

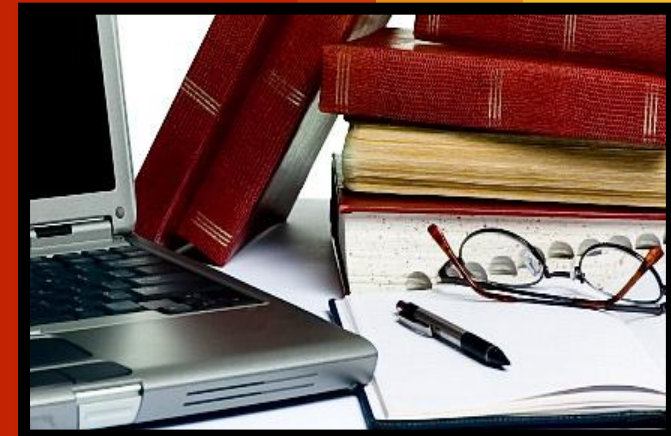


How to write a Research proposal?

31st October, 2022



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Writing a Research proposal

TIPOLI MER

Title



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Introduction



Writing a Research proposal

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Objectives

Introduction



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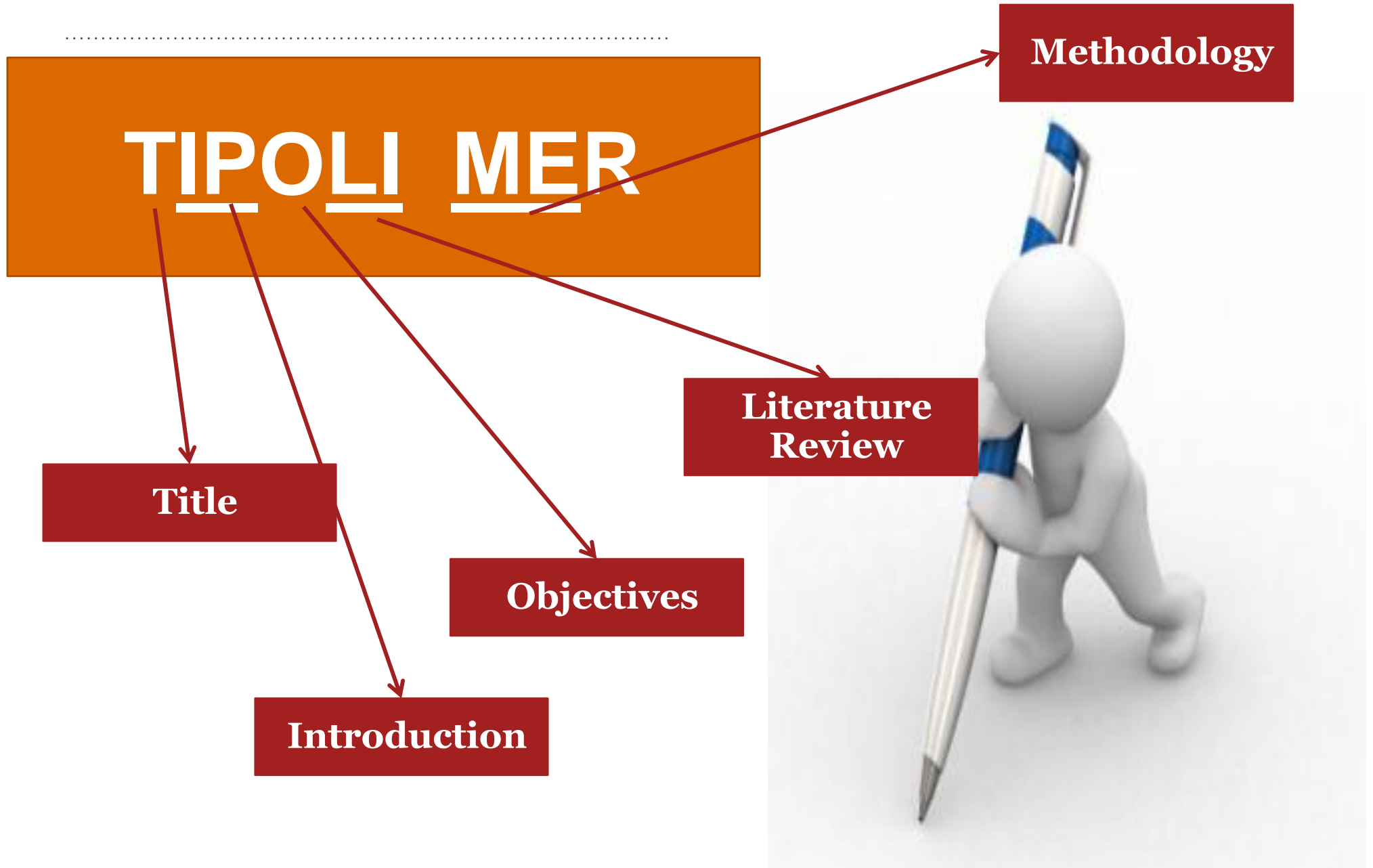
Objectives

