

**David Bell**

ECOS Countryside Services

Main Precognition

# Golf & Leisure Resort

## Menie Estate, Balmedie, Aberdeenshire



Public Inquiry

## **MAIN PRECOGNITION OF DAVID BELL**

### **ORNITHOLOGY PROTECTED AND OTHER SPECIES**

#### **1.0 Introduction**

1.1 I hold the Degree of Bachelor of Science from Aberdeen University. I am currently principal of ECOS Countryside Services (ECOS), an ecological consultancy I established in 1987 specialising in field survey and evaluation and a core area of work is in Environmental Impact Assessment (EIA). My expertise in EIA is used in providing a senior honours module in EIA at Newcastle University. I have been involved in a number of golf developments over the 20 year life-span of ECOS and this includes new courses at St Andrews Bay, St Andrews, Gleneagles, Auchterarder and Dalquarran Castle, Ayrshire. I had previously researched bird collections at Perth Museum, worked as countryside ranger for people with special needs and wardened the Eden Estuary Local Nature Reserve.

1.2 I have been studying and surveying birds since the mid 1960's and have contributed to many national and local projects. In the course of work for ECOS I have undertaken and reported on hundreds of contracts for a wide range of clients, including Scottish Natural Heritage (SNH) and British Trust for Ornithology. These contracts have included survey and evaluation for the definition of Special Protection Areas and Sites of Scientific Interest for the purpose of delineating boundaries and identifying key interest. Other contracts, the majority, have been closely associated with EIA and projects cover the whole of Scotland and its full range of habitats. My special interest in coastal birds has meant that there is a bias in the number of contracts undertaken in this environment. This field experience is underpinned by a thorough understanding of current bird survey methodologies, evaluation criteria and assessment to current regulations.

1.3 I am a competent field botanist with special expertise in macrophytes and extensive experience in survey and assessment of development on protected species, excluding bats. Protected species surveys for badger, great crested newt, otter, red squirrel and water vole are a core area of ECOS work with

many contracts completed throughout Scotland. I am the Chairperson of Fife Amphibian and Reptile Group and have run great crested newt training courses for Local Authorities, SNH and NGOs.

- 1.4 The views given in this evidence are those of a consultant with a remit to undertake an impartial EIA on the likely implications of the proposed Trump International Golf Development at Menie, Aberdeenshire.

## **2.0 Scope of Precognition**

- 2.1 The scope of my evidence will be restricted to the description of baseline conditions, evaluation and assessment of birds, protected mammal species and other species in relation to the proposed Menie Golf Development.

- 2.2 I will describe the key interests in relation to ornithology, protected species and other species and will provide an evaluation of their importance.

- 2.3 I will focus on the key conservation species likely to be adversely affected by the proposed golf development as described in the masterplan submitted to Aberdeenshire Council and will comment on the revised Hawtree course layout.

- 2.4 I will assess the likely effects of the Menie development and discuss options for mitigation.

- 2.5 Finally I will provide an overview of the opportunities for medium to long-term enhancement for ornithological, protected species and other biological interests through active management.

## **3.0 Protected Species**

- 3.1 I undertook site-specific surveys for badger (CDG3), great crested newts (CDG3), otter (CDG3) and water vole (CDG3) in 2006 and repeated the

surveys for badger (CDG1), otter (CDG1) and water vole (CDG1) during the early part of 2007. A repeat survey was recommended due to boundary changes.

