

AUTHENTICITY OF A REPORT OF A RED FOX FOUND RECENTLY KILLED ON GLEN ESK RD, 1ST AUGUST 2006.

[Obendorf comments in RED - 15 September 2006]

This note summarises the reporting of a fox carcass to the Fox Free Taskforce by several members of the public and subsequent examination of the fox, the site and circumstances. The summary includes evidence about the recovery and examinations of the carcass and site, investigations of the subsequent claim by a further witness that he ran the fox over in a vehicle and a later anonymous report that the death occurred earlier and nearby and a rumour that the apparent road-kill was a hoax.

1. Reported finding and subsequent recovery of the fox

At about **1010 [1015] hrs** on 1st August 2006 the Taskforce was phoned by a man who identified himself [Jason Powe] and claimed to have just found a freshly killed fox on the side of Glen Esk Rd just east of its junction with the Midlands Highway. The informant advised that he'd wait with the fox for the Taskforce **to arrive at the site**. Two Taskforce staff [Mark MacKay & Nick Mooney] en route to Launceston from Hobart diverted to the site arriving at **1035 hrs**.



Figure: Site where fox was picked up

What seemed a full-sized Red Fox *Vulpes vulpes* (to be referred to as the "Cleveland Fox") was in the back of a 4WD ute. The fox partly lay on clean irrigation hose and there was no body fluid in the relatively clean tray.



Fox on the wooden floor of a flat tray ute belonging to Jason Powe

The ute was about 400m along Glen Esk Rd from the Midlands Highway (Cleveland 1:25,000 map 5237 grid ref **535150E 5370270N**). Two witnesses [Jason Powe & Michael Beams] were present, one claiming the fox was "warm and floppy" when he handled it "about an hour before" [approx 9.30 am]. The day was slightly overcast and very cold (estimated at 1-3°C from comparing recordings at the nearby Cressy meteorological station to ambient on site - see below). It had not rained the previous night nor that morning.

Cressy Weather Station - Ambient Temperatures on morning of 1 August 2006

Lowest over night recorded at 7.30 am 4.4°C
8.00 am 5.1°C
8.30 am 7.3°C
9.00 am 8.3°C
9.30 am 8.7°C
10.00 am 9.6°C

Immediate discussion revealed the following apparent sequence of events:

At about **0930 hrs** Witness **1** [Josh Eeson, the driver of another superspreader] reported a dead fox on the roadside by mobile phone to Witness **2** [Michael Beams] following at some distance in a truck [fertiliser superspreader] who immediately picked the fox up reportedly to prevent further vehicle damage to it, placing it on a tool box. There was a discussion [?by UHF radio] about whether to report it because of the likelihood of public ridicule, one witness even making the comment that "he didn't want to become another Bosworth" (referring to the

intense public ridicule a Mr Bosworth and his companion suffered after publicly claiming to have shot a fox in 2001) but eventually they decided to. The fox was transferred to an accompanying ute [driver: Jason Powe], a mobile phone photo of the fox being held by up the tail being taken about then [10.12 am] (published in the Mercury newspaper 3rd August 2006). All of these witnesses [3] were agricultural contractors going to work, hence their proximity and exchanges [by UHF and roadside conversations]. A brief drive gave better [mobile] phone reception and the report was made to the Taskforce (via a switchboard) **at 10.15 pm**. The ute driver [Jason Powe] then returned with a colleague [Michael Beams] to the site of finding and they waited for the Taskforce, the other drivers [plural - Josh Eeson & Aaron] continuing to work.

The two witnesses waiting for the Taskforce (Witnesses 3 and 4) [Jason Powe & Aaron] were not present when Witness 2 [Michael Beams] actually picked up the fox so were not sure of the precise place but Witness 2 [MB] returned to the site where the others were waiting on request and showed the location [where the fox was recovered] to the Taskforce.

A person (Witness 5) passing the site at about **0830** reportedly saw no fox there (this suggests but does not mean the fox was not there).

