

**CURRICULUM VITAE**  
(updated on 26 August 2016)

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**Nationality** Indian  
**Date of Birth** 28<sup>th</sup> June 1953  
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**Current Position**

- Professor, Centre for Ecological Sciences, Indian Institute of Science, Bangalore, India.
- President, Indian National Science Academy, New Delhi.
- Chairman, Centre for Contemporary Studies, Indian Institute of Science, Bangalore, India.
- Honorary Professor, Evolutionary & Organismal Biology Unit, Jawaharlal Nehru Centre for Advanced Scientific Research, Jakkur, Bangalore, India.
- Non-Resident Permanent Fellow, Wissenschaftskolleg (Institute for Advanced Study) zu Berlin, Germany.
- Honorary Professor, Indian Institute of Science Education and Research, Mohali, India
- Visiting Professor, Central University of Punjab, Bathinda.

**Educational Career**

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| B.Sc. (Hons.) Zoology | 1972 | Bangalore University, Bangalore   |
| M.Sc. Zoology         | 1974 | Bangalore University, Bangalore   |
| Ph.D.                 | 1979 | Indian Institute of Science, Bangalore<br>Title: <i>Physiological and Biochemical Studies on Mycobacteriophage I3</i> |
| D.Sc. (hc)            | 2015 | University of Burdwan, West Bengal  |

**Positions held since obtaining Ph.D.**

26. Honorary Professor, Indian Institute of Science, Bangalore, August 2018- July 2023.

25. Visiting Professor, Central University of Punjab, Bathinda, May 2015 – April 2017.
24. Honorary Professor, Indian Institute of Science Education & Research (IISER), Mohali, August 2013 – present.
23. Honorary Professor, Indian Institute of Science Education & Research (IISER), Kolkata, May 2010 - July 2015.
22. INSA S.N. Bose Research Professorship, January 2010 – December 2014.
21. JC Bose National Fellowship, Department of Science & Technology, Government of India, June 2006- May 2016.
20. Vice-President, Entomology Academy of India, Chennai, 2007-2010.
19. Adjunct Professor, Indian Institute of Science Education & Research (IISER), Kolkata, December 2006 – April 2010.
18. Chairman, Centre for Contemporary Studies, Indian Institute of Science, Bangalore, June 2004 - present.
17. Vice-President, Indian National Science Academy, New Delhi, 2003-2005.
16. Non-Resident Permanent Fellow, Wissenschaftskolleg (Institute for Advanced Study) zu Berlin, 2002-2017.
15. Honorary Professor, Jawaharlal Nehru Centre for Advanced Scientific Research, Jakkur Campus, Bangalore, India, 1998 –2017.
14. Professor, Centre for Ecological Sciences, Indian Institute of Science, Bangalore, India, 1997 - present.
13. Visiting Faculty Member, Manipal Academy of Higher Education, 1997 – 2002.
12. Secretary, Indian Academy of Sciences, Bangalore 1995 – 2000.
11. Honorary Senior Fellow, Jawaharlal Nehru Centre for Advanced Scientific Research, Bangalore, India, 1993 – 1998.
10. Chairman, Centre for Ecological Sciences, Indian Institute of Science, Bangalore, India, February 1992 – September 2002.
9. Associate Professor, Centre for Ecological Sciences, Indian Institute of Science, Bangalore, India, 1991 – 1997
8. Assistant Professor, Centre for Ecological Sciences, Indian Institute of Science, Bangalore, India, 1987 – 1991
7. Associate member, Centre for Theoretical Studies, Indian Institute of Science, Bangalore, India, 1987 - present
6. Lecturer, Centre for Ecological Sciences, Indian Institute of Science, Bangalore, India, 1984 – 1987
5. Senior Research Fellow – Centre for Theoretical Studies, Indian Institute of Science, Bangalore, India, 1983 - 1984
4. Visiting Scholar – Department of Entomology, University of Kansas, Lawrence, Kansas, USA, July - September 1982
3. Short-term Fellow – Smithsonian Tropical Research Institute, Panama, November 1980 - February 1981
2. Research Associate – Centre for Theoretical Studies, Indian Institute of Science, Bangalore, India, 1980 -1983

1. Research Officer - Centre for Theoretical Studies, Indian Institute of Science, Bangalore, India, 1979 - 1980

### **Awards, Fellowships and Honors**

40. Visiting Research Scholar, University of Exeter, UK, 19 June – 3 July 2016.
39. Cross of the Order of Merit of the Federal Republic of Germany – July 2015
38. A.V.Rama Rao Technology Award 2014, CSIR-Indian Institute of Chemical Technology, Hyderabad, India, June 2015.
37. Prof.N. Appaji Rao Best Mentor Award for the year 2014, IISc. Alumni Association (IIScAA), September 2014.
36. Sir M.Visvesvaraya Senior Scientist State Award, Government of Karnataka, 2011.
35. Member, German National Academy of Sciences Leopoldina, 2012.
34. Millennium Plaques of Honour, 2010, Indian Science Congress Association, Kolkata.
33. INSA S.N. Bose Research Professorship, January 2010 – December 2014.
32. H.K. Firodia Award 2008 for Excellence in Science & Technology, 2008.
31. Elected Foundation Fellow, Entomology Academy of India, Chennai, 2007.
30. Award of Jawaharlal Nehru Birth Centenary Visiting Fellowship – 2007 of the Indian National Science Academy, New Delhi.
29. JC Bose National Fellowship, Department of Science & Technology, Government of India, June 2006- May 2016.
28. Elected Foreign Associate, National Academy of Sciences, USA, 2006.
27. Member, Indian Delegation to participate in the meetings of the Inter-academy Panel held in Shanghai and the International Council for Science held in Suzhou, China, October 2005.
26. Prof. U.S.Srivastava Memorial Lecture Award of the National Academy of Sciences, India, 2005.
25. Prof. Rustum Choksi Award for Excellence in Research for Science for the Year 2004.
24. 2002 VASVIK Award - for contribution by way of research to Environmental Sciences & Technology, August 2004.
23. Swami Pranavananda Saraswathi Award in Environmental Science and Ecology for the year 2002, September 2004.
22. Distinguished Visiting Scholar, University of Pretoria, South Africa, July 2003.
21. Non-Resident Permanent Fellow, Wissenschaftskolleg (Institute for Advanced Study) zu Berlin, July 2002-2017.
20. Guest of the Rektor, Wissenschaftskolleg (Institute for Advanced Study) zu Berlin, Germany, October 2001- July 2002.
19. Elected Fellow, Third World Academy of Sciences, 2001.

18. Schering-Fellow, Wissenschaftskolleg (Institute for Advanced Study) zu Berlin, Germany, 2000-2001.
17. Third World Academy of Sciences Award in Biology, 1999
16. Elected Fellow, Indian Academy of Entomology, 1998
15. Elected Fellow, The National Academy of Sciences, India, 1995.
14. B.P.Pal National Environment Fellowship on Biodiversity, Ministry of Environment & Forests, Government of India, 1995-1997.
13. Shanti Swarup Bhatnagar Award in Biological Sciences, 1993.
12. Elected Fellow, Indian National Science Academy, 1993
11. Homi Bhabha Fellowship, November 1992 - October 1994
10. B.M.Birla Science Prize in Biology, 1991
9. Professor T.N.Ananthakrishnan Award, 1990-1991, October 1992.
8. Saraswathi Narayanan award for Biological Sciences, 1990-91
7. Elected Fellow, Indian Academy of Sciences, 1990
6. Certificate of appreciation as a young scientist, Lion's Club International at the Regional meet, Bangalore, India, December, 1987
5. Young Scientist Medal, Indian National Science Academy in Animal Sciences, 1985
4. Young Scientist Award in Biological Sciences, Karnataka Association for the Advancement of Science, 1984
3. Young Associate, Indian Academy of Sciences, 1984
2. Dr. A. Krishna Murthy Award for the best paper, Society of Biological Chemists, India, 1982
1. National Science Talent Scholarship- April, 1969.

## **Publications**

### **(A) Books**

2. **Gadagkar, R.** (2001). *The Social Biology of Ropalidia marginata: Toward Understanding the Evolution of Eusociality*. Harvard University Press, Cambridge, Massachusetts, USA.
1. **Gadagkar, R.** (1997). *Survival Strategies - Cooperation and Conflict in Animal Societies*. Harvard University Press, Cambridge, Massachusetts, USA and Universities Press, Hyderabad, India. (Complex) Chinese language edition, International Publishing Company Ltd., Taiwan (1999). Korean language edition, Purun Media Publishing Company (2001).

### **(B) Articles**

292. Gadagkar, R. (2016). A Review of - *The Most Perfect Thing: Inside (and Outside) a Bird's Egg* by Tim Birkhead, Bloomsbury, USA, 2016. *Proc. Indian Natn. Sci.*

- Acad., in press.*
291. Gadagkar, R. (2016). The 'pay-to-publish' model should be abolished. *Notes and Records: The Royal Society Journal of the History of Science, in press.* doi:10.1098/rsnr.2016.0039.
  290. Bang, A. and Gadagkar, R. (2016). Winner-loser effects in a eusocial wasp. *Insectes Sociaux*, 63, 349-352. doi:10.1007/s00040-015-0455-x.
  289. Olejarz, J. W., Allen, B., Veller, C., **Gadagkar, R.** and Nowak, M. A. (2016). Evolution of Worker Policing. *Journal of Theoretical Biology*, 399, 103-116. doi: <http://dx.doi.org/10.1016/j.jtbi.2016.03.001>
  288. Gadagkar, R. (2016). Evolution of social behaviour in the primitively eusocial wasp *Ropalidia marginata*: do we need to look beyond kin selection? *Phil. Trans. R. Soc. B.*, 271, 1-8. doi.org/10.1098/rstb.2015.0094
  287. Gadagkar, R. (2015). Referee Report For: Competition over guarding in the Arabian babbler (*Turdoides squamiceps*), a cooperative breeder (version 1; referees: 1 approved, 2 approved with reservations). *F1000Research*, 4, 618. doi: 10.5256/f1000research.7238.r11476.
  286. Gadagkar, R. (2015). The Family System of a Social Wasp. In: *The Family Emotional System – An Integrative Concept for theory, Science and Practice.* (Eds.) Noone,R.J. and Papero,D.V, Lexington Books, Boulder, pp.161-183.
  285. Mandal, S. and **Gadagkar, R.** (2015). Homing abilities of the tropical primitively eusocial paper wasp *Ropalidia marginata*. *Journal of Comparative Physiology A*, 201, 795-802. (doi: 10.1007/s00359-015-1019-2)
  284. Mitra, A., Netti, R. P., Ramachandran, A., Saha, P. and **Gadagkar, R.** (2015). Males and females of the social wasp *Ropalidia marginata* do not differ in their cuticular hydrocarbon profiles and do not seem to use any long-distance volatile mate attraction cues. *Insectes Sociaux*, 62, 281-289. doi:10.1007/s00040-015-0408-4
  283. McBean, G., Reddy, D., Lee, Y. T., Jinghai, L., Clegg, M., Black, D., Erasmus, B., Ball, J., **Gadagkar, R.**, Moreau, N., Tatsumi, K., de León, M., Buckeridge, J.; Altan, O. and de la Rey, C. (2015). International Council for Science Responds. *Nature*, 517, p.145.
  282. Ramaswamy, K. (2015).The Centre for Contemporary Studies [Interview with Prof. Raghavendra Gadagkar]. *Connect*, 2(1),15-19.
  281. Gadagkar, R. (2015). Solve local problems. *Nature*, 521, p.153. doi:10.1038/521151a
  280. Gadagkar, R. (2015). How Should Biologists Engage With Controversial Mathematical Theory? *Current Science*, 108, 1869-1873.
  279. Gadagkar, R. (2015) Cooperation. In: *Reference Module in Earth Systems and Environmental Sciences*, (ed.) J. Reedijk, Elsevier, Waltham, MA, pp.1-2.
  278. Roughgarden, J., Adkins-Regan, E., Akcay, E., Crawford, J. C., **Gadagkar, R.**, Griffith, S. C., Hinde, C., Hoquet, T., O'Connor, C., Prokop, Z. M., Prum, R. O., Shafir, S., Snow, S. S., Taylor, D., Van Cleve, J. and Weisberg, M. (2014). Sexual Selection Studies: A NESCent Catalyst Meeting. *Peerj Preprints*, 2: pp.e680v2. (doi.org/10.7287/peerj.preprints.680v2).
  277. Gadagkar, R. (2014). Role of Science, Technology and Innovation in Ensuring

- Sustainable Inclusive Development. *Proc. Indian Natn. Sci. Acad.* 80, 181-183.
276. Gadagkar, R. (2014). A Review of – *Randomness in Evolution* by J.T. Bonner, Princeton University Press, Princeton, New Jersey (2013). *Current Science*, 106, 9, 1312-1313.
275. Shukla, S., Pareek, V. and **Gadagkar, R.** (2014). Ovarian development in a primitively eusocial wasp: Social interactions affect behaviourally dominant and subordinate wasps in opposite directions relative to solitary females. *Behavioural Processes*, 106, 22-26. doi.org/10.1016/j.beproc.2014.04.003
274. Mitra, R., Ramachandran, A. and **Gadagkar, R.** (2014). Nestmate discrimination in the social wasp *Ropalidia marginata*: chemical cues and chemosensory mechanisms. *Animal Behaviour*, 88, 113-124. doi.org/10.1016/j.anbehav.2013.11.017
273. Mitra, A. and **Gadagkar, R.** (2014). The Dufour's gland and cuticle in the social wasp *Ropalidia marginata* contain the same hydrocarbons in similar proportions. *Journal of Insect Science*, 14 (9). <http://www.insectscience.org/14.9> doi: 10.1093/jis/14.1.9
272. Roughgarden, J., Adkins-Regan, E., Akcay, E., Alonso, S., Bailey, N., Crawford, J. C., Dall, S., Dhole, S., Fearon, J., Fitzpatrick, C., **Gadagkar, R.**, Griffith, S. C., Grossbard, S., Hinde, C., Hoquet, T., Iyer, P., Milam, E., O'Connor, C., Prokop, Z. M., Prum, R. O., Richardson, S., Ritchie, M., Rosvall, K., Rubenstein, D., Safran, R., Santos, G. R., Servedio, M., Shafir, S., Shuker, D., Shuster, S., Snow, S. S., Taylor, D., Van Cleve, J., Wade, M. and Weisberg, M. (2014). Sexual Selection Studies: Progress, Challenges, and Future Directions. Technical Report from a NESCent Catalyst Meeting, Durham, North Carolina, July 15-17, 2013.
271. Shukla, S., Shilpa, M. C. and **Gadagkar, R.** (2013). Virgin wasps develop ovaries on par with mated females, but lay fewer eggs. *Insectes Sociaux*, 60, 345-350. doi:10.1007/s00040-013-0299-1
270. Nandi, A. K., Bhadra, A., Sumana, A., Deshpande, S. A. and **Gadagkar, R.** (2013). The Evolution of Complexity in Social Organization – A Model Using Dominance-Subordinate Behavior in Two Social Wasp Species. *Journal of Theoretical Biology*, 327, 34-44. doi.org/10.1016/j.jtbi.2013.01.010
269. Shukla, S., Chandran, S. and **Gadagkar, R.** (2013). Ovarian developmental variation in the primitively eusocial wasp *Ropalidia marginata* suggests a gateway to worker ontogeny and the evolution of sociality. *Journal of Experimental Biology*, 216, 181-187. doi:10.1242/jeb.073148
268. Bang, A. and **Gadagkar, R.** (2012). Reproductive queue without conflict in the primitively eusocial wasp *Ropalidia marginata*. *Proc. Natl. Acad. Sci. USA*. 109, 14494-14499. doi: 10.1073/pnas.1212698109
267. **Gadagkar, R.** (2012). The Luxury of Introspection. In: *Über das Kolleg hinaus - Joachim Nettelbeck, dem Sekretär des Wissenschaftskollegs 1981 bis 2012 (Beyond the college - Joachim Nettelbeck, the Secretary of the Wissenschaftskollegs from 1981-2012)* (Eds.) Diawara, M.; Günther, K., and Meyer-Kalkus, R., Wissenschaftskolleg zu Berlin, Germany, pp. 152-157.
266. Mitra, A. and **Gadagkar, R.** (2012). Queens and Workers of the Primitively Eusocial Wasp *Ropalidia marginata* do not Differ in Their Dufour's Gland Morphology. *Sociobiology*, 59 (3), 875-884. (doi: 10.13102/sociobiology.v59i3.553)
265. Mitra, A. and **Gadagkar, R.** (2012). Road to Royalty – Transition of Potential

- Queen to Queen in the Primitively Eusocial Wasp *Ropalidia marginata*. *Ethology*, 118, 694-702. doi: 10.1111/j.1439-0310.2012.02059.x
264. Mitra, A. and **Gadagkar, R.** (2012). Queen signal should be honest to be involved in maintenance of eusociality: chemical correlates of fertility in *Ropalidia marginata*. *Insect. Soc.*, 59, 251-255. doi:10.1007/s00040-011-0214-6
263. Saha, P., Balasubramaniam, K. N., Kalyani, J. N., Supriya, K., Padmanabhan, A. and **Gadagkar, R.** (2012). Clinging to royalty: *Ropalidia marginata* queens can employ both pheromone and aggression. *Insect Soc.*, 59, 41-44. doi: 10.1007/s00040-011-0185-7
262. Shilpa, M. C., Sen, R., Samudre, S. and **Gadagkar, R.** (2012). Males, but not females, mate with multiple partners: a laboratory study of a primitively eusocial wasp *Ropalidia marginata*. *Insect. Soc.*, 59, 61-65. doi.org/10.1007/s00040-011-0188-4
261. **Gadagkar, R.** (2011). Reproduction: the almost forgotten currency of fitness. *Current Science*, 101, 725-726.
260. **Gadagkar, R.** (2011). Altruistic Wasps? *Science*, 333, 833-834. doi: 10.1126/science.1210420
259. Sen, R. and **Gadagkar, R.** (2011). Behavioural and morphological dimorphism of the sexes: an account of two primitively eusocial wasps. *Journal of Natural History*, 45, 1295-1309. doi: 10.1080/00222933.2011.552808
258. **Gadagkar, R.** (2011). The birth of ant genomics. *Proc. Natl. Acad. Sci, USA*, 108, 5477-5478. doi: 10.1073/pnas.1100765108
257. **Gadagkar, R.** (2011). Science as a hobby: how and why I came to study the social life of an Indian Primitively eusocial wasp. *Current Science*, 100, 845-858.
256. **Gadagkar, R.** (2011). War and Peace - Conflict & Cooperation in an Insect Society. *Science Reporter*, January, 8-12.
255. **Gadagkar, R.** (2011). What can we learn from insect societies? In: *Nature and Culture* (Eds.) R.Narasimha and S.Menon), Centre for Studies in Civilizations (CSC) and Project of History of Indian Science, Philosophy and Culture (PHSPC), New Delhi, Volume XIV, Part 1, pp.357-365.
254. Mitra, A. and **Gadagkar, R.** (2011). Can Dufour's gland compounds honestly signal fertility in the primitively eusocial wasp *Ropalidia marginata*? *Naturwissenschaften*, 98, 157-161. doi: 10.1007/s00114-010-0749-9
253. Mitra, A., Saha, P., Chaoulideer, M. E., Bhadra, A. and **Gadagkar, R.** (2011). Chemical communication in *Ropalidia marginata*: Dufour's gland contains queen signal that is perceived across colonies and does not contain colony signal. *Journal of Insect Physiology*, 57, 280-284. doi:10.1016/j.jinsphys.2010.11.014
252. **Gadagkar, R.** (2011). War and Peace: Conflict and Cooperation in a Tropical Insect Society. In: *Common Knowledge: The Challenge of Transdisciplinarity* (Eds.) Moira Cockell, Jérôme Billotte, Frédéric Darbellay, and Francis Waldvogel, EPFL Press, pp. 75-96.
251. **Gadagkar, R.** (2010). CSIR Foundation Day Lecture : War and Peace: Conflict and Cooperation in an Insect Society. *CSIR News*, 60, 221-224.
250. **Gadagkar, R.** (2010). Profile – In love with *Ropalidia marginata*: 34 years, and still going strong. In: *Social Behaviour – Genes, Ecology and Evolution* (Eds.) Székely, T., Moore, A.J. and Komdeur, J., Cambridge University Press, Cambridge,

- UK, pp.85-87. doi: 10.1017/CBO9780511781360.008
249. **Gadagkar, R.** (2010). Sociobiology in turmoil again. *Current Science*, 99 (8), 1036-1041.
248. Karnik, N., Channaveerappa, H., Ranganath, H. A. and **Gadagkar, R.** (2010). Karyotype instability in the ponerine ant genus *Diacamma*. *Journal of Genetics*, 89 (2), 173-182. doi: 10.1007/s12041-010-0023-0
247. **Gadagkar, R.** (2009). Foreword – *Satpada – Our World of Insects* by Thomas,R. and Iyer,G., Rishi Valley Education Centre, Krishnamurti Foundation India, Andhra Pradesh, pp.v-vi.
246. Shilpa, M. C., Sen, R. and **Gadagkar, R.** (2010). Nestmateship, body size and dominance do not influence mate choice in males and females: A laboratory study of a primitively eusocial wasp *Ropalidia marginata*. *Behavioural Processes*, 85, 42-46. doi: 10.1016/j.beproc.2010.06.004
245. **Gadagkar, R.** (2010). Foreword. *A Concise Field Guide to Indian Insects & Arachnids* by Meenakshi Venkataraman, Simova Education and Research, Madhavanagar, Bangalore, p. vi –vii.
244. **Gadagkar, R.** (2010). Ant, Bee and Wasp Social Evolution. In: *Encyclopedia of Animal Behaviour*, Volume 1, (Eds.) Breed,M. and Moore,J., Academic Press, Oxford, pp.73-81. doi: 10.1016/B978-0-08-045337-8.00346-6
243. Bhadra, A., Mitra, A., Deshpande, S. A., Chandrasekhar, K., Naik, D. G., Hefetz, A. and **Gadagkar, R.** (2010). Regulation of Reproduction in the Primitively Eusocial Wasp *Ropalidia marginata*: on the trail of the queen pheromone. *Journal of Chemical Ecology*, 36, 424-431. (doi: 10.1007/s10886-010-9770-x)
242. Sen, R. and **Gadagkar, R.** (2010). Natural history and behaviour of the primitively eusocial wasp *Ropalidia marginata* (Hymenoptera: Vespidae): a comparison of the two sexes. *Journal of Natural History*, 44, 959-968. doi: 10.1080/00222931003615703
241. Bang, A., Deshpande, S., Sumana, A. and **Gadagkar, R.** (2010). Choosing an appropriate index to construct dominance hierarchies in animal societies: A comparison of three indices. *Animal Behaviour*, 79, 631-636. doi: 10.1016/j.anbehav.2009.12.009
240. Sen, R., Samudre, S., Shilpa, M. C., Tarak, R. C. and **Gadagkar, R.** (2010). Middle aged wasps mate through most of the year, without regard to body size, ovarian development and nestmateship: a laboratory study of the primitively eusocial wasp *Ropalidia marginata*. *Insectes Sociaux*, 57, 95-103. doi: 10.1007/s00040-009-0054-9
239. **Gadagkar, R.** (2010). A Review of - *The Lives of Ants* by Laurent Keller and Élisabeth Gordon (Translated from French by James Grieve), Oxford University Press, Oxford, 2009. *Myrmecological News*, 13, 29-30.
238. **Gadagkar, R.** (2009). A Review of - *The Social Amoebae: The Biology of Cellular Slime Molds* by J.T.Bonner, Princeton University Press, Princeton (2009). *Current Science*, 97, 1675-1676.
237. **Gadagkar, R.** (2009). Open access does more harm than good when based on a 'pay to publish' business model. *Physiology News*, 75, p.46.
236. **Gadagkar, R.** (2009). In Praise of Organismal Biology, *Proceedings of the Platinum Jubilee of the Indian National Science Academy*, New Delhi, pp.37-41.
235. **Gadagkar, R.** (2009). Why are animals (and humans) nice to each other? In:



