

## BOTANICAL SOCIETY OF WASHINGTON

<p><b>Paul M. Peterson</b>, Konstantin Romaschenko, Neil Snow and Gabriel Johnson.  <i>A Molecular Phylogeny and Classification of Leptochloa (Poaceae: Chloridoideae: Chlorideae) sensulato and Related Genera.</i></p>	<p>Sunday  3:00PM  M Room  204</p>
<p><i>Leptochloa</i> (including <i>Diplachne</i>) <i>s.l.</i> is a diverse assemblage of C4 (NAD-ME and PCK) grasses with approximately 32 annual or perennial species. Evolutionary relationships and a modern classification of <i>Leptochloa</i> species based on the study of molecular characters have only been superficially investigated in four species. Our goals are to reconstruct the evolutionary history of <i>Leptochloas.l.</i> with molecular data and broad taxon sampling. We conducted a phylogenetic analysis of 130 mostly Chloridoideae species, of which 22 are placed in <i>Leptochloa</i>, using five plastid (rpL32-trn-L, ndhA intron, rps16 intron, rps16-trnK, and ccsA) and the nuclear ITS 1 and 2 (ribosomal internal transcribed spacer regions) to infer evolutionary relationships and revise the classification. <i>Leptochloas.l.</i> is polyphyletic and we find strong support for five lineages. Embedded within the <i>Leptochloas.s.</i> clade are two species of <i>Trichloris</i> and embedded in <i>Dinebra</i> are <i>Drake-brockmania</i> and 19 species of <i>Leptochloa</i>. Our molecular results support the dissolution of <i>Leptochloas.l.</i> into the following five genera: <i>Dinebra</i> with 23 species, <i>Diplachne</i> with two species, <i>Disakisperma</i> with three species, <i>Leptochloas.s.</i> with five species, and a new genus, <i>Trigonochloa</i> with two species.</p>	
<p><b>Christopher Frye</b>  <i>Notes on the occurrence and ecology of five members of Carex section Phaestoglochin (Cyperaceae) in Maryland: Carexleavenworthii Dewey, C. aggregataMack., C. austrina Mack. C. gravida Mack., and C. mesochorea Mack</i></p>	<p>Sunday  3:30PM  M Room  204</p>
<p><i>Carex</i> sec. <i>Phaestoglochin</i> (Cyperaceae) is one of the more problematic groups of <i>Carex</i> (sedges) in that confident identification of species requires ample material full with mature leaves, sheaths in good condition, and mature perigynia. This section also includes species undergoing relatively rapid range expansions where the major dispersal vectors appear to be humans. The cryptic nature of these species in the field and the poor representation of Maryland material in local and regional herbaria resulted in past placement of four species on the state rare plant list; the latter based primarily on historical (pre-1950) collections. I discuss the ecology, distribution and current conservation status of five species and recommend a conceptual model for addressing conservation rank factors</p>	
<p><b>Rod Simmons</b>  <i>Vanishing Flora of Washington and Vicinity: Three Centuries of Botanical Exploration in Alexandria, Virginia</i></p>	<p>Sunday  4:00PM  M Room  204</p>
<p>The City of Alexandria is one of the oldest cities in the eastern U.S., and was famous as Virginia's primary northern shipping port from the early 1700s to the mid-1800s when the railroad became important. It is situated almost entirely within the coastal</p>	

<p>plain physiographic province between the fall line (zone) and the tidal Potomac River, about 6 miles south of Washington, D.C. This section of Virginia, including the two neighboring counties Fairfax and Arlington, contains a broad variety of habitats and is perhaps the most floristically diverse in the state. The rich history of botanical collecting and exploration in Alexandria from the 19th century to the present will be discussed, including current and historical floristic surveys in Fairfax and Arlington counties, Washington, D.C., and nearby Maryland locales. Contributions to the Flora of Virginia and the National Vegetation Classification (National Capital Region) will also be discussed.</p>	
<p><b>Robin Everly</b>  <i>Bringing taxonomic and biodiversity information to the global scientific community</i></p>	<p>Sunday  4:30PM  M Room  204</p>
<p>Until recently, historical scientific print information was found mostly in libraries in North America and Europe. Several digitization projects are currently underway to bring the literature full text to the rest of the world. More importantly, this information is now becoming more easily available to the developing world where much of the biodiversity of plants and animals resides. This presentation will discuss ongoing projects such as the Biodiversity Heritage Library (BHL) and several plant and zoological information databases. Currently, the core literature collection in BHL is natural history publications in the public domain and primarily taxonomic in its scope. Also, open access journals and how they are providing worldwide access to information to the scientific community will be discussed.</p>	
<p><b>Christopher F. Puttock</b>  <i>Systematic Overview of the North American Paper Daisies (Asteraceae: Gnaphalieae) and the Use of Lucid as an Identification Tool</i></p>	<p>Sunday  5:00PM  M Room  204</p>
<p>The Gnaphalieae are a tribe of about 180 genera and 1240 species (10% of the Asteraceae), with the greatest diversity in Africa and Australia where the involucre bracts of many taxa have long brightly-colored stiff lamina. The 2006 Flora of North America North of Mexico treatment of the Gnaphalieae has 19 genera and 111 species. Three authors were engaged for the preparation of these taxa (Bayer - <i>Antennaria</i>; Morefield - Filagininae; Nesom - the rest). Each author has different species and generic concepts, and placed emphasis on different characters in their descriptions. Building an electronic key to these species has highlighted the difficulties that an editor has in bringing a standard terminology to a treatment, even within such a small group of taxa. The resulting process has filled in many missing character-states, resulting in more comprehensive descriptions of these taxa. These new morphological data have been assembled into the Lucid software to produce the first electronic key to the North American species of the tribe.</p>	