TO BE TESTED:

THE EVENT - AS RE-CREATED

According to the records of this evident it appears that a 'convoy' of three vehicles belonging to the same firm [Beams Bros Pty Ltd Flower Gully] were moving down Glen Esk road on the morning of 1 August 2006. The first vehicle (a superspreader) to pass by was driven by Josh Eeson - I understand that he is the individual who identified himself the following day by phone to the FFTF as the driver who allegedly 'ran over the fox' on the Glen Esk road before 9.30 am on 1 August.

Soon afterwards, Michael Beams - who now in conservation by UHF with a third vehicle driver, Jason Powe in a 4WD twin-cab flat tray ute - drives past the fox (**at or about 1000 hrs**), reserved his truck, picks up the fox carcass and places it on the 'toolbox' of the truck. Michael then drives further down the road, stops and waits for Jason Powe and Aaron to arrive in the ute. The fox carcass is transferred to the back of the 4WD utility - Jason Powe (or Aaron) take a mobile phone image of the fox and his vehicles number plate at **1012 hrs**. Jason Powe then calls the FFTF hotline at about **1015 hrs**. The call is transferred to Nick Mooney and Mark Mackay who are travelling by DPIW vehicle through Epping Forest at the time of the call.

Mooney & Mackay arrive at Glen Esk road at **1035 hrs** and find the stationary 4WD utility of Jason Powe [with Aaron]. They are parked on the western side of the road next to a 'linear stain on the bitumen and they suggested that it was blood'.

Initially when FFTF personnel (Mark MacKay & Nick Mooney) arrive at Glen Esk road, MacKay talks with Jason Powe and Aaron in the 4WD utility. Jason tells Mackay that the fox was 'picked up' off the road at '**just after 0930 hrs**'. The fox carcass was then transferred from Michael Beams' spreader truck to the tray of Jason Powe's utility.

During this interview Josh Eeson 'arrives on site in his spreader'. Eeson tells Mackay at '**before 1000**' hrs he was driving his spreader northwards along Glen

Esk road when he 'saw a dog-like carcass on the edge of the bitumen'. According to Mackay's notes, Eeson said he made a mobile phone call to his boss, Michael Beams - who is following in another superspreader - about the animal he has just seen on the Glen Esk road.

Mackay asks JE to show him where 'he had seen the carcass'. JE pointed to a location 'a hundred metres or so' south of where Jason and Aaron had indicated. Josh Eeson and Makay walk to the location

At about this time, according to Mackay's notes, Michael Beams then arrives 'on site in his spreader. Michael Beams confirms that he had received a mobile phone call from Josh Eeson regarding a dog-like carcass on the Glen Esk road. Beams states that he picked up the fox carcass **at approximately 1000hrs** and placed it on his truck's toolbox before driving further down the road. He maintains that he removed it from the site 'to prevent it from being hit by other vehicles'. Further down the road he stops and awaits the arrival of Jason Powe's utility. The fox is then photographed by mobile phone and the decision is made to call the FFFT hotline.

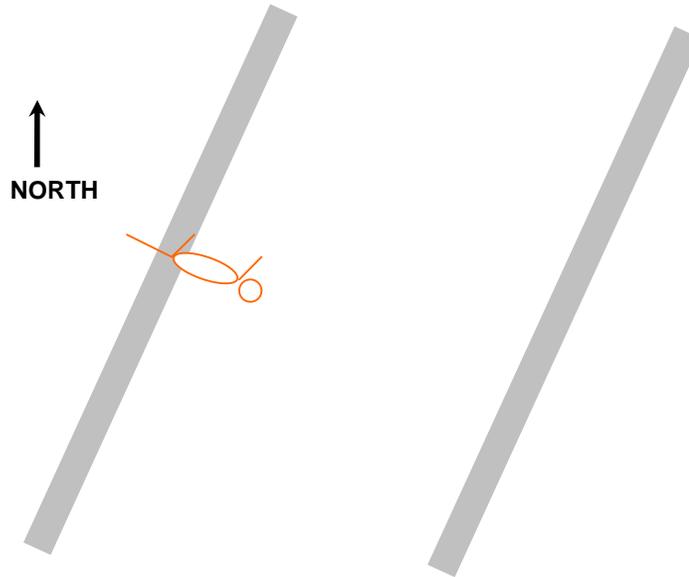
Mackay asks Michael Beams to show Mackay where '*he had first picked up the fox*'. Michael takes Mackay to '*a location along the road several hundred metres further south than that identified by ?Josh*'.

