

Rayat Shikshan Sanstha's
Yashwantrao Chavan Institute of Science, Satara (Autonomous)
Department of Botany

List of Ph.D. Guides

Sr. No.	Name of Guide	Total Students	No. of Active Students	Awarded students	Shivaji University	K.B.P. University	SPPU Pune
1.	Dr. A. B. Pawar	01	00	01	01	00	00
2.	Dr. N. A. Ghanwat	06	03	03	06	00	00
3.	Dr. Mrs. V. C. Karande	06	01	05	06	00	00
4.	Dr. B. A. Kore	03	00	03	03	00	00
5.	Dr. D. D. Namdas	03	02	01	03	00	00
6.	Dr. J. J. Chavan	05	05	00	05	00	00
7.	Dr. M. L. Ahire	03	03	00	03	00	00
	Total	27	14	13	27	00	00

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List of Ph.D. Students

Sr. No.	Name of Guide	Name of students	Date of Registration	Date of Award
1.	Dr. A. B. Pawar	1) Ms. Vaishali S. Shinde	01/07/2011	23/10/2019
2.	Dr. N. A. Ghanwat	1) Mr. Bharatbhusan D. Pandit	01/07/2013	28/06/2021
		2) Ms. Shital V. Deshmukh	01/07/2013	January 2022
		3) Ms. Nilam V. Shedage	01/07/2013	17/06/2023
		4) Ms. Sanyogita S. Yadav	01/07/2013	Work In Progress
		5) Ms. Smita G. Pawar	01/07/2013	Work In Progress
		6) Ms. Manisha H. Sawant	01/07/2013	Work In Progress
3.	Dr. Mrs. V. C. Karande	1) Ms. Priyadarshini B. Kamble	01/07/2011	28/10/2018
		2) Mrs. Manjusha V. Ingawale	01/07/2011	February 2019
		3) Ms. Damyanti M. Jadhav (Co-guide)	01/07/2013	June 2021
		4) Ms. Sharada G. Ghadge	01/07/2012	05/02/2021
		5) Mrs. Sharmishtha V. Patil	01/07/2012	28/09/2021
		6) Mr. Mukul M. Barwant	01/07/2018	Work In Progress
4.	Dr. B. A. Kore	1) Mr. Sachin V. Thite	01/07/2012	December 2019
		2) Mrs. Reshma B. Patil	01/07/2013	November 2021
		3) Mr. Yogesh R. Chavan	01/07/2012	09 March 2023
5.	Dr. D. D. Namdas	1) Mr. Abhijit S. Kadam	01/07/2013	03/03/2022
		2) Ms. Vaishali Chavan	01/07/2022	Work In Progress
		3) Ms. Sonali Madane	01/07/2022	Work In Progress
6.	Dr. J. J. Chavan	1) Mr. Akshay D. Deshmukh	01/07/2019	Work In Progress
		2) Ms. Pallavi M. Panari	01/07/2019	Work In Progress
		3) Ms. Vasundhara V. Khot (Co-guide)	01/07/2019	Work In Progress
		4) Ms. Priyanka A. Patil	01/01/2020	Work In Progress
		5) Ms. Sarika Chavan (M. Phil.)	01/01/2020	Work In Progress
7.	Dr. M. L. Ahire	1) Mr. Nitin T. Gore	01/07/2019	Work In Progress
		2) Miss. Sumaiya S. Shaikh	01/07/2019	Work In Progress
		3) Mr. Chetan R. Chivate	01/01/2023	Work In Progress

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List of fellowships awarded Ph.D. Students

Sr. No.	Name of Guide	Name of students	Fellowship	Date of award
1.	Dr. J. J. Chavan	1) Ms. Pallavi M. Panari	MAHAJYOTI	18/10/2021
		2) Ms. Vasundhara V. Khot (Co-guide)	MAHAJYOTI	18/10/2021
2.	Dr. M. L. Ahire	1) Mr. Nitin T. Gore	MAHAJYOTI	18/10/2021
		2) Miss. Sumaiya S. Shaikh	MAHAJYOTI	18/10/2021

Rayat Shikshan Sanstha's
Yashavantrao Chavan Institute of Science, Satara (Autonomous)
Department of Botany

