**Minutes of the Rare Plant Forum**
23 March 2002
Community Center, Ohiopyle, PA

Attending: Steve Grund (Chair), Lucy Boyce, Beth Brokaw, Robert Coxe, Scott Detwiler, Janet Ebert, Sandy Feather, Rocky Gleason, Maggie Harlan, Mary Joy Haywood, Jack Holt, Joseph Hummer, Bonnie Isaac, Joe Isaac, Karen Johnston, Larry Klotz, John Kunsman, Carol Loeffler, Betsy Lyman, James Macklin, Darlene Madarish, Kathy McGregor, Jessica McPherson, Rick Mellon, Susan Munch, Jim Parks, Ann Rhoads, Mary Jane Seipler, Lisa Smith, Nina Thumser, Pia Van de Venne, Barbara Wallace, Hank Webster, Rebecca Wertime, Deanna Witman, Thad Yorks

**Introduction and announcements.** Steve Grund opened the Forum with a brief statement of its purpose – to advise the Bureau of Forestry on which plants merited inclusion on the Bureau's list of Plants of Special Concern in Pennsylvania, and on what category each plant should be in (extirpated, endangered, threatened, rare, undetermined).

There were several announcements. Chris Firestone reported on an upcoming position in the Bureau of Forestry that was not yet defined but that would probably have something to do with botany. Mary Joy Haywood had copies of the book she coauthored with the Western PA Botanical Society, and order forms. Kathy McGregor reported on a native plant nursery that was opening in Pittsburgh, with local genotype plants for nonprofit organizations, groups carrying out restorations, and individuals. All plants for sale in 2002 were herbaceous but the nursery hoped to have woody plants by next season.

Sue Thompson gave a brief update on the November, 2001 Biodiversity conference. A baseline report on the present state of biodiversity in PA was in preparation using various consultants in law, environmental policy, best management strategies, etc. The plan was to prepare 15,000 copies of a 30 page glossy report, to be finished in May. Regional meetings were to be held and the hope was that policy makers would use the report in decision-making.

## DISCUSSION OF PROPOSED CHANGES TO THE POSCIP LIST

References to the "Atlas" are to Rhoads, A. F., and W. M. Klein, Jr. 1993. The Vascular Flora of Pennsylvania: Annotated Checklist and Atlas. American Philosophical Society, Philadelphia, PA.

Extended discussions with regard to general topics occurred under

1. *Ranunculus ambiguens* (listing of species at the edges of their ranges, or in habitat that is rare in PA, even though such species may be common just outside of PA)
2. *Rosa setigera* (protection of non-native and restoration sites for rare plant species)
3. *Myriophyllum heterophyllum* (protection of sites at which the species grows invasively, apparently in response to human modification of the site)
4. *Pycnanthemum clinopodoides* (assigning PX vs. PE vs. TU status for species that PROBABLY still occur in PA at extremely low abundance and that need immediate

protection and fieldwork, but for which we don't actually have documentation of extant sites in PA)

**Additions**

***Juncus diffusissimus,* diffuse rush.** Proposed by Holt and Ebert. Jack Holt, during a search with Columbia Gas, found *Juncus diffusissimus* in a disturbed, scraped-out area subject to summer drying, where heavy machinery had been brought in to break down and remove tanks. He saw it once before in Delaware in a similar situation. It is native to the coastal plain in the southeastern US and adventive in Maryland and Delaware. It is new to the Pennsylvania flora. We did not add it to the POSCIP list because of its adventive nature. **Remains N**

***Ranunculus ambiguens,* water plantain spearwort.** Proposed by Bissell. Jim Bissell reported that this species used to be widespread in Ohio. It turns out that most PA records are from the 1950s or earlier, although Carnegie has one record from Somerset Co. taken in the 1980s. John Kunsman noted that this is a relatively distinctive-looking species, which might make it less liable to be overlooked. Nonetheless, Rick Mellon expressed reservations about adding another species to the Undetermined list, because when species of unknown status have to be searched for, his clients for his environmental consulting work get edgy and one has even threatened to take the state to court over the POSCIP list. Steve Grund remarked that our modifiers should help; the Bureau of Forestry might give different consideration to URF plants vs. UEF plants which are much more likely to need protection. Rick Mellon pointed out that even plants in the PR category have to be searched for. Ann Rhoads observed that our job is to determine to the best of our collective wisdom the appropriate statuses for species and that if we backed off for every species for which we don't know much, then we wouldn't be doing our job. We simply need to be sure that the list is defensible. Karen observed that they have gotten complaints about having to search for proposed species that aren't in the regulations yet, although so far they have managed to search for them. Robert Coxe remarked that in county inventories, it helps to do certain things involving environmental review as early as possible so that there are no holdups to irritate anyone.