Some time **after 1100 hrs** Chris Parker and Craig Bester arrived at the scene as did Garr Davies (Manager, WMB).

According to Mackay's report - 'XXXX (?Josh) identified a location on the edge of the bitumen on the west side of the road where he said the fox had been lying and where there was a stain on the edge of bitumen that could have been blood'.

'A sample of this stain was later removed by Chris Parker from subsequent laboratory analysis. Michael Beams confirms to Mackay the 'tractor-like' tyre marks he reversed his superspreader before picking up the fox. Mackay also notices 'car-sized tyre tracks adjacent to the tractor-like tyre tracks.

Mackay asks Michael Beams 'how the fox had been orientated before he picked it up'. Beams states that it had been lying on its RHS, half-on and half off the bitumen road surface with its head towards the centre of the road, legs facing to the north, i.e. legs parallel to the road alignment and the tail straight out away from the road.



Schematic figure of the Glen Esk Road alignment relative to the fox carcass.

2. Claim of running the fox over

At 1030 hrs on 2nd August a man reported to the Taskforce that it was he who hit the fox on the morning of the 1st August. He identified himself to the Taskforce but asked not to be publicly named because he feared ridicule. He was met and reported driving along the road sometime **between about 0930 hrs**, feeling a bump under a tyre and on checking saw what appeared to be a dead fox orientated as though it was travelling north to south (his left to right). He reported an impression that he "saw something to his left" before the collision but could not be absolutely sure. He assumed he himself had road-killed the fox. Since the collision the vehicle concerned was used extensively and he said it bore no evidence of the collision, a heavy-duty tyre being the only point of contact.

The identity of this male individual has not been made public although according to the DPIW press release of 3 August 'his activity is known to have put him in the area at the time'.

It is important to determine whether this person is in fact **Josh Eeson**. Based on the description given above the driver was in the location at the same time as Mr Eeson stated that he first passed the fox carcass.

Mr Gary Davies in his press release of 4 August states: '*He was driving east on the Glen Esk Road [i.e. toward the south Esk River]. The fox emerged from the left hand side of the road, ran across the path of the vehicle and was struck by a tyre.*'

'He stopped to find out what he had hit and saw that it was a fox. He then continued on his way'

3. Immediate examination of the fox

The carcass body appeared very slightly warm. Taskforce staff first arriving and undertaking this examination were delivering a car stripped of field equipment so had to improvise at this stage. A deep, narrow stab wound with a knife was made to the chest and a finger inserted which showed that the body core was slightly

warm. The male fox looked and felt in good physical condition and appeared to be a young adult (although the fox had neat, sharp teeth and was not overly large it had well-developed testes). There was no sign of rigor mortis in jaw nor limbs.

The fox had firm, clear and moist eyes, fresh blood and saliva in and around the mouth, pale gums, intact teeth (except for one molar missing and healed) and a small cut in the back of the mouth matching teeth in the closed jaw. A large patch of skin about 35 cm long by 10-15 cm wide was hanging off but still attached to its side (Photos 2 and 3), small speckled bruising and pin-prick bleeding suggesting the skin was torn off. The wide, ragged tear extended along the groin exposing the penis shaft and continued into a hind leg. This resulted in torn and bruised muscle being exposed. The belly was badly bruised but not ruptured although the scrotum was and one testicle appeared squashed [not so in the image]. Exposed flesh appeared very fresh (firm, shiny and moist). There was no blood on the muzzle or elsewhere externally other than a small amount immediately adjacent to the leg muscle gash.

Mooney File Note dated 2 August states: The testes were bare but full, rounded, tight, shiney and firm to touch.

COMMENT: In my experience as a pathologist it is would be very unusual for the testicles of an animal that had allegedly been hit by a motor vehicle to be removed from the scrotal sac and yet show no obvious sign of bruising, haemorrhage, deformation or rupture. In my strongly held view this feature and the loosely reflected abdominal skin of the left flank of the fox (see below) suggest that someone has attempted to skin this fox some time after it had died.



Figure of Cleveland fox carcass with torn left flank skin though to left hindleg; note testicles free of the scrotum (neither appears deformed or contused).

