

2019年度 教育学部 転科・転専修試験 問題用紙

受験番号					
氏名					

「 英語 」
生物学専修

生物学に関する以下の記述を読み、質問に答えなさい。

The life cycles of animals consist of life history stages such as breeding, migration, molt, and non-breeding expressed at appropriate times of year and with specific durations matched to seasonal change. Each stage has a unique suite of sub-stages in which animals exhibit morphological, physiological, and behavioral adaptations to changing environmental and social conditions. Some traits may be expressed across multiple life history stages. However, the neuroendocrine and peripheral endocrine regulation of those traits in one stage might be different in another stage. Examples include the regulation of territorial aggression across breeding and non-breeding seasons, the control of locomotor activity in seasonal migration and facultative movements to avoid perturbations of the environment.

There is growing evidence that the neuroendocrine and endocrine cascades involved in regulation of morphology, physiology, and behavior across different life history stages can be altered at many different levels. Localized regulatory mechanisms in one life history stage allow trait modulation without the effects associated with signals that act throughout the organism such as hormones secreted into the bloodstream acting on multiple tissues. Thus, conflict between the need for the expression of a particular trait that can be regulated by a particular hormone and the inappropriate co-regulation of other physiological or behavioral responses to that hormone at the wrong season can be avoided.

注：“the neuroendocrine and peripheral endocrine regulation”：神経内分泌と末梢内分泌による調節

問1 英文記述を和訳しなさい。

問2 最近の生物学分野におけるインパクトのある発見を日本語で簡潔に述べなさい。

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採点欄

問1

問2