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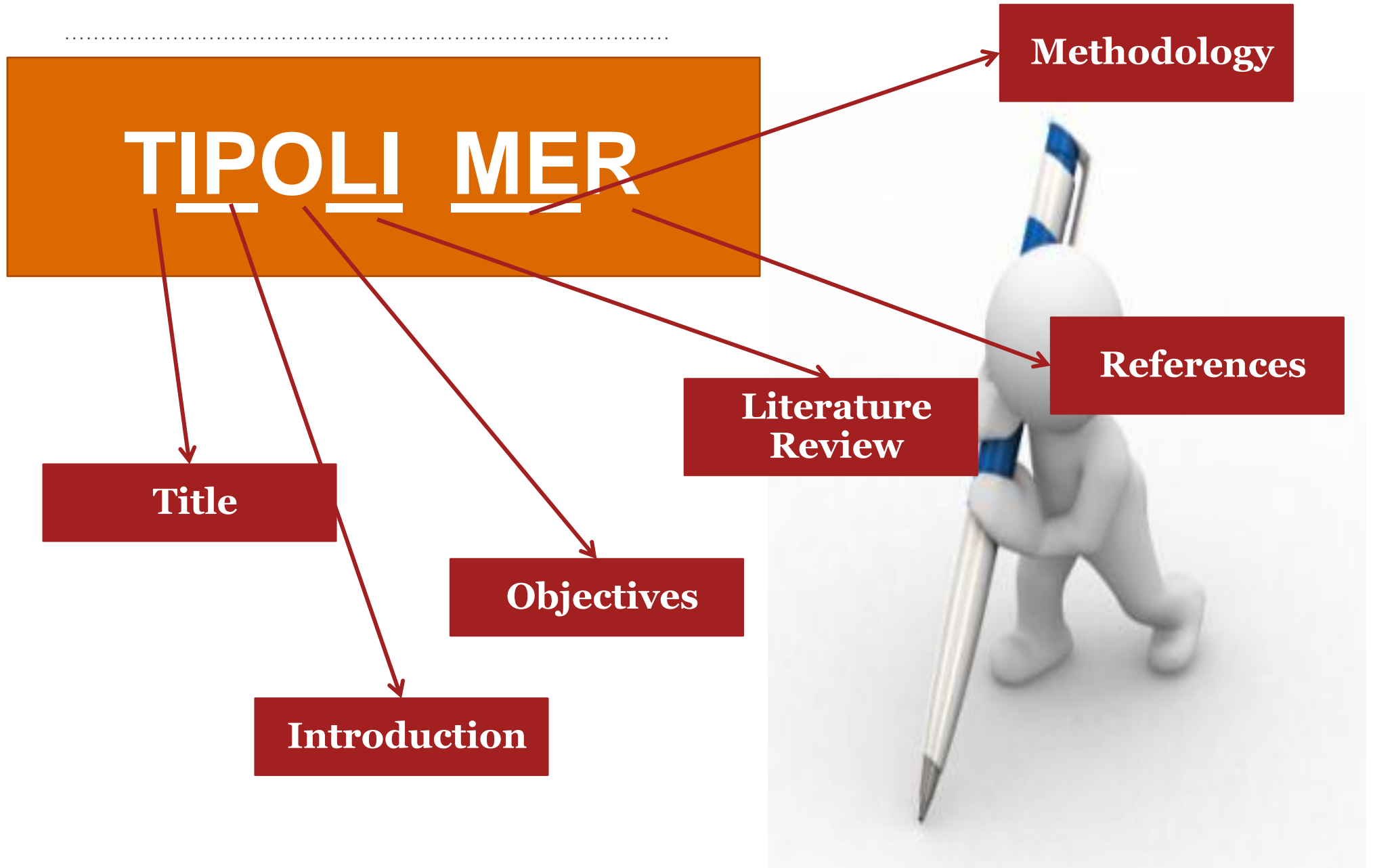
**Literature
Review**



