

# Geoffrey Mesbahi

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## Research experience

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**Post-doc**  
Since 2020

***Agronomic value of temperate fodder trees for dairy cattle production***

PhD Sandra Novak, INRAE, France

- Forage sampling
- Faeces sampling
- Feeding behaviour sampling (scan and focal sampling)
- Remote sensing (TLS, drone photogrammetry)
- Statistical analyses (R software)
- Supervision of 1 BA student and 1 field assistant
- Pollard trees maintenance
- Outreach

**Doctorat**  
2017 -2020

***Prediction of agronomical and ecological grasslands characteristics, and their trade-offs. Focus on the Vosges Mountains permanent grasslands***

Prof Sylvain Plantureux, University of Lorraine - INRAE, France  
Cécile Bayeur, Northern Vosges Regional Nature Park, France

- Field botany
- Forage sampling
- Soil sampling
- Interviews of farmers
- GIS (QGIS software)
- Database management
- Statistical analyses (R software)
- Supervision of 7 MA students
- Teaching 43 hours
- Outreach

**Field assistant**  
2015-2016

***Semantics content in titi monkey alarm call sequences***

PhD Mélissa Berthet, University of Neuchâtel, Switzerland

- Wild monkey population monitoring
- Cognitive experiments
- Behaviour observation (scan sampling)
- Faeces sampling
- Protocol reflection
- Assistants training

<b>Engineer thesis</b> 2014	<b><i>Impact of soil properties and agronomical practices, and their interactions, on French earthworms communities</i></b> PhD Kevin Hoeffner, University of Rennes 1 - CNRS, France
	<ul style="list-style-type: none"> <li>- Earthworms gathering</li> <li>- Earthworms identification</li> <li>- Database management</li> <li>- Statistical analyses</li> </ul>

## Education

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<b>Doctorate degree</b> 2017-2020	<b>PhD in agronomic sciences</b> University of Lorraine Lorraine, France Jury: Prof Gillet F., PhD Bonis A., PhD Diquelou S., PhD Magda D., PhD Michaud A.
<b>Engineer degree</b> 2009 – 2014	<b>Engineer in agriculture and management</b> UniLaSalle Beauvais, France

## Additional courses

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<b>Summer school</b> 2021	<b>Analysis and Experimentation on Ecosystems</b> , France Remote sensing for the study of terrestrial ecosystems: From theory to practical application
<b>Animal testing</b> 2021	<b>ONIRIS</b> , France Animal testing diploma: experimental design and execution
<b>Workshop</b> 2021	<b>Gaia formation</b> , France Fodder trees for herbivorous farm animal
<b>Workshops</b> 2020-2021	<b>INRAE</b> , France Writing a data paper, HAL
<b>Workshop</b> 2019	<b>Regional Nature Parks and Botanic conservatories</b> , France Grassland phytosociological classification
<b>Doctoral program courses</b> 2017-2020	<b>University of Lorraine</b> , France Writing and publishing a paper, Pedology, Life cycle assessment

## Grants

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<b>AnaEE</b> 2021	Scholarship (1 week) to participate to the AnaEE summer school on remote sensing at the Lautaret Garden, France.
<b>INRAE Phase</b> 2021-2022	Projet Innovant Fund (19 000€, 2 years) for the project “ <i>Agronomic value of temperate fodder trees for dairy cattle production</i> ”

<b>INRAE AgroEcoSystem</b> 2021-2022	Pari Scientifique Fund (8 250€, 2 years) for the project “ <i>Agronomic value of temperate fodder trees for dairy cattle production</i> ”
<b>Fondation de France</b> 2021-2022	Postdoctoral grant (93 370€, 2 years) for my postdoc “ <i>Agronomic value of temperate fodder trees for dairy cattle production</i> ”.
<b>Agence de l’eau Rhin-Meuse</b> 2020	Funding (22 500€, 8 months) for the completion of my PhD thesis “ <i>Prediction of agronomical and ecological grasslands characteristics, and their trade-offs. Focus on the Vosges Mountains permanent grasslands</i> ” and the redaction of the book “ <i>Les prairies permanentes du massif des Vosges. Typologie agroécologique et diagnostic prairial</i> ”