- Current Trends in Science – Platinum Jubilee Special*, (Ed.) N. Mukunda, Indian Academy of Sciences, Bangalore, pp.191-197.
234. Nagendra, H. and **Gadagkar, R.** (Guest Editors) (2009) (*Special Section – Science and Society*). In this issue - Society and Science: Interdisciplinary Exchanges, *Current Science*, 97, 1513-1514.
233. Johny, S., Charkaborty, S. **Gadagkar, R.** and Nagaraju, J. (2009). Polymorphic microsatellite loci for primitively eusocial wasp *Ropalidia marginata*. *Molecular Ecology Resources*, 9 (4) 1172-1175. doi: 10.1111/j.1755-0998-2009.02597.x
232. **Gadagkar, R.** (2009). Interrogating an Insect Society. *Proceedings of the National Academy of Sciences, USA*, 106, 10407-10414. doi: 10.1073/pnas.0904317106. [Reprinted in the year book 2008-2009, Wissenschaftskolleg zu Berlin].
231. Bhadra, A., Jordan, F., Sumana, A., Deshpande, S. A. and **Gadagkar, R.** (2009). A comparative social network analysis of wasp colonies and classrooms: linking network structure to functioning. *Ecological Complexity*, 6, 48-55. (doi: 10.1016/j.ecocom.2008.10.004)
230. Nagendra, H. and **Gadagkar, R.** (Guest Editors) Special Section: Society & Science – Interdisciplinary Exchanges. *Current Science*, Vol. 97, 10<sup>th</sup> December 2009.
229. **Gadagkar, R.** (2008). Open-access more harm than good in developing world. *Nature*, 453, p.450. doi: 10.1038/453450c
228. **Gadagkar, R.** (2008). What's happening at the Centre for Contemporary Studies and Why? *Voices, No.6, Indian Institute of Science, Bangalore*.
227. **Gadagkar, R.** (2008). Why I do not discourage my students from “wasting” their time with the “theatre”? *MOITREE, The Bangla Theatre Festival in Bengaluru*, 3-4.
226. **Gadagkar, R.** (2008). Why are animals nice to each other? In: *The Seventy Great Mysteries of the Natural World*, (Ed.) M.J. Benton, Thames & Hudson Ltd., London, pp.225-228.
225. **Gadagkar, R.** (2008). Cooperation. In: *Behavioural Ecology*. Vol.1 of *Encyclopedia of Ecology*, (Eds.) S.E.Jorgensen and Fath,B.D., Elsevier Ltd., Oxford, pp.776-777. doi: 10.1016/B978-008045405-4.00009-4
224. Bhadra, A. and **Gadagkar, R.** (2008). We know that the wasps ‘know’: cryptic successors to the queen in *Ropalidia marginata*. *Biol. Lett.*, 4, 634-637. doi: 10.1098/rsbl.2008.0455
223. Lamba, S., Chandrasekhar, K. and **Gadagkar, R.** (2008). Signaling hunger through aggression - the regulation of foraging in a primitively eusocial wasp. *Naturwissenschaften*, 95, 677-680. doi: 10.1007/s00114-008-0369-9
222. Sumana, A., Deshpande S. A., Bhadra, A. and **Gadagkar, R.** (2008). Workers of the primitively eusocial wasp *Ropalidia marginata* do not perceive their queen across a wire mesh partition. *Journal of Ethology*, 26, 207-212. doi: 10.1007/s10164-007-0049-9
221. **Gadagkar, R.** (2007). Rats are nicer than we think, at least to each other. *Journal of Biosciences*, 32 (7), 1223-1225. doi: 10.1007/s12038-007-0131-z
220. **Gadagkar, R.** (2007). Foreword – *The Evolution of Social Wasps* by J.H.Hunt,

- Oxford University Press, Oxford, 2007, pp.vii-ix.
219. Bhadra, A., Iyer, P., Sumana, A., Deshpande, S. A., Ghosh, S. and **Gadagkar, R.** (2007). How do workers of the primitively eusocial wasp *Ropalidia marginata* detect the presence of their queens? *Journal of Theoretical Biology*, 246, 574-582. doi: 10.1016/j.jtbi.2007.01.007
  218. Lamba, S., Kazi, Y. C., Deshpande, S., Natesh, M., Bhadra, A. and **Gadagkar, R.** (2007). A possible novel function of dominance behaviour in queen-less colonies of the primitively eusocial wasp *Ropalidia marginata*. *Behavioural Processes*, 74, 351-356. doi: 10.1016/j.beproc.2006.12.003
  217. Gadagkar, R. (2006). Exporting Metaphors, Concepts and Methods from the Natural Sciences to the Social Sciences and *vice versa*. In: *Understanding Change – Models, Methodologies, and Metaphors* (Eds.) Wimmer, A. and Kossler, R., Palgrave Macmillan, New York, pp.187-195. doi: 10.1007/978-0-230-52464-4\_13
  216. Deshpande, S. A., Sumana, A., Surbeck, M. and **Gadagkar, R.** (2006). Wasp who would be queen: A comparative study of two primitively eusocial species. *Current Science*, 91 (3), 332-336.
  215. Sen, R. and **Gadagkar, R.** (2006). Males of the social wasp *Ropalidia marginata* can feed larvae, given an opportunity. *Animal Behaviour*, 71, 345-350. doi: 10.1016/j.anbehav.2005.04.022
  214. Bruyndonckx, N., Kardile, S. P. and **Gadagkar, R.** (2006). Dominance behaviour and regulation of foraging activity in the primitively eusocial wasp *Ropalidia marginata* (Lep.) (Hymenoptera: Vespidae). *Behavioural Processes*, 72, 100-103. (doi: 10.1016/j.beproc.2005.11.013)
  213. **Gadagkar, R.** and Nowotny, H. (2006). Konflikt oder Kooperation. Strategien tierischer und menschlicher Gemeinschaften. In: *Thema: Warum Krieg? Texte und Protokolle zum Briefwechsel Albert Einstein – Sigmund Freud*, von Schlebrügge, J. (Ed.) Bruno Kriesky Forum fur internationalen Dialog, pp.160-170.
  212. **Gadagkar, R.** (2006). Who First Invented Agriculture? In: *Indian Institute of Science Pensioners' Association Bangalore, Silver Jubilee, 1980-2005*. Souvenir, pp.9-10.
  211. **Gadagkar, R.** (2006). The Evolution of a Biologist in an Interdisciplinary Environment. In: *25 Jahre Wissenschaftskolleg zu Berlin 1981-2006*, (Eds.) Grimm, D. and Meyer-Kalkus, R., Berlin, Akademie Verlag, pp.167-180.
  210. **Gadagkar, R.** (2006). Guest Editorial - Some Reflections on the Pursuit and Evaluation of Science. *Current Science*, 90 (4), 473-474.
  209. **Gadagkar, R.** (2006). Subaltern Insect Societies – A Review of – *The Other insect Societies* by James T. Costa, The Belknap Press of Harvard University Press, Cambridge, Massachusetts and London (2006), *Science*, **314**, p.1391. doi: 10.1126/science.1135094
  208. **Gadagkar, R.** (2006). (Editor). Proceedings of the DST Workshop on “Methods in Behavioural Ecology” organised at Jawaharlal Nehru Centre, Indian Institute of Science Campus, Bangalore from 16-28 January 2006, Centre for Ecological Sciences, Technical Report No. 108.
  207. **Gadagkar, R.** (2006). *Readings in Behaviour, Ecology and Evolution*. Centre for Ecological Sciences, Technical Report No. 107.
  206. Kardile, S. P. and **Gadagkar, R.** (2005). Observations on the Natural History and

- Behaviour of the Primitively Eusocial Wasp *Ropalidia cyathiformis* (Fab.) (Hymenoptera: Vespidae). *Journal of Bombay Natural History Society*, 102 (3), 265-273.
205. **Gadagkar, R.** (2005). "Nothing in Biology Makes Sense Except in the Light of Evolution" – A Review of *The Theory of Evolution* by John Maynard Smith, Canto Edition, Cambridge University Press, (1993). *Resonance – journal of science education*, 10 (11), 95-97. doi: 10.1007/BF02837650
204. **Gadagkar, R.** (2005). The Logic of Animal Conflict. *Resonance – journal of science education*, 10(11) p.5. doi: 10.1007/BF02837640
203. **Gadagkar, R.** (2005). Obituary – Ernst Mayr (1904-2005). *Journal of Genetics*, 84(1), 87-89.
202. **Gadagkar, R.** (2005). Donald Griffin Strove to give Animals their Due. *Resonance – journal of science education*, 10(2) 3-5. doi: 10.1007/BF02835918
201. **Gadagkar, R.** and Chandrashekara, K. (2005). Behavioral Diversity and its Apportionment in a Primitively Eusocial Wasp. In: *Insect Phenotypic Plasticity – Diversity of Responses* (Eds.) T.N.Ananthakrishnan and Douglas Whitman, Science Publishers, Inc., Enfield, USA and Plymouth, UK, pp.107-124.
200. **Gadagkar, R.** (2004). Sex...Only if Really Necessary in a Feminine Monarchy. *Science*, 306, 1694-1695. doi: 10.1126/science.1106673
199. **Gadagkar, R.** (2004). Genetically engineered monogamy in voles lends credence to the *modus operandi* of behavioural ecology. *Journal of Genetics*, 83 (2), 25-27. doi: 10.1007/BF02729888
198. **Gadagkar, R.** (2004). John Maynard Smith 6 January 1920 – 19 April 2004. *Journal of Biosciences*, 29(2), 139-141. doi: 10.1007/BF02703411
197. **Gadagkar, R.** (2004). Next time we hear a frog croak, let's say thank you! *Current Science*, 86 (1), 15-16.
196. **Gadagkar, R.** (2004). Life, Mind and Consciousness. *Papers read at a Seminar held at the Ramakrishna Mission Institute of Culture, Kolkata*, India on 16, 17 and 18 January 2004, The Ramakrishna Mission Institute of Culture, Kolkata, pp.232-252
195. Agrahari, M. and **Gadagkar, R.** (2004). Division of labour and its regulation in a primitively eusocial wasp. In: *Proceedings of the National Symposium on Frontier Areas of Entomological Research, Nov. 5-7 2003* (Eds.) Subrahmanyam,B., Ramamurthy,V.V. and Singh,V.S., Indian Agricultural Research Institute, New Delhi, pp. 237-253.
194. Ramaswamy, K., Peeters, C., Yuvana, S. P., Varghese, T., Pradeep, H. D., Dietemann, V., Vedham, K., Cobb, M. and **Gadagkar, R.** (2004). Social mutilation in the Ponerine ant *Diacamma*: cues originate in the victims. *Insectes Sociaux*, 51, 410-413. doi: 10.1007/s00040-004-0765-x
193. **Gadagkar, R.** (2004). Why do honey bee workers destroy each other's eggs? *Journal of Biosciences*, 29(3), 101-105. doi: 10.1007/BF02702602
192. Agrahari, M. and **Gadagkar, R.** (2004). Hard working nurses rather than over-aged nurses permit *Ropalidia marginata* to respond to the loss of young individuals. *Insectes Sociaux*, 51, 306-307. doi: 10.1007/s00040-004-0750-4
191. Varghese, T., Kolatkar, M. and **Gadagkar, R.** (2004). Checklist of ants in the Insect Museum. Centre for Ecological Sciences, Indian Institute of Science, Bangalore, Technical Report No.104.

190. **Gadagkar, R.** (2004). (Editor). Proceedings of the DST Workshop on “Methods in Behavioural Ecology” organised at Jawaharlal Nehru Centre, Indian Institute of Science Campus, Bangalore from 12-24 January 2004, Centre for Ecological Sciences, Technical Report No. 103.
189. **Gadagkar, R.** (2003). WIKO - A Veritable Incubator for Competent Radicals. *Wissenschaftskolleg, Jahrbuch 2001/2002*, 79-86.
188. Kardile, S. P. and **Gadagkar, R.** (2003). Regulation of worker activity in the primitively eusocial wasp *Ropalidia cyathiformis*. *Behaviour*, 140, 1219-1234. doi: 10.1163/156853903771980567
187. Karpagakunjaram, V., Nair, P., Varghese, T., Royappa, G., Kolatkar, M. and **Gadagkar, R.** (2003). Contributions to the biology of the queenless ponerine ant, *Diacamma ceylonense*. *Journal of Bombay Natural History Society*, 100 (2&3), 533-543.
186. **Gadagkar, R.** (2003). Is the peacock merely beautiful or also honest? *Current Science*, 85 (7) 1012-1020.
185. Sumana, A. and **Gadagkar, R.** (2003). *Ropalidia marginata* – a primitively eusocial wasp society headed by docile queens. *Current Science*, 84, 1464-1468.
184. Agrahari, M. and **Gadagkar, R.** (2003). Juvenile hormone accelerates ovarian development and does not affect age polyethism in the primitively eusocial wasp, *Ropalidia marginata*. *Journal of Insect Physiology*, 49, 217-222. doi:10.1016/S0022-1910(02)00268-8
183. **Gadagkar, R.** (2002). Two Cultures at the Wissenschaftskolleg. *Wissenschaftskolleg, Jahrbuch 2000/2001*, 68-75.
182. Cuvillier-Hot, V., **Gadagkar, R.**, Peeters, C. and Cobb, M. (2002). Regulation of reproduction in a queenless ant: aggression, pheromones and reduction in conflict. *Proc. R. Soc. Lond. B.*, 269, 1295-1300. doi: 10.1098/rspb.2002.1991
181. Kardile, S. P. and **Gadagkar, R.** (2002). Docile sitters and active fighters in paper wasps: a tale of two queens. *Naturwissenschaften*, 89, 176-179. doi: 10.1007/s00114-002-0306-2
180. **Gadagkar, R.** (2001). Bill Hamilton – The Greatest Darwinian Since Darwin. *Resonance – journal of science Education*, April, 4-5.
179. **Gadagkar, R.** (2001). (Editor). Proceedings of the workshop on “Methods in Behavioural Ecology” organised at Centre for Ecological Sciences, Indian Institute of Science, Bangalore from 17 - 29 December 2001, Sponsored by the Department of Science and Technology, Centre for Ecological Sciences, Technical Report No. 91.
178. **Gadagkar, R.** (2001). Division of Labour and Organization of Work in the Primitively Eusocial Wasp *Ropalidia marginata*. *Proceedings of the Indian National Science Academy*, B67, 397-422.
177. Gopinath, A., **Gadagkar, R.** and Rao, M.R.S. (2001). Identification of polymorphic microsatellite loci in the queenless ponerine ant *Diacamma ceylonense*. *Molecular Ecology Notes*, 1, 126-127. doi: 10.1046/j.1471-8278.2001.00046.x
176. Sumana, A. and **Gadagkar, R.** (2001). The structure and dominance hierarchies in the primitively eusocial wasp *Ropalidia marginata*. *Ethology, Ecology & Evolution*, 13, 273-281. doi: 10.1080/08927014.2001.9522776
175. **Gadagkar, R.** (2000). Biology versus computers. *Current Science*, 78 (7) p.768.
174. **Gadagkar, R.** (2000). ‘Ant’ics and antibiotics. A Review of - *The Earth Dwellers* –

- Adventures in the Land of Ants* by E.Hoyt, Simon & Schuster (1996). *Down to Earth*, 9 (3), 58-59.
173. **Gadagkar, R.** (2000). Caring for our co-inhabitants – on the campus and beyond! Preface to the Special Issue on Biodiversity. *Journal of the Indian Institute of Science*, Vol. 80, November – December.
  172. **Gadagkar, R.** (2000). Genomic imprinting – some interesting implications for the evolution of social behaviour. *Resonance – journal of science education*, 5 (9) 58-68. doi: 10.1007/BF02836218
  171. **Gadagkar, R.** (2000). The Origin and Resolution of Conflicts in Animal Societies – The Case of the Bees and the Birds. *Resonance – journal of science education*, 5(4) 62-73. doi: 10.1007/BF02837907
  170. **Gadagkar, R.** (2000). Do our maternal and paternal genes pull us in different directions ? *Current Science*, 78, 376-380.
  169. **Gadagkar, R.** (2000). The True Origin of Agriculture – Credit Goes to the Ants. *Resonance – journal of science education*, 5(2) 76-79.  
doi: 10.1007/BF02838830
  168. **Gadagkar, R.** (2000). (Guest Editor). Special issue on Biodiversity. *Journal of the Indian Institute of Science*, Vol. 80, November- December.
  167. Fisher, B. L., Malsch, A. K. F., **Gadagkar, R.**, Delabie, J.H.C., Vasconcelos, H.L. and Majer, J.D. (2000). Applying the ALL Protocol: Selected Case Studies. In: *Ants: Standard Methods for Measuring and Monitoring Biodiversity (Biology Diversity Handbook Series)*. (Eds.) D. Agosti, J.D. Majer, L.E. Alonso and T.R. Schultz, Smithsonian Institution Press, Washington, pp.207-214.
  166. **Gadagkar, R.**, Nair, P., Chandrashekara, K., Bhat, D. M. (2000). Ants species diversity in the Western Ghats, India. In: *Sampling Ground-dwelling Ants: Case Studies from the World's Rain Forests*. (Eds.) D.Agosti, J.Majer, L.Alonso, and T.Schultz, Curtin University, School of Environmental Biology, Bulletin No.18, Perth, Australia, pp.19-30. [An abridged version of sl.no.44].
  165. Naug, D. and **Gadagkar, R.** (1999). Flexible division of labor mediated by social interactions in an insect colony – a simulation model. *Journal of Theoretical Biology*, 197, 123-133. doi: 10.1006/jtbi.1998.0862
  164. **Gadagkar, R.** (1999). *Caenorhabditis* and the cost of sex – Reply from R. Gadagkar. *Trends in Ecology & Evolution*, 14, 33-34. doi: 10.1016/S0169-5347(98)01522-5)
  163. **Gadagkar, R.** (1999). Subterranean farmers – Ants invented agriculture some 50 million years before the humans. *Down to Earth*, 7 (21), 48-49.
  162. **Gadagkar, R.** (1999). What is Life? – Reconsidered. A Review of – *Origins of life*, Freeman Dyson, Cambridge University Press, (1985). *Resonance – journal of science education*, 4 (2), 88-90. doi: 10.1007/BF02838768
  161. **Gadagkar, R.** (1998). The language of diversity. A Review of - *The Evolution of Social Behaviour in Insects and Arachnids* (Eds.) J.C.Choe & B.J.Crespi, Cambridge Univ. Press (1997) and *The Evolution of Mating Systems in Insects and Arachnids* (Eds.) J.C.Choe & B.J.Crespi, Cambridge Univ. Press (1997). *Trends in Ecology and Evolution*, 13, 122-123.  
doi: 10.1016/S0169-5347(97)83357-5)
  160. **Gadagkar, R.** (1998). Red ants with green beards. *Journal of Biosciences*, 23,

