studies on Wyra lake, Khammam district, Andhra Pradesh, *Wetland Ecosystem Series* 41-57
- SVA Chandrasekhar, CAN Rao & **Deepa J.** **2013** Introduction & Limnology Faunistic and limnological studies on Wyra lake, Khammam district, Andhra Pradesh, *Wetland Ecosystem Series* 16:1-26
- Bhargavi Srini Vasulu & **Deepa J.** **2013.** Insecta: Odonata Faunistic and limnological studies on Wyra lake, Khammam district, Andhra Pradesh, *Wetland Ecosystem Series* 16:59-68.
- C.A.N Rao , **Deepa J.** Mohd Hakeel & SVA Chandrasekar . **2013** Ichthyofauna: Faunistic and limnological studies on Wyra lake, Khammam district, Andhra Pradesh, *Wetland Ecosystem Series* 16:97-116
- Karuthapandi, M., D.V. Rao, B. Xavier Innocent and **J. Deepa.** **2013.** Zooplankton diversity and trophic status of Safilguda tank, Hyderabad. *Int. J. Adv. Lif. Sci.*, 6 (1): 44-50.

- Karuthapandi, M., D.V. Rao, B. Xavier Innocent and **J. Deepa**. 2013. *Cyclestheriabispoti* (Baird, 1859) from Bandam Kommu cheruvu, Medak District, Andhra Pradesh, India. *Int. J. Adv. Lif. Sci.*, 6 (1): 84-86.
- **Deepa J.** 2012. Role of aquatic insects as bio-monitors, Husain Sagar, Hyderabad, Biol. Forum, 4(1): 22-24.
- **Deepa, J.** 2012. 'A preliminary study on aquatic beetles of Ameenpur lake, Hyderabad' *Journal of Zoology ISSN: 2319-3883 Vol. 1(2) September-December, pp.36-40*
- Subramanian, K. and **Deepa, J.** 2012. Fauna of Ecosystems of India- Freshwater: 1-28. (Pub.: Director, ZSI, Kolkata).
- **Deepa, J.** & CAN Rao, 2011. "On Collections of aquatic and semiaquatic bugs and beetles of KBR National Park, Hyderabad, Andhra Pradesh" .*Bugs R All, Newsletter of the Invertebrate Conservation & Information Network of South Asia*, No. 17, March, 2011: 13-15.
- Rao, C.A.N., **Deepa, J.** & M.Hakeel 2011. Comparative account on ichthyofauna of Pocharam and Wyra lakes of Andhra Pradesh, India. *Journal of Threatened Taxa* 3(2): 1564-1566.
- Gopal Sharma, GB Chand, **Deepa J.** & Indu Sharma, 2011. Fish diversity of Chours of North Bihar. In, Faunal Diversity of Chours of North Bihar, Wetland Ecosystem Series, 14: 49-92.
- **Deepa, J.** & C.A.N. Rao. 2010. Aquatic Insects (Hemiptera & Coleoptera) pp 37-49, In *Limnological and faunal studies of Pocharam lake, Nizamabad-Medak district, A.P: Wetland Ecosystem Series 13*: 1-181, Ed. Director, Zoological Survey of India, Kolkata.
- Rao, C.A.N., & **Deepa, J.** 2010. Ichthyofauna of Pocharam lake, A.P. *Records Zoological Survey of India, Wetland Ecosystem series 13*: 77-100 Ed. Dir., Zool. Surv. India, Kolkata.
- **Deepa, J. et. al.** 2010. *Ichthyofauna* pp 145-158 In : Fauna of Ranthambore National Park, ZSI's Conservation Area Series, 43 ,1-255 , 2010, Ed. Director, Zoological Survey of India, Kolkata, India.
- **Deepa, J.** 2010. Checklist of Aquatic Coleoptera, (ZSI, e- publication, www.zsi.gov.in Sept. 2010).
- **Deepa, J. et. al.** 2009. Ichthyofauna, In: Fauna of Nalsarovar, Gujarat, *Wetland Ecosystem Series*, 11:113-128. Ed. Dir., Zool. Surv. India, Kolkata.
- **Deepa J.** and C.A. N. Rao 2007. Aquatic Hemiptera of Pocharam Lake, Andhra Pradesh. *Zoos' Print Journal* 22(12): 2937-2939.
- Sai, G.S.T, Aruna, K and **Deepa J.** 1997 "Use of Carbohydrate as Nutrient Medium for the development and survival of *Nippostrongylus Braziliensis* larvae in the Coprocultures. *Rivista di Parassitologia*. Vol. XIV (LVIII)-N.3:375-376.
- G.S.T. Sai, G.N. Johri, K. Aruna, **J. Deepa** . 1997. "Serum Lipid Values in Hamsters experimentally infected with *Ancylostoma Ceylanicum*" *Rivista di Parassitologia*. Vol. XIV (LVIII)-N.3:407-413.

Abstracts submitted in Seminars and Conference:

- **Deepa, J.** and S.K. Rehanuma Sulthana 2015. Preliminary studies on DNA Barcoding of freshwater Beetles, ZSI Patna Golden Jubilee Souvenir, Chapter XII: 78-85.

