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A TRAP FOR BLUE GROUSE

Eric C. Pelren¹ and John A. Crawford¹

Key words: Blue Grouse, *Dendragapus obscurus*, interception trap, Oregon, trapping success, walk-in trap.

Numerous techniques have been developed to capture Blue Grouse (*Dendragapus obscurus*) for scientific purposes, but efficacy differs among methods and is influenced by terrain, habitat conditions, and wariness of birds. Zwickel and Bendell (1967) captured over 1200 Blue Grouse in British Columbia between 1950 and 1967 with a "noosing pole." Zwickel estimates that 10,000–15,000 Blue Grouse have been captured with nooses in parts of their range from Alaska to California and from Alberta to Colorado (personal communication). However, noosing poles and other approach-based techniques may not be effective for capturing Blue Grouse in areas where birds do not permit close approach by humans, where baiting is ineffective, or where topographic or habitat conditions preclude use of drive traps. Consequently, additional methods are needed to supplement existing techniques.

Henderson (1960), Standing (1960), and Bauer (1962) used walk-in traps to capture over 520 Blue Grouse in north central Washington from 1956 to 1961. We developed a similar trap for spring and summer capture of adult and juvenile Blue Grouse in northeastern Oregon where the wary nature of the birds made noosing poles and other approach-based capture techniques ineffective. Our objective is to describe the design and success rate of a walk-in trap for Blue Grouse and to present this trap as a viable alternative when approach-based capture methods are ineffective.

We used a walk-in style trapset designed to intercept the movement of birds through the trapping area and guide these individuals along wire fences into funnels connected to trap boxes (Gullion 1966). Our trapsets usually consisted of three open-bottomed boxes (range 1–7) connected by fences (Fig. 1) and required 1–3 h for placement. Trap boxes were constructed in

approximately 45 min from plastic or metal wire or netting. A primary concern in choosing trap material is that birds may injure themselves on the traps. Fish netting and/or vegetation on top of the box reduces the possibility of injury (Henderson 1960, Standing 1960, Bauer 1962). Size and placement of entrance funnels is critical. We fitted 5-cm hexagonal-weave chicken wire funnels to the entrance holes; funnels had inner-opening dimensions of 6 cm width × 10 cm height if the trap was intended primarily for immatures and 8 cm width × 12 cm height if the trap was intended primarily for adult birds.

Successful traps were constructed where birds had been located repeatedly within a 5- to 10-m² area. Fences between boxes were shorter where grouse were more highly localized to increase the concentration of trap boxes in those areas.

We captured 140 grouse in 2327 trap(set)-days during summers 1991, 1992, and 1993 at rates of 23, 19, and 12 trap-days/capture, respectively (Table 1). Increased trapping efficiency in 1992 and 1993 was likely a product of refined trapping techniques, experience of trappers, and knowledge of bird movements. Henderson (1960) achieved capture rates of 7 and 8 trap-days/capture in 1958 and 1959, respectively. Variations in capture success rates may be influenced by grouse population density and distribution. Habitats in which grouse are evenly distributed are more difficult to trap than areas in which grouse congregate in dense clumps.

Many variations in design, material, construction, and placement of walk-in traps exist. Flexibility, creativity, and an understanding of the system in which trapping efforts take place are critical for successful application of this trap to specific conditions.

