

“Territorial Fight wounds” in wild Eurasian Buzzards
(*Buteo buteo*): presentation and suggested treatment.

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Introduction:

The Eurasian buzzard (*Buteo buteo*) is probably Britain’s most common bird of prey and is particularly common in the south-west of the country. The British buzzard population was estimated at 12,000 - 17,000 pairs in 1983 and was considered to be stable or on the increase (Snow et al. 1998). A more recent (2001) estimate, however, put the population at 44,000 – 61,000 pairs (Clements; 2002). As such, it is frequently presented to wildlife rescue centres for rescue and rehabilitation. This paper describes a common presentation seen at the RSPCA West Hatch Wildlife Hospital, in Somerset, and proposes a treatment for the injuries seen.

Presentation:

Over the last three years (2000-2002) the author has seen 24 buzzards with territorial fight wounds to the head: In 2000 eight out of seventy-four (10.8%) buzzards, admitted to the West Hatch Wildlife Hospital, presented with the fairly typical head injuries described below. Similar numbers were seen in 2001 and 2002: seven out of eighty-three buzzards (8.4%) in 2001, nine out of seventy-six buzzards (11.8%) in 2002 (Jan – Sept).

The buzzards involved almost always present with feather loss and bruising over the dorsal aspect of the cranium. In addition to this there may be puncture wounds and lacerations to the scalp. Involvement of the supra-orbital ridge, periocular tissues and eyes are not unusual. Penetrating injuries may involve the sinuses, eyes and oral cavity. A detailed examination of the bird may also reveal puncture wounds to the legs, feet and lower body.

Temporal analysis of the incidence of these injuries (Figure 1) does not reveal an obvious pattern with presentation occurring throughout the year. Peaks of four birds in April 2000, and again in June 2002, do not necessarily point to an increased incidence at this time. An understanding of the biology and social behaviour of British buzzards is, however, helpful: see discussion.

Treatment of the head wounds:

Following the initial examination and triage of patients, supportive treatment is administered. A more detailed examination is performed under general anaesthesia once the patient has been stabilised. Broad-spectrum antibiotic treatment is instituted, using amoxicillin / clavulanic acid (Synulox; Pfizer animal care), and the wounds are explored and flushed out. Puncture wounds are packed with a hydrocolloid gel (Nugel; Johnson and Johnson). Larger wounds are dressed with a strip of hydrocolloid dressing (Duoderm Extra Thin; Convatec) that can be tacked securely in place. This particular wound product is recommended in human medicine for use in the treatment of low exudate wounds. It is therefore ideal for use over a bird's skull. The dressing is light, easy to manipulate and easily secured even over awkward anatomic sites such as the supra-orbital ridge. The dressing is low maintenance and durable, providing the wound with considerable protection and establishing a moist environment for wound healing. Dressing changes are required every 4 – 7 days. The rapid establishment of granulation tissue is ensured and epithelialisation soon follows.

Discussion:

Simpson (1993) reported an incidence of talon wounds of 11.6% in the sixty post-mortems he performed on Cornish buzzards between 1981 and 1992. This compares well with the annual incidence of head wounds reported here: 8.4 – 11.8%. A single male buzzard (1 out of 34 (2.9%)) was found with talon wounds in a post mortem study of Dorset buzzards (Simpson et al; 1997). In neither paper was mention made of head wounds: talon wounds were restricted to the lower body, especially the feet and legs. A post-mortem study of Scottish buzzards (Redrobe 1997) also reported no head wounds. It is possible that there are two distinct conditions here. The absence of talon wounds to the lower body of many of the buzzards seen with head wounds, as part of this study, begs the question are these injuries due to conspecific or interspecific fighting and how are they obtained? The severity of many of the wounds would require a sustained attack at close quarters. Conspecific fighting is well documented, both in the air and on the ground (where it is usually over food) (Snow et al. 1998). Of the other species that might attack a buzzard, the most formidable is probably the peregrine (*Falco peregrinus*) (Tubbs 1974). Carrion crows (*Corvus corone*) are often observed mobbing buzzards in flight. They do no more than this, however, and it is unlikely that a healthy buzzard would allow a crow, or group of crows, to mount a sustained attack. It is, however, possible that a sick or injured buzzard might be more susceptible to attack though there appears to be no evidence to support this. Indeed, such a bird would probably be killed and eaten by crows and would probably not make it to a wildlife hospital.

The literature on buzzard social behaviour is incomplete and does not fully reflect the complexities of the subject (R. Prytherch personal communication). Simpson (1993) questions whether physical contact between buzzards is as rare as it is said to be. In the last ten years the buzzard population has grown enormously and it is now highly probable that territorial disputes have become commonplace. Simpson (1993) suggests that fight wounds are seen during the "period of likely food shortage and that of courtship". This is because the talon wounds reported were distributed

between the months of December and May. In this study there is no obvious pattern to the incidence of head wounds. Instead a year round incidence is seen and it is suggested that this is because young dispersing birds are involved and these birds can come into contact with territorial buzzards throughout the year (R. Prytherch personal communication). Buzzard territories are held throughout the year and have distinct vertical and horizontal dimensions (Tubbs 1974). Young buzzards leave their parents at some point between the autumn of the year in which they are born and the following spring. The parents remain in their territory (to breed again) whilst the young birds undergo a process of dispersal. Over a period of two to three years these birds move around until they too find, and establish, a territory of their own or join the non-breeding population (Kenward et al. 2000). This movement brings them into contact with established, territorial, buzzards who will often fly up to see off the intruder (Prytherch 1997). Some of the resulting interactions can be quite ferocious: the birds strike out with their talons and may even lock talons and fall to the ground where the fighting may continue. The injuries produced when talons are locked can be quite severe. The buzzard population in north Somerset is particularly healthy with population densities greater than those seen in other areas of Britain such as Devon, Wales and Scotland (Prytherch 1997). This may well directly influence the type, incidence and severity of territorial disputes within the local buzzard population.

Conclusions:

Severe head injuries are commonly seen in free-living buzzards in the south west of England. It is suggested that many of these head injuries are the result of conspecific disputes involving young dispersing buzzards, and that recent increases in the Somerset buzzard population has resulted in an increased incidence in territorial disputes. A wound management regime using a thin hydrocolloid dressing is described.

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