Rick Mellon continued to express concern, noting as an example that willow oak is a "trash tree" in New Jersey and endangered over here, and it is difficult for clients to understand why endangered status is necessary in such cases. Ann Rhoads pointed out that willow oak is at the edge of its range in southeastern PA and there is good reason to preserve them, because there is good evidence that the gene frequencies are different in the edge populations. Steve Grund agreed that one can make good arguments for edge species and remarked that it is ironic that if a species is at the north edge of its range in southern PA, we will list it whereas if it is at the north edge of its range at the north edge of PA, it probably won't get listed. This is the problem with using political boundaries. Larry Klotz noted that we have two situations here: the willow oak one is one in which PA simply has a small wedge of a particular type of habitat that the species occurs in, but there are other situations in which the amount of habitat may not be so important as the fact that the species is at the edge of its geographical range. He wondered if we might find a way to distinguish these situations. Steve Grund suggested that we take the matter up in the VPTC. Janet ccommented that we should guard against making our system get too complicated, lest those administering the state plant program get overwhelmed.

We returned to specific consideration of *Ranunculus ambiguens*. Jack Holt noted that he has looked for it for 20 years in southeastern PA and never seen it. Jim Bissell suggested that we give it an undetermined status and keep looking. There was justification for giving it UTF status but we opted for URF on the grounds that that distinction made little practical difference. **N > URF**

***Rosa blanda,* meadow rose.** Proposed by Bissell. Jim Bissell explained that this species is rare in Ohio, occurring pretty much only on limestone, and it has only 20 dots (documented occurrences) in the *Atlas.* It is a lot like *Rosa carolina* but has no glandular hairs on the ovary or pedicel. Ann Rhoads observed that it is not considered native to PA in the Atlas, although Tim Block added that it is native in the database NOW. Bonnie Isaac reported that Carnegie only has two recent records, from Centre and McKean Counties. They have seven additional specimens, all from the 1950s or earlier, and the nine total specimens are from seven counties. The species needs to be searched for and its native status confirmed. **N -> UTFN**

***Rosa setigera,* prairie rose.** Proposed by Bissell. Jim Bissell said that this species is common on the sand plains of Presque Isle, which is within its native geographic range, but that he hasn't seen it elsewhere in northwestern PA. There are only 15 dots in the *Atlas.* Several people commented that its distribution on the *Atlas* map, in the areas of Pittsburgh, Philadelphia, Reading, and Allentown, suggested that most PA occurrences are escapes from cultivation. Jim Bissell agreed that *R. setigera* is a lot more likely to escape from cultivation than *R. blanda*, but assured us that the Presque Isle occurrences are native. Steve Grund wondered if the best way to manage the species was to only put native occurrences in the database, but Jack Holt recommended putting all occurrences into the database and coding them as native vs. non-native, to clarify what each occurrence is and potentially to save someone having to figure it out again ten years later. Ann Rhoads agreed, adding that another reason to do as Jack Holt suggested was to take care of questions from people who see a particular plant on the POSCIP list and want to know if a given occurrence needs protection. People call her all the time wanting her to find rare plants on land that they don't want developed, and one can't ignore non-native occurrences because the local people find out about them and bring them up.

