

Minutes of the Rare Plant Forum
Saturday, March 26, 2006
Little Buffalo State Park, Perry Co., PA

Members present:

Doris Armstrong Goldman, Jim Bissell, Tim Block, Mark Bowers, Robert Coxe, Tim Draude, Janet Ebert, Chris Firestone, Rocky Gleason, Maggie Harlan, Jack Holt, Joe Isaac, Bonnie Isaac, Karen Johnston, Joan King, Larry Klotz, John Kunsman, Carol Loeffler, Darlene Madarish, Rick Mellon, Susan Munch, Sara Nicholas, Ann Rhoads, Autumn Sabo, Barbara Sulon, Loree Speedy, Jack Stabley, Christopher Tracey, Norman E. Tyson, Kathy Tyson, Hank Webster, Ephraim Zimmerman,

The meeting convened at about 10 AM.

Steve Grund introduced the meeting, discussing the role of the Rare Plant Forum, which is a subcommittee of the Vascular Plant Technical Committee, in recommending changes to the Plant Species of Special Concern in Pennsylvania or POSCIP list. The Vascular Plant Technical Committee considers and virtually always approves the Rare Plant Forum recommendations and forwards them to Chris Firestone of the Bureau of Forestry. Chris Firestone uses the recommendations to make changes to the official state list, which have to go through the state legislature before they become official.

Announcements.

At Steve Grund's request, Susan Munch announced her book on mosses and liverworts of Pennsylvania. This is an easily pocketed, introductory book, illustrated with closeup photographs and some drawings, and featuring about 50 or so of Pennsylvania's mosses and liverworts (out of 300 total). It is at the printer and should be out by maybe the end of April. Susan offered to take names of people interested in buying the book. The rate for us, now, was \$15 per copy but would be at least \$18 later on. Susan said that she will be doing some of the distribution, going to state parks and giving talks. Steve Grund observed that it is really nice to have something come out on bryophytes of Pennsylvania; there is need for it.

Chris Firestone referred us to some handouts she had brought along and set out for us. These included a handout on goldenseal, from Eric Burkhart, who has a similar publication on ginseng available but that she didn't bring along. She also had brochures on giant hogweed, an invasive. People often report angelica as giant hogweed, and the brochure provides help in identification, among other things,

Jim Bissell added that he had some Cleveland Museum of Natural History calendars available for forum members.

Steve Grund mentioned that we are in the process of adopting a new form for proposing changes to species statuses, and as we go through the species, he encourages discussion on the one hand but on the other hand we need to limit that somewhat because of time constraints. The form will be on the agenda of the fall Vascular Plant Technical

Committee meeting and if rare plant forum attendees want to be involved in that discussion, we are welcome to join. We should let Tim Block or Steve Grund know, to get on the list for the fall VPTC meeting announcement.

Later, as noted immediately after the Lunch Break below, Chris Firestone reminded us about applying for Wild Plant Management Permits if we plan to collect PE or PT species,

Update from the Wild Resource Conservation Program.

Steve Grund then introduced Sara Nicholas, who joined the Wild Resource Conservation Program five months ago as the director. She informed us that she is “wildly optimistic and disorganized.” As an example of how this plays out, she said that she got lost en route to today’s meeting but got here by following a red Subaru with CAREX on the license plate. She has spent the last five years “busting” Pennsylvania dams and has gotten to know invasives pretty well because they come rapidly in. Lots of her projects this year involve deer exclosures. She is hoping to put more deer exclosures in state parks to educate the public and to save rare plants.

Sara Nicholas observed that fines from illegal collecting come to WRCP so we should report collectors – the fine is \$100 per incident.

Sara then reviewed the history of the Wild Resource Conservation Program. It was created in 1982, was brought over to DCNR in 1999, and is still administered by DCNR in close cooperation with the Pennsylvania Fish and Boat Commission and the Pennsylvania Game Commission. Funds are raised through the license plate tax check off, sale of conservation education products, voluntary contributions, and the aforementioned fines. Regarding educational materials, this is the Year of the Fungus, and patches will be available on that theme.

The primary missions of the WRCP are

- 1) the annual grant program, which provides 1.2 million for research and recovery projects
- 2) production and distribution of the *Pennsylvania Wildnotes* newsletter to 70,000 people.
- 3) development of educational materials and products.

In 2006, grants were funded mostly by Growing Greener money. Grants are for projects involving birds, mammals, fish, reptiles, amphibians, plants, and education. The deadline for proposals is June 30 and awards are in October. The average grant size is \$30,000. Project applications are reviewed in August. If any of us are willing to review proposals, we should let her know.

