

The role of early environment and physiology on phenotypic variation of nestlings in an avian coevolutionary arms race

We are looking for a highly motivated PhD student to join the Behavioural Ecology Group at the Museum and Institute of Zoology of the Polish Academy of Sciences in Warsaw (Poland). The student will conduct research on the environmental and physiological mechanisms determining phenotypic variation in nestlings of fan-tailed gerygone (*Gerygone flavolateralis*) from New Caledonia.

Short description: In New Caledonia the brood-parasitic shining bronze-cuckoo (*Chalcites lucidus*) and its exclusive host the fan-tailed gerygone have nestlings occurring in two discrete colour morphs, either pink-grey (bright) or dark-grey (dark). The cuckoo nestlings mimic the gerygone nestlings but, despite mimicry and phenotypic variation, host parents discriminate and eject the cuckoo nestling from the nest. Our research has focused on the breeding biology of host and parasite, cognitive mechanisms underlying host's recognition of the parasite nestling and genetic basis of nestling colour. However, we still know little about the role of ecological and physiological mechanisms in determining nestling phenotypic variation.



Work description: We will conduct fieldwork in a well-established site on the main island of Grand Terre in New Caledonia for 3-4 months per year during the period September – January. The objectives of the main research project will be to investigate if the host nestling phenotype 1) depends on the mother's condition and changes in incubation patterns, 2) depends on nest environment during incubation and 3) is associated with physiological differences in immune and stress response. Additionally, the PhD candidate will have ample possibilities to develop complementary research. Depending on the student interests, it will be possible to participate in molecular work (genetics and corticosteroid analysis).

Salary: the project is financed by the Polish National Science Center and will grant a scholarship of 5000 PLN for 4 years.

Additional info: full description of the project, candidate requirements and additional info can be found at <https://www.miiz.waw.pl/en/ogloszenia/oferty-pracy>

How to apply: please send 1) cover letter (max 1 page), 2) CV with contact details of 2 referees, 3) copy of the M.Sc. certificate and 4) filled application form to the BioPlanet doctoral school (<https://szkoladoktorska-bioplanet.pl/en/downloadable-forms/>) to dr. Alfredo Attisano (aattisano@miiz.waw.pl).

Deadline: 26/02/2023