Minutes of the Rare Plant Forum
2 April 2005
Bear Run Nature Reserve, Mill Run, PA
Members present:
Janice Andrews, Paul Biebel, Charles Bier, Graham Bier, James Bissell, Tim Block, Mark Bowers, Beth Brokaw, Eric Burkhart, Robert Coxe, Tim Draude, Janet Ebert, Chris Firestone, Steve Grund (Chair), Jason Harkcom, Robin Hok, Jack Holt, Clare Hydock, Bonnie Isaac, Joe Isaac, Karen Johnston, Larry Klotz, Wesley Knapp, John Kunsman, Carol Loeffler, Christine Manville, Rick Mellon, Susan Munch, Dr. Fatimata Pale, William Paxton, Barry Poglein, Ann Rhoads, Robert Ryba, Autumn Sabo, Sue Thompson, Christopher Tracey, and Deanna Witman
The meeting convened at 10:30 AM.
Steve Grund introduced the meeting, saying that our main function is to advise the Bureau of Forestry on appropriate conservation status of plant species in Pennsylvania. We have no official role, but decisions made in the forum are generally approved by the Vascular Plant Technical Committee and the Bureau of Forestry generally takes our recommendations.

Announcements

Clare Hydock invited comments for the Allegheny National Forest plan. We can go to their web site to do this.
Sue Thompson of the Biodiversity Partnership announced that forest conditions in Pennsylvania will be discussed at an upcoming conference. She provided copies of *Snapshot* for those who need them. The Biodiversity Partnership solicited lots of focus groups and other means, and they found lots of agreement on what we want, such as that we should not focus on individual species. The various task forces are writing up these findings. Further comment is welcome – visit the Biodiversity Partnership website.
Sue Thompson also reported that a national nursery was interested in selling cultivars of native species (Sue was involved in a long phone conversation on this). The Mid-Atlantic EPSI is discussing the general issue. The Vascular Plant Technical Committee has also had some discussion on this, with Betsy Lyman. These issues are coming to the fore. Carol Loeffler asked for a snapshot of what is going on – are plants that are being planted now practically all nonnative? The answer was yes. Ann Rhoads noted that river birch is "a big thing" now, and Rick Mellon noted that this might be okay – we need to have genetic change as climate changes. Jack Holt had a concern about red osier dogwood plantings. The discussion was cut short to keep on schedule, but with observation from Sue that the issue "could get huge."

Proposals for changes to species statuses on the POSCIP list.

Carex cumberlandensis. Not listed but proposed by Naczi and Grund for UXF status (perhaps extirpated but needing fieldwork). Steve Grund explained that this species was described in a 2001 publication (Naczi, Kral, and Bryson). Carnegie and Philadelphia specimens have been examined by Naczi, and Steve Grund has checked specimens at Penn State as well. The species is affiliated with *Carex abscondita*, and in herbaria it has been usually living in folders with that species or with *C. digitalis.* Specimens of *C. abscondita* and *C. digitalis* have therefore all been examined at all three herbaria. The result of these searches is that there are four specimens known from Pennsylvania, all collected at one station, Brush Mountain, which, Bonnie Isaac noted, is east of Altoona in

Blair County. The most recent collection was in 1929. The three Carnegie specimens were all collected on the same day. The habitat is said to be mesic, deciduous or mixed deciduous-evergreen forest, often on calcareous soils. The range in NatureServe (website) includes Pennsylvania. *Carex cumberlandensis* is extirpated in West Virginia, S3 in Ohio, S1 in Arizona, and unranked in most eastern states (probably because it is newly described).

Jack Holt moved that the species be categorized as UXF based on the above presentation, and no one disagreed. → **UXF**

Carex gynocrates. Currently not listed; proposed by Steve Grund as UXF. The NatureServe distribution map shows the species as occurring mostly in Canada, ranked as S1 in New York, and occurring but unranked in Pennsylvania. Pennsylvania thus is a southern projection of the range. Steve Grund noted that occasionally it happens that NatureServe reports a species as unranked in Pennsylvania, but in this case we had no information ourselves that this one occurred in Pennsylvania. NatureServe usually gets their information from John Kartesz, who may have gotten his information from a range record in a manual or a personal report without a specimen. For *Carex gynocrates,* however, it turned out that there was a specimen in the Gray herbarium, collected by John Goldie, probably between 1819 and 1822. The label says it was collected in Pittsburgh, Pa. and there is little doubt that it was collected in Pennsylvania, although it was likely collected north of Pittsburgh. Jim Bissell and others have conducted extensive surveys in the appropriate habitat in that general area.

