an unheralded achievement of aviculture

(Marmoronetta angustirostris)

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The Iraqi port of Basra has been much in the news of late, the site of the disappearance of a number of (eventually reappearing) journalists, and a brief stronghold of temporarily victorious Shiites in rebellion against the Saddam Hussein regime. As Iraq's third largest city and its principle port, Basra, established in the thirteenth century, has long been a vital center of export in the Middle East, especially for dates and, of course, petroleum. During the Second World War, Allied supplies to the Soviet Union wre routed through there. And, in 1948, nine five-or-six-weekold ducklings were flown from Basra to England, the ancestors of all the captive Marbled Teal now in England, Europe and America (Ripley, 1974).

These nine birds were imported by The Wildfowl Trust, whose facility at Slimbridge would shortly become and remain the home of the world's largest collection of ducks, geese and swans, with a renowned breeding record. In 1984, however, the Trust had been in existence less than two years. Thus five were shortly sent to Leckford, the aviaries of British department store magnate John Spedan Lewis, at Hants. Almost alone of the great waterfowl collections of Europe, Leckford's had survived the War intact, and was then the major source of captive-bred waterfowl. Jean Delacour's collection, almost totally wiped out during the Nazi occupation of France, was, to a large degree, reconstructed from Leckford birds when Cleres was restored as a public exhibit in 1947.

Although Marbled Teal had first bred in England in 1900 (Rutgers and Norris, 1970), they had totally died out, and the five ducklings from Basra were the first that Terry Jones, Leckford's curator, had seen alive. Jones (1951) presented a detailed account of his initial work with them. The ducklings proved to be two males and three females. In 1950, two of them laid eggs, in clutches of 10 to 12. Set under Bantams, the eggs took 25 days to hatch. Ducklings and Bantams were transferred to lidded coops. Instead of eating, the ducklings "jumped against the coop sides, climbed their foster mothers' backs and jumped and jumped and jumped. As anyone who has reared Carolina (wood) or Mandarins knows, a jumping duckling is a non-feeding duckling" (Jones, 1951). They were eventually induced to settle down and eat when the solid lids of their coops were replaced with glass panes, torn out of the windows of Terry Jones' "pigeon cote," but not before a number had died.

After this initial difficulty, great numbers of Marbled Teal were reared at Leckford and Slimbridge, and soon many other places as well. The Philadelphia Zoo, then the largest U.S. collection of waterfowl, started breeding them in 1962, and the Miami Zoo, then located in Crandon Park, followed in 1963 (Zoological Society of London, 1964 & 1965). Volume 28, the latest number of the International Zoo Yearbook (Zoological Society of London, 1990) lists nine public institutions that bred Marbled Teal in 1986; two in Holland (Amsterdam raised 21), two British collections, one south African, Tel Aviv University, the Sea Worlds at Orlando and San Diego, and the Denver Zoo.

The Marbled Teal is not an expensive bird, as waterfowl go. A pair can be obtained directly from a breeder for roughly the same price as a wholesale Goffin's Cockatoo, less than the usual retail price of a pair of Gouldian Finches. On one breeder's list, they cost twice as much as Wood Ducks and Black Ducks; slightly more than Mandarins, Cinnamon Teal, Ringed Teal, and Fulvous and Blackbellied Tree Ducks; the same as Common Shovelers, Indian Spotbills, Bahama Pintails and Wandering Tree Ducks; somewhat less than Cape Teal. Brazilian Teal, Chiloe Wigeon, Lesser Scaup, or Ruddy Shelducks; and considerably less than Common Shelducks, Baikal and Falcated Teal, Chestnut Teal, White-faced Tree Ducks, Northern Ruddy Ducks, or Hooded Mergansers.

