

NEST SHARING BY CAPTIVE CAPE TEAL *ANAS CAPENSIS*

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Two captive female Cape Teal deposited their eggs into a single nest and appeared to share brooding duties. Approximately 11 days elapsed between the conclusion of the first hen's clutch and the commencement of the second hen's clutch. When the eggs from the first hen hatched, both females left the nest to attend the ducklings. The second hen's eggs were removed and incubation completed artificially. Although the occurrence may have been an aberration of captivity, the possibility should not be discounted that large clutches of Cape Teal eggs encountered in the wild may represent contributions from more than one hen.

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Monogamy is the primary mating system of dabbling ducks (McKinney 1985). Among tropical and southern hemisphere species, however, polygyny has been reported in both wild and captive White-cheeked Pintail *Anas bahamensis* as well as in captive Cape Teal *Anas capensis* and Speckled Teal *Anas flavirostris* (McKinney & Bruggers 1983, Stolen & McKinney 1983, McKinney 1985, Sorenson 1991). Typically, these cases of polygyny involved one male paired with two females. Usually aggression between the two females was apparent, although in one wild trio of White-cheeked Pintail, the hens associated closely with each other (Sorenson 1991).

At the waterfowl-flamingo lake at Metrozoo in Miami, Florida, USA, one male and two female Cape Teal siblings hatched in January 1993 formed a trio. The two hens were designated 'green' and 'orange' after the colour of the plastic leg band each bore. No aggression was noted between these two. All members of the trio fed, loafed, and swam together; also they jointly directed aggression towards a pair of conspecifics whose territory adjoined theirs.

On 12 December 1996 I flushed green from a nest with 6 eggs in a bed of lilyturf *Liriope muscari* on the lake's only island. Two days later no additional eggs had appeared. Three eggs were candled. All were fertile and appeared to be about seven days into development,

indicating that brooding had commenced on approximately 7 December and that laying began around 2 December. The three eggs were returned to the nest, and when checked on 16 December there remained six eggs.

Upon my next check on 19 December, I found eight eggs, suggesting that orange was now laying in green's nest. By 26 December, the nest held 14 eggs, after which no additional eggs were laid. Also this day marked the first time I observed both green and orange dart out of the vegetation surrounding the nest as I approached. On daily nest checks for the next week, either orange, or green, or both exited out of the lilyturf. Because of their quick abandonment of the nest when they detected my approach, I was never able to observe both hens simultaneously brooding eggs. The proximity of these birds when flushed, however, indicated that if not actually simultaneously brooding they must have been quite close together. It is possible that one hen brooded while the other sat beside it.

On the morning of 1 January 1997, green's six eggs hatched. The following morning, the ducklings were out swimming, closely attended by the male and both females. By 14:00 hrs of that day, neither hen had returned to the nest to finish brooding the other eight eggs which by then were cold, so they were removed for artificial incubation. Seven were fertile. As

would be expected given the brooding history, these ducklings hatched over a period of eight days, the first on 13 January and the last on 20 January. Thus this 'clutch' of 14 eggs required 20 days for all the ducklings to hatch.

Since indications were that green laid her last egg on 7 December 1996 and that orange laid her first on 18 December, approximately 11 days elapsed from the date green finished laying until orange commenced laying. Other reports of two duck hens sharing a nest and brooding simultaneously have found that laying was apparently synchronized, as ducklings hatched over the course of just a few days (Bellrose 1943, Titman & Lowther 1975). The two instances of nest sharing Mallards *Anas platyrhynchos* monitored by Titman and Lowther involved hens which were raised and overwintered in a hatchery together, although it is not mentioned if these ducks were sisters like the Cape Teal described here.

The nesting strategy adopted by orange clearly would have failed to produce offspring had it not been for human intervention. When green's eggs hatched, orange left the nest to attend these ducklings, abandoning her own fertile eggs. Apparently the stimulus of downy chicks acted as a releaser with her attending behaviour superseding her instinct to continue brooding the unhatched eggs.

The unusual nature of this nesting sequence could perhaps be dismissed as an aberration of captivity. Two points deserve mention, however: 1) The two hens nested separately in May 1996, showing that nest sharing was a facultative strategy rather than an obligate one; 2) All three ducks in the trio were raised by their parents on the lake, thus artificial influences on their behavioural development were as limited as possible given their captivity.

Intraspecific brood parasitism is uncommon in dabbling ducks and has not been reported in Cape Teal (Saylor 1992, Beauchamp 1997). The situation reported here should not be considered parasitic nesting by orange, as apparently her actions were tolerated by green. This occurrence raises the question, however, whether two females might lay in one nest in the wild, either parasitically or cooperatively. Winterbottom (1974) reported that in South

Africa Cape Teal clutches contain from five to 11 eggs; he furthermore mentioned an unconfirmed report of a clutch of 15 eggs. If any wild birds behave similarly to the captive hens described here, large clutches encountered in Africa could conceivably represent contributions from more than one hen.

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