Sue Thompson pointed out that as people in restoration start using native germplasm, there will be more and more of a problem deciding if a given occurrence warrants protection. We need to think out our goals: are we preserving species? germplasm? spots where the species occurs on its own? Steve Grund wondered how viable these restoration plantings are, which would affect whether we want to list them as occurrences. He also noted that real restoration projects differ from mitigation wetlands, although ironically, mitigation wetlands have more protection than natural ones. Rick Mellon observed that for the most part, people won't want to build on restoration projects, but Sue Thompson said that 20 years from now in such a site, someone will want a parking lot or a nature center and the site would need to be in PNDI to be protected. She suggested that some species may come off the POSCIP list someday because they are planted, but if those sites aren't in PNDI, that delisting won't happen. Rick Mellon mentioned that there were rare plant populations at Bowman's Hill that seemed happy for 30 years, but then disappeared, so he questioned whether we should ever take plants off the POSCIP list because of restoration projects. Any population that had lasted less than 40-50 years should NOT yet be listed as a viable occurrence, he felt. He noted that *Bouteloua* is being planted everywhere in prairie restorations, and he worried that if it were taken off the POSCIP list, it might be in greater

danger because natural populations would no longer receive protection and the restoration populations might only last ten years. In general, planting rare native species is discouraged in PA. When they are planted, Steve Grund noted that there are two major questions to resolved: one, are such populations viable over the long term? Two, what is the source of germplasm? For *Bouteloua* in prairie restorations, the source is west of PA, and Steve noted that it is ironic that one can plant western *Bouteloua* seeds but one cannot plant Pennsylvania germplasm without a permit. He continued that the issue needs discussion because it is going to be more and more of an issue, especially with the amount of remediation that will be happening on brownfield sites. We need to decide how to handle this: are we going to tell people to plant native species but we aren't going to count their plantings as native?

Returning to *Rosa setigera*, Jim Bissell agreed that using the modifier N ("native status uncertain") would be appropriate. The plant occurs across Ohio and southern Ontario, and we just need to be sure what is native in PA. John Kunsman indicated that the way to do this was to look at the habitat information on herbarium sheets. Bonnie Isaac promptly did this on her laptop for Carnegie specimens and reported that there was little or no habitat information on the herbarium labels. One 1804 Pittsburgh specimen was from "Stanton Avenue, in the hollow". Others were from "Squaw Run, 1900" and "Powers Run, 1913". Steve Grund said that if the herbarium labels don't answer the question, we need to do fieldwork. **N -> UEN**

**Status Changes:**

***Arabis patens*, spreading rockcress.** Proposed for PT status (change from TU) by the Western Pennsylvania Conservancy (WPC). Bonnie Isaac, reading from her records of past meetings, said that we made it UTF in 1998 at the Vascular Plant Technical Committee meeting. Steve Grund explained that this species is ranked G3 so he decided to take a closer look and noted that all of the 13 known extant populations are small (<100 individuals). There are 32 historic sites, and, projecting that we might find more, since some sites have been found since 1998, he estimated 1,000-3,000 individuals statewide. John Kunsman said that Larry Klotz had reported a fairly big population, of about 3,000 individuals, and Larry said that he actually recalled two large populations, in Franklin Co. He noted that it is very pretty and easy to recognize, with big flowers. Steve Grund accordingly upped his estimate to 3,000-6,000 individuals statewide, perhaps more once all historic sites are checked. It is a plant of bluffs and limestone slopes, and some of the bluff areas at least are not threatened by housing. We felt that we had enough information to make a definite categorization. **UTF -> PT**

***Crataegus pennsylvanica*, red-fruited hawthorn.** Proposed for PT status (change from TU) by WPC and Macklin. James Macklin said that there are probably more than five extant sites of this species. He hasn't had a chance to go out much yet since arriving in the Philadelphia area but has found one new site already in Philadelphia and he knows of four sites with multiple trees in Pittsburgh. It occurs in New York near Erie and there's no reason it should not be in northwestern PA. (There are only a few historic records in PA.) It can be confused with *Crataegus mollis*, which has one record in Erie. Joe Isaac reported having another (sixth) site with thousands of individuals, divided into several huge populations on ridge crests over ca. 12 miles of territory. Some of the area is slag dump and powerline right-of-ways, and it appeared that the species was tolerating disturbance well. James Macklin urged that if anyone found more of the species, send specimens to him. In view of Joe Isaac's discovery, we recommended more fieldwork with a prediction that the species will be PR. **UTFH -> URF**

