

SCIENTIST PROFILE

NAME Prof/Dt./Mr./Mrs	DR.A.BENNIAMIN	
DESIGNATION	SCIENTIST 'E'	
ORGANISATION:	BOTANICAL SURVEY OF INDIA WESTERN REGIONAL CENTRE MINISTRY OF ENVIRONMENT & FORESTS GOVERNMENT OF INDIA	
DATE OF ENTRY IN GOVT SERVICE (AS GROUP 'A')	15-04-2008	
DATE OF BIRTH	10-05-1976	Sex : Male
COMPLETE ADDRESS (OFFICE)	BOTANICAL SURVEY OF INDIA WESTERN REGIONAL CENTRE, 7, KOREGAON ROAD, PUNE MINISTRY OF ENVIRONMENT & FORESTS GOVERNMENT OF INDIA	
COMPLETE ADDRESS (RESIDENCE)	BOTANICAL SURVEY OF INDIA WESTERN REGIONAL CENTRE, 7, KOREGAON PARK, PUNE MINISTRY OF ENVIRONMENT & FORESTS GOVERNMENT OF INDIA	
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1. EDUCATIONAL /PROFESSIONAL QUALIFICATIONS

SL.NO	EXAMINATION/ DEGREE	UNIVERSITY/INSTITUTE	YEAR	SUBJECT	DIVISION
1.	B.SC (BOTANY)	MANONMANIUM SUNDARNAR UNIVERSITY, TAMIL NADU	1998	BOTANY	FIRST CLASS
2.	M.SC (BOTANY)	MANONMANIUM SUNDARNAR UNIVERSITY, TAMIL NADU	2002	BOTANY	FIRST CLASS
3.	PH.D (BOTANY)	MANONMANIUM SUNDARNAR UNIVERSITY, TAMIL NADU	2005	BOTANY	Highly Commanded

2. EXPERIENCE/POSTING FROM LEVEL SCIENTIST 'B'ONWARDS (IN GROUP-'A')

SL.NO	NAME OF THE ORGANISATION	POST HELD	FROM	TO	DUTY PERFORMED
1.	BOTANICAL SURVEY OF INDIA, MOEF, NEW DELHI	SCIENTIST 'C'	15 TH APRIL 2008	1.07.2013	Taxonomy of Pteridophytes
2.	BOTANICAL SURVEY OF INDIA , WESTERN REGIONAL CENTRE, PUNE	SCIENTIST 'D'	01-07-2013	Till date	Taxonomy of Pteridophytes
2.	BOTANICAL SURVEY OF	SCIENTIST	14.12.2018	Till date	Taxonomy of

	INDIA , WESTERN REGIONAL CENTRE, PUNE	'E'			Pteridophytes
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3. TRAINING ATTENDED

SL.NO	YEAR	NAME OF THE TRAINING PROGRAMME	NAME OF THE INSTITUTE	DURATION
1.	2003	ELECTROPHORESIS AND GEL DOCUMENTATION	BIOTECH, YERCAUD, TAMIL NADU	10-17 NOV 2003
2	2009	PUBLIC PRIVATE PARTNERSHIP by DST	ADMINISTRATIVE COLLEGE OF INDIA, HYDRABAD	5-12 July 2009
3	2016	QGIS ESSENTIALS	QUBBI LABS, BANGALORE	20-21 May 2016

4. RESEARCH EXPERIENCE

SL.NO	YEAR	TOPIC OF RESEARCH	SPONSORING AGENCY
1.	2000-2005	TAXONOMY OF PTERIDOPHYTES	MINISTRY OF ENVIRONMENT AND FORESTS, NEW DELHI
2.	2005-2008	CONSERVATION OF PTERIDOPHYTES	DEPARTMENT OF SCIENCE AND TECHNOLOGY, NEW DELHI

Scientific Achievements:

Scientific duties:

1. Taxonomic Study of family Aspidiaceae (100 spp.) in North East India. (2008-2012)
Report Submitted.
2. Taxonomic study of family Polypodiaceae of North East India (2012-2017) **Report Submitted**
3. Ferns of Maharashtra (2013-2014) : **Report Submitted**
4. Ferns of Karnataka (2014-2018) : **Report Submitted**

Total field experience along with details
(Entire career)

During last 18 years (since March 2001) Thirty three (33) major field tours were undertaken in the various parts of Western and Eastern Ghats and North East India viz
Tamil Nadu : 3 tours
Kerala : 4 tours
Karnataka : 2 tours
Goa : 1 tour
Maharashtra : 1 tour
Gujarat : 1 tour
Assam – 1 tour
Andhra Pradesh : 2 tours
Arunachal Pradesh: 9 tours
Meghalaya : 1 tour
Manipur : 2 tours

Nagaland : 2 tours
Mizoram: 2 tours
Tripura : 1

Interesting Findings:

New Species Published: 4 species

1. *Polystichum manickamianum* Benniamin, Fraser-Jenkins, & Irudayaraj
2. *Pteris mawsmeiensis* Fras.jenk & Benniamin
3. *Thelypteris parasitica* (L.) Tardieu subsp. *manickirudorum* Fras.-Jenk.& Benniamin
4. *Diplazium austrosylvaticum* Fras.-Jenk. & Benniamin
5. *Dryopsis arunachalensis* Fras.jenkins & Benniamin sp.nov.

