

Table C-4. Areal coverage and relative abundance of principal plant associations of Steel Creek delta^a

| Mapping unit | Symbol | Dominant flora | Area | | Percent |
|----------------------------------|--------|--|----------|----------|------------|
| | | | Hectares | Acres | |
| Scrub-shrub wetland | C | <u>Cephalanthus</u> - <u>Salix</u> (buttonbush-willow) | 29 | 72 | 23.1 |
| Emergent wetland (persistent) | P | <u>Leersia</u> (cut-grass) | 22 | 55 | 17.7 |
| Broad-leaved deciduous | S | <u>Salix</u> spp. | 21 | 51 | 16.6 |
| Broad-leaved deciduous forest | Qly | <u>Quercus lyrata</u> - <u>Carya</u> - <u>Nyssa</u> (overcup oak - water hickory - water tupelo) | 17 | 42 | 13.5 |
| Mixed scrub-shrub | C/N | <u>Cephalanthus/Polygonum</u> (buttonbush/Polygonum) | 16 | 39 | 12.4 |
| Mixed forested/scrub- shrub | T/C | <u>Taxodium/Cephalanthus</u> (bald cypress/buttonbush) | 13 | 31 | 10.1 |
| Broad-leaved deciduous forest | Q | <u>Quercus laurifolia</u> (laurel oak) | 5 | 13 | 4.3 |
| Emergent wetland | N | <u>Hydrolea</u> (hydrolea) | 2 | 4 | 1.4 |
| Rooted vascular | R | <u>Myriophyllum</u> (parrot- feather) | <u>1</u> | <u>3</u> | <u>1.0</u> |
| Total | | | 126 | 310 | 100.1 |

^aAdapted from Smith et al. (1981).

Table C-5. Basal area of trees and shrubs of Steel Creek delta^a
(In square meters per acre)

| Species | Mapping unit ^b | | | | | | Qly | Q |
|----------------------------------|---------------------------|-------------|-------------|-------------|-------------|--------------|--------------|--------------|
| | P | C/N | C | S | T/C | T | | |
| Trees | | | | | | | | |
| <u>Carya aquatica</u> | | | | | | | | 3.20 |
| <u>Celtis leavigata</u> | | | | | | | 0.36 | 1.54 |
| <u>Cephalanthus occidentalis</u> | | | 0.04 | | 0.25 | | | 0.06 |
| <u>Crataegus spp.</u> | | | | | | | 0.02 | |
| <u>Forestiera accuminata</u> | | | | | | | 0.06 | |
| <u>Fraxinus americana</u> | | | | 0.10 | | | 1.42 | |
| <u>Fraxinus caroliniana</u> | | 0.17 | | | 0.93 | 0.51 | | 1.42 |
| <u>Ilex opaca</u> | | | | | | | | 0.01 |
| <u>Liquidambar styraciflua</u> | | 0.02 | | | | | 0.56 | |
| <u>Nyssa aquatica</u> | | | | | 0.69 | 11.37 | 4.09 | |
| <u>Planera aquatica</u> | | 0.10 | | | 0.06 | .27 | 0.51 | 0.03 |
| <u>Platanus occidentalis</u> | | | | | | | 1.36 | |
| <u>Quercus laurifolia</u> | | 0.06 | | | | 0.09 | | 0.17 |
| <u>Quercus lyrata</u> | | | | | | | | 2.41 |
| <u>Quercus nigra</u> | | | | | | | | 4.66 |
| <u>Salix spp.</u> | 0.01 | | 0.50 | 3.35 | | | | |
| <u>Taxodium distichum</u> | | 1.17 | | | | 7.65 | 12.97 | 5.03 |
| <u>Ulmus spp.</u> | | | | | | | 0.05 | 0.01 |
| Total | 0.01 | 1.52 | 0.54 | 3.45 | 9.67 | 25.17 | 13.41 | 13.51 |

