Minutes of the Rare Plant Forum
10 February 2001
Olewine Nature Center, Harrisburg, PA

Attending: See attached list

Announcements
Steve Grund introduced the forum with a reminder that our main purpose is to supply information to the state that can guide decisions on the listing of rare plant species as Species of Special Concern in PA. Rare Plant Forum recommendations go to the Vascular Plant Technical Committee which resolves any questions, approves the recommendations, and forwards them to Chris Firestone in the Ecological Services office of the Bureau of Forestry. Chris gives further approval and then puts the recommendations through the long bureacratic process by which they get incorporated into the state regulations. The regulations are currently being updated so if things proceed on schedule, recommendations of this forum will be incorporated quickly and those made next year will have to wait several more years for the next update.

Sue Thompson announced the formation of the Pennsylvania Biodiversity Partnership, of which she is interim executive director. This organization, created in response to a recommendation from the Pennsylvania 21st Century Environment Commission, will seek to foster cooperation among a wide range of public and private groups and individuals to promote conservation of biodiversity in PA. While its mission is similar to that of the PA Biological Survey, the Survey is primarily a scientific advisory group whereas the Partnership focuses on communication and cooperation among people with a wide range of interests and will take on a variety of conservation initiatives typically requiring funding. Rare Plant Forum members are invited to join and can participate on any of seven task forces: science, stewardship, bioinformatics, policy, public relations, funding, and education. The Partnership has representatives from the PA Biological Survey, The Nature Conservancy, and the Western PA Conservancy, along with industry, government, and other groups.

Chris Firestone gave some instructions concerning applying for Wild Resource Conservation Fund grants in 2001 and for applying for a Wild Plant Collection Permit (a one-year permit required to possess or collect any threatened or endangered plant part). Blanket permits can be requested if one doesn't know in advance what plant species one will be collecting or if one wishes to collect multiple species.

Several items were announced or offered for those interested. Chris Firestome offered a moth and caterpillar poster, patches, and a book on landscaping for wildlife in PA (available for $20 by contacting Frank Felbaum at DCNR). A brochure, "Landscaping with Nature", has entered its second printing and can be gotten in quantity from Chris. Janet Ebert rep[orted that a checklist of Delaware plants went to the printer on 9 February 2001. The Botanical Socierty of Western PA is publishing a new field guide,*Wildflowers of Pennsylvania,* which is comfortably sized for hikes and features 600 color plates. Copies can be obtained by contacting Mary Joy Haywood at mjhaywood@carlow.edu or at Carlow College, 3333 Fifth Avenue, Pittsburgh, PA 15213. The cost is $20.00 plus PA sales tax (6%) and postage & handling ($2.00 for one book). Additional donations are welcome to help cover costs not covered by the price. Checks can be made payable to Botanical Society of Western Pennsylvania.

We were reminded that the Academy of Natural Science is an excellent resource and the doors are open to us. Volunteers and funding are being sought to help organize and improve the collections.

Two conservation concerns were brought up. Tim Draude reported on the sale by utilities of thousands of acres near the Susquehanna. These lands support many rare plants and Tim welcomes any people willing to work with him to make contacts with state government officials and lobby for the plants' protection. Mary Joy Haywood discussed the impact of underground mining on drainage areas in Washington, Greene, and Fayette Counties. Areas of surface water are being eliminated as these mines are dug, and any interest and help that any of us can provide is welcome.

DISCUSSION OF PROPOSED CHANGES TO THE POSCIP LIST

Rediscovered Species

***Hypericum gymnanthum,* clasping-leaved St. Johnswort.** A single stem was found by Larry Klotz in northern Huntingdon Co., just south of the record in Centre Co. Larry and Steve Grund had searched ca. 50 ponds in the area. This particular pond was fairly dry, sandy, and underlain by limestone. Jack Holt observed that this species is more of a coastal plain species, though rare even in Delaware (S1 or S2 there). It is found in low acidic puddles, powerline cuts, ditches, and the like. **PX -> PE**

***Ophioglossum vulgatum,* southern adder's tongue.** Bonnie and Joe Isaac identified some herbarium specimens of this species collected from Greene Co. in 1993 and 1996. All three sites represented had thousands of plants. **PX -> PE**