New Combinations Published in Panjab.Univer.Res. (Sci) Vol 59.2009 pp.1-38.

1. *Polypodiodes yunnanensis* (Franch.) Fras.-Jenk.
2. *Ctenitis* (C.Chr.) C.Chr. Sect. *Dryopsis* (Holtum & P.J.Edwards) Fras.-Jenk.
3. *Peranema annamensis* (Tagawa) Fras.-Jenk. & Wangdi.

New Records for India published in Panjab.Univer.Res. (Sci) Vol 59. pp.1-38,2009.(26 species New to India from Arunachal Pradesh)

1. *Huperzia quasipolytrichoides* (Hayata) Ching
2. *Angiopteris palmiformis* (Cav.) C.Chr.
3. *Osmunda cinnamomea* L. subsp. *asiatica* (Fernald) Fras.-Jenk.
4. *Pyrrosia rasamalai* (Racib.) K.H.Shing
5. *Selliguea engleri* (Luer) Fras.-Jenk.
6. *Lepisorus thunbergianus* (Kaulf.) Ching
7. *Trichomanes parvifolium* (Baker) Copel.,
8. *Aleuritopteris duclouxii* (Christ) Ching
9. *Notholaena borealisinensis* (Kitag.) Fras.-Jenk.
10. *Pteris cadieri* Christ
11. *Pteris hirtula* (C.Chr.) C.V.Morton
12. *Pteris inaequalis* Baker, non C.Presl, *nom. nud.*
13. *Pteris taiwanensis* Ching
14. *Pteris assamica* Fras.-Jenk. & T.G.Walker
15. *Thelypteris paludosa* (Blume) K.Iwats.
16. *Thelypteris megacuspis* (Baker) C.F.Reed
17. *Thelypteris repanda* (Fée) Tagawa & K.Iwats.
18. *Athyrium dissitifolium* (Baker) C.Chr.
19. *Athyrium nakanoi* Makino
20. *Gymnocarpium oyamense* (Baker) Ching
21. *Bolbitis tibetica* Ching & S.K.Wu
22. *Bolbitis medogensis* (Ching & S.K.Wu) S.Y.Dong
23. *Ctenitis paucisora* (Copel.) Copel. (Aspidiaceae)
24. *Dryopteris namegatae* (Sa.Kurata) Sa.Kurata (Aspidiaceae)
25. *Tectaria ternifolia* (Alderw.) C.Chr. (Aspidiaceae)
26. *Dryopteris rubrobrunnea* W.M.Chu (Aspidiaceae)
27. *Cyrtosia nana* (Orchidaceae)

1. Books:

Books Published: Four

1. C.R.FRASER JENKINS, K.N.GANDHI, B.S.KHOLIA AND **A.BENNIAMIN** 2017. **An Annotated Checklist of Indian Pteridophytes- Part 1** (Lycopodiaceae to Thelypteridaceae)1-523 Bishen Singh Mahendra Pal Singh, Dehradun pp 1-563
2. S.C.VERMA, S.P. KHULLAR.**A.BENNIAMIN**, D.JESU BALAN AND DEVENDRA TRIPATHI 2017. Abstract Book for the National Symposium on “The Genomic Age Challenges and Opportunities in Taxonomy and Biology of Indian Pteridophytes” organised and Published by Botanical Survey of India, Pune in association with Indian Fern Society, Chandigarh.pp1-111.
3. V.Irudayaraj, P.Lakshminarasimhan and **A.Benniamin** A Manual for Cytological Techniques 2018.
4. S.C.Verma, S.P.Khullar, **A. Benniamin**, P.Lakshminarasimhan and **P.Singh**, 2018. The Genomic Age Challenges and Opportunities in Taxonomy and Biology of Indian Pteridophytes at Botanical Survey of India Publication, Kolkata.

2. Books under Press :

1. Fraser Jenkins, C.R. A.K.Baishya and A.Benniamin 2012 Ferns and Fern allies of Arunachal Pradesh (A Complete checklist). BSI, Kolkata.(Under Press.)
2. A.BENNIAMIN AND V.IRUDAYARAJ 2012. Fern Diversity of Western Ghats A Check List , Bishen Singh Mahendra Pal Singh. (Under Press.)
3. A.BENNIAMIN, Pteridophytes of Manipur, North East India (Under preparation)

RESEARCH PUBLICATIONS:

Published 67 & 2 Hindi articles(Two)