- **Deepa,J.** 2010.“Aquatic Insect collections from Nehru Zoological Park, Hyderabad”. *National Conference on Deccan Biodiversity*, Osmania University, Hyderabad, 2-3 December, 2010. Abstract no. 23 page: 41-43.
- **Deepa,J.** 2010 “Entomofaunal Decline and Ecosystem Imbalance”, *International Conference on Climate Change: Perspectives and System Approach*”,Osmania University, Hyderabad,9 -11Dec., 2010. Abstract no. 59, page: 82-83.
- **Deepa, J & S.Z.Siddiqi** , 2010 ‘Studies on aquatic Bugs of Lakes in Hyderabad’. *National Conference on Deccan Biodiversity*, Department of Zoology, Osmania University, Hyderabad, 2-3December, 2010., Abstract no. 25, page: 44-45.
- **Deepa, J. 2011.** Biomonitoring approach of Aquatic entomofaunal diversity, Hussain sagar lake, Hyderabad. ‘National Seminar on Biodiversity and Intangible Natural Heritage’ DRC, Jodhpur Abstract no.7, Pg.06. Published by DZSI, Kolkata.

CONFERENCES / SYMPOSIUMS

- Participated the Training programme on “Service Matter” from 19th-23rd September,2016 at Institute of Government Accounts and Finance, Kolkata
- Attended Seminar on TDS provisions on 29th Nov. 2016 at Income tax Towers,A.C.Guards, Hyderabad
- Attended the Departmental Screening committee at MoEF &CC, New Delhi from 13th-20th October, 2016.
- Attended Telangana State First Wildlife Board meeting on 5th December, 2016 at Secretariat, Hyderabad.
- Attended Board of Studies meeting at St. Ann’s Post Graduate College for Women, Hyderabad on 21st January, 2017.
- Participated in ‘Science expo’ organized by Ravindra Bharathi Matriculation School, Towlichoki, Hyderabad on 13-14th Feb. 2015
- Attended Hyderabad Metropolitan Development Authority meeting for preparing action plan on Conservation of fauna around Hussainsagar lake on 6th April, 2015.
- Attended meeting as a Member of Board of Studies at St.Ann’s College, Mehdipatnam, on 6th June,2015.
- Centenary Run & Foundation day Celebrations at Zoological Survey of India, Hyderabad on 1st July, 2016.
- Attended Board of Studies meeting as Board member (Zoology) at St.Ann’s College for Women, Mehdipatnam, and Hyderabad on 24th March, 2016.
- Attended the 2nd level training class for Presiding Officer for GHMC elections-2016, on 07-1-2016 and was appointed as PO for GHMC on 02-02-2016
- Attended Seminar on TDS provisions on 29th Nov. 2016 at Income tax Towers,A.C.Guards, Hyderabad
- Attended the Departmental Screening committee at MoEF &CC, New Delhi from 13th-20th October, 2016.

- Attended Telangana State First Wildlife Board meeting on 5th December, 2016 at Secretariat, Hyderabad.
- Attended Board of Studies meeting at St. Ann's Post Graduate College for Women, Hyderabad on 21st January, 2017.
- Attended Two day work shop on *Right to Information* for CPIO's, 29 – 30 March, 2010, at ISTM, New Delhi.
- Participated in the '*Programme on Creativity & Innovation in Research*', sponsored by DST at Administrative Staff College of India, Bella vista, Hyderabad from April, 26-07 May, 2010.
- Attended '*National Conference on Women and Science*' organized by Indian Women Scientist Association at Indian Institute of Chemical Technology (IICT), Hyderabad from 8th – 9th May, 2010.
- Participated in *National Conference on Deccan Biodiversity*, from 2 -3rd December, 2010 at Osmania University, Hyderabad and presented a paper on "*Aquatic Insect Collection from Nehru Zoological Park, Hyderabad*".
- Participated in *International Conference on Climate Change: Perspectives and System Approach*, 9-11th Dec., 2010 organized by Osmania University, Hyderabad and presented a paper on "Entomofaunal Decline and Ecosystem Imbalance.
- Participated in '*National conference on Biodiversity & Intangible Natural Heritage*' at jointly organized by NMNH and ZSI on 28th Sept. 2011 at ZSI, Jodhpur and presented a paper on "Role of Insects as Bioindicators".
- Attended "*Hands on Training on Molecular Taxonomy of Insects*" at Entomology Division, Indian Agricultural Research Institute, Pusa, New Delhi from 17-22nd October, 2011.
- Participated in Training programme on "Protocols involved in DNA Barcoding" under guidance of Dr. V.V. Ramamurthy, Principal Scientist IARI, New Delhi. (17-22nd October, 2011).
- Delivered a invited talk on "Wetlands and entomofaunal diversity" and "Freshwater Ecosystem" at Lotus National School, Attapur, Hyderabad on 15th February, 2011.
- Participated in International Biodiversity day organized by A.P. State Biodiversity Board, Hyderabad on 22nd May, 2011
- Participated in Workshop on 'Initiatives of DNA Barcoding' from 14-18th Dec. 2011 given by Dr. Suresh Naik, CCDB, Canada at Paul Hebert Center for DNA Barcoding studies, Aurangabad.
- Participated as a member of PAC Committee in the Programme Advisory Meeting for ZSI Regional Centre's South Zone meeting held at ZSI/SRC, Chennai. on 09th Jan. 2012.
- Delivered lecture on importance of Biodiversity on the occasion of International Day for Biological Diversity on 22nd May, 2012 in the office and conducted drawing competition to the students of Vijeta Vidyalayam, Hyderabad.
- An Inhouse training programme was conducted for officers and staff of FBRC, ZSI, which included three theory and two practical classes on Molecular Techniques and Initiatives of DNA Barcoding from 16th -20th July, 2012.
- Attended (COP11) Conference of Parties on Biological Diversity, Eleventh meeting from 1st -19th October, 2012 at Hyderabad International Convention Centre, Hyderabad.
- Attended International Conference on Natural History of Indian Biodiversity from 4-5th October, 2012 at Salarjung Museum, Hyderabad and other side events of COP-11.