- 535-536. doi: 10.1007/BF02709160
159. **Gadagkar, R.** (1998). Killer genes, green beards... *Down to Earth*, 7 (13), 15-16.
  158. **Gadagkar, R.** (1998). Food fighters – Why do siblings fight with each other? A look at the science behind this universally common behaviour. *Down to Earth*, 7(3), 24-25.
  157. **Gadagkar, R.** (1998). Introduction is forever – Introduced bee species may create problems for native species in India. *Down to Earth*, 6 (22), p.28.
  156. **Gadagkar, R.** (1998). Wherever they may roam – Discovering new bird and animal species just became easier. *Down to Earth*, 6(21), p.25.
  155. **Gadagkar, R.** (1998). How to gain the benefits of sexual reproduction, without paying the cost: a worm shows the way. *Trends in Ecology & Evolution*, 13, 220-221. doi: 10.1016/S0169-5347(98)01391-3
  154. **Gadagkar, R.** (1998). Biology in the 21<sup>st</sup> century – back to stamp collection? *Scampus – A bi-annual from IISc. SPRING 98*, p.5
  153. Sathees Chandra, B.C., Geetha, L., Abraham, V.A., Karanth, P., Thomas, K., Srinivasan, M. V. and **Gadagkar, R.** (1998). Uniform discrimination of pattern orientation by honey bees. *Animal Behaviour*, 56, 1391-1398. doi: 10.1006/anbe.1998.0922
  152. Arathi, H. S. and **Gadagkar, R.** (1998). Cooperative nest building and brood care by nestmates and non-nestmates in *Ropalidia marginata*. *Oecologia*, 117, 295-299. doi: 10.1007/s004420050661
  151. Naug, D. and **Gadagkar, R.** (1998). The role of age in temporal polyethism in a primitively eusocial wasp. *Behavioral Ecology and Sociobiology*, 42, 37-47. doi: 10.1007/s002650050409
  150. **Gadagkar, R.** (1998) The Evolution of Communication as Exemplified by the honey-bee Queen Pheromones. In: *Biocommunication in Insects* (Eds.) T.N. Ananthakrishnan and Alok Sen, Science Publishers, Inc. USA, pp.79-93. [An abridged version of sl.no.71].
  149. Naug, D. and **Gadagkar, R.** (1998). Division of labor among a cohort of young individuals in a primitively eusocial wasp. *Insectes Sociaux*, 45, 247-254. doi: 10.1007/s000400050085
  148. **Gadagkar, R.** (1997) The evolution of caste polymorphism in social insects: genetic release followed by diversifying evolution. *Journal of Genetics*, 76, 167-179. doi: 10.1007/BF02932215
  147. **Gadagkar, R.** (1997). The evolution of communication and the communication of evolution: The case of the honey bee queen pheromone. In: *Orientation and Communication in Arthropods* (Ed. Miriam Lehrer), Birkhauser Verlag, Basel, pp. 375-395. doi: 10.1007/978-3-0348-8878-3\_13
  146. Sunil Kumar, M., Srihari, K. T., Nair, P., Varghese, T. and **Gadagkar, R.** (1997). Ant Species Richness at selected localities of Bangalore. *Insect Environment*, 3 (1), 3-5.
  145. **Gadagkar, R.** (1997) Social evolution - has nature ever rewound the tape? *Current Science*, 72, 950-956.
  144. Arathi, H.S., Shakarad, M. and **Gadagkar, R.** (1997) Social organisation in experimentally assembled colonies of *Ropalidia marginata*: comparison of introduced and natal wasps. *Insectes Sociaux*, 44, 139-146. doi: 10.1007/s000400050036

143. Rastogi, N., Nair, P., Kolatkar, M., William, H. and **Gadagkar, R.** (1997). Ant fauna of the Indian Institute of Science Campus - Survey and some preliminary observations. *The Journal of the Indian Institute of Science*, 77, 133-140.
142. Rastogi, N., Nair, P., Kolatkar, M. and **Gadagkar, R.** (1997). Foraging strategies in the ants *Myrmicaria brunnea* and *Diacamma ceylonense* - some preliminary observations. *Entomon*, 22, 79-81.
141. Arathi, H.S., Shakarad, M. and **Gadagkar, R.** (1997). Factors Affecting the Acceptance of Alien Conspecifics on Nests of the Primitively Eusocial Wasp, *Ropalidia marginata* (Hymenoptera: Vespidae). *Journal of Insect Behavior*, 10, 343-353. doi: 10.1007/BF02765602
140. Shakarad, M. and **Gadagkar, R.** (1997). Do Social Wasps Choose Nesting Strategies Based on Their Brood Rearing Abilities? *Naturwissenschaften*, 84, 79-82. doi: 10.1007/s001140050353
139. **Gadagkar, R.** (1997). (Guest Editor). Special Section on Evolutionary Ecology. *Current Science*, Vol. 72, 25<sup>th</sup> June 1997.
138. **Gadagkar, R.** (1997). The evolution of altruism and selfishness in insects. Platinum Jubilee Lecture delivered during the Indian Science Congress on 6th January 1997, Delhi. Centre for Ecological Sciences, Indian Institute of Science, Bangalore, Technical Report No.75.
137. Chandra, B. C. S., Geetha, L., Abraham, V. A., Karanth, P., Thomas, K. and **Gadagkar, R.** (1996). Visual discrimination of pattern orientation in the Asian honeybee *Apis cerana*. Centre for Ecological Sciences, Indian Institute of Science, Bangalore, Technical Report No.73.
136. **Gadagkar, R.** (Editor). (1996). Proceedings of the workshop on "Methods in Behavioural Ecology" organised at Centre for Ecological Sciences, Indian Institute of Science, Bangalore from 7 - 19 October 1996, Sponsored by the Department of Science and Technology, Technical Report No. 74.
135. **Gadagkar, R.** (1996). A Review of - *The Coevolutionary Process* by John N. Thompson, The University of Chicago Press, Chicago, (1994). *Tropical Ecology*, 37, 147-148.
134. **Gadagkar, R.** (1996). The Making of a Scientist - A Life Worthy of Admiration and Imitation. A Review of - *Naturalist* by E.O.Wilson, Island Press/Shearwater Books, Washington D.C. (1994). *Resonance - journal of science education*, 1 (4), 87-89. doi: 10.1007/BF02896209
133. **Gadagkar, R.** (1996). Africans in the Americas: A Problem? A Cool Objective Assessment of the Killer Bee Problem. A Review of - *Killer Bees - The Africanized Honey Bee in the Americas* by Mark L. Winston, Harvard University Press, Cambridge, Massachusetts, (1992). *Resonance - journal of science education*, 1 (2), 117-119. doi: 10.1007/BF02835711
132. **Gadagkar, R.** (1996). What's the essence of royalty – one keto group? *Current Science*, 71, 975-980.
131. **Gadagkar, R.** (1996). Molecular Techniques in the Study of Organismic Biology – Challenges and Opportunities. In: *Biotechnological Perspectives in Chemical Ecology of Insects*. (Ed.) T.N.Ananthakrishnan, Oxford and IBH Publishing Co. Pvt. Ltd, New Delhi, pp.265-275.
130. Premnath, S., Sinha, A. and **Gadagkar, R.** (1996). Dominance relationship in the establishment of reproductive division of labour in a primitively eusocial wasp (*Ropalidia marginata*). *Behavioral Ecology and Sociobiology*, 39, 125-132. doi:

10.1007/s002650050274

129. **Gadagkar, R.** (1996). The evolution of eusociality, including a review of the social status of *Ropalidia marginata*. In: *Natural History and Evolution of Paper-Wasps*, (Eds.) S.Turillazzi and M.J.West-Eberhard, Oxford University Press, Oxford, pp. 248-271.
128. Premnath, S., Sinha, A. and **Gadagkar, R.** (1996). How is colony activity regulated in *Ropalidia marginata*? In: *Readings in Behaviour*, (Eds.) R.Ramamurthi & Geethabali, New Age International Limited, New Delhi, pp.160-167.
127. Shakarad, M. and **Gadagkar, R.** (1996). Why are there multiple-foundress colonies in *Ropalidia marginata*? In: *Readings in Behaviour*, (Eds.) R.Ramamurthi & Geethabali, New Age International Limited, New Delhi, pp.145-152.
126. Arathi, H.S. and **Gadagkar, R.** (1996). Can genetically unrelated individuals join colonies of *Ropalidia marginata*? In: *Readings in Behaviour*, (Eds.) R.Ramamurthi & Geethabali, New Age International Limited, New Delhi, pp.153-159.
125. **Gadagkar, R.** (1996). The Pains and Pleasures of doing ethology in India. In: *Readings in Behaviour*, (Eds.) R.Ramamurthi & Geethabali, New Age International Limited, New Delhi, pp.1-13.
124. **Gadagkar, R.** (1996). Complex behaviour in Social Wasps - Towards a scientific study. In: *Readings in Behaviour*, (Eds.) R.Ramamurthi & Geethabali, New Age International Limited, New Delhi, pp.135-144.
123. **Gadagkar, R.** (1996). Sharing the blame. *Down to Earth*, 5 (11), 24-26.
122. **Gadagkar, R.** (1996). Konrad Lorenz – father to ethology and mother to ducks, geese, jackdaws, salamanders, fish and many more! *Resonance - journal of science education*, 1 (6), 2-3. doi: 10.1007/BF02834360
121. **Gadagkar, R.** and Kolatkar, M. (1996). Evidence for Bird Mafia! Threat Pays. *Resonance - journal of science education*. 1(5), 82-84. (An Abridged version of serial no 137). doi: 10.1007/BF02835173
120. **Gadagkar, R.** (1996). Evolution of an insect society – II. The data. *The Insectarium*, 33, 18-23. (in Japanese).
119. **Gadagkar, R.** (1996). Evolution of an insect society – I. The ideas. *The Insectarium*, 33, 4-9. (in Japanese).
118. **Gadagkar, R.** (1996). Exploring Japan ecologically. *Down to Earth*, 4 (22), 22-23.
117. Geetha, L. and **Gadagkar, R.** (1996). How does a fungus know the time of day? *Current Science*, 70, 419-421.
116. **Gadagkar, R.** and Kolatkar, M. (1996). Evidence for Avian Mafia! *Current Science*, 70, 115-117.
115. **Gadagkar, R.** (1996). The Honeybee Dance-Language Controversy - Robot Bee Comes to the Rescue. *Resonance - journal of science education*, 1 (1), 63-70. DOI: 10.1007/BF02838860
114. **Gadagkar, R.** (1995). Cooperation and conflict in an insect society. *The Journal of the Indian Institute of Science*, 75, 333-352.
113. Shakarad, M. and **Gadagkar, R.** (1995). Colony founding in the primitively eusocial wasp, *Ropalidia marginata* (Hymenoptera: Vespidae). *Ecological Entomology*, 20, 273- 282. doi: 10.1111/j.1365-2311.1995.tb00457.x
112. Venkataraman, A. B. and **Gadagkar, R.** (1995). Age-Specific Acceptance of



- Unrelated Conspecifics on Nests of the Primitively Eusocial Wasp, *Ropalidia marginata*. *Proceedings of the Indian National Science Academy*, B61, 299-314.
111. Premnath, S., Sinha, A. and **Gadagkar, R.** (1995). Regulation of worker activity in a primitively eusocial wasp, *Ropalidia marginata*. *Behavioral Ecology*, 6, 117-123. doi: 10.1093/beheco/6.2.117
  110. Lehrer, M., Horridge, G. A., Zhang, S. W. and **Gadagkar, R.** (1995). Shape vision in bees: innate preference for flower-like patterns. *Philosophical Transactions of the Royal Society of London*, 347, 123-137. doi: 10.1098/rstb.1995.0017
  109. **Gadagkar, R.** (1995). Observational study of animal behaviour: From instinct to intelligence. *Current Science*, 68, 185-196.
  108. Tandon, P.N. and **Gadagkar, R.** (Guest Editors). Neuroscience - A multidisciplinary approach. Special issue of *Current Science*, Vol.68, 25<sup>th</sup> January 1995.
  107. **Gadagkar, R.** (1995). Conservation Pays....*Down to Earth*, 4 (14), 47-48.
  106. **Gadagkar, R.** (1995). Honey, I got the bees right! *Times of India*, July 18th.
  105. **Gadagkar, R.** (1995). Can animals count ? *Current Science*, 68, 1180-1182.
  104. **Gadagkar, R.** and Arathi, H.S. (1995). Complex domestic conflicts in a bird family. *Current Science*, 68, 676-677.
  103. Chandrashekara, K. and **Gadagkar, R.** (1995). A Review of - *Functional Dynamics of Phytophagous Insects*. (Ed.) T.N. Ananthakrishnan, Oxford and IBH, New Delhi (1994). *Current Science*, 69, 470-471.
  102. **Gadagkar, R.** (1994). Spiteful animals still to be discovered - a reply to Keller *et al.* *Trends in Ecology & Evolution*, 9, p.103. doi:10.1016/0169-5347(94)90206-2
  101. **Gadagkar, R.** (1994). A Review of - *Behaviour and Social Evolution of Wasps: The Communal Aggregation Hypothesis*. Yosiaki Itô. (Eds. R.M.May, P.H.Harvey), Oxford University Press, Oxford (1993). *The Quarterly Review of Biology*, 69, 558-559.
  100. **Gadagkar, R.** (1994). A Review of - *The Natural History of Inbreeding and Outbreeding: Theoretical and Empirical Perspectives*. (Ed.N.W. Thornhill), The University of Chicago Press, Chicago (1993). *Tropical Ecology*, 35, 349-352.
  99. **Gadagkar, R.** (1994). Social Insect Buffs Swarm in Paris and decide to go to Adelaide. *IUSSI Indian Chapter, Newsletter*, 8 (1,2), 4-5.
  98. Premnath, S., Sinha, A. and **Gadagkar, R.** (1994). Dominance behaviour and the resolution of intra-colonial conflicts in the primitively eusocial wasp, *Ropalidia marginata*. In: *Les Insectes Sociaux* (Eds.) A.Lenoir, G.Arnold and M.Lepage. *Proceedings of the 12 Congress of the International Union for the Study of Social Insects IUSSI*, Paris, Sorbonne 21- 27 August 1994, Universite Paris Nord, p. 242.
  97. **Gadagkar, R.** (1994). The Evolution of Eusociality. In: *Les Insectes Sociaux* (Eds.) A.Lenoir, G.Arnold and M.Lepage. *Proceedings of the 12th Congress of the International Union for the Study of Social Insects IUSSI*, Paris, Sorbonne 21- 27 August 1994, Universite Paris Nord, pp. 10-12.
  96. Kirchner, W. H. and **Gadagkar, R.** (1994). Discrimination of nestmate workers and drones in honeybees. *Insectes Sociaux*, 41, 335-338. doi: 10.1007/BF01242306
  95. **Gadagkar, R.** (1994). Why the definition of eusociality is not helpful to understand its evolution and what should we do about it. *Oikos*, 70, 485-488. doi:

10.2307/3545789

94. **Gadagkar, R.**, and Bonner, J.T. (1994). Social insects and social amoebae. *Journal of Biosciences*, 19, 219-245. doi: 10.1007/BF02703057
93. **Gadagkar, R.** (1994). The Evolution of Altruism in Insects - A Case Study. *In: Perspectives In Entomological Research* (Ed. O.P.Agarwal). Scientific Publishers, Jodhpur, pp. 263-275.
92. **Gadagkar, R.** (1993). A Review of - *Chemical Ecology of Phytophagous Insects*. (Eds.) T.N.Ananthakrishnan & A. Raman, Oxford and IBH Publishing Co.Pvt.Ltd, New Delhi, *Phytophaga*, 5, 135-137.
91. **Gadagkar, R.** (1993). My Vacation with *Apis mellifera*. *IUSSI Indian Chapter, Newsletter*, 7 (1,2), 3-4.
90. **Gadagkar, R.** (1993). Western scientists set the trends. *Down to Earth*, 2(7), 45-46.
89. **Gadagkar, R.** (1993). Bed and breakfast available, only for a year. *Down to Earth*, 2(3), 46-47.
88. **Gadagkar, R.** (1993). And now..... eusocial thrips! *Current Science*, 64, 215-216.
87. **Gadagkar, R.** (1993). Persistence helps masquerading ant raiders. *Down to Earth*, 1(20), p.45.
86. **Gadagkar, R.** (1993). Can Animals Be Spiteful? *Trends in Ecology and Evolution*, 8, 232-234. doi: 10.1016/0169-5347(93)90196-V
85. **Gadagkar, R.**, Nair, P., Chandrashekara, K. and Bhat, D.M. (1993). Ant species richness and diversity in some selected localities of Western Ghats, India. *Hexapoda*, 5, 79-94.
84. **Gadagkar, R.**, Chandrashekara, K., Chandran, S. and Bhagavan, S. (1993). Queen success is correlated with worker-brood genetic relatedness in a primitively eusocial wasp (*Ropalidia marginata*). *Experientia*, 49, 714-717.
83. Venkataraman, A.B. and **Gadagkar, R.** (1993). Differential aggression towards alien conspecifics in a primitively eusocial wasp. *Current Science*, 64, 601-603.
82. **Gadagkar, R.**, Chandrashekara, K., Chandran, S., and Bhagavan, S. (1993). Serial polygyny in the primitively eusocial wasp *Ropalidia marginata*: implications for the evolution of sociality. *In: Queen Number and Sociality in Insects*. (Ed. L.Keller), Oxford University Press, Oxford, pp. 188-214.
81. Sinha, A., Premnath, S., Chandrashekara, K. and **Gadagkar, R.** (1993). *Ropalidia rufoplagiata*: a polistine wasp society probably lacking permanent reproductive division of labour. *Insectes Sociaux*, 40, 69-86. doi: 10.1007/BF01338833
80. **Gadagkar, R.**, Roubik, D.W., Inoue, T., Ashton, P. S. and Chandrashekar, M.K. (Editors). Diversity and Flexibility of Biotic Communities in Fluctuating Environments. Special issue of *Journal of Biosciences*, Vol.18, December 1993.
79. **Gadagkar, R.** (1992). "What is Life?" - Reconsidered. A Review of - *Origins of Life* by Freeman Dyson, Cambridge University Press, Cambridge. *Bulletin of Sciences*, 6(4), 44-45.
78. **Gadagkar, R.** (1992). New Agenda for social insect research. A Review of - *Success and Dominance in Ecosystems: The Case of the Social Insects* by E.O.Wilson, Ecology Institute, Germany. *Current Science*, 62, 317-318.
77. **Gadagkar, R.** (1992). The Origin and Evolution of social life in insects. *Bulletin of*

- Sciences*, 6(2), 31-35.
76. **Gadagkar, R.** (1992). Growing old in the wild. *Down to Earth*, 1(15), 46-47.
  75. **Gadagkar, R.** (1992). World's biodiversity needs to be preserved. *Down to Earth*, 1(11), 43-44.
  74. **Gadagkar, R.** (1992). Disease and Social Evolution. *Current Science*, 63, 285-286.
  73. **Gadagkar, R.** (1992). When fathers harass their sons. *Down to Earth*, 1(8), 47-48.
  72. Venkataraman, A. and **Gadagkar, R.** (1992). Kin recognition in a semi-natural context: Behaviour towards foreign conspecifics in the social wasp *Ropalidia marginata* (Lep.) (Hymenoptera: Vespidae). *Insectes Sociaux*, 39, 285-299. doi: 10.1007/BF01323949
  71. Chandrashekara, K. and **Gadagkar, R.** (1992). Queen Succession in the Primitively Eusocial Tropical Wasp *Ropalidia marginata* (Lep.) (Hymenoptera: Vespidae). *Journal of Insect Behaviour*, 5, 193-209. doi: 10.1007/BF01049289
  70. **Gadagkar, R.** (Editor)(1992). Workshop on "Methods in Behavioural Ecology" organised at Centre for Ecological Sciences, Indian Institute of Science, from 12th - 26<sup>th</sup> October 1992, Sponsored by Department of Science and Technology. Technical Report No.24 (unpublished).
  69. **Gadagkar, R.** (1992). The Magnitude of the Earth's Biodiversity. In: Proceedings of the Training Programme on Management of Environment. (Eds.) D,K. Subramanian, T.V. Ramachandra, and P.R. Bhat, Centre for Ecological Sciences, Indian Institute of Science, Bangalore , Technical Report No.65. pp. 58-71 (unpublished).
  68. **Gadagkar, R.** (1991). Demographic predisposition to the evolution of eusociality: A hierarchy of models. *Proceedings of the National Academy of Sciences, U.S.A.*, 88, 10993-10997.
  67. **Gadagkar, R.**, Chandrashekara, K., Chandran, S. and Bhagavan, S. (1991). Worker-Brood Genetic Relatedness in a Primitively Eusocial Wasp - a pedigree analysis. *Naturwissenschaften*, 78, 523-526. doi: 10.1007/BF01131405
  66. **Gadagkar, R.**, Bhagavan, S., Chandrashekara, K., and Vinutha, C. (1991). The role of larval nutrition in pre-imaginal biasing of caste in the primitively eusocial wasp *Ropalidia* (Hymenoptera: Vespidae) *Ecological Entomology*, 16, 435-440. doi: 10.1111/j.1365-2311.1991.tb00236.x
  65. **Gadagkar, R.**, Bhagavan, S., Malpe, R. and Vinutha, C. (1991). Seasonal variation in the onset of egg laying in a primitively eusocial wasp: Implications for the evolution of sociality. *Entomon*, 16, 167-174.
  64. Chandrashekara, K. and **Gadagkar, R.** (1991). Unmated Queens in the primitively eusocial wasp *Ropalidia marginata* (Lep.) (Hymenoptera: Vespidae). *Insectes Sociaux*, 38, 213-216. doi: 10.1007/BF01240971
  63. **Gadagkar, R.** (1991). *Belonogaster*, *Mischocyttarus*, *Parapolybia*, and Independent-founding *Ropalidia*. In: *The Social Biology of wasps*. (Eds.) K.G. Ross and R.W. Matthews. Cornell University Press, Ithaca, New York, pp.149-190.
  62. **Gadagkar, R.** (1991). On testing the role of genetic asymmetries created by haplodiploidy in the evolution of eusociality in the Hymenoptera. *Journal of Genetics*, 70, 1-31. doi: 10.1007/BF02927973

