

BIO-DATA

1. **Name** : **DR. AMARJEET SINGH**
2. **Designation** : Professor (Re-employed)
3. **Department** : Botany
4. **Date of Birth** : 10.6.1953
5. **Address for Correspondence** : Department of Botany,
Punjabi University,
Patiala – 147 002 (India)
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6. **Areas of Specialization** : Plant Ecology



7. Academic Qualifications:

Sr. No.	Degree held	Year	Board/ Univ./ Inst.	% of marks	Div. / rank	Subjects taken
1.	Higher Secondary	1971	Bihar School Examination Board, Patna	59.6	2 nd	English, Hindi, Maths, Social Studies, Physics, Chemistry, Biology and Sanskrit
2.	I. Sc. (2nd year)	1972	Ranchi University, Ranchi	48.8	2 nd	English, Hindi, Physics, Chemistry and Biology
3.	B.Sc. (Med.)	1975	Ranchi University, Ranchi	43.4	3 rd	Botany, Zoology and Chemistry
4.	M. Sc.	1978	Ravishankar University, Raipur	59.2	2 nd	Botany
5.	Ph.D.	1984	Ranchi University, Ranchi			Botany

8. Membership of Professional Bodies/ Organizations

- (i) Life Member, Indian Fern Society, Chandigarh
- (ii) Life Member, Punjab Academy of Sciences, Patiala
- (iii) Life Member, International Consortium of Contemporary Biologists, Ranchi
- (iv) Member, Indian Botanical Society, Agra
- (v) Member, Indian Science Congress Association, Kolkata

9. Medals/ Awards/ Honours/ Received

- (i) Conferred the honour of **NODAL RESOURCE PERSON CERTIFICATE for PROFESSOR AMARJEET SINGH FOUNDATION CHAIR IN BOTANY-2013** by The Academic Council of International Consortium of

Contemporary Biologists, Ranchi in appreciation of the research contribution for advancement of scientific knowledge in the field of Botany through 5th National Conference on Recent Advances in Modern Biology and Sericulture for Women Empowerment and Rural Development (RAMBSWERD – 2013 held at KSSRDI, Bangalore, Karnataka.

- (ii) Conferred the honour of **LIFE TIME ACHIEVEMENT GOLD MEDAL AWARD - 2010** by The Academic Council of International Consortium of Contemporary Biologists, Ranchi in appreciation of the research contribution for advancement of scientific knowledge in the field of Botany.
- (iii) Conferred the honour of **SENIOR SCIENTIST AWARD - 2009** by The Academic Council of International Consortium of Contemporary Biologists, Ranchi in appreciation of the research contribution for advancement of scientific knowledge in the field of Botany
- (iv) Awarded **FELLOW, INTERNATIONAL CONSORTIUM OF CONTEMPORARY BIOLOGISTS, 2009** honoris causa credential of elevated Academic Achievements
- (v) Awarded **PROFESSOR S.S. BIR MEDAL IN PTERIDOLOGY, 2006** for excellent achievements in the field of Pteridological research
- (vi) Elected **FELLOW, INDIAN FERN SOCIETY (FIFS), 2007** for outstanding contribution in Pteridology in the field of Utilization of Water Fern, *Azolla* as Biofertilizer
- (vii) Awarded a **CERTIFICATE OF MERIT** for creditable research contribution in Pteridology by Indian Fern Society for the year 1997

- 10. Scholarships** : Nil
- 11. Details of Experience** : More than 28 years
- 12. Published Work (Please specify numbers only)** : 30
- | | | |
|--------------------------------------|--------------------|-------|
| (a) Research Paper | (i) National | 28 |
| | (ii) International | 02 |
| (b) Conference/ Seminar Presentation | | 20 |
| (c) Books | (i) Original | : nil |
| | (ii) Edited | : nil |
- (Please attach the list)
- 13. R & D Projects**
- (i) Eco-physiological studies on food legumes (completed)
- 14. Invited Talks/ Articles**
- (i) Radio talk on “Green House Effect”, All India Radio, Patiala, 1992
 - (ii) Radio talk on Remote Sensing, All India Radio, Jalandhar, 2005