Sara plans new emphases for the WRCP, specifically stronger emphases on implementation grants, reintroduction and recovery, and pilot projects (but the distribution of grant won’t really change – they will continue to be divided among

survey, recovery, and education). She also wants to revive science education activities, publication for kids, opportunities to bring our research to the general public, and the like. She would like to see more collaborations, for example between plant and insect researchers and between researchers and educational groups. She would like to emphasize achieving tangible results with the grants. For example, regeneration projects would be encouraged.

Partners can work with the WRCP in various ways, such as:

- 1) Spread word about our grant program and educational products (the relevant website is at www.dcnr.state.pa.us/WRCF)
- 2) Let us know about great projects and partnerships that might need our funding

The WRCP's Wild Resource Festival was started in 2005 to showcase grantees' work. This year, it will be on Saturday, May 20 at French Creek State Park, Big Woods. There will be a fungi theme.

Sara told us that she is eager to see projects in the field. She showed us an example of a project—a park inventory followed by removal of invasives around a bridge – and remarked that it was a good example of survey leading to management and action.

Finally, Sara told us that the total amount of grant money available this year will be comparable to last.

Changes to the Pennsylvania Natural Heritage Program. Jeff Wagner, interim director of this program, was unable to attend today so Steve Grund presented this update. The PNHP hired a consultant last year to study this program. One of the main recommendations from the consultant concerned administration of the program. Traditionally, there have been three partners: the Western Pennsylvania Conservancy, The Nature Conservancy's Pennsylvania Science Office, and the DCNR Bureau of Forestry. This partnership has caused confusion and logistical challenges over the years. The recommendation was to consolidate fieldwork under one of the conservancies. The leaderships met, and WPC and TNC mutually agreed to transfer fieldwork for the Heritage Program to WPC. Nationally, TNC has been getting out of the heritage program, yet they are one of the biggest clients of the National Heritage Program and they wanted to remain involved with it in Pennsylvania and make sure that the program would be stronger. Final approval of boards has happened, and the target time is the end of June for transferring the Middletown office to WPC.

Chris Firestone added to Steve's comments an observation that the Heritage coordinator will be Greg Czarnecki, who has been with the Heritage Program in the Middletown science office. The jurisdiction of the program remains with DCNR.

Asked if the Western Pennsylvania Conservancy plans to change its name to reflect the acquisition of field workers in the east, Steve Grund said that WPC is still a land trust. The iron curtain down the middle of the state has disappeared to the extent that WPC

expects more cooperation with TNC and both groups may expand into each other's territory, but there are no plans for WPC to change its name.

Proposals to update the POSCIP list

Starting this spring, we are using a new Excel-based form for species proposals. Steve Grund took us through the new multi-page form. The purpose of the questions on the various pages of the form is to get one thinking about the natural history, abundance, and known occurrences of the species, after which one integrates and decides how much one thinks is present in the state. So the numbers of occurrences and individuals have a different meaning than they did in the past. The form also asks the proposer to gather information on how rare the species is in adjacent states, whether it is a disjunct species in Pennsylvania, etc., so that all issues are covered. There are two reasons:

- 1) so that when we are thinking about the appropriate status for a species, we have everything in mind, and
- 2) so that we better document our thinking.

Finally, Steve noted that the information put onto the various pages of the spreadsheet feeds automatically onto the summary page.

***Cornus drummondii* (amended to *Cornus sericea* var. *baileyi*).** *Cornus drummondii* is not in the PA flora, but Jim Bissell proposed it for PE status based on a known extant occurrence and the possibility of several more, all in northwestern PA. However, the more he looked at the sample, the more he thought it might be *Cornus sericea* var. *baileyi*. *Cornus sericea* (= *stolonifera*) has very appressed fine white hairs, but var. *baileyi* is just as hairy and curly as *drummondii*, it turns out. Jim took it to Tony Reznicek to check, and Tony is convinced that it is *C. sericea* var. *baileyi*, based in part on the fact that it has white pith, which *C. drummondii* does not. *Cornus sericea* var. *baileyi* is very common in Great Lakes wetlands. The hair situation makes it impossible to key out *C. sericea* var. *baileyi* in most keys. The fruits are much longer than wide, so Jim wants to go back and collect the fruits. He wants to table this species until he gets the additional information. However, Steve Grund wanted him to explain all this to the group because we already had *Carex drummondii* on the list, because *C. drummondii* still could turn up in Pennsylvania. It occurs on floodplains as far east as Cleveland.