1. **Benniamin, A.**, Manickam, V.S., Johnson, M. and Joseph, L.H.2004. Micropropagation of *Crataeva magna* (Lour).Dc - a medicinal plant. *Indian Journal of Biotechnology*. 3: 136-138.
2. Manickam, V.S., **Benniamin, A.** and Harikrishnan, S. 2004. Diversity of fern and fern allies of Goa in Western Ghats, India. *Malaysian Journal of Science*. 23:85-93.
3. Maridass .C., Victor, B., **Benniamin A.**, Mannar Mannan, M. and Johnde Britto,A, *Pharmaceutical Biology* Vol. 43 No.4 Pp 296-298 , 2005
4. Manickam, V.S., **Benniamin, A.** and HARIKRISHNAN, S. 2004. New record of *Pteris wallichiana* Agardh. *Indian Journal of Forestry*. 27(2): 151- 152.
5. Manickam, V.S., **Benniamin, A.** and Harikrishnan, S. 2004. *Pteris ensiformis* Burm (Pteridaceae) A new distributional record for Tamil Nadu, South India. *Indian Fern Journal* 21: 93-95.
6. Manickam, V.S., **Benniamin, A.** and Harikrishnan, S. 2004. *Bolbitis sinensis* (Baker) Iwatsuki (Bolbitidaceae) A new record for Andhra Pradesh. *Indian Fern Journal* 21: 133-135.

7. Manickam, V.S., **Benniamin, A.** Irudayaraj, V. 2004. Antimicrobial activity of *Christella parasitica* (L.) Lev. Leaf glands. *Indian Fern Journal* Vol 22: 87-88.
8. Murugan, C. Sivalaingan, R. **Benniamin, A.** and Kannan, S.G.D. 2002 *Lindernia srilankana* Cramer & Philcox (Scrolophulariaceae) A New record for India *Reedea*, Vol No. 12(2) : 155-157.
9. Manickam, V.S., Harikrishnan, S., **Benniamin, A.** and Henry Joseph, L. 2002. Rediscovery of *Tectaria zeylanica* (Houtt.) Sledge, Dryopteridaceae: A rare species of the Western Ghats, South India. *Indian Fern J.* 20: 94-96.
10. Manickam, V.S., Harikrishnan, S. and **Benniamin, A.** 2004. Additions to the Pteridophytic Flora of the Sirumalai Hills, South India. *Indian Fern Journal* 21: 126-132.
11. Justin Koil Pillai .Y **Benniamin, A.** Manickam, V.S Genetic Variation in *Tylophora Indica* (Burm.f.) Merril. Populations Assayed Through RAPD Markers *Indian Journal of Botanical Research* , Tiruvandrum
12. Justin Koil Pillai .Y. **Benniamin, A.** Charles, M, Manickam V.S The magnitude effect of the inhibitory effect of 2,4,D on the physio chemical Nature of *Ipomea carnea* Sacq (Convolvulaceae) A Weed Plant . *Indian Journal of Botanical Research* , Tiruvandrum
13. Manickam, V.S and **Benniamin, A.** 2007. Medicinal Pteridophytes of the Western Ghats, India, *Indian Journal of Traditional Knowledge*, (NISCAIR), Vol. 6 (4) .pp.611-618.
14. **Benniamin, A.** Manickam, V.S *Pteris Heteromorpha* A New Distribunal Record for Andhra Pradesh *Jour.Bom.Nat.Hist.* vol.No 15.304-306.
15. Justin koil pilai .Y. **Benniamin, M,** Manickam V.S and Louis Jesudass 2007. Mycoorrhizal Association of Two endemic Trees of Western Ghats: *Poeciloneuron pauciflorum* Bedd. And *Poeciloneuron indicum* Bedd. *Indian journal of Forestry* Vol30 No. 4.455-458.
16. Manickam, V.S., and **Benniamin, A.** *Pteris Heteromorpha* A New Distribunal Record for Western Ghats of Karnataka, India *J. Econ. Taxon, Bot.* Vol 31 No. 2 .pp 455-456.
17. **Benniamin, A.** C. Fraser Jenkins and V.Irudayaraj . 2008 *Polystichum manickamianum* New Species of *Polystichum* from the Western Ghats, India. *NOVON* 18:287-293.
18. **Benniamin, A.** Manickam, V.S 2008 Phytogeographical analysis of Pteridophytes from the Western Ghats, India *Fern Journal* vol.23. 24-28.
19. **Benniamin, A** Irudayaraj, V. and Manickam V/S. 2008 How to identify the rare and endangered fern and fern allies. *Ethanobotany leaf let Online journal*
20. G.J.Jothi, **A. Benniamin,** and V.S. Manickam 2008. Glimpses of tribal botanical knowledge of Tirunelveli hills, Western Ghats, India. *Ethanobotany leaf let Online journal*.
21. Johnson, M., Manickam V. S., **Benniamin A.** AND Irudayaraj V 2008 Conservation of Endangered ferns of Western Ghats through Micropropagation *Indian Fern Journal* vol 28. 14-21.
22. Fraser jenkins C.R And **Benniamin A.** 2008 *Diplazium austrosylvaticum* Fras.-Jenk. & Benniamin Taxonomic Revision of Indian Subcontinental Pteridophytes, Bishen Singh Mahendra Pal Singh, Dehradun Pp.205
23. Fraser jenkins C.R And **Benniamin A** 2008. *Thelypteris parasitica* (L.) Tardieu subsp. *manickirudorum* Fras.-Jenk.& Benniamin Taxonomic Revision of Indian Sub continental Pteridophytes, Bishen Singh Mahendra Pal Singh, Dehradun Pp.186.

