

CURRICULUM VITAE ET STUDIORUM

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PERSONAL INFORMATION

Marco Pittarello

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MAIN RESEARCH LINES

- pastoral and agronomic management of meadows and pastures in lowland and mountain environments
- ecology and biodiversity of semi-natural grasslands
- study of the effect of pastoral practices for the conservation and restoration of grasslands
- evaluation of agro-pastoral ecosystem services and their multifunctional management
- study of feed preferences and spatial behaviour of livestock grazing (GPS collars)
- relationships between agro-pastoral management, vegetation and soil
- evaluation and monitoring of forage quality
- relationships between vegetation, domestic animals, wild animals (ungulates, birds) and insects

WORK EXPERIENCE

2023 – 2024	Assistant Professor (RTD-b), Sustainable management of the forage system research group - University of Torino - Department of Veterinary Sciences (DSV)
2022 – 2023	Researcher (RTD-a), Sustainable management of the forage system research group - University of Torino - Department of Veterinary Sciences (DSV)
2016 – 2022	Post-doctoral researcher, Grassland Ecology and Management research group, University of Torino Department of Agricultural, Forest and Food Sciences (DISAFA)
2013 – 2014	Visiting Ph.D student at New Mexico State University (NMSU), USA
2013 – 2015	Ph.D. student in Agricultural, Forest and Food Sciences at the Dept. of Agricultural, Forest and Food Sciences of the University of Torino.
2012	Fellowship, Grassland Ecology and Management research group, University of Torino - Department of Agricultural, Forest and Food Sciences (DISAFA)

EDUCATION AND TRAINING

06/02/2023	National Scientific Habilitation to the role of Associate professor, SSD BIO/03, 05/A1 BOTANY
14/07/2021	National Scientific Habilitation to the role of Associate professor, SSD AGR/02, 07/B1 AGRONOMY AND FIELD CROPS
17/03/2016	Ph.D. in Agricultural, Forest and Food Sciences at the Dept. of Agricultural, Forest and Food Sciences of the University of Torino.
19/04/2012	Master degree in Forest and Environmental Science at the University of Torino

ACADEMIC TEACHING

2021/22 – 2022/23	Co-lecturer of “ <i>Elementi di agronomia e coltivazioni erbacee</i> ” for the Bachelor's degree course in “Produzioni e Gestione degli Animali in Allevamento e Selvatici”, University of Torino - Department of Veterinary Sciences (DSV).
2020/21 – 2023/24	Lecturer of “ <i>Fundamentals of R</i> ” for the Doctoral school PhD in Agricultural, Forest and Food Sciences and the Doctoral school in Veterinary Sciences for Animal Health and Food Safety – University of Torino
2020/21 – 2023/24	Lecturer of “ <i>Cluster analysis</i> ” module in the course “ <i>Advanced Statistics</i> ” for the Doctoral school PhD in Agricultural, Forest and Food Sciences

2012/13 – 2022/23	Co-lecturer in the student training of the course “ <i>Alpicoltura</i> ” for the Master degree course “Scienze e tecnologie dei sistemi e territori forestali”, University of Torino - Department of Agricultural, Forest and Food Sciences (DISAFA)
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RESEARCH PROJECTS