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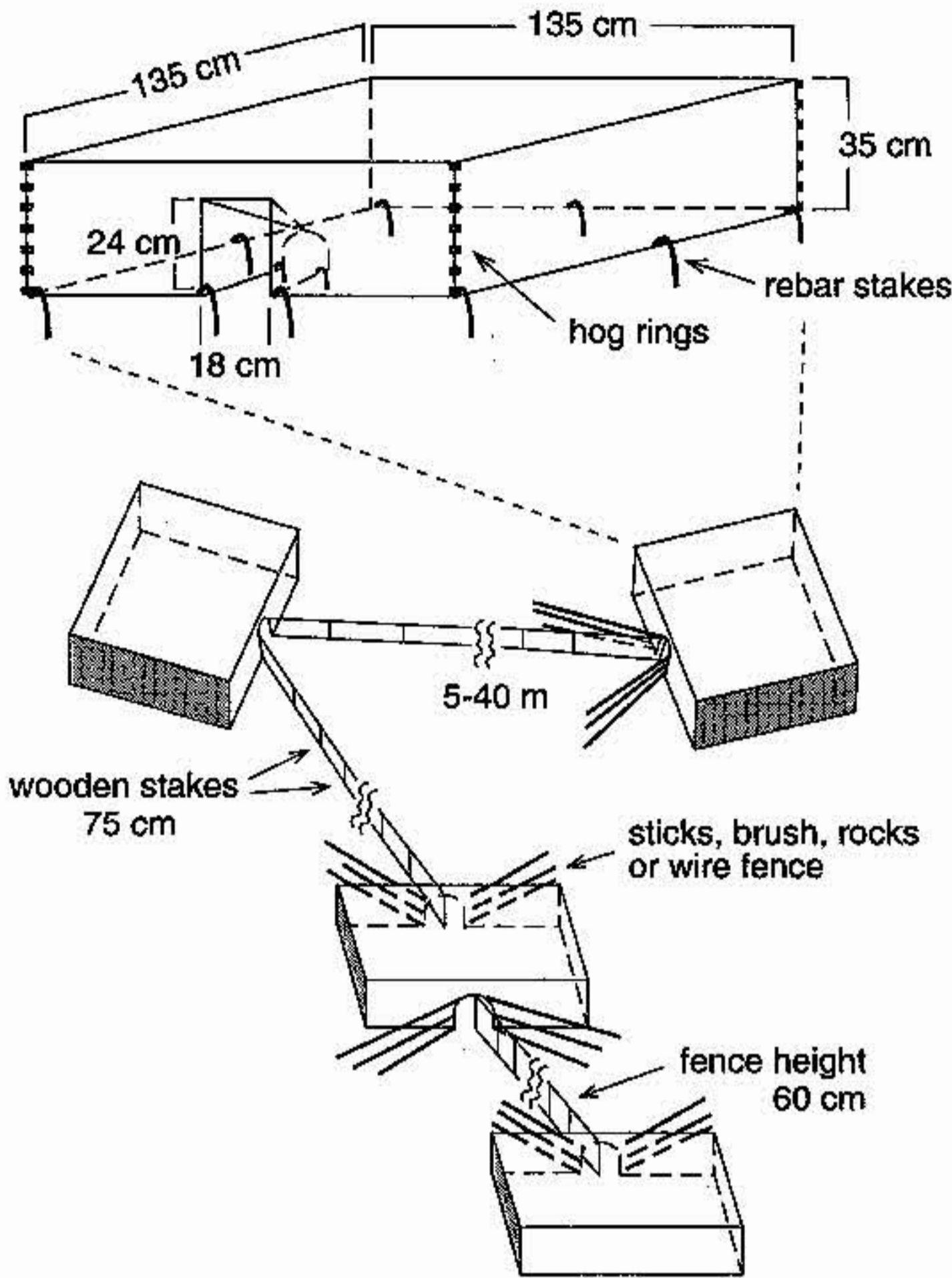


Fig. 1. Interception trap design incorporating V-shaped and linear arrangement for capturing Blue Grouse.

The noosing pole is an effective method for capturing Blue Grouse in much of its range. This technique requires significantly less time, manpower, and money than traps; however, in areas where birds are too wary to be approached and captured by noosing pole, interception traps may provide a viable alternative capture technique for Blue Grouse.

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TABLE 1. Blue Grouse interception trap capture statistics, June through August 1991, 1992, and 1993, in Wallowa County, OR.

	Year			Total
	1991	1992	1993	
Number of birds captured	27	50	63	140
Trap-days	618	941	768	2327
Trap-days/capture	23	19	12	17

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