Wild carnivores are often involved in conflicts with humans due to their predation on livestock. We investigated the herding efficiency of pastoralists in association with depredation on livestock in the Loliondo game-controlled area (LGCA), northern Tanzania, to identify specific herding practices that may reduce predation occurrence. Randomised faceto-face interviews were employed using semi-structured questionnaires. Our results indicate that all studied livestock herds were tended to by at least one herder. Despite the presence of herders, carnivores were found to attack livestock in half of the observed herds. Female herders experienced more attacks than male herders. African wild dogs and spotted hyenas most frequently attacked the livestock of the Sonjo tribe, whereas leopards and lions most frequently attacked livestock of the Maasai tribe. Herders carrying defensive equipment (knives and spears) reduced the number of successful carnivore attacks in the area. We recommend maintaining and improving the traditional livestock husbandry practices of using herders to reduce carnivore attacks. Moreover, increasing the number of adult male herders per herd and carrying gear might also help reduce such attacks. Using herders can potentially improve economic gains and livelihoods of local people and change their negative attitudes towards wild carnivores.