Given the geographic range on NatureServe, Sue Thompson asked if the handwriting had been checked to make sure that the specimen wasn't collected in Plattsburgh, New York. Steve Grund said that Ted Cochrane included it as native to Pennsylvania in his *Flora of North America* treatment. Sue Thompson responded that she has looked at specimens used in the *Flora of North America* and has found cases in which the label was written in afterward and a specimen wasn't really a Pennsylvania specimen after all. Bonnie Isaac noted that the writing can be off the side of the label as well. Sue suggested that we table the species until we were sure. Christine Manville responded that Ted Cochrane is a very careful worker – she knows him, and could call him. Steve Grund agreed, saying that Naczi also believes Ted Cochrane to be a very careful worker.

Bonnie Isaac volunteered to call Emily Woods and get her to look at the sheet, to see if she recognized the handwriting.

Rick Mellon remarked that there is a question of how far back in time one should go in deciding if a plant is native. If we find fossil pollen in a bog from a tundra species, is that species native to Pennsylvania? Steve Grund asked Rick if he really wanted to go there, and Rick replied that he was uncomfortable with a list overly inflated with plants that may have "waifed in" once. The public rolls their eyes when they see so many species like that. Rick, Jack Holt, and several others pointed out that anything collected in the period from 1600 on into the 1800s is collected in the Little Ice Age; the climate was colder. Larry Klotz pointed out, however, that there are other boreal relicts that are still extant in Pennsylvania. Sue Thompson repeated her argument that mistakes happen in herbarium labeling, and one should be skeptical when a specimen is from a site that is really out of the range. Wes Knapp remarked that he was willing to bet that Fernald looked at this species. Fernald included Pennsylvania in his range for *Carex gynocrates.* In addition, someone noted, it is not a huge disjunct – it would be only about 100 miles

from the known location in New York. Christine Manville suggested likely sites in western Pennsylvania – bogs which would indeed be only about 100 miles from the New York site. She also noted that at the time (1819-1922), there was a lot of boat travel, so near "Pittsburgh" could be anywhere along rivers out there.
John Kunsman noted that we accepted *Echinacea laevigatum* as being in Pennsylvania based on some sketchy locality information on herbarium specimens one of which didn't even have a date. So, we should accept what the expert in this group of sedges says is good. Sue Thompson said it may be good, but taxonomically we need to check the label. Jim Bissell said that usually if a collector tends to oversimplify labeling, you can tell from other specimens that he labels, so we should check the trustworthiness of the label by looking at some of his other specimens. Sue agreed.
Steve Grund expressed concern that if we table the species and then find a Pennsylvania specimen this summer, the species won't yet be listed and have any protection.
We agreed to a conditional recommendation of UXF; Bonnie will contact Emily to have her check the herbarium label, and Bonnie and will have leeway to decide if the species should come on as UXF, based on whether the specimen definitely appears to be from Pennsylvania.

→ UXF pending check by Bonnie Isaac

Solidago rupestris. Not yet listed but proposed for UXF status by Steve Grund. There are either one or two historic locations. A specimen was collected in Columbia County near Berwick on 10 August 1989 by A. A. Heller. The specimen turned up in Kartesz, and it turned out that it was on loan from the New York Botanical Garden to John Semple. The label is one of Porter's preprinted ones but Porter mentions the species in his flora as being in Washington County, which is odd. John Semple told Steve Grund that the species could occur in both Columbia and Susquehanna Counties. It often gets lumped with *S. canadensis*. Thus, Steve Grund argued, there is likely enough range extension going on according to the expert on the species. He noted also that *S. rupestris* does NOT occur in Ontario, so it is not in Semple's manual on goldenrods of Ontario. It is in Fernald. NatureServe gives *S. rupestris* as S1 in Virginia, Tennessee, and Maryland, secure in Kentucky, unranked in Indiana, and historical in Pennsylvania.
Ann Rhoads suggested that we look at all of our *Solidago canadensis* specimens to see if there are any *S. rupestris* hiding among them. Semple hasn't done that in Pennsylvania.
Larry Klotz asked what is the best source on this species. Steve Grund replied that the Asteraceae are supposed to come out next year in the *Flora of North America.* In the meantime, Alan Weakley's *Flora of the Carolinas, Virginia, and Georgia*, available on the UNC website, is a good source.
Rick Mellon noted that this one we should look for hard because of global warming, because the Pennsylvania part of the range could be important. Wes Knapp noted that in Maryland, *S. rupestris* occurs along the Susquehanna.
We agreed that both fieldwork and checking of *S. rupestris* specimens need to be done, so a status of TU with those modifiers is appropriate. **→ UXFH**

