

■ A bracket for filming nests

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*Parental feeding patterns and the interactions among nestlings are of great importance in any study of the parent-offspring relationship in altricial birds. Video-recording provides a useful tool for recording this behaviour at the nest. Here, we describe a bracket for holding a video-recorder, successfully used in a study with the Azure-winged Magpie *Cyanopica cyanus* nesting in trees. The bracket did not seem to have any negative effects on the birds, as no differences were detected in chick development or predation rates between nests in which the device was, or was not, used.*

Key words: Video-recording of nests, Azure-winged Magpie, *Cyanopica cyanus*.

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Nowadays video appears to be an essential tool in studying animal behaviour. In recent studies of bird behaviour, specifically those dealing with aspects of reproduction, more and more authors are recording their data using video-tapes, which they can analyse in detail later (Hofstetter & Ritchison 1998, Krebs et al. 1999). Indeed, there is even a software programme for extracting this sort of data (the Observer Video-Pro-System).

Video recordings have frequently been used for studying captive birds (Hirose & Balsam 1995, Mondloch 1995, Lehner 1996), but researchers are increasingly beginning to use them in their fieldwork, and parental care is one

of the subjects in which this method is increasingly being used.

The main problem encountered when trying to make recordings of a nest is how to set up the camera in such a position that the inside of the nest can be seen with the minimum of interference to the occupants' behaviour.

Our proposal is based on the case of nests situated in trees, where the use of a telephoto lens, with the camera placed at some distance, would, in most cases, require altering the structure of the tree which hides the nest, with the resulting increased risk of predation.

A form of bracket is described for holding the camera to the tree. This model allows the observer to place the

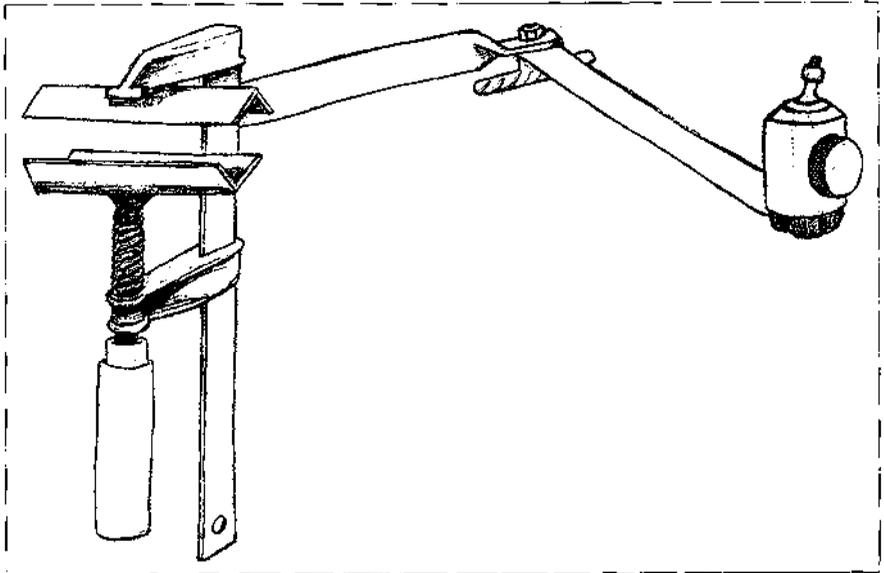


Fig. 1. Details of the bracket described for filming nests in trees.

Fig. 1. Detalls del suport descrit per filmar nius en arbres.

camera in the desired position in a safe and discreet way, without altering the branches that surround the nest.

The bracket is in the form of a jack with a soldered aluminium or stainless steel plate measuring 1.5 cm x 0.3 cm x 40 cm, joined by a screw to a second plate with the same dimensions, at the end of which there is a ball-and-socket joint with a screw which holds the camera (Fig. 1). The kind of plates described will support cameras weighing up to 2 kg. Their thickness can be adapted for taking larger or smaller cameras. As can be seen in the figure, the tips of the jack carry a strut 10 cm thick, soldered on, which prevents that the weight of the camera forcing the bracket away from the branches.

This bracket was successfully used in a study with the Azure-winged Magpie *Cyanopica cyanus* nesting in trees.

The distance at which the camera is placed obviously depends on the lens used. In the aforementioned case of the Azure-winged Magpie, it was placed at a distance of 40-80 cm from the nest, and it did not cause any noticeable interference with the behaviour of the adults or chicks, nor in the normal progress of breeding behaviour.

In order to see if the camera affected predation levels, we compared these at 22 nests, in nine of which the bracket had been used twice, for an hour each time. No significant differences emerged (Fisher test $p=0.33$, $n=22$). In addition, the mean body mass of the chicks at 14 days old was compared in nests with and without video bracket. Again no significant differences were found (Whitney-Mann U-test: $U=183.5$, $p=0.66$, $n=22$).

In rainy weather, a waterproof camera can be used (e.g. SONY SPK-TRC

for Hi 8 mm, SPK-DVF2 for Handycam DV, or LCR VX9000 for DCR VX9000). The bracket will not be affected, being made of aluminium or stainless steel.

The researcher does not need to be present, for the camera can be left recording from its set position. Tape length, 30-90 minutes on most commercial tapes, allows the recording of several feedings. A remote control system may also be used.

The cost of the bracket varies from 30.05 - 90.15 euros, depending on the material used.

RESUM

Descripció d'un suport per a la filmació de nius

*Els patrons d'alimentació dels progenitors i la interacció entre els polls és de gran importància en qualsevol estudi sobre les relacions paternofiliales en ocells altricials. La gravació de seqüències de vídeo ofereix una eina fonamental per a l'anàlisi d'aquests comportaments. En aquest article es descriu un suport per subjectar una càmera de vídeo, emprada amb èxit en un estudi amb la Garsa Blava *Cyanopica cyanus*. El suport no va afectar negativament als ocells, ja que no es van detectar diferències en el desenvolupament dels polls ni en las taxes*

de predació entre els nius en els quals es va utilitzar el suport i aquells altres en els quals no es va emprar.

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