There was a very small amount of fine soil/dust [? congealed blood] caked about the outside gums (Photo 4) which otherwise were clean. This soil could have been part of the course of foraging for soil invertebrates or it could have been because of snapping during death throes which might explain the cut lip. The former is more likely because the teeth and adjoining gum were clean of this material (probably because of normal tongue action).

There was no smell of putrefaction (outside or in the mouth) just a slight, pungent smell typical of 'fox'. The pelt was dry and clean except for some entangled gravel. Limbs did not appear broken and the skull seemed intact. The tail had unusual hair growth from a scared area distal of mid distance.

Mr Mooney's file contains the statement: 'Possible hemp or sisal [in vacuuming from the pelt] and confirmation of these is being sought'.

At **1055 hrs** during discussions while Witness 3 [Jason Powe] said he had a soil thermometer probe (used to assess planting potential) and this was immediately used to take chest (12.4°C), rectal (11.9°C) and ambient (7.9°C and rapidly rising) temperatures. This thermometer was later calibrated against others and it proved accurate.

Jason Powe tells The Mercury reporter, Nick Clark that the thermometer registered 21°C.

By this time other taskforce staff had arrived and photo of the carcass was then taken (Photo1). The carcass was sealed in a new plastic bag and taken to the Launceston Veterinary Clinic, care being taking to keep it cool (the carcass had always been in the shade).

4. Site examination

There appeared to be fresh blood on the road-edge bitumen from exactly where the fox had reportedly been picked up [see figures below] and this was retrieved by Taskforce staff for DNA testing. This blood proved to be of fox [email from Steve Sarre]. There were small patches of sand scattered along the roadside but no footprints that could be identified as fox, indeed few of any animals despite the many, well used runways criss-crossing the road. These runways passed through the fences adjacent to the site but there was no fur (at all) on the fence wires. A later search of the immediate area retrieved 9 carnivore scats but to date the DNA species tests have not been completed.





Figures showing road verge on Glen Esk Road - note red blood streak.

COMMENT: In my opinion I cannot reconcile the nature of the injuries observed and noted with observations made at the alleged site of the fox's fatal impact with a motor vehicle.

The 'linear' streak of fox blood left on the bitumen verge as the sole evidence of contact between this fox and the asphalt is inexplicable, particularly in light of the alleged collision and squeezing of the fox under a 'heavy-duty tyre'.

It is my strongly held view that this fox did not sustain its suddenly fatal injuries at this site.

5. Initial veterinary examination of the fox

Dr Kim Barrett took four X-rays of the fox at 1200-1220 hrs briefly looking at the fox's eyes and mouth, commenting on how recently killed it appeared and how the mouth was stiffening [difficult to open]. She briefly commented on the X-rays noting the third last lumbar vertebrae was fractured (in later examination she pointed out the left and right ischium (pelvis segments) were also fractured).

The carcass was re-bagged (in the original bag) and taken to the nearby DPIW Animal Health Laboratories at Mt Pleasant being submitted at about 1240 hrs as specimen **06/2128** to veterinary pathologist, Dr Richmond Loh for formal post-mortem examination.

6. Formal post mortem examination of the fox

The findings on cause of death are best summarised as " Based on the distribution and type of injuries sustained by the fox, it suggests a crushing type injury". Death appeared to be very quick but bruising suggests not instantaneous.

Expert opinion is that death would have been probably been in a few minutes and the animal may have been in extreme shock. There was no putrefaction and no evidence of freezing. The mouth became very difficult to open (an early sign of rigor mortis) and rigor mortis proper commenced as the formal post mortem examination progressed. The abdominal cavity was effectively crushed and 'jellied' but not ruptured creating a huge sinus with much clotted blood free in the abdominal and to a lesser extent thoracic cavities. The abdominal muscles were markedly bruised.

Beyond pathology samples, the following were retrieved and sent for expert comment.

- Gravel combed from the soil and soil/dust scraped from the gums
- Pollen and detritus vacuumed from the fur (a new vacuum cleaner was used)
- A canine tooth for ageing
- Gut content from stomach to rectum (the rectum was examined and hair from there included and there was no material between stomach and mouth).

The eyes had begun to soften and dry by the time of this examination (at 1330 hrs).