Carex lupuliformis. Currently UTFH, proposed for PE status by Steve Grund. Steve has done some of the herbarium work, and he reported that at Carnegie, only one of the four specimens labeled *Carex lupuliformis* actually are that species. In is easily confused with *Carex lupulina.* According to the *Flora of North America, Carex lupuliformis* occurs in wet forests, especially in openings around forest ponds, and in riverine wetlands,

marshes, and wet thickets. It is rare and local throughout its range. There are six to 14 historic sites (the number is uncertain because of the taxonomic confusion) and six extant sites.

Jack Holt reported having seen two populations of *C. lupuliformis,* mixed with *C. lupulina.* The *C. lupuliformis* populations were 50-100 clumps in size and both were in vernal pond areas. He has never seen it elsewhere in Pennsylvania. It is rare in Delaware (S1, he thought) and is S1 in Maryland.

Jim Bissell said that he finds *C. lupuliformis* right up to the state line in Ohio, but not in Pennsylvania.

John Kunsman said that he knows of populations in Snyder County and in Northumberland County that are not on the dot maps in the *Vascular Flora of Pennsylvania* because they are too recently discovered. Three extant locations have been found in the last two years, with the most recent collection being last year (2003).

Steve Grund noted that it is possible that *C. lupulina* folders have some *C. lupuliformis* specimens in them but his experience at other herbaria is that they probably do not. When one looks at specimens, one tends to discover the opposite, that the *C. lupuliformis* are actually *C. lupulina,*

We agreed that there are few enough extant populations, of small enough size, to warrant PE status. → **PE**

Phragmites* sp. 1.** A name has been recently published for this native version of *Phragmites australis.* It is ***Phragmites australis* ssp. *americanus. We agreed that the name should be updated on the POSCIP list. → **passed**

Cynanchum laeve. Currently PE but proposed for deletion or Special Populations status by Janet Ebert and Jack Holt. Jack reported that during a search, he found two locations with probably well over 1,000 plants, growing in corn. Cronquist says that the species is a troublesome weed in the Midwest, growing on the edges of fields and roadsides and on corn.

Tim Draude has seen *Cynanchum laeve* in riparian habitats, which makes the situation problematic because those populations are in natural habitat. Could protection be applied only to populations in natural habitat? Jack Holt agreed that that would be okay; he simply doesn't want to have to tell a developer that he can't develop a cornfield because it contains a cornfield weed. The seeds travel by wind. Tim Draude noted that the dot in the *Vascular Plants of Pennsylvania* is from 1906, early enough that it would seem that we are in the northern part of the natural range. It is introduced in New York. Janet Ebert and Jack Holt's cornfield populations are in Chester and Lancaster Counties. They noted that it is "on the move," first found in the DelMarVa peninsula in 1997, with several sites now known.

Chris Firestone advised Steve Grund to have the group recommend the status we want for natural populations, with the understanding that we will not track cornfield populations (rather than awarding Special Populations status).

Steve Grund asked if we should protect the species at all, and Tim Draude commented on the general problem of how to deal with adventives that are extending their range. Steve said that the Vascular Plant Technical Committee has a policy on that. If it has come into the sate as part of natural expansion of its range, it should be considered for listing. If it comes in as a result of a change in land use patterns, then it should not be considered.

The next few remarks were diverse. Rick Mellon asked, what if it is a pigeon that brings it in? Wes Knapp said that he doesn't know how widespread the species is in the DelMarVa, and he asked if we should start searching cornfields. Tim Draude and Jack Holt both remarked that *C. laeve* may be susceptible to certain herbicides, and one of them gave an anecdote. Tim Draude posed the question of whether it came into riverine sites or cornfields first. Steve Grund remarked that a species that is on the edge of its range and very abundant just over the Pennsylvania border is less of a conservation issue here than one that is not abundant in a neighboring state. Susan Munch added that in our comparison of the IUCN vs. Explicit NatureServe systems of categorizing species, the IUCN system is based on population trends. If we have an increase, there is less (if any) reason to list. Steve Grund noted that both systems would take trends into account, because probability of extinction is a criterion.

