

**UNIVERSITY GRANTS COMMISSION  
BAHADUR SHAH ZAFAR MARG  
NEW DELHI – 110 002**

**PROFORMA FOR SUBMISSION OF INFORMATION AT THE TIME OF SENDING  
THE FINAL REPORT OF THE WORK DONE ON THE PROJECT**

1. NAME AND ADDRESS OF THE PRINCIPAL INVESTIGATOR: Dr.Atul K.Bodkhe  
J.D.Patil Sangludkar Mahavidyalaya, Daryapur, Distt- Amravati(M.S).
2. NAME AND ADDRESS OF THE INSTITUTION: J.D.Patil Sangludkar Mahavidyalaya,  
Daryapur, Distt- Amravati(M.S).
3. UGC APPROVAL NO. AND DATE: No.47-596/08(WRO), Date-02-02-2009
4. DATE OF IMPLEMENTATION: 10-06-2009
5. TENURE OF THE PROJECT: 2 years
6. TOTAL GRANT ALLOCATED: Rs.100000/-
7. TOTAL GRANT RECEIVED: Rs.82, 500/-
8. FINAL EXPENDITURE: 105763/-
9. TITLE OF THE PROJECT: “Diversity of Spider Fauna of Lonar Crater Sanctuary”
10. OBJECTIVES OF THE PROJECT:
  1. To study the diversity of Spiders from Lonar Crater Sanctuary.
  2. To prepare checklist & inventory database of Spiders Lonar Crater Sanctuary
11. WHETHER OBJECTIVES WERE ACHIEVED: Yes  

Details are as follows:

  1. To study the web builder spiders in the Sanctuary.
  2. To study and observe the ground dwelling spiders.
  3. To observe the web structure of the spiders from Lonar Crater Sanctuary.
  4. To develop the checklist of spiders from Lonar Crater Sanctuary.
12. ACHIEVEMENTS FROM THE PROJECT:
  1. Reported family- 25, Genus- 57 and Species- 97 for 1<sup>st</sup> time from Lonar Crater Sanctuary.

2. Participated and presented paper on “Spider diversity in Lonar Crater sanctuary and new Species of Ariamines (Araneae: Theridiidae) from India”. 18<sup>th</sup> International Congress of Arachnology 2010. Siedlce, Poland. ISBN: 978-83-7051-575-1.

3. Participated and presented paper on “Spider fauna from proposed Mahendri Wild Life Sanctuary”. 18<sup>th</sup> International Congress of Arachnology 2010. Siedlce, Poland. ISBN: 978-83-7051-575-1.

4. Organized 4 days Symposium Cum Workshop on Arachnology with Respect to Spiders in collaboration with ISCA Kolkata, DST New Delhi, UGC New Delhi, Indian Society of Arachnology Amravati, Dpt. of Forest, Satpuda Foundation Amravati And SGB Amravati University dated, 28<sup>th</sup> Nov. to 1<sup>st</sup> Dec. 2010 in J. D. P. M. Daryapur.

5. Spider observation training to the Forest Guard at Bori Tiger reserve during the workshop which was organized by Indian Institute of Forest, Bhopal on 30<sup>th</sup> October, 2009.

6. Published research papers:

1. **Atul Bodkhe**. Spider diversity in Lonar Crater sanctuary and new Species of Ariamines (Araneae: Theridiidae) from India. 18<sup>th</sup> International Congress of Arachnology 2010. Siedlce, Poland. ISBN: 978-83-7051-575-1.

2. Kondulkar Sunil, Diesh Joshi, Dinesh Vankhade & **Atul Bodkhe**. Spider fauna from proposed Mahendri Wild Life Sanctuary. 18<sup>th</sup> International Congress of Arachnology 2010. Siedlce, Poland. ISBN: 978-83-7051-575-1.

3. Hippargi, R.V, N.V.Shah, K.R.Rao, P. M. Bolde, S. V. Manthen, **A.K.Bodkhe**. “Colour Change Behavior of spider *Gea* spp. (C. L. Koch, 1843) from Grassland ecosystem of Solapur, Maharashtra. *E-International Scientific Research Journal*, ISSN: 2094-1749 volume:3, issue:1, 2011

4. Hippargi, R.V, **A.K.Bodkhe**, M.P.Chikhale, G.B.Santape, R.M.Behere, P. M. Bolde, S. V. Manthen, K.R.Rao, N.V.Shah Spider (Aractnida:- Araneae) Families of three ecosystem of Maharashtra, India *E-International Scientific Research Journal*. ISSN: 2094-1749 volume:3, issue:1, 2011

