

Brief curriculum vitae

Name: SANGHAMITRA RAY

Designation: Associate Professor

Official address: Department of Geology and Geophysics
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Education: Ph. D (Science) in Geology, University of Calcutta (2000)

Special Achievements, Awards, Fellowships and Honours

2011-till date	Associate Editor (Fast-Track), Journal of the Geological Society of India, Bangaluru
2006-2008	Incorporated in the panel of reviewers, <i>Palaeontology</i> published by the Palaeontological Association, London, <i>Journal of Vertebrate Paleontology</i> , Society of Vertebrate Paleontology, USA and Zoological Journal of the Linnean Society of London
2003	Senior Research Associateship, Council for Scientific & Industrial Research, India
2000-2002	National Research Foundation Post-doctoral Fellowship, South Africa
1992-1999	Junior and Senior Research Fellowship, Indian Statistical Institute, Calcutta
1990	Awarded Prof. N. N. Chatterjee Memorial First Prize, by the Geological, Mining and Metallurgical Society of India, University of Calcutta
1989	The National Merit Scholarship of India, Government of India.

Research Interests

- Vertebrate Palaeobiology (functional morphology and bone histology)
- Gondwana Stratigraphy
- Vertebrate biochronology

Research/Professional Career

2013-till date	Associate Professor, Indian Institute of Technology, Kharagpur
2004-2013	Assistant Professor, Indian Institute of Technology, Kharagpur
2003-2004	Senior Research Associate, Indian Statistical Institute, India.
2000-2002	Postdoctoral Fellow, University of Cape Town, South Africa
1999-2000	Visiting Scientist, Indian Statistical Institute, Kolkata.

Teaching Experience

UG: Paleontology, Stratigraphy, Applied Paleontology, Applied Micropaleontology, Sedimentology
PG: Geostatistics, Micropaleontology

Research Guidance

Postdoctoral: Dr. Lovasoa Ranivoharimanana, Department of Paleontology and Biological Anthropology, Antananarivo University, Madagascar (recipient of CV Raman International Fellowship for African Researchers 2012)

Doctoral:

Completed: D. Mukherjee : A new rhynchosaur from India (*Ph.D. Degree awarded in 2012*).

Ongoing:

1. M.S Bhat: Late Triassic vertebrate microfossils from India
2. D. Datta: New phytosaur remains from India
3. N. Rakshit ; Taphonomy of a mixed multitaxic bonebed

Member, Professional Bodies

- 2011-till date: Society of Vertebrate Paleontology, USA
- 2013-till date: The Palaeontological Association, London, UK.
- 2016: The Paleontological Society, USA.

Sponsored projects

- 2012-2016: Vertebrate microfossils from the Tiki Formation of the Rewa Gondwana basin, India: an integrated study of Upper Triassic biodiversity. Funded by DST, India.
- 2007-2010: Mesozoic Gondwana vertebrates from Madhya Pradesh, India: an integrated study on paleobiology. Funded by DST, India.
- 2004-2007: Functional morphology and bone histology of some Triassic reptiles from India. Funded by ISIRD, SRIC, IIT Kharagpu.
- 2003-2004: Functional morphology and osteohistology of the Indian dicynodonts. Funded by CSIR, India.

Publication

Papers

Ray, S., Bhat, M.S., Mukherjee, D., and Datta, P.M. 2016. Vertebrate fauna from the Late Triassic Tiki Formation of India: new finds and their biostratigraphic implications. *Palaeobotanist* vol. 65, pp. 47–59.

Ray, S. 2015. A new Late Triassic traversodontid cynodont (Therapsida, Eucynodontia) from India. *Journal of Vertebrate Paleontology*, DOI: 10.1080/02724634.2014.930472, Society of Vertebrate paleontology, USA (IF: 2.214).

Mukherjee D. and **Ray S.** 2014. A new *Hyperodapedon* (Archosauromorpha, Rhynchosauria) from the Upper Triassic of India: implications for rhynchosaur phylogeny. *Palaeontology* vol. 57, p. 1241–1276. doi: 10.1111/pala.12113. The Palaeontological Association, UK. (IF: 1.890)

Mukherjee D. and **Ray S.** 2012. Taphonomy of an Upper Triassic vertebrate bonebed: A new rhynchosaur (Reptilia; Archosauromorpha) accumulation from India. *Palaeogeography, Palaeoclimatology, Palaeoecology*, vol. 333-334, p. 75–91. Elsevier Publ. Ltd. (IF: 2.392) (Press release: http://www.telegraphindia.com/1120321/jsp/nation/story_15276427.jsp)

Mukherjee, D., **Ray, S.**, Pal, S., Chandra, S. and Bandyopadhyay, S. 2012. Upper Gondwana succession of the Rewa basin, India: understanding the interrelationship of lithologic and