7. Estimates of time of death of the fox

- Formal post mortem examination

The post mortem report gives many caveats on estimating time of death on the basis of body temperature and onset of rigour mortis but it is suggested as 5-10hrs before commencement of the examination – ie, **between 0330 and 0830 hrs on 1st August 2006.**

- Comparative data specifically collected

To allow other estimates of time of death for the Cleveland Fox (5.1kg), in the following weeks several large (3.5 kg) brown hares *Lepus lepus* and a large feral cat *Felis catus* (5.2 kg) were shot in Tasmania and two red foxes (6.5 and 7 kg) shot in Victoria at a time and place attempting to simulate ambient temperatures at Cleveland on the 1st August. Hare and cat were chosen because they approximate foxes in size, build (shape and mass/surface area) and fur length/density. Eye firmness, onset of rigour mortis and body temperature were progressively taken. The main problems were trying to approximate the particular injuries of the Cleveland Fox knowing nothing of the fox's activities before death (muscle use effects onset of rigour mortis) and in getting sufficiently low ambient temperatures; these aspects were only partially achieved.

- Temperatures *tentatively* suggest death before 1st measurement as about 6-7 hours (hares), 6-9 hours (cat and fox) – ie, about 0300-0600 hrs on 1st August. All ambient temperatures were higher than prevailed at Cleveland so the above estimates might be too long.
- Onset of rigour mortis (all species) suggest death at 2-6 hours before first onset (at about 1230 hrs) - ie, about 0630-1030 hrs.
- Softening and drying of eyes (foxes and cat) suggest death at 3-4 hours before onset (at about 1230 hrs) - ie, about 0830-0930 hrs.

- Expert veterinary opinion

Three clinical vets independent of the Taskforce and very experienced in 'small animal practises' were asked about estimates of time of death given the facts (size of animal, injuries, onset of rigour mortis and body temperature cf ambient and eye firmness). All stated that death could have been from 1-12 hours before 1st measurements– ie between 2200 hrs on 31st July and 1000 hrs on 1st August. with an accent on earlier rather than later. All gave the opinion that temperature falls can be both rapid and drastic in such small animals suffering extreme trauma.

COMMENT: It is my considered opinion that this animal sustained its fatal injuries to its lumbar spine and abdomen on the night prior to its recovery from the road at Glen Esk.

The injuries to the fox in the form of blood loss, fracture/subluxation of a lumbar vertebra and the acute musculoskeletal trauma are consistent with squashing pressure.

It is my view that the observed features in this fox carcass are more consistent with a cadaver that is 'coming out' of *rigor mortis*. This would explain the presence of post mortem invasion of bacteria in the tissues (particularly note in the diaphragm musculature) and the noted presence of protein leakage in the kidney may be suggestive of early autolytic changes.

It would be beneficial to have the histological slides (Path No. 06/2128) reviewed.

8. Testing gravel entangled in fur of the fox

Tests showed the gravel and other soil particles to be consistent with (although not unique to) the northern midlands including Cleveland.

9. Testing pollen recovered from the fur of the fox

The mix of at least 28 pollen species were typical of (although not unique to) the northern midlands in general and the Cleveland area in particular. Field assessment showed the mix is a very good match to local species. One species of pollen may be from a Tasmanian endemic tree (further identification is being sought). Radiata pine pollen was very common. To summarise; "The pollen assemblage indicates that the animal spent time in a riparian as well as a lacustrine environment and also travelled through a modified landscape that includes tree plantations and common cosmopolitan weeds." It is not known what period of time the pollen collection represents so it is not possible to comment on the foxes whereabouts in the time leading up to its death.

There were a few fibres that were identified as possibly hemp or sisal and the confirmation of these is being sought. There was a hessian bag containing a tow rope in the ute tray with the fox so a degree of contamination may have occurred. Several seed husks recovered from the fur appear to be consistent with seed husks loose in the ute tray.

10. Ageing the fox

From canine tooth examination, the fox was 6-15 months old, most likely 9-14 months old – a young adult. Most male foxes of that age are capable of breeding.

11. Gut content of the fox

The only dietary item was rabbit *Oryctolagus cuniculus* – widespread in southern Australia and common in the northern midlands of Tasmania.

