

PLANTS AND ANIMALS NOTED IN DYKE MARSH AND ADJACENT WATERS ALONG THE
TIDAL POTOMAC RIVER, FAIRFAX COUNTY, VA., WITH SUGGESTIONS REGARDING
DEVELOPMENTS FOR AQUATIC WILDLIFE IN THAT AREA, OCTOBER 26 AND NOVEM-
BER 19, 1963

(By F. M. Uhler, Patuxent Wildlife Research Center)

At the request of the U.S. Fish and Wildlife Service's Branch of River Basins, the writer joined representatives of the National Park Service, Dr. F. S. Henika of the Branch of River Basins, and other interested persons in a biological evaluation of the Dyke Marsh and contiguous waters along the fresh water section of the tidal Potomac River south of Alexandria, Va.

These inspections were made to facilitate the selection of a 5-acre tract in a section controlled by the Potomac Sand & Gravel Co. that will compensate for overdredging by that firm on an adjacent section of the marsh which is being developed by the National Park Service.

Biologists Maurice Sullivan and L. Kay Thomas from the Capital Parks regional office of the National Park Service aided in the inspections and arranged for boat transportation from the Belle Haven Marina at the north end of the Dyke Marsh on November 19. Mr. George R. Lamb of the District of Columbia chapter of the Audubon Society kindly operated his motorboat for the inspection made on October 26, 1963. Congressman Henry S. Reuss, his wife, and daughter, and several members of the Audubon Society joined in that visit. Detailed observations were made by the use of hip boots.

The east sections of the Dyke Marsh (units C and D) front on the open river and are being dredged as a source of sand and gravel by the company which controls those tracts. Units A and B, owned by the National Park Service, lie between these dredged sections and the George Washington Memorial Parkway. The north end of the Dyke Marsh forms the south border of the broad mouth of Big Hunting Creek at its junction with the Potomac River. The Hunting Creek marshes are rapidly being eliminated by land fills, but the remaining section along the west edge of the memorial parkway still serves as a feeding ground for many kinds of shoal-water ducks and other waterfowl, while the shallow, open section of the creek mouth serves as an outstanding feeding ground for hundreds of diving ducks with lesser scaup and ruddy ducks predominating. This section produces an amazing volume of certain mollusks and midge larvæ (Chironomidae) that serve as food for the diving ducks. The fertile effluent from the Washington and Alexandria sewage disposal plants stimulates a heavy production of minute algæ that render most of the waters too turbid for the successful growth of submerged seed plants, but fortunately these algæ provide food for the midge larvæ and for myriads of the Japanese snail (*Viviparus japonicus*) as well as several native mollusks that are important foods for many kinds of ducks. The shallow tidal waters also have large numbers of killifish (chiefly *Fundulus heteroclitus*) that serve as food for many waterfowl.

Because of the importance as a diving duck feeding ground of this shallow, open-water section in the embayment at the mouth of Big Hunting Creek, every effort should be made to protect this feeding area against destruction by either filling or dredging. These shallow, open waters, together with the adjacent marshes, compose an unsurpassed opportunity for the conservation, enjoyment, and study of aquatic life in the vicinity of our Nation's Capital.

The main Dyke Marsh is dominated by narrowleaf cattail that merges into a pumpkin-ash and red maple swamp on the higher sections. Along the tidal channels and in the deeper pockets, a colorful array of less abundant marsh plants supplies beauty and a great variety of foods for shoal water ducks. Wood ducks were particularly abundant in this section, where the pumpkin-ash seeds and arrow-wood fruits supply an abundance of their favorite foods. Mallards and black ducks also were scattered throughout this section, while the more open marshy channels that extend west of the George Washington Memorial Parkway, in the vicinity of Belle Haven and New Alexandria, had considerable numbers of pintails, shovellers, green-winged teal, and many ring-billed, herring, and Bonaparte's gulls. On November 19 about 1,600 scaups, 400 ruddy ducks, and 25 to 30 buffleheads were noted on the river adjacent to the Dyke Marsh. During the summer and early autumn several species of herons and egrets commonly feed in these marshes. Occasional woodcock were flushed while wading in soggy soils of the ash swamp along the edge of the parkway, and a few Wilson's snipe were noted over the marsh.