John Kunsman asked if there are other hairy forms of *C. sericea*, adding that he saw a hairy red osier dogwood in the State College area a while ago. Jim Bissell said that it's probably an introduced *C. sericea* var. *baileyi*. Jim added that Tony Reznicek thinks that *C. sericea* var. *baileyi* is more than just a form, and that it needs study. It is very common in the Great Lakes area.

We agreed to table the proposal while Jim Bissell gathers fruits.

→ **Tabled**

Pseudolycopodiella caroliniana. Not currently listed; proposed for PX or UXF status by Steve Grund and Bonnie Isaac based on a single historic occurrence. This species is sometimes put in *Lycopodiella*. The leaves on the peduncle are more scattered than are those on other *Lycopodiella* species. The lone specimen was collected in “Bethlehem” by Rau in 1878. Steve Grund and Bonnie Isaac noted in their proposal that that area has long been industrial, and that additional occurrences, if any, were probably on the coastal plain, which has been largely urbanized. The species might be present in New Jersey or Maryland near Pennsylvania, but re-establishment in Pennsylvania seems unlikely due to urbanization.

John Kunsman said that he wants to argue against listing it. It is not in Porter’s flora even though the collector, Rau, is thanked for contributing a lot to that flora. Therefore the specimen label may be questionable. Ann Rhoads noted that Rau turns up as collector on a number of Bethlehem specimen labels. Jack Holt noted however that Porter collected about 20 years later than the date of this specimen. Rick Mellon asked if the species occurs outside the Pine Barrens. Someone replied that there was an 1870s collection in Delaware, and Steve Grund indicated that as far as he had inquired, other specimens were from the coastal plain. Jim Bissell observed that sometimes people use preprinted labels for a location such as “Bethlehem” even when they are collecting elsewhere. It was noted however that the label on the Pennsylvania specimen was handwritten “Bethlehem, Pa,” not preprinted. But sometimes someone other than the collector writes the label.

Specimens at the Philadelphia Academy of Natural Sciences still need to be looked at, so we considered a status of UXHD (herbarium work needed, dubious record), but decided to table the proposal until the Academy specimens are looked at. → **Tabled**

Sagittaria cuneata. Not currently listed; proposed for PE status by Jim Bissell. Jim reported on a “spectacular” fen found in 1988; three species new to Pennsylvania have been found there, and *Sagittaria cuneata* is the third. In ten years the fen was “gone,” overgrown by invasive narrow leaf cattail. But with excellent cooperation of the owner, who has spent approximately a million dollars on conserving the fen, the narrow leaf cattail was herbicided in September and early October of 2002. Hundreds of cattail seedlings emerged after that, but these were pulled out, and then *Sagittaria* started coming back from the seed bank. Most of it is *S. latifolia*, a common species, but they have discovered *S. cuneata* there as well. The owner is leaning toward giving an easement on the property to the Cleveland Museum, although Cleveland Museum would like him to give the easement to both Cleveland Museum and the Western Pennsylvania Conservancy

Ann Rhoads commented that they had encountered *S. cuneata* in a strip mine reclamation area. This observation prompted Steve Grund to say that we’ll have to be careful about each occurrence. Jim Bissell noted that in this fen, there are historical records of black tern nesting, but they do not nest in cattail and no longer nest at the site. Focusing on the

fact that the cattails are now being suppressed or eliminated, however, Steve Grund said that this is a really encouraging story of real restoration.

We agreed that *S. cuneata* meets the criteria for PE status. Jack Holt asked if we should use Special Populations status, but Steve Grund said that in conversation with Chris Firestone he has confirmed that we have a general policy not to track introduced populations. Jack Holt suggested that introduced populations be tracked, but labeled “introduced”. Ann Rhoads agreed, noting that people looking for a reason to protect a wetland will take advantage of introduced populations of rare species. Such populations therefore need to be identified as introduced and not meriting protection. → PE

Suggestions for the proposal form. Jack Holt suggested adding the word “native” to the summary page phrase “estimated number of extant occurrences,” so that non-native occurrences don’t get lumped in there. Steve Grund invited us all to e-mail him with suggestions for the form whenever we have them.

***Myriophyllum farwellii*.** Currently listed as PE, both officially and on the PABS version of the POSCIP list. Proposed now by Tim Block and Ann Rhoads for PR status, based on increasing population size. Ann reported that *M. farwellii* is one of several species of *Myriophyllum* that are being found with increasing frequency. When it turns up, it is generally filling the lake that it is in, and they have found several large populations of it in recent years. The proposal noted that along with *M. humile*, *M. farwellii* can be so abundant as to interfere with recreational use of lakes, and also that many lakes and ponds in which it might occur have not been botanized. Their proposal noted six known extant occurrences and a likely maximum of 12 to 20 occurrences in the state.