Tim Draude remarked that he thinks that the riparian sites of this species are relatively secure. Steve Grund asked if we should delist the species completely. Tim said that along a one-mile stretch of the Susquehanna he knew of maybe five to ten stations. He's also seen it in two cornfields. He suggested that we might count the total number in Pennsylvania to get population status but only protect those in natural areas. Someone noted that total numbers are probably not enough to take it off the list, but Janet Ebert observed that probably more are out there, because no one's looked through all cornfields. Jack Holt reiterated that he would be happy protecting just the native occurrences.

Steve Grund asked for everyone's best guess as to numbers. Bonnie Isaac observed that we had the exact same conversation in 1992, when John Kunsman brought it up. That was when it went from TU status to PE status. Rick Mellon remarked that he doesn't know how to explain to the public that a weed is an endangered species. Jack Holt agreed and reiterated that he didn't see it growing anywhere but on corn.

Steve Grund asked if we had label data for the 1906 specimen. Bonnie Isaac reported that we do not, and added that there is a question if it is even native to Pennsylvania.

Steve Grund said that in the tradition of Paul Wiegman, who always conducted these meetings on a consensual basis rather than by vote, he wanted to take a straw poll but we should understand that it was not a vote. There was a little further chitchat repeating earlier ideas, and then Beth Brokaw asked if we should find out from Penn State if this is a significant weed in Pennsylvania. Sue Thompson said it is in Iowa, and that this brings up the peripheral species issue (protecting species that don't, on the whole, need help but that are rare in Pennsylvania because they are at the edge of their range). Ann Rhoads observed that we would have to change the law to change the boundaries in which we can consider a species. Steve Grund agreed that we're supposed to consider the risk of extinction within the Commonwealth.

Jack Holt echoed Beth Brokaw's question about checking with Penn State. Eric Burkhart reported that *Cynanchum laeve* is in the textbook from Cornell, *Weeds of the Northeast*, as a minor weed, and that it is not being taught at Penn State as a weed in Pennsylvania.

Steve Grund suggested that for now we take no action except recommend to the Bureau of Forestry that it not consider agricultural fields for environmental review. This was agreed, and Jack Holt agreed to check with Penn State on the species' agricultural status in Pennsylvania.

→ Leave PE with no review of agricultural fields, and check agricultural status

As follow-up on *Cynanchum laeve,* Jack Holt did some net-surfing on and found that it is considered invasive or is a cropfield weed in the following Trans-Mississippi states: Arkansas, Kansas, Missouri, and Nebraska. Additionally, Jack has personally seen it acting as a weed in Indiana. However, he could find no mention of it being a problem east of the Mississippi, anywhere on the web. Jack concluded, in an e-mail to Steve Grund, that the decision to protect only "native" occurrences (i.e., riverside woods populations) is in his opinion the correct one.

Hydrophyllum macrophyllum. Currently PE, proposed for deletion by Robert Coxe. Robert reported that there are five historical populations and five extant, with a total of about four million plants extant. Robert has encountered this species on banks adjacent to roadsides in Greene County. It appears to be drainage-specific, occurring in the Dunkard Fork and Licking Creek watersheds.

Steve Grund asked if longwall mining affects the populations, and Bonnie Isaac said that we'll know in 30 years. Sue Thompson noted however that whatever the effects are, the species is benefiting. Bonnie said that it likes roadside grading. She and Joe have also found it in pastured woods. Robert Coxe added that it spreads from pastures into adjacent woods. Joe Isaac said that a population estimate of four million seems awfully low to him – there may be a lot more than that. Bonnie Isaac reported that the species was first brought up for consideration in 1986. Joe noted that no one has been out looking for it, and Bonnie qualified that by noting that folks have just looked for it in pristine areas. Joe said that the new observations indicate that it is very common over a 40 square mile area.

It was noted that the species is S2 in Maryland. Larry Klotz said that he has seen it in Little Cove, in Franklin County (though not elsewhere in that county). Janet Ebert suggested that it should not be dropped completely; John Kunsman clapped agreement and suggested that it go on the Watch List. Joe Isaac said the reason that it has been on the list at all is that no one has botanized in Greene County. Robert noted that the number of populations has declined dramatically because populations are so huge that nearby populations keep turning out to be connected, so they are the same population. John Kunsman said that he had been planning to push for PR status but now was afraid that he would be stoned. He is concerned about disjuncts and regionally rare species. Jack Holt asked if the areas with large populations are going to be longwall mined. Bonnie Isaac said yes; some of the areas already have been.