***Myriophyllum heterophyllum*, broad-leaved water milfoil.** Proposed for PE/Special Populations status (change from PE) by Block and Rhoads. There are seven historic sites (three at Presque Isle) and five extant, all located since 1986 when according to Bonnie Isaac's records we made it PX after extensive checking failed to turn it up at historic sites. (We made it PE in 1987 after at least one of the extant populations had been discovered.) The five extant sites are in the east (two), the southwest (one), and Presque Isle (two). Ann Rhoads said that she was really surprised to run into this species in northeastern PA, but it actually acts like an aggressive invader where it occurs there. In one site, Shohola Lake, hundreds of acres of impoundment are covered. The second eastern PA site is Lily Lake in Luzerne Co. Steve Grund and Robert Coxe cited similar growth in a spot or two in western PA. It fills the mouth of the Cheat River, where the water is fairly still. Ann Rhoads noted that in Rhode Island it is considered a waterways weed. It is an invasive exotic in New Hampshire. Jim Bissell reported that Presque Isle has it in two ponds. It is a native in Ohio and Michigan but there are only two known sites in Ohio. He thought that the Presque Isle sites should be recognized and protected in some way. Ann Rhoads noted that lots of the lakes that may have it have not been botanized.

Rick Mellon and Steve Grund brought up the issue of pollution, wondering why this species would invade northeastern PA if it likes limey habitat. Do we need to evaluate each population and decide if it is invasive because of habitat changes, rather than because it is inherently invasive? What is going on genetically in this species? Jack Holt wondered if there might be a situation here similar to that with *Phragmites australis*, in which a Eurasian strain crept in and proved to be extremely invasive, in contrast to native plants. Steve Grund observed that if native populations turn out to be different, then we do want to track them. Jim Parks worried about the small total number of sites for this species, regardless of its invasiveness in some of them; and Jim Bissell noted that there's a good chance that we'll lose the species in Ohio, where none of it occurs in manmade lakes. We debated whether to protect just the Presque Isle populations with a Special Populations designation, or the Presque Isle and mouth of Cheat River populations, and we debated to what extent the other populations, all of which can be characterized as reservoir populations, should be protected and to what extent they should be considered native. Sue Thompson pointed out that naturally dispersed populations could logically be considered native, regardless of how rapidly their populations have grown in response to human alterations. So should the reservoir populations be protected as such? Jim Parks quoted someone famous, saying that for every complex question there is at least one simple answer and it's wrong. We have to make judgments, which is why he thinks Special Populations is a good thing - they keep the flag up so that we have a chance to protect certain populations. Steve Grund noted that we would have a real problem telling State Parks in Pymatuning that they can't repave a road because of *Bouteloua*, and Jim Parks responded that he would sure want them to *ask* him before they did it.

Steve Grund suggested a straw poll on protecting Presque Isle and maybe the mouth of Cheat River population with Special Population status while leaving the reservoirs unprotected. (As suggested in the discussion under *Rosa setigera* above, the reservoirs could be in the database but tagged as "non-native" so that they would not generate a "hit" in a permit review search). Rick Mellon suggested simply delisting the species on the grounds that the Presque Isle populations were more or less protected from being in the park. Jim Parks labeled the situation "herd immunity", in which a plant gains protection by hanging out with other rare plants. Jim

Bissell worried that it only occurs in rich ponds, which are fairly isolated, with no other significant rare plants right there. Jim Parks accordingly recommended PE/Special Populations, and most of us concurred in a straw poll. We agreed that the issue of Special Populations might be discussed further by VPTC at a later date. **PE -> PE/Special Populations**

***Pycnanthemum clinopodoides*, mountain mint.** Proposed for PE status (change from TU) by WPC. Steve Grund noted that this is another G3 species, so it would be nice to resolve its status. There are 19 historic occurrences, the most recent being 1948. It is classified as historic or extirpated in three other states. Jack Holt remarked that he hjas never seen it and would be happy with PE status. Sue Thompson asked why we wouldn't call it PX, as we have other species that haven't been seen in over 50 years, and Steve Grund said that the difference is that we haven't looked for this species. He suggested that we lose credibility if we call it PX and then find it and have to change it to PE. There followed discussion of exactly what PX means: does it mean that we believe it's extirpated (the Grund interpretation) or does it mean that we have no evidence that it is extant (the Mellon-B. Isaac interpretation)? Sue Thompson suggested leaving the species at TU, but Jack Holt said he'd rather risk making the wrong choice of PX vs. PE than leave the species in the less protected category. Jim Parks suggested PE on the grounds that taxonomic difficulties may account for the lack of extant sites and also that he is more inclined to search for PE plants than for PX plants. Jack Holt differed, saying that he thinks PX status is an incentive to search for a species. Steve Grund argued again for PE status, saying that PE status means that we THINK there are one to five populations (a scientific judgment call, based here on the fact that there were 19 populations in PA just over 50 years ago), and Sue Thompson argued that we need hard documentation that it still exists in PA. If there is no new evidence, why should we move it off the TU list? Jack Holt responded that he has been on the lookout for it and hasn't seen it. Jim Bissell added that TU species just don't have enough protection when they really need it, and he cited an example of a TU species that was found in a condominium subdivision. It had so little priority that they had to work hard to get the developer to view the property as exceptional value wetland.

