

Successful cohabitation of a Black Grouse lek with a model airplane club in Clyde

Black Grouse *Tetrao tetrix* is a highly attractive and charismatic species that is undergoing serious population declines in Scotland and the UK (Gregory *et al.* 2002, Forrester *et al.* 2007). The population decline is particularly severe in southern Scotland where reductions of 49% and 69% in south-west and south-east areas, respectively, have been recorded between 1995–6 and 2005 (Sim *et al.* 2008).

Black Grouse is unusual in that as part of its breeding biology it forms groups at so called lek sites, usually flat open areas, where males congregate to compete for prime locations, which in turn allows them to mate with visiting females. These lek sites are an essential element of Black Grouse breeding biology, with their protection an important part in conservation of the species.

Black Grouse can be sensitive to disturbance by human activities. Studies in Europe have shown that the species range and abundance can be affected by disturbance caused by human recreation that coincides with their distribution (Patthey *et al.* 2008, Braunisch *et al.* 2011). Though studies in Northern England have found weaker links between human disturbance and decreases in numbers, precautionary strategies aimed at mitigating any

potential effects have been proposed (Baines & Richardson 2007, Warren *et al.* 2009).

Black Grouse use a lek site at Stockie Muir, c. 200 m west of the A809 road, c. 8 km north of Milngavie, Clyde (NS506817; Plate 251). The lek site is in a region of upland moorland that appears to have an ideal mixture of key habitats for the species, with a mosaic of open heather moorland, wet grassland, dwarf shrub moorland, open woodland and introduced woodland. This habitat extends from the Kilpatrick Hills to the south and west across to Dumbarton Muir and Stockie Muir in the north, an area of around 60–70 km². However, only small, declining numbers of Black Grouse have been observed elsewhere in the area, with the largest lek by far at Stockie Muir (*Clyde Bird Reports*). Males have been observed at this site since at least 1985, originally in smaller numbers, though slowly rising to 9 in April 2005, and with a significant increase to a peak count of 21 in January 2006. Subsequently, a slight decline occurred, with 16 males in March 2012. This remains the most important lek site in the recording area and south-western Scotland, where up to 3–4 birds are more typically seen. Against a backdrop of decline of the species in the immediate area and the region as a whole, the large numbers of birds at this lek is striking.



Plate 251. The Stockie Muir Black Grouse lek site, Clyde, photographed from the car park on the A809 on 8 January 2012 at 3 pm. © Chris McInerny



Plate 252. *The Stockie Muir Black Grouse lek site, Clyde, photographed from the car park on the A809 on 8 January 2012 at 3 pm. © Chris McInerney*

This lek site is extraordinary, and perhaps unique, in the UK, in that it is used and managed by a model airplane club to fly their planes. The Glasgow Barnstormers Model Aero Club (<http://glasgowbarnstormers.co.uk/>) created a small airfield at the site approximately 100 m by 50 m, which is naturally elevated around the surrounding muir (Plate 251). The airfield has short cut grass, which the club created and maintains, and is surrounded by heather moorland, dwarf shrubs and open woodland. This habitat, along with the prospect of the site, makes it ideal for lekking Black Grouse. The Barnstormers use the airfield to fly model airplanes on an irregular basis, mostly through the summer months on windless days. During this period the club might use the site a few times per week, usually through the middle of the day, and particularly at weekends. This irregular use has allowed the site to be cohabited by Black Grouse. Birds are typically seen at dawn, but also at other times of the day when the Barnstormers are not present. Males have been observed lekking at all times of the day, and throughout the year, as has been noticed elsewhere in Scotland (Baines 1996). In the context of studies showing negative impacts on Black Grouse populations by human recreational activities (Patthey *et al.* 2008, Braunschweig *et al.* 2011), it is striking that this lek has successfully cohabited, and indeed increased, with the air club development. It appears that the management of the site for this use by humans

has, coincidentally, been advantageous for the birds and not inhibited the lekking activity.

The regular presence of the grouse and the location, next to a public road with an adjacent car parking space, makes this one of the best sites in Scotland for observing the species. As long as observers use their car as a hide, and act responsibly remaining next to the road, birds can be watched with no disturbance. This practice has occurred so far (apart from a few irresponsible photographers setting up hides on the lek site), with birds using the lek in large numbers.