Research Publications

2018

Books: NIL

Book Chapters: NIL

Research Papers: 12

1. **Ahire ML**, Anil Kumar S, Punita DL, Mundada PS, Kavi Kishor PB, Nikam TD (2018) The vacuolar proton pyrophosphatase gene (*SbVPPase*) from the *Sorghum bicolor* confers salt tolerance in transgenic Brahmi [*Bacopa monnieri* (L.) Pennell]. *Physiology and Molecular Biology of Plants*. 24(5):809-819. (Print ISSN: 0971-5894; **IF: 3.4**) <https://doi.org/10.1007/s12298-018-0586-4>
2. **Chavan JJ**, Gaikwad NB, Dixit GB, Yadav SR, Bapat VA (2018) Biotechnological interventions for propagation, conservation and improvement of 'Lantern Flowers' (*Ceropegia* spp.). *South African Journal of Botany*. 114: 192-216. (ISSN: 0254-6299; **IF: 2.7**) <https://doi.org/10.1016/j.sajb.2017.10.021>
3. **Chavan JJ**, Ghadage DM (2018) Biosynthesis, characterization and antibacterial capability of silver and copper nanoparticles using aqueous leaf extract of *Salacia chinensis* L. *Journal of Nanomedicine and Nanotechnology*. 9(1): 1000484. (ISSN: 2157-7439) <https://doi.org/10.4172/2157-7439.1000484>
4. **Chavan JJ**, Kshirsagar PR, Pai SR, Pawar NV (2018) Micropropagation, metabolite profiling, antioxidant activities and chromatographic determination of bioactive molecules across *in vitro* conditions and subsequent field cultivation stages of 'Shampoo Ginger' (*Zingiber zerumbet* L. Roscoe ex SM). *Biocatalysis and Agricultural Biotechnology*. 16:79-89. (ISSN: 1878-8181; **IF: 3.4**) <https://doi.org/10.1016/j.bcab.2018.07.015>
5. Kamble P, **Karande V** (2018) Studies on cyanobacteria: Spirulina isolated from Satara District, Maharashtra. *International Journal of Life Sciences Research*. 6(3):261-270. (ISSN: 2348-3148)
6. Kamble P, **Karande VC** (2018) Biodiversity of unicellular cyanobacteria from some rice field soils of Satara District (MS). *International Journal of Life Sciences. Special Issue A 10*: 144-147. (ISSN: 2320-7817)

7. Laxmi S, Chambhare MR, Kadlag S, Ahire ML, Nikam TD (2018) Herbicide effects on pigments and antioxidant enzymes of *Portulaca oleracea* L. Journal of Pharmacognosy and Phytochemistry 7:2024-2031. (ISSN: 2349-8234)
8. Laxmi S, Naikawadi VB, **Ahire ML**, Nikam TD (2018) Decolorization and detoxification of reactive azo dyes using cell cultures of a memory tonic herb *Evolvulus alsinoides* L. Journal of Environmental Chemical Engineering. 6:6479–6488. (ISSN: 2213-2929; **IF: 7.4**) <https://doi.org/10.1016/j.jece.2018.10.008>
9. Patil RB, **Kore BA** (2018) Morphoanatomy, phenology and palynology of an invasive weed *Alternanthera ficoidea* (L.) P. Beauv. IOSR Journal of Pharmacy and Biological Sciences. 13(5):18-23. (ISSN: 2278-3008) <https://doi.org/10.9790/3008-1305041823>
10. **Pawar SD, Thite SV, Kadam AS, Kore BA** (2018) First report of rust fungi *Puccinia duthiae* on *Dichanthium foveolatum* from India. Journal of Threatened Taxa 10(2):11354-11355. (ISSN: 0974-7907) <http://doi.org/10.11609/jott.3630.10.2.11354-11355>
11. **Thite SV, Kore BA**, Camacho-Tapia M, Tovar-Pedraza JM (2018) First report of *Podosphaera xanthii* causing powdery mildew on *Xanthium strumarium* in India. Journal of Plant Pathology. 100:129. (ISSN: 1125-4653; **IF: 2.2**) <https://doi.org/10.1007/s42161-018-0019-9>
12. **Umdale SD, Chavan JJ, Ahire ML**, Kshirsagar PR, Gaikwad NB, Bhat KV (2018) *Vigna khandalensis* (Santapau) Raghavan & Wadhwa: a promising underutilized, wild, endemic legume of the Northern Western Ghats, India. Genetic Resources and Crop Evolution. 65:1795-1807. (ISSN: 0925-9864; **IF: 1.6**) <https://doi.org/10.1007/s10722-018-0657-y>

