

National Wildlife Refuge estimated to number 35-50 animals (Personal communication, Raymond MacMasters). Arkansas has a population of 600-700 bears at this time. Population increases have been slow and at no time in the foreseeable future do we anticipate any type of legal hunting for black bear in Arkansas.

Arkansas abandoned its bear restoration program in 1968 due to high costs of trapping and transporting bear and the increasing public opposition to the presence of bears in the state.

A NEW TECHNIQUE FOR LIVE TRAPPING OF NUISANCE ALLIGATORS

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Local increases in the abundance of the American alligator (*Alligator mississippiensis*) have occurred since adequate protection of the species was achieved through its placement on the rare and endangered species list and the extension of the Lacey Act which prohibited interstate transportation of hides. With an increase in numbers a corresponding increase in requests to Southeastern Game and Fish Departments for removal of nuisance alligators has occurred.

During a radio-telemetry study by the senior author of the American alligator on a ten square kilometer reservoir, near Aiken, South Carolina, low capture success was obtained using published capture techniques (Jones 1965, Chabreck 1963). A technique was sought which would reduce the number of man-hours required to capture an animal in an area of low alligator density where approach by man was unusually difficult. A baited snare trap was developed that eliminates man as an active part of capture. In addition, the trap must be checked only once per day.

The snare trap consists of a simple trigger, guide boards and a flexible pole to set the snare (Table 1). Figure 1 illustrates a typical set. Two 1 m by 30 cm plywood boards, with two stakes attached to each board, are set in a V shape perpendicular to the shoreline. There should be 10 cm of water at the shore side and 30-40 cm of water at the water side. The boards are 15 cm apart at the narrow portion of the V and 60 cm apart at the wide portion. The boards guide the alligator through the snare, located in the wide end, in its approach to the bait, located in the narrow end. The bait is attached to a trigger which holds the snare pole in place until the bait is taken (Figure 2). Once captured, the animal is held by a one quarter inch nylon rope attached to the snare and anchored to a tree on shore.

In fifty-six trap nights, twenty alligators were captured. This represents .35 animals per trap night. The average length of the alligators captured was 2.74 m. All but eight sets were tripped the first night. Of the traps which were tripped (48), 10.4% were tripped by other animal species, 14.6% resulted in trap malfunctions, 33.3% failed to capture the alligator and 41.7% resulted in capture.

¹In cooperation with the School of Forestry, Stephen F. Austin State University.

We have found that the described set was the most effective to date. However, it may be desirable to use fiberglass poles or spring steel to replace the bamboo set pole. The $\frac{1}{4}$ inch nylon anchor rope was found to be best as it is strong enough to hold a large alligator (the largest alligator captured was 11' 10"), yet light enough to allow the set pole to release quickly. In all our sets fish were used as bait because this is the primary food of adult alligators in this reservoir. Trap sites were selected on the basis of sightings made during weekly night cruise counts of alligators along the reservoir periphery.

Many of the captures by trip snares were in areas where night approach with a spotlight was unusually difficult because of artificial lighting or noise and automobile headlights from nearby roads. Similar conditions are often encountered in attempts to capture nuisance alligators, since the label of nuisance is usually applied to alligators in areas of high human activity. The trip snare has the advantage of not requiring an approach of the animal for capture. Once the area of activity is known the snare may be set and maintained on a daily basis by one man and the entire procedure may be accomplished during normal working hours.

ACKNOWLEDGMENTS

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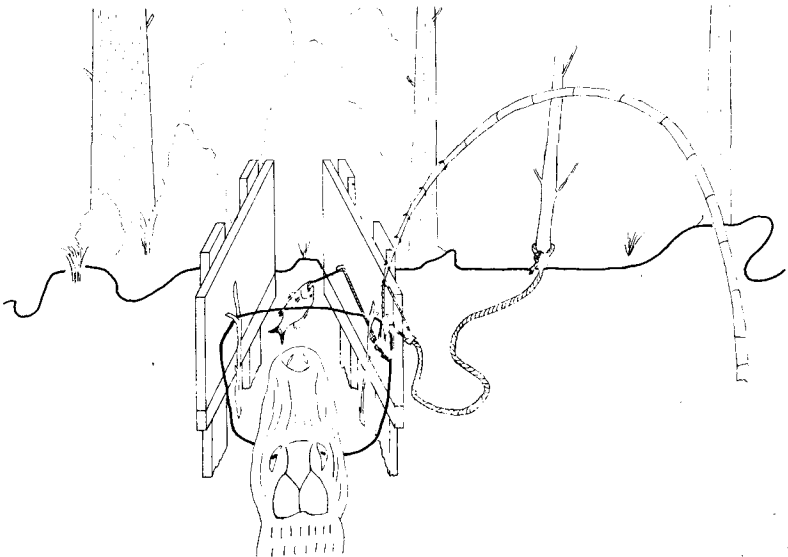