24. **A.Benniamin**, N.Siva, and A.Arockkiam, V.S. Manickam **2009**. *Cyrtomium macrophyllum* (Makino) Tagawa (Dryopteridaceae), New record for Eastern Himalaya, India. *Journal of American Science* 2009:5(3) 107-108
25. G. Jeya jothi, **A.Benniamin**, *M.Maridass And G.Raju 2009. Identification of Essential Oils Composition and Antifungal Activity of *Eugenia Singampattiana* Fruits *Pharmacology vol. 2*: 727-733.
26. M.S.Sundari, **Benniamin**, A, Manickam V.S. In vitro propagation of *Solanum nigrum* International journal of Biotechnology, Vol 26 55-59 2009.
27. **Benniamin A** And Fraser Jenkins C.R *Trichomanes Parvifolium* the World's Smallest fern ; New to india and the rarietis of Arunachal Pradesh Vol 26 pp 179-184.30. 2009
28. **Benniamin A.** *Bolbitis tibetica* Ching & S. K. Wu (Lomariopsidaceae): An Addition To Pteridophytic Flora Of India From Arunachal Pradesh Bulletin of Arunachal Forest News Vol 17 1-3 2010.
29. **Benniamin A.**, Sundari S. and Manickam V.S. 2010. *Anogramma leptophylla* (L.) Link (Pteridaceae), a rare and endangered fern in Western India. *Indian Fern Journal* pp 55-59.
30. **Benniamin.A. 2010**. Ferns and fern allies of Itanagar Wildlife Sanctuary, Arunachal Pradesh *Indian journal of Forestry*, vol 33(2): 199-205
31. C.R. Fraser-Jenkins and **A. Benniamin**. Fifty Rarities and Additions to the Pteridophytic flora of Arunachal Pradesh State on the north East Frontier of India *Pb.Univer.Res. (Sci)* Vol 59.2009 pp.1-38.
32. M. Maridass, R. Mahesh, G.Raju, *A.Benniamin and K.Muthuchelian* 2010 . *In Vitro* Propagation of *Dendrobium nanum* through rhizome bud culture *International Journal of Biological Technology: 1*(2):50-54.
33. M.S. Sundari, **A. Benniamin** and V.S. Manickam 2010. Micropropagation and *in vitro* flowering in *Solanum nigrum* linn. A medicinal plant. *International Journal of Biological Technology: 1*(1):29-32.
34. **A.Benniamin 2011**. *Pteris tripartita* Sw. A new Record for Eastern Ghats *International Journal of Biological Technology Vol. 2*(1):14-15.
35. **A.Benniamin** and M.S.Sundari Micropropagation of a Medicinal Plant (*Azima tetracantha* Lam.) *The Indian Forester Vol 137.No.6.June 2011*.
36. M.S.Sundari, **A.Benniamin** and Beschi Antony Rayan Bio Chemical Analysis of infected and Non infected Leaf galls of Tirunelveli District, Tamil Nadu. *The Indian Forester Vol 138.No.7.July 2011*.
37. **A.Benniamin** Studies on the genus *Dryopteris* Adans (Pteridophyta- Aspidiaceae Senu Lato) from Mizoram (North East India) *Indian Journal of Forestry vol.34*(3): 345-352 2011.
38. **A.Benniamin**, Medicinal Pteridophytes from North East India with special reference to Arunachal Pradesh, *Indian Journal of Traditional knowledge Vol. 10*(3)July 11 pp.516-522
39. Shumuga Sundari, **A. Benniamin**, N. Siva, M.Maridass, A. Karthick, A Preliminary Survey of Pteridophytes from Alagar hills, Madurai, Eastern Ghats, *International Journal Applied Bio research Vol. 6* 1-6,2012.
40. M.Shumuga Sundari, **A. Benniamin**, Udayakumari, S. Muthulakshmi , Unusual Spike Development of Primitive fern *Helminthostachys zeylanica* (L.)Hook. (Ophioglossaceae) *International Journal of Biol.Technology Vol. 5* pp.1-2.2012.