Table C-5. Basal area of trees and shrubs of Steel Creek delta^a (continued)
(In square meters per acre)

| Species | Mapping unit ^b | | | | | | | |
|----------------------------------|---------------------------|------|------|------|------|-------|-------|-------|
| | P | C/N | C | S | T/C | T | Qly | Q |
| Shrubs | | | | | | | | |
| <u>Amelopsis arborea</u> | | | 0.03 | | | | | |
| <u>Cephalanthus occidentalis</u> | | | 0.15 | | 0.07 | | | |
| <u>Fraxinus caroliniana</u> | | | | | 0.09 | | | |
| <u>Ilex decidua</u> | | | | | | | | 0.02 |
| <u>Salix spp.</u> | | | 0.23 | | | | | |
| Total | 0.0 | 0.0 | 0.41 | 0.0 | 0.16 | 0.0 | 0.0 | 0.02 |
| Total basal area | 0.01 | 1.52 | 0.95 | 3.45 | 9.83 | 25.17 | 13.41 | 13.53 |
| Number of quadrants | 3 | 3 | 8 | 3 | 5 | 3 | 3 | 3 |

^aAdapted from Smith et al. (1981).

^bSymbols of the palustrine system--aquatic bed: P = persistent (Myriophyllum brasiliense); scrub-shrub wetland: C/N = mixed scrub-shrub/nonpersistent emergent (Cephalanthus occidentalis/Polygonum spp.); C = broad-leaved deciduous (Cephalanthus occidentalis - Salix nigra) nonpersistent; forested wetland: S = broad-leaved deciduous (Salix spp.), T/C = mixed forested/scrub-shrub (Taxodium distichum/Cephalanthus occidentalis), T = mixed deciduous (Taxodium distichum-Nyssa aquatica), Qly = broad-leaved deciduous (Quercus lyrata - Carya aquatica - Nyssa aquatica), Q = broad-leaved deciduous (Quercus laurifolia).

Table C-6. Occurrence and biomass of herbaceous species in the Steel Creek delta, summer 1981^a
(In grams per square meter)

| Species | Mapping unit ^b | | | | | | | | | | |
|----------------------------------|---------------------------|-------|--------|-------|-------|-------|-------|-------|------|------|-------|
| | R | N | P | C/N | C | S | T/C | T | Qly | Q | Mean |
| <u>Ampelopsis arborea</u> | | | | | 3.82 | 0.14 | | | 0.04 | 0.28 | 0.84 |
| <u>Aneilema keisak</u> | | 16.96 | 30.56 | 11.16 | 42.20 | 65.36 | | | | | 19.14 |
| <u>Apios americana</u> | | | | | | 7.40 | | | | | 0.33 |
| <u>Aster sp.</u> | | 0.76 | | | | 8.32 | | | | | 0.58 |
| <u>Berchemia scandens</u> | | | | | | | | | 2.52 | | 0.25 |
| <u>Bidens frondosa</u> | | | | | | 1.44 | 8.00 | | | | 0.89 |
| <u>Boehmeria cylindrica</u> | | | 20.76 | | 4.08 | 26.96 | 0.04 | 12.60 | 3.60 | | 5.04 |
| <u>Campsis radicans</u> | | | | | | | | | 0.08 | | 0.01 |
| <u>Cephalanthus occidentalis</u> | | | | | 0.04 | | | | | | 0.01 |
| <u>Ceratophyllum demersum</u> | | | | 11.28 | | | | | | | 1.13 |
| <u>Cicuta maculata</u> | | 1.00 | | | 0.24 | | 1.04 | | | | 0.24 |
| <u>Cyperus haspan</u> | | | 3.18 | | | | | | | | 0.32 |
| <u>Echinodorus cordifolius</u> | | | | 6.72 | | 0.92 | | | | | 0.73 |
| <u>Galium tinctorium</u> | | | 0.07 | 0.24 | 0.16 | 0.08 | | | | | 0.06 |
| <u>Gelsemium sempervirens</u> | | | | | | | | | 0.08 | | 0.04 |
| <u>Hydrocotyle sp.</u> | | | | | 0.09 | | | | | | 0.03 |
| <u>Hydrolea quadrivalvis</u> | | 60.68 | 3.59 | 29.88 | 7.51 | 2.28 | 0.32 | | | | 9.58 |
| <u>Hypericum mutilum</u> | | | 38.11 | | 0.48 | 0.04 | | | | | 0.08 |
| <u>Hypericum walteri</u> | | 2.56 | 22.28 | 19.36 | 18.96 | 7.12 | 6.20 | | | | 8.56 |
| <u>Ilex opaca</u> | | | | | | | | | 0.08 | | 0.01 |
| <u>Itea virginica</u> | | | | | | | | | 0.36 | | 0.04 |
| <u>Leersia spp.</u> | | 9.96 | 374.43 | 62.88 | 52.92 | 0.09 | 13.56 | | | | 60.52 |
| <u>Ludwigia palustris</u> | | 56.92 | 0.27 | 26.72 | 13.20 | 0.01 | | | | | 13.57 |
| <u>Lycopus rubellus</u> | | | | | | 0.97 | | | | | 0.06 |
| <u>Lycopus virginicus</u> | | | | | 1.52 | | 0.80 | | | | 0.23 |
| <u>Mikania scandens</u> | | | | 0.60 | 1.17 | 3.68 | | 3.20 | | | 0.75 |
| <u>Myriophyllum brasiliense</u> | | 31.68 | | 38.80 | | 4.28 | | | | | 7.48 |
| <u>Onoclea sensibilis</u> | | | | | 0.02 | 27.12 | | | 2.44 | | 2.14 |

