## Daffy but Dapper

A serious approach to the comical-looking Ruddy Duck

by Paul A. Johnsgard

I have often thought about establishing an avian "wow-index" based on the degree of enthusiasm that is generated when I point out a new waterfowl species to a beginning birder. For example, a male Gadwall, even in full breeding plumage, is unlikely to evoke more than a "that's neat" response, whereas a male Cinnamon Teal is certain to draw appreciative murmurs all around. Besides the predictable rave reviews that a male Wood Duck will draw, there are also two certain and perhaps unexpected prize-winners among male ducks likely to be seen in Nebraska during spring. One of these is the Bufflehead, a fairy sprite of a duck that seems to float on the water like an immaculate apparition, only to suddenly dive and later magically reappear some distance away in all its spring glory. The other duck that generates a kind of instinctive attraction and fascination from the moment it is first seen is the male Ruddy Duck.

Viewed objectively, this invariable response to the sight of a Ruddy Duck in breeding condition is perhaps as hard to understand as a teenager's compulsive reverence to some rock star. The Ruddy Duck has a football player's neck that is at least half again too large for its body, a dumpy body that is both shaped and colored like a partly flattenjed and rusty tin can, and an array of spiky, often partly missing, broken or disheveled tail feathers that seem to be haphazardly inserted vertically into its rump. A pair of satanic feathered horns rise periodically from the top of its oversized head, which is mostly white except for a black cap that is pulled down gangster-like to eye level. The whole scene is topped off by an over-sized bill that is an unbelievable cerulean blue, as if some color-blind artist had mistaken blue for gray on his palette.

Yet, in spite of all these aesthetic blunders, or perhaps because of them, the Ruddy Duck is immediately accepted visually, and is emotionally embraced as if it were some long-lost child suddenly appearing at the doorstep in a clown's costume, asking if he might come home again. In large measure, it is the very uniqueness of the Ruddy Duck that makes it so endearing to everyone who sees it. Although some of its seemingly "unique" features, such as the male's blue bill and his tail cocking ability, are shared with the Masked Duck and all of the world's other stiff-tailed ducks, it has other, less obvious yet distinct characteristics.

Among North American ducks, the male Ruddy is the only species known to have an inflatable neck air-sac (the Masked Duck is not well studied, but probably inflates its neck by inflating the esophagus), and the female lays eggs that in proportion to her weight are apparently the largest of any North American duck. The Ruddy Duck lacks a highly abbreviated late summer "eclipse" plumage characteristic of most ducks. The female-like post-breeding plumage is acquired in late summer, but is carried through the entire winter and well into spring, so that many early Ruddys migrating through the Great Plains in April are in their winter plumage, and their bills are still gray rather than sky-blue.

After their arrival on the breeding grounds, the male Ruddys rapidly undergo a pre-nuptial molt into their characteristic rusty breeding plumage, and their bills seem to be gradually illuminated from below with bluish neon lighting. By then, the males are usually highly territorial, spending many of their daylight hours regularly patrolling the edges of reedbeds with tail erect, neck inflated, and "horns" raised, searching for females and possible male competitors.

In his classic *Ducks, Geese and Swans of North America,* F.H. Kortright stated that the male Ruddy Duck has the "most spectacular of all duck courtship displays." This statement might easily be questioned by anybody who has watched, for example, courtship display in Common Goldeneyes, but there is no question that sexual courtship display in Ruddys is a memorable sight. Unlike the half-dozen or so complex and diverse goldeneye displays, the Ruddy persistently does one thing, but does it very well. Inflating the tracheal air-sac in his mid-neck, the male begins a series of progressively faster bill-pumping movements, tapping the underside of the bill on the inflated neck. This not only produces a hollow thumping sound, but also forces air from the breast feathers, causing a ring of bubbles to form around the base of the neck. During this bill-pumping sequence, the tail is progressively cocked forward even more, until by the end of the sequence it is almost touching the nape. After the last bill-tap, the male extends his neck forward, opens its bill slightly, and produces a soft belching sound as air is released from the air-sac or esophagus.