John Kunsman noted that not just DCNR but local groups also use our list, so we need to keep species on the radar screen for them. Carol Loeffler asked if they have access to the Watch List. Bonnie Isaac said no. John Kunsman asked what we should do with a regionally rare species, which this is. Steve Grund said that it would be nice to give it different status in different parts of the state, but we can't legally do that right now. We summarized that along with the giant Greene County population there are two sites denoted by dots in *Vascular Plants of Pennsylvania* in Franklin County, one of those at Little Cove and one above Camp David. John Kunsman noted that if one reads the regulations, PR status has nothing to do with the probability of extinction from the state. It results from a "wastebasket" of reasons. He added that he wants the people of Franklin County to know that they have something significant. But he doesn't really want environmental review, given the Greene County situation. So should the species go on the Watch List? Carol Loeffler asked again if the folks needing to know in Franklin

County would have access to the Watch List. Sue Thompson asked also about protecting the Dunkard Fork populations as well; one needs to be aware of the situation for environmental planning. Steve Grund said that we can get the Watch List up on the web. We agreed to this plan. **→ Watch List and have the Heritage Program put the Watch List up on its website**

Lithospermum latifolium. Currently PE on the official list and recommended for PR listing by PABS (the Pennsylvania Biological Survey, Vascular Plant Technical Committee, aided by the Rare Plant Forum); but proposed for deletion by Robert Coxe. There are 49 historic locations and 38 known extant locations, with over 100,000 plants, growing on open limestone slopes, pastures, and disturbed sandstone areas. Joe Isaac and Robert Coxe reported it common in the southwest corner and said that they encountered it very frequently in surveys during the 2003-2004 field season. Its habitat requirements get less rigid as one goes west in Pennsylvania, in that it gets to be less of a calciphile. It occurs in Greene, Fayette, Washington, Westmoreland, Blair, and Bedford Counties. In Greene County, where they have really looked for it, there are lots of plants. There is a lot of habitat for it, so there could be many more than they have seen so far.
Steve Grund observed that here is an example of when it is reasonable to assume that more of a plant is out there.
Regarding eastern populations, Janet Ebert remarked that there is a population in Cecil County, Maryland. Jack Holt observed that the species is ranked S1 in Maryland, and the Cecil County population is in a relatively ordinary limywoods. It may be in the lower Susquehanna. Jack felt that it is a better candidate for delisting than *Hydrophyllum macrophyllum*, because it is more widespread.
John Kunsman suggested that it go on the Watch List because it appears to be endangered in the Susquehanna. Larry Klotz said that we should encourage collecting to see if the species is expanding its range (a good reason for Watch-listing it rather than delisting it). Revisiting a point made in the *Hydrophyllum maculatum* discussion, Steve Grund asked if the Watch List should be made available for local groups and for us, and he noted that Autumn Sabo suggests that we should put the Watch List up on the Web. Sue Thompson asked if John Kunsman keeps the Watch List; John said yes in the sense that watch-listed species are still in the database, not deleted, Wes Knapp made the point that the Watch List should be annotated so that people would know exactly why each species was there. Steve Grund mentioned that he and John Kunsman have been putting species on the Watch List at their own discretion; he suggested that we need to be more transparent with it and make it a more active list. In the meantime, there was agreement that *Lithospermum latifolium* should be removed from the POSCIP list and put on the Watch List.

→ Watch List

Nelumbo lutea. Currently listed as PE, and proposed for deletion by Steve Grund. Steve brought this proposal up last year but it was tabled for lack of time and for uncertainty about its native status. This species is very aggressive in Pymatuning Reservoir and in Wildwood Lake at the Olewine Nature Center in Harrisburg. Extant populations are all at reservoirs and are probably either persistent from cultivation or escaped. It may be native in Crawford and Philadelphia Counties, but it is aggressive and not likely to be extirpated even if that were to be attempted.