It is fortunate that this species is so

well established, as it appears to be in very serious trouble in the wild. Frank Todd (1979) presented an estimate of as few as 21,000 throughout this bird's fragmented range: southern Spain, North Africa, Cyprus, Syria, Iraq, Iran, Turkey, parts of Soviet central Asia, and western Pakistan, wintering within this range, and northern India as well. It is certainly much rarer than it was. Low (1929) stated its distribution to be the 'southern districts of Europe, particularly Sardinia and the Asiatic borders." It is certainly now extinct in Sardinia, its non-Soviet European range now being Spain, where it has gone from being "one of the most common of Spanish ducks" at the turn of the century to less than 100 pairs in the Guadalquivar Delta (Todd, 1979; Ripley, 1974). The current population in Pakistan is descended from birds bred in Slimbridge in 1969, released in the Lal Suhanra Reserve under the auspices of the World Wildlife Fund (Ripley, 1974; Kolbe, 1979). Todd (1979) did not consider this reintroduction to have met with "much success." The situation in Iraq and Iran cannot have been helped by years of war between these countries or more recent developments there. Most likely, the Marbled Teal's descent towards extinction has progressed with the environmental degradation of the Mediterranean Basin and the Mideast, so graphically portrayed in David Attenborough's (1987) television series and book, The First Eden, a process spanning hundreds of years. It may be difficult to comprehend that North Africa was, in the fourth century, A.D., the "bread basket" of the western Roman empire, while Egypt was the corresponding source of grain for Constantinople and its realm. This duck probably once occurred throughout the entire region.

The Marbled Teal is an ideal beginner's duck, being totally winter hardy (Rutgers and Norris, 1970) and doing perfectly well on standard commercial duck feeds. At Emerald Forest Bird Gardens, our first specimen, a female, arrived from Sea World of Florida, Orlando, in August of 1990. Until the arrival of a male in early April 1991 from Sylvan Heights Waterfowl (North Carolina), America's largest current waterfowl collection, this female, though associating freely with other species, showed no reproductive interest in any of them. Moments after the release of the male

Photo by Josef H. Lindholm



A pair of Marbled Teal, female in the foreground; Muscovy Duck (wild) at left.

from his container, both Marbled Teal were in close company, and less than a week later the male was seen frequently displaying to the female. The male's courtship display is distinctive, if simple: the head is held straight up on a stretched neck, then pulled sharply backwards — rather reminiscent of a mask-bearer in a Chinese New Year's Lion Dance. We are fortunate in having a pair whose sexes are readily apparent. While our female has the barest suggestion of a crest, the male has quite a full one, like that of a female Wood Duck, and his beak is dark, in contrast to the female's largely yellowish one with a dark bridge, reminiscent of that of a Sharp-winged Teal. These distinguishing features are not always so well pronounced (Todd, 1979). The pattern of the plumage of both birds is identical, a beautiful and subtle dappling, making the common name most appropriate. Marbled Teal bare a remarkable resemblance to the South American Crested Duck (Anas specu*larioides*), which are probably not closely related (Johnsgard, 1978; Todd, 1979). Two obvious differences are the much larger size of the Crested Duck, and the Marbled Teal's absence of a speculum, the shiny patch of wing feathers found in all members of the true Teal genus Anas, which also includes Mallards, Wigeons, Gadwalls, Pintails and Shovelers.

Marbled Teal are further distinguished from the genus *Anas* by the lack of a separate eclipse (nonbreeding) plumage and a number of anatomical and behavioral details that appear to imply a relationship to the Pochard tribe (Johnsgard, 1978; Todd, 1979), leading Paul Johnsgard to conclude they belong to genus of their own, Marmaronetta. This separation implies that Marbled Teal are a rather ancient bird, comparatively, as the designation of genera in modern systematic zoology should indicate, among other things, a period of geologic time since their separation, rather than simply distinct physical traits. It would, therefore, make the extinction of this species all the more tragic. Thus, all efforts should be made to ensure that Marbled Teal continue to be well represented and easily available in captivity. Given their peacefulness with other species, and their hardiness, they deserve a place in every collection of waterfowl.

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