

Barn Owl Science

Barn Owl pellets



Basic hygiene

Pellets, once soaked in a disinfectant solution will be easy for children to tease apart using their fingers or forceps (if available). Hands must be washed thoroughly with soap and water after this activity.

What is a pellet?

Many kinds of birds produce pellets including birds of prey, crows and even sparrows. Pellets consist of the indigestible parts of a bird's food, which are regurgitated (brought up through the beak). The diet of most wild Barn Owls consists mainly of small mammals such as voles, shrews and mice. Other less common items include rats, birds and frogs. Barn Owl pellets are made up of fur and bones of small mammals which the owl usually swallows whole. The pellets often accumulate at roosting sites and when analysed can be used as a good indicator of the bird's diet.

Why analyse Barn Owl pellets?

You can learn a great deal about the diet of wild Barn Owls from the analysis of their pellets. Each prey species has different physical characteristics which can be identified (see figure 1 overleaf) The actual bones of the small mammals can be mounted for display. The analysis of the pellets encourages children's manual dexterity, observation and recording skills. Digital cameras can be used by the pupils to create a power point presentation, whilst the data gathered can be used to compile graphs and pie charts. For more information about small mammal bones refer to: - LAWRENCE, MJ and BROWN, RW, 1979, Mammals of Britain, Their Tracks, Trails and Signs. Publisher: Littlehampton Book Services Ltd; ISBN-10: 0713705884, ISBN-13: 978-0713705881. NOTE: This book is available second hand.

Pellet storage and preparation

Fresh owl pellets can be dried and kept in an airtight container or frozen. If moist pellets are stored together they can become a congealed mass of pellet debris. If pellets are stored in a sealed container a number of grubs or small moths may be found once the container is reopened. These are clothes moths and their grubs are completely harmless (except to wool). Pellets can be analysed wet or dry. It is easier to analyse dry pellets, but to extract all of the small mammal bones intact, dried pellets can be soaked in water for 24 hours (a small quantity of disinfectant may be added if desired).

Sourcing pellets

The Barn Owl Trust has pellet dissection packs available to purchase from the online shop. When stocks allow we can send out a few pellets on their own to schools for a small charge. Please contact us to see if this is possible. Children should not collect pellets from wild Barn Owl sites as Barn Owls are protected under the wildlife and countryside act 1981 and it is illegal to disturb a Barn Owl breeding site during the breeding season without a licence from the relevant county agency.

Pellet analysis

The simplest way to identify which small mammals have been eaten is to search for the lower jaw bones (fig.1). One large pellet may contain the remains of five or six mammals so it is a good idea to analyse each pellet separately and to 'pair up' the right and left jaws from each pellet. Most jaws are found with the teeth in place. Pull out the teeth to reveal the tooth root pattern as shown below (in black). You can dissect a pellet on-line at www.kidwings.com/owlpellets/barnowl/index2.htm