15. Ph.D. Students guided/ under guidance (Details):

Sr. No.	Name of Students	Title of Thesis	Year of Completion
1.	Hardip Kaur	Morpho-physiological studies on growth and development of certain species of <i>Araucaria</i> and <i>Podocarpus</i> (co-supervisor)	1998
2.	Geetika Sirhindi	Biochemical changes in relation to bud burst and year round environmental fluctuations on some selected gymnosperms	2001
3.	Bhushan Kumar	Optimization of chromium removal by water fern <i>Azolla</i>	2012
4.	Rupinder Kaur	Evaluation of arsenic removal potential of <i>Azolla microphylla</i> Kaulfuss	Registered 2014

16. M. Phil./ M. Tech. Students guided:

Sr. No.	Name of Students	Title of Thesis	Year of Completion
1.	Amarjit Singh	Effect of photoperiod on the biomass production of <i>Azolla</i>	1990
2.	Kanwaldeep Singh	Studies on productivity of <i>Azolla</i> under certain soil texture and organic matter contents	1990
3.	Hardip Kaur	Biomass production of <i>Azolla</i> under certain eutrophicated soils	1992
4.	Sweeden Singh	Biomass production of <i>Azolla</i> under certain natural habitats	1993
5.	Rupinder Kaur	Effect of pesticides on the growth of aquatic fern <i>Azolla microphylla</i> Kaulfuss	2013
6.	Subzar Ahmad Bhat	Assessment of growth and nickel uptake by <i>Azolla microphylla</i> Kaulfuss	2015

17. List of Papers/ Courses taught at P.G. and U.G. level:

Sr. No.	Paper	Class
1.	Plant Ecology : Principles and Concepts	M.Sc. II
2.	Phytogeography and Applied Ecology	M.Sc. II
3.	Pteridophytes	M.Sc. (FYIC) I
4.	Ecology	M.Sc. (FYIC) II

18. Technical Proficiency

1. Remote sensing techniques and its application in ecology
2. Biomass production of water fern *Azolla*

19. List of Papers Published

1. **Singh, Amarjeet**, Singh, K., Singh, S., Kaur, H. and Sirhindi, G. 1998. Biomass production of *Azolla pinnata* R. Brown under certain soils coupled with organic matters. *Indian Fern J.* **15**: 198-204.
2. **Singh, Amarjeet** and Srivastava, O.N. 1983. Studies on responses of *Azolla pinnata* R. Brown. to different types of soil substratum and organic matter contents. *Adv. Biol. Res.* **1**: 78-85.
3. Srivastava, O.N. and **Singh, Amarjeet**. 1983. A preliminary study on root-zone microorganisms of *Azolla pinnata* R. Brown. *New Botanist* **10**: 101-102.
4. Srivastava, O.N. and **Singh, Amarjeet**. 1984. Biomass production of *Azolla pinnata* R. brown at Ranchi India. *J. Ecol.* **11**: 337-338.
5. **Singh, Amarjeet** and Srivastava, O.N. 1984. A study of buoyancy-mechanism of entire plant and plant organs in *Azolla pinnata* *Adv. Biol. Res.* **2**: 17-20.
6. **Singh, Amarjeet** and Srivastava, O.N. 1984. Submergence sensitivity in *Azolla pinnata* R. Brown. *Nat. Acad. Sci. Letters* **7**: 107-108.
7. Srivastava, O.N. and **Singh, Amarjeet**. 1984. Impact of salinity on viability of *Azolla pinnata* R. Brown. *Nat. Acad. Sci. Letters* **7**: 33-34.
8. **Singh, Amarjeet** and Srivastava, O.N. 1984. Effect of pesticides on the growth of *Azolla pinnata* R. Brown. *Indian J. Ecol.* **11**: 12-14.
9. **Singh, Amarjeet** and Srivastava, O.N. 1984. Effect of sub-freezing temperature on the morphology of *Azolla pinnata* R. Brown. *Geobios New Reports* **3**: 131-132.
10. **Singh, Amarjeet** and Srivastava, O.N. 1984. Effect of different soil pH on the growth of *Azolla pinnata* R. Brown. *Geobios New Reports* **3**: 123-125.
11. **Singh, Amarjeet** and Srivastava, O.N. 1984. Biology of *Azolla* and its role in aquatic ecosystem. *Indian Rev. Life Sci.* **4**: 229-254.
12. **Singh, Amarjeet** and Srivastava, O.N. 1984. Effects of different water depths on the morphology of *Azolla pinnata* R. Brown. *Geobios New Reports* **3**: 79-81.
13. **Singh, Amarjeet** and Srivastava, O.N. 1985. Effect of light intensity on the growth of *Azolla pinnata* R. Brown. at Ranchi, India, *Hydrobiologica* **126**: 49-52.
14. **Singh, Amarjeet** and Srivastava, O.N. 1985. First information report of lac-mud on the growth of *Azolla pinnata* R. Brown. *Geobios New Reports* **4**: 129-131.
15. Srivastava, O.N. and **Singh, Amarjeet**. 1985. Effect of different habitats on shoot/ root ratio of *Azolla pinnata* R. Brown. *Geobios New Reports* **4**: 101-102.
16. **Singh, Amarjeet** and Srivastava, O.N. 1985. Effect of photoperiod on the growth of *Azolla pinnata* R. Brown, *Hydrobiologia* **123**: 211-214.
17. **Singh, Amarjeet**. 1989. Botany and significance of *Azolla* - a nitrogen fixing fern. In: Plant Sci. Res. in India. Trivedi, M.L., Gill, B.S. & Saini, S.S. (eds.), Today & Tomorrow's Print. & Publ. New Delhi, pp. 671-681.
18. **Singh, Amarjeet**. 1991. Ecobiological studies on *Azolla pinnata* R. Brown. In: Perspectives in Pteridology: Present & Future. Bhardwaj, T.N. & Gena, C.B., (eds.), Today & Tomorrow's Print. & Publ. New Delhi, pp. 289-303.
19. **Singh, Amarjeet** and Kaur, H. 1994. Biomass production of *Azolla* under certain eutrophicated soils. In: Current Researches in Plant Sciences (Vol. II). Sarma, T.A., Saini, S.S., Trivedi, M.L. and Sharma, M. (eds.), Bishen Singh Mahendra Pal Singh, Dehradun, pp. 307-313.
20. **Singh, Amarjeet** and Singh, S. 1994. Biomass evaluation of *Azolla pinnata* R. Brown, under two natural habitats of Punjab, *Indian Fern J.* **11**: 167-172.
21. **Singh, Amarjeet**, Singh, A. and Singh, S. 1995. Biomass production of *Azolla pinnata* R. Brown. under different photoperiods. *Indian Fern J.* **12**: 133-138.