## Journal articles

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**Berthet M., Mesbahi G., Duvot G., Zuberbühler K., Cäsar C., Bicca-Marques J.C.** (accepted) Dramatic decline in a titi monkey population after the 2016-2018 sylvatic yellow fever outbreak in Brazil, *American Journal of Primatology*

**Mesbahi G., Michelot-Antalik A., GoulNIK J., Plantureux S.** (2020) Permanent grassland classifications predict agronomic and environmental characteristics well, but not ecological characteristics, *Ecological Indicators*, 110, 105956  
doi: 10.1016/j.ecolind.2019.105956

**GoulNIK J., Plantureux S., Van Reeth C., Baude M., Mesbahi G., Michelot-Antalik A.** (2020) Facial area and hairiness of pollinators visiting semi-natural grassland wild plants predict their facial pollen load, *Ecological Entomology*, 45 (6), 1296-1306  
doi: 10.1111/een.12913

**Mesbahi G., Bayeur C., Michelot-Antalik A., Plantureux S.** (2019) Choosing classification systems for predicting the characteristics of permanent grasslands, *Fourrages*, 237, 57-65 (in French)

**Berthet M., Mesbahi G., Pajot A., Cäsar C., Neumann C., Zuberbühler K.** (2019) Titi monkeys combine alarm calls to create probabilistic meaning, *Science Advances*, 5:eaav3991, doi: 10.1126/sciadv.aav3991

**Berthet M., Neumann C., Mesbahi G., Cäsar C., Zuberbühler K.** (2018) Contextual encoding in titi monkey alarm call sequences, *Behavioral Ecology and Sociobiology*, 72:8, doi: 10.1007/s00265-017-2424-z

## Book & Thesis

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**Bayeur C., Hennequin C., Mesbahi G., Plantureux S.** (2020) Les prairies permanentes du massif des Vosges. Typologie agroécologique et diagnostic prairial.  
ISBN: 978-2-9574260-0-3

**Mesbahi G.** (2020) Prediction of agronomical and ecological grasslands characteristics, and their trade-offs. Focus on the Vosges Mountains permanent grasslands (PhD thesis).

## Conferences and posters

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**Berthet M., Mesbahi G., Duvot G., Zuberbühler K., Cäsar C., Bicca-Marques J.C.** (accepted) A Brazilian population of titi monkeys reduced to 20% after an outbreak of sylvatic yellow fever. *Joint Meeting of the International Primatological Society and the Latin American Society of Primatology*, Quito, Ecuador.

Oral presentation

**Mesbahi G., Bayeur C., Plantureux S.** (2020) Trade-offs between agronomic and ecological characteristics in permanent grasslands. *28<sup>th</sup> General Meeting of the European Grassland Federation*, Helsinki, Finlande.

Poster presentation

**Narbona-Sabaté L., Mesbahi G., Berthet M.** (2020) Urgent information is shared first in titi monkeys' alarm sequences. *Webinar Société Française de Primatologie*, online.

Oral presentation

**Narbona-Sabaté L., Cäsar C., Mesbahi G., Berthet M.** (2020) Black-fronted titi monkeys (*Callicebus nigrifrons*) refine their alarm message after urgent information is shared. *Animal Behaviour Live: Annual Online Conference*, online.

Poster presentation

**Mesbahi G., Bayeur C., Plantureux S.** (2019) Les typologies agronomiques : des outils efficaces pour évaluer rendements et performances des prairies permanentes. *Journées de Printemps de l'AFPF*, Paris, France.

Poster presentation and conference paper, in French

**Mesbahi G., Bayeur C., Plantureux S.** (2019) Des prairies permanentes diversifiées et performantes. *Journée de l'école doctorale*, Nancy, France.

Poster presentation, in French

**Mesbahi G., Bayeur C., Plantureux S.** (2018) Prediction of grassland values by phytosociological or agronomical approach. *27<sup>th</sup> General Meeting of the European Grassland Federation*, Cork, Ireland.