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Research Publications

2019

Books: NIL

Book Chapters: NIL

Research Papers: 14

1. Adsul AA, **Chavan JJ**, Gaikwad NB, Gurav RV, Dixit GB, Yadav SR (2019) In vitro regeneration approaches for restoration of *Ceropegia mohanramii* - an endemic and critically endangered asclepiad. Journal of Genetic Engineering and Biotechnology. 17:1-5. (ISSN: 2090-5920; **IF: 3.6**) <https://doi.org/10.1186/s43141-019-0003-6>
2. **Deshmukh SV**, **Ghanawat NA** (2019) Phytochemical studies, FTIR and GC-MS analysis of *Hardwickia binata* Roxb. (Fabaceae/Caesalpinaceae). International Journal of Pharmaceutical Sciences and Research. 11(1):233-240. (ISSN: 2320-5148) <https://doi.org/10.13040/IJPSR.0975-8232>
3. **Deshmukh SV**, **Ghanawat NA** (2019) Seed germination and growth performance in *Hardwickia binata*. Flora and Fauna. 25:228-235. (ISSN: 0971 - 6920) <https://doi.org/10.33451/florafauna.v25i2pp228-234>
4. Ghadage SJ, **Karande VC** (2019) The distribution of blue-green algae (Cyanobacteria) from the paddy fields of Patan and Karad tehsils of Satara District, Maharashtra, India. Journal of Threatened Taxa 11(14): 14862-14869. (ISSN: 0974-7907) <https://doi.org/10.11609/jott.4891.11.14.14862-14869>
5. Gore PG, Tripathi K, Pratap A, Bhat KV, **Umdale SD**, Gupta V, Pandey A (2019) Delineating taxonomic identity of two closely related *Vigna* species of section Aconitifoliae: *V. trilobata* (L.) Verdc. and *V. stipulacea* (Lam.) Kuntz in India. Genetic Resource and Crop Evolution. 66:1155–1165. (ISSN: 0925-9864; **IF: 1.6**) <https://doi.org/10.1007/s10722-019-00767-9>
6. Jadhav D, Ghatge M, **Karande V** (2019) Phytochemical Studies on Three Epiphytic Ferns from Mahabaleshwar and Panchagani Hills. Research Journal of Life Sciences, Bioinformatics, Pharmaceutical, and Chemical Sciences. 5(3):680-689. (ISSN: 2454-6348) <https://doi.org/10.26479/2019.0503.55>
7. Jadhav DS, Ghatge MM, **Karande VC** (2019) Physiological status of medicinally important epiphytic ferns from Mahabaleshwar and Panchgani, Maharashtra. International Journal of Research and Analytical Reviews. Special issue: 126-129. (ISSN: 2349- 5138).
8. Mundada PS, Umdale SD, Nikam TD, **Ahire ML** (2019) Genetic diversity using RAPD markers, mineral composition and their correlation in selected local landraces

- of finger millet (*Eleusine coracana* (L.) Gaertn.). *Vegetos.* 32:1-10 (ISSN: 2229-4473). <https://doi.org/10.1007/s42535-019-00001-y>
9. Nandikar MD, **Shinde RA**, Noltie HJ (2019) Taxonomy and typification of *Kalanchoe olivacea* and *K. bhidei* (Crassulaceae). *Rheedea* 29(3):197-208. (ISSN: 2582-2438). <https://dx.doi.org/10.22244/rheedea.2019.29.3.02>
 10. Nikam TD, Mulye KV, Chambhare MR, Nikule HA, **Abire ML** (2019) Reduction in hyperhydricity and improvement in *in vitro* propagation of commercial hard fiber and medicinal glycoside yielding *Agave sisalana* Perr. ex. Englem by NaCl and polyethylene glycol. *Plant Cell Tissue and Organ Culture.* 138:67–78 (ISSN: 0167-6857; **IF: 2.3**). <https://doi.org/10.1007/s11240-019-01603-9>
 11. Pandit BD, **Ghanawat NA** (2019) Present status of bacterial blight on pomegranate from Pune district of Maharashtra (India). *Think India Journal.* 22: 627-636. (ISSN: 0971-1260)
 12. Patil RB, **Kore BA** (2019) Seed germination response of an invasive weed *Alternanthera ficoidea* to temperature and salinity stress. *Indian Journal of Weed Science.* 51: n398-401. (ISSN: 0974-8164) <https://doi.org/10.5958/0974-8164.2019.00083.2>
 13. **Swapnaja Deshpande**, Uday Pawar, Sunil Bhoite, **Jaykumar Chavan** (2019) Floristic study of Kalbhairavnath sacred grove, Bharsakale, Satara, Maharashtra. *Species* 20:155-162. (ISSN: 2319-5746)
 14. **Umdale SD**, Gaikwad NB, Malik SK, Gore PG, Yadav SR, Bhat KV (2019) Seed coat polymorphism in *Vigna* section *Aconitifoliae* in India. *Flora.* 259:151458. (ISSN: 0367-2530; **IF: 1.7**) <https://doi.org/10.1016/j.flora.2019.151458>