Bonnie checked the records from past meetings. In October of 1997 the species was first proposed and it was put on the list at UTF in 1998. Steve Grund argued that what has changed since 1998 is that we are past the 50 year mark, and that he really believes that the species is PX or PE rather than PT. As far as protection goes, historic populations do not generate "hits" during permit review searches. The H records are however useful especially if there's a hit on something else nearby.

In continued discussion, we agreed that there really needs to be fieldwork done on this species now. **UTF -> UEF with strong recommendation for fieldwork**

**Taxonomic/Nomenclatural Changes**

***Talinum teretifolium* to *Phemeranthus teretifolius*.** Proposed by Carnegie Museum of Natural History (CMNH). Bonnie Isaac explained that Kiger recognizes *Phemeranthus* in his *Flora of North America* treatment. *Talinum* still exists, but *teretifolium* was switched over to *Phemeranthus* in 1814 by Rafinesque, and Kiger moved more species over to *Phemeranthus* and recognized the genus. **Change accepted**

**Deletions**

***Desmodium humifusum,* trailing tick-trefoil.** Currently UXT, proposed for deletion by WPC. Steve Grund explained that Jay ####Raveill (article in press) feels strongly that this is not a good species; different occurrences result from separate hybridization events. Sue Thompson observed that we have a policy that we can protect hybrids if we think it appropriate, and Steve Grund projected our guidelines for protecting hybrids. He remarked that #### Raveill does not feel that *D. humifusum* is becoming a speciation event. Raveill has good luck germinating *Desmodium* seeds in general but not these: they are only marginally viable. Jack Holt noted that the parent species, *paniculatum* and *rotundinaceum,* are very common (especially *paniculatum).* We agreed to delete and made mental notes to check the article when it comes out. **UXT -> DL**

***Elatine minima,* small waterwort.** Currently PR, proposed for deletion by Block and Rhoads. There are about 30 historic populations and about 25 extant populations with upwards of 18,000 individuals. Ann Rhoads explained that she has seen one population in lower Bucks County and lots in northeastern PA, even in somewhat disturbed and eutrophic sites.

**PR -> DL**

***Eliocharis olivacea,* capitate spike-rush.** Currently just on our Watch List, but still PR on the state list. Ann Rhoads explained that she and Tim Block know of some extremely large populations. **Watch List -> DL**

***Leptochloa fascicularis* var. *maritima,* saltpond grass.** Currently UEN, proposed for deletion by Holt and Ebert. Jack Holt said that there is no evidence of any natural populations in the state. It is a salt marsh plant which was first evident in Hog Island, Philadelphia, and which occurs in the drawdown zone on the Octararo Reservoir, as well as in swaths along salted roadsides. Jim Bissell said that it is common in the northwest too. Steve Grund observed that even if it were determined to be native to PA, it doesn't need protection. **UEN -> DL**

***Orontium aquaticum,* goldenclub.** Currently PR, proposed for deletion by Block and Rhoads. There are 90-100 historic occurrences. Among extant occurrences, eight were documented between 1984 and 1990, and 11 more have been found since 1992. Ann Rhoads said that the concern over this species is that it is declining in southeastern PA, but there are lots of big populations in northeastern PA. Larry Klotz said that he knows of sites in the southcentral part of the state, some large and some small. Jack Holt said that he has two Chester Co. sites. He hated to see it go off the list, but couldn't justify keeping it on. **PR -> DL; placed on Watch List in later discussion**

***Paspalum floridanum* var. *glabratum,* Florida paspalum.** Currently PX, proposed for deletion by Jack Holt and Janet Ebert. Jack Holt explained that there is a historic (1933) location for this species along a railroad and that he found a new population consisting of a string of clumps in the median strip of Rt. 1. Rick Mellon asked what he was doing in the median strip of Rt. 1, and Jack Holt explained that he saw the plants while driving by towards Nottingham ("the biggest *Paspalum* I've ever seen"), screeched to a stop, and went to look. Jim Parks remarked that he has not seen this species along the Susquehanna. We agreed that it appears to be adventive.

