

# Ocular Point Quadrat Method<sup>1</sup>

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## Highlight

The ocular point quadrat used in recording data by sighting through cross-haired holes instead of using pins was developed. The method reduces field work, and eliminates difficulties regarding using the pins as compared to the standard point quadrat frame.

The ocular point quadrat method presents some modification to the point frame method developed by Levy and Madden (1933). This frame has been developed in early 1964 at the Desert Institute, Cairo and tested on the semi-desert shrubland occurring in north-western Egypt as well as West Pakistan between 1964 and 1969.

The apparatus shown in Figure 1 consists of two horizontal wooden pieces  $4 \times 1.5$  cm and 110 cm long spaced 25 cm apart and fastened into two wooden legs 140 cm long by bolts (8 cm long) whose heads are embedded in grooves carved in the lower surface of the crosspieces and passed through holes in the leg sides. The end of the crosspieces are fitted in grooves (3 mm deep) made in both sides of the legs to avoid their slipping.

Each of the two legs has a supporter that may be fixed by bolts in grooves



FIG. 1. Ocular point quadrat frame during field work.

(3 mm in depth) carved in their outer sides as well as the inner sides of the legs to allow the apparatus oriented at the desired  $45^\circ$  or  $60^\circ$  angle with the ground. The lower end of the legs and supporters are pointed to prevent the apparatus from sliding.

The horizontal crosspieces and the supporter of the two legs are easily unscrewed making the apparatus a compact light weight unit (Fig. 2) yet sufficiently rugged for field use if made of hardwood.

The upper and lower horizontal crosspieces have 10 holes spaced 10 cm apart. The holes are 1 cm and two perpendicular thin steel needles (0.5 mm) crossed at their center are fixed in each hole.

On the ranges studied, depending on the intensity of survey, two to four temporary 25 meter transects were established per location. The frame was placed at one meter interval giving 25 positions and a total of 250 observations per transect.

Recording the data is performed by sighting through the holes of the upper crosspiece and aligning the crossed

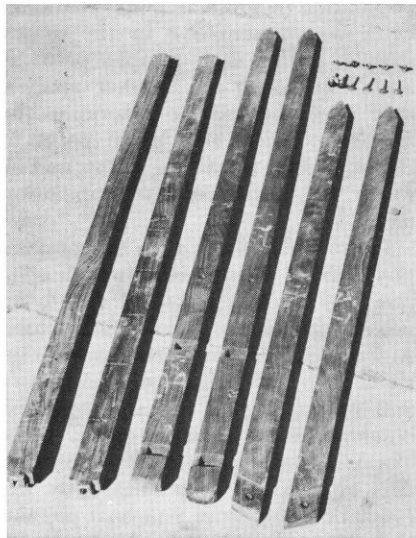


FIG. 2. Dismantled ocular point quadrat frame.

point of the perpendicular needles fixed the holes of the lower crosspiece, with the ground cover. The holes of lower piece are 1.5 cm in diameter large enough to identify the various species.

This unit was found to be particularly well adapted for securing an objective measure of cover in vegetation whose overlapping does not greatly exceed 100 percent. All vegetation up to a height of approximately one meter can be measured. Measurements of rangeland vegetation requiring a large number of small plots can be made faster and with less human effort if the ocular point frame is used in place of the standard point quadrat developed by Levy and Madden (1933).

## Literature Cited

- LEVY, E. B., AND E. A. MADDEN. 1933. The point method of pasture analysis. N.Z.J. Agr. 46:267-279.

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