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Research Publications

2020

Books: NIL

Book Chapters: 02

1. **Umdale SD**, Gaikwad NB, **Ahire ML**, Mundada PS, Bhat KV (2020) Interspecific hybridization among *Vigna mungo* (L.) Hepper (Black gram) and wild *Vigna* species. In: Tiwari AK (Ed.) Advances in seed production and management. Pp. 343 – 357. https://doi.org/10.1007/978-981-15-4198-8_16 Springer Nature Singapore Pte Ltd. (Print ISBN 978-981-15-4197-1; Online ISBN 978-981-15-4198-8)
2. Mundada PS, Kadam NS, Nikule HA, **Umdale SD**, **Chavan JJ**, Nikam TD, **Ahire ML** (2020) Seed micro-morphological characteristics in local landraces of finger millet (*Eleusine coracana* (L.) Gaertn.). In: Tiwari AK (Ed.) Advances in seed production and management. Pp. 439 – 449. https://doi.org/10.1007/978-981-15-4198-8_20 Springer Nature Singapore Pte Ltd. (Print ISBN 978-981-15-4197-1; Online ISBN 978-981-15-4198-8)

Research Papers: 13

1. Babar PS, Deshmukh AV, Salunkhe SS, **Chavan JJ** (2020) Micropropagation, polyphenol content and biological properties of Sweet Flag (*Acorus calamus*): a potent medicinal and aromatic herb. Vegetos. 33:296-303. (ISSN: 2229-4473) <https://doi.org/10.1007/s42535-020-00107-8>
2. **Deshmukh SV**, **Ghanawat NA** (2020) Quantification of mineral elements in *Hardwickia binata* Roxb. - an endemic plant. Asian Journal of Pharmaceutical and Clinical Research. 13:44-46. (ISSN: 0974-2441) <https://doi.org/10.22159/ajpcr.2020.v13i2.36180>
3. Ghadage SJ, **Karande VC** (2020) Chroococcalean blue-green algae from the paddy fields of Satara District, Maharashtra, India. Journal of Threatened Taxa. 12:16979-16992. (ISSN: 0974-7907) <https://doi.org/10.11609/jott.5683.12.14.16979-16992>
4. **Kadam AS**, **Namdas DD** (2020) Weed Flora of Polyhouse Gerbera Fields from Satara District of Maharashtra. Research Journal of Agricultural Sciences 11:697-70 (ISSN: 0976-1675)
5. Kshirsagar PR, **Chavan JJ**, Gaikwad NB, Pai SR, Bapat VA (2020) Metabolite profiling, antioxidant potential and RP-UFLC determination of bioactive molecules from eight *Swertia* species. Biocatalysis and Agricultural Biotechnology 23:101479. (ISSN: 1878-8181; IF: 3.4) <https://doi.org/10.1016/j.bcab.2019.101479>

6. Laxmi S, **Ahire ML**, Nikam TD (2020) *Bacopa monnieri* (L.) Pennell, a potential plant species for degradation of textile azo dyes. Environmental Science and Pollution Research. 27:9349-9363 (ISSN: 0944-1344). <https://doi.org/10.1007/s11356-019-07430-x>
7. Lohar DN, Hasabe PM, Jadhav PE, **Chavan JJ, Deshpande SM** (2020) Assessment of floral diversity around a historical lake Swatantrapur, Sangli (Maharashtra, India). Indian Journal of Plant Sciences 9:125-135. (ISSN: 2319-3824)
8. Mundada PS, Nikam TD, Anil Kumar S, **Umdale SD, Ahire ML** (2020) Morphophysiological and biochemical responses of finger millet (*Eleusine coracana* (L.) Gaertn.) genotypes to PEG-induced osmotic stress. Biocatalysis and Agricultural Biotechnology. 23: 101488 (ISSN: 1878-8181; **IF: 3.4**) <https://doi.org/10.1016/j.bcab.2019.101488>
9. Patil SV, **Karande VC** (2020) Diversity of desmids from some water bodies of Satara district, Maharashtra (India). Research Journal of Chemistry and Environment. 24:44-50.
10. Shedage NV, **Ghanwat NA** (2020) Antibacterial activity of medicinal plants on *Xanthomonas axonopodis* pv. citri. The International Journal of Analytical and Experimental Modal Analysis. 12:1773-1778
11. Shedage NV, **Ghanwat NA** (2020) Biochemical characterization of *Xanthomonas axonopodis* pv. citri causing citrus canker disease. The International Journal of Analytical and Experimental Modal Analysis. 12:1779-1788
12. **Umdale S, Ahire M**, Aiwale V, Jadhav A, Mundada P (2020) Nutritional potential and antioxidant efficacy of wild, underutilized berries of economically important Indian Sandalwood (*Santalum album* L.). Biocatalysis and Agricultural Biotechnology. 27:101705 (ISSN: 1878-8181; **IF: 3.4**) <https://doi.org/10.1016/j.bcab.2020.101705>
13. **Umdale SD**, Mirgal AB, Shinde BN, Sawant RS, Salunkhe CB, Gaikwad NB (2020) Evaluation of Genetic Diversity in *Antiaris toxicaria* Lesch. from Sacred Groves of the Western Ghats, India. National Academy Science Letters, 43:383-388. (0250-541X; **IF: 1.2**) <https://doi.org/10.1007/s40009-020-00878-3>

