

Where Have All The Arctic Foxes Gone?

Recent range overlap, with **red fox** (*Vulpes vulpes*) expansion north, has allowed this larger, more dominant breed to outcompete **arctic foxes** (*Vulpes lagopus*) for resources and breeding dens.

GLOBAL WARMING

Global warming has increased average temperature and prey availability in the tundra, therefore red foxes can meet their metabolic demands in colder climates. (Hersteinsson & MacDonald 1992).



COMPETITION

Red foxes are stronger competitors in wild and penned situations, threatening the arctic fox population by excluding them from high-quality breeding dens, feedings areas, and decreasing chance of reproductive success in areas where their range overlaps (Dalén, Elmhagen, & Angerbjörn 2004; Korhonen, et al. 1997; Rudzinski, et al. 1982)



AVOIDANCE

Arctic foxes avoid red foxes by moving to colder climates during summer months and spend their breeding season in resource limited areas, which may be contributing to continued lower species numbers (Tannerfeldt, Elmhagen, & Angerbjörn 2002; Elmhagen, Tannerfeldt, & Angerbjörn 2002; Frafjord 2003).



AGGRESSION

Aggressive interactions show that arctic foxes will flee from red foxes, abandon their dens, and can even be killed by red foxes (Frafjord, Becker, & Angerbjörn 1989; Pamperin, Follmann, & Petersen 2006; Rodnikova et al. 2011).

Finnish legend tells of a magical fox that swept its tail across mountains as it ran across the snow, sparking lights that flew up to create Aurora Borealis. Painting by: Virginia Layton (2021)