***Piptochaetium avenaceum,* blackseed needlegrass.** John Kunsman found ca. 30 -- 35 plants that the deer haven't discovered yet on a dry slope with Virginia pine and oak in Swatara State Park, Lebanon Co. in 2000. Reporting this find is a priority because a dam may be built in the park. **PX -> PE**

Proposed Additions to the Flora of PA and to the POSCIP list:

***Dryopteris filix-mas,* male fern.** Joan Gottlieb discovered 19 plants at Deadman's Hollow in Allegheny Co. in 2000. The species probably got there on its own, because although cultivars are available, the European cultivars don't spread. James Montgomery, who identified the plants, suggested that colonization was by spores from Ontario or Michigan. Tim Draude and Larry Klotz expressed doubts about such a colonization when there are garden sources available, and it was noted that a record in New York, similar to this one, was decided not to be native. But Sue Thompson noted that Joan Gottlieb wrote an article about this for the PA Native Plant Society, in which she raised the possibility of a garden source but said that this occurrence looks more like the native ones. Jim Parks expressed discomfort with listing the species, having not seen the site. The site is protected, so we decided to put the species on the Watch list and look for more. **N ->Watch List**

***Ruellia pedunculata,* stalked wild petunia.** Larry Klotz found an occurrence in Cumberland Co. on a south-facing shale bluff along the Conodoguinet Creek. The plant keyed out clearly and the habitat seemed about right. He thinks that the occurrence is native but disjunct (the natural range is given as Maryland south through the Appalachians). Seeds are dispersed ballistically. Two concerns were expressed: first, that *Ruellia humilis* is sold in the nursery trade and sometimes plants are sold without anyone knowing exactly which species they are, and second, that we would be adding a species based on only a photo voucher (there was too little material to collect). However, Larry was comfortable with the identification, so the chief concern is whether or not the occurrence is native. **N -> UEN**

Other Proposed Additions to the POSCIP list:

***Arabis hirsuta* var. *adpressipilis* and var. *pycnocarpa,* hairy rock cress.** In *Plants of Pennsylvania,* Ann Rhoads and Tim Block have split *Arabis hirsuta* into varieties. The question for us is whether we should list the varieties separately as endangered. A lot of specimens were originally determined as *A. pycnocarpa,* but a lot of specimens at Carnegie are only determined to *A. hirsuta* and we aren't sure which variety or varieties they are. We agreed that we should continue to list *Arabis hirsuta* as a species, because of the uncertainties and because there probably isn't much to be gained in terms of protection for the plants. There are few enough occurrences to justify PE status. **whole species remains PE**

***Eupatorium aromaticum,* small white snakeroot.** Jack Holt and Janet Ebert noted that this species is abundant on serpentine barrens -- notably Chrome, Nottingham, and Goat Hill -- but is not generally present off the barrens. John Kunsman said that he has one specimen not from serpentine and there are historic sites not on serpentine, but he wasn't disagreeing with Jack and Janet's assessment. Bonnie Isaac noted that there was a collection from Huntingdon Co. in 1998 that was not on serpentine; otherwise, populations outside serpentine haven't been looked at recently. Larry Klotz said that a Franklin Co. record has habitat information too vague to be helpful. There was discussion of whether there were not too many plants on the barrens to list this species, especially given that the barrens are generally protected. Sue Thompson pointed out that park management needs to know where the rare species are, and Steve Grund noted that environmental reviews are fine enough that it isn't necessarily sufficient to protect this species that there are other listed species on the barrens. There is potential for confusing this species with *Eupatorium rugosum* and the identity of specimens should be double-checked. **TU -> PR**

***Eupatorium rotundifolium* var. *ovatum and E. rotundifolium* var. *rotundifolium,* round-leaved thoroughwort.** *Eupatorium rotundifolium* is listed as a TU species, but *Plants of Pennsylvania* lists the separate varieties so the question is whether the varieties should be listed separately. Jack Holt expressed concern that the varieties, which differ in venation, may merge imperceptibly. Ann Rhoads agreed that this species complex is an apomictic mess. It includes *Eupatorium pilosum,* and whether or not one considers *pilosum* a good species has an effect on the number of *rotundifolium* sites. An intern at the Morris Arboretum concluded that there was continuous variation between *pilosum* and *rotundifolium.* Jack disagreed, saying that he thinks *pilosum* is distinct from the two varieties of *rotundifolium* in the field but that the two varieties of *rotundifolium* are not distinct from each other. He noted that this would be a great "mini-grant" project for someone to tackle. We decided to keep *Eupatorium rotundifolium* as a single entity on the POSCIP list and the question now became one of status. There are ca. 40 sites, few

