

Aggression is a highly functional form of social behaviour, which can be observed in nearly all species of vertebrates including lizards. There are many forms of aggressive behaviour and there is very significant difference in the physiological basis among them. The main and best understood hormone affecting aggression, is testosterone, but there exists evidence that some aggressive behaviour can be influenced by other hormones as well for example by progesterone, estradiol and corticosterone. The effect of these hormones on the organism is traditionally divided into the activation and organizational effects. Organizational effects are permanent and occur usually in the earlier stages of development. Activation effects are temporary and occur during the entire life. Elevated testosterone levels usually stimulate aggressive behaviour in both males and females. Progesterone and estradiol affect aggressive behaviour similarly but less effectively. It is uncertain whether their effects are direct, or whether they are only a side-effect of testosterone, which is a precursor of estradiol and which has progesterone as own precursor. Corticosterone affects aggressive behaviour indirectly by influencing levels of testosterone. Hormonal influence on aggression in lizards is not the sole factor, but it depends on external factors, species, gender and individual morphotype too.