



Spotting Scope and Binocular Use and Care

Main Point

Clean, working spotting scopes, binoculars and their accessories are effective and key tools for engaging visitors with the tule elk. Damage can occur from impact with the ground or other objects and scratching of the lenses. Follow these handling procedures to ensure the proper use and care of this important equipment.

General Care Procedures

- Use lens covers and scope covers when scope is not in use.
- Avoid touching the lenses.
- Please do not clean the lenses. Cleaning will be performed by the rangers.
- Be careful to safeguard the scopes and binoculars from dropping, tipping over, and impacts with other objects.

I. Spotting Scope

A. Assembling the spotting scope and tripod

- 1. Identify parts of the tripod*
 - a. telescopic legs
 - b. adjustable head
 - c. quick release head, lever and lock
 - d. handle
- 2. Identify parts of the spotting scope: quick release plate*
- 3. Assembly*
 - a. Extend tripod legs to desired lengths and spread them apart to maximum width
 - b. Check tightness of quick release plate on spotting scope. The arrow on the bottom of the quick release plate should be facing towards the front of the scope (the end with the large lens, also called the objective lens).
 - c. Insert the front edge of the quick release plate into the front edge of the quick release head (the edge opposite the quick release lever) of the tripod.
 - d. Seat the rear edge of the quick release plate into the quick release head. The quick release lever should snap closed.
 - e. Lock the quick release lever into place.

B. Viewing with the spotting scope

- 1. Identify parts of the spotting scope*
 - a. eyepiece (zoom eyepiece on the Bushnell) and eyepiece cup
 - b. focus knob (Bushnell) or ring (Nikon)
 - c. barrel rotation knob (Nikon)
 - d. objective lens shade (Nikon)

2. *Identify parts of the tripod: fluid head knobs*
3. *Use*
 - a. If wearing glasses, fold back the rubber eyepiece cup.
 - b. Loosen the fluid head knobs that adjust for vertical and horizontal motion and tighten gently so that the scope will remain in place but can easily be moved with the tripod handle. Do not force the scope to move; this can strip the fluid heads. Instead, loosen the fluid head knobs.
 - c. Focus using the focus knob or ring.
 - d. If using the Bushnell with the zoom eyepiece, focus with the zoom eyepiece at its lowest setting. Then increase the zoom and make fine adjustments with the focus knob.
 - e. Loosen the barrel rotation knob to rotate the scope for a more comfortable viewing angle.
 - f. If needed, extend the objective lens shade to shade against glare.
4. *Public use of the scopes*
 - a. Teach visitors how to look through and focus the scopes.
 - b. Teach visitors to move the scope with the tripod handle. Make sure the fluid head is loose enough for movement without force. If visitors try to move the scope by applying pressure to the scope itself, this may loosen the scope from the quick release plate. Periodically check for tightness.
 - c. Readjust the height of the tripod and/or rotate the barrel of the scope for children.
5. *Strategies in the wind*
 - a. Shorten the tripod legs and keep the scope as low to the ground as possible to lower its center of gravity.
 - b. On a slope, position one leg of the tripod on the downhill side as a brace with the other two legs on the uphill side.
 - c. Lay backpacks against the legs of the tripods.
 - d. Watch the scope at all times.
 - e. If it is too windy, do not use the scopes.

C. Hiking with the spotting scope and tripod

1. *Hiking with the spotting attached to the tripod*
 - a. Check that the scope is tightly secured to the quick release plate and that the quick release lock is engaged.
 - b. Place lens cover and scope cover on scope.
 - c. Extend the legs of the tripod and balance the tripod over your shoulder with the legs extended in front of you and the scope behind you.
 - d. Be careful when turning around to avoid knocking the scope and tripod into objects, including people.
2. *Hiking with the scope and tripod disassembled*
 - a. Place lens cover and scope cover on scope.
 - b. Remove scope from the tripod and place in backpack.

D. Transporting the scope and tripod in a vehicle

1. Remove the scope from the tripod and transport disassembled. If the scope and tripod are attached and positioned on a flat surface, pressure on the scope will tend to loosen the scope from the quick release plate.

II. Binoculars

A. Adjusting the binoculars

1. Adjust the binoculars to fit the width between your eyes.
2. Look through the binoculars with only your left eye (right eye closed) and focus.
3. Look through the binoculars with only your right eye (left eye closed) and focus using the right eye eyepiece.

B. Viewing objects

1. Stare at the object and lift the binoculars to your eyes. It take practice to immediately locate objects in the binoculars.

C. Care and use

1. Keep the binoculars around your neck to avoid dropping and loss.
2. Avoid placing the binoculars on or near the ground. They can easily be coated with dust.
3. The binoculars are primarily for docent use only. If you want to allow a visitor to use the binoculars, make sure the binocular strap is around either your or the visitor's neck.
4. Avoid touching the lenses.
5. Please do not clean the lenses. Cleaning will be performed by the rangers.
6. Place lens caps on the lenses and place the binoculars in the carrying case when not in use.