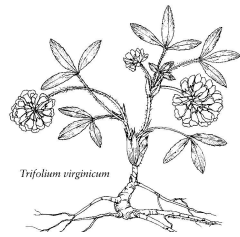


NATIVE



NOTES

Kate's Mountain Clover\*

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WEST VIRGINIA NATIVE PLANT SOCIETY NEWSLETTER

VOLUME 23:1

SPRING 2015

Judy Dumke-Editor: E-mail-dumke@live.marshall.edu Phone 740-894-6859

❖ ❖ ❖ visit us at [www.wvnps.org](http://www.wvnps.org) ❖ ❖ ❖

## Field Trip McDowell County Panther Wildlife Management Area

April 24-26



Recurved fetterbush

© Kevin Campbell

The West Virginia Native Plant Society will conduct a field trip to Panther Wildlife Management Area, in McDowell County. The area consists of a very old second growth hardwood forest dominated with hemlock. Spring wildflowers such as Fern-Leaf Phacelia, Large Yellow Lady's Slipper, Long-Flowered Alumroot, Showy Orchis, Mandarin, Galax, Whorled Pogonia, and Recurved Fetterbush should be near their peak in this southern tip of West Virginia. A board meeting will be held at the Group Camp Lodge on 4/25/2015 from 6:00 to 8:00 pm.

**Location:** Panther is located in the rugged mountains near the southern border of West Virginia, Virginia, and Kentucky. From Route 52, one mile north of Iaegar, turn at the sign to Panther. At the Panther Post Office, turn left at the sign and follow the road approximately 3.5 miles to the area entrance. The Group Camp Lodge is approximately two miles south of the entrance on the right.



© Kevin Campbell photo

**Lodging:** Group Camp Lodge. Large bunk area for \$20.00 for one night or \$30.00 for two nights payable to Judi White, WVNPS Treasurer, 148 Wellesley Dr., Washington, WV 26181. Please let register in advance of the date, if possible. Bring your own bedding or sleeping bag, towels, etc. A commercial kitchen is also available in the lodge to prepare your own meals. If there is interest, we could provide food for a dinner Saturday night for those who register for the trip. The food cost would be in addition to the costs for lodging.



Mandarin

Kevin Campbell

The nearest hotels are located in Bluefield and Princeton, WV a one and one half hour drive to Panther WMA.

**Camping:** Six sites are available at \$14.00 per night, payable to Panther WMA.

**Field trips:** We will be car carvanning or hiking from the Group Camp Lodge starting at 9:00 am to various points in the WMA Saturday morning and afternoon April 25. Lunch, as are all meals, will be on your own.

There will be a **board meeting** Saturday night from 6:00 to 8:00 pm in the Group Camp Lodge.

We may continue exploring areas in Panther on Sunday morning starting at 9:00 AM, April 26 or venture on to Berwind Wildlife Management area located south of War, WV. ♣

## Chapter Field Trips

### Tri State Chapter

**May 2, 2015** Bernard Adkins, retired biology teacher, from Wayne High School will lead a trip to view the wildflowers found on the 200 acres grounds of the school complex. The trip will depart from the High School parking lot at 9:30 AM.

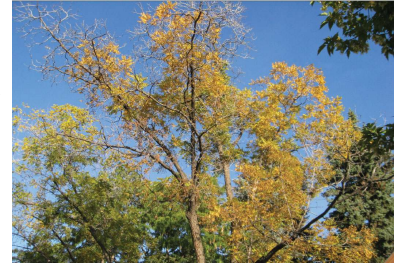
Directions From I-64 proceed on WV152 south through Lavalette toward Wayne. In Wayne you will see a Walmart superstore on the left and a Wendy's, continue for ½ to ¾ miles including crossing over a bridge, then turn right onto Craig Rd (52/43). In about .1 mile you will see Wayne High School (visible from RT.152). Address 100 Pioneer Rd. Wayne WV for those using GPS.

**June 13** Grayson Lake Ky. Location and time to be determined. ♣

# Oh No, not more threats to our native plants

There are two newer invasive beetles which vector diseases threatening West Virginia's beloved natives. So far they have not yet been reported, as far as the editor knows, in West Virginia. Which is why your eyes are needed to report any suspicious infections.

The first is **Thousand cankers disease** of black walnut, yes, the eastern black walnut. This disease is carried by a small beetle, the walnut twig beetle. The fungus which it carries has no common name, tentatively it is called *Geosmithia morbida*. When the beetle drills into the twigs it creates galleries in which the eggs are laid and the larvae feed, this can eventually girdle the branches. The fungus that it carries into these galleries weakens the wood.