Wes Knapp noted that Maryland had the same discussion, in which it was suggested that it may have been brought into Maryland by the DuPonts. Jack Holt noted that it is threatened in Maryland, and Wes later reiterated that it was S2 in Maryland but noted that folks are aware in Maryland that it may not be native.
In Pennsylvania, Steve Grund noted, there are nine historic populations, five extant populations, and some other introductions to "natural" habitat. John Wiersema notes in the *Flora of North America* that the species is "Probably originally confined to floodplains of major rivers and their tributaries in the east-central states and carried eastward and northward by aborigines who used the seeds and tubers for food."
Ann Rhoads noted that the Philadelphia record is from the Tinicum Marsh area. The species is not there now; she wondered if it was native. Those marshes were tidal at one time. Rick Mellon said that the plant can be tidal; these areas are freshwater tidal.
Mark Bowers observed that the Westmoreland County population was documented in the 1950s and is not there any more.
Steve Grund asked if, given all the discussion, there are natural occurrences. The response from several folks was "Probably not." Steve said so this could be a PX species that's been reintroduced? Bonnie Isaac noted that the Carnegie specimens from Tinicum Marsh were collected in the 1850s. Jack Holt wondered however why it was not collected before then – should we look at Bartram's journals and other sources? Maybe it moved in around the 1850s and is not native? Ann Rhoads said that she has "read all of that stuff and hasn't seen mention of it." Consensus was reached to delist it. Jack Holt then asked if Olewine Nature Center intended to exterminate it. Steve Grund said that they would like to control it, but they probably can't exterminate it if they try. → **Delete *Ophioglossum vulgatum.*** Currently this species is officially listed as PX and has been recommended for PR status by PABS; it is now proposed for deletion by Robert Coxe. The plants are small, easily overlooked, and in general forest areas. There are probably more than 50 sites now, of which 47 are extant. A previous estimated total population size of 10,000 is probably way too low, according to Robert Coxe, Bonnie Isaac, and Joe Isaac. They encountered it frequently in Greene County during the 2003-2004 field season, finding it very common in mesic woods in Greene County; and they believe that it is likely common also in Fayette, Washington, and even Westmoreland Counties. Beth Brokaw mentioned that she found it in Huntingdon County.
Bonnie Isaac remarked that over half of the Philadelphia and Carnegie Museum specimens of this species had been misidentified as something else.
Jack Holt said that he has been on the lookout for this species for many years in the southeast. It is very rare in southeastern Pennsylvania. *Ophioglossum vulgatum* occurs on the coastal plain and *O. pusillum* occurs in the Piedmont. When one finds it, at least on Piedmont, it always turns out to be *O. pusillum.* Given this concern about the species in the southeast, we decided to delist but to retain it on the Watch List. → **Watch List *Potamogeton illinoisensis.*** Currently officially listed as TU and proposed for PR by PABS. It is now proposed for deletion by Jim Bissell. This proposal was submitted last year but tabled for lack of time. Jim explained that deletion was justified based on number of occurrences: there are more than 75 historical sites of which more then 50 are extant, with more than 1,000 clones, probably a couple of orders more. It doesn't have much fruit, said Jim, and Steve Grund agreed that it reproduces vegetatively and can have huge clones. It occurs in river riffles and pools, glacial lakes, Presque Isle ponds, and

Lake Erie bays. John Kunsman added that it is fairly common in the upper delta of the Juniata. Jim Bissell continued that it occurs within most riffles in French Creek from Cambridge Springs south to Franklin. Within the Allegheny River, it is present in most riffles from Warren south to 25 miles below Franklin. It is local in riffles on Conneaut Creek and is relatively common within Presque Isle ponds and on Presque Isle Bay. We agreed that deletion was appropriate. **→ Delete**

Salix* x *subsericea. Currently officially listed as TU and recommended for PE status by PABS, but proposed for deletion now by Steve Grund and Jim Bissell. It is not a good taxon; it is a junior synonym of *S. petiolaris,* which is PE. It was acted on previously, to recommend for PE status, by the VPTC via phone calls on an emergency basis. A prison was proposed in Forest County. Jim Bissell went in and found *Salix petiolaris,*. The prison is very important for the economy of Forest County. Jim selected 30 sites to check and found the taxon at all 30 sites. It appears to be overlooked, and based on that observation the DCNR let the prison go through. But we never formally reconsidered the PE status. It was noted that it is at the southeastern edge of its range, which goes up to the Northwest Territories. John Kunsman observed that deer are hitting it hard. We agreed to put it onto the Watch List, and to consider the *Salix* x *subsericea* element occurrences to be *Salix petiolaris.*

→ Watch List and correct the name of E. O.s to *Salix petiolaris*

Ginseng update. Steve Grund introduced Eric Burkhart, a graduate student at Penn State who has been giving us annual updates on the wild and cultivated status of ginseng. Eric explained that ginseng is one of three plant species listed as Pennsylvania Vulnerable, the other two being goldenseal and yellow lady's slipper. 2003 produced the lowest ever harvest of ginseng in Pennsylvania: under 1,000 pounds. The price has remained about the same. What is causing the gradual decline in harvest rate?