- 3.2 These surveys were undertaken at the appropriate times of year and used standard methodologies agreed with SNH in advance of surveys.
- 3.3 No signs of great crested newt were recorded during my surveys and this concurs with data held by the local biological records centre (NEBreaSC) and the results of the national great crested newt survey undertaken in 1996.
- 3.4 Both otter surveys found regular signs of use of watercourses, ornamental ponds at Menie House, Menie Flight Pond and the Blairton Flight Ponds. The most frequently recorded signs were spraints (droppings) and footprints along the lower Blairton Burn and its outfall. No holt or rest area was found within the survey area, which extended beyond the site boundary, by up to 500m, however a holt was located to the north of the site on the Drum Links. Clearly the site is within the home range of local otter but it does not appear to be important for breeding. Otter have recovered from serious population decline with the latest national survey recording a very high occupancy, 92%, and otter now have a favourable conservation status in Scotland. On the basis of these surveys and recommended mitigation in the Environmental Statement (ES) SNH withdrew an earlier objection and agreed that the golf development was unlikely to have a significant adverse effect on the local otter populations.
- 3.5 I undertook surveys for water vole in 2006 and 2007 recording no signs of this species, again this concurred with data held by NEBreaSC.
- 3.6 I undertook badger surveys in 2006 and 2007 recording a significant presence that included a main sett, annex sett and outliers. Foraging areas were mapped and advice taken from Grampian Badger Group. Further data was provided by NEBreaSC and adjacent surveys to inform routing options for the A90 at Menie. SNH agreed that there was unlikely to be a significant adverse effect on badger if mitigation measures detailed in the ES were provided as a Badger Protection Plan.

- 3.7 Site specific bat surveys were conducted by Bat Services (CDG3) and Dr Sue Swift (CDG3). These surveys looked at the wider area of the proposed site and buildings at Menie House. Small numbers of two species of Pipistrelle bat recorded foraging and roosting at Menie House and foraging around other farmsteads and plantations in the wider development site. The conclusion of surveys being that the golf course development would not pose a significant risk to bats. Recommendations were made for improving connectivity of habitats used by bats and to improve the foraging value of the area for bats.

### ***Protected Species Summary***

- 3.8 Species specific surveys were for all protected mammal species likely to be present on, or immediately adjacent to, the site. Baseline conditions have been identified and appropriate mitigation recommended. The level of residual impact for all species present is considered to be acceptable by SNH and they have no known objections on protected species grounds.

## **4.0 Birds**

### ***Breeding Birds***

- 4.1 I undertook breeding bird surveys in 2006 (CDG3), which were again repeated in 2007 (CDG6) to take account of development boundary changes. These surveys followed a methodology agreed with SNH in advance of surveys and the one most appropriate for the site and its potential bird interest.
- 4.2 Both breeding bird surveys recorded similar numbers of bird species, 56 in 2006 and 57 in 2007. In 2006 twenty two species were recorded as breeding whilst the number in 2007 was twenty three species.
- 4.3 All possible, probable and proved breeding bird species in each year were evaluated for their conservation importance. There were no Annex 1 EC Birds

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Directive or Wildlife & Countryside Act 1981 (& later amendments) or Schedule 1 breeding birds. Some species were present in national and local Biodiversity Action Plans (T47, T48, T49, T57 CDF8) and a total of nine Red List Species of High Conservation Concern were recorded.

- 4.4 These Red List and priority action biodiversity species were: common linnet; common starling; corn bunting; grasshopper warbler; house sparrow; reed bunting; sky lark; song thrush; and yellowhammer.
- 4.5 The most numerous breeding key species was sky lark with breeding numbers in the range 40-80 pairs in 2006 and 23-60 pairs in 2007. Other species were recorded in much lower numbers with house sparrow and common linnet the only species exceeding 10 pairs in either year.
- 4.6 Both breeding survey reports assess the quality of bird habitat according to national guidelines used for assessment of SSSI and found that the sand-dune habitats were of highest quality with a score of 20 out of 24. The figure of 24 being the SSSI qualifying threshold for identifying a nationally important assemblage. The lowland damp grassland, lowland open water and scrub were of lower importance.
- 4.7 The ES collates the available data (T48, T56) in addition to site surveys it addresses potential impacts on seven of these species as neither yellowhammer nor grasshopper warbler were recorded at the time of writing. This is not a significant omission as they were recorded in low breeding numbers, one and two pairs respectively.
- 4.8 The key species and habitat in bird conservation terms are sky lark and sand dune. Sky lark made no use of areas of mobile sand and limited use of yellow dune habitat for breeding. This species showed a clear preference for semi fixed dune, heath and dune grassland for breeding and impacts on these habitats were appraised in the ES. However changes to the course layout to reduce effects, and now including course infrastructure, mean that the figures must be reviewed. A hole by hole comparison of habitat losses between the original course layout by Tom Fazio compared to the new Hawtree course