41. **A.Benniamin**, S. K.Chaturvethi, Santanu Dey and Moaakum 2012.Supplements to the Root Parasitic plant in India. A new recorded species *Christisonia siamensis* Craib. (Orobanchaceae), *Taiwania* Vol.57(2) 218-222.
42. **A.Benniamin** 2012. The Diversity of ferns and fern allies of Murlen National Park, Mizoram, North East India, *Indian fern journal*, Vol 29: 1-12.
43. **A.Benniamin**, 2012. The Occurrence and Ecology of Some Dryopteroid Ferns in Arunachal Pradesh, *Indian fern journal*, Vol 29: 7-29.
44. S. D.Yumkham, L. Chakpram, **A. Benniamin** & P.K. 2013. Singh Discovery of *Cyrtosia nana* (Orchidaceae) in India *Taiwania* 58(3): 229 – 232.
45. **A. Benniamin** 2014. Four New Additions to the pteridophytic flora of Tripura, North East India to *Indian journal of forestry*, Vol 37(3): 355-358.
46. **A.Benniamin**, Devandra Tripathi and Praveen kale 2015. *Pteris heteromorpha* fee New record for Maharashtra Bioinfolet Vol 12 No 2 A pp 1-2.
47. **Benniamin**, M.S. Sundari and D. Tripathi 2015. Additions to the fern flora of Nagaland, North East India *Keanean journal of science* Vol 4 pp 15-18, 2015.
48. **A.Benniamin**, Devandra Tripathi and Praveen kale 2015. *Pteris tripartita* New record for Maharashtra Bioinfolet Vol 12 No 2 A pp 1-2.
49. **Benniamin**, A and M. S. Sundari 2015. *Ophioglossum pendulum* L. (Ophioglossaceae) A Critically endangered fern rediscovered from Arunachal Pradesh, North East India *Keanean journal of science* Vol 4 pp 39-42, 2015.
50. **A. Benniamin**, G.J.Jothi, and M.S. Sundari 2015. Rapid *In vitro* Propagation of *Dodonaea viscosa* (Sapindaceae) Through Axillary bud multiplication and indirect organogenesis *Jour. Of Non Timber Forests Products* Vol 22. No :1 pp 33-35.
51. C. Murugan, **A. Benniamin**, S. Prabhu, R. Sathiyaseelan & P. Murugan 2015. *Pleocnemia* C.presl (Dryopteridaceae) – A New Generic Record For Andaman and Nicobar Islands *Journal of the Andaman Science Association* Vol. 20(2):148-150.
52. Devendra Tripathi, **A. Benniamin** and D. Jesu Balan 2016. New Record of Endemic Fern: *Elaphoglossum stigmatolepis* (Fee)T. Moore (Lomariopsidaceae) for the State of Karnataka, India *Indian Journal of Forestry* 39(2) 1-8.
53. C Murugan, **A. Benniamin**, S. Prabhu, R. Sathiyaseelan And P. Murugan 2015. *Pleocnemia* C.presl (Dryopteridaceae) – A New Generic Record For Andaman and Nicobar Islands *Journal of the Andaman Science Association* Vol. 20(2):148-150 (2015).
54. Devendra Tripathi, **A. Benniamin**, And D. Jesubalan, 2016. New record of Endemic Fern: *Elaphoglossum stigmatolepis* (Fee) T. Moore (Lomariopsidaceae) for the state of Karnataka, India. *Indian Journal of Forestry*, 39(2)1-8.
- 55.**A. Benniamin** And M.S.Sundari 2017. Natural Apospory In *Pteris Aspercaulis* Wall. Ex. J. Agardh From North Eastern India, *Indian Forester* 143(2) 187-188.
56. **Benniamin**, A. and M. Shumuga Sundari *Arthromeris Lehmanii* (METT.) Ching (Polypodiaceae) – A New Generic Record for the Pteridophytic Flora of Western Ghats, India *Indian Fern J.* **34** : 196-199 (2017)
57. Devendra Tripathi, **A.Benniamin**, M.S.Sundari, D.Jesubalan and Bagath Singh 2017. Medicinal Pteridophytes of Kudremukh National Park, Central Western ghats, karnataka, India,, *Indian Fern J.* 34 : 200-208, 2017.

58. **A. Benniamin**, Siva. N and Manickam V.S. 2017. Ex situ Conservation in Kodaikonal Botanical Garden from Southern Western Ghats, India. Indian Botanic Garden Role in Conservation. Pp 281-294.
59. Fraser Jenkins, C.R. and **A. Benniamin**, 2018. *Dryopis arunachalensis* Fras.jenkins & Benniamin sp.nov. An Annotated Checklist of Indian Pteridophytes- Part II (Woodsiaceae to Dryopteridaceae) By Bishen Singh Mahendra Pal Singh, Dehra Dun Pp 219.
60. C. R. Fraser-Jenkins, A. K. Baishya, **A. Benniamin**, and V. K. Rawat, 2018. Ferns and fern-allies of Arunachal Pradesh: check-list of pteridophytes in all districts of Arunachal Pradesh, *Botanical Survey of India Publications*, Pp.153-156.
61. M. Shunmuga Sundari, N.P. Malpathak and **A. Benniamin**, 2018. Additions to the Pteridophytic Flora of Central Western Ghats of Karnataka, *Botanical Survey of India Publications*, India Pp.236-239.
62. S. K. Singh, V. K. Rawat, **A. Benniamin** and C. R. Fraser-Jenkins, 2018. Recent observations on Ferns and Fern-Allies of Meghalaya, *Botanical Survey of India Publications*, pp.163-165.
63. D. Jesubalan, **A. Benniamin** and Devendra Tripathi 2018. Addition to the Pteridophytic Flora of Karnataka, Central Western Ghats of India, *Botanical Survey of India Publications*, 240-242.
64. C. R. Fraser-Jenkins, A. K. Baishya, **A. Benniamin** and V. K. Rawat 2018. An Outline Checklist of Fern-Allies of Arunachal Pradesh, N.E. India Indian Fern Journal Vol 35. 1 &2 pp 81-91.
65. V. K. Rawat, **A. Benniamin**, B. Kumar, S. Patil and Pushpish Joshi The Genus *Arthromeris* in North-East India : Diversity, Distribution and Ecology India Indian Fern Journal Vol 35. 1 &2 pp 179-195.
66. V. K. Rawat and **A. Benniamin** 2018. Family Polypodiaceae in Northeast India: A Taxonomical Overview India Indian Fern Journal Vol 35. 1 &2 pp 222-242.
67. **A. Benniamin**, M. Shunmuga Sundari, Bagath Singh and D. Jesubalan 2018. *In-vitro* Spore Germination and Ontogeny of An Endangered Annual Fern - *Anogramma reichsteinii* Fraser-Jenk. India Indian Fern Journal Vol 35. 1 &2 pp 356-365.

