

**Table 8d: Bohannon Island Study Area - Baseline Study Data Summary;  
JRPS Habitat Restoration Project (Phase 1) - Invasive Plant Management Plan**

Lead Data Collection Team: James River Outdoor Coalition (Posner, Caseman, Moulton, and Lyon)  
Support Data Collection Teams: James River Park System (Burrell)  
Date of Fieldwork: October 11, 2015  
Total Time in Field: 10 hours



| Functional Guild                    | Scientific Name   | Common Name          | Family           | DCR Rank* | Suggested Treatment*** | Management Unit** |    |    |    |    |
|-------------------------------------|---|----------------------|------------------|-----------|------------------------|-------------------|----|----|----|----|
|                                     |   |                      |                  |           |                        | 1a                | 1b | 2a | 2b | 3  |
| Trees                               | <i>Acer platanoides</i> L.  | Norway Maple         | Aceraceae        | M         | na                     |                   |    |    |    |    |
|                                     | <i>Ailanthus altissima</i> (P. Mill.) Swingle                           | Tree of Heaven       | Simaroubaceae    | H         | TBD                    |                   | 1  |    |    | 1  |
|                                     | <i>Albizia julibrissin</i> Durazz.                                      | Mimosa               | Fabaceae         | M         | TBD                    |                   | 2  | 2- | 1- | 2- |
|                                     | <i>Melia azedarach</i> L.   | Chinaberrytree       | Meliaceae        | L         | na                     |                   |    |    |    |    |
|                                     | <i>Morus alba</i> L.  | White Mulberry       | Moraceae         | L         | na                     |                   |    |    |    |    |
|                                     | <i>Paulownia tomentosa</i> (Thunb.) Sieb. & Zucc. ex Steud.             | Princesstree         | Scrophulariaceae | M         | na                     |                   |    |    |    |    |
|                                     | <i>Pyrus calleryana</i> Dcne.   | Bradford Pear        | Rosaceae         | M         | na                     |                   |    |    |    |    |
| Shrubs                              | <i>Berberis thunbergii</i> DC.  | Japanese Barberry    | Berberidaceae    | M         | na                     |                   |    |    |    |    |
|                                     | <i>Elaeagnus umbellata</i> Thunb.                                       | Autumn Olive         | Elaeagnaceae     | H         | TBD                    |                   |    |    | 1  | 1  |
|                                     | <i>Euonymus alatus</i> (Thunb.) Sieb.                                   | Burningbush          | Celastraceae     | H         | na                     |                   |    |    |    |    |
|                                     | <i>Ligustrum sinense</i> Lour.  | Marsh Dewflower      | Oleaceae         | H         | TBD                    | 2                 | 1  |    |    |    |
|                                     | <i>Lonicera maackii</i> (Rupr.) Maximowicz                              | Amur Honeysuckle     | Brassicaceae     | H         | TBD                    | 1                 | 1  |    |    |    |
|                                     | <i>Rosa multiflora</i> Thunb. ex Murr.                                  | Multiflora Rose      | Rosaceae         | H         | TBD                    | 1                 |    |    |    |    |
| Herbs/Grasses                       | <i>Alliaria petiolata</i> (Bieb.) Cavara & Grande                       | Garlic Mustard       | Brassicaceae     | H         | na                     |                   |    |    |    |    |
|                                     | <i>Centaurea stoebe</i> L. ssp. <i>micranthos</i> (S.G. Gmelin ex Gule) | Spotted Knapweed     | Asteraceae       | H         | na                     |                   |    |    |    |    |
|                                     | <i>Cirsium vulgare</i> (Savi) Ten.                                      | Bull Thistle         | Asteraceae       | M         | na                     |                   |    |    |    |    |
|                                     | <i>Commelina communis</i> L.  | Asiatic dayflower    | Commelinaceae    | L         | TBD                    |                   | 2  |    |    |    |
|                                     | <i>Hydrilla verticillata</i> (L. f.) Royle                              | Hydrilla             | Hydrocharitaceae | H         | TBD                    | 3                 |    |    |    |    |
|                                     | <i>Iris pseudacorus</i> L.  | Paleyellow Iris      | Iridaceae        | H         | na                     |                   |    |    |    |    |
|                                     | <i>Lespedeza cuneata</i> (Dum.-Cours.) G. Don                           | Chinese Lespedeza    | Fabaceae         | H         | TBD                    |                   |    |    |    | 1  |
|                                     | <i>Lysimachia nummularia</i> L.   | Moneywort            | Primulaceae      | H         | na                     |                   |    |    |    |    |
|                                     | <i>Murdannia keisak</i> (Hassk.) Hand.-Maz.                             | Marsh Dewflower      | Commelinaceae    | H         | na                     |                   |    |    |    |    |
|                                     | <i>Persicaria longiseta</i> (de Bruyn) Moldenke                         | Lady's Thumb         | Polygonaceae     | H         | na                     |                   |    |    |    |    |
|                                     | <i>Phyllostachys aurea</i> Carr. ex A.&C. Rivière                       | Golden Bamboo        | Poaceae          | H         | na                     |                   |    |    |    |    |
|                                     | <i>Reynoutria japonica</i> Houtt.                                       | Japanese Knotweed    | Polygonaceae     | M         | na                     |                   |    |    |    |    |
|                                     | <i>Rumex acetosella</i> L.  | Common Sheep Sorrel  | Polygonaceae     | H         | na                     |                   |    |    |    |    |
|                                     | <i>Rumex crispus</i> L.   | Curly Dock           | Polygonaceae     | M         | na                     |                   |    |    |    |    |
|                                     | <i>Securigera varia</i> (L.) Lassen                                     | Crownvetch           | Fabaceae         | L         | na                     |                   |    |    |    |    |
|                                     | <i>Stellaria media</i> (L.) Vill.                                       | Common Chickweed     | Caryophyllaceae  | H         | na                     |                   |    |    |    |    |
|                                     | <i>Urtica dioica</i> L.   | Stinging Nettle      | Urticaceae       | M         | na                     |                   |    |    |    |    |
|                                     | <i>Arthraxon hispidus</i> (Thunb.) Makino                               | Small Carpggrass     | Poaceae          | M         | na                     |                   |    |    |    |    |
|                                     | <i>Microstegium vimineum</i> (Trin.) A. Camus                           | Japanese Stiltgrass  | Poaceae          | H         | TBD                    | 1                 | 1  |    |    |    |
|                                     | <i>Sorghum halepense</i> (L.) Pers.                                     | Johnsongrass         | Poaceae          | H         | na                     |                   |    |    |    |    |
| Vines                               | <i>Ampelopsis brevipedunculata</i> (Maxim.) Trautv.                     | Amur Peppervine      | Vitaceae         | H         | na                     |                   |    |    |    |    |
|                                     | <i>Celastrus orbiculata</i> Thunb. [orthographic variant]               | Oriental Bittersweet | Celastraceae     | H         | TBD                    |                   | 2  | 4+ | 4- | 5- |
|                                     | <i>Dioscorea polystachya</i> Turczaninow                                | Cinnamon Vine        | Poaceae          | H         | na                     |                   |    |    |    |    |
|                                     | <i>Euonymus fortunei</i> (Turcz.) Hand.-Maz.                            | Winter Creeper       | Celastraceae     | M         | TBD                    | 1                 | 2  |    |    |    |
|                                     | <i>Glechoma hederacea</i> L.  | Ground Ivy           | Lamiaceae        | M         | na                     |                   |    |    |    |    |
|                                     | <i>Hedera helix</i> L.  | English Ivy          | Araliaceae       | M         | TBD                    | 3                 |    |    | 1  |    |
|                                     | <i>Humulus japonicus</i> Sieb. & Zucc.                                  | Japanese Hop         | Cannabaceae      | M         | TBD                    |                   |    |    |    | 1  |
|                                     | <i>Lonicera japonica</i> Thunb.   | Japanese Honeysuckle | Caprifoliaceae   | H         | TBD                    | 1                 |    |    | 1  | 1  |
|                                     | <i>Pueraria montana</i> (Lour.) Merr.                                   | Kudzu                | Fabaceae         | H         | na                     |                   |    |    |    |    |
|                                     | <i>Vinca major</i> L.   | Bigleaf Periwinkle   | Apocynaceae      | L         | na                     |                   |    |    |    |    |
|                                     | <i>Vinca minor</i> L.   | Common Periwinkle    | Apocynaceae      | L         | na                     |                   |    |    |    |    |
| <i>Wisteria sinensis</i> (Sims) DC. | Chinese Wisteria  | Fabaceae             | M                | na        |                        |                   |    |    |    |    |