2023 – current	“Studio della vegetazione pastorale e dell’offerta foraggera in relazione al comportamento dei pascolatori domestici e ai cambiamenti climatici”. (Accordo di collaborazione tra il Dipartimento di Scienze Agrarie, Forestali e Alimentari dell’Università di Torino (DISAFA), Dipartimento di Scienze Veterinarie dell’Università di Torino (DSV) e il Parco Nazionale del Gran Paradiso). (Referente scientifico)
2022 - current	Referente scientifico dell’accordo di collaborazione per attività di ricerca, sperimentazione e terza missione nell’ambito della valorizzazione e del recupero delle praterie permanenti stipulato tra il Dipartimento di Scienze Agrarie, Forestali e Alimentari dell’Università di Torino (DISAFA), Dipartimento di Scienze Veterinarie dell’Università di Torino (DSV), il Centro Interdipartimentale di Ricerca ‘Riutilizzo bio-based degli scarti da matrici agroalimentari’ (CIR RIVIVE) dell’Università di Palermo, l’Institut Agricole Régional della Valle D’Aosta (IAR), Fondazione Edmund Mach – Centro Trasferimento Tecnologico del Trentino Alto Adige (FEM-CTT) e Slow Food Italia APS. Durata dell’accordo di collaborazione: 5 anni.
2022 – current	Tudi - Transforming Unsustainable management of soils in key agricultural systems in EU and China. Developing an integrated platform of alternatives to reverse soil degradation. (Horizon 2020)
2020 - current	"FILIERBA – Sviluppo di filiere zootecniche basate su foraggi polifiti per superare le difficoltà dei comparti carne e latte e migliorare la sostenibilità degli allevamenti" (PSR 2014 – 2020 Regione Piemonte)
2020 - current	"PRÀ DA SMENS - Realizzazione di filiere corte piemontesi per la raccolta di sementi autoctone in praterie permanenti e loro impiego diretto per la rivegetazione" (PSR 2014 – 2020 Regione Piemonte)
2019 - 2022	"Restauro ambientale, corridoio ecologico e monitoraggio di specie rare" (accordo di ricerca, TELT sas)
2019 - current	RobustAlps - Targeted grazing of robust livestock for the restoration of green alder-encroached pastures (Bando di ricerca, Swiss National Science Foundation)
2019 - 2023	iGRAL - Innovative beef cattle Grazing systems for the Restoration of Abandoned Lands in the Alpine and Mediterranean mountains (Bando di ricerca Ager 2 – Bando Montagna 2017, Consorzio Ager)
2017 - 2018	BambApp: un social network per la ridefinizione del grado di invasività dei bamboo in Piemonte (Bando di Ricerca, Fondazione Cariplo)
2018 - 2020	"Food4Forest. Selvipastorizia rigenerativa: il cibo nutre la foresta" (PSR 2014 – 2020 Regione Piemonte)
2018 - current	"Developing SUsustainable PERmanent Grassland systems and policies - SUPER-G" (Horizon 2020)
2017 - 2019	Valutazione delle potenzialità pastorali e pianificazione di una gestione finalizzata alla conservazione dei servizi ecosistemici degli alpeggi del Parco del Monviso (accordo di ricerca, Ente di Gestione del Parco Naturale del Monviso)
2017 - 2019	"EMERITUS - Eco-Management for agri-tourism in mountain areas" (Bando di Ricerca di Ateneo, Fondazione Compagnia di San Paolo)
2015 - 2021	"Monitoraggio ambientale inerente al progetto di adeguamento e potenziamento del sistema di impianti a fune Cimalegna - Passo dei Salati (Monitoraggio fenologico delle vallette nivali a Salix herbacea)" (accordo di ricerca, Monterosa 2000 s.p.a.)
2013 - 2014	“Gestione pastorale strumento di miglioramento ambientale. Il pascolo dei domestici: opportunità per Galliformi Alpini, Torbiere alpine, specie ornamentali di passo, oasi xerothermiche”. (PSR 2007-2013 Regione Piemonte)
2013 - 2014	Wilderness, Aree aperte e Biodiversità Val Grande (PSR 2007-2013 Regione Piemonte)
2013 - 2019	LIFE12 NAT/IT/000818 XERO-GRAZING: Conservazione e recupero delle praterie xero-termiche della Valle di Susa mediante la gestione pastorale (LIFE+ Nature, European Commission – Environment)
2013 - 2018	Monitoraggio e studio della biodiversità e dell’evoluzione di interventi di ripristino ambientale (accordo di ricerca, ARPA Piemonte)
2012 - 2012	"Valorizzazione della gestione multiuso del territorio e dei prodotti caseari d'alpeggio dell'Oasi Zegna" (accordo di ricerca, Fondazione Zegna)
2010 – 2012	“Valorizzazione multiuso di territori pascolivi alpini piemontesi con la gestione pastorale: applicazioni sperimentali nel Parco Naturale Val Tronca” (autofinanziato)

CONFERENCES

Since 2013 Pittarello has made 25 scientific contributions (16 oral presentations and 9 posters) at international and 6 national conferences. Member of the organising committee of the 17th Meeting of the FAO-CIHEAM Mountain Pasture Network - Pastoralism and ecosystem conservation. 6-7 June 2013; Trivero, Italy.

