

Standardising Monitoring Techniques of Population Change

A research outline has been produced (McKenzie, D 2014), providing options for identifying the annual status of mallard populations in Duck Management Units (DMU) across the country. DMU's do not fit neatly into F&G Regions with some regions covering more than one management unit and some management units shared by two or more regions. Regional co-operation and co-ordination will be required.

Indicative costs for the five components of the research outline, and provision of a statistics package to enable regions to complete an analysis, are presented. These indicative costs are to be borne by the regions so need to be provided for in individual budgets as appropriate. e.g. North Cant. and CSI to share as they comprise one DMU.

1. Aerial-based Surveying (three methods provided)

Regions to choose which of the techniques - transects, quadrats or known water bodies, suits their DMU. In some cases more than one method may be applied within a single DMU where conditions vary. Where more than one method is applied, commitment of resources would be no more than for one method over the entire DMU.

All three methods require the same commitment of staff time and aircraft hire

Set up first year

Site selection, 2 staff-days

Operations, first and subsequent years

Flights:

Analysis and report:

Total First year: 8.5 staff-days plus \$7,680 external cost

Second and subsequent years: 6.5 staff-days plus \$7,680 external cost

2. Ground Survey

All three methods require the same commitment of staff time and vehicle use to complete the ground survey:

Site selection:

Landowner permissions:

Ground survey:

Vehicle running:

Total 14.5 staff-days plus 1,250 km vehicle running

3. Banding/Harvest

Targeting 2000 birds per year per management area:

Set up first year

Trapping equipment:

Operations, first and subsequent years

Feeding:

Banding:

Band returns:

Equipment maintenance:

Total First year: 39 staff-days plus 10,250 km plus \$10,300 external cost

Second and subsequent years: 34 staff-days plus 9,000 km plus \$4,050 external cost

4. Statistics Package

Provision of a statistics package by the statistics advisor to enable F&G staff to undertake annual analysis internally on completion of the third year. Cost to be included in statistics advisor budget.