# Blue-winged Teal banding project Panama Canal Zone

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### Introduction

The majority of the Blue-winged Teal (Anas discors) population winters south of the United States border. Many of these birds winter in the Panama Canal Zone, Republic of Panama. During the winter months of 1972-1975, a project was initiated to trap and band these migrants. Many problems were encountered before a successful program was established. Anyone attempting to capture puddle ducks in a comparable environment may find these techniques helpful. Trap dimensions are shown in Figure 1, drawn to scale.

#### Discussion

The teal begin to arrive in the Zone around mid-September. The first arrivals, primarily AHY drakes, are in poor physical condition. Their body weight averages 280 gm, but within four weeks this quickly builds up and levels off at an average of 385 gm. The arrival of the migrants begins to taper off in late October, and by early November the population has stabilized for the winter months.

The birds choose specific wintering areas and banding returns indicated that they remained within 5 km of these sites. They feed and rest upon Hydrilla beds, where the water depth averages 2 meters. Hydrilla verticillata is a water plant that grows profusely throughout South America. All growth is under water with some runners exceeding 30 feet in length. If left undisturbed, the plant becomes so plentiful the area cannot be crossed with outboard motorboats.

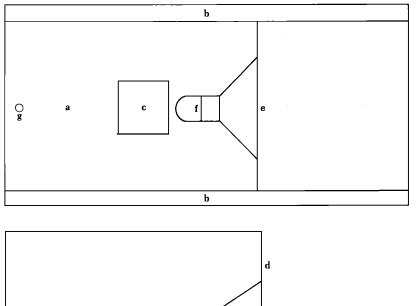
In early April the population increases significantly as the birds begin assembling for the return migratory flight north. The Canal Zone, with its large area of water (impounded for the Canal operations), serves as a staging area. Body weight has increased to an average of 465 gm with some birds exceeding 560 gm by the time the birds have assembled. The departure is virtually en masse during late April, leaving behind only a few cripples. (No one has actually recorded witnessing the flock's departure in one large mass. However, on 15 April 1975, I observed a flock estimated at 5000 teal in the Chagré River. I returned before daylight on the 16th of April to photograph the birds. At sunrise, to my dismay, I discovered they had departed the area. Less than 100 birds remained.)

#### Capture

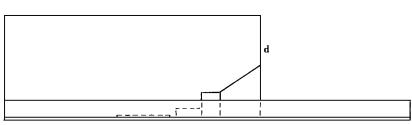
The teal in the Zone prefer the large *Hydrilla* beds. These offer both food and floating debris (a place to rest and preen), and the large size of the beds affords security from both natural enemies and man.

Current capture techniques used for teal require an area of shallow water where they feed or rest. These conditions could not be found in the Zone, and new procedures were required. Initially, floating platforms of different sizes and configurations were constructed. Although other water birds readily accepted the platforms, teal avoided them. Teal were observed to use floating debris on which to preen; therefore, an area where they congregated was selected and old weathered lumber was scattered about. After the teal accepted the lumber, all other debris was removed. At this time the teal returned north.

Before the teal returned the next year, I had placed platforms in the area constructed of 4" x 4" x 8" timbers nailed to 3/8" exterior plywood. The plywood had been turned down so that only the top surface of the timbers protruded above the water surface. A box, 30 cm square, was fastened to the center and near one end of each platform to serve as a holder for bait. As the teal accepted these platforms, bait was placed in the boxes. Surprisingly, the teal were very selective and had a definite food preference. All the commercially available seeds and grains were offered but were not readily accepted. Reluctance to eat these is believed to be caused by the bountiful supply of natural food available throughout the Zone. By now it was late January, and I had little hope of success. Finally, commercial cornmeal was tried and was accepted by the teal.



- a Full sheet of 3/6" plywood
- **b** 4" x 4" x 8' timber
- c Bait holder
- **d** Trap -1" x 2" welded wire
- e Removable end with funnel
- f Step-over wire
- g Anchor rope hole



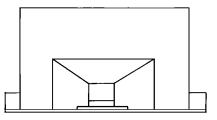


Figure 1. Trap to capture Blue-winged Teal.

Wire box traps, open on one end, were then placed on the platforms. These were ignored by the teal which were now accustomed to feeding on the platforms. The other end with the funnel was then added and the first teal captured on the 12th of February.

Improvements were made in the setup. The floating trap had a tendency to orient itself with the wind; by placing the entrance down-wind, birds readily entered the trap. However, teal are notorious for their ability to find their way back out of a trap. I therefore attached a 2.5 cm-high piece of hardware cloth, 15 cm in radius, to the funnel sides and the trap base (f). The birds had to step up and over this barrier once they were through the funnel. Birds attempting to leave the trap could not step over the circular wire but walked around it, thereby missing the only escape route.

As the technique was being perfected, the teal migrated. The following year the trapping program was delayed, but one interesting point was noted. Teal begin pairing while still in the Zone, and there is a surplus of drakes. A hen can be placed in a trap to capture these drakes. The trap has to be tended frequently to prevent drakes from being injured when two or more enter a trap with a hen.

During the trapping project, only one reportable recapture was recorded. This was a hen, banded as an immature, that returned the following year. Many birds repeated on a daily basis. Several bands were returned by Canal Zone hunters, but no bands have been returned from outside the Zone.

## Conclusion

There exists a need for research on migratory waterfowl in the Canal Zone. The mortality from hunting is believed to be high in the wintering areas. Hunting regulations, as of 1975, were very liberal in the Canal Zone - 25 ducks a day, unplugged guns, and all shorebirds (including those on the endangered species list) were legal game. There are no hunting regulations enforced outside the Zone. Attempts at updating the Canal Zone Hunting Code and establishing hunting regulations in the Republic of Panama were not successful.

All data resulting from this banding program were turned over to the Canal Zone Audubon Society representative. Anyone undertaking a research project may contact the author for a detailed list of data obtained in the Zone from 1972-1975.

# Acknowledgements

I wish to thank the following individuals for their assistance and recommendations: Hugh Bateman, Waterfowl Biologist, Louisiana Wildlife and Fisheries Commission; Eric C. Bolen, Rob & Bessie Welder Wildlife Foundation: Dr. Horace G. Loftin. North Carolina Department of Administration.

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