- stratigraphic variables. *Journal of the Geological Society of India*, vol. 79, p. 563–575 (IF: 0.567).
- Bandyopadhyay, S., Gillette, D. D., **Ray, S.** and Sengupta, D. P. 2010. Osteology of *Barapasaurus tagorei* (Dinosauria: Sauropoda) from the early Jurassic of India. *Paleontology*, vol. 53, p. 533–569. The Palaeontological Association, London (IF: 1.890).
- Mukherjee, D., **Ray, S.** and Sengupta, D. P. 2010. Preliminary observations on the bone microstructure, growth patterns and life habits of some Triassic temnospondyls from India. *Journal of Vertebrate Paleontology*, vol. 30, p. 78–93. Society of Vertebrate paleontology, USA (IF: 2.214).
- Ray, S.**, Mukherjee, D. and Bandyopadhyay, S. 2009. Growth patterns of fossil vertebrates as deduced from bone microstructure: case studies from India. *Journal of Biosciences*, vol. 34(5), p. 661–672. Indian Academy of Sciences, India (IF: 1.76).
- Ray, S.**, Bandyopadhyay, S. and Bhawal, D. 2009. Growth patterns as deduced from bone microstructure of some selected neotherapsids with special emphasis on the dicynodonts: phylogenetic implications. *Palaeoworld*, vol. 18, p. 53–66. Elsevier Publ. Ltd. (IF:***)
- Ray, S.** 2006 Functional and evolutionary aspects of the postcranial anatomy of dicynodonts. *Palaeontology*, vol. 49, p. 1263–1286. The Palaeontological Association, London (IF: 1.890).
- Datta, P. M. and **Ray, S.** 2006. Earliest lizards from the Late Triassic (Carnian) of India. *Journal of Vertebrate Paleontology*, vol. 26, p. 795–800. Society of Vertebrate paleontology, USA (IF: 2.214).
- Ray, S.** 2005. *Lystrosaurus* (Therapsida, Dicynodontia) from India: Taxonomy, relative growth and cranial dimorphism. *Journal of Systematic Palaeontology*, vol. 3, p. 203–221. Natural History Museum, London (IF: 3.844)
- Ray, S.**, Chinsamy, A. and Bandyopadhyay, S. 2005. *Lystrosaurus murrayi* (Therapsida, Dicynodontia): Bone histology, growth and lifestyle adaptations. *Palaeontology*, vol. 48, p. 1–17. The Palaeontological Association, London (IF: 1.890).
- Ray, S.**, Botha, J. and Chinsamy, A. 2004. Bone histology and growth patterns of some nonmammalian therapsids. *Journal of Vertebrate Paleontology*, 24, 634–648. Society of Vertebrate paleontology, USA (IF: 2.214).
- Ray, S.** and Chinsamy, A. 2004. *Diictodon feliceps* (Therapsida, Dicynodontia): bone histology, growth and biomechanics. *Journal of Vertebrate Paleontology*, vol. 24, p. 180–194. Society of Vertebrate paleontology, USA (IF: 2.214).
- Ray, S.** and Bandyopadhyay, S. 2003. Late Permian vertebrate community of the Pranhita-Godavari valley, India. *Journal of Asian Earth Sciences*, vol. 21, p. 643–654. Elsevier Publ. Ltd. (IF: 2.152).
- Ray, S.** and Chinsamy, A. 2003. Functional aspects of the postcranial anatomy of the Permian dicynodont *Diictodon* and its ecological implications. *Palaeontology*, vol. 46, p. 151–183. The Palaeontological Association, London (IF: 1.890).
- Ray, S.** and Chinsamy, A. 2002. A theropod tooth from the Late Triassic of southern Africa. *Journal of Biosciences*, vol. 27, p. 295–298 (IF: 1.76).
- Ray, S.** and Chakraborty, T. 2002. Lower Gondwana fluvial succession of the Pench-Kanhan valley, Satpura basin: Stratigraphic architecture and depositional controls. *Sedimentary Geology*, vol. 151, p. 243–271. Elsevier Publ. Ltd. (IF: 1.537)
- Ray, S.** 2001. Small Permian dicynodonts from India. *Paleontological Research*, vol. 5(3), p. 177–191, The Paleontological Society of Japan (IF: 0.807).

- Ray, S.** 2000. Endothiodont dicynodonts from the Late Permian Kundaram Formation of India. *Palaeontology*, vol. 43, p. 375–404. The Palaeontological Association, London (IF:1.890).
- Ray, S.** 1999. Permian reptilian fauna from the Kundaram Formation, Pranhita-Godavari valley, India. *Journal of African Earth Sciences*, vol. 29, p. 211–218. Elsevier Publ. Ltd. (IF: 1.025).
- Ray, S.** 1998. Discussion on Some contributions to the Lower Gondwana Stratigraphy of the Pranhita-Godavari valley, Deccan, India. *Journal of the Geological Society of India*, vol. 52, p. 121–122. Geological Society of India (IF: 0.567).
- Ray, S.** 1997. Some contributions to the Lower Gondwana Stratigraphy of the Pranhita-Godavari valley, Deccan, India. *Journal of the Geological Society of India*, vol. 50, p. 633–640 (IF: 0.567).
- Roychowdhury, T. and **Ray, S.** 1995. Evolution of the herbivorous feeding system in land vertebrates. *Journal of the National Botanical Society of India*, vol. 49, Supplement issue (1), p. 1–9.