Steve Grund asked about the number of occurrences, noting that those numbers suggest a ranking of PT rather than PR. Ann Rhoads explained that there were mitigating factors motivating a recommendation of PR: large numbers of plants (an estimated 31,000 to 100,000 or possibly 200,000 ramets) and the fact that the populations are all in impoundments. These impoundments may have the right nutrient mix, and boats may be taking them around. *Myriophyllum farwellii* can occur mixed with *M. humile* in these populations, and one has to look at the fruits to tell them apart; *M. farwellii* fruits are wartier. There are people who would like to get rid of them, which is not a reason to downgrade but which indicates abundance. They occur in state park lakes and other public lakes.

Steve Grund wondered if the species is actually native, or if it has been introduced to these impoundments. Ann Rhoads replied that it does seem to be native, although we’re on the southern edge of its range. The oldest collection is from 1957, in Lackawanna County. Bonnie Isaac noted that it was categorized as PR until 1992, then raised to PE because of apparent low numbers. Steve Grund suggested that it is a northern species, adventive southward, and possibly not native at all. Ann Rhoads noted that aquatic plants don’t tend to have much documentation (so one can’t assume it isn’t native because an

older specimen doesn't exist). Steve Grund said that he was wondering if we should simply delist it; did anyone have conservation concerns? John Kunsman asked if populations vary from year to year. Ann Rhoads said they were not sure; it is hard to tell when it is mixed with *M. humile*. Tim Block said that he would recommend against delisting it based on the fact that the number of occurrences is low, although some lakes are choked with it.

Robert suggested TUF, but Ann Rhoads and Tim Block noted that they have looked at more than 100 lakes. Although there are a lot more lakes up there, they feel that they have a good sense of how abundant it is. Steve Grund observed that we still may end up finding that just based on abundance, it shouldn't be listed. Susan Munch noted that Tim Block and Ann Rhoads know more about this species than anyone else, and Jim Bissell agreed. Tim Block remarked that he and Ann did discuss delisting, but think that it is not a good idea right now. The species is S3S4 in New York.

Rick Mellon asked if there are any natural occurrences, and Ann Rhoads said that she was not sure about the status of one population, "West End Lake, Lackawanna County."

Based on the above discussion, we agreed that PR status is appropriate. → **PR**

Lunch Break

Wild Plant Management Permit reminder. Chris Firestone reminded us that if we plan to collect PE or PT species, we should apply for a permit. She can e-mail the application to us if we let her know.

Continuing proposals for changes to the POSCIP list.

***Schoenoplectus subterminalis*.** Currently not on the official state list, recommended by PABS (our committee) for PT status, but now proposed for PR status by Tim Block and Ann Rhoads. Ann explained that this is another of the aquatic plants that she and Tim have been running into quite frequently. It can be cryptic. Frequently it is not flowering, in which case it is submergent. Several other species also have capillary underwater leaves, and when looking down from a boat one cannot always clearly see what one has, so Ann suspects that a lot of *S. subterminalis* goes unrecognized. Ann and Tim know of 19 populations, some of them quite large. (They estimate the number of extant individuals at 50,000-100,000, possibly as low as 25,000 or as high as 200,000, and they estimate the number of extant populations at 19 to 40 or possibly as many as 100).

Jim Bissell asked if Ann and Tim have seen any declines. Ann said no but they haven't had the luxury of revisiting most sites. It is a rhizomatous perennial, so populations probably don't change much from year to year.

Ann Rhoads noted that the species also occurs in streams, and she cited Nescopeck Creek and Long Pond. Jim Bissell said that populations in the western part of Pennsylvania are in good condition. Larry Klotz noted that there are populations in two of his ponds on South Mountain, not large but still there when he last checked. Looking at the map of its distribution in North America, Steve Grund commented that for a species with a broad distribution (Florida to Alaska, California to Labrador), this species is rare in a lot of space. This suggests that it occurs in specialized habitats or, more likely, that it is undercollected. Jim Bissell noted that it can sometimes disappear from a body of water, and Ann Rhoads added that it is however every tolerant of fluctuating water level and can bloom on exposed peat. Larry Klotz agreed that it survives in his two ponds even though one of them, Mountain Run pond, dries down to mud sometimes. (The other pond appears to be spring-fed because it never dries.)