This remarkable display is directed not only toward females but also toward other males, and so must serve dual female-attraction and male-repulsion roles. Males also directly threaten and frequently attack other males, occasionally producing spirited fights. Their common response to nearby females, however, is to try to swim directly ahead of them while simultaneously performing tail-cocking and the "bubbling" sequence.

The most common, if not invariable, response of females to all this is a simple aggressive gape and an accompanying squeaking note. They may also even peck aggressively should the male approach too closely. While some suggest that the male makes a wonderful parent, I have never gotten the slightest feeling that the male is interested in either forming a pair-bond or even less in looking after any young. He appears interested only in mating, and it is seemingly rare for the female to cooperate even the slightest in this matter. When copulations do occur, they seem to be more forced rather than a mutually agreed-upon act, with the female submerged for most of the time, and apparently struggling to get away. I have also seen, although rarely, females lying prostrate on the water, apparently inviting a nearby male to copulate with her.

Nests are built in dense reed beds over water that is deep enough for the female to slip away submerged should danger threaten. The water levels must also be stable to prevent a flooding of the nest or a significant lowering of water levels, and are mostly limited to the larger prairie marshes of the glaciated portions of the Great Plains, from southern interior Canada south through the Dakotas to Nebraska. Drainage of these great "duck factory" marshes have severely affected waterfowl species, as well as grebes and marsh birds. Furthermore, minks, raccoons, and other predators often have serious effects on nesting populations and the production of young.

The eggs laid by female Ruddys are remarkably large, averaging about seventy-five grams, or approximately 15 percent other body weight. In spite of this, the eggs are laid at the rate of approximately one per day. The clutch size averages about eight eggs, which collectively would weigh more than the average female. Clutch size in Ruddy Ducks is often influenced by "dump-nesting," the depositing of eggs of more than one female in the same nest. Ruddy Ducks not only dump-nest, but sometimes lay their eggs parasitically in the nests of other species. Little is known of the hatching success of such parasitically laid eggs, although it is probably not very high.

Those eggs that do hatch result in ducklings that resemble miniature versions of their mothers, chubby grayish creatures with darker caps and smudgy streaks through their grayish-white cheeks. Like their mothers, the young are hatched with feisty dispositions. Within a few days after hatching, the ducklings often begin to stray, sometimes becoming lost or perhaps attached to another Ruddy brood. Probably because they are produced from such large eggs, the young are highly precocial, and evidently require little brooding or parental care following hatching. As a result, counts of older Ruddy broods often fail to provide an accurate idea of actual productivity. There is no good evidence that two broods are ever raised in the same year, at least in the United States. Since Ruddys take flight only rarely, the fledgling period is still

uncertain. It probably requires about 52-66 days, a longer duration than in most comparably sized or even smaller ducks. For example, the smaller Bufflehead fledges its young in a shorter period of about 50-55 days.

With their short and seemingly inadequatewings, long takeoffs, and bumblebee-like flights, it seems unlikely that Ruddy Ducks could migrate effectively over long distances. Yet migrate they do, and many move all the way to the Gulf coast or well into Mexico to spend the winter. Too few Ruddy Ducks have been banded and subsequently recovered to provide any detailed information on individual migration routes or on their mortality rates and life expectancies. Fortunately, Ruddy Ducks are not highly regarded by hunters. As a result, bird-watchers can take first claim on the Ruddy Duck, and find it a boundless source of pleasure and study.

## Captions:

- p. 48 The punk rock star of waterfowl, a male Ruddy Duck (above) displays an assortment of odd attributes, including a blue bill, stiff, spiky tail, and "horns" on its head.
- p. 49 A Ruddy Duck with its blue "headlight" flashing (above), gets a running start before take-off. With tail erect to show off his handsome white rump, a male Ruddy Duck (below) swims past a female. The maneuver is just part of his remarkable courtship behavior.
- p. 50 A Male Ruddy Duck (below) performs a bubbling display during courtship by beating his bill against his chest in rapid fashion, forcing air bubbles from his feathers. Following this display, the Ruddy lets out a belching call (bottom).
- p. 51 A pair of Ruddy Duck chicks follow their mother (above). A Ruddy Duck (below) dives for the bottom in search of plants and insects, the bulk of its diet.

## Photo credits:

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