Infected black walnut tree

**What to look for—on the trees** there will be die back of the upper branches, small cankers on the branches, wilted leaves and eventually tree death (several years after infection). There may be staining on the bark above the cankers near the abundant entrance and exit holes of the beetles.



Walnut Twig beetle

**The beetles** are native to the American southwest, where they are found on the western black walnut. The reddish brown beetles are small, 1.5-2 mm long; the larvae are typical white beetle larvae. The galleries in which the eggs are laid are horizontal and the larval galleries tend to be vertical. **The fungus** is not field identifiable.

As of now the WV department of Agriculture has a quarantine on the importation of walnut boles or any infected wood. If you suspect a case of 1000 canker disease please report it to the WV department of agriculture.

Material from the Pest Alert of the US Forest Service.

[http://na.fs.fed.us/pubs/palerts/cankers\\_disease/thousand\\_cankers\\_disease\\_screen\\_res.pdf](http://na.fs.fed.us/pubs/palerts/cankers_disease/thousand_cankers_disease_screen_res.pdf)

## Viburnum Leaf Beetle

While 1000 canker came from the southwest, the Viburnum leaf beetle (VLB) is coming from the northeast. This European pest can be found on *V. dentatum*, *V. opulus*, *V. trilobum*, *V. rafinesquianum*, *V. lantana*, *V. lentago*, *V. acerifolium* and *V. prunifolium*. Many of the European and Asiatic species seem to be resistant to its attacks or are not attractive to the beetle.



Larvae and damage

The 1/4 to 3/8 inch long beetle are golden brown with a thick golden-grey pubescence, the larvae are about 1/2 inch long. The eggs are laid in the fall and in the spring the larval groups skeletonize the leaves (May-June) tending to be found on the leaves on the lower part of the plant. After they pupate the adults finish the job chewing holes through remaining leaves (July-September) The females lay eggs on the twigs of the year in characteristic series of cavities.



Leaf damage

The damaged leaves are one of the first signs to indicate that this pest is present, should you see the leaves look for signs of the larvae or beetles (being sure it is not Japanese Beetle damage) then report the find to the West Va. Department of Agriculture and sound the alarm.

[http://www.wvagriculture.org/images/Plant\\_Industries/Viburnum\\_Leaf\\_Beetle.pdf](http://www.wvagriculture.org/images/Plant_Industries/Viburnum_Leaf_Beetle.pdf)

Material and photographs from Ohio State University Extension

<http://ohioline.osu.edu/sc195/013.html>



# The Ins, Outs and Life Cycles of Ferns



Dr. Watson presenting information

In January Dr. Mark Watson hosted member of the WVNPS in the biology department of the University of Charleston. The workshop started in a classroom with a striking view of the Kanawha River, practical seating and a large screen for presentations. He provided the attendees with a handout of all the slides and a listing of terms that

pertain to ferns and fern allies. The introductory lecture introduced the alternating generations life cycle of the ferns and the terms used in description of fern morphology. This served as a basis for the afternoon session in the laboratory which provided the participants with the

o p p o r t u n i t y t o collectively key out ferns and practice the use of c o m m o n k e y s , particularly those found in the *Flora of West Virginia*. For those of us who are older the use of a screen, not the opaque projector of ancient history, to project an image of what was being discussed was appreciated. We all left with a better understanding of the biology and morphology of this fascinating group of plants



Attentive students

Photo Dan Stevenson



Keying in the laboratory

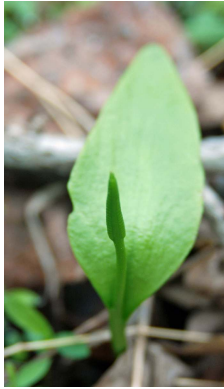
One of the most useful, at least to some, was the chart that Dr. Watson prepared showing the status of the ferns and fern allies as presented by the *Flora of West Virginia* ( 1952 revised 1970) and the *Flora of North America Vol. 2* (1993 with on line revisions). There has been a profound change in the interpretation of these plants and their relationships to each other. Most certainly the revisions have not yet stopped and will continue. Evolving techniques and additional botanists concerned with the group as well as additional work in larger geographic regions makes our understanding of these plants more exciting and useful. ❀

## Additional Resources

Two additional resources that might be of interest to the membership of WVNPS are quite different, but equally appealing. The Smithsonian Botanical Symposium this year, is “*The Next Generation pteridology – an International Conference on Lycophyte and Fern Research.*” As part of the conference the kick off on Monday, June 1<sup>st</sup> from 8:45-5:30 will be at the Smithsonian Museum of Natural History in the Baird Auditorium. It is open to the public at no charge, although registration is required. The rest of the conference has a fee. For those in the Eastern Panhandle this might be an appealing option. For registration and addition information: <http://botany.si.edu.sbs>.