Popular Article: Hindi

1. एबेन्नीएमिन., देवेन्द्र त्रिपाठी तथा डी. जेसुबालन. बिलिगिरीरंगास्वामी मन्दिर वन्य जीव अभ्यारण की पर्णांग जैव विविधता, २०१७, वनस्पति वाणी , भारतीय वनस्पति सर्वेक्षण, कोलकाता
2. कुद्रेमुख राष्ट्रीय उद्यान, मध्य पश्चिमी घाट, कर्नाटक के औषधीय पर्णांग; देवेन्द्र त्रिपाठी, ए बेन्नीअमिन, एम.एस. सुन्दरी*, डी 2018. जेसुबालन और बगथ सिंह.

Research Abstract presented/submitted during Conferences/ Symposia: 24

1. **A. Benniamin** and V.K. Rawat and Devendra Tripathi, 2014. Ferns and Fern Allies of Maharashtra at National Conference on “ Modern Approaches to Pteridophytes: Biology, Biodiversity and Bioresource” during 20-21, December 2014 at Institute of Himalayan Bioresource Technology, Palampur, H.P pp.34.
2. **A. Benniamin** and Devendra Tripathi 2015. A Preliminary Survey of the Pteridophytic flora of BRT WLS, Karnataka, at National Conference on “ Modern Approaches to Pteridophytes: Biology, Biodiversity and Bioresource” during 20-21, December 2014 at Institute of Himalayan Bioresource Technology, Palampur, H.P pp.30.
3. **A. Benniamin** 2014. Pteridophytes of Manipur at National Conference on “ Modern Approaches to Pteridophytes: Biology, Biodiversity and Bioresource” during 20-21, December 2014 at Institute of Himalayan Bioresource Technology, Palampur, H.P pp.32.
4. **A. Benniamin** 2014. Taxonomic Study of Family Dryopteridaceae of North East India at National Conference on “ Modern Approaches to Pteridophytes: Biology, Biodiversity, and Bioresource” during 20-21, December 2014 at Institute of Himalayan Bioresource Technology, Palampur, H.P pp.25.
5. V.K. Rawat and. **A. Benniamin**, 2014 Contribution to the Pteridophytic flora of India: Ecological and taxonomical studies on the Pteridophytic flora of Maharashtra at National Conference on “ Modern Approaches to Pteridophytes: Biology, Biodiversity, and Bioresource” during 20-21, December 2014 at Institute of Himalayan Bioresource Technology, Palampur, H.P pp.33.
6. **A. Benniamin** and Devendra Tripathi, 2015 Assessment of Rare and Threatened Pteridophytes from North Western Ghats of Maharashtra, India, at National Conference on Cryptogam Research in India: Progress and Prospects at National Botanical Research Institute, Lucknow. Pp95.
7. **A. Benniamin** and Devendra Tripathi, 2015 A Preliminary Survey of pteridophytes flora of Kudremukh National Park, Central Western Ghats, Karnataka at National Conference on Cryptogam Research in India: Progress and Prospects at National Botanical Research Institute, Lucknow. Pp95.
- A. Benniamin** 2017. Ferns and Fern Allies of Mizoram, North East India at 40th All India Botanical Conference & National Symposium on Evaluation and Conservation of Plant Germplasm organized by Punjabi University Patiala on 15-17 September 2017 pp72.
8. C.R. Fraser-Jenkins, A.K. Baishya, **A. Benniamin** and V.K. Rawat 2017. Ferns and fern-allies of Arunachal Pradesh: check-list of Pteridophytes in all districts of Arunachal Pradesh at National Symposium on “The Genomic Age Challenges and Opportunities in Taxonomy and Biology of Indian Pteridophytes” pp.23-25.
9. Vineet Kumar Rawat and **A. Benniamin** 2017. Diversity and distribution of family Polypodiaceae in North-East India at National Symposium on “The Genomic Age Challenges and Opportunities in Taxonomy and Biology of Indian Pteridophytes” pp.7 organized by Botanical Survey of India, Western Regional Centre, Pune.
10. M.S.Sundari, N.P.Malpathak and **A. Benniamin** 2017. Gametophyte Development and Polyembryony in *Pteris tripartita* SW. – A Critically endangered fern from South India at National Symposium on “The Genomic Age Challenges and Opportunities in Taxonomy and Biology of Indian Pteridophytes” pp.89 organized by Botanical Survey of India, Western Regional Centre, Pune.
11. M.S. Sundari, N.P. Malpathak and **A. Benniamin** 2017. Phytochemical and GC MS analysis of an endangered fern *Tectaria zeylanica* (Houtt.) Sledge From Southern Western

Ghats, India at National Symposium on “The Genomic Age Challenges and Opportunities in Taxonomy and Biology of Indian Pteridophytes” pp.102 organized by Botanical Survey of India, Western Regional Centre, Pune.

