

Pooja Singh

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PROFESSIONAL EXPERIENCE

- 08/2021 – **Senior Postdoctoral Associate with Prof. Ole Seehausen**
University of Bern, Switzerland
Swiss Federal Institute of Aquatic Science & Technology (EAWAG), Switzerland
- 01/2019 – 06/2021 **Postdoctoral Associate with Prof. Sam Yeaman**
University of Calgary, Canada

EDUCATION

- 12/2014 – 06/2018 **PhD in Ecology & Evolutionary Biology with distinction**
University of Graz, Austria
Supervisors: Prof. Christian Sturmbauer, Prof. Axel Meyer (Uni. of Konstanz)
- 02/2012 – 10/2014 **MSc (Biotechnology) with distinction**
University of Pretoria, South Africa
Supervisors: Prof. Zander Myburg, Dr. Eshchar Mizrahi
- 01/2011 – 11/2011 **BSc (Honours) in Biotechnology with distinction**
University of Pretoria, South Africa
Supervisor: Prof. Zander Myburg
- 02/2006 – 06/2010 **BSc in Molecular and Cell Biology**
University of Cape Town, South Africa

ACADEMIC AWARDS

- 09/2017 **Best Student Talk.** Cichlid Science Conference, Prague, The Czech Republic
- 11/2016 **Best Student Poster Prize (3rd place)** 58th Phylogenetic Symposium, Leipzig, Germany
- 11/2011 **Best BSc (honours) Oral Presentation Prize,** Department of Genetics, University of Pretoria, South Africa
- 11/2011 **Best BSc (honours) Poster Prize (2nd place),** Department of Genetics, University of Pretoria, South Africa

ACADEMIC SCHOLARSHIPS

- 12/2014 – 12/2017 PhD Scholarship, Austrian Centre of Limnology, University of Graz
- 02/2012 – 10/2014 Special International Research Award, University of Pretoria

02/2012 – 10/2014	MSc Scholarship, University of Pretoria
02/2012 – 10/2014	Institutional Research Themes (IRT) Genomics MSc Scholarship
12/2013 – 12/2014	Postgraduate Study Abroad Scholarship funding for 3 months internship at the University of West Virginia, USA
09/2012	South African Genetics & Bioinformatics Society Conference Travel Award

EXTERNAL FUNDING

05/2017 – 10/2021	Austrian Science Foundation (FWF) Stand-Alone Grant P29838 awarded to C. Sturmbauer (€ 401,950.89) P. Singh (collaborator) contributed to conceptualisation and writing. PhD salary and research, as well as ongoing projects funded by grant.
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SUMMARY OF SCIENTIFIC ACTIVITIES

- 12 publications in peer-reviewed journals, including Nature (1), Science (1), Nature Communications (2), Molecular Ecology Resources (1), Genome Biology and Evolution (1), BMC Genomics (1), BMC Evolutionary Biology (1), BMC Ecology and Evolution (1), EvoDevo (1), Scientific Reports (1), PeerJ (1)
- *h-index* = 7 (Google Scholar); Citations > 750
- Journal reviewer for Molecular Biology and Evolution (MBE), Molecular Ecology, Evolution, Genome Biology and Evolution (GBE), Journal of Fish Biology, Hydrobiologia
- Review Editor for Frontiers in Population Genetics, Frontiers in Ecology and Evolution

PUBLICATIONS

Asterisk (*) denotes shared 1st authorship and cross (†) denotes student that I co-supervised

1. Jasper R, McDonald TK, **Singh P**, Lu M, Rougeux C, Lind B, Yeaman S. 2021. Evaluating the accuracy of variant calling methods using the frequency of parent-offspring genotype mismatch. **Authorea**. October 04, 2021. doi: 10.22541/au.163336903.37065617/v1
2. **Singh P**, Ahi EP. The role of alternative splicing in adaptive evolution. **EcoEvoRxiv**. September 17, 2021. doi:10.32942/osf.io/wak9g.
3. Lind B, Lu M, Obrecht D, **Singh P**, Booker T, Yeaman S, Aitken S. Haploid, diploid, and pooled exome capture recapitulate features of biology and paralogy in two non-model tree species. **Molecular Ecology Resources**, 2021 (accepted)
4. Lecaudey LA, **Singh P**, Sturmbauer S, Duenser A, Gessl W, and Ahi EP. Transcriptomics unravels molecular players shaping dorsal lip hypertrophy in the vacuum cleaner cichlid, *Gnathochromis permaxillaris*. **BMC Genomics**, 2021, 22:506
5. **Singh P**, Ahi EP, and Sturmbauer C. Gene co-expression networks reveal molecular interactions underlying cichlid jaw modularity. **BMC Ecology and Evolution**, 2021, 21:62.

