

## **Chapter 2 Starting with a well-defined hypothesis**

### **Additional self-test questions**

- Q2.1** Salmon parr eat less per day in winter than summer. Suggest at least three hypotheses that could explain this.
- Q2.2** How would you critically test between these hypotheses?
- Q2.3** The research task you've been assigned is to go to a certain pedestrian walkway over a motorway and count the number of cars passing underneath you, so as to test the hypothesis that more cars travel from east to west than west to east on this stretch of motorway between 8 am and 9 am on weekdays. What aspects of this study would you seek to evaluate in a pilot study before you begin?
- Q2.4** Discuss how we might test whether a university experimental design module has been successful. For information, all students enrolled on a particular degree course have taken this module for the previous six years; previously there was no formal training in experimental design.
- Q2.5** It is often suggested that chilli powder can be added to nuts and seeds put out for garden birds as a way of making the food unattractive to squirrels without reducing the attractiveness to birds. Discuss how you might explore this idea using volunteer members of the public, with particular emphasis on including an appropriate control.