61. Chandrashekara, K. and **Gadagkar, R.** (1991). Behavioural Castes, Dominance and Division of Labour in a Primitively Eusocial Wasp. *Ethology*, 87, 269-283. doi: 10.1111/j.1439-0310.1991.tb00252.x
60. **Gadagkar, R.** (1991). More gene wars. *Current Science*, 61, 795. (Scientific Correspondence).
59. **Gadagkar, R.** (1991). The origin and evolution of social life in insects. (in Japanese) *ANIMA*, 9 (228), 48-52, August 1991.
58. **Gadagkar, R.** and Venkataraman, A.B. (1990). Nepotistic bee-eaters. *Current Science*, 59, 445-446.
57. **Gadagkar, R.** (1990). Genetic Diversity and Evolution. In: *Proceedings MAB Regional Training Workshop Trop. For. Ecosyst. Conserv. Develop. S & S E Asia*. (Eds.) K.K.N.Nair, K.V.Bhat, J.K.Sharma & K.Swarupanandan, Kerala Forest Research Institute, Peechi, Kerala, India, pp. 3-16.
56. **Gadagkar, R.** (1990). A test of the role of haplodiploidy in the evolution of Hymenopteran eusociality. In: *Social Insects and the environment*. (Eds.) G.K.Veeresh, B.Mallik, C.A.Viraktamath. Proceedings of 11th International Congress of IUSSI, Bangalore, India, August, 1990, Oxford & IBH Publishing Co.Ltd., New Delhi. pp. 539 - 540.
55. **Gadagkar, R.**, Chandrashekara, K., Chandran, S. and Bhagavan, S. (1990). Serial polygyny in *Ropalidia marginata*: Implications for the evolution of eusociality. In: *Social Insects and the Environment*. (Eds.) G.K. Veeresh, B. Mallik, C.A. Viraktamath. Proceedings of 11th International Congress of IUSSI, Bangalore, India, August, 1990, Oxford & IBH Publishing Co.Ltd. New Delhi. pp. 227 - 228.
54. Chandrashekara, K., Bhagavan, S., Chandran, S., Nair, P. and **Gadagkar, R.** (1990). Perennial indeterminate colony cycle in a primitively eusocial wasp. In: *Social Insects and the Environment*. (Eds.) G.K. Veeresh, B. Mallik, C.A.Viraktamath. Proceedings of 11th International Congress of IUSSI, Bangalore, India, August, 1990, Oxford & IBH Publishing Co. Ltd. New Delhi. p.81.
53. Premnath, S., Chandrashekara, K., Chandran, S. and **Gadagkar, R.** (1990). Constructing Dominance hierarchies in a primitively eusocial wasp. In: *Social Insects and the Environment*. (Eds.) G.K. Veeresh, B. Mallik, C.A. Viraktamath. Proceedings of 11th International Congress of IUSSI, Bangalore, India, August, 1990, Oxford & IBH Publishing Co.Ltd., New Delhi. p.80.
52. Nair, P., Bose, P. and **Gadagkar, R.** (1990). The determinants of dominance in a primitively eusocial wasp. In: *Social Insects and the Environment*. (Eds.) G.K. Veeresh, B. Mallik, C.A. Viraktamath. Proceedings of 11th International Congress of IUSSI, Bangalore, India, August, 1990, Oxford & IBH Publishing Co.Ltd., New Delhi. p.79.
51. Chandran, S. and **Gadagkar, R.** (1990). Social organisation in laboratory colonies of *Ropalidia marginata*. In: *Social Insects and the Environment*. (Eds.) G.K. Veeresh, B. Mallik, C.A. Viraktamath. Proceedings of 11th International Congress of IUSSI, Bangalore, India, August, 1990, Oxford & IBH Publishing Co.Ltd., New Delhi. p.78.
50. Chandrashekara, K. and **Gadagkar, R.** (1990). Evolution of eusociality: Lessons from social organization in *Ropalidia marginata* (Lep.) (Hymenoptera:Vespidae). In: *Social Insects and the Environment*. (Eds.) G.K. Veeresh, B. Mallik, C.A. Viraktamath. Proceedings of 11th International Congress of IUSSI, Bangalore,

- India, August, 1990, Oxford & IBH Publishing Co.Ltd., New Delhi. pp.73–74.
49. Venkataraman, A.B. and **Gadagkar, R.** (1990). Evolution of Eusociality : Lessons from the mechanism of nestmate discrimination in the primitively eusocial wasp *Ropalidia marginata*. In: *Social Insects and the Environment*. (Eds.) G.K. Veeresh, B. Mallik, C.A. Viraktamath. Proceedings of 11th International Congress of IUSSI, Bangalore, India, August, 1990, Oxford & IBH Publishing Co.Ltd., New Delhi. pp. 71-72.
  48. **Gadagkar, R.** (1990). Social biology of *Ropalidia*: Investigations into the origins of eusociality. In: *Social Insects and the Environment*. (Eds.) G.K. Veeresh, B. Mallik & C.A. Viraktamath. Proceedings of 11th International Congress of IUSSI, Bangalore, India, Oxford & IBH Publishing Co.Ltd., New Delhi. pp. 9 - 11.
  47. Venkataraman, A.B., Swarnalatha, V.B., Nair, P., Vinutha, C. and **Gadagkar, R.** (1990). Nestmate discrimination in the social wasp *Ropalidia marginata*. In: *Social Insects: An Indian Perspective*. (Eds.) G.K. Veeresh, A.R.V.Kumar & T. Shivashankar, IUSSI - Indian Chapter, Bangalore, pp. 161 - 171.
  46. Chandrashekara, K. and **Gadagkar, R.** (1990). Behavioural castes and their correlates in the primitively eusocial wasp, *Ropalidia marginata* (Lep.) (Hymenoptera:Vespidae). In : *Social Insects : An Indian Perspective*. (Eds.) G.K. Veeresh, A.R.V. Kumar & T. Shivashankar, IUSSI - Indian Chapter, Bangalore, pp. 153 - 160.
  45. **Gadagkar, R.** (1990). Evolution of insect societies: Some insights from studying tropical wasps. In: *Social Insects: An Indian Perspective*. (Eds.) G.K. Veeresh, A.R.V. Kumar & T. Shivashankar, IUSSI - Indian Chapter, Bangalore, pp. 129 - 152.
  44. **Gadagkar, R.**, Chandrashekara, K. and Nair, P. (1990). Insect species diversity in tropics: Sampling methods and a case study. *Journal of the Bombay Natural History Society*, 87, 337-353.
  43. **Gadagkar, R.** (1990). Origin and evolution of eusociality: A perspective from studying primitively eusocial wasps. *Journal of Genetics*, 69, 113-125.
  42. **Gadagkar, R.** (1990). Evolution of eusociality : the advantage of assured fitness returns. *Philosophical Transactions of the Royal Society of London B*, 329, 17-25. doi: 10.1098/rstb.1990.0146
  41. **Gadagkar, R.** (1990). The haplodiploidy threshold and social evolution. *Current Science*, 59, 374 - 376.
  40. **Gadagkar, R.**, Bhagavan, S., Malpe, R. and Vinutha, C. 1990). On reconfirming the evidence for pre-imaginal caste bias in a primitively eusocial wasp. *Proceedings of the Indian Academy of Sciences (Animal Sciences)*, 99, 141-150. doi: 10.1007/BF03186384
  39. **Gadagkar, R.** (1989). In Praise of Birds. *Deccan Herald*, Bangalore, August 20.
  38. **Gadagkar, R.** (1989). An undesirable property of Hill's diversity index  $N_2$ . *Oecologia*, 80, 140-141. doi: 10.1007/BF00789944
  37. **Gadagkar, R.** (1988). A Review of - *Semiochemistry, flavours and pheromones*. Proceedings of the American Chemical Society Symposium, Washington, D.C., USA, August 1993, (Eds. T.E. Acree & D.M. Soderlund,) Walde de Gruyter, Berlin (1985). *Journal of the Indian Institute of Science*, 68, 72-76.
  36. Venkataraman, A.B., Swarnalatha, V.B., Nair, P. and **Gadagkar, R.** (1988). The mechanism of nestmate discrimination in the tropical social wasp *Ropalidia marginata* and its implications for the evolution of sociality. *Behavioral Ecology*

- and *Sociobiology*, 23, 271-279. doi:10.1016/S0022-1910(02)00268-8
35. **Gadagkar, R.**, Vinutha, C., Shanubhogue, A. and Gore, A.P. (1988). Pre-imaginal biasing of caste in a primitively eusocial insect. *Proceedings of the Royal Society of London B*, 233, 175-189. doi: 10.1098/rspb.1988.0017
  34. **Gadagkar, R.** (1988). The Genetic Basis of Behaviour. *IUSSI Indian Chapter, Newsletter 2* (2), 4-5.
  33. **Gadagkar, R.** (1988). Kin recognition in social insects. *IUSSI Indian Chapter, Newsletter 2* (1), 4-5.
  32. **Gadagkar, R.** and Gadagkar, V. R. (1988). The Amazing World of the Honey Bees. *Vijnana Parichaya*, 10 (3), 4-8.
  31. **Gadagkar, R.** (1987). What are Social Insects? *IUSSI Indian Chapter, Newsletter 1* (2), 3-4.
  30. **Gadagkar, R.** (1987). Social Structure and the Determinants of Queen Status in the Primitively Eusocial Wasp *Ropalidia cyathiformis*. In: *Chemistry and Biology of Social Insects*. Proceedings of X International Congress IUSSI, Munich (Eds.) J. Eder and H. Rembold, Verlag J Peperny, Munich, pp. 377-378.
  29. **Gadagkar, R.** (1987). Biotechnology and the future of biological diversity. In: First Asian school on conservation biology, December 16 - 31, 1987. Lecture notes & Abstracts. Centre for Ecological Sciences, Indian Institute of Science, Bangalore, Technical Report No. 50, pp. 38.1 - 38.3.
  28. **Gadagkar, R.** (1987). Immigrations, extinctions and species diversity. In: First Asian school on conservation biology, December 16-31, 1987. Lecture notes & Abstracts. Centre for Ecological Sciences, Indian Institute of Science, Bangalore, Technical Report No. 50, pp. 16.1 - 16.6.
  27. **Gadagkar, R.** (1987). Patterns of Biological Species Diversity I & II. In: First Asian school on conservation biology, December 16-31, 1987. Lecture notes & Abstracts. Centre for Ecological Sciences, Technical Report No. 50, pp. 11.1 - 11.11.
  26. **Gadagkar, R.** (1987). Diversity at the level of genome. In: *First Asian school on conservation biology*, December 16-31, 1987. Lecture notes & Abstracts. Centre for Ecological Sciences, Indian Institute of Science, Bangalore, Technical Report No.50, pp. 5.1 - 5.2.
  25. **Gadagkar, R.** (1986). Outlines of lectures given at the First National School on Conservation Biology, Centre for Ecological Sciences, Indian Institute of Science, Bangalore, Technical Report No.39.
  24. Bhat, D. M., Chandrashekara, K., Daniels, R.J.R., **Gadagkar, R.**, Gadgil, M., Hegde, M., Nair, P., Prasad, N. S. and Saldanha, C.J. (1986). Biological Species Diversity in some localities in Western Ghats. Centre for Ecological Sciences, Indian Institute of Science, Bangalore, Centre for Ecological Sciences, Technical Report No.33.
  23. Muralidharan, K., Shaila, M.S. and **Gadagkar, R.** (1986). Evidence for multiple mating in the primitively eusocial wasp *Ropalidia marginata* (Lep.) (Hymenoptera : Vespidae). *Journal of Genetics*, 65, 153-158. doi: 10.1007/BF02931148
  22. **Gadagkar, R.** (1985). Kin recognition in social insects and other animals - A review of recent findings and a consideration of their relevance for the theory of kin selection. *Proceedings of the Indian Academy of Sciences (Animal Sciences)*, 94, 587-621. doi: 10.1007/BF03191863
  21. Joshi, N.V. and **Gadagkar, R.** (1985). Evolution of sex ratios in social

- hymenoptera: kin selection, local mate competition, polyandry and kin recognition. *Journal of Genetics*, 64, 41-58. doi: 10.1007/BF02923552
20. **Gadagkar, R.** (1985). Evolution of insect sociality - A review of some attempts to test modern theories. *Proceedings of the Indian Academy of Sciences (Animal Sciences)*, 94, 309-324. doi: 10.1007/BF03186272
  19. **Gadagkar, R.** and Joshi, N.V. (1985). Colony fission in a social wasp. *Current Science*, 54, 57-62.
  18. Chandrashekara, K., Daniels, R.J.R. and **Gadagkar, R.** (1984). Animal Species Diversity in the Western Ghats. Centre for Ecological Sciences, Indian Institute of Science, Bangalore, Technical Report No.5.
  17. **Gadagkar, R.** and Joshi, N.V. (1984). Social Organisation in the Indian Wasp *Ropalidia cyathiformis* (Fab.) (Hymenoptera: Vespidae). *Zeitschrift Tierpsychol.*, 64, 15-32. doi: 10.1111/j.1439-0310.1984.tb00350.x
  16. **Gadagkar, R.** and Joshi, N.V. (1983). Quantitative ethology of social wasps: Time-activity budgets and caste differentiation in *Ropalidia marginata* (Lep.) (Hymenoptera: Vespidae). *Animal Behaviour*, 31, 26-31. doi: 10.1016/S0003-3472(83)80170-5
  15. **Gadagkar, R.** and Joshi, N.V. (1982). When a wasp colony splits. In: *The Biology of Social Insects*, (Eds.) M.D. Breed, C.D. Michener and H.E. Evans. Proceedings of the Ninth Congress of the International Union for the Study of Social Insects, Boulder, Colorado, August 1982, Westview press, Boulder, Colorado, pp.217-218.
  14. **Gadagkar, R.** and Joshi, N.V. (1982). A Comparative Study of Social Structure in Colonies of *Ropalidia*. In: *The Biology of Social Insects*, (Eds.) M.D. Breed, C. D. Michener and H. E. Evans. Proceedings of the Ninth Congress of the International Union for the Study of Social Insects, Boulder, Colorado, August 1982, Westview press, Boulder, Colorado, pp.187-191.
  13. **Gadagkar, R.**, Gadgil, M., and Mahabal, A.S. (1982). Observations on population ecology and sociobiology of the paper wasp *Ropalidia marginata* (Lep.) (Family:Vespidae). *Proceedings of the Symposium on Ecology and Animal Population, Zoological Survey of India*, pp. 49-61.
  12. **Gadagkar, R.** and Joshi, N.V. (1982). Behaviour of the Indian social wasp *Ropalidia cyathiformis* on a nest of separate combs (Hymenoptera: Vespidae). *Journal of The Zoological Society of London*, 198, 27-37.
  11. **Gadagkar, R.**, Gadgil, M., Joshi, N.V. and Mahabal, A.S. (1982). Observations on the natural history and population ecology of the social wasp *Ropalidia marginata* (Lep.) from peninsular India (Hymenoptera: Vespidae). *Proceedings of the Indian Academy of Sciences (Animal Sciences)*, 91, 539-552.  
doi: 10.1007/BF03186154
  10. **Gadagkar, R.**, Nanjundiah, V., Joshi, N.V. and Sharat Chandra, H. (1982). Dosage compensation and sex determination in *Drosophila* : Mechanism of measurement of the X/A ratio. *Journal of Biosciences*, 4, 377-390. doi: 10.1007/BF02702750
  9. **Gadagkar, R.**, Nanjundiah, V., Joshi, N.V. and Sharat Chandra, H. (1981). Measurement of the ratio of the number of X chromosomes to sets of autosomes in *Drosophila melanogaster*. *Current Science*, 50, 805-807.
  8. **Gadagkar, R.** (1980). Dominance hierarchy and division of labour in the social wasp, *Ropalidia marginata* (Lep.) (Hymenoptera: Vespidae) *Current Science*, 49,

- 772-775.
7. **Gadagkar, R.** and Gopinathan, K.P. (1980). Growth of *Mycobacterium smegmatis* in minimal and complete media. *Journal of Biosciences*, 2, 337-348. doi: 10.1007/BF02716867
  6. **Gadagkar, R.** and Gopinathan, K.P. (1980). Bacteriophage burst size during multiple infections. *Journal of Biosciences*, 2, 253-259. doi: 10.1007/BF02703251
  5. **Gadagkar, R.** (1980). Seminar on evolution of social behaviour. *Journal of Scientific Industrial Research*, 39, 298-301.
  4. Gadgil, M., Joshi, N.V., **Gadagkar, R.**, Nanjundiah, V. and Gadgil, S. (1979). Evolution of Social Behaviour - A Primer, *Mimeo* (unpublished).
  3. **Gadagkar, R.** and Gupta, G. (1979). A nick free solution to the DNA winding problem - Round-up of research, *Science Today*, 13 (15), December, p.33.
  2. Gopinathan, K.P., Saroja, D., **Gadagkar, R.** and Ramakrishnan, T. (1978). Control of lysogeny in mycobacteria. In: *Genetics of Actinomycetales*. (Eds.) E.Freerksen, I.Tarnok and J.H.Thumim. Gustav, Fisher Verlag, pp.237– 242.
  1. **Gadagkar, R.** and Gopinathan, K.P. (1978). Inhibition of DNA injection from mycobacteriophage I3 by Tween-80. *Virology*, 91, 487-488.

### Interviews

1. Mossman, K. (2009). Profile of **Raghavendra Gadagkar**. *Proceedings of the National Academy of Sciences, USA*, 106, 10404-10406.
2. Klein, S. (2009) Interview of Prof. **Raghavendra Gadagkar**, *Die Zeit/Zeit Magazin*, 21-23.
3. Kaube, J. (2011). Interview of **Prof. Raghavendra Gadagkar**, Köpfe und Ideen, Wissenschaftskolleg zu Berlin (Institute for Advanced Study), Berlin, Germany, pp.10-15.

### Invited Lectures

#### a) Named and Plenary Lectures

64. Plenary talk, Inter-Academy Round Table Discussion held under the Theme of “Global Cooperation in Science and Technology” during the 2015 Inter Academy Seoul Science Forum held at InterContinental Seoul Coex, Korea, 11 November 2015.
63. A.V.Rama Rao Technology Award lecture delivered during the National Technology Day Celebrations 2015, Indian Institute of Chemical Technology, Hyderabad, 8 June 2015.
62. Plenary lecture, Symposium on “Ecology in Space and Time – An Interdisciplinary Conference on Forest Ecology and Climate Change”, Indian Institute of Science, Bangalore, 10 April 2015.
61. Plenary lecture, Commonwealth Science Congress, 27 November 2014, Lalit Ashok Hotel, Bangalore.



60. 41<sup>st</sup> Foundation Day Lecture, Agricultural Scientists Recruitment Board, New Delhi, 1 November 2014.
59. Public lecture, INSA Council and Annual General Body Meeting, Viswa-Bharati University, Santiniketan, 11 October 2014.
58. Prof. A. Abraham Birth Centenary Lecture, organized by Jawaharlal Nehru Tropical Botanic Garden & Research Institute, Thiruvananthapuram, Kerala, 1st November 2013.
57. Prof. R.L.Kapur Memorial Lecture - 2013, organized by Indian Psychiatric Society, Karnataka Chapter, held at Hassan, 3 August 2013.
56. Bicentennial Commemorative Public Lecture – 22, Indian Institute of Astrophysics, Bangalore, 14 December, 2012.
55. Distinguished Guest Lecturer, Bowen Centre for the Study of the Family, Georgetown University, Washington DC, USA, November 2011.
54. IISc Alumni Association Science Forum – Eighteenth Lecture delivered in the Popular Lecture Series, October 22, 2011, Indian Institute of Science, Bangalore.
53. Special Seminar Series: EMBL Forum on Science and Society Programme, European Molecular Biology Laboratory, Heidelberg, Germany, 27 May 2011.
52. First S. Chandrasekhar Memorial Lecture of the Indian Association for the Cultivation of Science, Jadavpur, Kolkata, 7 April 2011
51. First G N Ramachandran Memorial Lecture, organised by S N Bose National Centre for Basic Sciences, held at Rabindra Okakura Bhawan Auditorium, Salt Lake, Kolkata, 3 November 2010.
50. Public lecture, Animal Behaviour Symposium, Indian Institute of Science Education and Research, Kolkata, 31 October 2010.
49. CSIR Foundation Day Lecture, 26 September 2010, Vigyan Bhawan, New Delhi.
48. 16th Pt. Govind Ballabh Pant Memorial Lecture, G.B. Pant Institute of Himalayan Environment and Development Kosi-Katarmal, Almora, Uttarakhand, 10 September 2010.
47. Keynote lecture, Euro Science Open Forum, Torino, Italy, 5 July 2010.
46. Dinner lecture, Vienna Science Circle, Euro Science Open Forum, Torino, Italy, 3 July 2010.
45. Public lecture, Collegium Budapest, Institute for Advanced Study, Budapest, Hungary, 16 June 2009.
43. Frontiers of Science Lecture, University of Calicut, Calicut, Kerala, 14 February 2009.
42. Darwin Bicentenary Lecture, Kerala Shastra Sahitya Parishad, Calicut, Kerala, 13 February 2009.
41. Public Lecture, Wissenschaftskolleg zu Berlin, Germany, 23 November 2008
40. Invited lecture at the World Knowledge Dialogue Foundation Symposium, Crans-Montana, Switzerland, September 2008.
39. Plenary Lecture delivered at Mokpo University, Korea, 20 August 2008.
38. Centenary Lecture delivered at the University of Pretoria, South Africa, 15 July 2008.

37. Plenary Lecture delivered at the 23<sup>rd</sup> International Congress of Entomology 2008, Durban, South Africa, 10 July 2008.
36. Plenary Lecture delivered at the 38th World Congress of the International Institute of Sociology, Central European University, Budapest, Hungary, 28 June 2008.
35. Diamond Jubilee Colloquium – Raman Research Institute, Bangalore, 4 April 2008.
34. Shashtra Lecture – Indian Institute of Technology, Chennai, 28 September 2007.
33. CSIR Foundation Day Lecture - CDRI, NBRI, ITRC & CAMP", Industrial Toxicology Research Centre, Lucknow, 26 September 2007.
32. Plenary Lecture delivered during the 31<sup>st</sup> Annual Conference of the Ethological Society of India, held at the University of Agricultural Sciences, GKVK Campus, Hebbal, April 10-12, 2007.
31. Distinguished Lecture, University of Hyderabad, Hyderabad, 4 April 2007.
30. 10<sup>th</sup> Prof. S. P. Ray-Chaudhuri Memorial Lecture, Banaras Hindu University, Varanasi, 2 April 2007.
29. Prof. U.S.Srivastava Memorial Award Lecture of the National Academy of Sciences, India, St. Joseph's College, Bangalore, 14 February 2007.
28. Foundation Day Lecture, Centre for DNA Fingerprinting and Diagnostics, Hyderabad, 28 January 2007.
27. Invited for a Public Debate on "WHY WAR" with Prof. Helga Nowotny by the Bruno Kreisky Forum, Vienna, Austria, 3 May 2005.
26. Dr. J.C.Ray Memorial Oration Award and Foundation Day Lecture, Indian Institute of Chemical Biology, Kolkata, 2004.
25. Science Day Lecture, Centre for DNA Fingerprinting and Diagnostics, Hyderabad, 2004.
24. Platinum Jubilee lecturer, Indian Science Congress, Chandigarh, 2004.
23. Keynote Address delivered during the International Beekeeping Workshop and Honey Festival (APIEXPO) 2003 at Central College Campus, Bangalore University, 14 October 2003.
22. Plenary Lecture, 14<sup>th</sup> Congress of the Entomological Society of South Africa, University of Pretoria, South Africa, July 2003.
21. Public Lecture in London, India Day, Royal Society of London, December 2002.
20. Plenary Lecture, German Zoological Society, Halle, Germany, 2002.
19. Plenary Lecture, European Section of the International Union for the Study of Social Insects, Berlin, 2001
18. Public Lecture, Wissenschaftskolleg (Institute for Advanced Study) zu Berlin, Germany, 2001
17. The Third Dr.Manasi Ram Memorial Lecture, Miranda House, New Delhi, January 2001
16. The Eighth Prof.C.R. Narayana Rao Memorial Lecture, Gokhale Institute of Public Affairs, Bangalore, January 2001
15. Dr. Rajagopal Rao Endowment talk, CFTRI, Mysore, April 2000
14. C.P.Alexander Memorial Lecturer, University of Delhi, March 2000

13. Keynote lecture, Ethological Society of India, Madurai Kamaraj University, Madurai, 2000.
12. CSIR Foundation Day Lecture, Institute of Microbial Technology, Chandigarh, September 2000.
11. Dr. Salim Ali Memorial Lecture, SACON, Coimbatore, 1999.
10. Plenary lecture, Indian Science Congress, Delhi, 1998.
9. Keynote lecture, Plenary Session of the XVI National Symposium on Reproductive Biology and Comparative Endocrinology, University of Kerala, Trivandrum 1998
8. Plenary lecture, Fourth *Drosophila* Meeting, University of Mysore, 1997
7. Platinum Jubilee lecturer, Indian Science Congress, Delhi, 1997
6. Plenary lecture, Ethological Society of India, Karnatak University, Dharwad, 1996
5. Michener Lecturer, University of Kansas, USA, October 1994
4. Plenary lecture, International Union for the Study of Social Insects, Paris, 1994
3. Plenary lecture, *Drosophila* Meeting, Department of Zoology, University of Mysore, India, 1992 & 1993
2. Plenary lecture, International Ethological Conference, Kyoto, Japan, 1991
1. Plenary lecture, International union for the study of Social Insects, Bangalore, India, August 1990.

