Peripheral conversion of steroids in a viviparous skink, *Tiliqua nigrolutea*

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Peripheral (extragonadal) metabolism of the primary reproductive steroids, testosterone (T) and estradiol (E2), occurs in a variety of vertebrate body tissues. The primary steroids may be modified in two main ways: derivatisation to more biologically active forms, or conjugation to increase solubility. The molecular structures of these steroid metabolites vary between vertebrate classes. Such phyologenetic differences are of intrinsic evolutionary interest; furthermore some of these metabolites may function as semiochemicals, communicating location, reproductive condition and even synchronising mating behaviour in some species. However, such data is rare for reptiles. We have investigated and confirmed the occurrence of substantial peripheral steroid metabolism using *in vitro* incubations of tissues from the blue-tongued skink, *Tiliqua nigrolutea*. Additionally, we have demonstrated that the relative proportions of primary steroids undergoing each of these types of conversions vary with sex, reproductive condition and tissue type. This study has identified a group of steroid molecules that are potentially communicating information to conspecifics during the mating period.