recent, on record for var. *ovatum* and 13 sites, all in the southeast, for var. *rotundifolium.* Either variety treated alone could possibly qualify for PE status. Tim Draude noted that he sees *rotundifolium* along the Susquehanna fairly often and thinks it's usually var. *ovatum.* More fieldwork is needed, and PE may be too high a ranking. **whole species, N -> UTF**

***Lactuca hirsuta* var. *hirsuta* and *L. hirsuta* var. *sanguinea,* downy lettuce.** This is another case in which *Plants of Pennsylvania* treats the varieties separately. *Lactuca hirsuta* var. *hirsuta* has four known sites, with the last collection being in 1955. *Lactuca hirsuta* var. *sanguinea* has 24 collections, four since 1940. The species was listed as UTF in 1997. No one had additional wisdom to add today and there seemed nothing to gain at the present time from listing the varieties separately, given the need for more fieldwork. **whole species, N -> UTF**

***Liatris scariosa,* northern gayfeathers.** There have been only 57 collections, 15 after 1940. There are questions concerning the varieties, which we brought up at a 1997 meeting but decided to deal with later. In a later meeting we counted ten extant sites and lumped the varieties as PT. John Kunsman remarked now that material from the Scotia barrens, which he and Dr. Keener think may be variety *novae-angliae,* appears distinct from the plants on limestone. But we still feel unprepared to separate the varieties. Regarding abundance, Jack Holt said that he has never seen it. Susan Munch reported seeing it on roadsides in Huntingdon Co., and Steve Grund said that he too had seen it on roadsides. They agreed that there are more than five extant sites but were not sure that there were more than 5,000 individuals (the upper guideline for PE status). Because it can grow in somewhat disturbed sites, however, PT status seems reasonable.
Varieties lumped; for whole species, TU -> PT

***Lycopodiella alopecuroides* x *appressa* (= *L. copelandii),* bog clubmoss.** A Carnegie specimen was collected in 1898 in Bucks Co. and recently confirmed as x *copelandii* by Jim Parks. Rhoads and Klein's 1993 *Atlas* indicates that it has been collected occasionally. Steve Grund observed that Preston says that *alopecuroides* x *appressa* is infrequent but not all that rare. There seems no compelling reason to list it, given that we don't necessarily list hybrids even if they are rare. **Remains N**

***Lycopodiella alopecuroides* x *inundata,* bog clubmoss.** This is a diploid hybrid with good spores, identified by Robert Preston in MI from among a number of specimens of *Lycopodiella* hybrids sent him by Bonnie Isaac to see if any were *L. margueritae.* (None were *margueritae,* which is a relatively recently described tetraploid species with perhaps the same parents. It is generally agreed that *inundata* is one parent of *margueritae* and Preston believes that *alopecuroides* is the other, in which case *margueritae* is an autopolyploid.) The diploid hybrid is biologically important, therefore worth listing, because one parent is rare and because its apparent derivative *margueritae* is globally rare, with only 20-25 sites known worldwide. The diploid hybrid is at least somewhat distinguishable, looking like a big *inundata,* without appressed leaves (so it cannot be confused with *appressa).* It was collected by Joe and Bonnie Isaac in Cameron Co. in 1993, way outside the range of *alopecuroides,* suggesting that it is indeed fertile and persisting on its own. More taxonomic work might be helpful before we commit to listing it as PE. **N -> UET**

***Lycopodiella inundata* x *margueritae,* bog clubmoss.** Another globally rare hybrid. Our specimens were collected at the same site as our only *L. margueritae* site, which is the largest in

the world. The hybrid is known to persist independently of *L. margueritae*, so it would appear to be fertile. On our specimens, the percentage of aborted spores varied widely -- 90% on one and 48% on another, for example. More specimens need to be collected and examined.