**b) Other Invited Lectures**

- (554) Invited talk, Asian Science Camp 2016, JN Tata Auditorium, Indian Institute of Science, Bangalore, 25 August 2016.
- (552-553) Invited talks, University of Exeter, UK, June 2016.
- (550-551) Invited talks, Ca'Foscari, University of Venezia, Italy, 11-12 February 2016.
- (549) Invited talk during the INSA-Leopoldina Symposium entitled "Brain and Eye" at L.V.Prasad Eye Institute, Hyderabad, 1-2 February 2016.
- (548) Invited talk, Indian Institute of Horticultural Research, Bangalore, 29 January 2016.
- (547) Invited talk, CES In-House Symposium, held at Indian Institute of Science, Bangalore, 18-20 January 2016.
- (546) Invited talk, 103 Indian Science Congress Session, University of Mysore, Mysore, 4 January 2016.
- (545) Invited talk, INSA Anniversary meeting, held at Indian Institute of Science Education & Research, Bhopal, 30 December 2015.
- (544) Invited talk, Regional Conference of Young Scientists on "Frontiers in Scientific Research, held at Jawaharlal Nehru Centre for Advanced Scientific Research, Jakkur, Bangalore, 21 December 2015.
- (543) Invited talk, International Symposium: MCB75:Molecules to Organism, Indian Institute of Science, Bangalore, 14 December 2015.
- (542) Invited talk, Konrad Lorenz Institute (KLI), Vienna, Austria, 20 November

- 2015.
- (541) Invited talk, 26<sup>th</sup> TWAS General Meeting held at the Austrian Academy of Sciences, Vienna, Austria, 18 November 2015.
  - (540) Plenary talk, Inter-Academy Round Table Discussion held under the Theme of “Global Cooperation in Science and Technology” during the 2015 Inter Academy Seoul Science Forum held at InterContinental Seoul Coex, Korea, 11 November 2015.
  - (539) Invited lecture delivered, 5<sup>th</sup> NIE Forum “International Symposium on Global Ecological Research”, National Institute of Ecology, Korea 10 November 2015.
  - (538) Special lecture delivered during the INSA General Meeting, Indian Institute of Science Education and Research, Mohali, 14 October 2015.
  - (537) Invited for a Panel Discussion on “Humanities and the Sciences during Curricula: Between Tacit Knowledge and Public Discourse International Workshop”, 9-10 September 2015, Van Leer Jerusalem Institute, Tel Aviv University, Israel.
  - (536) Invited for a meeting with the Prime Minister, 19 August 2015.
  - (535) Inaugural lecture, National Symposium on Germplasm to Genes: Harnessing Biotechnology for Food Security and Health, Organized by the Society for Plant Biochemistry and Biotechnology, National Research Centre on Plant Biotechnology, New Delhi, 9 August 2015.
  - (534) Invited for EUREKA Programme, Rajya Sabha Interview, 31 July 2015.
  - (533) Invited lecture, International Conference on Science, Sustainability and Art – Exploring tools for transformation, University of Freiburg, Germany, 3 July 2015.
  - (532) Invited lecture, University of Wuerzburg, Germany, 30 June 2015.
  - (531) A.V.Rama Rao Technology Award lecture delivered during the National Technology Day Celebrations 2015, Indian Institute of Chemical Technology, Hyderabad, 8 June 2015.
  - (530) Invited talk during the Valedictory Function of the Research Science Initiative – Chennai, Summer Programme 2015, Indian Institute of Technology, Chennai, 5 June 2015.
  - (529) Keynote lecture, Etho-Ethnography and Observation, Offenburg University of Applied Sciences, Freiburg, Germany, 9 May 2015.
  - (528) Introduction to the BUZZ Exhibition on Parasitic Ecologies Organized by Dr.Daniel Fetzner and Dr. Martin Dornberg, Offenburg University of Applied Sciences, Freiburg, Germany, 8 May 2015.
  - (527) Invited lecture, Integrative Research Institute for the Life Sciences, Humboldt University of Berlin, Germany, 7 May 2015.
  - (526) Invited lecture during the “Celebration of Science” Lecture Series, National Institute of Biomedical Genomics”, Kolkata, 14 April 2015.
  - (525) Invited lecture, Indian Statistical Institute, Kolkata, 13 April 2015.
  - (524) Plenary lecture, Symposium on “Ecology in Space and Time – An Interdisciplinary Conference on Forest Ecology and Climate Change”, Indian Institute of Science, Bangalore, 10 April 2015.

- (523) Chief Guest at the launch of the *Science Sethu Programme* & delivered a lecture at the National Institute of Immunology, New Delhi, 26 March 2015.
- (522) Invited lecture, Indian institute of Science Education and Research (IISER), Bhopal, 18 March 2015.
- (521) Special Seminar at Indian institute of Science Education and Research (IISER), Kolkata, 3 February 2015.
- (520) Invited talk, Bangladesh Academy of Sciences, Dhaka, 28 January 2015.
- (519) Invited talk, Lecture Series, Division of Biological Sciences, Indian Institute of Science, Bangalore, 20 January 2015.
- (518) Invited talk, INSA-Leopoldina Symposium on “Human Evolution towards Language: from Genes to Behaviour”, Indian Institute of Science Education and Research (IISER) Pune, January 15-16, 2015.
- (517) Keynote lecture delivered during the Guru Dakshina award distribution function, KSR Group of Institutions, Tiruchengode, Tamil Nadu, December 27, 2014.
- (516) Anniversary Address during the INSA Anniversary General Meeting, National Institute of Oceanography, Goa, 20 December 2014.
- (515) Plenary talk, Commonwealth Science Conference, Lalit Ashok Hotel, Bangalore, 27 November 2014.
- (514) Invited talk, Indo-US workshop on “Challenges of Emerging Infections and Global Biosafety”, Indian National Science Academy, New Delhi, 19 November 2014.
- (513) 41<sup>st</sup> Foundation Day Lecture, Agricultural Scientists Recruitment Board, New Delhi, 1 November 2014.
- (512) Public lecture, INSA Council and Annual General Body Meeting, Viswa-Bharati University, Santiniketan, 11 October 2014.
- (510-511) Invited talks during Workshop entitled “What is Intellectual Quality in the Humanities”, 10-11 September, Herrenhausen Palace, Hannover, Germany.
- (509) Plenary lecture, Humboldt Kolleg on Interdisciplinary Science: Catalyst for Sustainable Progress, 4-6 September 2014, National Institute of Advanced Studies, Bangalore.
- (508) Invited lecture, Regional Centre for Biotechnology, Gurgaon, 22 August 2014.
- (507) Invited lecture during the Symposium on “Cooperative behavior among non-kin”, during the VII European Conference on Behaviour Biology, Prague, Czech Republic, 20 July 2014.
- (506) Invited lecture, Department of Zoology, University of Halle, Germany, 28 May 2014.
- (505) Invited lecture during the Workshop on Participatory Mediographies – How to observe Humans and (their) animals?, University of Offenburg, Germany, 22-23 May 2014.
- (504) Invited lecture, Kanchenjunga Conference Hall, ICIMOD Headquarters, Kathmandu, Nepal, 2 April 2014.
- (503) Invited lecture, National Academy of Science and Technology, Kathmandu, Nepal, 1 April 2014.
- (502) Public lecture, Indian Institute of Science Education and Research (IISER),

Mohali, 27 March 2014.

- (500-501) Invited lectures, Indian Institute of Science Education and Research (IISER), Mohali, March 2014 (2 lectures)
- (499) Colloquium delivered at Panjab University, Chandigarh, 14 March 2014.
- (498) Invited lecture during the 101<sup>st</sup> session of the Indian Science Congress, University of Jammu, 4 February 2014.
- (497) Invited delegate, Panel Discussion on “Role of Science, Technology and Innovation in Ensuring Sustainable Inclusive Development” 101<sup>st</sup> Indian Science Congress, University of Jammu, 3 February 2014.
- (496) Invited lecture during the Science Academies two day lecture workshop on “Recent Advances in Biology”, Christ University, Bangalore 31 January 2014.
- (495) Invited lecture, CES In-House Symposium, Centre for Ecological Sciences, Indian Institute of Science, Bangalore, 18 January 2014.
- (494) Invited lecture, Department of Evolutionary Biology and Animal Ecology, Institute for Biology, university of Freiburg, Germany, 9 December 2013.
- (493) Invited lecture, Evolution Symposium: Celebrating Wallace, National Centre for Biological Sciences, Bangalore, 7 November 2013.
- (492) Invited lecture, W.M.Keck Center for Behavioural Biology, North Carolina State University, Raleigh, USA, 8 October 2013.
- (491) Invited lecture, Department of Organismic and Evolutionary Biology, Harvard University, Cambridge, Massachusetts, USA, 30 September 2013.
- (490) Invited lecture, International meeting on Tropical Biodiversity and Conservation at Centre for Ecological Science, Indian Institute of Science, Bangalore, 13 September 2013.
- (489) Invited lecture, Jyothi Institute of Technology, Bangalore, 39 August 2013.
- (488) Public lecture, “Being Social: An Interdisciplinary Conference on Social Behaviour”, Indian Institute of Science, Bangalore, 28 June 2013.
- (487) Invited lecture, Chronobiology School, Jawaharlal Nehru Centre for Advanced Scientific Research, Jakkur, Bangalore, 17 June 2013.
- (486) Science & Society Public Lecture at INSA, New Delhi, 14 June 2013.
- (485) Invited lecture, Indian Institute of Science Education & Research, Mohali, 12 April 2013.
- (484) Invited lecture, Agharkar Research Institute, Pune, 19 March 2013.
- (483) Invited lecture, Indian Institute of Science Education & Research, Pune, 13 March 2013.
- (482) Invited lecture, National Centre for Cell Science, NCCS Complex, University of Pune, 8 March 2013.
- (481) Invited lecture, National Science Day at CSIR-National Geophysical Research Institute, Hyderabad, 28 February 2013.
- (480) Invited lecture - Institute Colloquium at IIT, Bombay, Mumbai, 25 February 2013.
- (479) Invited lecture, Annual EOBUS Symposium, Jawaharlal Nehru Centre for Advanced Scientific Research, Jakkur, Bangalore, 9-10 January 2013

- (478) Invited lecture, Centenary Session of the Indian Science Congress, University of Calcutta, Kolkata, 3-7 January 2013.
- (477) Invited lecture, Mini-symposium on Science Education during the 78<sup>th</sup> INSA Anniversary General Meeting, Indian Institute of Science Education & Research, Pune, 27-29 December 2012.
- (476) Invited lecture, Intercollegiate Science Festival-Paradigm, 2012, St. Xavier's College, Mumbai, 22 December 2012.
- (475) Bicentennial Commemorative Public Lecture - 22, Indian Institute of Astrophysics, Bangalore, December 14, 2012.
- (474) Colloquium at Indian Institute of Technology Mandi, Himachal Pradesh, India, on 23 October 2012.
- (473) Invited lecture during the Symposium on "Ethomics: asking the organism in a genomic era", Max-Planck Institute for Chemical Ecology in Jena, Germany, 3-5 October 2012.
- (472) Special lecture – Science Academies' Summer Research Fellowship Programme organized by the Indian Academy of Sciences, Bangalore, 15 June 2012.
- (471) Invited lecture - Department of Animal Ecology and Tropical Biology University of Würzburg, Germany, 3 May 2012.
- (470) Invited lecture - EOBU Symposium 2012 in memory of Prof. M.K. Chandrashekar held during 19-20, January 2012 at JNCASR, Jakkur, Bangalore.
- (469) Invited lecture – Department of Entomology, Purdue University, Indianapolis, USA, 8 November 2011.
- (468) Invited lecture – School of Biological and Chemical Sciences, Queen Mary, University of London, UK, 28 September 2011.
- (467) Invited lecture – London Evolutionary Research Network (LERN), Department of Anthropology, University College London, UK, 27 September 2011.
- (466) Invited lecture – Department of Genetics, Evolution and Environment, University College London, UK, 26 September 2011.
- (465) Invited lecture - Centre for Study of Science, Technology & Policy (CSTEP), Bangalore, June 14, 2011.
- (464) Invited lecture – School of Life Sciences, Arizona State University, 28 April 2011.
- (463) Invited lecture – Harvard University, USA, 25 April 2011
- (462) First S. Chandrasekhar Memorial Lecture of the Indian Association for the Cultivation of Science, Jadavpur, Kolkata, 7 April 2011
- (461) Invited lecture – Conference on “Swarm Intelligence and Critical Behavior” at Bielefeld University, Germany, 22-24 March 2011.
- (460) Invited lecture – INQUIVESA 2011 – Popular Lecture Series at Indian Institute of Science Education and Research (IISER) Kolkata, 6 March 2011.
- (459) Inaugural lecture during Programme on "Current Trends in Biology", at MES Degree College, Bangalore, 9 February 2011
- (458) Public lecture, Centre for the Study of Developing Societies (CSDS), New Delhi, 2 February 2011.

- (457) First G N Ramachandran Memorial Lecture, organised by S N Bose National Centre for Basic Sciences, held at Rabindra Okakura Bhawan Auditorium, Salt Lake, Kolkata, 3 November 2010.
- (456) Public lecture, Animal Behaviour Symposium, Indian Institute of Science Education and Research, Kolkata, 31 October 2010.
- (455) Invited lecture, 21st General Meeting of TWAS held at International Convention Centre, Hyderabad, 21 October 2010.
- (454) Invited lecture, Vistas in Science – A Public Lecture Series at St. Joseph's College, Bangalore, 27 August 2010.
- (453) Invited lecture during the XVI IUSSI World Congress, 8-14 August 2010, Copenhagen, Denmark, 9 August 2010.
- (452) Invited lecture, Eighth NIAS-DST Programme on 'Multidisciplinary Perspectives on Science, Technology and Society', NIAS, Bangalore 6 August, 2010
- (451) Invited lecture, University of Texas at Austin, USA, 22 April 2010.
- (450) Invited lecture, International conference on "Impact of Relationships on Individual Variation", Bowen Center for the Study of the Family, Washington DC, USA during 17-18, April 2010.
- (449) Invited lecture, Indian Institute of Science Education & Research, Pune, 17 March 2010.
- (448) Invited lecture, Young Investigator Meeting, 8-12 February 2010, Kolkata.
- (447) Invited lecture at 5th Graduate Students Meet 2009 at Advanced Centre for Treatment, Research and Education in Cancer (ACTREC) Tata Memorial Centre, Navi Mumbai, 18 December 2009.
- (446) Colloquium, Homi Bhabha Fellowships Conclave, Tata Institute of Fundamental Research, Mumbai, 20 November 2009.
- (445) Invited lecture, Symposium on "Navigation and Communication - What we can learn from Insects" as part of the Platinum Jubilee Meeting of the Indian Academy of Sciences held at JN Tata Auditorium, Indian Institute of Science, Bangalore, 13 November 2009.
- (444) Invited lecture, Centre for the Study of Culture and Society, Uttarahalli, Bangalore, 6 November 2009.
- (443) Invited lecture, CES Silver Jubilee Symposium – Ecology and the Environment in India: Past, Present and Future, 22-24 October 2009, Indian Institute of Science, Bangalore.
- (442) Invited lecture, Jawaharlal Nehru University, New Delhi, October 14, 2009.
- (441) Invited lecture, Kishore Vaigyanik Protsahan Yojana (KVPY) direct-contact programme with talented science students, October 15, 2009, Jawaharlal Nehru University, New Delhi.
- (440) Invited lecture, Kishore Vaigyanik Protsahan Yojana (KVPY) direct-contact programme with talented science students, October 12, 2009, Bangalore.
- (439) Invited lecture, International Conference on Darwinism – A Sesqui-Centennial Celebration, 14-17 September 2009, Karnatak University, Dharwad.
- (438) Invited lecture, 31st International Ethological Conference, Rennes, France, 23 August 2009.



- (437) Invited lecture, School of Biosciences, Mahatma Gandhi University, Kottayam, Kerala, 7 August 2009.
- (436) Invited lecture, Jawaharlal Nehru Centre for Advanced Scientific Research, Jakkur, Bangalore, 30 June 2009.
- (435) Invited lecture, Conference at Central European University, Budapest, Hungary, 17-18 June 2009.
- (434) Invited lecture, University for Arts, Berlin, Germany, 18 May 2009.
- (433) Invited lecture, Microbiology and Cell Biology, Indian Institute of Science, Bangalore, 14 May 2009.
- (432) Invited lecture, International Symposium of the Humboldt University Berlin and the Leopoldina, Berlin, Germany, 4 May 2009.
- (431) Invited lecture, Department of Biochemistry, Indian Institute of Science, Bangalore, 31 March 2009
- (429-430) Invited lectures, Indian Institute of Scientific Education & Research, Kolkata, 27-29 March 2009.
- (428) Invited lecture, Tata Institute of Fundamental Research, Mumbai, 19 March 2009.
- (427) Invited lecture, National Science Day 2009, National Institute of Advanced Studies, Bangalore, 28 February 2009.
- (426) Invited lecture delivered during the Course on “ Production of Knowledge in the Natural and Social Sciences”, at the Centre for Contemporary Studies, Indian Institute of Science, Bangalore, 20 December 2008.
- (425) Invited lecture delivered during the Workshop on “Trends in Biological Sciences” during the IISc Centenary Conference – IISc: 100 Years and Beyond, 15 December 2008.
- (424) Invited lecture delivered at the 4<sup>th</sup> Asia-Pacific Computing and Philosophy Conference at National Institute of Advanced Studies, Bangalore, 5-7 December 2008.
- (423) Invited Lecture during the Launch of the Research Council UK Office in India, New Delhi, 20 October 2008.
- (422) Department of Ecology and Evolution, University of Lausanne, Switzerland, 17 September 2008.
- (421) Invited lecture, Seoul National University, Korea, 22 August 2008
- (420) Department of Zoology and Entomology, University of Pretoria, South Africa, 16 July 2008.
- (419) Department of Genetics, University of Pretoria, South Africa, 14 July 2008.
- (418) Lecture delivered for the students of Kishore Vaigyanik Protsahan Yojana Summer Programme, 3 July 2008.
- (417) Colloquium at the National Centre for Biological Sciences, Indian Institute of Science, Bangalore, 20 May 2008.
- (416) Invited lecture, Humanities Center, Harvard University, Cambridge, Massachusetts, USA, 25 April 2008.
- (414-415) Invited lectures, Department of Entomology, The Ohio State University, USA, 23 April 2008.

- (413) Invited lecture, Frontier Lectures in Biology –2008, at Bangalore University, Bangalore, 19 March 2008.
- (412) Invited lecture, Science and Society Meet at Indian National Science Academy, New Delhi, 13 March 2008.
- (411) Colloquium at the National Institute of Science Education and Research (NISER), Bhubaneswar, 6 February 2008.
- (410) Invited lecture, CES In-house Symposium, at the Jawaharlal Nehru Centre for Advanced Scientific Research, IISc. Campus, Bangalore, 10 January 2008.
- (409) Theosophy – Science Lecture delivered during the Annual Convention of the Theosophical Society, Chennai, 29 December 2007.
- (408) Invited lecture, Wissenschaftskolleg (Institute for Advanced Study) zu Berlin, Germany, 11 December 2007.
- (406-407) Invited lectures, XXV Encontro Annual de Etologia (XXV Brazilian Annual Meeting of Ethology), held at UNSEP de Sao Jose Do Rio Preto, Sao Paulo, Brazil during 14-17 November 2007.
- (405) Invited lecture, Ninasam culture course on "New idioms for the new century: interrogating intellectual stereotypes" held at Heggodu, Shimoga, during 7-13, October 2007.
- (404) Colloquium delivered at the Indian Statistical Institute, Bangalore, 5 October 2007.
- (403) Public Seminar delivered at Collegium Helveticum, Zurich, Switzerland, 14 June 2007.
- (402) Colloquium at the Department of Psychology and Institute for Systems Research, University of Maryland, USA, 26 April 2007.
- (401) Invited lecture, "One day workshop on Ecobehavioural Adaptation" held at Seshadripuram College, Bangalore, 9 March 2007.
- (400) Invited lecture, Laboratoire d'Ecologie, Universite Pierre et Marie Curie, Paris, 8 December 2006.
- (399) Invited lecture, Indo-German Workshop on Behaviour Neurobiology, held at the Centre for Cellular and Molecular Biology, Hyderabad. 18-22 September 2006.
- (398) Invited lecture, Training Programme on "Methods in Molecular Ecology" held at Centre for DNA Fingerprinting & Diagnostics, 18-30 September 2006.
- (397) Invited Panelist in the Round table Discussion during the XV IUSSI World Congress 2006 held at Washington D.C. during 30 July – 6 August 2006.
- (396) Invited lecture, XV IUSSI World Congress 2006, held at Washington D.C., 30 July – 6 August 2006.
- (395) Invited lecture, Workshop on "Computational Physical and Biological Sciences" at International Institute of Information (IIT) Hyderabad, 12-17 June 2006.
- (394) Invited lecture, Swedish Collegium for Advanced Study (SCASSS), Uppsala University, Uppsala, Sweden, May 11 2006.
- (393) Invited lecture, Department of Biology, University of Rochester, Rochester, USA, May 3 2006.