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Research Publications

2021

Books: NIL

Book Chapters: 04

1. Gurme ST, Mundada PS, **Ahire ML**, Salunkhe SS (2021) Auxins and plant response to adverse environmental conditions. In: Husen A (Eds.) Plant Performance Under Environmental Stress. Pp 49-69. Springer Nature, Switzerland AG. https://doi.org/10.1007/978-3-030-78521-5_3 Print ISBN: 978-3-030-78520-8; Online ISBN: 978-3-030-78521-5)
2. Mundada PS, Jadhav SV, Salunkhe SS, Gurme ST, Umdale SD, Nikam TD, **Ahire ML** (2021) Plant performance and defensive role of proline under environmental stress. In: Husen A (Eds.) Plant Performance Under Environmental Stress. Pp 201-223. Springer Nature, Switzerland AG. https://doi.org/10.1007/978-3-030-78521-5_8 (Print ISBN: 978-3-030-78520-8; Online ISBN: 978-3-030-78521-5)
3. Mundada PS, Jadhav SV, Salunkhe SS, Gurme ST, Umdale SD, Barmukh RB, Nikam TD, **Ahire ML** (2021) Silicon and plant responses under adverse environmental conditions. In: Husen A (Eds.) Plant Performance Under Environmental Stress. Pp 357-385. Springer Nature, Switzerland AG. https://doi.org/10.1007/978-3-030-78521-5_14 Print ISBN: 978-3-030-78520-8; Online ISBN: 978-3-030-78521-5)
4. Mundada PS, Umdale SD, **Ahire ML**, Anil Kumar S, Nikam TD (2021) Transgenic finger millet [*Eleusine coracana* (L.) Gaertn.] for crop improvement. In: Kavi Kishor PB, Rajam MV, Pullaiah T (Eds.) Genetically modified crops: Current status, prospects and challenges (Volume I). Pp 67 – 77. https://doi.org/10.1007/978-981-15-5897-9_4 Springer Nature Singapore Pte Ltd. (Print ISBN 978-981-15-5896-2; Online ISBN 978-981-15-5897-9)

Research Papers: 12

1. **Ahire ML**, Mundada PS, Nikam TD, Bapat VA, Suprasanna P (2021) Multifaceted roles of silicon in mitigating environmental stresses in plants. Plant Physiology and Biochemistry. 169:291-310 (ISSN: 0981-9428; IF: 6.1) <https://doi.org/10.1016/j.plaphy.2021.11.010>
2. Bhusare BP, **Ahire ML**, John CK, Nikam TD (2021) *Uraria picta*: A comprehensive review on evidences of utilization and strategies of conservation. Journal of Phytology. 13:41-47 (ISSN: 2075-6240) <https://doi.org/10.25081/jp.2021.v13.7028>
3. **Chavan JJ**, Kshirsagar PR, Jadhav SG, Nalavade VM, Gurme ST, Pai SR (2021) Elicitor-mediated enhancement of biomass, polyphenols, mangiferin production and