Remains N

***Prunus pumila* var. *depressa,* var. *pumila,* and var. *susquehannae,* respectively prostrate sand cherry, sand cherry, and Appalachian sand cherry.** There is argument for listing these three varieties separately. Ann Rhoads reported that *Prunus susquehannae* was recently recognized in a published article at the species level because of its stem pubescence. It occurs on ridgetops, including one near the Delaware Water Gap. Cronquist describes it as widespread. Steve Grund observed that var. *pumila* is probably the one growing on sandhills in southern MI. Var. *depressa* occurs in flood-scoured areas. The varieties are distinct enough to list separately. Var. *pumila* has nine records and was last collected in the 1930s, so it is apparently extirpated. Var. *depressa* has 49 records and 7-8 extant sites, with few enough individuals to warrant PE listing. Var. *susquehannae* has 48 records and 7-8 extant sites in the database, but John Kunsman knew of a few additional sites, bringing the total to somewhat under 20 and suggesting a status of PT. **The entire species is currently listed as PR.**

Prunus pumila* var. *depressa **-> PE**
Prunus pumila* var. *pumila **-> PX**
Prunus pumila* var. *susquehannae **-> PT**

***Pyrola chlorantha,* wintergreen.** This species has numerous dots in the *Vascular Flora of PA* (Rhoads and Klein 1993), but Jack Holt has been on the lookout for it for a couple of decades and has only seen if at Pink Hill in Delaware Co. (where there are hundreds of plants). John Kunsman said that he saw one site 25 years ago. It is easy to recognize but he hasn't happened to see other sites. Larry Klotz said that he has seen it in Michaux State Forest in Franklin Co. Fieldwork is needed. **N -> UEF**

***Ranunculus aquatilis,* white water crowfoot.** In the *Vascular Flora of PA* (Rhoads and Klein 1993), this species is treated as *longirostris* and *trichophyllus*, and the taxa are listed separately on the POSCIP list as PT and PR respectively. In the *Flora of North America* and in *Plants of Pennsylvania* (Rhoads and Block 2000), however, the two species are lumped as *aquatilis.* Accordingly, we proposed combining them as PR on the POSCIP list.

***Ranunculus longirostris* and *R. trichophyllus* combined as R. aquatilis, -> PR**

***Utricularia inflata,* swollen bladderwort.** This species was found in considerable abundance in Tobyhanna Lake and Peck's Pond in 2000, and John Kunsman has three 1993-1997 sites in Sullivan Co. which were initially recorded as the similar species *U. radiata.* (Indeed, *U. radiata* has been regarded as a variety of *inflata* in the past; however, Peter Taylor in his 1989 monograph on the genus *Utricularia* recognizes both taxa at the species rank as do Crow and Hellquist (2000)). *Utricularia inflata* is recognizable in the brief flowering period in July, but the vegetative parts are easily overlooked as *macrorhiza.* Ann Rhoads characterized the records as an interesting range extension; coastal species are now showing up in glacial lakes, perhaps with the aid of waterfowl. Fieldwork is needed to assess abundance. **N -> UEF**

***Zizania aquatica* var. *angustifolia* and var. *aquatica,* wild rice.** Steve Grund, acting as Jim Bissel, said that there is a paper reporting on the introduction of wild rice at Presque Isle. It is

unclear which variety was introduced. Bonnie Isaac cited a 1881 report that wild rice had been planted a few years before and was spreading well, but again it was unclear which taxon was involved. They have since been recognized as two separate species, with var. *angustifolia* being *Z. palustris.* Doris Goldman reported that she has tried to get them to interbreed and they won't; they are separate species. She added that *Z. palustris* is the one that people normally plant, and the one that is available in grocery stores. We need to ask Jim Bissel which species is at Presque Isle. If it is var. *aquatica,* then the last reported occurrence of var. *angustifolia* is from 1928. We decided not to list var. *angustifolia* (*=Z. palustris)* because of the likelihood that it is not native to PA, and we decided to list var. *aquatica* as PR with the question raised as to whether or not all known extant occurrences are this taxon.