- (392) Invited lecture, Diamond Jubilee Lecture Series of the Agharkar Research Institute, Pune, 6 March 2006.
- (391) Invited lecture, National Science Day at Anna University, Chennai, 1 March 2006.
- (390) Invited lecture, Science Day at National Aerospace Laboratories, Bangalore, 28 February 2006.
- (389) Invited lecture, Seminar on "Significance of Basic Sciences in the Present Scenario", held at NMKRV college for Women, Jayanagar, Bangalore, 14 February 2006.
- (388) Invited lecture, St. Stephen's College, New Delhi on the occasion of National Science Festival, 11 February 2006.
- (387) Invited lecture, Workshop on "Common Trends in Traffic Systems: Physical and Computational Models in Transportation Engineering and Biological Sciences", Indian Institute of Technology, Kanpur, 7-10 February 2006.
- (375-386) Lectures delivered, DST Workshop on "Methods in Behavioural Ecology" held at the Jawaharlal Nehru Centre, Indian Institute of Science Campus, Bangalore, 16-28 January 2006 (12 lectures).
- (374) Invited lecture, Workshop entitled "Biotechnology Towards the Socio-Economic Progress of The Third World Countries" organized during the TWAS General Assembly Meetings at, Alexandria, Egypt, 29 November – 3 December 2005.
- (373) Invited lecture, Symposium on "Insect Genetics and Genomics" held at the Centre for DNA Fingerprinting and Diagnostics, Hyderabad, 10 January 2006.
- (372) Invited lecture, Symposium on "Excitement in Science" at the National Academy of Sciences, Allahabad, India, 6 October 2005.
- (371) Invited lecture, "Release of the Seminar Profile for the year 2004- 05 – Motivation Towards Higher Learning", at Vijaya Composite Pre University College, Bangalore on 9 September 2005.
- (370) Invited lecture, International Conference on "Human Centered Sustainable Development Paradigm" in honor of Prof. M.S. Swaminathan held at Chennai Trade Centre, Nandambakkam, Chennai during August 7-10 2005.
- (369) Invited lecture, Symposium on "Cooperative Breeding" during the 29<sup>th</sup> Ethological Congress in Budapest, Hungary, 20-27 August 2005.
- (368) Invited lecture, Refresher Course on "Earth System Science" organized by the Indian Academy of Sciences, Bangalore, 25 June 2005.
- (366-367) Invited lectures, Refresher Course on Interdisciplinary Approaches in Biology held at Centre for Cellular and Molecular Biology, Hyderabad, 7 June 2005.
- (365) Invited lecture, Department fuer Integrative Biologie, Institut fuer Zoologie, Universitaet fuer Bodenkultur, Vienna, Austria, 3 May 2005.
- (364) Invited lecture, Symposium on "Mayr-Maynard Smith Memorial Symposium", held at Indian Institute of Science, Bangalore, 27 April 2005.
- (363) Invited lecture, Workshop on "Vignana Jignase: A Workshop on the Ideas of Science", held at Heggodu, Shimoga District, April 12-14 2005.
- (362) Invited lecture, National Seminar on Evolutionary Biology and Biotechnology – to mark the Birth Centenary of Prof. Ernst Mayr, at, the Zoological Society, Kolkata, February 26, 2005.

- (356-361) Invited lectures, as a *Key Resource Person* - during the “UGC sponsored Workshop on – Evolutionary Approach in the Studies of Ecology and Behaviour”, 23-24 February 2005, Department of Zoology, Vivekananda College, Kolkata (6 lectures)
- (355) Invited lecture, Retirement symposium on “From Animals to Human Mind” in honor of Prof. Rudiger Wehner at the University of Zurich, Switzerland, 12 February 2005.
- (354) Invited lecture, “Biotech Fest – Prophecy – 2005” held at SRN Adarsh College, Bangalore, 4 February 2005.
- (353) Invited lecture, Teaching workshop on “Evolution of Developmental Mechanisms” held at Mahabaleshwar, January 21-26, 2005.
- (352) Invited lecture, Workshop on “Systems Biology”, held at Centre for Law and Governance, Jawaharlal Nehru University, New Delhi, 17 January 2005.
- (350-351) Invited lectures, during the Refresher Course on “Animal Behaviour”, at Madurai Kamaraj University, Madurai, 17<sup>th</sup> December 2004. (2 lectures)
- (349) Invited lecture, Biological Sciences Session during the 74<sup>th</sup> Annual Session of the National Academy of Sciences, held at Jaipur, 2-3 December 2004.
- (348) Invited lecture, CSIR’s programme on “Youth for Leadership in Science”, IMTECH, Chandigarh, 29 October 2004.
- (347) Invited lecture, Symposium on “BIONEERS” organized by Mahaveer Jain College, Bangalore 29 September 2004.
- (346) Invited lecture, TWAS Meeting on Science, Development and Education, Bangalore 27-28 September 2004.
- (345) Invited lecture, XIXth International Congress of Zoology during the Symposium on “40 Years of Kin Selection Theory”, Beijing, China 23-27 August 2004.
- (344) Invited lecture, Wednesday Forum at Advanced Centre for Treatment, Research & Education in Cancer, (ACTREC), Tata Memorial Centre, Navi, Mumbai, 7 July 2004.
- (343) Invited lecture, Symposium to Felicitate Prof. Madhav Gadgil, Organized by the Centre for Ecological Sciences, Indian Institute of Science, Bangalore, 31<sup>st</sup> May 2004.
- (342) Lecture delivered at the Wissenschaftskolleg zu Berlin, Germany, 6 May 2004.
- (341) Invited lecture, Members of Bharat Vikas Parishad, Mythic Society Hall, Bangalore, 19 April 2004.
- (338-340) Invited lectures, Frontier Lectures in Biology, held at Karnatak University, Dharwad, 11-13 March 2004 (3 lectures).
- (337) Invited lecture, Jawaharlal Nehru University, New Delhi, 27 February 2004.
- (336) Invited lecture, Symposium on “Bugs ‘n’ Biology – A Tribute to Prof. C.A.Viraktamath, held at the University of Agricultural Sciences, GKVK Campus, Bangalore, 31 January 2004.
- (335) Invited lecture delivered during DNA Symposium Society for Applied Genetics held at Bangalore University, Bangalore, 15 January 2004.

- (324-334) Lectures delivered during the DST Workshop on “Methods in Behavioural Ecology” held at the Jawaharlal Nehru Centre, Indian Institute of Science Campus, Bangalore, 12-24 January 2004 (11 lectures).
- (323) Invited lecture, International Seminar on “Life, Mind and Consciousness” at The Ramakrishna Mission Institute of Culture, Kolkata, 16-18 January 2004.
- (321-322) Invited lectures, Refresher Course in Zoology for College/University Teachers, at Central College, Bangalore University, 17 December 2003 (2 lectures).
- (320) Invited lecture, Seminar on “History of Ideas” at the National Institute of Advanced Studies, Indian Institute of Science Campus, Bangalore, 12<sup>th</sup> December 2003.
- (319) Invited lecture, National Symposium on Frontier Areas of Entomological Research held at Indian Agricultural Research Institute, New Delhi, 6<sup>th</sup> November 2003.
- (318) Invited lecture, International Symposium on “Life Cycles in Social Insects: Behavioural, Ecological and Evolutionary Approach” at St. Petersburg State University, St. Petersburg, Russia, 22-27 September 2003.
- (317) Colloquium at Wissenschaftskolleg (Institute for Advanced Study) zu Berlin, Germany, May 2003.
- (316) Imperial College, Silwood Park, London, 26<sup>th</sup> June 2003.
- (315) Department of Zoology, University of Cambridge, United Kingdom, 24<sup>th</sup> June 2003.
- (314) Department of Molecular Biology, Max-Planck Institut for Development Biology, Tuebingen, 10<sup>th</sup> June 2003.
- (313) Lecture delivered at Wissenschaftskolleg (Institute for Advanced Study) zu Berlin, Germany, 27<sup>th</sup> March 2003.
- (312) Colloquium at the Indian Institute of Science, Bangalore, 11<sup>th</sup> March 2003.
- (310-311) Lecture delivered during the “Frontier Lecture Series in Biology”, Sponsored by the Indian Academy of Sciences, held at University of Mysore, 20-22<sup>nd</sup> February 2003 (2 lectures).
- (306-309) Invited lectures, Indian Institute of Technology, Kanpur, 18-20<sup>th</sup> February 2003 (4 lectures).
- (304-305) Invited lectures during the lecture programme on “Evolutionary & Organismal Biology” held at the University of Delhi, sponsored by Jawaharlal Nehru Centre for Advanced Scientific Research and the University of Delhi, 23<sup>rd</sup> – 26<sup>th</sup> October 2002 (2 lectures).
- (303) Invited lecture, International Workshop on “Self-organization of Social Behaviour, Evolutionary Implications”, held at Monte Verita, Switzerland 8-13 September 2002.
- (302) Invited lecture, Workshop on “Adaptation and Time”, held at Jawaharlal Nehru Centre for Advanced Scientific Research, Jakkur, Bangalore, 29 August 2002.
- (301) Invited lecture, Silver Jubilee of the IISc Alumni Association, Indian Institute of Science, Bangalore, 10 August 2002.
- (300) Invited lecture, XIV International Congress of IUSSI, Hokkaido University, Sapporo, Japan, 30 July 2002.

- (299) Invited lecture, Symposium on “Theoretische Biologie: eine neue Disziplin?”, at Wissenschaftskolleg (Institute for Advanced Study) zu Berlin, Germany, 2<sup>nd</sup> July 2002.
- (298) Invited lecture, Wissenschaftskolleg (Institute for Advanced Study) zu Berlin, Germany, May 2002.
- (297) Invited lecture, Workshop on “Paradigms of Change”, organized by the Centre for Development Research of the University of Bonn, Germany, May 2002.
- (296) Invited lecture, University of Copenhagen, Denmark, May 2002.
- (295) Invited lecture, Workshop on “Meaning and Normativity”, Wissenschaftskolleg (Institute for Advanced Study) zu Berlin, Germany, April 2002.
- (294) Public talk, Second meeting of the Evolutionary Forum, Indian Academy of Sciences, Bangalore 15<sup>th</sup> February 2002.
- (293) Invited lecture, Fourth Meeting of the Task Force on “Application of Biotechnology for Biodiversity Conservation and Environment”, Delhi 24<sup>th</sup> January 2002.
- (292) Invited lecture, Discussion meeting on “Future Dimensions in Entomological Research”, Chennai, 19<sup>th</sup> January 2002.
- (286-291) Invited lectures, Workshop on “Methods in Behavioural Ecology” held at the Centre for Ecological Sciences, Indian Institute of Science, Bangalore, India, 17 to 29 December 2001 (6 lectures).
- (285) University of Bochum, Germany, November 2001.
- (284) University of Munich, Germany, November 2001.
- (283) Colloquium at the Wissenschaftskolleg (Institute for Advanced Study) zu Berlin, Germany, October 2001.
- (281-282) Invited lectures, Workshop on Evolutionary Biology in Warsaw, Poland, October 27, 2001 (2 lectures).
- (278-280) Invited lectures, Refresher Course in Genetics and Evolution, Department of Zoology, Manasagangotri, Mysore, 10-11 September 2001 (3 lectures).
- (277) Invited lecture, XVII International Ethological Conference, Tuebingen, Germany, August 22-29 2001.
- (276) University of Regensburg, Germany, July 2001.
- (274-275) University of Wuerzburg, Germany, July 2001 (2 lectures)
- (273) Invited lecture, Symposium on “*Proximate or Ultimate? That is not the real question – cause and function in the evolution of social insect behaviour*”, University of Utrecht, The Netherlands, June 2001.
- (272) Free University, Berlin, Germany, June 2001.
- (291) University of Zurich, Switzerland, June 2001.
- (271) Jagellonian University, Krakow, Poland, May 2001.
- (270) Invited lecture, Workshop on Principals of Social Evolution, Wissenschaftskolleg (Institute for Advanced Study) zu Berlin, Germany, May 2001.
- (269) Invited lecture, Innovationskolleg Theoretische Biologie, Humboldt-Universität zu Berlin, Germany, May 2000

- (268) Invited lecture, Symposium on Current Trends in Bioinformatics, Indian Institute of Science, Bangalore, 28 March 2001.
- (267) Invited lecture, Raman Research Institute, Bangalore, 15 March 2001.
- (266) Invited lecture, National Centre for Cell Sciences, Pune, 5 March 2001.
- (265) Invited lecture, Abasaheb Garware College, Pune, 4 March 2001.
- (264) Colloquium, Inter-University Centre for Astronomy and Astrophysics, Pune, 5 March 2001.
- (263) Plenary talk, 8<sup>th</sup> All India Conference on Cytology and Genetics, Centre for Applied Genetics, Bangalore University, 24 January 2001.
- (262) Invited lecture, 88<sup>th</sup> Session of Indian Science Congress "Science for Children Programme", January, 2001.
- (261) Invited lecture, National Symposium on "Vistas of the Entomological Research for the New Millennium", at Gill Research Institute, Chennai, December 28-30, 2000.
- (260) Invited lecture, 69<sup>th</sup> Annual Meeting of the Society of Biological Chemists (India), Calcutta, December 2000.
- (259) Invited lecture, Annual Meeting of the Third World Academy of Sciences (TWAS), Tehran, Iran, October 2000.
- (258) Invited lecture, Jawaharlal Nehru University, New Delhi, July 2000.
- (257) Invited lecture, Workshop on TMR European Community – "Kinship, Communication and Diseases in Social Insects", Florence, Italy, 7–11 July 2000.
- (253-256) Invited lectures, Refresher Course on Animal Sciences at Karnatak University, Dharwad, Sponsored by the Indian Academy of Sciences, Bangalore, June 2000 (4 lectures).
- (252) University of Sussex, England, October 1999
- (251) University of Cambridge, UK, October 1999
- (250) University of Oxford, England, October 1999
- (249) University of Paris, France, October 1999
- (248) University of Frankfurt, Germany, September 1999
- (247) Universite Libre de Bruxelles, Belgium, September 1999.
- (246) Invited lecture, Congress of the French Section of the IUSI, Tours, France, 1 – 3 September, 1999.
- (244-245) Invited lectures delivered during the XXVI<sup>th</sup> International Ethological Conference, Bangalore, August 2 - 9 1999. (2 lectures)
- (243) Invited lecture, Discussion Meeting on Behavioural Ecology (Sponsored by Jawaharlal Nehru Centre for Advanced Scientific Research), University of Mysore, Mysore, 8 –10 July 1999.
- (242) Invited lecture, Meeting on "Self Organisation and the Evolution of Social Behaviour", Sante Fe University, New Mexico, USA, April 26 -30 1999.
- (241) Invited lecture, XIII International Congress of IUSI, Adelaide, Australia, 29<sup>th</sup> December 1998 - January 4 1999.
- (240) University of Würzburg, Germany, November 1998.

- (239) University College London, England, November 1998.
- (238) University of Oxford, England, November 1998.
- (237) Invited lecture, International Symposium on Frontiers of Genetics and Development, Indian Institute of Science, 7-8 July 1998.
- (235-236) University of Zurich, Switzerland, June 1998 (2 Seminars).
- (234) University of Lausanne, Switzerland, June 1998.
- (233) University of Konstanz, Konstanz, Germany, June 1998.
- (232) University of Paris VI, France, May 1998.
- (231) University of Leuven, Belgium, May 1998.
- (229-230) University of Paul Sabatier, Toulouse, France, May 1998 (2 Seminars).
- (228) Inaugural Lecture, Seminar on "Bio-Diversity" during the Decennial Celebrations, Kuvempu University, Mysore, 16-18 March 1998
- (238) Guest lecture, Acqua-terra annual symposium, Madurai Kamaraj University, Madurai, February 27-28 1998.
- (227) Invited lecture, during the Seminar on "Genetics – better life for all", held at Bangalore University, organised by Society for Applied Genetics and Bangalore University, 21 February 1998.
- (225-226) Invited lectures, Workshop on "Vertebrate Reproduction", Karnatak University, Dharwad, December 29, 1997 – January 12, 1998 (2 Seminars).
- (224) Invited lecture, National Institute of Immunology, New Delhi, 15 December 1997
- (223) Invited lecture, Distance Education, Information and Training Infrastructure at Goa University, December 10-19, 1997.
- (222) Invited Lecture, 67<sup>th</sup> Annual Convention of the National Academy of Sciences, Bhubaneshwar, October 24-26 1997.
- (221) Special Lecture, Interaction Meeting on "Chromosomes & Evolution" sponsored by DST, held at University of Mysore, August 29-31, 1997.
- (220) Invited Lecture, Golden Jubilee Symposium on Eve, Education and Environment, Mount Carmel College, Bangalore, 25 July 1997.
- (217-219) Refresher Course in Zoology, Department of Zoology, Goa University, 10th - 31st January 1997. (3 lectures)
- (216) Endowment lecture, M.N.Technical Institute Sponsored by Poorna Prajna Academy Trust Regd., Kammagondanahalli, Bangalore, India, 25th November 1996.
- (215) Invited lecture, Symposium on Evolutionary Ecology held during the 62nd Annual Meeting of the Indian Academy of Sciences, Jodhpur, 1-3 November 1996.
- (214) Invited lecture, Symposium on Modern Biology as part of the Fiftieth anniversary of the Tata Institute of Fundamental Research, IISc Campus, Bangalore, 14-18 October 1996.
- (199-213) Workshop on "Methods in Behavioural Ecology" Centre for Ecological Sciences, Indian Institute of Science, Bangalore, India, 7-19 October 1996 (15 lectures)



- (197-198) Invited lecture, *Drosophila* Stock Centre, Department of Zoology, Manasagangotri, Mysore University, September 1996 (2 lectures)
- (196) Invited lecture, Bangalore Science Forum, National College, Basavangudi, Bangalore, September 1996.
- (195) Invited lecture, Museu de Zoologie Da Universidade, Sao Paulo, Brazil, August 1996.
- (194) Invited lecture, Facultat fur Biologie, Universitat Konstanz, Germany, August 1996.
- (193) Invited lecture, Theodar Boveri Instiut fur Biowissenschaften, Wurzburg, Germany, August 1996.
- (192) Invited lecture, University of Paris, France, August 1996.
- (191) Invited lecture, International Workshop on "Ants of the Leaf Litter: a Global Approach to Tropical Leaf Litter Biodiversity and Conservation", Itabuna, Bahia State of Brazil, from 18-23 August 1996.
- (190) Invited lecture, National Symposium on Evolution of life, University of Delhi South Campus, Delhi, 5 April 1996.
- (189) Seminar on Perspectives in Global Science and Technology Communications, Organised by Indian National Science Academy, 2 April 1996.
- (188) Invited lecture, Seminar on Advances in Genetics, Organised by the Centre for applied Genetics, Bangalore University, 24 February 1996.
- (187) Sir J.C. Bose Endowment Lecture, M.N.Technical Institute Sponsored by Poorna Prajna Academy Trust Regd. Kammagondanahalli, Bangalore, India, 17 February 1996.
- (184-186) Invited lectures, Discussion Meeting on Evolutionary Biology, Mangalore, 23-28 December 1995 (3 lectures).
- (183) Invited lecture, National Symposium on "Biotechnological Inputs in Insect-Plant Interactions", Madras, December 14-16 1995, organised by Entomology Research Institute, Loyola College, Madras.
- (182) Keynote address at Seminar on Ecological Problems and Emerging Challenges, organised by Centre for Ecology & Integrated Studies, Bangalore on 25 November 1995.
- (181) Gandhi Centre of Science and Human Values, Bharatiya Vidya Bhavan, Bangalore, 28 October 1995.
- (180) Department of Biology, The Chinese University of Hong Kong, Shatin, Hong Kong, September 1995.
- (179) School of Arts & Sciences, Okinawa University, Kokuba, Japan, September 1995
- (178) Department of Natural Sciences, Saga Medical School, Nabeshima, Japan, September 1995
- (177) Department of Biology, Kyushu University, Fukuoka, Japan, September 1995
- (176) Centre for Ecological Research, University of Kyoto, Otsu, Japan, September 1995

- (174-175) Invited lectures on "Ecology" for the 3rd NIAS Course on "An Integrated Approach to Knowledge and Information" for University/College Teachers, 24th and 25th July 1995, National Institute of Advanced Studies, Indian Institute of Science, Bangalore (2 lectures).
- (173) Invited lecture, Session on Science & Technology for Human Welfare held as part of the Seminar on UN for a Better World, Sponsored by Kengal Hanumanthaiya Foundation, National Institute for Advanced Studies, Indian Institute of Science, Bangalore, 27 June 1995.
- (172) National Institute of Advanced Studies, Indian Institute of Science Campus, Bangalore, May 1995.
- (169-171) Refresher course in Neurophysiology, Behavioural Rhythms and Ethology, Madurai Kamaraj University, Madurai, 3 February 1995. (3 lectures).
- (168) Endowment Lecture at M.N.Technical Institute Sponsored by Poorna Prajna Academy Trust Regd. Kammagondanahalli, Bangalore, India, 11 February 1995.
- (166-167) Workshop on Statistical Methods for Ecologists, Department of Statistics, University of Poona, Pune, January 9-21, 1995. (2 lectures).
- (165) Department of Zoology, University of Poona, Ganeshkhind, Pune, January 1995.
- (164) Invited lecture, Simon Fraser University, British Columbia, Canada, October 1994.
- (163) Invited lecture, University of California, Berkeley, California, USA, October 1994.
- (162) Invited lecture, Stanford University, Stanford, California, USA, October 1994.
- (159-161) Invited lecture, University of Kansas, Lawrence, Kansas, USA, October 1994 (3 lectures).
- (157-158) Invited lecture, University of Georgia, Athens, USA, October 1994 (2 lectures).
- (156) Invited lecture, University of Wisconsin, Wisconsin, USA, October 1994.
- (155) Invited lecture, University of Illinois at Urbana, Champaign, USA, October 1994.
- (154) Invited lecture, Ohio State University, Columbus, Ohio, USA, October 1994.
- (153) Invited lecture, Princeton University, Princeton, New Jersey, October 1994.
- (151-152) Refresher course in Zoology, Department of Zoology, S. V. University, Tirupati, 7th July 1994 (2 lectures).
- (150) Keynote address, World Student's day for Environment, organised by Students Movement for Preservation of Environment, State Youth Centre, Nrupathanga Road, Bangalore, 5 July 1994.
- (149) Special Lecture, Workshop on Evolutionary Ecology, Sponsored by Department of Science & Technology, Government of India, 21 – 23 April 1994.
- (146-148) Refresher course in Zoology, Department of Zoology, Goa University, Goa 403 203, India, 1-2 March 1994 (3 lectures).