12. An anonymous report and the possibility of a hoax.

- A suggestions the carcass was relocated before being reported

On 8th August at about 1300 hrs an anonymous male (phoning from a private line – not traceable) claiming to be from Campbelltown briefly reported that the fox was indeed road-killed but earlier than reported and "a few" km north of the Glen Esk Rd intersection on the Midlands Highway towards Epping Forest. The informant claimed the fox was moved by a farmer with land adjacent to the road-kill site because he did not want the inevitable attention from the Taskforce.

- **Rumour of hoaxing**

A rumour circulated briefly that the fox was imported live, held in a bag and run over to simulate a road-kill. There was no hessian or plastic fibre in the fur or mouth nor on the claws (a live fox in a bag would normally struggle, scratch and bite) and the rumour was traced back to speculation by a well known sceptic (of foxes in Tasmania); 'Chinese whispers' did the rest.

- **Possibilities of hoaxing**

A review of motivations and potential revealed no evidence. To bring over a very freshly road-killed fox would require 'mischievous opportunism' (eg finding a fresh dead road-kill on the way to the airport and packaging it for transport); the availability of fresh road-kills simply cannot be predicted. Bringing in a live fox then simulating a road-kill would require much pre-meditation and a sophisticated, ruthless and risky (from the law) plan. Both cases would have to assume no non-Tasmanian food in the fox's gut.

In any case, no commercial flights arrived in Launceston until 0930 hrs on 1st August (by about which time the fox was found and photographed) and the timing of the incident precludes that or other commercial flights or ferry arrivals being involved in an opportunistic hoax. There is no evidence for the speculation a fox was imported then killed for the purpose.

CONCLUSION

It seems obvious that a wild fox was road-killed in the northern midlands early on the 1st August 2006. Most aspects of post mortem examination are consistent with this occurring on Glen Esk Rd as reported; there was blood on the road, a person identifying themselves to the Taskforce claimed to have run over it and another thought the fox was not there a little earlier.

The only reasonable alternative conclusion, suggested anonymously and supported by some aspects of the carcass cooling, is that the fox was road-killed earlier on the same morning [or the night before] at a nearby location and relocated. If that was the case, the person claiming to the Taskforce to have run over the fox (and who assumed he had killed it) indeed did so but it was already dead on the roadside.

Although perhaps unfortunate, the wish of a witness to be publicly anonymous (something the Taskforce respects) is certainly understandable given public ridicule of people making such claims over the past five years by some sceptics.

Nick Mooney
Wildlife Management Branch
1/9/06

In Mr Mooney's File Note date 2 August 2006 is the concluding comment: 'The evidence to me seems consistent with death by road-kill with perhaps a tyre crossing the abdominal region, rolling and skidding the fox.'

CONCLUSION:

In my review of the presented documents and images, the minimal physical signs at the incident site [the Glen Esk road] site leads me to the firm conviction that this animal met its fatal injuries at another place altogether. I also consider that this fox died at an earlier time (i.e. during the previous night) than has been conjectured.

I would concur with Mr Mooney's second last paragraph of his conclusion:

"The **only reasonable alternative conclusion**, suggested anonymously and supported by some aspects of the carcass cooling, is that the fox was road-killed earlier on the same morning [*or the night before*] at a nearby location and relocated. If that was the case, the person claiming to the Taskforce to have run over the fox (and who assumed he had killed it) indeed did so but it was already dead on the roadside.'

By accepting this alternative explanation it brings into question the credibility of statements made by key witnesses.

It is, however, noteworthy that (1) discussions conducted by witnesses over the UHF CB radio frequency after the fox was discovered on Glen Esk road were heard by third parties, and (2) Mr Michael Beams has made comment on ABC radio on the afternoon of 1 August at approximately 1707hrs about the incident and the circumstances by which he believed the fox died.

The alternative scenario that would be consistent with the physical evidence as presented is that:

- (1) the fox died or was killed at another location in the recent past (approx. 12 hours previously);
- (2) the fox sustained its fatal injuries at another site;
- (3) the fox was moved to the site of its discovery;
- (4) the fox was physically tampered with; and
- (5) the fox was not run over at the Glen Esk road site indicated to the FFTF.