Zizania aquatica* var. *angustifolia **Remains N**
Zizania aquatica* var. *aquatica **N -> PR**

Proposed Deletions from the POSCIP list:

***Andropogon gyrans,* Elliot's beardgrass.** This species is locally common but its range is limited and it grows in prime habitat for development. Jack Holt reported seeing it in Little Brandywine Valley, Oxford, and a now-developed area and John Kunsman said he has seen it in Valley Forge. According to figures presented by Jack Holt and Janet Ebert (10,000+ individuals at 25+ sites), it meets our guidelines for a PR species. John Kunsman remarked that the Philadelphia Academy of Natural Science has specimens from 47 occurrences, of which he was not sure how many were extant. He has looked at all of the Academy specimens and the earliest collection is from 1908, leading him to wonder if the species is moving in from other states. A species that moves in on its own is native, however, and we have a number of early successional species on the list. Furthermore, its habitat is threatened. We can tell PennDOT that it responds well to mowing. **N -> PR**

***Arabis hirsuta,* hairy rock cress.** See remarks under Other Proposed Additions to the POSCIP list, above. **Remains PE**

***Distichlis spicata,* sea-shore salt grass.** Jack Holt reported that this species is "everywhere" in the Delaware Bay area and that it is uncommon in PA simply because there is not and never has been any native habitat for it here. It was reported from ballast and waste ground in the Philadelphia area. **PX -> N**

***Ilex opaca,* American holly.** There are a few populations in PA that seem to be native, including populations on the Lower Susquehanna, in northern Dauphin Co., and in Bucks Co. Elsewhere, holly seeds itself in from cultivated sources. We can list the native populations as special concern populations without protecting non-native ones. We discussed how to tell if a population is native, with large size being suggested as a good indicator. Rick Mellon remarked that he thinks holly was overcollected 50-100 years ago and now is coming back, to the extent that perhaps 40% of the sites to which he goes have holly. Jack Holt cited the opinion of a botanist in the mid-1800s that American holly was extremely rare. We need to designate the populations that are native, and just map those. **PT -> PT/Special Populations**

***Liatris scariosa* var. *nieuwlandii,* Nieuwland's gay-feather, and *Liatris scariosa* var. *novae-angliae,* New England gay-feather.** See remarks under Other Proposed Additions to the POSCIP list, above. **Varieties lumped; for whole species, TU -> PT**

***Nuphar lutea* ssp. *pumila,* dwarf pond-lily.** In *Plants of Pennsylvania*, this subspecies has been submerged to species. We decided to table discussion until we have a chance to look up how it is handled in the Flora of North America. **Remains TU**

***Panicum longiligulatum,* long-ligule panic-grass.** This species has been submerged into *P. acuminatum* and we agreed that it no longer needs to be listed. **TU -> N**

***Prunus pumila,* sand cherry.** See remarks under Other Proposed Additions to the POSCIP list, above. **Was PR; now split to varieties,**
Prunus pumila* var. *depressa **-> PE**
Prunus pumila* var. *pumila **-> PX**
Prunus pumila* var. *susquehannae **-> PT**

***Ranunculus longirostris,* eastern white water-crowfoot.** Submerged into *Ranunculus aquatilis,* as discussed under Other Proposed Additions to the POSCIP list, above. *Ranunculus aquatilis* will be PR. **TU -> N**

***Ranunculus trichophyllus,* northeastern white water-crowfoot.** Submerged into *Ranunculus aquatilis,* as discussed under Other Proposed Additions to the POSCIP list, above. *Ranunculus aquatilis* will be PR. **TU -> N**

***Tradescantia ohioensis,* Ohio spiderwort.** Steve Grund reported that this species grows in his backyard. It is cultivated, hybridizes with T. virginiensis, and grows along railroad right-of-ways and other places (including an island visited by Ann Rhoads on which it covers a couple of acres). It does not appear to be in need of conservation measures. **PE -> N**

***Utricularia purpurea,* purple bladderwort.** Ann Rhoads reported that since 1986, this species has been collected in 19-20 ponds in the Pocono area, and in most of these ponds populations of thousands to tens of thousands of plants were noted, filling the area with a purple haze that can be spotted easily from a car passing at normal traveling speed on Rt. 66. It occurs in both natural and artificial water bodies and there undoubtedly remain more populations to be discovered. It does not need protection. **PR -> N**

