

博士論文発表会(公聴会)のお知らせ

下記の通り博士論文発表会(公聴会)を開催しますので、お知らせいたします。

日時：7月29日16時00分から

場所：理学研究科棟 E209

タイトル：Identification of genomic diversity and genes under selection in the hot spring frog (*Buergeria japonica*)

[温泉ガエル(リュウキュウカジカガエル)におけるゲノム多様性と適応関連遺伝子の同定]

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本セミナーは統合生命科学研究科セミナーとしてプログラム共同セミナーの対象です。

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要旨

Extreme temperatures are a major threat to the survival of ectotherms such as amphibians. The tree frogs belonging to the genus *Buergeria* have accomplished a latitudinal distribution and a wide range of thermal adaptations. In particular, *Buergeria japonica*, referred to as "hot spring frog", has been reported to tolerate extremely high temperatures. However, it is unclear how the heat tolerance and metamorphic strategies of this species vary among populations at different temperatures. I therefore conducted long-term heat tolerance experiments on multiple populations of *B. japonica* tadpoles and their congeneric species to determine their survivability and development speed. I observed heat tolerance differences between *B. japonica*, *Buergeria choui* and *Buergeria buergeri*. *B. japonica* exhibited the highest tolerance among all species, and the Seranma hot spring population showed the highest survival rate and accelerated development speed. However, at temperatures higher than 35°C, they could not survive until the completion of metamorphosis, contrary to previous field observation. The behavioral experiment showed attenuation of high temperature preference of *B. japonica* tadpoles associated with developmental stages, suggesting that they can tolerate extreme temperatures for a limited time window during their development until metamorphosis.