\*Virginia Department of Conservation and Recreation Invasiveness Ranking: H = High Invasiveness; M = Medium Invasiveness; L = Low Invasiveness

\*\*Management Units Assessed Using Modified Braun-Blanquet Cover Scale: 1 = 0-5% (B;LUE); 2 = 5-20% (GREEN); 3 = 20-50% (YELLOW); 4 = 50-75% (ORANGE); 5 = 75-100% (RED)

\*\*\*Treatment practices based on Miller 2003 and JRPS Park Superintendent

|                                |   |   |   |   |   |
|--------------------------------|---|---|---|---|---|
| <b>Cover Class for Trees:</b>  | \ | 2 | 2 | 1 | 2 |
| <b>Cover Class for Shrubs:</b> | 2 | 1 | \ | 1 | 1 |
| <b>Cover Class for Herbs:</b>  | 3 | 2 | \ | \ | 1 |
| <b>Cover Class for Vines:</b>  | 3 | 2 | 4 | 4 | 5 |
| <b>OVERALL COVER CLASS:</b>    | 3 | 2 | 4 | 4 | 5 |

| Treatment Category*** | Treatment Description***   |
|-----------------------|--|
| A                     | Hand Removal: Removal of plant material from the soil in environmentally sensitive areas.  |
| B                     | Goat Herd Management: Rotating herds to remove dense cover and combo treatments.           |
| C                     | Mow-Treat Method: Application of herbicide-water mixtures to cut/damaged stems or foliage. |
| D                     | Cut-Treat Method: Application of herbicide-water mixtures to freshly cut stumps.           |
| E                     | Basal Spray: Applications of herbicide-oil-penetrant mixture daubed onto lower stems.      |
| F                     | Stem Injection: Applications of appropriate herbicide directly into tree stems.            |
| G                     | Prescribed Burning: Drip torching and other methods utilizing experienced professionals.   |
| H                     | Directed Foliar Spray: Application to leaves with herbicide-water-surfactant mixture.      |