Figure 1. Completed Set of Alligator Trip Snare

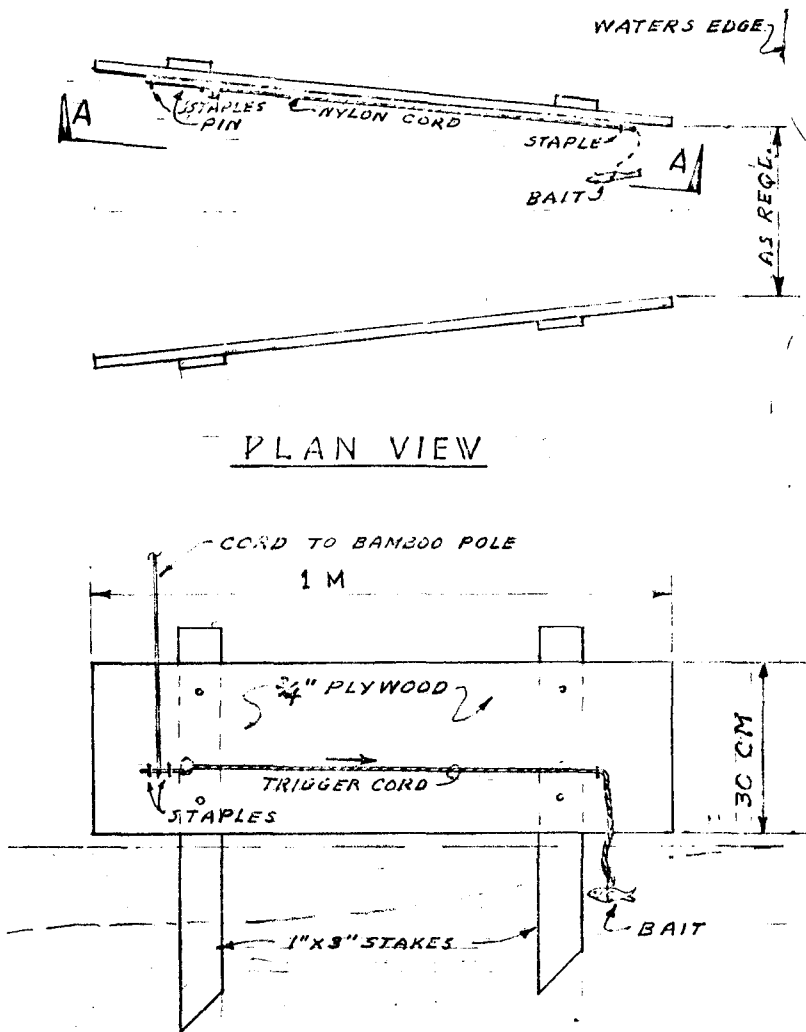


Figure 2. Diagram of the Trigger Board of Alligator Trip Snare

Table 1. List of Materials for Construction of Alligator Trip Snare

2	30 cmX 1 m Boards with stakes.
1	Snare set pole.
3	Poultry staples.
1	4 D common nail.
1	¼ inch X 6 m nylon rope.
1	¼ inch X 1 m cord.
2	¼ inch X 30 cm cord.
1	No. 3 newhouse locking snare (Woodstream Corporation, Lititz, Pa.)

LITERATURE CITED

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A COMPARISON OF DAY AND NIGHT FLOAT COUNTS FOR WOOD DUCK BROODS ON THE HOLSTON RIVER IN EAST TENNESSEE

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ABSTRACT

Day and night float counts for wood duck (*Aix sponsa*) broods were conducted on a 10.8 kilometer segment of the Holston River during the spring of 1973. Nighttime float counts were made using two boats, one down each side of the stream. Hand-held airplane landing lights were used to search the water's edge for roosting broods. Daytime float counts were made the morning following each night census on the same segment of river as the night census. The night and day methods were compared. Eight float counts during the day and eight during the night were completed. The mean number of broods seen at night was 29.5 (2.7 broods per kilometer). The mean number of broods seen during the day was 7.3 (0.7 broods per kilometer). There was a statistically significant difference between the day and night float techniques. The night counts were much more accurate and precise than the highly variable day counts. More than four times as many broods were seen at night as were seen during the day. Age classes