The Ohio Botanical symposium hosted a keynote address on ferns by Dr. Robbin Moran of the New York Botanical Garden. His presentation was far from taxonomic. It featured the unusual adaptations and morphology of selected ferns. He has written a book on the topic *A Natural History of Ferns*. Timber Press 2004. While it is out of print, copies apparently are available on line and would serve as a resource for those looking for interesting presentation items. ❀

# Fern Changes according to Mark Watson



Adder's Tongue



Narrow Leaf Beech Fern



Lance Leaf Grape Fern

© images courtesy of Kevin Campbell

## No Change

*Equisetum sylvaticum*, *E. arvense*, *E. fluviatile*, *E. hyemale*,  
*Lycopodium porophyllum*, *L. lucidulum*, *L. inundatum*, *L.*  
*obscurum*, *L. annotinum*, *L. clavatum*, *Selaginella rupestris*,  
*S. apoda*, *Botrychium matricariaefolium*, *B. simplex*, *B.*  
*dissectum*, *B. oneidense*, *B. lanceolatum*, *B. virginianum*,  
*Osmunda claytoniana*, *Cyrtogramma stelleri* (WVHNP),  
*Polypodium virginianum*, *P. polypodioides*

## Polypodeaceae to Aspleniaceae

*Asplenium ruta-muraria*, *A. gravesii*, *A. pinnatifidum*, *A.*  
*trudellii*, *A. montanum*, *A. resiliens*, *A. platyneuron*  
*A. trichomanes*, *A. bradleyi*, *A. stotleri*,

## In Addition genus or species changes

*Camptosorus rhizophyllus* to *A. rhizophyllum*, *A. ebenoides*  
split into *A. septentrionale* (northern Spleenwort) WVNPH  
and *A. alternifolia* (spllenwort) WVNHP

## Polypodeaceae to Blechnaceae and genus change

*Lorinseria areolata* to *Woodwardia areolata*

## Polypodeaceae to Dennstaedtiaceae

*Pteridium aquilinum*

## Polypodeaceae to Dryopteridaceae

*Woodsia ilvensis*, *W. scopulina*, *Cystopteris fragilis*, *C.*  
*protrusa*, *Onoclea sensibilis*, *Dryopteris cristata*, *D.*  
*marginalis*, *D. goldiana*, *D. celsa*, *D. intermedia*, *D.*  
*spinulosa*, *D. campyloptera*, *Polystichium acrostichoides*,  
*Athyrium pycnocarpon*, *A. thelypteroides*, *A. angustum*, *A.*  
*aspleniodes*,

## In addition genus, species or subspecies change

*Woodsia obtusa* (tetraploid eastern), *Cystopteris bulbifera*  
split into *C. tenuis* (Mackay's brittle fern) and *C.*  
*tennesseensis* (Tennessee bladder fern), *Matteuccia*  
*pennsylvanica* becomes *M. strutiopteris*, *Gymnocarpium*  
becomes *G. appalachianum*

## Polypoidaceae to Pteridaceae

*Pellaea atropurpurea*, *Cheilanthes lanosa*, *Adiantum pedatum*

## In addition species or subspecies change

*Pellaea glabella glabella*, *Cheilanthes castanea* split into *C.*  
*eatonii* Chestnut Lip Fern (WVNPH) and *C. tomentosa*  
Woolly Lip Fern.