- antioxidant activities in callus cultures of *Salacia chinensis* L. 3 Biotech 11(6):285. (ISSN: 2190-5738; **IF: 2.6**) <https://doi.org/10.1007/s13205-021-02836-2>
4. **Deshmukh S**, Ghanawat N (2021) Karyomorphological studies in *Hardwickia binata* Roxb. Journal of Cytology and Genetics. 22:1-6
 5. **Kadam AS**, Namdas DD (2021) Abnormal Pattern Formation in Vegetative and Floral Development in Polyhouse Gerbera Cultivation. Research Journal of Agricultural Sciences. 12:607-611. (ISSN: 0976-1675)
 6. Kshirsagar PR, Mohite A, Suryawanshi S, **Chavan JJ**, Gaikwad NB, Bapat VA (2021) Plant regeneration through direct and indirect organogenesis, phyto-molecular profiles, antioxidant properties and swertiamarin production in elicited cell suspension cultures of *Swertia minor* (Griseb.) Knobl. Plant Cell, Tissue and Organ Culture. 144:383-396. (ISSN: 0167-6857; **IF: 2.3**). <https://doi.org/10.1007/s11240-020-01962-8>
 7. **Mali A**, Pawar M, Khade V (2021) Allelopathic effect of two invasive weeds on growth performance of *Sorghum vulgare* Pers. Journal of Pharmacognosy and Phytochemistry 10:210-213. (ISSN: 2349-8234)
 8. **Mane NB**, Khilare CJ (2021) Phytochemical Analysis and Study of Functional Groups by FTIR Analysis of *Withania Somnifera* L Dunal. Journal of Scientific Research, 65: 115-119. (ISSN: 0447-9483)
 9. **Mane NB**, Shaikh NA, Ingavale SV (2021) Preliminary phytochemical screening of some compounds from leaf and stem of *Putranjiva roxburghii* Wall. Journal of Pharmacognosy and Phytochemistry. 10:444-447 (ISSN: 2349-8234)
 10. Mundada PS, **Ahire ML**, Umdale SD, Barmukh RB, Nikam TD, Pable AA, Deshmukh RK, Barvkar VT (2021) Characterization of influx and efflux silicon transporters and understanding their role in the osmotic stress tolerance in finger millet (*Eleusine coracana* (L.) Gaertn.). Plant Physiology and Biochemistry. 162:677-689 (ISSN: 0981-9428; **IF: 6.1**) <https://doi.org/10.1016/j.plaphy.2021.03.033>
 11. Mundada PS, Baravkar VT, Umdale SD, Anil Kumar S, Nikam TD, **Ahire ML** (2021) An insight into the role of silicon on retaliation to osmotic stress in finger millet (*Eleusine coracana* (L.) Gaertn). Journal of Hazardous Materials. 403:124078 (ISSN: 0304-3894; **IF: 12.2**) <https://doi.org/10.1016/j.jhazmat.2020.124078>
 12. Umdale S, Mahadik R, Otari P, Gore N, Mundada P, **Ahire M** (2021) Phytochemical composition, and antioxidant potential of *Frerea indica* Dalz.: a critically endangered, endemic and monotypic genus of the Western Ghats of India. Biocatalysis and Agricultural Biotechnology. 35:102080 (ISSN: 1878-8181; **IF: 3.4**) <https://doi.org/10.1016/j.bcab.2021.102080>

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Research Publications

2022

Patent: 01

1. Bhamare MR, **Chavan JJ**, Tambe DB (2022) Storage device to preserve and transport plant species. Indian Design No. 30150-001. Grant Date:13/05/2022

Book: 03

1. **Chavan J, Namdas D, Ahire M**, Bendre N, Pawar B, Nalavade V, Dure P (2022) Life Sciences for Sustainable Development (Volume I: Plant Science, Biotechnology, and Food Technology; Volume II: Animal Sciences, and Microbiology). Aavishkar Publication, Pune. ISBN: 978-81-964704-3-2
2. **Kadam A, Shinde H, Lawand P, Shaikh S, Chavan J** (2022) Fundamentals of Plant Protection (Vol. I). Aavishkar Publication, Pune. ISBN: 978-81-964704-2-5
3. **Chavan J**, Pawar B, Mahadik A, Kanade S, Sawant M, Pharande P (2022) Textbook of Recombinant DNA Technology. Aavishkar Publication, Pune. ISBN: 978-819647040-1

