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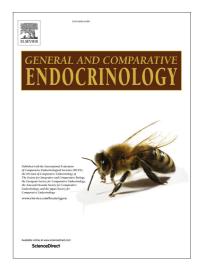
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ACCEPTED MANUSCRIPT

Sex and seasonal differences in mRNA expression of estrogen receptor α (ESR1) in red-sided garter snakes (*Thamnophis sirtalis*)

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Abstract

Estrogens are important regulators of reproductive physiology including sexual signal expression and vitellogenesis. For the regulation to occur, the hormone must bind and activate receptors in target tissues, and expression of the receptors can vary by sex and/or season. By simultaneously comparing circulating hormone levels with receptor expression, a more complete understanding of hormone action can be gained. Our study species, the red-sided garter snake (*Thamnophis sirtalis parietalis*), provides an excellent opportunity to study the interaction between sex steroid hormones and

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