in a population of Least Flycatchers in Manitoba. *Journal of Field Ornithology* 54:113-122.

9. Wilkinson, T. 1999. Songbird deathtraps. *Audubon* 101(5):23.

10. Williams, J. M. 1996. Nashville Warbler (*Vermivora ruficapilla*). In:

Poole, A. and F. Gill (eds.). The Birds of North America, No. 205. The Academy of Natural Sciences, Philadelphia, and The American Ornitholgists' Union, Washington, D.C.

11. Zimmer, S. J. and H. A. Kantrud. 1987. Burdock traps kinglet. *Prairie Naturalist* 19:259-260.

A call for burdock (Arctium spp.) and bird information.

We are preparing an updated review of records of burdock-entangled birds. Except for records reported in this issue of the Blue Jay and unpublished records from Manitoba (Sealy unpublished data), we are not aware of any records of burdock-entangled birds from the prairie provinces. We encourage individuals to report any unpublished records of birds caught in burdock or observations of birds interacting with burdock. Please contact one of us at the addresses listed below. Any information provided will be acknowledged and greatly appreciated.

Todd J. Underwood, Heather L. Hinam, and Spencer G. Sealy, Department of Zoology, University of Manitoba, Winnipeg, MB R3T 2N2. Email: umunderw@cc.umanitoba.ca, umhinamh@cc.umanitoba.ca, sgsealy@cc.umanitoba.ca



DRAKE CINNAMON TEAL APPARENTLY INCUBATING A CLUTCH OF EGGS AT WHITEWATER LAKE, MB

CAROLYN CURTIS, 699 Brock Street, Winnipeg, MB R3N 0Z3

A western species, Cinnamon Teal are considered occasional visitants to Manitoba, with roughly 45 records of single males or males accompanied by unidentified females.⁸ They have been recorded almost annually in Manitoba since 1974 in prairie sloughs and sewage lagoons. During the spring and summer of 2000, four drake Cinnamon Teal were reported from different locations in southwestern Manitoba. To date there have been no nesting records for Manitoba; however, there is one confirmed breeding record for Ontario in 1983.³ On 14 June 2000, a visiting birder from Ottawa saw a male Cinnamon Teal at Whitewater Lake in southwestern Manitoba. A male Cinnamon Teal was again seen there three days later by three local birders, when it flushed from the deep, dense grass along the dyke on which the group was walking. Upon inspection of the site, a nest containing 10 eggs was found. The question arose as to whether the bird flew off the nest itself, or was just sitting nearby, but one observer was confident that it had flown from the nest.

Two weeks later, I saw a male Cinnamon Teal in the water at roughly the same location, and a week after that on 12 July 2000, George Holland, Richard Staniforth and I saw it again. This time, the drake flushed less than 2 m from our position. Noting the exact spot from which it flew, we parted the grass and found a nest. Although unlikely, we were confident the bird had been sitting on the nest. He flushed with an agitated squawk and flew into the water, approximately 15 m away. There he continued to scold us as he swam back and forth, behaving much like a hen when disturbed from a nest. He remained in the area the entire time we were there. We counted a total of 10 eggs in the nest, recorded their colour, noted the nest structure and then quickly left the area so as not to further disturb the obviously upset duck. We did not touch the eggs to determine if they were warm, an oversight perhaps, due to our rush to leave the area without continued distress to the duck. No female Cinnamon Teal was seen in the vicinity on any visit to the area, nor was any other species of duck visible near the nest.

After leaving the site, we remarked that the eggs had seemed rather large for those of a Cinnamon Teal, though they were of the correct pinkish-beige or buff colouration and were oval in shape. The nest was constructed of sparse grasses and down, and was heavily lined with dark brown down. It was approximately 18 cm in outside diameter and 8 cm deep, within the normal range for this species.⁷ It was situated about 1 m from the dyke, in dense Quack Grass (*Agropyron repens*) and 15 m from the water's edge.

Our next visit, on 27 July 2000, yielded a new scenario. There remained only three eggs (Fig. 1) and there was no sign of a Cinnamon Teal. The eggs were warm, though that was likely due to the midday sun shining on them. There was no evidence of predation; pieces of broken shell and dried egg membranes lay within the nest bowl, indicating that hatching had occurred. The three remaining eggs were now well past the normal incubation time of 21 - 25 days1 or 25 - 26 days⁹ and were unlikely to hatch. (In fact, the time difference between 17 June, the first sighting of the nest and 12 July, the second sighting, is 26 days, suggesting that the eggs likely hatched shortly after our 12 July visit to the site).

