

# MAITREYI SUR



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Durgapur, India

## Result oriented research wildlife biologist with a PhD in natural resource management and statistical ecology

MOVEMENT ECOLOGY | DATA ANALYSIS AND MANAGEMENT | BIO-TELEMETRY | GIS AND REMOTE SENSING

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### PROFESSIONAL EXPERIENCE

#### Conservation Science Global : Research Wildlife Biologist

March 2019 - Present

- Understand factors affecting foraging behavior of Golden Eagles within the Desert Renewable Energy Conservation area in Western North America
- Analysis of tri-axial acceleration data and videos to classify movement behaviors of California condors.

#### Boise State University : Postdoctoral Researcher

May 2015 - February 2019

Department of Biological Sciences, Boise, Idaho, U.S.A.

- Analysed telemetry data of raptors to answer ecological questions related to movement ecology.
- Analysed golden eagle telemetry data in relation to wind power policies and regulations.
- Used tri-axial acceleration data and videos to classify movement behaviors of golden eagles and California condors.
- GPS telemetry, land use, topographical and meteorological data management and analysis

#### University of Twente : PhD Research Graduate

June 2009 – October 2014

Department of Natural Resources, Faculty of Geo-Information Science and Earth Observation, Enschede, The Netherlands

- Worked on a the bird migration data collected through FlySafe ( <http://iap.esa.int/flysafe> ), a project of the European Space Agency Integrated Applications Promotion (IAP) programme ( <http://iap.esa.int/> )
- Evaluated novel methods of analysing movement behaviour of Lesser Black-backed Gulls (*Larus fuscus*) using telemetry and environmental data.

#### World Wide Fund for Nature (WWF-India) : Intern

January 2008 – May 2008

Forestry Division, New delhi, India

- The Terai arc landscape (TAL), on the lower slopes on the Himalayas, is one of the priority areas recognized for conservation by WWF due to threats from logging of timber. Worked on identifying the hotspots of conservation threats, building a supply chain of timber originating from the study area and facilitating market based analysis.
- Questionnaire surveys, interviews, consultations and participatory observations helped in building up matrix of the major concerns of the stakeholders in the supply chain of timber and feasibility of forest certification as a conservation tool at each step.

#### Nandan Kanan Zoological Park and sactuary : Intern

June 2007 – August 2007

Bhubaneshwar, Orissa, India

- Habitat analysis of a rookery of Openbill Storks.
- Studying behaviour of nesting birds and analyses of nest density and hatchling success

#### TERI and HINDALCO Limited : Intern

August 2007 – December 2007

Muri, Jharkand, India

- Project on restoration ecology of Red mud, a hazardous by-product of the HINDALCO Aluminium plant.
- Analysing the best treatment (varying in amount of Gypsum, FYM, bacterial formulation etc) for growth of sample trees and grasses, and suggesting the most suitable species of trees and grasses for different treatment.

#### Durgapur Steel Plant, Steel Authority of India Limited : Intern

December 2006

Durgapur, West Bengal, India



- Evaluating environmental management techniques related to policy guidelines in specific departments

<b>EDUCATION</b>	<b>Doctorate of Philosophy, Natural Resource Management and Ecology</b> Faculty of Geo-Information Science and Earth Observation, University of Twente, Enschede, The Netherlands	<b>2014</b>
	<b>Short Course on GIS and Remote Sensing</b> Institute of Gis and Remote Sensing, Kolkata, India	<b>2008</b>
	<b>Master of Science, Environmental Studies</b> TERI University (The Energy and Resources Institute), New Delhi, India	<b>2008</b>
	<b>Bachelor of Science, Zoology Honors</b> Hansraj College, University of Delhi, New Delhi, India	<b>2006</b>
<i>Training courses</i>	<b>Animal movement analysis course</b> Institute of Biodiversity and Ecosystem Dynamics, University of Amsterdam	<b>July, 2010</b>
	<b>COST Summer school on “Moving objects and knowledge discovery”</b> Department of Geography, Ghent University	<b>August 2011</b>
	<b>Short Course on GIS and Remote Sensing</b> Institute of GIS and Remote Sensing, Kolkata, India	<b>September 2008</b>