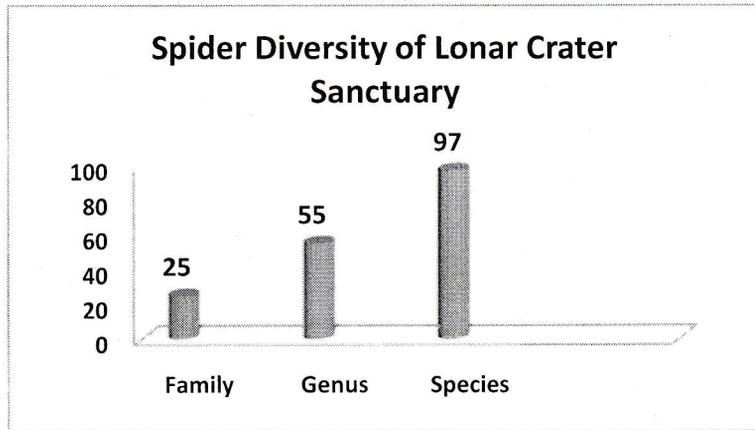
### 13. SUMMARY OF THE FINDINGS:

#### 1. Summary:

As outlined in the objectives, our study has been successfully employed and in future a detailed account of all microhabitats will generate comparable result for long term conservation. As a summary we are enclosing herewith the detailed checklist of spiders noted as of today from the study sites.

#### 1) Inventory of Spiders recorded from Lonar Crater Sanctuary during 2009-10

<b>Families</b>	<b>Genus</b>	<b>Species</b>
Amaurobiidae	1	1
Araneidae	7	20
Eresidae	1	1
Clubionidae	1	3
Corinnidae	2	2
Ctenidae	1	1
Filistatidae	1	1
Gnaphosidae	1	1
Linyphiidae	2	2
Lycosidae	2	4
Mimetidae	1	2
Miturgidae	1	2
Oonopidae	1	1
Oxyopidae	2	4
Pholcidae	2	2
Pisauridae	1	1
Salticidae	8	12
Scytodidae	1	1
Sicariidae	1	1
Sparassidae	2	5
Tetragnathidae	2	4
Theridiidae	6	10
Thomisidae	5	8
Uloboridae	2	6
Zodariidae	1	2



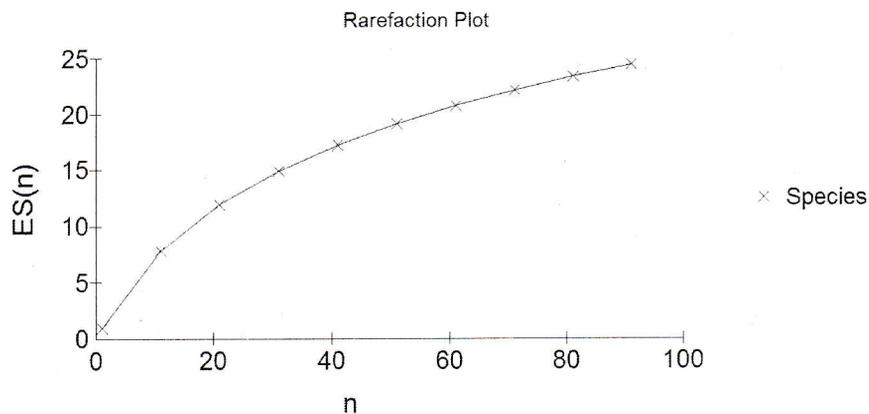
2) Summary of Spider Diversity of Lonar Crater Sanctuary- 2009-10

Families	Genus	Species
25	55	97

3) Diversity indices:

Shannon H' Log Base 10.	1.197
Simpsons Diversity (D)	0.082
Margaleff M Base 10.	125.329

4) Individual Rarefaction Curve:



2. New observations:

This is the first scientific survey of spiders from this unique habitat. Almost all records of spiders will be first documentation for Lonar Crater Sanctuary. Some taxa that were recorded for the first time from Central India are given below

**List of Spider Families: - (Active search method) From Lonar Crater Sanctuary**

1. **Amaurobiidae** Thorell, 1870
2. **Araneidae** Clerck, 1757
3. **Clubionidae** Wagner, 1887
4. **Corinnidae** Karsch, 1880
5. **Ctenidae** Keyserling, 1877
6. **Eresidae** C. L. Koch, 1850
7. **Filistatidae** Ausserer, 1867
8. **Gnaphosidae** Pocock, 1898
9. **Linyphiidae** Blackwall, 1859
10. **Lycosidae** Sundevall, 1833
11. **Mimetidae** Simon, 1881
12. **Miturgidae** Simon, 1886
13. **Oonopidae** Simon, 1890
14. **Oxyopidae** Thorell, 1870
15. **Pholcidae** C. L. Koch, 1850
16. **Pisauridae** Simon, 1890
17. **Salticidae** Blackwall, 1841
18. **Scytodidae** Latreille, 1802
19. **Sicariidae** Keyserling, 1880
20. **Sparassidae** Bertkau, 1872
21. **Tetragnathidae** Menge, 1866
22. **Theridiidae** Sundevall, 1833
23. **Thomisidae** Sundevall, 1833
24. **Uloboridae** Thorell, 1869
25. **Zodariidae** Thorell, 1881