Table C-6. Occurrence and biomass of herbaceous species in the Steel Creek delta, summer 1981^a (continued)
(In grams per square meter)

| Species | Mapping unit ^b | | | | | | | | | | |
|----------------------------------|---------------------------|--------|--------|--------|--------|--------|-------|-------|------|-------|--------|
| | R | N | P | C/N | C | S | T/C | T | Qly | Q | Mean |
| <u>Panicum agrostoides</u> | | | | | 55.36 | 50.23 | | | | | 10.39 |
| <u>Polygonum hydropiperoides</u> | 356.08 | 271.72 | 52.02 | 105.56 | 29.24 | 9.68 | 34.60 | | | | 86.21 |
| <u>Polygonum spp.</u> | | | | 171.16 | 29.60 | | | | | | 21.05 |
| <u>Rhynchospora corniculata</u> | | | | 5.32 | 15.76 | 91.60 | | | | | 7.85 |
| <u>Rubus sp.</u> | | | | | | | | | | 0.56 | 0.06 |
| <u>Sagittaria latifolia</u> | | 144.84 | 50.97 | 37.92 | 42.30 | 16.80 | | | | | 28.65 |
| <u>Salix spp.</u> | | | | | | 0.22 | | | | | 0.01 |
| <u>Scirpus cyperinus</u> | | | 176.76 | | | | | | | | |
| <u>Saururus cernus</u> | | | | | | 4.16 | | | 0.08 | | |
| <u>Scutellaria laterifolia</u> | | | | | | 1.08 | | | | | 0.06 |
| <u>Smilax bona-nox</u> | | | | | | | | | | 3.68 | 0.37 |
| <u>Smilax walteri</u> | | | | | | | | | 0.32 | 16.48 | 1.68 |
| Miscellaneous | | 0.88 | 4.99 | 0.12 | 1.24 | 5.33 | | 8.28 | 0.08 | 0.16 | 1.96 |
| Total | 356.08 | 597.96 | 777.99 | 527.72 | 388.82 | 335.31 | 64.56 | 24.08 | 9.68 | 21.44 | 318.25 |

^aAdapted from Smith et al. (1981, 1982a). (See Figure C-4)

^bThe following are symbols of the palustrine system. Aquatic bed: R-rooted vascular (Myriophyllum brasiliense); emergent wetland: N = nonpersistent (Hydrolea quadrivalus), P = persistent (Leersia spp.); scrub-shrub wetland: C/N = mixed scrub-shrub/nonpersistent emergent (Cephalanthus occidentalis/Polygonum spp.); C = broad-leaved deciduous (Cephalanthus occidentalis - Salix spp.); forested wetland: S = broad-leaved deciduous (Salix nigra), T/C = mixed forested/scrub-shrub (Taxodium distichum/Cephalanthus occidentalis), T = mixed deciduous (Taxodium distichum - Nyssa aquatica), Qly = broad-leaved deciduous (Quercus lyrata - Carya aquatica - Nyssa aquatica), Q = broad-leaved deciduous (Quercus laurifolia).