## Polypodeaceae to Thelypteridaceae

*Phegopteris connectilis*, *P. hexagonoptera*, *Thelypteris*  
*noveboracensis*, *T. palustris*

## Split of one species to two families

*Trichomanes boschianum* remaining in  
*Hymenophyllaceae* becomes *T. intricatum*;  
while another division goes to the *Vittariaceae* as  
*Vittaria sppalachiana*

## Change of Family

### Schizaeaceae to Lygodiaceae

*Lygodium palmatum*

## Change of Genus Only

*Lycopodium tristachyum* to *Diphasiastrum tristachyum*

## Change of Genus and Species

*Lycopodium flabelliforme* to *Diphasiastrum digitatum*

## Change of species only

*Ophioglossum vulgatum* split into *O. engelmannii*  
(Limestone adder's tongue) WVNHP and *O. pusillum*  
(adder's tongue) WVNHP

## Addition of subspecific designation

*Botrychium lanceolatum agustisegmentum*,

*Osmunda regalis spectabilis*, *O. cinnamonea glandulosa* ❀

# This That and the Other

## Now Available

Those working with the flora of West Virginia know that the Flora and Atlas is out of print. There is good news....it is available as a FREE PDF download.

Go to:

[http://www.wvdnr.gov/publications/PDFFiles/wvc\\_hkfst.atlasvas.2006.pdf](http://www.wvdnr.gov/publications/PDFFiles/wvc_hkfst.atlasvas.2006.pdf)

-  
To download the 44.5 meg file, it will take time. A full announcement will be found as an appendix to the e-mailed edition and on the web site version of Native Notes.♣

## Thank You

The WVNPS has received a thank you note from Emily Gillespie, the curator of the herbarium at Marshall University, for our contribution to their on going work. Emily indicated that they have 14 students working in the herbarium who are helping to digitize the collection, as well as participating in on going routine activities. She hopes to have an open house in the future, but in the mean time see the web sites.

[http://gillespielab.weebly.com/?fb\\_action\\_ids=4667543504434&fb\\_action\\_types=weeblyapp%3Ashare](http://gillespielab.weebly.com/?fb_action_ids=4667543504434&fb_action_types=weeblyapp%3Ashare)

<http://gillespielab.weebly.com/herbarium.htm> ♣

## Errata

Page 4 of the winter 2014-15 issue of Native Notes indicated that Great Indian Plantain was classified as threatened in WV, it is not... it should have been Sweet Indian Plantain listed as threatened. ♣

## Chapter News

### Tri State Chapter

The winter tree workshop had too much winter, the roads were almost impassible, thus it was cancelled. The members were disappointed, but safe. There is always the chance that Romie will agree to have a make up session next winter. After all, he had prepared extensively for the activities at Beech Fork State Park.

Two field trips are planned, the first is detailed on page 2 of this issue. The second is planned for June 13th at Grayson Lake in Kentucky. The exact time and location are to be determined. Recent rain and unpleasant weather require additional scouting to determine the best possible location.

[http://fw.ky.gov/More/Documents/GraysonLakeWMA\\_All.pdf](http://fw.ky.gov/More/Documents/GraysonLakeWMA_All.pdf) ♣

### Eastern Panhandle Chapter

The eastern panhandle chapter has been fully reinstated and begun to function.

Officers include:

P r e s i d e n t   R o d n e y   D e v e r ,  
[rodneymace@comcast.net](mailto:rodneymace@comcast.net) 304 943-0126

Secretary Steve Mace

[sdmace@frontiernet.net](mailto:sdmace@frontiernet.net) 304-674-5523

Treasurer Robert (Bob) Ritsch

[rritsch42@comcast.net](mailto:rritsch42@comcast.net) 304-676-3861

As of now, events are in the planning stage, however if you are interested in any of the activities that may be held, or which you can assist with, please contact any of the above persons for information. They would be glad to hear from you.

♣

# News of the West Virginia Native Plant Society

## Highlights of the January 17, 2015 Board Meeting

- ! The meeting was held at the Clay Towers Building, University of Charleston, Charleston WV.
- ! 8 Board members and 3 members attended
- ! The society remains in sound fiscal condition.
- ! Membership was reported as declining as dues are not being received. New members are being added to the membership list but they do not balance those not renewing.
- ! Thank yous for the donations to the herbariums at WVU and WV Wesleyan were read. Both were very grateful.
- ! A donation of \$100 was voted to the herbarium at Marshall University as it had been confirmed to be active.
- ! Steve Mace reported that 1,045 people are on the WVNPS Face book page.
- ! The membership brochure on the website will be updated or referenced.
- ! Holding other events similar to the fern workshop was discussed and found to be desirable.
- ! Schedules and locations for future events were discussed.
- ! A board meeting and field trip will be held at Panther WMA April 25-27. Lodging will be available at a cost of \$20 for one night and \$30 for two. The total cost will be slightly less than \$400, thus a turn out of at least 15 people is required to cover expenses.
- ! The annual meeting will be held September 12-13, 2015
- ! Copies of the "Gardening with Native Species" PowerPoint were distributed to the board for promoting the Society. ♣