Sadly, man-made changes are occurring near the site, which may negatively impact the lek. Adjacent land on the muir has changed ownership with, in 2012, trees being planted. Furthermore, fences have been placed around the lek that do not have colour markers to prevent bird collisions. Fences are a major cause of mortality of Black Grouse, with the consequent recommendation that they are not situated near to lek sites (Baines & Summers 1997, MacLennan & Summers 2007). The Clyde Branch of the SOC has approached interested bodies, including the RSPB, to ensure that this site is not degraded for Black Grouse. But only time will tell. It would be a deep tragedy to lose this lek at a location close to where many new (and old) observers could come to see and appreciate this wonderful, iconic species in Scotland.

References

- Baines D. 1996. Seasonal variation in lek attendance and lekking behaviour by male Black Grouse *Tetrao tetrix*. *Ibis* 138: 177–180.
- Baines, D. & Summers, R.W. 1997. Assessment of bird collisions with deer fences in Scottish forests. *Journal of Applied Ecology* 34: 941–948.
- Baines, D. & Richardson, M. 2007. An experimental assessment of the potential effects of human disturbance on Black Grouse *Tetrao tetrix* in the North Pennines, England. *Ibis* 149: 56–64.
- Braunisch, V., Patthey, P. & Arlettaz, R. 2011. Spatially explicit modeling of conflict zones between wildlife and snow sports: prioritizing areas for winter refuges. *Ecological Applications* 21: 955–967.
- Forrester, R.W., Andrews, I.J., McInerny, C.J., Murray, R.D., McGowan, R.Y., Zonfrillo, B., Betts, M.W., Jardine, D.C. & Grundy, D.S. (eds) 2007. *The Birds of Scotland*. The Scottish Ornithologists' Club, Aberlady.
- Gregory, R.D., Wilkinson, N.I., Noble, D.G., Robinson, J.A., Brown, A.F., Hughes, J., Procter, D.A., Gibbons, D.W. & Galbraith, C.A. 2002. The population status of birds in the United Kingdom, Channel Islands and Isle of Man: an analysis of conservation concern 2002–2007. *British Birds* 95: 410–450.
- MacLennan, A.M. & Summers, R.W. 2007. Numbers, distribution and habitats of Black Grouse leks in Lochaber. *Scottish Birds* 27: 32–39.
- Patthey, P., Wirthner, S., Signorell, N. & Arlettaz, R. 2008. Impact of outdoor winter sports on the abundance of a key indicator species of alpine ecosystems. *Journal of Applied Ecology* 45, 1704–1711.
- Sim, I.M.W., Eaton, M.A., Setchfield, R.P., Warren, P.K. & Lindley, P. 2008. Abundance of male Black Grouse *Tetrao tetrix* in Britain in 2005, and change since 1995–96. *Bird Study* 55: 304–313.
- Warren, P., Baines, D. & Richardson, M. 2009. Mitigating against the impacts of human disturbance on black grouse *Tetrao tetrix* in northern England. *Folia Zool.* 58: 183–189.
- Christopher J. McInerny, 10 Athole Gardens, Glasgow G12 9AZ.**
Email: Chris.McInerny@glasgow.ac.uk
- Revised ms accepted October 2012*

Blackbird feeding on a shrew

Early in the evening of 22 April 2012 at Carinish, North Uist, Outer Hebrides, I glanced out of the front window to see a male Blackbird *Turdus merula* pecking at a small animal. Through binoculars, I could see that the mammal was a Pygmy Shrew *Sorex minutus*, the only species of shrew that occurs in North

Uist. As far as I could tell it was already dead. I had not noticed a body there previously and presumed that the Blackbird had recently caught it or brought it to that location. I cannot be certain whether the bird had killed the shrew or found its corpse. The bird proceeded to shake the shrew violently before attempting to swallow it whole (Plate 253). The rest of my family joined me to watch the gruesome spectacle, although the bird remained quite unaware of us even though it was only c.3 m away. However, it then flew off with its prey and out of sight into a bush, presumably to finish off its meal. There appeared to be plenty of the Blackbird's normal invertebrate prey available at the time and it seems this was an opportunistic meal.



Plate 253. Blackbird eating Pygmy Shrew, Carinish, North Uist, Outer Hebrides, April 2012. © Steve Duffield

Cramp (1988) noted that Blackbirds have many unusual items in their diet including small fish, newts and lizards, although there is no reference