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layout was carried out by Dr Tom Dargie. This showed a reduction in the original areas lost to the course in terms of semi-fixed dune, dune grassland and heath. The reduction in loss of habitat will amount to a total of 3.34 hectares. The reduction in loss is not sufficient to prevent short-term reductions in sky lark numbers. Numbers of sky lark will be determined in the medium to long-term by the success of dune habitat mitigation and the Red List bird species actions in the Course Environmental Management Plan (CEMP). The minimum aim of this plan would be to ensure no net loss of bird breeding interest and where practical to identify management to increase numbers and all Red List species would be targeted.

### ***Winter and Passage Birds***

- 4.9 I undertook a winter and passage survey of birds using the Menie site and adjacent beach and inshore waters over the period September 2006 to May 2007 (CDG4). The aim of these surveys was to identify special interest in relation to local European Sites and to record significant species or numbers of species.
- 4.10 A total of 85 resident, passage and wintering species were recorded within a total survey area that extended from Balmedie to the mouth of the River Ythan and was bounded by the A90 and the North Sea.
- 4.11 Locally important numbers of lapwing, golden plover and curlew were recorded, mainly outwith the site.
- 4.12 The key species recorded on-site was pink-footed goose, which were recorded roosting on land to the south of Menie House. The peak count was 3,500 birds or 1.3% of the Greenland/Iceland population. These birds were likely to form part of the flock roosting in the Ythan Estuary, Sands of Forvie and Meikle Loch Special Protection Area (SPA) (GRAMPIAN 222A) to the north. A preliminary assessment was carried out as part of this report.
- 4.13 On the recommendation of SNH a full 'Appropriate Assessment' report has been produced to address the potential recreational disturbance effects on

the SPA and to address the issue of the potential loss of a pink-footed goose sub-roost. This additional report is now the subject of an appropriate assessment by the competent authority, the Scottish Ministers.

### ***Bird Summary***

- 4.14 The bird data available to the EIA suggests that the on-site residual impacts are limited to a very small number of species with only sky lark likely to be adversely impacted. The effects are considered to be most severe in the short term and likely to be significantly reduced in severity in the medium to long-term as mitigation measures are progressively implemented.
- 4.15 Site impacts with regard to European Sites are still to be determined by the competent authority but early consultation suggests that this development will not have a significant adverse affect on the integrity of the adjacent SPA.

## **5.0 Other Species, Invertebrates**

- 5.1 An entomology brief was agreed with SNH and as a result four orders were surveyed at Menie. These were Lepidoptera, Aquatic Coleoptera and Hemiptera, Orthoptera and Terrestrial Coleoptera and Hemiptera.
- 5.2 Professor Garth Foster reported on aquatic macro-invertebrates (CDG1) and species interest he recorded included two Nationally Scarce species *Rhantus suturalis* and *Enochrus ochropterus*, the former was a new record for Aberdeenshire. Both were found in one pond close to the 7<sup>th</sup> hole and not likely to be directly impacted. Data was provided for the 17 sites surveyed and will be used to inform detailed design.
- 5.3 Paul Doyle, Alba Ecology Ltd undertook the surveys of terrestrial orders focusing on a full range of dune habitats likely to support interest. The report (CDG5) recorded no species that were listed in UK or North East Scotland Biodiversity Action Plans, or any Red Data Book species.

5.4 Three species, not rare in the UK context, were identified as declining and particularly sensitive to the changes in habitat due to development. Potentially negative impacts were identified for a total 56 species of invertebrate.

5.5 The data from these reports will be used to inform mitigation based on specialist advice at the time of preparing the CEMP.

### ***Invertebrate Summary***

5.6 Invertebrate interest has been identified at national level for two aquatic species and at a local level for a further three terrestrial species. The potential impacts are likely to be of lower significance and specialist advice will be sought at detailed design stage to minimise any adverse effects and to identify medium and long term management actions to retain and enhance the noted interest.