### Welcome to New Members

Kevin Cade	Hurricane, WV
Russ and Sue Flowers	Williamstown, WV
Jennifer Klages/Sebastian Donner	Augusta, WV
Paul and Christine Marshall	Jefferson Co., WV
Bob Ritsch	Shepherdstown, WV
Dan Rowsey	Pinch, WV
Kathleen Simpson	Gandeville, WV
Beverly Wright	Charleston, WV

### REMI NDER

When the events and dues notices were sent out this winter, many were returned. If your e mail address, or even your mailing address, has changed please notify Helen Gibbins [Gibbins@frontier.com](mailto:Gibbins@frontier.com) or 304-736-3287. This will ensure that you know what your WVNPS is doing and what you can participate in. ♣

### West Virginia Native Plant Society Officers

President -Steve Mace  
[sdmace@frontiernet.net](mailto:sdmace@frontiernet.net)  
(304)-674-5522

Past President- Romie Hughart  
[romie5006@yahoo.com](mailto:romie5006@yahoo.com)  
(304)-523-1049

Vice President- Emily Grafton  
[egrafton@gmail.com](mailto:egrafton@gmail.com)

Corresponding Secretary\_  
Helen Gibbins  
[Gibbins@frontier.com](mailto:Gibbins@frontier.com)  
(304)-736-3287

Recording Secretary-Dan Stevenson  
[dstevenson101@gmail.com](mailto:dstevenson101@gmail.com)  
(304)-633-0800

Treasurer - Judi White  
[Judiwhite@suddenlink.net](mailto:Judiwhite@suddenlink.net)  
304-863-8352

### Directors

Donna Ford-Werntz (1 year term)  
[dford2@wvu.edu](mailto:dford2@wvu.edu)  
(304)-293-0794

Chris Gatens (3 year term)  
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[cmgatens@frontier.com](mailto:cmgatens@frontier.com)

Pete Rykert (2 year term)  
[eagle26241@yahoo.com](mailto:eagle26241@yahoo.com)

Tri State Chapter-Romie Hughart  
See above

Kanawha Valley -Steve Mace see above

Eastern Panhandle-Rodney Dever  
[rodneydever@comcast.net](mailto:rodneydever@comcast.net)  
(304)-943-0126)

Editor\_ Judith Dumke  
[dumke@live.marshall.edu](mailto:dumke@live.marshall.edu)  
(740)-894-6859



## West Virginia Events of Interest

**April 18** Osbra Eye Memorial Walks, Kanawha State Forest  
8:30 to 12:30 fee [www.kanawhastateforest.com/2015osbra.pdf](http://www.kanawhastateforest.com/2015osbra.pdf).

**April 24-26** New River Gorge Wildflower Weekend events at the New River Gorge, Little Beaver State Park, Babcock State Park, Twin Falls State Park, Pipestem State Park, Hawk's Nest State Park  
<http://www.nps.gov/neri/planyourvisit/wildflower-weekend.htm>

**May 2** Wildflowers and Invasive Weeds, Blennerhasset State Park  
<http://www.wvdnr.gov/2013news/13news086.shtm>  
given by Emily Grafton

**note you may need to insert the web addresses into your address bar.** ❀

## Near by and Native

**April 10-12** Wild Flower weekend, Natural Bridge State Park, Slade, Ky. [WWW.knps.org](http://WWW.knps.org)

**April-May** throughout Virginia native plant sales for a listing see [www.vnps.org/conservation/2015](http://www.vnps.org/conservation/2015)

**May 9** Mountain native Plant Festival , New Germany State Park (Garrett Co.) [www.mdflora.org](http://www.mdflora.org)

**June 13-14** Ohio Moss and Lichen Foray Brown County Ohio [www.ohiomosslichen.org](http://www.ohiomosslichen.org)

**June 28** Open House Hunt Botanical Library, Pittsburgh Pa. [www.huntbotanical.org](http://www.huntbotanical.org) ❀

### ***2015 WVNPS MEMBERSHIP RENEWAL OR INITIATION***

<b>Name(s)</b> _____	<b>CATEGORIES</b>	
<b>Address</b> _____	<b>Life</b>	<b>\$200</b>
_____	<b>Regular</b>	<b>12</b>
_____	<b>Student</b>	<b>8</b>
<b>Chapter affiliations (please circle)</b>	<b>Tri-State Chapter</b>	<b>6</b>
	<b>Kanawha Valley</b>	<b>0</b>
	<b>Eastern Panhandle</b>	<b>0</b>
<b>E-Mail</b> _____		

**I prefer to receive the Native Notes by mail \_\_\_\_\_ e-mail \_\_\_\_\_**  
You must be a member of the statewide WVNPS in order to be a member of a local chapter.