Eric presented harvest totals for counties. Fayette had the highest amount harvested in 2003, and several other counties in the southwest also rank high as does McKean (2), Potter (7), and Tioga (10). Counties ranked 11 through 20 were mostly in the west-central area, exceptions being Susquehanna (13), Berks (18), and Lehigh (19). Eric noted that most of the plants grown in Berks and Lehigh Counties were introduced stock grown on public land, and that there may have been as much as 10 pounds produced in each of those counties. The range of ginseng covers all 67 counties, but it is more common in some than in others and the culture of ginseng harvest is focused in certain areas.

Eric noted that to find out what's really going on, one has to go out and talk to people involved with ginseng. Some harvesters don't report the county correctly because they want to "protect their turf". Chris Firestone (Bureau of Forestry) had started a harvest reporting form which drove some people into not reporting that they harvested in Pennsylvania at all; they reported getting their ginseng from adjacent states. Eric said that hopefully that form will be suspended.

Pennsylvania opens the ginseng harvest season a full month before other states do. We should change it to September 1 in the next year or two in Pennsylvania. This is going through the regulations.

Eric noted that a few folks don't report correctly but most do. The information allows Penn State to target counties for outreach. Eric is doing workshops. 2005 is the second year of this three-year study. His goals are to document ginseng occurrence; survey, meet, and interview those involved with ginseng harvest; investigate historical questions

(e.g., are we seeing native populations or plantings? How much harvesting was there in the past?); and do public outreach. He has determined that a lot of planting is going on, with seeds. In addition, a lot of people connected with ginseng in northern Pennsylvania are distrustful of government and Penn State.

Eric reported that the first Pennsylvania Vulnerable Plant Dealer Meeting was held on March 19, 2005 at State College, PA. This, said Eric, is a really important step. The dealers can tell us a lot – how much is being cultivated, etc. Dealers want a permitting program to reduce chaos and to produce answers to questions about what is planted vs. wild – something that dealers do want to know about. A second meeting will be held this summer. Dealers, said Eric, are the local informants.

In addition, Eric has been doing demographic surveys. He has received a one-third response rate so far. He has found that you can plant seed bought from Wisconsin. A dealer in Westmoreland County might sell Wisconsin seeds to local planters who pull and sell wild roots and replant with Wisconsin seeds. Eric has concern that Wisconsin seed is genetically different and may be inbred. However, the planters don't care much about genetics.

Susan Munch asked if the planters don't put the berries of the same plant back when they take the roots. Eric replied that some don't. It is far too easy, because this plant breeds slowly, to increase the plant numbers with Wisconsin seeds. One pound of seeds can yield about 7,000 pounds of plant.

Jack Holt noted that in addition, if harvesting is done in August as currently happens in Pennsylvania, the seeds are too green to replant.

Eric noted that 70-80% of planters think that the season is too early, starting at August 1. However, a few think that they should be allowed to dig at any time, even that we should "keep the state out of it." Also, Eric has talked to growers who think laws should protect better because people come in and wipe out ginseng that the planters planted. Other complaints are that ginseng and ginseng harvesting are threatened by the timber and coal industries, the insurance industry, and politician lobbyists who control DCNR and the Game Commission, allowing there to be too many deer, which eat ginseng.

Eric is trying to combat articles on the excitement of harvesting ginseng and to get people to think instead in conservation terms. Recently (in February), Eric and Michael G. Jacobson put an article in *Game News* urging folks to cooperate, and they also put a bulletin in a *Nontimber Forest Products* series. Some of the planters are however rather illiterate. Yet one must start somewhere, so the bulletin reviews the regulations and the conservation concerns.

Eric gave us an URL:

www.dcnr.state.pa.us/forestry/wild plant/vulnerable plants.aspx

He noted that the site has had lots of user sessions:

Jan. 23 - 29: over 900
Jan. 30 - Feb. 5: 870
Feb. 6 – Feb. 12: 890
Feb. 13 – Feb. 19: 820

There have also been lots of downloads, so these resources are being used.

