# Master thesis

# Blood parasites in birds of prey – describing cryptic biodiversity



## Description

The Raptor-research group at the Department of Animal Behaviour is searching for a new team-member with a focus on parasitology for the beginning of 2024. Our research group studies the ecology and evolution of local raptor populations and their blood parasites (Haemosporida), which represent Malaria-like protists transmitted by mosquitoes, blackflies and biting midges. Blood parasite diversity is high and accompanies the evolution of their hosts. Simultaneously, blood parasites are also drivers of evolution and should be considered at least equally representative of biodiversity as metazoan species. In the current project we aim to study the spatiotemporal occurrence of blood parasites in a raptor population that has been studied for the past decades. The focus lies on understanding the influence of environmental factors and habitat properties on the diversity and occurrence of these parasites.

The project includes sample acquisition and parasitological analysis (microscopy, molecular methods) of blood samples of Common Buzzards (Buteo buteo) and other raptor species. Furthermore, you will acquire data on breeding habitat properties (nest environment, distance to water bodies etc.) in our approximately 300 km<sup>2</sup> large study area near Bielefeld. The field work requires the usage of a private vehicle. The costs for fuel are of course reimbursed.

The field season is constituted of a **mapping phase** (mid-March to May) followed by a **sampling phase** (May to max. August). **Analyses** will be performed subsequently (the application/implementation of advanced methods is favourable). The estimated duration of the project is at least six months. We therefore offer a six-month stipend as support (**750€**/month).

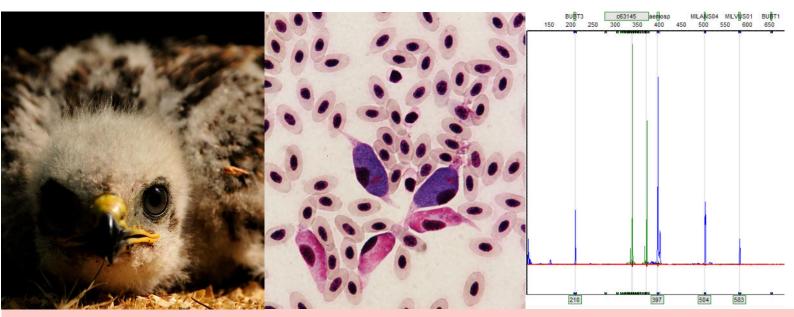
#### Requirements

We apply established ornithological methods during our yearly field season (e.g. nest searching and checks, bird-ringing), which involve a high workload in the field but are equally rewarding. A background in ornithology or parasitology is beneficial, but not required. Most importantly, we are searching for enthusiastic and autonomous students. Of course, there will be introductory training at the beginning of the field season. We view the successful conclusion of your project and field season as a superb basis for a **future PhD position**.

#### Supervision

The supervisors of the project are **Dr. Nayden Chakarov** and **Prof. Dr. Oliver Krüger** (see e-Mail address below).

Applications should be submitted by 10.03.2024



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# Master thesis

# Behavioural Tests and Breeding Habitat Analysis in Raptors



## Description

The Raptor-research group at the Department of Animal Behaviour is searching for a new team-member with a focus on behavioural experiments in the field for the beginning of 2024.

Our research group studies the ecology of local Raptor species regarding the behavioural ecology and interactions of Common Buzzards (*Buteo buteo*), Goshawks (*Accipiter gentilis*) and Eagle Owls (*Bubo bubo*). The Eagle Owl has experienced an impressive comeback in the last decades. At the same time this species does not only exert pressure on birds of prey such as Buzzard and Goshawk through competition for prey and breeding sites, but also as a predator ("intraguild predation"). The consequences of the Eagle Owls expansion on the behaviour and habitat choice of the Common Buzzard are not yet understood.

The current project includes **experiments on the territorial behaviour of Common Buzzards towards Eagle Owl and Goshawk** and the acquisition of data on their breeding habitat (nest environment, forest patch size, distance to roads etc.) in our approximately 300 km<sup>2</sup> large study area near Bielefeld. The behavioural tests will be conducted using Eagle Owl and Goshawk dummies. The field work requires the usage of a private vehicle. The costs for fuel are of course reimbursed.

The field season is constituted of a **mapping phase** (mid-March to May) followed by an **experimental phase** (May to max. August). **Analyses** will be performed subsequently. The estimated duration of the project is at least six months. We therefore offer a six-month stipend as support (**750€**/month).

#### Requirements

We apply established ornithological methods during our yearly field season (e.g. nest searching and checks, birdringing), which involve a high workload in the field but are equally rewarding. A background in ornithology is beneficial, but not required. Most importantly, we are searching for enthusiastic and autonomous students. Of course, there will be introductory training at the beginning of the field season. You will also be a part of our birdringing teams sampling raptor nestlings. We view the successful conclusion of your project and field season as a superb basis for a **future PhD position**.

#### Supervision

The supervisors of the project are **Dr. Nayden Chakarov** and **Prof. Dr. Oliver Krüger** (see e-Mail address below).

Applications should be submitted by 10.03.2024