Please make the check payable to West Virginia Native Plant Society;  
Include local chapter dues, if pertinent. Dues are for one calendar year.

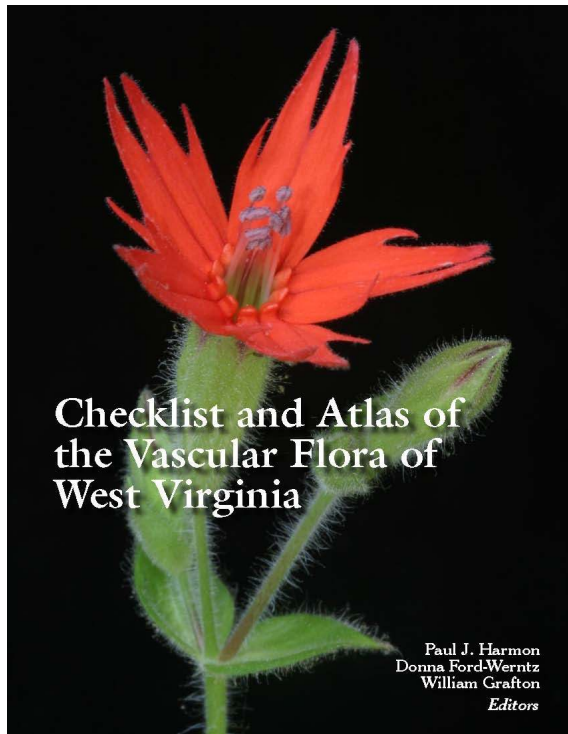
Send dues to: Judi White  
WVNPS Treasurer  
148 Wellesley Dr.  
Washington WV 26181



## **ANNOUNCING:**

### ***CHECKLIST AND ATLAS OF THE VASCULAR FLORA OF WEST***

***VIRGINIA*** by **Paul J. Harmon, Donna Ford-Werntz, and William Grafton**



Checklist and Atlas of  
the Vascular Flora of  
West Virginia

Paul J. Harmon  
Donna Ford-Werntz  
William Grafton  
Editors

The checklist and county dot-map atlas of the vascular flora of West Virginia is now available (free of charge) in PDF format.

The publication is no longer available in printed format from WV DNR, but those who download the PDF document should feel free to print copies as they see fit.

The 381-page document includes a series of lists of the vascular plants known to occur outside of cultivation in West Virginia. County dot maps indicate from which counties each of the 2503 taxa is recorded. Open and solid dots indicate whether each was recorded after 1976 or not.

Cost: free in PDF format

To access the document:

From within your web browser, navigate to the WV DNR website, then navigate to “Publications/Programming:”, then click on Wildlife Diversity Program Publications at <http://www.wvdnr.gov/publications/publications.shtm> .

Under books, click on Checklist and Atlas of the Vascular Flora of West Virginia.

Or, to begin downloading the document immediately, hold down CTRL while clicking on the following link <http://www.wvdnr.gov/publications/PDFFiles/wvchklst.atlasvas.2006.pdf>

The document is large (44.5 MB), so a reasonably fast internet connection will help speed up the download time. One can view the document on-line once it appears on your computer screen, but navigating and searching it is much quicker if you download the entire document and save it onto your computer’s hard drive.

If you are not familiar with working with PDF documents, you will likely need a program to read PDF documents, such as Adobe Reader XI. Navigating to page numbers in the document takes some extra work, as the electronic count of pages differs from the original

**pagination of the once printed document.**

**You may also be interested in knowing that there are applications available on many smart phones or tablets that permit one to load and read PDF documents. I have found I am able to carry *The Checklist and Atlas of the Vascular Flora of West Virginia* on my devices, and read it while hiking about.**

**As was mentioned earlier, printed copies of the book are no longer available.**

**Thanks to all who complimented us on the usefulness of the publication! We hope you continue to find it helpful in this format, too!**

**Sincerely,**

**Paul J. Harmon, on behalf of Dr. Donna Ford-Werntz and the late William Grafton**