



Joint Faculty of Veterinary Medicine: Academic Seminar

Topic: **Exploring connections between species and ever-changing environment**

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Date: June 4, 2024 (16:00-17:00)

Site: Large Lecture Room, Graduate School Building 4F

Abstract: How does the depth of a lake influence the species community living within it? Why do some places contain more species than others? Is there competition in nature and among which type of species? Ecologists seek to answer these and other questions about actually or potentially interacting species living in different spatial and temporal gradients. A key scientific challenge is to quantify and forecast temporal change in species attributable to both natural and anthropogenic causes.

The seminar will spotlight specific case studies carried out in a range of environments from freshwater aquatic environments to bioaerosols. Here the importance of beta-diversity as a gauge for detecting phenological changes and for quantifying the temporal stability of species, detecting species interactions and how it could be used in forecasting harmful algal bloom species by utilizing empirical dynamic modelling approaches in aquatic environments will be discussed. Extending from the aquatic environment to the air, ecological modelling is being used to study the temporal patterns of the bioaerosol particles and how the change of environmental parameters affects them. These examples will underscore the transformative potential of data-driven approaches in veterinary and environmental sciences towards a One Welfare approach.

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