MAIN PUBLICATIONS (ISI)

- Barberis, D., **Pittarello, M.**, Lombardi, G., & Lonati, M. (2023). ResNatSeed: An R package and shiny web app to predict the REStoration potential of NATive SEEDs using topographic factors. *Environmental Modelling & Software*, 105813.
- Nota, G., Svensk, M., Barberis, D., Frund, D., Pagani, R., **Pittarello, M.**, Probo, M., Ravetto Enri, S., Lonati, M., Lombardi, G. (2023). Foraging behavior of Highland cattle in silvopastoral systems in the Alps. *Agroforest Syst.* <https://doi.org/10.1007/s10457-023-00926>
- Mainetti, A., Enri, S.R., **Pittarello, M.**, Lombardi, G., Lonati, M. (2023). Main ecological and environmental factors affecting forage yield and quality in alpine summer pastures (NW-Italy, Gran Paradiso National Park). *Grass and Forage Science*. <https://doi.org/10.1111/gfs.12609>
- Svensk, M., **Pittarello, M.**, Mariotte, P., Nota, G., Schneider, M.K., Frund, D., Dubois, S., Allan, E., Probo, M. (2023). Nitrogen translocation by Highland cattle grazing in *Alnus viridis*-encroached pastures. *Nutrient Cycling in Agroecosystems*. <https://doi.org/10.1007/s10705-023-10282-0>
- Milazzo, F., Francksen, R.M., Zavattaro, L., Abdalla, M., Hejduk, S., Enri, S.R., **Pittarello, M.**, Price, P.N., Schils, R.L.M., Smith, P., Vanwalleghe, T. (2023). The role of grassland for erosion and flood mitigation in Europe: A meta-analysis. *Agriculture, Ecosystems & Environment* 348, 108443. <https://doi.org/10.1016/j.agee.2023.108443>
- Barberis, D., Lombardi, G., Ravetto Enri, S., **Pittarello, M.**, Viglietti, D., Freppaz, M., Lonati, M. (2022). Nitrogen fertilizer enhances vegetation establishment of a high-altitude machine-graded ski slope. *Restoration Ecology*. <https://doi.org/10.1111/rec.13777>
- Nota, G., Berretti, R., Ascoli, D., Barberis, D., Ravetto Enri, S., **Pittarello, M.**, Motta, R., Battaglini, L.M., Lombardi, G., Lonati, M. (2022). Plant species selection and impact on tree resprouts by semi-free ranging pigs in a temperate deciduous forest. *Agroforest Syst.* <https://doi.org/10.1007/s10457-022-00792-1>
- Svensk, M., Nota, G., Mariotte, P., **Pittarello, M.**, Barberis, D., Lonati, M., Allan, E., Perotti, E., Probo, M. (2022). Use of Molasses-Based Blocks to Modify Grazing Patterns and Increase Highland Cattle Impacts on *Alnus Viridis*-Encroached Pastures. *Front. Ecol. Evol.* 10, 1–11. <https://doi.org/10.2139/ssrn.3943505>
- Verdinelli, M., **Pittarello, M.**, Caria, M.C., Piga, G., Roggero, P.P., Marrosu, G.M., Arrizza, S., Fadda, M.L., Lombardi, G., Lonati, M., Nota, G., Sitzia, M., Bagella, S. (2022). Congruent responses of vascular plant and ant communities to pastoral land - use abandonment in mountain areas throughout different biogeographic regions. *Ecological Processes* 11:35 <https://doi.org/10.1186/s13717-022-00379-9>
- Pittarello, M.**, Ravetto Enri, S., Lonati, M., Lombardi, G. (2021). Slope and distance from buildings are easy-to-retrieve proxies for estimating livestock site-use intensity in alpine summer pastures. *PLoS One* 1–15. <https://doi.org/10.1371/journal.pone.0259120>
- Svensk M., **Pittarello M.**, Nota G., Schneider M.K., Allan E., Mariotte P., and Probo M. (2021). Spatial distribution of Highland cattle in *Alnus viridis* encroached sub-alpine pastures. *Frontiers in Ecology and Evolution* 9, 1–7. <https://doi.org/10.3389/fevo.2021.626599>
- Nota, G., Enri, S.R., **Pittarello, M.**, Gorlier, A., Lombardi, G., Lonati, M. (2021). Sheep Grazing and Wildfire: Disturbance Effects on Dry Grassland Vegetation in the Western Italian Alps. *Agronomy* 11, 6. <https://dx.doi.org/10.3390/agronomy11010006>
- Pittarello, M.**, Lonati, M., Enri, S.R., Lombardi, G., 2020. Environmental factors and management intensity affect in different ways plant diversity and pastoral value of alpine pastures. *Ecological Indicators*. 115, 106429. <https://doi.org/10.1016/j.ecolind.2020.106429>
- Pittarello, M.**, Probo, M., Perotti, E., Lonati, M., Lombardi, G., & Enri, S. R. (2019). Grazing Management Plans improve pasture selection by cattle and forage quality in sub-alpine and alpine grasslands. *Journal of Mountain Science*, 16(9), 2126-2135.
- Ravetto Enri, S., Gorlier, A., Nota, G., **Pittarello, M.**, Lombardi, G., & Lonati, M. (2019). Distance from Night Penning Areas as an Effective Proxy to Estimate Site Use Intensity by Grazing Sheep in the Alps. *Agronomy*, 9(6), 333.
- Perotti, E., Probo, M., **Pittarello, M.**, Lonati, M. and Lombardi, G. (2018). A five-year rotational grazing changes the botanical composition of sub-alpine and alpine grasslands. *Applied Vegetation Science*. doi: [10.1111/avsc.12389](https://doi.org/10.1111/avsc.12389)
- Pittarello, M.**, Lonati, M., Gorlier, A., Perotti, E., Probo, M., Lombardi, G. (2018). Plant diversity and pastoral value in alpine pastures are maximized at different nutrient indicator values. *Ecological Indicators*, 85, 518-524.
- Pittarello, M.**, Lonati, M., Gorlier, A., Probo, M., Lombardi, G. (2017). Species-rich *Nardus stricta* grasslands host a higher vascular plant diversity on calcareous than on siliceous bedrock. *Plant Ecology & Diversity*, 10(4), 343-351.
- Pittarello M.**, Gorlier A., Lombardi G., Lonati M. (2017). Plant species selection by sheep in semi-natural dry grasslands extensively grazed in the south-western Italian Alps. *The Rangeland Journal*, 39(2) 123-131. DOI: 10.1071/RJ16068
- Pittarello M.**, Probo M., Lonati M., Bailey D.W., Lombardi G. (2016). Effects of traditional salt placement and strategically placed mineral mix supplements on cattle distribution in the Western Italian Alps. *Grass and Forage Science*, 71(4), 529-539. DOI: 10.1111/gfs.12196