<b>Peer-Reviewed Publications</b>	<p><b>Sur, M.</b>, Duerr, A.E., Bell, D.A., Fisher, R.N., Tracey, J.A., Bloom, P.H., Miller, T.A. and Katzner, T.E. (2020), Relevance of individual and environmental drivers of movement of Golden Eagles. <i>Ibis</i>. doi:10.1111/ibi.12766</p> <p><b>Sur, M.</b>, Belthoff, J.R., Bjerre, E.R., Millsap, B.A. &amp; Katzner, T. 2018. The utility of point count surveys to predict wildlife interactions with wind energy facilities: An example focused on golden eagles. <i>Ecological Indicators</i>. 88, 126-133</p> <p><b>Sur, M.</b>, Suffredini, T., Wessells, S.M., Bloom, P.H., Lanzone, M., Blackshire, S., Sridhar, S. &amp; Katzner, T. 2017. Improved Supervised Classification of Accelerometry Data to Distinguish Behaviors of Soaring Birds. <i>PLoSOne</i>. 12(4): e0174785.</p> <p><b>Sur, M.</b>, Skidmore, A. K., Exo, K. M., Wang, T., J Ens, B., &amp; Toxopeus, A. G. (2014). Change detection in animal movement using discrete wavelet analysis. <i>Ecological Informatics</i>, 20, 47-57.</p>
<i>Conferences</i>	<p><b>Sur, M.</b>, J. Belthoff &amp; T. Katzner. 2017. Evaluating and adapting surveys designed to predict wind-wildlife interactions: a simulation approach focused on golden eagles. Raptor Research Foundation Annual Meeting, Salt Lake City, UT.</p> <p><b>Sur, M.</b>, A. Duerr, D. Bell, R. Fisher, J. Tracey, P. Bloom, T. Miller &amp; T. Katzner. 2017. Diel movements of golden eagles in a 3-dimensional environment. Raptor Research Foundation Annual Meeting, Salt Lake City, UT.</p> <p><b>Sur, M.</b>, J. Belthoff &amp; T. Katzner. 2017. Evaluating and adapting surveys designed to predict wind-wildlife interactions: a simulation approach focused on golden eagles. Wind Wildlife Research Meeting XI. Denver Colorado. Oral presentation.</p> <p><b>Sur, M.</b>, Suffredini, T., Wessells, S. M., Bloom, P. H., Lanzone, M., Blackshire, S. &amp; Katzner, T. (2016). Supervised Classification of Accelerometry Data Distinguishes Raptor Flight Behaviors. Raptor Research Foundation Annual Conference. Cape May, NJ. Oral presentation.</p> <p><b>Sur, M.</b>, Bjerre, E., Millsap, B., Belthoff, J., Katzner, T. (2015). Evaluating and adapting mandated surveys of wildlife use: An example from wind-wildlife interactions. Proceedings of Raptor Research Foundation Conference, Sacramento, CA, USA.</p> <p><b>Sur, M.</b>, Skidmore, A. K., Wang, T., Exo, K. M., J Ens, B., &amp; Toxopeus, A. G. Mining periodic behaviour of moving animals in relation to environmental cues. To appear in proceedings of “Measuring behaviour, 2014”, the 9th International Conference on Methods and Techniques in Behaviour Research, Wageningen, The Netherlands.</p> <p><b>Sur, M.</b>, Skidmore, A. K., Wang, T., Exo, K. M., J Ens, B., &amp; Toxopeus, A. G. Concurrent use of fractals and wavelets for spatial-temporal analysis of animal movement patterns. Presented in the Young</p>

**HONORS,  
AWARDS,  
SCHOLARSHIPS  
ETC.**

- **Received** the Erasmus Mundus scholarship from the European commission for her doctoral research, at the University of Twente, The Netherlands.
  - **Chosen** (but not accepted) as the only PhD candidate for the Commonwealth Scholarship in Environmental studies from India in United Kingdom.
  - **Best Scientific Poster Award:** Movement analysis of Lesser Black-backed gulls, ITC PhD Day, University of Twente, The Netherlands.
  - **Organizer** and active participation in the College Zoology Society, 'Shrishti Chetna'
  - **Represented** School for the National Level debate organized by the United Nations High Commissioner for Refugees.
  - **School winner** and state representative for the National Creativity Olympiad, organized by Institute of Engineers.
  - **Awarded certificate of Merit** in the National Biology Olympiad
  - **Awarded certificate of Merit** by Carmel Convent School for being a School topper, ICSE, All India examination.
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**TECHNICAL  
SKILLS**

Basic Platform: Windows, Microsoft Office with MS Access  
Statistics: MATLAB, SPSS , R, JMP  
Remote Sensing: ERDAS Imagine  
GIS: ArcGIS

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**LANGUAGES**

- MOTHER TONGUE      **BENGALI**
  - OTHER                      **ENGLISH, HINDI**  
LANGUAGES
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