Writing a Research proposal

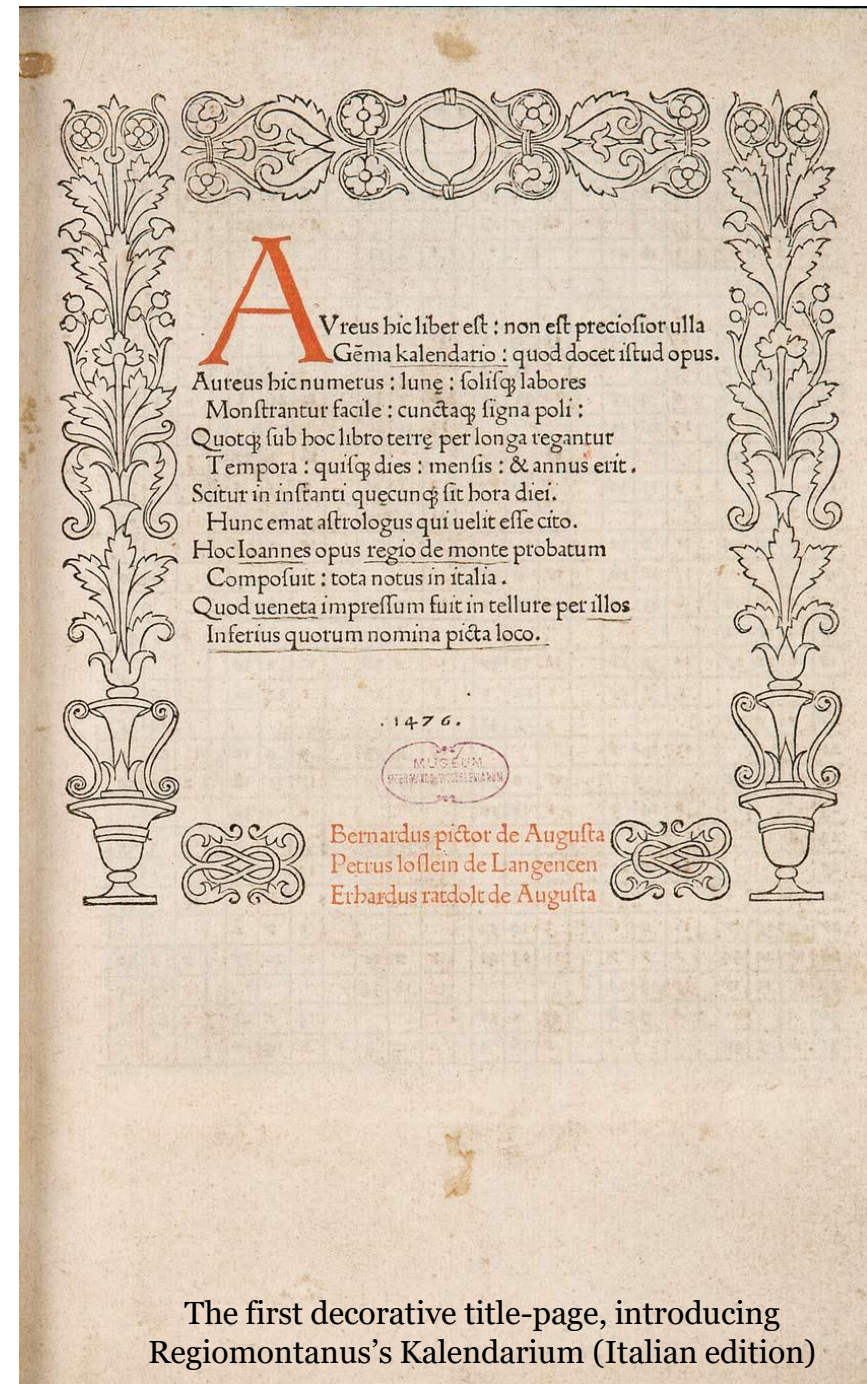


Writing a Research proposal



Title page

- ✓ **The proposed title of your project**
- ✓ **Your name**
- ✓ **Your mentor/ supervisor's name**
- ✓ **Your institution and department**



Writing a Research proposal

Choose a topic

Steps	Description
Develop a Research Question	Take the time to do a little independent research on your topic utilizing google.com, google Scholar or any other search engine.
Know your topic	Familiarize yourself with the topic and begin to narrow your topic to something more specific.



