

07) An Introduction into Choosing Optics (C)

TRIPODS

How much thought should you put into purchasing a new tripod for your telescope? Tripods are often given far less consideration than they deserve. A tripod is an essential component to your bird watching equipment. It can be all too easy to spend your budget on a high-performance telescope, leaving little to invest in the equipment so vital to adequately support it!

When compared with optics, there are far fewer manufactures offering tripods suitable for the birding market, although there is still considerable variation in products and prices, ranging from £70.00 to £1,500.00 for complete kits. However, your purchase decision will be determined less on price and more by the nature of the optics your tripod is required to support.

Tripods comprise two major components: legs and heads. In many cases these are interchangeable, making it possible to combine the legs from one manufacturer with the head from another. This 'mix-and-match' approach makes it a lot easier if you favour a particular head but the manufacturer does not offer the type of legs you require.

LEGS – STANDING FIRM:

Tripod stability is of paramount importance, so you will need to check the legs are capable of supporting the combined weight of the head, telescope and any other peripheral attachments such as camera and digiscoping adaptor.

Opting for the smallest, lightest tripod you can find could render the set-up top heavy and poorly balanced, with increased vibration and the potential for collapse. At the other end of the scale, a heavy-duty tripod used to support a mini-telescope will likely incur a higher capital outlay and could result in lower portability due to greater weight, but it will be a solid foundation.

If you plan to do a lot of travelling then a light, compact tripod should be considered. Compactness can be achieved in two ways, the most common of which is governed by the number of leg sections. Tripods with four sections will normally be more compact in terms of collapsed length, but they are potentially less stable as the joints represent flexible weak points.

Giotto designed a tripod, the Silk Road YTL series, which minimised the folded width by introducing a tri-concave centre column, allowing the closed legs to compress more closely, thereby minimising bulk and increasing portability.

The *Gitzo* Traveller tripods employ a 180 degree leg folding system which makes more efficient use of folded space by accommodating the centre column and head in between the folded tripod legs.

For less weight consider opting for carbon fibre, which is around 30 percent lighter than aluminium. Carbon fibre legs are easier to carry and are not cold to the touch in cold weather, but they are more expensive and offer less wind resistance, being susceptible to being blown over during particularly strong windy conditions. However, some aluminium tripod legs can be equally light in weight; a prime example of this is the *Celestron* Trailseeker, which also has four leg sections for compactness.



Ideally, the upper section of each leg should have a foam covering, which makes carrying your tripod over your shoulder a little more comfortable if you are not using a carry strap as often supplied as an accessory by many manufacturers or not using one of the generic harnesses as offered by, for example by *Scopac* or *CleySpy*.

The extension height is also a major consideration. Your tripod should be able to support your telescope at a height that ensures you are in a comfortable and relaxed viewing position; that is, not so short that you have to bend over to look through it. If you are using a straight-bodied telescope then the extension height necessarily will be greater than for an angled telescope. Ensure that you do not have to extend the centre column, which reduces stability and renders the set-up more susceptible to the effects of vibration from the wind.

Rapid and reliable leg locking is essential. There are two methods of securing legs at the desired height: levers/clips and collars – the choice is a matter of personal preference. Levers/clips are quicker to operate and it is easy to see at a glance if each leg section is locked before standing the tripod up. The positioning of levers/clips on the legs varies between manufacturers, with some more ergonomically placed and designed for rapid single-hand opening; for example the *Manfrotto* 190 and *Manfrotto* 290 range. With extensive use over time, levers/clips have the tendency to lose their tension and grip on the legs, so check that your chosen model's levers/clips can be re-tensioned, normally by using an Allen key.

Collars are less obtrusive, neater and more compact than levers/clips. However, they are less easily unlocked simultaneously, as each needs to be rotated to secure locking, therefore making tripod deployment a slower process than when levers/clips are engaged.

GETTING A HEAD:

Heads are the most complex and variable part of any tripod system and the type chosen will again depend on the user requirements. For general telescope attachment, the most commonly used fixed heads are ball and pan handle. The latter is normally a popular choice, but ball heads, which are often lighter and compact, operate well with small to medium sized telescopes and work by moving your scope manually, then locking it in position by tightening a lever. Alternatively, squeezing a trigger on the ball head is another method used to pan and tilt the telescope before releasing it to lock it in position.

The head should provide balance, stability and the means to move your telescope in one fluid motion, smoothly and steadily through all angles to follow a flying bird, as well as being able to observe one that is stationary. Heads may come with a variety of tensioning screws which allow different speeds of movement of the head to be achieved, as well as being able to independently lock the mounted telescope both vertically and horizontally.

The method of attachment of your telescope to your tripod head will fall into one of two categories. The conventional means is via a Quick Release Plate (QRP), a component part of the tripod head which screws on to the telescope's 'foot' and then locks quickly and securely into the head. Check the QRP has an anti-rotation pin to prevent the telescope spinning and ultimately becoming detached from the plate.

Any telescope attached to a QRP will work loose over time, rendering it unstable on the tripod and requiring retightening of the fixing screw. Clamp-on accessories have been designed to prevent this from happening, with varying degrees of success. Current models of *Carl Zeiss*, *Leica* and *Swarovski* telescopes have an integral 'foot' designed to fit directly into a *Manfrotto* tripod head without the need of a QRP, so that owners of these brands can choose to bypass this perennial annoyance if they opt to buy equipment from this manufacturer.