Fig.1. Lower jaw bones

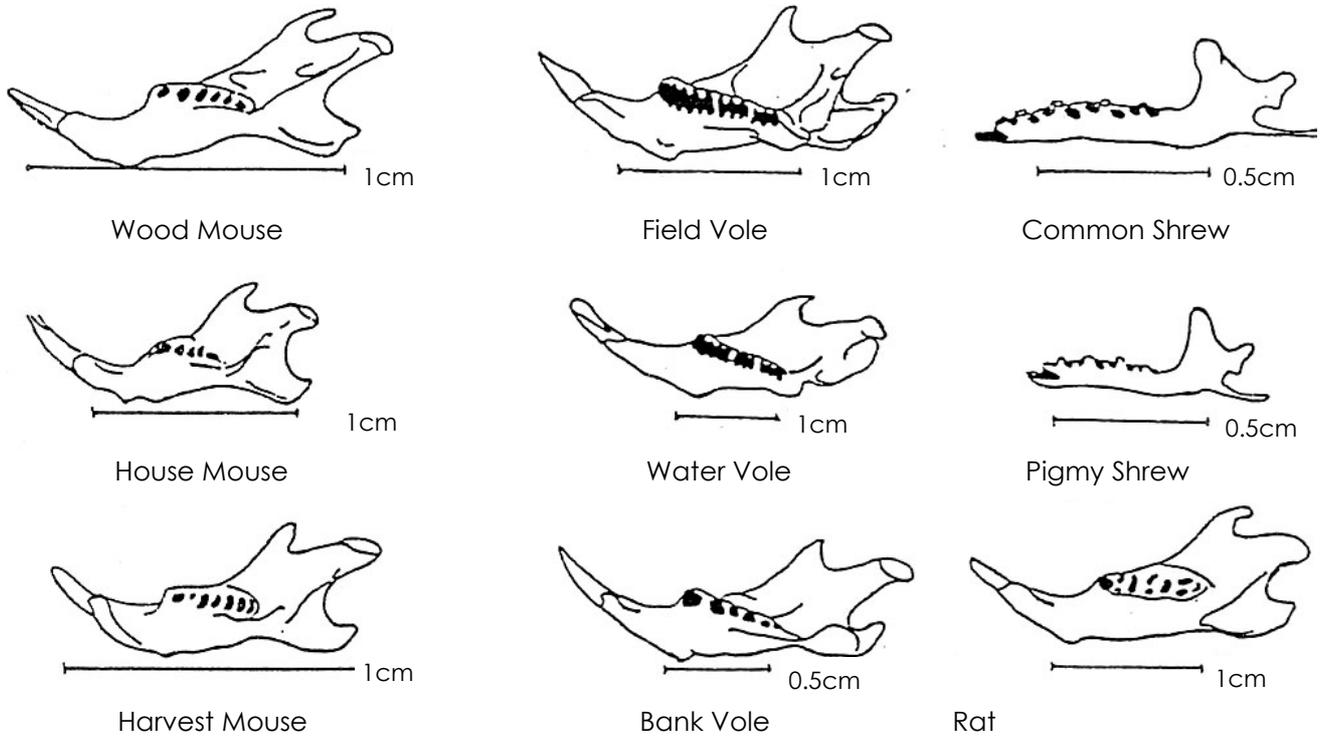
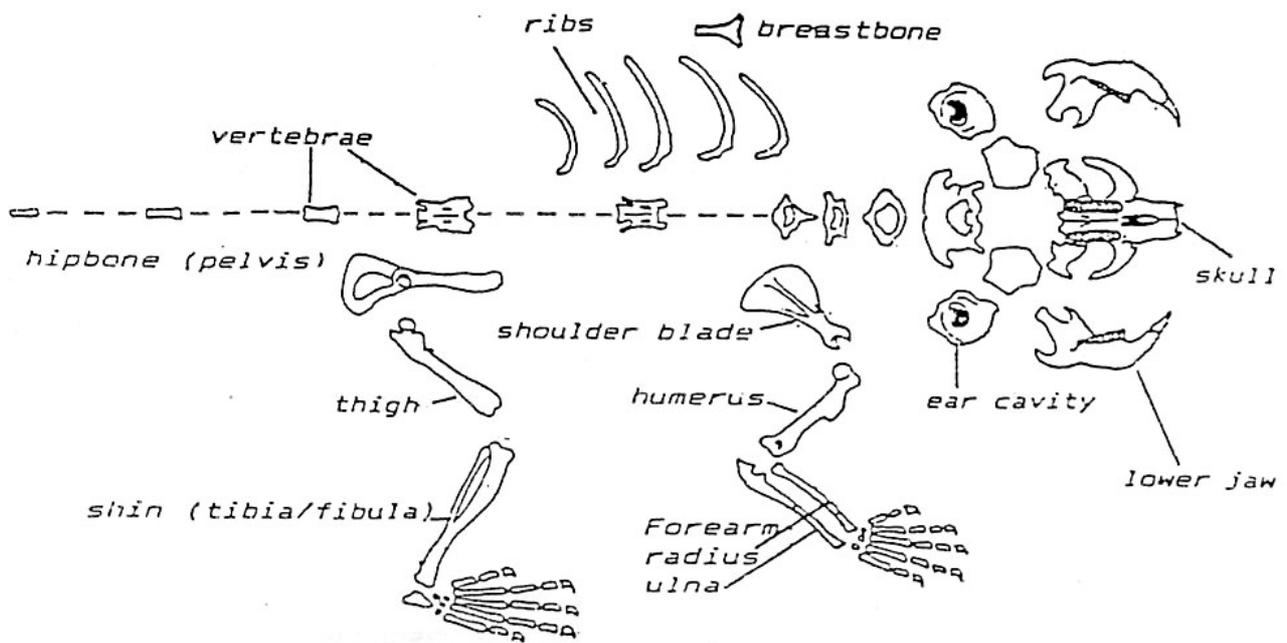


Fig.2. The main bones of a vole



Bones from different species will differ in detail.