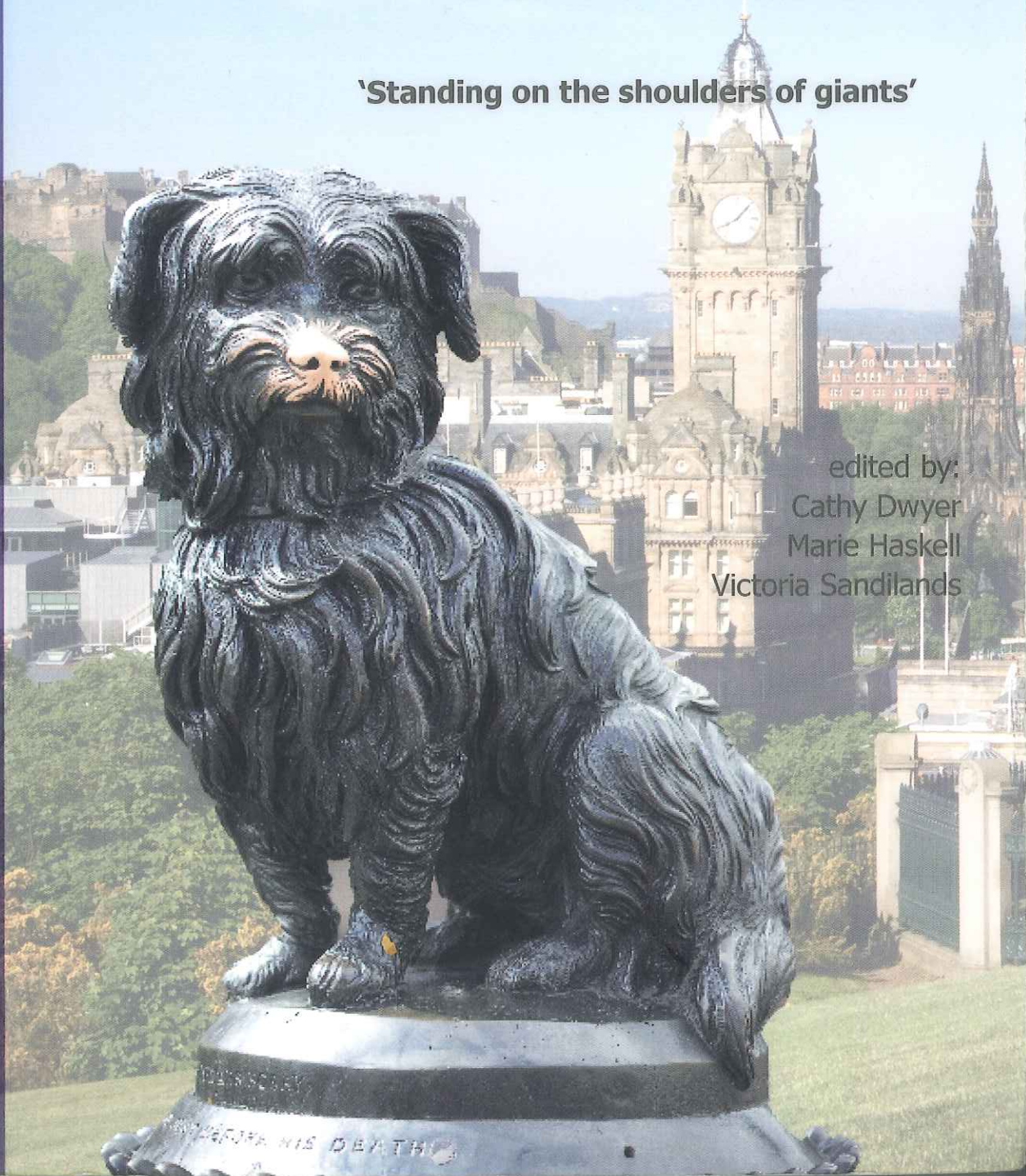


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'Standing on the shoulders of giants'

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Predation of free range laying hens*Monique Bestman and Judith Ouwejan**Louis Bolk Institute, Hoofdstraat 24, 3972 LA Driebergen, the Netherlands; m.bestman@louisbolck.nl*

In NL 5.9 million of free range (FR) laying hens are being kept. Farmers see raptors killing chickens, find killed chickens and counting at the slaughterhouse show that up to hundreds of hens are 'missing' compared to the mortality records. Our purpose was to investigate the killing of chickens by raptors in qualitative and quantitative terms. On 11 farms (mean 11,900 hens) 79 observations \times 1.5 hours were done (2-10 times/farm depending on slaughter date and presence of raptors) and 41 times the observer searched for killed chickens prior to the observation (1-5 times/farm). On 1 of the farms cameras were installed on a 'killing hot spot'. Presence of raptors was noted and interactions between raptors and chickens (incl. chicken and location info) and the result (chicken dead, escaped or euthanized) was described in qualitative terms. Chickens found dead were categorized as killed by raptor, mammal or other/unknown cause. Information about weather, farms, flocks (roosters, age, use of FR) and farm mortality records was collected. SAS (mixed model) was used to check for significance of mentioned characteristics related to the findings concerning the raptors and chickens. In July – November 141 raptors were seen: 109 buzzards, 5 hawks, 27 other. Number of attacks seen 'live' or on recordings was 16: 6 by buzzard and 10 by hawk. Number of dead chickens found was 44: 32 by raptor, 4 by fox and 8 by other cause. None of the flock, weather or farm factors was significantly related to the presence of raptors, number of chickens found dead in the FR or number of chickens caught during observations. Chickens attacked during observations were all healthy chickens that fought back or tried to escape. Bystander chickens fled or attacked the raptor. Chickens were not afraid of raptors sitting in trees, on poles or eating from prey. They scavenged on the remains after the raptor left. Within 1-3 days a killed chicken was reduced to a clean skeleton and the camera recordings learned that killed chickens were not always found back. The farmers reported 2-52 chickens killed by foxes, 70-160 chickens killed by raptors and 73-487 'missings' per flock. Raptors were causing more killings than foxes. Observed killings and number of chickens found dead in the FR were an underestimation of the actual killing. The presence of trees and bushes was not effective as shelter; raptors used them for their attacks and attacked chickens from the ground as well. Roosters did attack raptors, but were not always present on the right moment & place. A survey among all FR poultry farmers will be done to investigate the scale of the killings, economic damage and possible preventive measures. Although attacking chickens is a welfare issue for the victims, the presence as such of raptors did not seem to affect chicken behaviour.