Pittarello M., Probo M., Lonati M., Lombardi G. (2016). Restoration of sub-alpine shrub-encroached grasslands through pastoral practices: effects on vegetation structure and botanical composition. *Applied Vegetation Science* 19 (3), 381 – 390. DOI: 10.1111/avsc.12222

Probo M., **Pittarello M.**, Lonati M., Lombardi G. (2016). Targeted grazing for the restoration of sub-alpine shrub-encroached grasslands. *Italian Journal of Agronomy*, 11:775, 268 – 272. DOI: 10.4081/ija.2016.775

Bailey D.W., Stephenson M., **Pittarello M.** (2015). Effect of terrain heterogeneity on feeding site selection and livestock movement patterns. *Animal Production Science* 55, 298-308. DOI: 10.1071/AN14462

Probo M., Lonati M., **Pittarello M.**, Bailey D.W., Garbarino M., Gorlier A., Lombardi G. (2014). Implementation of a rotational grazing system with large paddocks changes the distribution of grazing cattle in the south-western Italian Alps. *The Rangeland Journal* 36, 445–458. DOI: 10.1071/RJ14043

OTHER INFORMATION

LANGUAGE SKILLS

Mother tongue Italian

Other languages English (Shenker Institute Certification, 2016)

- Reading (B2)
- Speaking (B2)
- Writing (B2)

R PACKAGES DEVELOPEMENT

- iPastoralist (<https://github.com/MarcoPittarello/iPastoralist>)
- ResNatSeed (<https://github.com/MarcoPittarello/ResNatSeed>, shiny app: https://github.com/MarcoPittarello/ResNatSeed_ShinyApp)



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