22. Sirhindi, G. and **Singh, Amarjeet**. 2004. Seasonal effect on biomass production in some conifers. *J. Punjab Acad. Sci.* **1**: 145-146.
23. **Singh, Amarjeet**, Kaur, R., Kumar, B. and Pabbi, S. 2006. Comparison of *Azolla* growth in soil from fields of different cropping systems. *Bionature* **26**: 61-66.
24. **Singh, Amarjeet**, Kaur, R., Kumar, B. and Pabbi, S. 2006. Influence of chromium (Cr^{+6}) on growth of *Azolla microphylla* (Water Fern). *Indian Fern J.* **23**: 110-114.
25. Pabbi, S., **Singh, Amarjeet** and Dhar, D.W. 2006. Influence of *Azolla* application on selected enzymes in rice field soil. *Indian Fern J.* **23**: 102-109.
26. **Singh, Amarjeet**, Kumar, B., Pabbi, S. and Kapoor, M. 2008. Phytoremediation potential of *Azolla* in relation to heavy metals – a review. In: Perspectives in Pteridophytes. Verma, S.C., Khullar, S.P. & Cheema, H.K. (eds.), Bishen Singh Mahendra Pal Singh, Dehradun. pp. 509-523.
27. **Singh, Amarjeet**, Kumar, B. and Pabbi, S. 2008. Comparative assessment of growth and chromium removal efficiency of three species of *Azolla* Lam. *Indian Fern J.* **25**: 94-101.
28. Kumar, B. and **Singh, Amarjeet**. 2010. Effect of inoculum size, incubation period, initial chromium concentration and pH on chromium removal efficiency of *Azolla microphylla* Kaulfuss. *Biospectra* **5**: 435-442.
29. **Singh, Amarjeet** and Kaur, R. 2013. Effect of butachlor and chlorpyrifos on the growth of *Azolla microphylla* used as dual crop alongwith rice. *Biospectra* **8**: 91-94.
30. Kapoor, M. and **Singh, Amarjeet**. 2014. *In vitro* regeneration and bulblet production in asiatic *Lilium*. *Bionature*, **34**: 15-20.