Status Changes

***Andropogon glomeratus,* bushy bluestem.** Ann Rhoads reported that there are at least 12 extant populations and over 10,000 individuals. The largest population that she has seen is at French Creek State Park, and it is quite large. There are a number of smaller populations in oldfields in southern Bucks Co, which seem stable although several coastal plain populations are vulnerable. Tim Draude said that he knows of a couple of small populations in a fairly dry field (basically a little bluestem prairie), and Steve Grund said that he knew of a pretty large population in Fayette Co. Currently the species meets our guidelines for PR. **PT -> PR**

***Cacalia muhlenbergii,* great Indian plantain.** Only one extant population is known, on the Youghiogheny River where WPC botanists found it in railroad ballast near a floodplain. They suspect that a native population occurs on the floodplain. There are 19 historic occurrences, mostly from tributaries to the lower Susquehanna, the lower Allegheny, and the Ohio.

Most of the historics in the west have been searched for without success, and many are from urbanized areas. Tim Draude noted that he has been looking for this species in the lower Susquehanna basin and hasn't found it, although he has seen two other *Cacalia* species.
TU -> PE

***Carex haydenii,* cloud sedge.** There are five extant populations, small in size, and 21 historic populations. Although a number of the historic populations still need to be checked, it seems highly unlikely that enough individuals or extant sites would turn up to justify PR status, so PT status seems warranted. Indeed, the species may eventually turn out to meet the guidelines for PE status. It grows in open or wooded wetlands and Pennsylvania is at the southern edge of its range. **TU -> PT**

***Carex typhina,* cattail sedge.** This species is currently PE but some new sites have turned up in the west and John Kunsman has turned up new populations in the east, making nine extant sites in all (and 19 historic). Jack Holt noted that there was a site found in the early 1990s in Chester Co. Some of the populations are on cut-over sites. They tend to occur in little wet depressions and on the edges of vernal ponds. **PE -> PT**

***Epilobium strictum,* downy willow-herb.** This plant of calcareous wetlands now has 24 known extant sites (and 43 historic). Steve Grund reported that he has consulted with Jim Bissel who is comfortable with PR status for the species. It does not require the highest quality wetlands.
PE -> PR

***Poa autumnalis,* autumn bluegrass.** Jack Holt reported that this species may be moving into new sites. He has three new sites and knows of eight total, of which one is large (hundreds if not thousands of plants). John Kunsman said that he knows of a small population in Lancaster Co. Ann Rhoads said that she looked for a Jeff Walck site in Bucks Co. and couldn't find it. She wondered if it is vulnerable to deer browsing. We agreed that the number of sites is sufficient to meet PT guidelines, but most populations are small and so the number of individuals might better fit PE guidelines. **Remains PE**

***Potamogeton richardsonii,* redhead pondweed.** Jim Bissel wrote of this species that it is "Very secure at Presque Isle especially in the bay, but also on the outer side of the peninsula and in interior ponds. Common and secure at Lake Pleasant. The species is in nearly every island riffle in the upper Allegheny and in French Creek." He estimated that there are more than 20 extant populations, meeting guidelines for PR status. **PT -> PR**

***Potentilla anserina,* silverweed.** Jim Bissel wrote of this species that it is "Very common along Presque Isle Bay, inland pond shores and throughout Gull Point. Very resistent to habitat disturbance and trampling. Survives along the lakeshore in downtown Cleveland. Does not need our help." Steve Grund noted that it grows all over the beach at a lake where he grew up. Bonnie and Joe Isaac noted that it is not common in PA off Presque Isle but it does occur elsewhere, such as at a marina under a gas pump. With more than 20 extant occurrences, it meets guidelines for PR status. **PT -> PR**

***Rhynchospora globularis,* small globe beaked-rush.** Only one extant population is known in PA, with several dozen plants, in sandstone crevices at the edge of a river scour at Ohiopyle. All

but four of the historic collections are over a hundred years old, and the extant site provided the only collection in the past 25 years. Jack Holt and Janet Ebert have seen just two very small populations in Maryland. **TU -> PE**

***Senna marilandica,* wild senna.** Steve Grund reported that all but 11 of the ca. 16 historic collections are over a hundred years old, and that some of the historic records undoubtedly represent *S. hebecarpa,* "which was widely, and erroneously, known as *S. marilandica* in the past." Only two collections have been made in the past 25 years. Ann Rhoads noted that one of those two sites is a trashy site in Juniata Co. that has been obliterated. Jack Holt said that he has looked for it for years and not found it. **TU -> PE**

