Development of preen gland microbiome in blue tits

Microbiomes of preen glands of birds may play important functional roles in feather maintenance and odor signaling to conspecifics. We are interested in how young birds acquire these microbiomes: via the nest-environment (horizontal transmission) and/or via the parents (vertical transmission); and also in the subsequent microbiome development.

We want to study these questions with **you** during a master project on blue tit chicks in the spring of 2025!

In this project, you will

- Learn general fieldwork (regular nest check, breeding monitoring and so on)
- Learn general lab work (DNA extractions) & Next Generation Sequence data analyses
- Learn statistical data analyses

Possible research questions:

- **What is** the microbial community composition of preen glands in developing blue tit chicks?
- What is the contribution of the nest and parents microbiota on preen gland communities of blue tit chicks?

Study location: De Vosbergen (53°08'N, 06°35'E), Eelde

Supervisors: Maaike Versteegh, Marco vd Velde, Maurine Dietz, Irene Tieleman

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Master project 2025 **30 – 40 ECTs**