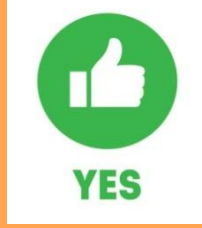
Writing a Research proposal

Add a meaningful short TITLE

Steps	Description
Title 1	A three year study of bird diversity using occupancy modeling in an urban context identifying impact of intense infrastructure on birds and the role of forest patches in capital city of Delhi
Title 2	Bird diversity in Delhi using occupancy modeling
Title 3	Spatial variations of bird occupancy in Delhi: The significance of woodland habitat patches in urban centres

Writing a Research proposal

Add a meaningful short TITLE

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Add a meaningful short TITLE

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Spatial variations of bird occupancy in Delhi: The significance of woodland habitat patches in urban centres

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ABSTRACT

Occupancy modeling, an important tool for conservation monitoring, was employed to assess the occupancy status of resident birds of Delhi and their association with persisting habitats, such as woodland, urban and open areas in an urbanized landscape. In the 240 sampling grids, each of 2.5 × 2.5 km, a total of 115 species were recorded during two alternative sampling years 2012 and 2014, out of which 31 terrestrial bird species were retained for the modeling exercise. Species occupancy related strongly to the extent of preferred habitat. Birds from woodland guild showed high occupancy (Ψ) in urban grids with green patches. Distribution maps developed for 31 terrestrial species provided strong evidence that the variations in occupancy values of a species across the study site was linked to the extent of persistent habitat and the type of urbanization taking place. For Delhi, estimates of occupancy for various species can form a baseline to study the future trends. The accelerating trend of urbanization, posing a serious challenge for biodiversity conservation can be most effectively dealt with by incorporating ecological knowledge of urban biodiversity in city planning. As a policy recommendation there is considerable merit in integrating islands of greenery in urban development because of their attractiveness for many types of arboreal birds, besides undertaking new plantation and habitat management programs.
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1. Introduction

Common birds are effective and extremely popular indicators for evaluating biodiversity in all manner of natural and artificial habitats because they are diurnally active, easy to monitor and exhibit significant responses to different designs and effects brought about by habitat alterations (Bibby et al., 1992; Chace and Walsh, 2006; Yang et al., 2015). Maximizing bird diversity is considered to be a desired objective of most conservation programs, to be achieved by habitat protection and the creation of green corridors in urban environments (Niemela, 1999; Matsuba et al., 2016). The increasing urban sprawl, a common trend in most parts of the world today, while boosting the abundance of certain taxa, particularly omnivorous and granivorous birds, also simultaneously tends to reduce overall species diversity (Chace and Walsh, 2006). As remnant habitats are substituted by built up areas, urbanization processes inevitably lead to local extinction's (Marzluff, 2001) resulting in drastic fluctuations in community composition compounded by a host of analogous factors such as the introduction of exotics (Khera et al., 2009), human disturbance (MacGregor-

Fors, 2008) and even supplementary feeding (Piper and Catterall, 2006; Fuller et al., 2008). Avian research trajectories of recent years testify to the increasing importance being given to urban ecology (Marzluff, 2001; Chace and Walsh, 2006; Evans et al., 2009). However, the majority of studies, reports research undertaken in developed countries such as USA, Canada and Western Europe, all from the temperate world. Studies employing robust analysis and sound experimental design from tropical and subtropical areas, where climate regimes, patterns of urban expansion, town planning and urban greening paradigms are notably different are few in numbers (e.g. Ortega-Alvarez and MacGregor-Fors, 2011; Yang et al., 2015; Matsuba et al., 2016).