***Tripsacum dactyloides,* eastern gamma grass.** Susan Munch reported that she recently found four new populations, including one at a disturbed site. Ann Rhoads said that she knows of a population, and Tim Draude and Jim Parks noted that there are some plants in nice sites along the Susquehanna. John Kunsman knew of another site in Berks Co. Jack Holt reported seeing it in freshwater and saltwater marshes and disturbed habitats (not all in PA). He noted that at one point this species was introduced as a forage crop for ruminants. Tim Draude said that a company is currently selling it and may be mixing in midwestern genes, because they get the plants from the midwest when they can't get local genotypes. There followed discussion and complaint about such practices. Betsy Lyman observed that a number of growers have asked if they can collect seeds of POSCIP species in PA, so that they can propagate local genotypes; and Chris Firestone said that such collecting has to be done with a permit and collecting for commercial propagation isn't an allowable reason in the regulations for getting a permit. At present it seems best to treat *Tripsacum dactyloides* like *Ilex opaca:* we should protect the native populations of *Tripsacum dactyloides* and not the ones derived from cultivated sources. **PE -> PE/Special Populations**

***Utricularia radiata,* small swollen bladderwort.** There have been no collections of this species since 1927. It is represented in PA by several earlier (1865-1927) collections from the Bristol area of Bucks Co. Recent collections in the Poconos have turned out to be *U. inflata*. **PE -> PX**

Concerns about species in southwestern counties threatened by mining and water table subsidence. Mary Joy Haywood brought up the issue of underground mining in southwestern PA, notably Greene Co., which threatens water tables and which will be expanding to affect all seven watersheds in the county. *Collinsia verna* is one species that is being affected and that may need to go back on the POSCIP list if mining is not stopped. We agreed that we can't list species in anticipation of them becoming rare, but we need to be alert to document loss of populations as it occurs. *Solidago curtissii* is an example of a species that might be affected, because it is a floodplain species known only from Enlow Fork in PA. DEP continues to actively issue permits for subsurface mining and we should be expressing our concern via letters.

PRESENTATION OF NEW PNDI DATABASE

Susan Klugman and Sarah Hunter gave a presentation of a "Negative Database" for field information that doesn't fit in the usual big database used for tracking rare species. Information for the new database could include notes on sites that have been checked out and do not need to

be searched again (e.g. strip mines) and any other notes from people's field notebooks that are not in the existing database. The idea is that one can call up a geographic area on the database and see who's been there and what they saw. Watch List species might be put into this database, along with invasive and exotic species.

This new database is still in the design and testing phase, but when finished, it will be made available to botanists and we will be able to send in our own information to add to it. It is built on an Access database and will be partly to wholly usable by others depending on whether or not we own ArchView, which provides access to the "GIS side" of the database. If we do own Archview, we'll be able to search both the new database and PNDI at the same time by species, county, and other variables. Thus, one could search for both positive and negative hits. The data are entered and organized by "visit", with visits showing up on the GIS side as polygons on topographic maps. (Repeated visits to the same site may all show up as the same polygon; one clicks on the polygon and gets information from all the visits). The polygons are made by drawing them right onto the topographic maps on the computer. Visit identifications are exported back to the Access side of the database so one can generate reports on selected visits.

Those with questions can e-mail or call Steve Grund or John Kunsman, who know where to find Sue and Sarah.

DISCUSSION OF INVASIVE SPECIES NEWLY ARRIVED IN PENNSYLVANIA

Chris Firestone reported on the formation of the Mid-Atlantic Exotic Pest Plant Council, which has a ListServe which recently issued an alert for jetbead *(Rhodotypos scandens)* in the southeastern part of the state. We might be able to help them with information on the spread of particular species. Meanwhile, Lisa Smith has started a discussion group on invasive species centered at Edinborough College and Betsy Lyman has formed a group called the Delaware Invasive Species Partnership and are hoping to get funding for projects. We should contact Ann, Tim, or Betsy if interested in getting involved in the latter group.

The meeting was adjourned at 2:25 PM.

Respectfully submitted,

Carol Loeffler
Minutes secretary