6. Qiushi L, Ramasamy S, **Singh P**, Hagel JM, Dunemann S, Chen X, Chen R, Lisa Yu, Joseph Tucker JE, Facchini PJ & Yeaman S. Gene clustering and copy number variation in alkaloid metabolic pathways of opium poppy. **Nature Communications**, 2020, 11 (1), 1-13
7. Ahi EP, Duenser A†, **Singh P**, Gessl W, and Sturmbauer S. Appetite regulating genes may contribute to herbivory versus carnivory divergence in haplochromine cichlids. **PeerJ**, 2020, 8, e8375
8. Lecaudey LA, Sturmbauer S, **Singh P**, and Ahi EP. Molecular mechanisms underlying nuchal hump formation in dolphin cichlid, *Cyrtocara moorii*. **Scientific Reports**, 2019, 9-20296
9. Ahi EP, **Singh P**, Duenser A†, Gessl W, and Sturmbauer S. Divergence in larval jaw gene expression reflects differential trophic adaptation in haplochromine cichlids prior to foraging. **BMC Evolutionary Biology**, 2019, 19:150
10. Ahi EP, **Singh P**, Lecaudey LA, Gessl W, and Sturmbauer S. Maternal mRNA input of growth and stress-response-related genes in cichlids in relation to egg size and trophic specialization. **Evodevo**, 2018, 9:1–17.
11. Irissari I*, **Singh P***, Koblmüller S, Torres-Dowdall J, Henning F, Franchini P, Fischer C, Lemmon AR, Lemmon EM, Thallinger GG, Sturmbauer C and Meyer A. Phylogenomics uncovers early hybridization and adaptive loci shaping the radiation of Lake Tanganyika. **Nature Communications**, 2018, 9 (3159)
12. **Singh P**, Börger C, More H, and Sturmbauer C. The role of alternative splicing and differential gene expression in cichlid adaptive radiation. **Genome Biology and Evolution**, 2017, 9 (10), 2764–2781
13. Abila R, Akoll P, Albertson C, Antunes D, Banda T, Bills R, Bulirani A, Chocha Manda A, Cohen A, Cunha-Saraiva F, Derycke S, Donohue I, Du M, Dudu A, Egger B, Fritzsche K, Frommen J, Gante H, Genner M, Härer A, Hata H, Irvine K, Isumbisho Mwapu P, Janssens de Bisthoven L, Jungwirth A, Kaleme P, Katongo C, Kéver L, Koblmüller S, Konings A, Lamboj A, Lemmel-Schaedelin F, Machado Schiaffino G, Martens K, Masilya Mulungula P, Meyer A, More H, Musilová Z, Muterezi Bukinga F, Muzumani D, Ntakimazi G, Okello W, Phiri H, Piálek L, Plisnier P, Raeymaekers J, Rajkov J, Říčan O, Roberts R, Salzburger W, Schoen I, Sefc K, **Singh P et al.** Oil extraction imperils Africa's Great Lakes. **Science**, 2016, 354 (6312), 561-562
14. Myburg AA, Grattapaglia D, Tuskan GA, Hellsten U, Hayes RD, Grimwood J, Jenkins J, Lindquist E, Tice H, Bauer D, Goodstein DM, Dubchak I, Poliakov A, Mizrachi E, Kullán ARK, Hussey SG, Pinard D, van der Merwe K, **Singh P et al.** The genome of *Eucalyptus grandis*. **Nature**, 2014, 510, 356-361.