Book Chapters

- Chinsamy-Turan. A. and **Ray, S.** 2012. Bone histology of some therocephalians and gorgonopsians. p. 198–221 (Chapter 8) in: *Forerunners of Mammals: Radiation, Histology and Biology* (ed. A. Chinsamy-Turan). Indiana University Press, Bloomington, USA. 330pp.
- Ray, S.,** Botha-Brink, J. and Chinsamy-Turan, A. 2012. Dicynodont growth dynamics and lifestyle adaptations. p. 120–146 (Chapter 5) in: *Forerunners of Mammals: Radiation, Histology and Biology* (ed. A. Chinsamy-Turan). Indiana University Press, Bloomington, USA. 330pp.
- Ray, S.,** Bandyopadhyay, S. and Appana, R. 2010. Bone histology of a kannemeyeriid dicynodont *Wadiasaurus*: palaeobiological implications. *New Aspects of Mesozoic Biodiversity* (ed. S. Bandyopadhyay), *Lecture Notes Series in Earth Sciences*, vol. 132, p. 73–89. Springer-Verlag, Heidelberg.

Abstracts

- Ray, S.** 2015. New tetrapod fossil finds from the Late Triassic Tiki Formation of the Rewa Gondwana basin, India. *International Conference on Current Perspectives and Emerging Issues in Gondwana Evolution*, Lucknow, India, Abstract volume, p. 82–83. (Co-Chair of Session 2).
- Ray, S.** and **Mukherjee, D.** 2014. Bone degradation in a Late Triassic rhynchosaur: signatures of fungal erosion? 212. In Maxwell, E. and Miller-Camp, J. (eds). *Society of Vertebrate Paleontology, November 2014, Abstracts of Papers, 74th Annual Meeting*. Berlin, Germany, 270 pp.
- Mukherjee D.** and **Ray S.** 2010. Taphonomy of a New Upper Triassic rhynchosaur (Reptilia; Archosauromorpha) accumulation from India. *International Palaeontological Congress*. London, Abstract volume: 288
- Ahmed, F. and **Ray, S.** 2010. Paleoclimate of Upper Triassic India: New observations from Rewa Gondwana basin. *Goldschmidt Conference Abstracts 2010, Geochimica et cosmochimica Acta*. p. A36.
- Ray, S.,** Ahmed, M. F. and Mukherjee, D. 2009. Depositional environments and paleoclimate signatures of a Late Triassic fluvial succession of the Rewa Gondwana basin. *National*

- Seminar on Earth Resources, Environment and Earth Sciences for Society*. Abstract volume, p. 22–23. Department of Geology, Periyar University, Salem.
- Ray, S.** 2008. Growth strategies of dicynodonts as deduced from bone microstructure. *International Conference on Geology: Indian Scenario and global context*. Abstract volume, p. 78. Geological studies unit, ISI, Kolkata.
- Ray, S.** 2006. A new lepidosaurian assemblage from the Late Triassic (Carnian) Tiki Formation of the Rewa basin, India. Abstracts, 2nd *International Paleontological Congress*, Beijing, China.
- Ray, S.** Chinsamy, A. and Bandyopadhyay, S. 2002. An assessment of *Lystrosaurus murrayi* osteohistology. Abstract volume, 8th *International Symposium of the Mesozoic Terrestrial Ecosystems*. Cape Town.
- Ray, S.** 2000. Feeding mechanism of endothiodont dicynodonts. 11TH *Biennial Conference of the Palaeontological Society of Southern Africa*, Abstract volume.
- Ray, S.** 2000. Vertebrate faunal association of the Permian India. 31st *International Geological Congress*, Rio de Janeiro.
- Ray, S.** 1999. Permian faunal signatures in the Pranhita-Godavari valley, India. *Workshop on 'Geology of the Pranhita-Godavari Valley: current status and future directions,'* Abstract volume, p. 34.
- Ray, S.** 1998. Endothiodonts from India. *Journal of African Earth Sciences*, 27 (1A), p. 151.
- Ray, S.** 1998. A Permian vertebrate fauna from India. *Journal of African Earth Sciences*, 27 (1A), p. 151.
- Ghosh, P.S., Bhattacharya, S.K., Ghosh, P., **Ray, S.** and Jani, R.A., 1997. Decline of atmospheric CO₂ level evidence from the Indian Phanerozoic palaeosols: (Abs.) *International Conference on Isotopes in the Solar System*, P.R.L., Ahmedabad, Abstract Volume, p. 140.