We measured the remaining eggs, which were identical in appearance and general size to the ones that had hatched, and found them to be an average size of 55mm x 39mm. This is larger than the average 47.5 mm x 34.5 mm for Cinnamon Teal, although eggs of this species have been recorded up to 53 mm x 37 mm.^{2,4,9} The number of eggs, pinkish egg colour, and location and structure of the nest, not to mention the presence of a male Cinnamon Teal would suggest that they were indeed Cinnamon Teal eggs, but their large size could suggest otherwise. I found no literature, however, to suggest that they were the eggs of any other duck species. Though many ducks have eggs of a similar size, none appear to have those



Figure 1. Three remaining eggs in Cinnamon Teal nest, Whitewater Lake, MB George Holland

of the same pink colouration in combination with the size.

We informed local birders of our observations, inviting any plausible explanation for such unusual drake behaviour. Assuming it was indeed a Cinnamon Teal nest, why would a male incubate?

One suggestion was that perhaps the drake was not actually on the nest, but beside it and he flushed, thus allowing the female to slip away quietly. Despite the fact that we saw the drake fly from the nest itself, even this would be unusual, as male Cinnamon Teal are not normally involved with nesting. And further, no female was seen in the vicinity of the nest on any visit, not even a female of the look-alike Blue-winged Teal. Bellrose cited a report by Oring published in Journal of Wildlife Management (28:223-233, 1964), stating that "...25 percent of the cinnamon drakes deserted their hens in the second week of incubation, 63 percent during the third week, and the rest (12 percent) remained in attendance until the eggs were pipped."¹ Phillips cited contradictory observations of male involvement in nesting, indicating that males are frequently nearby when the female is incubating yet noted that other studies have shown males to be uninvolved with the incubating female or with the brood after hatching.⁹

Another suggested possibility for a male apparently brooding is that perhaps the female had died or abandoned the nest, so the male attempted to take over. Though unlikely in ducks, many male songbirds, woodpeckers and shorebirds participate in incubation; in fact, in some species the male does the majority of the incubating.

There is other evidence of drakes incubating. A male Wood Duck in Northumberland, England was observed incubating a deserted clutch of eggs for several weeks in June and July 1955. He incubated during the night, as typically does the hen, and incubated sporadically during the day. The nest was unsuccessful.¹⁰

In July 1968, a male Fulvous Tree Duck was seen incubating a clutch of 13 eggs. The bird was collected and its gender determined through dissection (plumages of the sexes in this species are identical). The eggs from the clutch contained 18-day-old embryos. Incubation behaviour by male Fulvous Tree Ducks had not previously been confirmed, though Whistling Tree Duck drakes reportedly share in the incubation of eggs.⁵

Finally, there exists the extremely remote possibility that the incubating duck was actually a female that had developed male plumage. Female waterfowl can assume male plumage when estrogen levels are low or missing.⁶ The question remains, could there be little enough estrogen for a hen to assume male plumage, yet enough estrogen for egg production?

Whatever the reason for the presence of a drake Cinnamon Teal on a nest, as was seen by three seasoned birders, this behaviour is unusual, perhaps even more unusual than finding a Cinnamon Teal nest in southwestern Manitoba, well east of the normal breeding range.

Acknowledgments

Thank you to Peter Taylor for providing some research materials, Rudolf Koes for dates of observations and Robert Nero for his suggestions and review of the article. 1. Bellrose, F.C. 1976. Ducks, Geese & swans of North America. Stackpole Books, Harrisburg, Pennsylvania.

2. Bent, A.C. 1923. Life Histories of North American Wild Fowl. Dover Publications, Inc., New York.

3. Cadman, M.D., P.F.J. Eagles, F.M. Helleiner. 1987. Atlas of the Breeding Birds of Ontario. University of Waterloo Press, Waterloo.

4. Ehrlich, P.R., D.S. Dobkin, and D. Wheye. 1988. The Birder's Handbook: A field guide to the natural history of North American Birds. Simon and Schuster Inc., New York.

5. Flickinger, E. L. 1975. Incubation by a male Fulvous Tree Duck. *Wilson Bulletin*. 87:106-107.

6. Greij, E.D. 1973. Effects of sex hormones on plumages of the Bluewinged Teal. *Auk*: 90: 533-551. July 1973.

7. Harrison, H.H. 1979. A Field Guide to Western Birds' Nests. Houghton Mifflin Co., Boston.

8. Manitoba Avian Research Committee (MARC). Birds of Manitoba. In production.

9. Phillips, J.C. 1923. A Natural History of the Ducks, Volume II. Houghton Mifflin Co., New York. Re-published in 1986 by Dover Publications, New York.

10. Rollin, N. 1957. Incubation by drake Wood Duck in eclipse plumage. *Condor* 59:263-265.