CONFERENCE AND INVITED PRESENTATIONS

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| 12/2021 | Systematic Biology Seminar, Uppsala University, Sweden. Upcoming invited Talk |
| 11/2021 | EEB Seminar, University of Bern, Switzerland. Upcoming invited Talk |

10/2021	Aquatic Ecology Seminar, EAWAG, Switzerland. Invited Talk
09/2021	Climate Change Genomics session, EVOLTREE conference, Switzerland. Talk
06/2021	CBM Seminar, University of California Davis, USA. Invited Talk
03/2021	EEB Seminar, Northern Arizona University, USA. Invited talk
09/2019	Cichlid Science Conference. Madrid, Spain. Talk
06/2019	Society for the Study of Evolution Conference. Providence, RI, USA. Talk
12/2017	German Centre for Integrative Research. Leipzig, Germany. Talk
09/2017	Cichlid Science Conference. Prague, Czech Republic. Talk
07/2017	Society for Molecular Biology & Evolution Conference. Austin, Texas, USA. Poster
06/2017	EAWAG, Swiss Institute of Science & Technology. Switzerland. Guest Talk
09/2016	20th Evolutionary Biology Meeting. Marseilles, France. Talk & Poster
11/2016	58th Phylogenetic Symposium. Leipzig, Germany. Poster
05/2016	Department of Botany University of Graz. Austria. Invited Talk
09/2015	Cichlid Science Conference. Graz, Austria. Poster
07/2015	Society for Molecular Biology and Evolution. Vienna, Austria. Poster
01/2014	Plant and Animal Genome XXII. San Diego, CA, USA. Talk & Poster
09/2012	South African Genetics & Bioinformatics Society Conference. Stellenbosch, South Africa. Poster
01/2012	South African Association of Botanists. Pretoria, South Africa. Poster
11/2011	Genetics Postgraduate Symposium. Department of Genetics, University of Pretoria, South Africa. Talk & Poster

TEACHING

10/2021	BSc 2 nd Year Evolutionary Biodiversity Dynamics, University of Bern
02/2019	BSc 3 rd Year Evolutionary Biology (BIOL401), University of Calgary
05/2016 – 06/2016	BSc 3rd Year Molecular Evolution Course, University of Graz
07/2013 – 11/2013	BSc 3rd Year Plant Genetics & Crop Biotechnology Course (BTC361) University of Pretoria
01/2013 – 06/2013	BSc 2nd Year Genetics Course (GTS251), University of Pretoria
01/2012 – 06/2012	BSc 2nd Year Genetics Course (GTS251), University of Pretoria
07/2011 – 11/2011	BSc 1st Year Genetics Course (GTS161), University of Pretoria
06/2010 – 11/2010	Private tutor for Science & Mathematics, Selebi-Phikwe, Botswana
02/2006 – 11/2006	High School Mathematics, Khayelitsha Township, Cape Town, South Africa

CO-SUPERVISION/MENTORING

06/2017 – present	Dunser A, PhD student, University of Graz
08/2020 – 04/2021	Mashayekhi, A, BSc student, University of Calgary
05/2016 – 06/2018	Dreo B, MSc student. University of Graz
04/2016 – 06/2018	Gallaun J, BSc Student. University of Graz
01/2015 – 03/2015	Hallama J, BSc Student. University of Graz
02/2014 – 11/2014	Behrens D, BSc (honours) student. University of Pretoria

FIELDWORK EXPERIENCE

03/2016 – 04/2016	Lake Tanganyika (Zambia) to sample cichlids for PhD
05/2012	<i>Eucalyptus</i> plantations to collect pest-infected trees samples (South Africa)

09/2009 Cape Floristic Region (South Africa), sampling carnivorous plant *Drosera*

PROMOTING DIVERSITY

- Mentor, Women of Colour (WOC) in Ecology and Evolutionary Biology mentorship programme (01/2021 – present)
- Canadian Society of Ecology and Evolution BIPOC Spotlight Library Microgrants selection and editorial committee member (06/2020 – present)
- Black, Indigenous, People of Colour (BIPOC) Committee, Biological Sciences, University of Calgary (06/2020 – 12/2020)