- (145) Endowment Lecture at M.N.Technical Institute Sponsored by Poorna Prajna Academy Trust Regd. Kammagondanahalli, Bangalore 560 015, India, 19 February 1994.
- (142-144) Refresher course in Zoology, Osmania University, Hyderabad 500 007, India, 27 December 1993 - 22 January 1994 (3 lectures).
- (141) International Workshop on "Natural History and Evolution of an Animal Society : The Paper-Wasp Case" held at Castiglioncello, Italy, 4 - 7 October 1993.
- (138-140) Theodar Boveri Institut fur Biowissenschaften, Am Hubland, Wuerzburg, Germany, May-July 1993 (3 Seminars).
- (137) Keynote lecture, Multidisciplinary Interaction meeting in Neurosciences, Bangalore, April 16-18 1993.
- (135-136) Invited lectures, XXI Annual meeting of the Ethological Society of India and National Symposium/ Colloquium on Perspectives in Animal Behaviour, Tirupati, India, 11-12 April 1993 (2 lectures).
- (133-134) Department of Zoology, Karnatak University, Dharwad, March 1993 (2 lectures).
- (132) Invited lecture, Annual meeting of the Indian Chapter of the Indian National Science Academy, Bangalore, India, February 1993
- (131) Special lecture on "Biological Diversity of Insects" organised by Indian Academy of Entomology, Madras, India, 18 - 20 December 1992.
- (130) Division of Entomology, CSIRO, Canberra, Australia, December 1992.
- (129) Research School of Biological Sciences, Australian National University, Canberra, Australia, December 1992.
- (128) Department of Genetics and Human Variation, La Trobe University, Bundoora, Victoria, Australia, December 1992.
- (112-127) Workshop on "Methods in Behavioural Ecology", Centre for Ecological Sciences, Indian Institute of Science, Bangalore, India, 12-26 October 1992 (16 lectures)
- (110-111) Refresher Course in Zoology, S.V.University, Tirupathi, India, 14 September 1992 (2 lectures)
- (109) Bombay Natural History Society, Bombay, September 1992
- (108) Raman Research Institute, Bangalore, August 1992
- (107) Symposium on Space and Environment Organized by S.J.College of Engineering, Mysore, India, 27 August, 1992
- (106) In service course for post-graduate teachers in biology, working in various Kendriya Vidyalayas in the country. Kendriya Vidyalaya, ASC Centre (S), Bangalore, India, 27 May, 1992
- (104-105) Salim Ali School of Ecology and Environmental Sciences, Pondicherry, India, February 1992 (2 lectures)
- (103) Zoologisches Institut der Universitat, Basel, Switzerland, January 1992
- (102) Musee Zoologique, Lausanne, Switzerland, January 1992
- (100-101) University of Zurich, Switzerland, January 1992 (2 Seminars)
- (99) University of Paris, France, January 1992

- (98) Invited lecture, 79th Annual Session of the Indian Science Congress. Baroda, India, 3 - 8 January, 1992 .
- (97) National Seminar on "Mathematical Modelling in Biology & Chemistry". Centre for Cellular and Molecular Biology, Hyderabad, India, 17 - 20 December, 1991.
- (95-96) Workshop on Statistical Methodology for Ecologists, Department of Statistics, University of Poona, Pune, India, 2 - 14 December, 1991 (2 lectures)
- (94) Guha Research Conference, Kemmangundi Hills, Karnataka, India, December 1991
- (93) International Centre for Genetic Engineering and Biotechnology, New Delhi, India, September 1991.
- (92) Department of Biology, Tokyo Metropolitan University, Tokyo, Japan, August 1991
- (91) Indian National Science Academy seminar on "Evolution and Genetics : A colloquium on some aspects of current interest". Indian National Science Academy, New Delhi, India. 7 August, 1991
- (89-90) In service course for post-graduate teachers in biology, working in various Kendriya Vidyalayas in the country. Kendriya Vidyalaya, ASC Centre (S), Bangalore, India, 14 and 17 June, 1991 (2 lectures)
- (88) Discussion meeting on Learning and Memory in animals Heggedihalli (near Nandi Hills), Bangalore, India, June 1991
- (87) Indian National Science Academy seminar on "Behavioural Science - Scope and limitations". Madurai Kamaraj University, Madurai, India, 16 May, 1991
- (86) Plenary lecture, Group Monitoring workshop on "Life Sciences Projects under the Young Scientists scheme", Department of Science and Technology, Visva Bharati, Santiniketan, West Bengal, India, 21 - 22 March, 1991
- (85) National Symposium on "Behavioural Sciences" and XIX Annual Meeting of the Ethological Society of India, The American College, Madurai, India, 27-28 December, 1990
- (84) Symposium on "Genetic Structure and Kin Selection in Insect Societies" organised as part of the Annual Meeting of the Entomological Society of America, New Orleans, Louisiana, USA, 2 - 6 December, 1990
- (83) University of Wuerzburg, Germany, December 1990
- (82) Harvard University, Cambridge, Massachusetts, USA, December 1990
- (81) Ohio State University, Columbus, Ohio, USA, December 1990
- (80) University of Kansas, Lawrence, Kansas, USA, December 1990
- (79) Rice University, Houston, Texas, USA, December 1990
- (78) Texas A& M University, College Station, Texas, USA, December 1990
- (77) University of Georgia, Athens, Georgia, USA, November 1990
- (76) Michigan State University, East Lansing, Michigan, USA, November 1990
- (75) 56th Annual Meeting of the Indian Academy of Sciences, Bhubaneswar, Orissa, India, 8 - 11 November, 1990
- (74) Centre for Cellular and Molecular Biology, Hyderabad, India, November 1990

- (73) Mahabaleshwar Seminar on "Modern Biology" held at Pachmarhi, Madhya Pradesh, India, 21-26 October, 1990.
- (71-72) Winter School on "Sex Determination". Madurai Kamaraj University, Madurai, India, 17-29 September, 1990 (2 lectures)
- (69-70) 11th International Congress of International Union for Study of Social Insects. Bangalore, India, 4-11 August, 1990 (2 lectures)
- (68) Third All India People's Science Congress, Vidyanagar, Bangalore, India, March 1990.
- (67) National symposium on "Conservation and Management of Living Resources". University of Agricultural Sciences, Bangalore, India, 10-12 January, 1990
- (64-66) Workshop on "Topics in Evolutionary Biology", Indian Institute of Science, Bangalore, India, 11-15 December, 1989 (3 lectures)
- (63) Seminar on "Camouflage", Defence Laboratory, Jodhpur, India, 19-21 October, 1989
- (62) MAB Regional Training Workshop on "Tropical Forest Ecosystem Conservation and Development in South and South-east Asia", Trichur, India, 1-13 May, 1989
- (60-61) Refresher course on "Chronobiology and Animal Behaviour", Madurai Kamaraj University, Madurai, India, 15-17 April, 1989 (2 lectures)
- (59) National Aeronautical Laboratory, Bangalore, India, April 1989
- (58) DST Group monitoring workshop on Animal Behaviour Ecology and Evolution, North Eastern Hill University, Shillong, India, May 1988
- (50-57) Department of Zoology, University of Poona, February, 1988 (8 lectures)
- (48-49) National Seminar on "Statistics for Biologists". School of Biological Sciences, Madurai Kamaraj University, Madurai, India, January 30 – February 5, 1988 (2 lectures)
- (47) Indian Science Congress, University of Poona, Pune, India, January, 1988
- (43-46) First Asian School on Conservation Biology held at Centre for Ecological Sciences, Indian Institute of Science, Bangalore, India, 16-31 December, 1987 (4 lectures)
- (42) Frontiers of Tomorrow in Biology. Symposium organized on the occasion of the dedication of the Centre for Cellular and Molecular Biology Complex, Hyderabad, India, 19-20 November, 1987
- (41) National Symposium on Social Insects, University of Agricultural Sciences, Bangalore, India, 7-8 October, 1987
- (40) Department of Zoology, University of Delhi, Delhi, India, January 1987
- (39) National Symposium on "Impact of Nutrition on the Reproductive Biology of Insects", Loyola College, Madras, India, January, 1987
- (32-38) First National School on Conservation Biology held at Centre for Ecological Sciences, Indian Institute of Science, Bangalore, India, 10-22 November, 1986 (7 lectures).
- (31) Satellite Symposium on "Communal Breeding in Birds and Pleometrosis in Social Insects", Nagoya University, Nagoya, Japan, 13-14 July, 1986

- (30) Central Food Technology Research Institute, Mysore, India, April 1986
- (29) National Symposium on "Insect Physiology, Ecology and Behaviour", University of Kerala, Kerala, India, 18-20 February, 1986
- (28) National Institute of Mental Health and Neurosciences, Bangalore, India, October 1985.
- (27) National Zoological Park, Smithsonian Institution, Washington D.C. USA, June 1985.
- (26) IUBS/ UNESCO Meeting on "Human Impact on Species Diversity in Tropical Rain Forest Ecosystems". Puerto-Rico, USA. 11-14 June, 1985.
- (25) Tata Institute of Fundamental Research, Bombay, India, March 1985
- (24) Symposium on "Animal communication" organised as a part of the Golden Jubilee Celebrations of the Indian Academy of Sciences, Bangalore, India, February, 1985.
- (23) National Workshop on "Advances in Insect Behaviour" held at Loyola college, Madras, India, 14-16 December, 1984.
- (22) Mahabaleshwar Seminar on "Theories in Biology" held at Rishi Valley, Bangalore, India, 22-30 September, 1984.
- (21) International symposium on "Genetic Microdifferentiation in Human and other animal populations", Hyderabad, India, December, 1983.
- (20) Society of Biological Chemists, Hyderabad Chapter and National Institute of Nutrition, Hyderabad, India, June 1983.
- (18-19) Centre for Cellular and Molecular Biology, Hyderabad, India, June 1983 (2 seminars).
- (17) Seminar on "Frontiers of Evolutionary Biology", Rishi Valley School, Bangalore, India, June 1983.
- (16) Guha Research Conference, Goa, India, December 1982
- (15) Oakland University, Rochester, Michigan, USA, September 1982
- (14) University of Michigan, Ann Arbor, Michigan, USA, September 1982
- (13) University of Missouri, St. Louis, Missouri, USA, September 1982
- (11-12) IX Congress of the International Union for the study of Social Insects held at Boulder, Colorado, USA, August, 1982 (2 lectures)
- (8-10) University of Kansas, Lawrence, Kansas, USA, July - August 1982 (3 lectures)
- (7) 11th Annual Meeting of the Ethological Society of India, Bangalore, India, May, 1982.
- (6) Museum of Comparative Zoology, Harvard University, USA, March 1981.
- (5) National Zoological Park, Smithsonian Institution, Washington D.C., USA, February 1981.
- (4) Smithsonian Tropical Research Institute, Panama, USA, February 1981.
- (3) Symposium on "Condensed Chromatin and the Human X- Chromosome", Indian Institute of Science, Bangalore, India, December, 1981
- (2) National Symposium on "Ecology and Management of Social Insects", Bangalore, India, 1981.

- (1) Seminar on "Evolution of Social Behaviour", Mahabaleshwar, India, 1979.

### **U.G.C. Countrywide-Classroom Programme on Television**

1. "The Name of the Game Camouflage".
2. "The Evolution of Insect Societies".
3. "The Life of a Social Wasp".

1. **Popular Science Lectures in schools and colleges** : 139
2. **Talks on All India Radio - ENGLISH** : 3
3. **Talks on All India Radio - KANNADA** : 6

### **Current Research Interests**

1. Evolution of Social Life in Insects
2. Insect Biodiversity
3. Mathematical modelling in Genetics and Developmental Biology

### **Field Work**

1. Bangalore, India
2. Barro Colorado Island, Panama, USA
3. Lawrence, Kansas, USA
4. Uttara Kannada District, Karnataka, India

### **Membership of Professional Bodies**

21. Associate Member, National Institute of Advanced Studies, Bangalore, 2006 - present.
20. Life Member, Indian Society of Developmental Biologists, Pune 2004 onwards
19. Member, American Association for the Advancement of Science, (1999 - present)
18. Life Member, Indian Science Congress Association 1998 onwards
17. Member, National Institute of Ecology, Jaipur (1997 - present)
16. Full Member, Sigma XI (1997 - present).
15. Life Member, Indian Complex Systems Society, Bangalore.
14. Member, American Society of Naturalists (1994 - present)
13. Member, International Society of Behavioral Ecology (1993 - present)
12. Life Member, Bangalore Bee Keepers Association (1994 - present)
11. Member, Association for Tropical Biology, (1993 - present).
10. Member, Centre for Science and Environment, (1992 - present)

9. Member, International Society of Hymenopterists (1992 - present)
8. Member, Entomological Society of America, USA (1987-1989)
7. Life Member, Karnataka Association for the Advancement of Science (from 1986)
6. Member, Smithsonian Institution, Washington D.C., USA (1982- 1989)
5. Member, Bombay Natural History Society, Bombay, India (1983 - present)
4. Life Member, Ethological Society of India (from 1983)
3. Member, International Union for the Study of Social Insects, Indian Chapter (1986 - present)
2. Member, International Union for the Study of Social Insects, North American Section (1982 - present)
1. Member, Animal Behaviour Society (1982 - present)

### **Membership of Advisory Committees**

116. Member, International Advisory Committee, Yehuda Elkana Center for Higher Education, Budapest, Hungary. December 2015 -
115. Member, Steering Committee for the scheme “National Mission on Himalayan Studies (NMHS)”, Ministry of Environment, Forest and Climate Change, Government of India, 2015 – present.
114. Chairman, Scientific Advisory Committee (SAC) of the project entitled “Chemical Ecology of the North East Region (NER) of India: A Collaborative Programme Linking NER and Bangalore Researchers” Project. Department of Biotechnology, Government of India, 2015 -
113. Ex-officio Member, Central Advisory Board of Education (CABE), Department of Higher Education, Ministry of Human Resource Development, Government of India, 2015 – 2018.
112. Chairman, Judging Committee, Norman Borlaug Award for the year 2014, Indian Council of Agricultural Research, New Delhi.
111. Chairman, National Advisory Committee for the programme “NCSTC Associateships in Science Communication”, Department of Science & Technology, New Delhi, 2014-2016.
110. Member, Executive Board, International Council for Science (ICSU) 2015-2017.
109. Member, Council of Scientific & Industrial Research Society, April 2013 – March 2016.
108. Chairman, Advisory Board, Council of Scientific and Industrial Research (CSIR), March 2013 – February 2016.
107. Member, TWAS Regional Prize – 2013 in the subject area “Public Understanding and Popularization of Science”.
106. Member, Advisory Board, Australian Section of the International Union for the Study of Social Insects (IUSI), Cairns, 2014.
105. Ex-officio Member, National Committee, International Union of Biological Sciences (IUBS), 2012-2015.



104. Member, Advisory Board, Ashoka Trust for Research in Ecology and the Environment (ATREE), Ministry of Science and Technology, Government of India, 2011-present.
103. Member, Steering Committee for establishing National Museum of Natural History (NMNH) at Botanical Garden India Republic (BGIR), Noida, 2011.
102. Member, Expert Committee for selection of scientists for the "Tata Innovation Fellowship", Department of Biotechnology, Government of India, 2010-2013.
101. Member, Organizing Committee, International Conference on Mathematical Biology, 2010-2011.
100. Member, Nomination Council for Infosys Prize, Infosys Science Foundation, 2010-present.
99. Member, Expert Committee for selection of scientists for the "Ramalingaswami Fellowship", Department of Biotechnology, Government of India, 2010-2013.
98. Member, Executive Council of the Indian Association for the Cultivation of Science (IACS), Kolkata, 2009-2012.
97. Member, Public Library of Science (PloS) International Advisory Group, 2009-present.
96. Peer Reviewer, European Research Council, Belgium, 2009-2013.
95. Member, International Scientific Committee, Ecology: Into the next 100 Years, British Ecological Society, London 2009-2013.
94. Selection Committee, Newly constituted West Bengal State University at Barasat, Kolkata, 2009.
93. Expert Member, Selection Committee, Biology Faculty, Indian Institute of Science Education & Research, Kolkata, 2009
92. Member, Advisory Committee, Jamshedji Tata Trust Funded Project, Next Generation Infrastructure Laboratory, Center for Study of Science, Technology & Policy, Bangalore 2009-present.
91. Member, Indian National Commission for History of Science, Indian National Science Academy, New Delhi, 2009-present.
90. Chairman, Research Council for History of Science, Indian National Science Academy, New Delhi, 2009-present.
89. Member, Sectional Committee – VII, Indian National Science Academy, New Delhi, 2009-2011.
88. Chairman, Animal Sciences & Biotechnology Research Committee, Council of Scientific & Industrial Research, New Delhi, 2008-2014.
87. Member, International Scientific Advisory Council, Indian Institute of Scientific Education & Research, Government of India, Pune, 2008-present.
86. Chairman, National Committee of International Union of Biological Sciences (IUBS), 2008-2011.
85. Member, National Organising Committee, Human Genome Meeting (HCM) 2008.
84. Member, Scientific Committee, The Evolution of Cooperation and Trading (TECT), European Collaborative Research (EUROCORES), European Science Foundation (ESF), 2007– 2010.
83. Co-Chair, Organizing Committee, Indo-UK Frontiers of Science Symposium, 2007.

82. Member, India-Elsevier Advisory Board, 2007 – 2009.
81. Member, Executive Committee, International Union of Biological Sciences (IUBS), 2009-2012.
80. Member, TWAS Membership Advisory Committee in Biological Systems & Organisms, 2007-2012.
79. Member, Scientific Advisory Committee, Society in Science: The Branco Weiss Fellowship, ETH, Zurich, 2007-2010.
78. Chairman, Independent, International Review Panel of The European Science Foundation EUROCORES Programme “The Evolution of Cooperation and Trading (TECT), 2006 –2007.
77. Co-Chair, Programme Advisory and Monitoring Committee for the Projects on Biodiversity Characterization and Inventorization, Department of Biotechnology, Government of India, 2006.
76. Member, Monitoring Committee of Experts for the ICAR 10<sup>th</sup> Five Year Plan EFC Network Project on Insect Biosystematics Functioning at Indian Agricultural Research Institute, New Delhi, 2006.
75. Nominee of the University Grants Commission on Search Committee for the selection of Professor in the Rajiv Gandhi Chair, Cochin University of Science and Technology, 2006.
74. Member, Expert Committee on Capacity Building and Awareness Generation on Biosresource Development and Utilization, Department of Biotechnology, Government of India, 2006 – 2007.
73. Member, Council of The National Academy of Sciences, India for the year 2006.
72. Member, Panel on Women in Science, Indian Academy of Sciences, Bangalore, 2005 – 2015.
71. Member, National Organization Committee of THIRD “International Conference on Plants & Environmental Pollution” (ICPEP-3), 2005.
70. Member, National Bioscience Awards for Career Development, Department of Biotechnology, Government of India, 2005-2010.
69. Member, Programme Advisory Committee (PAC) of the “Centres of Excellence in Areas of Biotechnology”, Department of Biotechnology, Government of India, 2005 – 2008.
68. Member, Local Committee for implementation of the Charter of “National Institute for Scientific Education & Research (NISER)” at Kolkata. 2005
67. Chairman, two-member Committee, set up by the Sir Ratan Tata Trust to evaluate the work of the Centre for the Study of Culture and Society, Bangalore, 2005.
66. Member, Selection Committee, E.K.Janaki Ammal National Award for the year, 2004-2012.
65. Member, Selection Committee, Selection of the Awardee of Dr. (Mrs.) Gouri Ganguly Memorial Award for Young Scientist in Animal Behaviour for the year 2004-2005.
64. Member, Animal Sciences and Biotechnology Research Committee, Council of Scientific & Industrial Research, New Delhi, 2004-2008.
63. Member, Advisory Committee of the International Conference on Microbial Diversity, 2005.

62. Non-official Member, National Biodiversity Authority, Government of India, 2004 – 2010.
61. INSA Representative, Organizing Committee of SCOPE General Assembly, 2005.
60. Vice-Chancellor's Nominee, Faculty of Science, University of Delhi, 2004-2007.
59. Member, Core Committee for SCOPE General Assembly Event to be held in New Delhi, November 2004.
58. INSA Council Nominee, Council of Indian Science Congress Association, 2004-2005.
57. Chairman, Research Sub-Committee on Mangroves and Coral Reefs, Ministry of Environment & Forests, Government of India, 2004 – 2006.
56. Working Committee Member, Current Science Association, Bangalore, 2004-2018.
55. Working Committee Treasurer, Current Science Association, Bangalore, 2004-2013.
54. Member, Sectional Committee of the Section of Environmental Sciences for 2004-2005 (92<sup>nd</sup> session of the Indian Science Congress Association) 2004-2005.
53. Member, Expert group to advice the Government on matters pertaining to Convention on Biological Diversity (CBD), 2003-2005.
52. Member, National Advisory Committee for conducting National Seminar on "Remote Sensing and its Applications in Environmental Sciences", Department of Environmental Sciences, Bangalore University, 2004.
51. Overseas Co-convener, Social Insect Symposium for 2004, International Congress of Entomology, Brisbane, Australia.
50. Member, Advisory Committee, Pitambar Pant National Environment Fellowship, Ministry of Environment and Forests, Government of India, 2003 -2005.
49. Member, TWAS Prize Committee for Biology, 2004-2006.
48. Member, Project Advisory Review Committee (PARC), Central Forensic Science Laboratory, Kolkata – Directorate of Forensic Science, Ministry of Home Affairs, Government of India, 2003-2007.
47. Member, Subject Committee on Life Science, Swarnajayanthi Fellowship, Department of Science & Technology, Government of India, 2002-2004.
46. Convener, Bangalore Chapter, Indian Science Congress Association, 2000-2002.
45. Chairman, National Bioresource Development Board to prepare a training programme for the benefit of blind children, Department of Biotechnology, Government of India, 2002-present
44. Expert Member, National Bioresource Development Board, Department of Biotechnology, Government of India, 2002-2007.
43. Member, National Advisory Committee for conducting National Seminar on Solid Waste Management – Current Trends and Future Strategies, organized by the Department of Environmental Sciences, Bangalore University, 2002.
42. Member, Advisory Committee for the Shanti Swarup Bhatnagar Prize in Biological Sciences, 2002-2003; 2005; 2007-2010.
41. Member, Recognition of persons as postgraduate teachers of the university and as guides for guiding PhD students in Environmental Sciences, Goa University, 2002-2005.