**PX -> DL**

***Potamogeton robbinsii,* flat-leaved pondweed.** Currently PR, proposed for deletion by Block and Rhoads. Ann Rhaods explained that it is turning up in one lake after another in northeastern PA. Jim Bissel, who originally proposed the species, agreed that it was reasonable to delist it on this basis. **PR -> DL**

***Prenanthes crepidinea,* crepis rattlesnake root.** Currently PT, proposed for deletion by CMNH and WPC. Bonnie Isaac explained that many new stations have turned up: there are 28 documented and at least four undocumented sites in the state, and a conservative estimate puts the number of individuals at more than ten million. Joe Isaac added that it ranges from McKean to Greene Cos. Bonnie observed that it is showing up at many new sites in Ohio and Kentucky and has turned up in West Virginia. It is a monocarpic plant that comes up in spring and senesces by mid-summer. It grows 10-15 years before it dies. Robert Coxe commented that he has no doubt that he'll find more of it in Mercer Co, and Steve Grund observed that it is ranked as G3G4 but should perhaps be ranked G4G5 given all the new findings. **PE -> DL**

***Sporobolus cryptandrus,* sand dropseed.** Currently PR, proposed for deletion or Special Populations by Block and Rhoads. Ann Rhoads explained that this species is persisting on a brownfield site being treated with herbicide and appears to be adventive in Philadelphia. Jim Bissell noted that it is called the hibachi species because it grows on hibachi grills. It is native to PA but there is plenty of it, he said. **PR -> DL**

***Xyris montana,* northern yellow-eyed grass.** Currently PR, proposed for deletion by Block and Rhoads. Ann Rhoads explained that it is very abundant in lakes in northeastern PA, even in areas where the water level is fluctuating because of beavers and other agents. There are more than ten extant sites, probably considerably more, with more than 10,000 individuals. Sue Thompson said that by the guidelines the species should be PR until we have documented with certainty that there are more than 50 populations or 100,000 individuals. There was some discussion but we agreed to keep the species PR pending more records. **Remains PR**

**ADDITIONAL DISCUSSION**

**Watch List.** Janet Ebert asked what was the status of the Watch List. Steve Grund explained for the benefit of all present that the watch list includes species for which there is some indication that they are rare or declining, but for which there is not justification to list them as PR or TU. The VPTC and the Rare Plant Forum welcome comments from people in the field on such species. One needn't necessarily fill out any forms, but just sending in observations (e.g. "I saw a lot of this species this summer in this area") is useful.

Larry Klotz wondered if ***Orontium aquaticum,*** which has declined in the southeastern part of the state, should be on the Watch List, noting that many of the sites are small compared with those for *Xyris montana.* He knew of one spectacular population in south-central PA, and the rest are very small. Steve Grund agreed that the populations he's seen are small. Darlene Madarish said that populations appear to be small but stable. We agreed to put *Orontium aquaticum* on the Watch List.

Two other species were discussed with reference to the Watch List: ***Myriophyllum heterophyllum,*** which we left as discussed previously, and ***Collinsia verna,*** which may be

threatened by longwall mining in southwestern PA. Mary Joy Haywood noted that there are fewer than 10,000 individuals and that the mining is continuing, so we need to keep an eye on it. Bonnie Isaac added that she had information from a colleague that it is still stable in West Virginia but that it is declining badly to the west. We may be the stronghold for it. It too should probably go on the Watch List.

The meeting was adjourned at ca. 1:00 PM. There followed a short lunchtime meeting of the Vascular Plant Technical Committee and an afternoon Invasive Plants Forum led by Tim Block, Lisa Smith, and Betsy Lyman.

Respectfully submitted,

Carol Loeffler
Minutes secretary