12. M.S. Sundari, N.P. Malpathak and A. **Benniamin** 2017. *In Vitro* Propagation of *Asplenium aethiopicum* (Burm.f.) Bech through Tissue Culture. at National Symposium on “The Genomic Age Challenges and Opportunities in Taxonomy and Biology of Indian Pteridophytes” pp.103 organized by Botanical Survey of India, Western Regional Centre, Pune.

13. M.S.Sundari, N.P.Malpathak and A.**Benniamin** 2017. Additions to the Pteridophytic flora of Central Western Ghats of Karnataka, India at National Symposium on “The Genomic Age Challenges and Opportunities in Taxonomy and Biology of Indian Pteridophytes” pp.67 organized by Botanical Survey of India, Western Regional Centre, Pune.

14. S. K. Singh, V.K. Rawat, A. **Benniamin** and C.R Fraser-Jenkins 2017. Recent observations on ferns and fern-allies of Meghalaya at National Symposium on “The Genomic Age Challenges and Opportunities in Taxonomy and Biology of Indian Pteridophytes” pp.33 organized by Botanical Survey of India, Western Regional Centre, Pune.

15. Devendra Tripathi, A. **Benniamin**, and D. Jesubalan 2017. An Ethno – Medicinal Exploration of Pteridophytes in Kudremukh National Park, Central Western Ghats, India at National Symposium on “The Genomic Age Challenges and Opportunities in Taxonomy and Biology of Indian Pteridophytes” pp.111 organized by Botanical Survey of India, Western Regional Centre, Pune.

16. A. **Benniamin**, M. S. Sundari, D. Jesubalan, Devendra Tripathi and Bagath Singh. 2018. The pteridophytic diversity of Someshwara Wildlife Sanctuary, Western Ghats, Karnataka. National Symposium on “Pteridological Studies in India: Perspective and Modern approaches in Relation to Environment & Climate Change”. pp. 95 (22nd-23rd Feb. 2018) organized by Botanical Survey of India, Arunachal Regional Centre, Itanagar.

17. A. **Benniamin**, M. S. Sundari, Devendra Tripathi, D. Jesubalan and Bagath Singh, 2018. Diversity and distribution of pteridophytes from Bhadra tiger reserve, Central Western Ghats of Karnataka. National Symposium on “Pteridological Studies in India: Perspective and Modern approaches in Relation to Environment & Climate Change”. pg. 45 (22nd-23rd Feb. 2018) organized by Botanical Survey of India, Arunachal Regional Centre, Itanagar.

18. A. **Benniamin**, M. S. Sundari, Devendra Tripathi, D. Jesubalan and Bagath Sing. 2018. *Dryopteris chrysocoma* (Christ) C. Chr. (Dryopteridaceae: Pteridophyta)- A New Record for Pteridophytes Flora of Western Ghats of India. National Symposium on “Pteridological Studies in India: Perspective and Modern approaches in Relation to Environment & Climate Change”. pg. 96 (22nd-23rd Feb. 2018) organized by Botanical Survey of India, Arunachal Regional Centre, Itanagar.

19. A. **Benniamin**, M. S. Sundari and V.K.Rawat, 2018. Some Interesting Pteridophytes in North East India National Symposium on “Pteridological Studies in India: Perspective and Modern approaches in Relation to Environment & Climate Change”. pg. 55 (22nd-23rd Feb. 2018) organized by Botanical Survey of India, Arunachal Regional Centre, Itanagar.

20.A. **Benniamin** and M. S. Sundari, 2018. Some Diversity of Genus *Polystichum* Roth. in North East India during the National Symposium on “Pteridological Studies in India: Perspective and Modern approaches in Relation to Environment & Climate Change”. pg. 55 (22nd-23rd Feb. 2018) organized by Botanical Survey of India, Arunachal Regional Centre, Itanagar.

21. V.K.Rawat and **Benniamin, A**, 2018. The Polypodiaceous fern: “A Taxonomic Review” during the National Symposium on “Pteridological Studies in India: Perspective and Modern approaches in Relation to Environment & Climate Change”. pg. 55 (22nd-23rd Feb. 2018) organized by Botanical Survey of India, Arunachal Regional Centre, Itanagar.
22. V.K.Rawat and **Benniamin, A**, 2018. The Pteridophytes: diversity and distribution in India during the National Symposium on “Pteridological Studies in India: Perspective and Modern approaches in Relation to Environment & Climate Change”. pg. 55 (22nd-23rd Feb, 2018.) organized by Botanical Survey of India, Arunachal Regional Centre, Itanagar.
23. V.K.Rawat and **A. Benniamin, A**, 2018. Genus *Arthromeris* in North East India: Diversity distribution and ecology during National Symposium on “Pteridological Studies in India: Perspective and Modern approaches in Relation to Environment & Climate Change”. pg. 55 (22nd-23rd Feb 2018.) organized by Botanical Survey of India, Arunachal Regional Centre, Itanagar.
24. V.K.Rawat and **Benniamin, A**, 2018. Genus *Lepisorus* in North East India during National Symposium on “Pteridological Studies in India: Perspective and Modern approaches in Relation to Environment & Climate Change”. pg. 55 (22nd-23rd Feb 2018.) organized by Botanical Survey of India, Arunachal Regional Centre, Itanagar.