40. Member, Wildlife Institute of India Society, Dehradun, 2002 -2005.
39. Member, Committee to restructure the undergraduate science courses of Delhi University, 2002.
38. Member, Indian Wildlife Board, 2001.
37. Member, Joint Apex Committee of the Indo-Swiss Collaboration in Biotechnology, Department of Biotechnology, 2001- 2003.
36. Member, Constitution of the State Biotechnology Board (SBB), Orissa, 2001-2003.
35. Member, Selection Committee in the subject of "Ecology", Pondicherry University, 2001-2003.
34. Member, Working Group for the Tenth Five Year Plan (2002-2007) of the Department of Biotechnology, Government of India.
33. Member, Science and Engineering Research Council, Department of Science and Technology, Government of India, 2001-2004.
32. Member, Expert Committee in Life Sciences for the Swarnajayanthi Fellowship, Department of Science & Technology, 2000-2001.
31. Member, Biotechnology Research and Promotion Committee, Department of Biotechnology, Government of India, 2000-2005.
30. Chairman, Task Force on Application of Biotechnology for Biodiversity Conservation and Environment, Department of Biotechnology, Government of India, 2000-2006.
29. Member, Post-graduate Board of Studies in Biosciences, Mangalore University, 2000-2002.
28. Chairman, Expert Group for Coordinated Research in Eastern and Western Ghats Regions, Ministry of Environment & Forests, Government of India, 2000 – 2006.
27. Member, Scientific Advisory Committee, Department of Biotechnology, 1999 – 2002.
26. Member, Selection Committee, DBT Awards for Women Scientists, Department of Biotechnology, 1999 - 2005.
25. Member, Advisory Committee for the journal Pest Management in Horticultural Ecosystems, 1999.
24. Member, Planning & Programme Committee of Visweshwaraya Industrial and Technological Museum, Bangalore, 1999-2001.
23. Member, Expert Group on Inter-institutional Program Development on Microbial Biodiversity, DBT, Government of India, 1998.
22. Member, Scientific Advisory Committee to the Cabinet (SAC-C), Government of India, 1997-1999.
21. Advisory Board of International Correspondents for Volumes 45 & 46 of the Annual Review of Entomology, 1995.
20. Member, Governing Council, Indian Statistical Institute, 1996-1998.
19. Member, National Steering Committee for Sustainable Development Networking Programme, Ministry of Environment and Forests, Government of India, 1997 – 2001.
18. Convener, Sectional Committee for Animal/Plant Sciences, Indian Academy of Sciences, 1996-2001.

17. Secretary, Indian Academy of Sciences, Bangalore, 1995-2000.
16. Member, Council, Indian Academy of Sciences, Bangalore, 1995-2003.
15. Member, Animal Sciences & Biotechnology Research Committee of CSIR, 1995-2001.
14. Member, Advisory Board of the Society for Biopesticide Sciences, 1996.
13. Member, Centre for Ecology & Integrated Studies, Bangalore, 1995.
12. Member, Publication Committee, Jawaharlal Nehru Centre for Advanced Scientific Research, Jakkur, Bangalore, 1994.
11. Member, Sectional Committee (Animal Science), Indian National Science Academy, 1995-1997.
10. Member, Indian Academy of Sciences Panel on University Education in Science, 1994.
9. Member, National Committee of INSA for Scientific Committee on Problems of the Environment (SCOPE), 1994 – 1997; 2000-2003.
8. Member, Executive Committee, Ethological Society of India, 1994 – present
7. Member, Publication Committee, Indian Academy of Sciences, 1993 –1998.
6. Member, Advisory Committee, Bombay Natural History Society, 1992-1993.
5. Member, Governing Council, Salim Ali Institute of Ornithology and Natural History (SACON), 1992 - 2002.
4. Member of Indian delegation to the VIII General Assembly of the Scientific Committee for Problems of the Environment (SCOPE), Seville, Spain, January 1992.
3. Member, Sectional Committee for Animal/Plant Sciences, Indian Academy of Sciences, 1991 – 2001.
2. Member, Executive Committee, IUSSI, Indian Chapter, 1989 - present.
1. Member, Programme Advisory Committee in Animal Behaviour Ecology and Evolution, Department of Science and Technology, Government of India. 1988 – 1994.

### **Editorial Responsibilities**

25. Member, Current Ethology (2015 - )
24. Member, Halteres (2014 - )
23. Member, Board of Current Opinion in Insect Science (2013-2016).
22. Member, Editorial Advisory Board, *Biosystematica*, Vol.3 (1), 2009.
21. Editorial collaborator, Science and Culture, 2009 -
20. Chief Editor, Indian Journal of History of Science (2009 – present)
19. Member, Editorial Board, *Journal of Theoretical Biology* (2007-2010).
18. Member, Frontiers in Zoology, German Zoological Society (DZG) (2004 – present).
17. Member, INSA Publication Advisory Board (2003-2005).
16. Member, Board of Reviewing Editors, *Science*, American Association for the Advancement of Science (2003-2006).

15. Subject Editor, *Biotropica* (2003-2004).
14. Member, Editorial Board, *Journal of Ethology* ( 2002 - 2013).
13. Member, Editorial Board, *Journal of Parasitology and Applied Animal Biology* (1997 - 2000)
12. Member, Editorial Advisory Board, *Ecological Research*, Japan (1996 - 2011)
11. Special Correspondent - *Down to Earth* (1996)
10. Editor, *Resonance - journal of science education*, Indian Academy of Sciences (2002 – 2004).
9. Associate Editor, *Resonance - journal of science education*, Indian Academy of Sciences (1996 -2001).
8. Member, Planning Group, *Journal of Science Education*, Indian Academy of Sciences (1995).
7. Member, Editorial Board, *Ecotropica* (1995-1997).
6. Member, Editorial Board, *Current Science* (1994 - 2015).
5. Member, Editorial Board, *Journal of Bombay Natural History Society* (1993 - 2006).
4. Member, International Advisory Board, *Israel Journal of Zoology* (1992 - 1998).
3. Member, Editorial Board, *Insectes Sociaux* (1991 - 2002).
2. Member, Editorial Board, *Journal of Biosciences* (1991 - 1997).
1. Member, Editorial Board, *Journal of Genetics* (1984 - 1995).

### **Courses Taught**

1. Introduction to Biology and Ecology (once a year during 1992-1997)
2. Behaviour and Sociobiology (once a year since 1984)
3. Introduction to Mathematics and Statistics (intermittently, since 1995)
4. Production of Knowledge in the Natural and Social Sciences (teaching and coordinating a new course with several guest faculty, under the auspicious of the Centre for Contemporary Studies).
5. Under graduate courses in Biology since 2011.
6. Coordinator for Under graduate courses in Humanities since 2012.
7. Under graduate course, Central University of Jharkhand, Ranchi, January 2013.
8. Under graduate course, Indian Institute of Science Education & Research, Pune, March –April 2013.
9. Under graduate course, Indian Institute of Science Education & Research, Mohali, Chandigarh, April 2013.
10. Under graduate course, Indian Institute of Science Education & Research, Mohali, Chandigarh, March 2014.

## **Research Grants**

18. Queen Succession in the Primitively Eusocial Wasp *Ropalidia marginata*, Council of Scientific and Industrial Research, New Delhi, 2012-2015. Rs.25,41,040/-
17. Integrating the Natural and Human Sciences at the Indian Institute of Science and Beyond, Sir Ratan Tata Trust, Mumbai, 2008-2013. Rs.1,22,55,407/-
16. The Structure and Function of Dominance Hierarchies in Two Contrasting Primitively Eusocial Wasps, Council of Scientific and Industrial Research, New Delhi, 2006-2010. Rs. 13,26,000/-
15. Chemical Ecology of Colony Integrity and Reproductive Dominance in Social Insects, Department of Biotechnology, Government of India, 2006-2009. Rs.53,67,999/-
14. Indo Swiss Bilateral Research Initiative Grant, Raghavendra Gadagkar (Indian Partner) and Laurent Keller (Swiss Partner) for the visit of Yuko Ulrich, M.Sc Student, during March 2007 (2 months).
13. JC Bose National Fellowship, Department of Science & Technology, Government of India, 2006-2016, Rs.1,15,55,000/-.
12. Collaborative Research Project on Molecular Ecology and Systematics, Department of Biotechnology, Government of India, 2004-2010, Rs.57,52,000/-
11. Unit on Social Insect Biology, Department of Science & Technology, Government of India, 1999-2006. Rs. 97,27,503/-
10. Behavioral Ecology of Some Indian Ants (Comparative Study of Reproduction Regulation in the Queenless Genus *Diacamma*). Indo-French Centre For The Promotion of Advanced Research, New Delhi. 1997-1999. Rs. 13,02,944/-.
9. Cortical Processing of visual information in the honey bee *Apis cerana*. Council of Scientific and Industrial Research, New Delhi. 1996-1999. Rs.2,47,200/-.
8. B.P.Pal National Environment Fellowship on Biodiversity, Ministry of Environment & Forests, Government of India, 1995-1997, Rs.1,68,000/-
7. The queenless ant *Diacamma rugosum* as a model system for the study of social evolution. Jawaharlal Nehru Centre for Advanced Scientific Research. 1994-1997. Rs.1,98,000/-.
6. Mutualistic interactions in a primitively eusocial wasp. Department of Science and Technology, Government of India. 1991-1995. Rs.11,54,277/-.
5. The determinants of social dominance in the wasp *Ropalidia marginata*. Council of Scientific and Industrial Research, New Delhi. 1990-1993. Rs.1,22,800/-.
4. Kinship in social wasps. Department of Science and Technology, Government of India. 1987-1991. Rs.7,82,142/-.
3. Queen determination in the social wasp *Ropalidia marginata*. Indian National Science Academy. 1986-1989. Rs.60,000/-
2. Indian National Science Academy Bursary Grant.1986. Rs. 20,000/-.
1. Quantitative Ethology and Sociobiology of Indian wasps. Department of Science and Technology, Government of India. 1984-1987. Rs.3,80,200/-.

**Ph.D. and M.S. Thesis Completed under my supervision**

21. Mandal, S. (2016). Finding the Way Back Home: A study of Orientation, Navigation and Homing in the Social Wasp *Ropalidia marginata*. Thesis submitted.
20. Saha, P. (2016). Queen succession in the primitively eusocial wasp *Ropalidia marginata*. (Ph.D.)
19. Chakraborty, S. (2015). Molecular Ecology of the Primitively Eusocial Wasp *Ropalidia marginata*: relatedness, queen succession and population genetics. (Ph.D.)
18. Shukla, S. (2012). Reproductive Caste Differentiation in the Primitively Eusocial Wasp *Ropalidia marginata*. (Ph.D.)
17. Mitra, A. (2011). Attributes of Royalty in the primitively eusocial wasp *Ropalidia marginata*: Pheromone, Ovaries and Behaviour. (Ph.D.)
16. Bang, A. (2010). Behavioural and Reproductive Dominance in the Primitively Eusocial Wasp, *Ropalidia marginata*. (Ph.D.)
15. Bhadra, A. (2008). Queens and their Successors: The story of Power in the primitively eusocial wasp *Ropalidia marginata*. (Ph.D.)
14. Ruchira, S. (2007). The Biology of Two Sexes: A Study of the Primitively Eusocial Wasp *Ropalidia marginata*. (Ph.D.)
13. Kardile, S. (2006). The social biology of *Ropalidia cyathiformis* and a comparison with *Ropalidia marginata*. (Ph.D.)
12. Sen Sarma, M. (2003). Defence and Communication in the Asian Dwarf Honeybee *Apis florea* Fabricius (Ph.D.)
11. Agrahari, M. (2003). Division of labour and its regulation in the primitively eusocial wasp *Ropalidia marginata* (Ph.D.)
10. Raamesh, R. (2003). The social and genetic organization of the queenless, Ponerine ant, *Diacamma ceylonense* (M.S.).
9. Sumana, A. (2002). Dominance behaviour and regulation of reproduction in the primitively eusocial wasp *Ropalidia marginata* (Ph.D.).
8. Gopinath, A. (2002). Intra-Colony Relatedness and Population Genetic Structure in the Queenless, Ponerine ant, *Diacamma* (Ph.D.).
7. Sen Sarma, M. (1999). Decision making in Honey bees (M.S.).
6. Naug, D. (1998). Work organisation in the primitively eusocial wasp *Ropalidia marginata* (Ph.D.).
5. Arathi, H.S. (1997). Social organisation and cooperation in genetically mixed colonies of the primitively eusocial wasp, *Ropalidia marginata* (Ph.D.).
4. Shakarad, M. (1996). Colony founding and the evolution of eusociality in a primitively eusocial wasp, *Ropalidia marginata* (Ph.D.).
3. Premnath, S. (1995). Dominance relationships in the social organisation of the primitively eusocial wasp *Ropalidia marginata* (Lep.) (Hymenoptera: Vespidae) (Ph.D.).
2. Chandrashekara, K. (1991). Social biology of the tropical primitively eusocial wasp *Ropalidia marginata* (Lep.) (Hymenoptera: Vespidae) (Ph.D.).
1. Venkataraman, A.B. (1990). Studies on the mechanism of nestmate discrimination in a primitively eusocial wasp : Implications for the evolution of eusociality (Ph.D.).



**Refereed Papers for:**

1. *American Naturalist*
2. *Animal Behaviour*
3. *Annals of the Entomological Society of America*
4. *Behavioural Ecology and Sociobiology*
5. *Biotropica*
6. *Current Science*
7. *Ethology Ecology and Evolution*
8. *Evolution*
9. *Frontiers in Zoology (Online Journal)*
10. *Frontiers in Ecology & Evolution*
11. *F1000Research*
12. *Insectes Sociaux*
13. *Journal of The Biometric Society*
14. *Journal of Biosciences*
15. *Journal of Bombay Natural History Society*
16. *Journal of Economic Entomology*
17. *Journal of Ethology*
18. *Journal of Genetics*
19. *Journal of The Indian Institute of Science*
20. *Journal of Insect Behaviour*
21. *Journal of Thermal Biology*
22. *Journal of Theoretical Biology*
23. *Karnatak University Journal of Science*
24. *Nature*
25. *Naturwissenschaften*
26. *PeerJ*
27. *Proceedings of Indian National Science Academy*
28. *Proceedings of the Royal Society, B Series*
29. *Resonance – journal of science education*
30. *Science*

**Refereed Grant Proposals for:**

1. Council of Scientific and Industrial Research
2. Department of Ecology and Environment, Government of Karnataka
3. Department of Environment, Government of India

4. Department of Science and Technology, Government of India
5. Karnataka State Council for Science and Technology
6. University Grants Commission
7. National Science Foundation, USA

**Workshops/ Symposia/ Seminars Organised**

28. Organized a workshop entitled "The Art of Scientific Observation" University of Freiburg, Germany, 2-4 July 2015.
27. Organized a workshop with Stephen Greenblatt and Paul Schmid-Hempel entitled "Aging in evolutionary biology and King Lear" held at Wissenschaftskolleg zu Berlin, Germany, 17-19 May 2012.
26. Organized a workshop with Prof. James Hunt entitled "Exploring New Paradigms to Understand Insect Social Evolution" held at Wissenschaftskolleg zu Berlin on May 10-11, 2012.
25. Organized a Symposium on "Profiles in 20<sup>th</sup> Century Indian Science" held at the University of Tezpur, Assam, 29<sup>th</sup> December 2011.
24. Workshop on "Large-scale demographic, network and behavioral trait analyses of sociality" held at the National Evolutionary Synthesis Center, Durham, USA, July 14-17, 2011.
23. Round Table Session "Diverse Approaches to the study of Insect Sociality; their relevance, complementarity and conceptual interrelationships" during the XVI IUSSI World Congress, 8-14, August 2010, Copenhagen, Denmark.
22. International Workshop on "Evolution of Complex Systems", Indian Institute of Science, Bangalore, January 13-15, 2010.
21. Symposium entitled "Navigation and Communication - What we can learn from Insects" as part of the Platinum Jubilee Meeting of the Indian Academy of Sciences held at JN Tata Auditorium, Indian Institute of Science, Bangalore, 12 to 14 November 2009.
20. Symposium entitled "Understanding Insect Sociality with Tinbergen's Four Questions" during the 31st International Ethological Conference held at Rennes, France, 19-24, August 2009.
19. International Seminar entitled "Integrating Society into Science – Perspectives from Biology", held at the Indian Institute of Science, 13 October 2006.
18. Seminar entitled "The Pursuit and Evaluation of Science – Do we need new paradigms for both?" held at the Indian Institute of Science, 2 February 2006.
17. Workshop on "Methods in Behavioural Ecology", Sponsored by the Department of Science & Technology, held at the Jawaharlal Nehru Centre, Indian Institute of Science Campus, Bangalore, 16 -28 January 2006.
16. Symposium on "Cooperative Breeding" during the 29 Ethological Congress in Budapest, Hungary from 20-27 August 2005.
15. Organised a Seminar entitled "Towards a Co-evolution of Science and Society, through INSA, held at Central Leather Research Institute, Chennai, 27 December 2004.

14. Seminar entitled “ Unresolved Issues in Insect Sociality: Comparative Empirical Approaches” with Prof. James Hunt at the Wissenschaftskolleg zu Berlin, Berlin, Germany, May 5 –9 2004.
13. Workshop on “Methods in Behavioural Ecology”, Sponsored by the Department of Science & Technology, held at the Jawaharlal Nehru Centre, Indian Institute of Science Campus, Bangalore, 12 -24 January 2004.
12. Symposium on “Conflict over Resource Allocation and Sociality” at the XIV International Congress of IUSI, held at Hokkaido University, Sapporo, Japan, 27<sup>th</sup> July- 3 August 2002.
11. Symposium on “Sexual Selection and Sociality” at the XIV International Congress of IUSI, held at Hokkaido University. Sapporo, Japan, 27 July - 3 August 2002.
10. Workshop on “Methods in Behavioural Ecology”, Sponsored by the Department of Science & Technology, held at the Centre for Ecological Sciences, Indian Institute of Science, Bangalore, 17 -29 December 2001.
9. Symposium on “Evolution of Social Behaviour” at the XXVII International Ethological Conference, held at Tuebingen, Germany, August 22 - 29 2001.
8. Workshop on “Principles of Social Evolution” held at the Wissenschaftskolleg (Institut for Advanced Study) zu Berlin, Germany, 14 -16 May 2001.
7. Symposium on “Selected Studies on Behavioural Ecology in India” at the XXVI International Ethological Conference, held at Bangalore, India, 2 – 9 August 2000.
6. Discussion Meeting on Behavioural Ecology, with Prof. H.A.Ranganath (Sponsored by Jawaharlal Nehru Centre for Advanced Scientific Research), held at University of Mysore, 8 -10 July 1999.
5. Symposium entitled “Evolution of the Worker Caste” with Diana Wheeler during the XIII International Congress of the IUSI, held at Adelaide, Australia, 29<sup>th</sup> December 1998 - 4 January 1999.
4. Workshop on Methods in Behavioural Ecology Sponsored by Department of Science and Technology, held at Centre for Ecological Sciences, Indian Institute of Science, Bangalore, 7- 19 October 1996.
3. Training Programme for IFS Officers on Conservation Biology, Sponsored by Ministry of Environment & Forests, Government of India, held at Centre for Ecological Sciences, Indian Institute of Science, Bangalore, 4 - 8 September 1995.
2. Interaction meeting on Evolutionary Ecology, Sponsored by Department of Science and Technology, held at Centre for Ecological Sciences, Indian Institute of Science, Bangalore, 21 - 23 April 1994.
1. Workshop on Methods in Behavioural Ecology Sponsored by Department of Science and Technology, held at Centre for Ecological Sciences, Indian Institute of Science, Bangalore, 12- 24 October 1992.

**Other Service to IISc.**

16. Member, Centenary Celebrations Committee, Indian Institute of Science, 2006 – 2009.

15. Convener – Committee for Centenary History, Heritage and Archives, Indian Institute of Science, Bangalore, 2006.
14. Member, Intellectual Property Management Committee at IISc., 2006 – present.
13. Chairman, Official Language Unit, IISc., September 2003 – September 2006.
12. Member, Genomic Initiative at IISc., June 2002 – May 2007.
11. Member, Divisional Committee for Screening Applications of Foreign Candidates seeking admission to Research and ME/M Tech Programmes at the IISc., 2002.
10. Member, Committee to examine the issue of providing Risk Allowance in the hazardous areas at the Institute, 2001.
9. Member, Career Progression Policy Committee for the B,C, & D Category of staff members of the Institute, 2000.
8. Member, Standing Committee for providing jobs under compassionate grounds, 1999 – present
7. Member, Negotiation Committee (General Employees), 1999 – present.
6. Member, Advisory Committee, Kendriya Vidyalaya, IISc. 1998
5. Member, Committee to Establish the Program Unit SuTRA under Society for Innovation and Development, 1997.
4. Member, Society for Innovation and Development, Innovation Centre, IISc., 1997.
3. Honorary President, IISc. Gymkhana April 1996 – March 1999.
2. Chairman, Transport Committee, IISc. 1995-1996.
1. Member, Evaluation Committee for Secretarial Staff – 1992.