**List of Family & Genera From Lonar Crater Sanctuary Dated 10-06-09 to 30-12-10(Active Search Method, Beating ,Night Survey etc)**

1. Family: **Amaurobiidae Thorell, 1870**  
Genus: *Amaurobius* C. L. Koch, 1837
2. Family: **Araneidae Clerck, 1757**  
Genus: *Cyclosa* Menge, 1866  
*Cyrtophora* Simon, 1864  
*Eriovixia* Archer, 1951  
*Larinia* Simon, 1874  
*Neoscona* Simon, 1864  
*Poltys* C. L. Koch, 1843  
*Zygeilla* F.O.P. Cambridge

3. Family: Clubionidae **Wagner, 1887**  
Genus: *Clubiona* **Latreille, 1804**
4. Family: Corinnidae **Karsch, 1880**  
Genus: *Oedignatha* **Thorell, 1881**
5. Family: Ctenidae **Keyserling, 1877**  
Genus: *Ctenus* **Walckenaer, 1805**
6. Family: Eresidae **C. L. Koch, 1850**  
Genus: *Stegodyphus* **Simon, 1873**
7. Family: Filistatidae **Ausserer, 1867**  
Genus: *Pritha* **Lehtinen, 1967**
8. Family: Gnaphosidae **Pocock, 1898**  
Genus: *Gnaphosa* **Latreille, 1804**
9. Family: Linyphiidae **Blackwall, 1859**  
Genus: *Linyphia* **Latreille, 1804**
10. Family: Lycosidae **Sundevall, 1833**  
Genus: *Lycosa* **Latreille, 1804**  
*Pardosa* **C. L. Koch, 1847**
11. Family: Mimetidae **Simon, 1881**  
Genus: *Mimetus* **Hentz, 1832**
12. Family: Miturgidae **Simon, 1886**  
Genus: *Cheiracanthium* **C. L. Koch, 1839**
13. Family: Oonopidae **Simon, 1890**  
Genus: *Opopaea* **Simon, 1891**
14. Family: Oxyopidae **Thorell, 1870**  
Genus: *Oxyopes* **Latreille, 1804**  
*Peucetia* **Thorell, 1869**
15. Family: Pholcidae **C. L. Koch, 1850**  
Genus: *Artema* **Walckenaer, 1837**  
*Pholcus* **Walckenaer, 1805**
16. Family: Pisauridae **Simon, 1890**  
Genus: *Pisaura* **Simon, 1885**
17. Salticidae **Blackwall, 1841**  
Genus: *Evarcha* **Simon, 1902**  
*Phidippus* **C. L. Koch, 1846**
18. Family: Scytodidae **Latreille, 1802**  
Genus: *Scytodes* **sp. Latreille, 1804**
19. Family: Sicariidae **Keyserling, 1880**  
Genus: *Loxosceles* **Heineken & Lowe, 1832**
20. Family: Sparassidae **Bertkau, 1872**  
Genus: *Heteropoda* **Latreille, 1804**

- Olios Walckenaer, 1837*
21. Family: Tetragnathidae Menge, 1866  
Genus: *Leucauge White, 1841*  
*Tetragnatha Latreille, 1804*
22. Family: Theridiidae Sundevall, 1833  
Genus: *Parasteatoda Archer, 1946*  
*Steatoda Sundevall, 1833*  
*Theridion Walckenaer, 1805*
23. Family: Thomisidae Sundevall, 1833  
Genus: *Xysticus C. L. Koch, 1835*
24. Family: Uloboridae Thorell, 1869  
Genus: *Uloborus Latreille, 1806*  
*Zosis Walckenaer, 1841*
25. Family: Zodariidae Thorell, 1881  
Genus: *Mallinella Strand, 1906*

14. CONTRIBUTION TO THE SOCIETY:

Spider plays an important role agro-ecosystem. In order to train and spread awareness among formers, Organized workshop on Role of Spiders in Agro-ecosystem for Local Farmers.

15. WHETHER ANY PH.D. ENROLLED/PRODUCED  
OUT OF THE PROJECT: Nil

16. NO. OF PUBLICATIONS OUT OF THE PROJECT: 04  
(RE-PRINTS ATTACHED IN SEPARATE SHEETS)

  
(PRINCIPAL INVESTIGATOR)

  
(REGISTRAR/PRINCIPAL)

PRINCIPAL  
J D Patil Sangludkar  
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