## **6.0 Management**

6.1 The process of mitigation for flora and fauna is limited by the outline nature of the application and opportunities afforded at detailed planning stages will be significant. The opportunities in the medium to long-term could be maximised by the preparation of a Course Environmental Management Plan (CEMP) produced by an impartial and independent group (MEMAG) in accordance with best practice identified in the Scottish Golf Environment Group (SGEG) publications (CDG5, T44, T48). SNH is a lead partner in SGEG providing advice and part funding two permanent posts.

6.2 The guidelines in SGEG publications referenced will be enriched by outside expertise brought in to advise on issues relating to key receptors species, such as Red List birds and protected species. Whilst the aim of the plan would be to retain and enhance existing interest through management and monitoring it would also seek to create new opportunities for wildlife and to underpin national and local biodiversity priorities. This may apply to species previously present at Menie or new ones that could be encouraged to take advantage of new habitat creation and management. The adoption of flagship

species e.g. aquatic beetles, bats, barn owl, sky lark, reed bunting, tree sparrow, otter and grayling butterfly, within the CEMP should see targeted action for boundary habitats, wetlands and watercourses, grassland and planting of new broadleaved native woodland. Specialist monitoring through CMEG will endeavour to protect, improve and create lower plant habitats in relevant dune areas. The feasibility of re-introducing water vole at Menie could be one of the more exciting projects.

## **7.0 Conclusion**

The conclusion of the EIA, with regard to birds and protected species, is that the golf course will not, after mitigation, have a significant adverse effect and this has been broadly agreed by SNH, RSPB and SWT in their written responses to Aberdeenshire Council. Invertebrate mitigation will be identified and implemented at detailed design stages and included in the CEMP.

## Key References

- 1 Menie Badger Report, Field Surveys 2006-2007. ECOS. (CDG3)
- 2 Menie Badger Report, Field Survey 2007. ECOS. (CDG1)
- 3 Menie Protected Species Report 2006 excluding Badger. ECOS. (CDG3)
- 4 Menie Otter and Water Vole Surveys Report, 2007. ECOS. (CDG1)
- 5 Menie Breeding Bird Surveys 2006. ECOS. (CDG3)
- 6 Menie Breed Bird Survey 2007, ECOS. (CDG6)
- 7 Appropriate Assessment Report Incorporating Winter and Passage Bird Surveys 2006-2007. (CDG4)
- 8 Menie Bat Survey 2006. Stewart Pritchard, Bat Services. (CDG3)
- 9 Survey for bats and Their Roosts at Menie Park Steading, near Balmedie, Aberdeenshire, 2007. Dr Sue Swift. (T57)
- 10 Scotland's Biodiversity, It's in Your Hands. A strategy for the conservation and enhancement of biodiversity in Scotland, Scottish Executive 2004. (T47)
- 11 Scottish Biodiversity 100 List. (T48)
- 12 NE Scotland Local Biodiversity Action Plan. (CDF8)
- 13 Biodiversity in North East Scotland, an audit of priority habitats and species. Alexander et al. 1992. (T49)
- 14 UK Species Action Plan for Skylark. (T48)
- 15 Birds of North East Scotland Buckland et al 1990. (T48)
- 16 North East Scotland Bird Reports 2002-2005. (T48)

- 17 North East Scotland Breeding Bird Atlas, 2002-2006. Raw data from tetrads relevant to Menie. (T56)
- 18 A survey of Aquatic Macro-invertebrates on the Menie Estate, With particular emphasis on Coleoptera. (CDG1)
- 19 Surveys of Terrestrial Invertebrates at Menie Estate, May to August 2007. Paul Doyle. Alba Ecology Ltd. (CDG5)
- 20 Management and Planning Manual. Scottish Golf Environment Group. (T44)
- 21 Nature Conservation and Golf Course Development. Best Practice Guide. Scottish Golf Environment Group. (T48)
- 22 Golf Construction and the Environment. Scottish Golf Environment Group. (T46)