National Symposium Organized: One

Organized a Two Days National Symposium on “The Genomic Age Challenges and Opportunities in Taxonomy and Biology of Indian Pteridophytes” organized by Botanical Survey of India, Pune in association with Indian Fern Society, Chandigarh on 3-4th March 2017 as **Organizing Secretary**

Training Organized: One:

Organized a Five days workshop on **Training on Cytology Techniques**” at BSI, WRC, Pune from 12-16th March 2018 as an **Organizing Secretary**.

Projects Completed: Four

1. Ferns of Karnataka (2014-2018)
2. Ferns of Maharashtra (2011-2014)
3. “Pteridophytic flora of Kudremukh National Park, with 10% Periphery under Flora of India project.2015-2018

On Going projects - One

1. Ferns of Goa 2018-2020
2. Provided guidance to Mr. D. Jesubalan, Bot. Asst for identification of Pteridophytes for the AAP Project entitled “Pteridophytic flora of Pushpagiri WLS, with 10% Periphery under Annual Action Plan Project from 2016-2020.

External Funding Project in the Year 2016-2017 - 03

1. Sanctioned Project entitled “Conservation through Micro propagation and restoration of threatened Pteridophytes from central Western Ghats of Karnataka_by Department of Science and Technology under SERB. Sanctioned for the year 2017-2020.
2. Working as Co-PI and Pteridophytes expert in Great Indian Himalayan Project “Biodiversity Assessment through long term monitoring plots in Indian Himalayas Landscape”- NMHS funded project.
3. Received DST SERB fund Rs.1,00,000/- as Partial financial Assistance for the National Symposium on “The Genomic Age Challenges and Opportunities in Taxonomy and Biology of Indian Pteridophytes” organized by Botanical Survey of India, Pune in association with Indian Fern Society, Chandigarh on 3-4th March 2017.

Conference/Training/Workshop Attended: Six

1. Attended QGIS - Essentials Training at Qubby Labs Bangalore, from 21-22 May, 2016.
2. Attended Workshop titled “ Summary of the interactive talks and workshop on essentials in plant revisionary studies and flora writing 1st to 3rd December 2016 at BSI, WRC, Pune
3. Attended Botanical Nomenclature course organized by Botanical Survey of India, Pune from 9-12th Feb 2017 at IISER, Pune.
4. Attended Annual Scientific Meet held at Central National Herbarium, Kolkata from 16th - 17th February, 2017 and presented the achievements done last 8years in front of Director, BSI, Kolkata.
5. Presented “Scientific and Administrative work done during April, 2015- March, 2016” before the Head of the office and other scientists of BSI, WRC, Pune on 18.04.2016.
6. Delivered a Lead lecture about diversity of Pteridophytes from Western Ghats, India during State level conference on “**Conservation of Biodiversity**” on 18th February 2017 at Abeda Inamdar Sr. College, Pune

Awards/Recognitions (if any): 8 Awards

1. “**Prof. S.S. Bir Gold Medal Award**” for the Excellence of Pteridophytes for the year 2008 by Indian Fern Society, Patiala.
2. ” **Certificate of Merit Award**” for the year 2010 for the Excellence of Pteridophytes by Indian Fern Society, Patiala.
3. “**Prof. S.S. Bir Gold Medal Award**” for the Excellence of Pteridophytes for the year 2014 by Indian Fern Society, Patiala.
4. **Scientist of the year 2014**” by National Environmental Science Academy, New Delhi.
5. Received “**Best Scientist of the Year 2016**” in Plant Bio Diversity by PEARL FOUNDATION, Madurai on 10th Dec 2016.
6. Received **S.S. Bir Gold Medal Award** for the year 2016 during the National Symposium on Pteridophytes organized by BSI at IISER, Pune.
7. **Best Scientist Award**” for the year 2017 by EEE Achievements, Mumbai.
8. **Fellow in Fern Society**” (FIFS) 2018 by Indian Fern Society, Chandigarh.

Appreciation of work etc: Two

1. Received 1st Price for **poster presentation** Paper entitled “**A Preliminary survey of Pteridophytes from BRT WLS, Karnataka**” during the National conference on “Modern Approaches to Pteridophytes: Biology, Biodiversity, Bioresource”, organized at CSIR- Institute of Himalayan Bioresource Technology, Palampur, Himachal Pradesh during 20-21 December 2014.
2. Received the **First prize** for Poster presentation titled “**Assessment of Rare and Threatened Pteridophytes from Northern Western Ghats of Maharashtra**” during the **National Conference on Cryptogams of India**, at National Botanical Research Institute, Lucknow from 28-29 September **2015**.

A.BENNIAMIN
SCIENTIST “E”