Appropriateness of Pennsylvania Vulnerable (PV) status for yellow lady's slipper and others. Eric Burkhart and Chris Firestone are considering when PV status is appropriate and are seeking our comment. By the PV definition, lots more plant species

could be listed as PV. Yellow lady's slipper, one of the three species listed as PV, has been used for a sedative. It is not however being harvested in Pennsylvania as such, so the question is whether it should be PV or if it should be more protected.
Jack Holt observed that yellow lady's slipper was originally proposed as PV because it is beautiful and therefore gets snagged. It is almost a signature species of rich woods. Jack knows of one good site and four or five feeble sites in southeastern Pennsylvania.
Eric asked why we don't list pink lady's slipper too, since it is just as pretty and is harder to transplant successfully. The question went unanswered.
Back to ginseng. Beth Brokaw asked, if dealers favor permitting, then why don't they all fill out the reporting forms? Eric replied that actually only about one-third of dealers came to his meeting. So, those dealers who don't want to participate in a meeting probably would operate on the black market. Dealers who do want permitting like it because the grower or collector has to do the paperwork, which frees the dealer from some paperwork. Eric wants to make information and maybe seed opportunities available to people who cooperate.
Jack Holt asked if woodland farms are using Wisconsin or Pennsylvania seeds. Eric replied that there are efforts to get Pennsylvania seed farming going. In Frenchville, Maryland, there's a major seed supplier using Ohiopyle, western Maryland, and eastern West Virginia stock. That's good for western Pennsylvania, although maybe not for northern Pennsylvania.
Only one study on genetics has included Pennsylvania. It included an eastern and a southwestern Pennsylvania population. Eric has been trying to coax genetics researchers to come up to Pennsylvania.
In response to another question, Eric said that the best market is for wild root. Cultivated ginseng root brings about $10 per pound, whereas wild-looking root brings about $325 per pound. So the motivation is to just plant seeds and not actually cultivate the roots. Planters need also to be somewhat conservation oriented; they cannot expect to harvest all that they plant.
Eric Burkhart closed his presentation by urging us to contact him if we see any big patches of ginseng.
Collection of seeds of *Carex* for conservation. Fatimata Pale, who is on the faculty at Thiel College, gave a presentation entitled "Using propagule size to identify the Cyperaceae of northwestern Pennsylvania." Her goal is to create a friendly key to these wetland plants, for use by practicioners. She collected propagules of 36 Cyperaceae species from wet meadows of northwestern Pennsylvania and got seven additional species from a company interested in conservation. She was also allowed to visit a reserve and take photographs of propagules, which she scanned and, using Adobe Photoshop, scaled to a standard size. Bonnie Isaac helped with identifications, and a variety of references were used. She made a morphological key which included five size categories and 12 basic forms (not mutually exclusive). The key should be of greatest use to the restorationist or botanist who has a 10X handlens or a light microscope. The key gives the conservation status as well. She has prepared a paper that has been accepted for publication in *Ecological Restoration.* She uses size, rather than color or shape, as a criterion because shape can be subjective and color can change.
Jack Holt asked if she needed *Carex* perigynea from other parts of the state for her ongoing work, and Fatimata said that she would like to get more perigynea if we are out

in the field this summer and collect and send them to her. She needs four to five of a given species. Her contact information is as follows:

Fatimata Pale
Biology Department
Thiel College
75 College Avenue,
Greenville, PA 16125
724-589-2114

Steve Grund noted that for returning a species to a site, it is good to plant a rare species, but for general restoration, it might be better to plant the two or three common ones.

Plant rescue project at the Mon-Fayette Expressway. Eric Burkhart, representing the Native Plant Society, reported that one of their members (named Kathleen), who is also with the U.S.Fish and Wildlife Service, has been in contact with PennDOT regarding allowing native plant societies to move plants out of the way of road projects, in particular the Mon-Fayette Expressway project (which will get underway soon, possibly within 1-2 months). The Pennsylvania Native Plant Society may take some of the plants for a native plant trail. They want to make us aware and are hoping to get botanists in the area to identify target areas that have lots of good plants (POSCIP, among others). Mark Bowers has identified himself as someone willing to coordinate, and we should talk to him, to Eric Burkhart, or to the Pennsylvania Native Plant Society or go to the Pennsylvania Native Plant Society web site to get involved. Autumn Sabo pointed out the need to coordinate with Chris Firestone if POSCIP plants are found.

Eric Burkhart said that PennDOT says no POSCIP species have come on their radar screen as of yet, but he (Eric) thinks some may have been missed. Steve Grund noted that the alignment of the expressway has been adjusted to avoid some populations. An environmental review was carried out, and they did have to go at the right time of year to see snow trillium. Actually the Pennsylvania Turnpike, not PennDOT, is the agency involved in that project. *Delphinium exaltatum* is in there.

Janet Ebert noted for the benefit of any of us involved in wetlands mitigation, one doesn't necessarily have to plant at all. She told of one case last year in which they persuaded someone not to plant right away, and a scooped-out area came up with lots of native vegetation, mostly perennials.

The meeting adjourned at approximately 3 PM.

Respectfully submitted,
Carol Loeffler