- Underwent training in Genetic analyser ABI 3730 sponsored by Invitrogen services & Labindia, Gurgaon for three days from 20th to 22nd June, 2012.
- Attended Brainstorming session on DNA Barcoding at Mumbai on 27th October, 2012.
- Attended Programme and Advisory committee meeting, Southern Zone at ZSI, SRC, Chennai on 29th January 2013.
- Delivered lecture on Aquatic insects of Hyderabad, its collection and preservation to students of St. Ann's College for Women, Mehdipatnam, Hyderabad on 27th November, 2013.
- Underwent training on "Initiatives of DNA Barcoding" at IARI, New Delhi from 17th - 22nd October, 2011. in Aurangabad.
- Underwent training on DNA Protocols at Paul Hebert Centre for DNA Barcoding and Biodiversity Studies (PHCDBS), Aurangabad. From 14th to 18th December.

RESEARCH PROJECTS

Research Project:

- Faunistic and Limnological studies of Pocharam lake, Medak district, April, 2005-March, 2008)(PI): Project completed and book published.
- Taxonomic and ecological studies of Aquatic Insects of Hyderabad (PI): Project completed and manuscript published. April, 2007-March, 2010 Project completed and book published.
- Faunistic and Limnological studies of Palair lake, Khammam district, April, 2010-March, 2013) (PI): Project completed and book published.
- Faunistic & Limnological studies on Wyr lake, Khammam, A.P April, 2010-March, 2013) (PI): Three research papers submitted on Aquatic insects, Odonates and Ichthyofauna. Manuscript published.
- Aquatic coleoptera of India *msr* to molecular characterization of Dytiscidae (April, 2012-March, 2016)-Principal Investigator: 24 monthly local tours conducted to various water bodies of Hyderabad and collected 975 insect specimens.
- Studies on the hydrobiology and faunal diversity of Cumbum Lake, Prakasam District, A.P. *msr.* to Plankton, aquatic insects, molluscs and Ichthyofauna(Co-Investigator) Manuscript published
- Studies on the hydrobiology and faunal diversity of Krishnaraja Sagar, Mandya Dist., Karnataka *msr* plankton, aquatic insects, molluscs and Ichthyofauna. (Co-P.Investigator) Manuscript published.
- Macro-invertebrate faunal diversity of Gobind Sagar reservoir, Himachal Pradesh. (Co-P.Investigator).
- Faunistic and Limnological studies of Bhoj Wetland, Madhya Pradesh, April, 2015-March, 2018.

- Faunistic studies of Sasthamkotta lake, Kerala , April, 2016-March, 2019.

ADMINISTRATIVE EXPERIENCE

- Officer In charge of the Centre from 2017 onwards.
- Attended to duties of Drawing and Disbursing Officer, Technical Section, O/C.Stores, Library. DNA laboratory, Official language Implementation *etc* from 2004-2017

PROFESSIONAL SERVICES

- Reviewer: Records of ZSI,Kolkata, International Journal of Applied Life Sciences, Journal of Zoology, Hydrobiologia,
 - Member of Indian Women Scientist Association, Hyderabad Chapter, Southern Division, Hyderabad.
 - PhD Supervisor,Osmania University, Hyderabad
 - Ph.D. Thesis Evaluated : Evaluated Ph.D. thesis from Aurangabad University.
 - Rendering identification and advisory services on Identification of aquatic bugs and beetles and also DNA Barcoding facilities are provided to Research scholar from various universities and Institutions
 - Training Programmes Organized: Two days Hands on Training programme on DNA Barcoding Protocols and Applications organized at FBRC,ZSI,Hyderabad from 4-5th Januray,2018.
 - EIA Studies undertaken : Effect of Industrial effluents on aquatic fauna of Godavari river at Bhadrachalam, February,2018
-