Poster presentation and conference paper

**Berthet M., Mesbahi G., Pajot A., Cäsar C., Neumann C., Zuberbühler K.** (2018) Titi monkey alarm sequences: when combining creates meaning, in LaCroix T. (Chair), "Evolutionary explanations of compositional communication: the state of the art" symposium. *26th Philosophy of Science Association Biennial Meeting*, Seattle, USA.

Oral presentation

**Berthet M., Neumann C., Mesbahi G., Zuberbühler K.** (2017) Contextual information in titi monkey B-sequences. *7th European Federation for Primatology meeting*, Strasbourg, France.

Oral presentation

**Berthet M., Neumann C., Mesbahi G., Zuberbühler K.** (2017) Do titi monkeys encode predator type and location in their alarm sequences?. *35th International Ethological Conference*, Estoril, Portugal.

Oral presentation

**Berthet M., Neumann C., Mesbahi G., Cäsar C., Zuberbühler K.** (2017) Contextual differences of two alarm call types in titi monkeys. *15th Conference of the Gesellschaft für Primatologie*, Zürich, Suisse.

Poster presentation

## Invited speaker

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**Mesbahi G.** (2020) Quelle classification pour la prédiction des propriétés prairiales ? *Séminaire national Habitats - « Typologies, données et cartographies : état des lieux des connaissances et perspectives sur les besoins opérationnels »*, Paris, France

## Teaching

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### 2019

**Practical**                      **Agroforestry botany and ecosystem services.**  
Master level, 8 hours.

**Tutorial**                      **Statistical analyses of agroforestry dataset.**  
Master level, 4 hours.

**Practical**                      **Grassland botany and functional traits.**  
Master level, 8 hours.

**Tutorial**                      **Statistics: determinant of grassland species and functional traits.**  
Master level, 4 hours.

### 2018

**Practical**                      **Collect of animal behaviour on the field.**  
Master level, 8 heures

### 2017

**Lecture**                      **Initiation to global agroforestry.**  
Master level, 3 hours.

**Lecture**                      **Discovery of research projects.**  
Master level, 2 hour.

**Tutorial**                      **Mixing crops at different scales.**  
Master level, 15 hours. Grading of final exam.

**Practical**                      **Grassland botany and functional traits.**  
Master level, 8 hours.

## Professional services & Outreach

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Onsite and online presentation of the OasYs farm and its agroforestry system (2021-2022)

Workshop co-organization *Les prairies permanentes, notre avenir en herbe !* (2021)

Reviewer for *General Meeting of the European Grassland Federation* (2020)

Jury member for *Concours des Pratiques Agro-Ecologiques Prairies & Parcours* (2019)

**Mesbahi G.** (2021) La typologie agroécologique des prairies permanentes. *Les prairies permanentes, notre avenir en herbe !*, Meisenthal, France

**Mesbahi G., Novak S.** (2021) L'abre, une ressource fourragère. *Les prairies permanentes, notre avenir en herbe !*, Meisenthal, France

**Berthet M. & Mesbahi G.** (2019) Découvrez les singes titis et leur système de communication unique. *The Conversation France*

**Mesbahi G.** (2018 et 2019) La typologie de prairies permanentes : un outil pour agronomes et écologues. *Journée de formation à la phytosociologie du massif vosgien*, Saverne et Rothau, France

Oral presentation

**Mesbahi G.** (2018) Les typologies agroécologiques. *Natura 2000 biogeographic seminar*, Parc Naturel Régional des Vosges du Nord, France

Oral presentation

**Mesbahi G.** (2018) Prairies permanentes : la conservation par la valorisation : exemple du massif vosgien. *Séminaire des Parc Naturels Régionaux Biodiversité et Gestion de l'Espace*, Eppe-Sauvage, France

Oral presentation

## Languages

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<b>French</b>	Mother tongue	<b>Portuguese</b>	Basic
<b>English</b>	Fluent	<b>German</b>	Basic