Studies focusing on behavior, abundance, occupancy and community patterns (Fernandez-Juricic and Jokimäki, 2001; Marzluff 2001; Walker et al., 2008; McKinney et al., 2011; Davis et al., 2012) of birds in urban premises have provided valuable insights about conservation of remnant habitats in built up areas (Niemela, 1999; Savard et al., 2000). However, from a methodological viewpoint, for many common birds, particularly small and insectivorous taxa, it is often difficult to have a proper assessment of their status because they tend to be imperfectly recorded in census programs, chiefly on account of their low detectability (Anderson et al., 2015). Most of the multi-species monitoring programs rely on raw counts and thus incorporate an inadvertent assumption of complete detection

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Description

A three year study of bird diversity using occupancy modeling in an urban context identifying impact of intense infrastructure on birds and the role of forest patches in capital city of Delhi

Bird diversity in Delhi using occupancy modelling

Spatial variations of bird occupancy in Delhi: The significance of woodland habitat patches in urban centres

Introduction & Problem Statement

Background and Context

Lead the reader into the topic and scope of your research.

Problem Statement

Describe the theoretical or practical research problem that you want to address. What is already known about the problem? What is missing from current knowledge?

Research Questions

State the specific question(s) that you aim to answer.

Relevance and Importance of the Research

Make it clear what new insights you will contribute, who they are relevant to, and why the research is worth doing.

Objectives

Objectives provide a list of goals that will be achieved through the proposed research –

- ✓ Objectives of the study should be clearly defined and directed towards filling the lacunae identified in the chosen area of research
- ✓ Benefits/ impacts that will be generated if the research question is answered

Literature Review

- ✓ A critical analysis of existing research in your field; it highlights both the strengths and weaknesses of existing research
 - ✓ What is known/ what have been done by others? And,
 - ✓ Why your research is still necessary?



Step 1: Literature Review

Steps	Description
Identify relevant sources	Use books, magazines, news papers and online sources (E sources)
Ask yourself:	<ul style="list-style-type: none">➤ How has the topic or problem been defined?➤ Are there any trends and patterns across the literature?➤ What methodological assumptions and approaches have been used?➤ What are the agreements and disagreements between theorists on your topic?

Step 2: Literature Review

Steps	Description
Organize the information	<ul style="list-style-type: none">➤ Chronologically➤ Thematically➤ By trends/approaches/techniques➤ Major debates/controversies➤ Probably a combination of these
Develop Bibliography	<p>At the end of your paper include a bibliography or works cited page.</p> <p>What citation format is required?</p> <p>MLA – Modern Language Association Used in the Humanities</p> <p>APA - American Psychological Association Used in the Social Sciences, Education, and Behavioral Sciences</p>

Methodology & Research Design

- ✓ Overall approach, and the practical steps you will take to answer your research questions.

Steps	Description
Research type	<ul style="list-style-type: none">➤ Qualitative or quantitative?➤ Original data collection or primary and secondary source analysis?➤ Descriptive, correlational, or experimental research design?
Population and sample	<ul style="list-style-type: none">➤ Who or what will you study (e.g., high school students in Raipur; local newspaper archives 1976-90)?➤ How will you select your subjects (e.g., probability sampling, non-probability sampling)?➤ When and where will you collect your data?

Methodology & Research Design

Steps	Description
Research methods	<ul style="list-style-type: none">➤ What data collection tools and procedures will you use (e.g., surveys, interviews, observational studies, experiments)?➤ Why?
Practicalities	<ul style="list-style-type: none">➤ How much time will you need?➤ How will you gain access to your population?➤ How will you address any obstacles you face?

References

Citation

Below are links to sample citations using standard basic style guides

Though the linkages between nest-site selection, environmental factors and nest survival are critical in colonial birds (Brown *et al.* 1990; Brown and Brown 2001), these have been poorly explored in Painted Stork.

- [APA Style](#) (*American Psychological Association*)
- [Chicago Style](#) (*University of Chicago Press*)
- [IEEE Standards Style](#) (*Institute of Electrical and Electronics Engineers*)
- [IEEE Standards Style](#) (*Institute of Electrical and Electronics Engineers*)
- [MLA](#) (*Modern Language Association*)

Research Schedule and Budget

Research phase	Objectives	Deadline

Budget Head	Budget
Field work	
Consumables	
Equipment	
Printing	
Subscription	
Miscellaneous	