Book Chapter: 25

1. **Asabe KD**, Pawar US, **Chavan JJ**, Thigale SV, Deshpande SM (2022) An updates on cytology, phytochemistry, pharmacology and nutraceutical potential of genus *Cissus* L. In: Chavan J, Namdas D, Ahire M, Bendre N, Pawar B, Nalavade V, Dure P (2022) Life Sciences for Sustainable Development (Volume I: Plant Science, Biotechnology, and Food Technology). Pp 33-45. Aavishkar Publication, Pune. ISBN: 978-81-964704-3-2
2. Bhilare MS, Salunkhe PY, Jadhav YU, **Chavan JJ** (2022) Bacteria mediated bioremediation of toxic heavy metals. In: Chavan J, Namdas D, Ahire M, Bendre N, Pawar B, Nalavade V, Dure P (2022) Life Sciences for Sustainable Development (Volume I: Plant Science, Biotechnology, and Food Technology). Pp 221-233. Aavishkar Publication, Pune. ISBN: 978-81-964704-3-2
3. **Chavan J**, Khot V, Dalavi J, Shendage S (2022) Tree Diversity of Dandoba Hills, Sangli Dist. (M.S.) India. National Conference on Biodiversity and Biosciences (NCOBAB-2022)-Research Book. Vol. 1, pp 21-32. Prarup Publication, Kolhapur
4. Dalavi JV, Khot VV, Koli PN, Shendage SM, **Chavan JJ**, Rathod-Jadhav VD (2022) Multipotent importance of Indian Purslane (*Portulaca* L) Portulacaceae from India. In: Chavan J, Namdas D, Ahire M, Bendre N, Pawar B, Nalavade V, Dure P (2022) Life Sciences for Sustainable Development (Volume I: Plant Science, Biotechnology,

and Food Technology). Pp 17-31. Aavishkar Publication, Pune. ISBN: 978-81-964704-3-2

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Publications: 09

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2. Barwant M, Ugale Y, Ghotekar S, Basnet P, Nguyen V, Pansambal S, Ananda Murthy HC, Sillanpaa M, Bilal M, Oza R, **Karande V** (2022) Eco-friendly synthesis and characterizations of Ag/AgO/Ag₂O nanoparticles using leaf extracts of *Solanum elaeagnifolium* for antioxidant, anticancer, and DNA cleavage activities. *Chemical Papers*. 76:4309-4321 (2022). (ISSN: 0366-6352; **IF: 2.1**) <https://doi.org/10.1007/s11696-022-02178-0>
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4. **Chavan JJ**, Tarade A, Mujawar SK (2022) Isolation and characterization of bacterial strains obtained from rotten fruits and their application in the production of bioethanol. *Science Research Journal* 2:46-51
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8. Mundada PS, Nikule HA, Umdale SD, Anil Kumar S, Barvkar VT, Nikam TD, **Ahire ML** (2022) Visualizing the distribution of silicon in different plant parts of finger millet (*Eleusine coracana* (L.) Gaertn.) using electron dispersive spectroscopy (EDS). *Vegetos*. 35:747-755 (ISSN: 2229-4473). <https://doi.org/10.1007/s42535-021-00337-4>
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Research Publications

2023

Books: Nil

Book chapters: 02

1. Gurme ST, **Ahire ML**, Mundada PS (2023) Signaling crosstalk between auxins - abscisic acid in plant defense, growth, and development. In: Husen A, Zhang W (Eds.) Hormonal Cross-Talk, Plant Defense and Development. Pp 87-100. Academic Press, USA. <https://doi.org/10.1016/B978-8-323-95375-7.00001-X> eISBN: 978-0-323-95375-7
2. Umdale SD, Mundada PS, **Ahire ML** (2023) *Antiaris toxicaria* (Upas Tree). In: Husen A (1st Eds.) Exploring Poisonous Plants: Medicinal Values, Toxicity Responses, and Potential Uses. CRC Press, Boca Raton, USA. <https://doi.org/10.1201/b23017> eBook ISBN: 9781003308249

Publications: 12

1. Bodhe MM, Patil AS, Bhosale VD, Dhurgude PN, Shelar PS, Ghanawat NA, **Chavan JJ** (2023) Morphological characterization, propagation and identification of *Boucerosia frerei* (G.D.Rowley) Meve & Liede accessions for its introduction in hanging basket: an attractive succulent with star-shaped flowers. Genetic Resources and Crop Evolution. <https://doi.org/10.1007/s10722-022-01524-1> (ISSN: 0925-9864; **IF: 1.6**)
2. **Chavan JJ**, Dey A (2023) *Zingiber zerumbet* (L.) Roscoe ex Sm.: biotechnological advancement and perspectives. Applied Microbiology and Biotechnology. <https://doi.org/10.1007/s00253-23-12682-2> (ISSN: 0175-7598; **IF: 3.9**)
3. **Chavan JJ**, Santa-Catarina C (2023) Multidirectional insights into nutritional, phytochemical, antioxidant capability and multivariate analysis of underutilized edible berry plant (*Salacia macrosperma* Wight) – A novel source for food and pharmaceutical industry. Food Chemistry Advances. 2: 100284. (ISSN: 2772-753X) <https://doi.org/10.1016/j.focha.2023.100284>
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5. Khot VV, Madhav NA, **Mohite AV**, Sutar P, Dalavi JV, Kambale SS, Yadav SR (2023) Notes on the *Hibiscus trionum* complex in India with a new record of *Hibiscus verdcourtii* (Malvaceae) in Asia. Rheedea. 33(1):1-7. (ISSN: 0971-2313) <https://dx.doi.org/10.22244/rheedea.2023.33.01.01>

