

**PEDICLE AND ANTLER DEVELOPMENT FOLLOWING SECTIONING OF THE  
SENSORY NERVES TO ANTLEROGENIC REGION OF RED DEER (*CERVUS  
ELAPHUS*)**

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Sensory nerves supplying the deer antlerogenic region were sectioned about 60 days prior to pedicle initiation to determine the extent of neural influence on pedicle and first antler growth. Our results from a combination of histological examination and immunohistochemical localization showed that two out of 12 antlerogenic regions were successfully deprived of sensory nerve supply, whereas the others were partially denervated. However, pedicle growth following total sensory nerve removal did not show any differences compared with partially sensory denervated or intact pedicles. Without or with reduced sensory nerve supply, deer first antlers could initiate, grow, clean velvet, cast and regenerate in the normal way, but they were smaller than controls. Consequently, we conclude that sensory nerve supply is not necessary for normal pedicle formation and for first antler cycle, but plays a role in determining antler size.