Gloucestershire
Wildlife Trust

Safe Use of Hand Tools

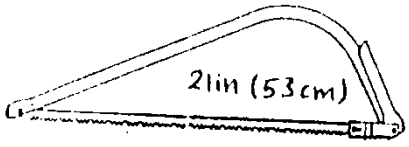
Most of the practical conservation work carried out on Wildlife Trust nature reserves particularly that done by volunteers, is carried out with the use of hand tools. **It is imperative that only GWT hand tools are used whilst volunteering; do not bring alone a tool from home.**

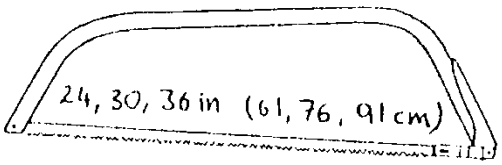
This is a guide on how to use the most frequently used tools safely, both for your own health and those around you, as all tool use has some level of risk, both to the person using the tool and to others in the party or members of the public.

It is essential that all people involved in practical conservation work are shown how to use, carry and store these tools correctly before starting work. This not only makes the job easier to carry out, but also encourages safe working practices.

If the guidance and recommendations given in this booklet are observed, the risks involved should be minimised.

Bow saws: used for tree-felling, coppicing and scrub clearance.





- Use with one hand holding the saw and one holding steady the wood you are cutting. Keep this hand well clear of the blade as it could easily jump out of the cut.
- When carrying the saw, hold it down by your side with the blade facing down.
- Always place the saw on the ground when not in use. Never hang it from a tree or fence post.
- Choose the size of saw according to the size of timber you wish to cut. Never cut down a tree which is too big for the saw to handle.
- Use the full length of the blade and saw with easy relaxed strokes. Let the blade do the work - don't force it.
- Replace the blade if it is at all blunt, as a poorly maintained saw will make the work more hazardous.

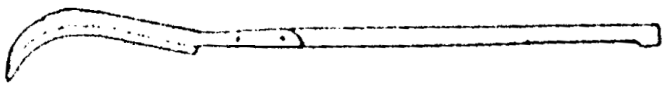
Loppers: used for scrub clearance, pruning small shrubs and vegetation.

- Always cut across the grain of the wood and do not force the loppers.
- Do not exceed the cutting capacity of the loppers. Never cut a branch thicker than the width of your thumb.

Slashers: used for clearing brambles and other entangled vegetation.

Do not wear gloves when using a slasher as they make the handle difficult to grip, and it may slip and injure you.

- Keep a safe distance away from other people. Be aware of those around you and stop work if anyone comes close.
- Do not walk up to someone using a slasher without their knowledge. Always call to them first.
- Carry the slasher by your side with the blade facing the ground.



Other tools you may use less frequently:

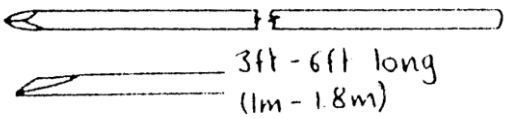
Billhook: used for cutting wood less than 5cm in diameter.

Mell: used for driving in stakes and small fence posts

Mattock: used for grubbing and breaking up hard ground. The “axe” blade is useful for cutting roots.

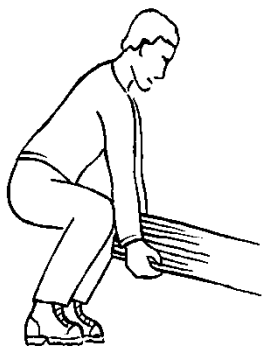
Drivall: two-handled cylinders with a weighted end, used for driving in larger wooden posts.

Crowbar: used as a lever for moving heavy objects such as rocks and for making post holes.



Safe Working Practices

- Always bend your knees when lifting heavy objects
- Carry all tools with the blades facing toward the ground
  e.g. bowsaws, slashers, billhooks and mattocks



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How to Perform Basic Tasks

How to coppice

1. Look carefully at the tree to decide which way to fell the individual stems. Bear in mind:
   - Likely direction of fall.
   - Ease of cutting at the base.
   - Intertwining tops.
   - Space to drop the stems.
   - Size of stem.
   - Wind direction and strength.
2. Remove any young growth around the outside of the stool cutting as close to the ground as possible and at an angle of 30-45 degrees sloping outwards.
3. Keep a lookout and stop felling if people approach.
4. Stems up to 8cm diameter can be cut straight through. Support the weight of the stem with one hand whilst sawing with the other, keeping well clear of the blade in case it jumps out.
5. Larger stems should be undercut on the front (side facing the direction of fall) before being cut through from behind.
6. Leave a stump 10-20cm high. It may be easier to cut higher than this initially and to trim the stump afterwards.
7. If the tree gets hung up lift the butt and pull it briskly away.

Tools: Loppers - Bow saw - Bill hook.

How to clear scrub

1. Make sure you are aware of any trees/shrubs which should not be cut down.
2. For smaller diameter stems use loppers and cut as close to the ground as possible.

3. For larger stems use a bow saw (see 'How to Coppice') and again cut as close to the ground as possible. It may be easier to take out the tops of the scrub first and then deal with main stem.
4. Cut the removed stems into suitable lengths either for burning or stacking.

Tools: Loppers - Bow saw.

How to build fences

1. Work out the exact line of the fence and the positions of straining posts.
2. Make sure the fence line is clear of undergrowth, overhanging vegetation and old fence materials so you have room to work.
3. Dig holes and place strainers in at correct depth making sure they are upright.
4. Cut struts into strainers.
5. Attach a temporary wire, low down, between strainers, ensuring it is not too tight and does not catch the ground. This will guide the siting of intermediate posts.
6. Intermediate posts should be 2-3m apart for stock fencing.
7. Take care to ensure the posts are upright and in line and of equal height allowing for variation in ground level.
8. Ensure stock wire is correct way up with smaller section at the bottom.
9. At the first straining post:
    - Un-roll enough stock netting to tie off around first straining post.
    - Staple bottom and top wire ensuring that bottom wire is as low to the ground as possible.
    - Un-roll remaining wire keeping fingers free from netting and wearing gloves.
    - Ensure that all slack wire is taken up and fence line is free from snagging.
    - Use wire strainers to bottom and top wire and strain to required tension.
    - Staple bottom and top wires to second straining post.
    - Tension and staple middle wires at first and second straining posts.
    - Staple netting to intermediate posts.
    - Staples should be put in diagonally and only driven home on straining posts. On other posts the wire should be free to move.

10. Attaching the barbed wire:

- Staple barbed wire to first straining post at the required height above the netting.
- Mark the required height above netting on all intermediate posts.
- Un-roll barbed wire ensuring gloves are worn.
- Strain barbed wire to the required tension using wire strainers, ensuring that goggles are worn.
- Staple wire to second straining post.
- Staple barbed wire to intermediate posts at the required height above the netting.

11. Ensure all cut wire ends are sunk into posts.

Tools
Spade
Hammer
String line
Mell
Crow bar
Drivall
Wire cutters
Pencil
Crosscut saw
Wire strainers
Fencing pliers

Materials
Strainer posts
(e.g. 7’ x 4-5” round tanalised posts)
Intermediate posts
(e.g. Half- round pointed tanalised posts)
Stock netting
Barbed wire
Staples and nails