

Bio 355 Zoo Biology Practical
Course Dates: June 3rd -7th, 2024 **ECTS:** 2

Course Description:

Students will work in groups of two on (randomly) assigned research questions at Zoo Zürich. Students will apply aspects of topics learned and discussed in BIO354 (Zoo Biology).

Note: This course will be held at Zoo Zurich. Evaluation will be through an oral presentation and a written report submitted by email to the supervisor after the conclusion of the course (latest: June 13th, 2024).

Learning Outcomes: by the end of the Practical, students will possess some of the following competencies:

- how to plan, carry out, and critically discuss a scientific project
- how to review and critically discuss relevant literature
- how to present a project and its results to a larger audience
- how to summarize results in a written report

Sample Topics:

- Early morning anticipatory behaviors in asian elephants
- Nest box & courtship behavior of hyacinth macaws
- Social and dominance interactions of hoofed mammals in the mixed-species Lewa enclosure
- Positive/negative social interactions and space-use of pileated gibbons
- Copulation and space-use patterns in the Aldabra tortoise
- Occurrence of stereotypic behaviors in the red panda
- Signals for seasonality Body weight in zoo zürich
- Courtship and spawning behavior in a marine aquarium

2024 Topics:

Group	Instructor	Suggested Project topic(s)	Methods
1	LD	Aldabra Giant Tortoise: mate choice and copulation patterns with and without size-selection barrier over 3 years	Pre-recorded data
2	MG	Individual Eukalyptus feeding preference by Koala across time and seasonality	Daily keeper records since 2020...to be digitized by FTZ (?)
3	MB	Choose from: A) Day visitors, what are you doing here? Why did you come to the zoo? Where have you been so far etc.? (Why didn't you book a guided tour?) B) Ramp/construction site and Pantanal post: Construction site survey, observation of visitors - details still to be defined. C) Elephant exhibition with and without arrow or reference to the start of the exhibition. Details in briefing.	Visitor surveys or observations
4	CG	TBD	
5	HK	TBD	

6	CRR	Hyenas: intraspecies aggression, social interactions, stereotypic behaviors during feeding of whole carcass and before and after having cubs	On site + collected film observations (see 2020 intern project)
7	BvA	A quiet and unknown species: Establishing an ethogram for the blue-headed quail doves.	On site observation, possibly already zoo monitor
8	FD	Activity of spectacled bears during the different seasons. Data analysis of the feeding boxes	On-site observation, analysing data
9	SB	Pathology report database /ZIMS Medical -Pbfd in birds (verified detections in zoo species/method (blood (and/or) feather)/amount -time	

Program:

Day	Topic
1	Meeting point: Entrance to «Betriebsgebäude» Klosterweg 60 9h00: Welcome & orientation in room EG23 <ul style="list-style-type: none"> - Receive project topic (randomly assigned) & meet supervisor - Discuss topic and literature baseline with supervisor - Introduction to BORIS (with Curator Interns Xhesida & Sarah-Lisa) - Introduction to ZooMonitor (Intro with Jason from Lincoln Park Zoo) & ZooObserver - Submit signed confidentiality agreement - Distribute keys Rest of the day: <ul style="list-style-type: none"> - Literature review, hypothesis formation, draft data collection protocol, prep materials require for data technology - Begin trial data collection
2	Project work: review with supervisor data collection protocol, begin data collection to adapt protocol as needed
3	Project work: data collection, literature compilation, begin data analysis 11 Uhr – Lecture in EG23: "Ex-situ breeding for conservation" (MG)
4	Project work: finalize data collection, data analysis, presentation prep
5	AM: finalize data analysis and presentation 13h00-16h30: Final presentations of 20-min per group

What to bring :

- Laptop with UZH VPN (for literature search) & R Studio installed
- Pen and paper for taking notes
- A passport-sized photo for weeklong zoo pass
- Sunscreen/raincoat depending on the weather