TECH-2-TECH

Haven't the time to write a paper but want to have something published? Then read on!

This section offers readers the opportunity to submit informal contributions about any aspects of Animal Technology. Comments, observations, descriptions of new or refined techniques, new products or equipment, old products or equipment adapted to new use, any subject that may be useful to technicians in other institutions. Submissions can be presented as technical notes and do not need to be structured and can be as short or as long as is necessary. Accompanying illustrations and/or photos should be high resolution.

NB. Descriptions of new products or equipment submitted by manufacturers are welcome but should be a factual account of the product. However, the Editorial Board gives no warranty as to the accuracy or fitness for purpose of the product.

A picture paints a thousand words

JOANNA MALTON

Imperial College, Hammersmith Campus, Du Cane Road, London W12 0NN UK

Correspondence: j.malton@imperial.ac.uk

Introduction

The old saying in many cases is true but it needs to be the right picture and a clear image to get the point across. Images can be used to help attract people's interest in an article.

Would you be more interested in reading an article that is all words or one that has clear images that help explain what the writer is saying?

Would you buy a magazine if all the pictures are out of focus?

So what do you need to consider when deciding what image to use in your article?

1. Is the picture relevant to what you are saying?
2. Is the image clear enough to be able to see what is going on?
3. Is the subject well lit or is the image too dark/bright?
4. Is the subject likely to move as you take the photo?

How do you get a good image in the first place?

There are several factors you need to consider when taking a photo of your subject;-

1. *What equipment do you have available? Phone/ camera?*
As technology improves phones now have the capability to produce higher quality images which means you do not necessarily need a camera to take a good photo. It is advisable to try a few practise shots with the phone/ camera that you are going to use so you have an idea of your equipment's capabilities. Also, where available try out different settings on the camera – if the camera is equipped with a sport/action mode this can be useful when taking shots of subjects that may move. Due to the faster shutter speed, sport mode can also help reduce blurring due to hand-shake. The increased shutter speed may mean you need an additional light source to prevent the image being too dark.

If you need a more detailed image of a subject that is not going to move, then try Macro or close-up mode.

This mode uses a longer shutter speed so may require the use of a tripod or stand of some kind to help keep the camera still enough to get a clear picture. If you have the camera too close to the subject it may struggle to focus. Try taking a photo from further away, if necessary the image can be cropped later to enlarge the area you want to show. Starting out with a larger image and then cropping it will help maintain the details.

2. *What resolution does the image need to be to be suitable for printing? Is there a minimum/maximum file size or specific file type that the publisher can use?*
The resolution of an image refers to the image quality. The resolution is measured in dpi (dots per inch, or the number of pixels per inch). Ideally the image should be a resolution of 300dpi or higher for printing.

Editor's Note. Photos for the Journal need to be 300dpi

Before taking your photo check the settings in your camera to make sure they are set at the right resolution, also check the image quality is set to high or medium (low will give a poor quality image).

File types – there are a number of different file types that can be used for images, most cameras will have the option of saving images as one or more file types;-

JPEG files tend to be used most commonly as they are a more compact file so require less memory space, however due to the way they reduce the file size some of the detail in the image may be lost. This is worth considering especially if you need to edit the image later. Each time you save a copy more detail may be lost.

Raw files are the equivalent of the negative that you would get from a film camera. This file type stores a lot more information about the image so allows more options when it comes to editing. However due to the amount of information that is stored these files take up a lot more memory space. These files need to be processed or developed by a data convertor or other compatible software.

TIFF files are similar to Raw files in that they store a lot of information however they are easier to process as they don't require specific software.

3. *How do you find out what resolution your image is?*
To check a photo's resolution on a Windows PC, select the file you want to use. Right click on the image and then select properties.

A window will appear with the image's details. Go to the Details tab to see the image's dimensions and resolution.

4. *Is the subject likely to move or do you need to get a close-up image to show the finer details?*
Where available try out different settings on the camera – if the camera is equipped with a sport/action mode this can be useful when taking shots of subjects that may move. As explained earlier, due to the faster shutter speed, sport mode can also help reduce blurring, due to hand-shake; the increased shutter speed may mean you need an additional light source to prevent the image being too dark.

As mentioned before, if you need a more detailed image of a subject that is not going to move, then try Macro or close up mode. This mode uses a longer shutter speed so may require the use of a tripod or stand of some kind to help keep the camera still enough to get a clear picture.

5. *Where are you going to be taking the photo? Is the area/room well lit? If not do you have extra lights available to help light the subject?*

Figure 1. Under exposed/too dark – use extra lights if available or a longer exposure setting as long as the subject is not moving.

Figure 2. Over exposed/too bright – use a setting with a faster shutter speed, or if possible reduce the amount of light on the subject.

Figure 3. Correct exposure allowing all the details to be seen clearly.

In addition to your computer's built in photo editor there are a number of computer programmes available online to help make minor adjustments to photos such as altering the lighting/colour, cropping the image so it just shows required area. For example Fotor and Be funky. These are free to use as long as you only need the basic tools.

Summary

The key points to remember;-

– Check the camera's resolution before you start.

– Choose the right mode for the subject.

– Take the photo.

– Check the photo (zoom in to check the detail is clear).

– If the first one doesn't work make adjustments and try again.