

Calendar of events for submersed aquatic vegetation and *Trapa natans* in the tidal Potomac River and transition zone of the Potomac Estuary

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Year	Event	Reference
1875	<i>Vallisneria americana</i> , <i>Ceratophyllum demersum</i> , <i>Nitella flexilis</i> , and <i>Elodea canadensis</i> in the vicinity of Washington, DC.	Seaman (1875)
1904	Submersed plants on shoals from just below the Wilson Bridge to Hallowing Point, MD, and in Gunston Cove, VA.	DCL (1904a, b)
1916	Wide shallow margins covered with submersed aquatic plants from Washington, DC, to Dogue Creek, VA.	Cumming et al. (1916)
1923	<i>T. natans</i> was first recorded near Washington, DC, and quickly spread 5 miles up the river and 35 miles downstream.	Gwathmey (1945)
1933	The flats south of the Wilson Bridge were covered with <i>V. americana</i> , <i>C. demersum</i> , and other plants.	Secretary of the Treasury (1933)
1933	10,000 acres of <i>T. natans</i> extended from Washington, DC, to just south of Quantico, VA.	Rawls (1964a, b)
1939	The loss of aquatic plants in the tidal river was noted.	Martin and Uhler (1939)
1939-45	U.S. Army Corps of Engineers brought <i>T. natans</i> under control with underwater cutting techniques.	Gwathmey (1945)
1950	<i>Potamogeton pectinatus</i> , <i>Najas</i> sp., and <i>V. americana</i> reported in the tidal river.	Stewart (1962)
1952	Submersed aquatic plants were essentially nonexistent in the upper Potomac River.	Bartsch (1954)
1961	A distribution map showed that in the reach above Quantico, VA, <i>Myriophyllum spicatum</i> occurred near Key Bridge and in Dogue Creek. In the transition zone of the estuary, <i>M. spicatum</i> was found in the vicinity of Mallows Bay, Nanjemoy Creek, and Port Tobacco River, MD, and Aquia Creek, VA.	Chesapeake Biological Laboratory (1961)
1962	Abundant submersed plants were found in the Nanjemoy Creek and Port Tobacco River, MD, area.	Stewart (1962)
1963	Maryland permitted treatment of <i>M. spicatum</i> with 2,4-D.	Steenis and King (1964)
1963	<i>M. spicatum</i> cutting begins. <i>M. spicatum</i> thrived in most bays and tributaries from near the mouth of the Potomac River to Mattawoman Creek, MD, and possibly farther upriver.	Rawls (1964a, b)
1969-72	Very little vegetation between Quantico and Port Tobacco River. <i>V. americana</i> , <i>Ruppia maritima</i> , and <i>M. spicatum</i> found in the Port Tobacco River.	Stevenson and Confer (1978)
1970-71	No submersed plants of significance in the upper Potomac River.	Rawls et al. (1975)
1976-77	<i>E. canadensis</i> found in two tidal creeks south of Piscataway Creek, MD.	Washington

		Suburban Sanitary Commission (1978)
1977	Vegetation on Maryland side across from Quantico, VA, to the 301 Bridge (mostly <i>V. americana</i> and <i>P. perfoliatus</i>).	Haramis and Carter (1983)
1979-81	Isolated patches of <i>V. americana</i> and <i>Zannichellia palustris</i> in the tidal river above Marshall Hall, MD.	Carter et al. (1985)
1982	<i>Hydrilla verticillata</i> found near Belle Haven, VA.	Steward et al. (1984)
1983	Twelve species of submersed aquatic plants colonized the tidal river from Washington, DC, to Marshall Hall, MD.	Carter and Rybicki (1986)
1984-85	Submersed aquatic plant coverage in the tidal Potomac River was 243 ha in 1984 and > 1,457 ha in 1985. <i>H. verticillata</i> dominated plant populations in much of the reach. <i>H. verticillata</i> also found at Mallows Bay, MD, in the transition zone of the Estuary.	Carter and Rybicki (1986)
1986	Plant coverage in the tidal river continues to increase. <i>H. verticillata</i> dominates most vegetated areas above Quantico, VA.	Rybicki et al. (1987), Carter et al. (1994)
1988-91	Plant coverage decreases in upper tidal river and increases in lower tidal river and transition zone.	Carter et al. (1994), Orth et al. (1992)

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