6. Khot VV, **Mohite AV**, Dalavi JV, Shendage SM, **Chavan JJ**, Yadav SR (2023) Checklist of Flowering Plants of Dandoba Hills (Sangli, Maharashtra) - A Dryland Ecosystem from Western Maharashtra, India. Journal of the Bombay Natural History Society. 120: (ISSN: 0006-6982) <https://doi.org/10.17087/jbnhs/2023/v120/168807>
7. **Lawand PR**, Kapadane KK, Gondaliya AD, Shimpale VB, Rajput KS (2023) Formation of inter-and intraxylary phloem in some species of *Argyreia* Lour. (Convolvulaceae). Flora. 304:152302. (ISSN: 1618-0585; IF: 1.7) <https://doi.org/10.1016/j.flora.2023.152302>
8. Mankar GD, Wayase UR, Shelke DB, Raskar KB, Mundada PS, **Ahire ML**, Nikam TD, Barmukh RB: Multivariate analysis of the salinity-induced alterations in morphology, physiology, nodulation, and yield in two contrasting mungbean varieties. Notulae Scientia Biologicae. 15: 11365 (ISSN: 2067-3264). <https://doi.org/10.15835/nsb15211365>
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11. **Shinde Inamdar SA**, Patil RC (2023) Development of DNA based molecular markers for *Withania somnifera* (Ashwagandha). Bulletin of Environment, Pharmacology and Life Sciences. 12:85-91. (ISSN 2277-1808)
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Bibliometrics

Sr. No.	Name of Faculty	Publication year						Total	h-index (Google Scholar)
		2018	2019	2020	2021	2022	2023		
1	Mr. H. L. Shinde	-	-	-	-	-	-	-	-
2	Dr. B. A. Kore	-	-	15	23	25	23	86	07
3	Dr. D. D. Namdas	01	-	-	01	01	-	03	02
4	Dr. N. B. Mane	-	-	-	-	02	03	05	02
5	Mrs. S. A. Shinde-Inamdar	-	-	-	-	-	-	-	-
6	Mrs. R. A. Shinde	01	-	-	01	02	01	05	02
7	Dr. J. J. Chavan	87	86	93	119	107	112	604	17
8	Dr. M. L. Ahire	44	55	74	121	152	139	585	16
9	Mr. S. M. Gojare	-	-	-	-	-	-	-	-
10	Dr. A. S. Kadam	09	04	05	03	06	01	28	03
11	Dr. S. D. Umdale	67	58	66	-	-	-	191	14
12	Dr. S. M. Deshpande	-	01	01	-	-	-	02	03
13	Ms. S. S. Shaikh	-	-	-	-	-	03	03	01
14	Mr. A. A. Mali	03	04	03	04	01	07	22	02
15	Dr. P. B. Yadav	-	-	-	40	39	47	126	06
16	Dr. A. V. Mohite	-	-	-	08	06	10	24	03
17	Dr. P. R. Lawand	-	-	-	02	02	09	13	03
18	Dr. Y. R. Chavan	10	12	06	11	11	-	50	04
	Total	222	220	263	333	354	355	1747	85

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Research Publications

Sr. No.	Item	Number of publications						Total
		2018	2019	2020	2021	2022	2023	
1.	Books	-	-	-	-	01	-	01
2.	Book Chapters	-	-	02	04	25	02	33
3.	Research Paper	12	14	13	12	09	12	72
4.	IPR	-	-	-	-	01	-	01

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MoUs, Collaborations and Linkages

1. MoU

Sr. No.	Year of Signing	Name of Organization	Duration	Purpose of MoU
1.	30/08/2022	Satara College of Pharmacy, Satara	5 Years	Research, Industrial training and other collaborative activities for students and faculty

2. Collaborations

Sr. No.	Year of Signing	Name of Organization	Duration	Purpose
1.	2020	Jaysingpur College, Jaysingpur	5 Years	Research, Industrial training and other collaborative activities for students and faculty

3. Linkages

Sr. No.	Year of Signing	Name of Organization	Duration	Purpose
1.	2023	Aarti Industries, Bavdhan, Wai	5 Years	Student Exchange and Industrial training
2.	2023	Vrundavan Agro Sales and Services, Satara	5 Years	Student Exchange and Industrial Training
3.	2023	Haripriya Agro Energy Ltd., Pune	5 Years	Student Exchange and Industrial Training