

[J Exp Zool.](#) 1985 Jun;234(3):359-66.

Regrowth of amputated velvet antlers with and without innervation.

[Suttie JM](#), [Fennessy PF](#).

Abstract

The influence of removing portions of the growing antler of yearling red deer stags on subsequent regeneration of the antler in the same season was studied. The influence of the innervation of the antler on such regeneration was the subject of a further study. When the top 0.5-1 cm was removed from antlers 9-17 cm long, growth was slightly reduced in that season. When the antler/pedicle length was reduced to 6-10 cm in antlers 16-38 cm long, branched antlers regrew in 11 out of 13 cases provided the amputation was carried out early in the growing season, i.e., before mid-December. Denervated antlers were shorter, lighter, and of different shape compared with controls, but they were of similar density. Denervation was confirmed histologically. Cleaning of velvet and casting of antlers following castration were unaffected by denervation. It would appear that although nerves affect the size and shape of the antler, they are not essential to the actual control of antler growth and regeneration.

PMID: 4056676 [PubMed - indexed for MEDLINE]