Summing up, Steve Grund said that *Schoenoplectus subterminalis* appears to fit PR criteria bordering on PT in terms of number of populations, but factors seem to suggest that it may be more common than we know, and it appears to be resistant to stress. Ann Rhoads noted that what could become threats are invasive plant species and major changes in water level. Steve Grund said that it seems to occur in a range of sites, and Larry noted that the pH of the two South Mountain ponds is 5 in the water and in the 4s in the soil. Jim Bissell said that he thinks we have found all that there is in northwestern Pennsylvania, but that probably one could find more in the northeastern part of the state. There was consensus that PR status is appropriate for this species. → PR

Sparganium angustifolium. Currently not on the official state list, but recommended by PABS (our committee) for UTF status and recommended now for PT status by Tim Block and Ann Rhoads. Ann Rhoads explained that in their experience, this species is limited to high-quality glacial lakes, and they think that it fits PT criteria well. They have not found it in impoundments. There are 11 known extant populations, and Ann and Tim estimate that there may be as many as 25, or (at the outside) 40 extant populations, and they estimate the number of individuals as at least 4,000, perhaps as many as 8,000, but almost certainly less than 15,000).

Larry Klotz asked John Kunsman if he and John had once found it in Carbon County. John Kunsman could not recall. Steve Grund mentioned that it can have either stiff or long flowing leaves. Larry said that the ones he saw were stiff. Ann Rhoads said that one can identify it vegetatively: the leaves are very narrow and not keeled, and they have a smooth convex upper surface.

Steve Grund observed that this species, *Sparganium angustifolium*, presents the reverse situation from the last: the numbers suggest that it is PT bordering on PR (rather than PR bordering on PT), and it needs high quality lakes (impoundments won't do). It is not likely that a lot more of it will be found. Ann Rhoads added that it suffers from tangling with propellers of motorboats.

We agreed to recommend PT status.

→ PT

Symphyotrichum firmum. Currently on the state TU list and recommended by PABS for PT status, but now recommended by Steve Grund for PR status. This aster often gets lumped with *S. puniceum*, and more of it keeps being discovered as people work on separating specimens and populations of the two species. *Symphyotrichum firmum* seems to thrive in damp open fields. It occurs in high quality sites but is not restricted to them; it has a wider tolerance of different hydrologies than does *S. puniceum*. It is distinguished by its long, slender, firm rhizomes, whereas *S. puniceum* has a thick caudex. In his proposal, Steve estimated no less than 20 extant populations and no more than 100 statewide, with the true number most likely between 24 and 40. He estimated that there are most likely 10,000 to 25,000 individuals (but possibly anywhere from 5,000 to 100,000). It has probably declined significantly from historic levels due to wetland conversion, but it may be stable now due to tolerance of disturbance. Six of the extant sites have enough protection to ensure long-term viability of the occurrences.

John Kunsman commented that this species could be more common than we know. Misidentifications could be a factor. Jim Bissell remarked that *S. firmum* is so common in Ohio that he never bothered nominating it; it occurs all over glacial wetlands. He added that one does need the underground parts to distinguish specimens. Steve Grund noted that there tend to be differences in pubescence but the species overlap. If one tries to key out a specimen of *S. firmum* with Gray's Manual, one ends up at *Aster puniceus* (= *S. puniceum*). Gleason and Cronquist's key works, however. Not everyone recognizes *S. firmum*; hence Heritage rankings from adjacent states are not available.

In the field, there are additional considerations. Jim Bissell observed that *S. firmum* can grow in dry sites because the rhizomes can grow up and out of the water. With regard to distinguishing it from *S. firmum*, Jim added that *S. firmum* has light blue-white flowers and grows into very large clones. Once one gets to know it, one can identify it at 65 miles per hour. *Symphyotrichum puniceum*, in contrast, grows in clumps here and there. Steve Grund agreed that when the two species grow together, one can tell them apart.

Bonnie Isaac noted at this point that Joe Isaac found 20 new sites a couple of years ago. We will be able to add them to the database when Carnegie's report is completed. The sites are in an area from east of Hartstown on down to Mercer County, over to the state line, and across Crawford County. There is no question that the species is native and growing naturally.

On the basis of this full discussion, we reached consensus to delist the species.

→ N

Viola renifolia. Currently on the state TU list, recommended by PABS for PX status, and now proposed by David Werier for PE status because he discovered a population in Susquehanna County. David told Steve that *V. renifolia* is very distinctive vegetatively. He estimated the number of populations in the state to be one at minimum, more likely 2-

5, and possibly as many as 20; and he estimated the number of extant individuals to be 50-2,000 (most likely in the 100-250 range).

Rocky Gleason noted that John Kunsman recommended that they send a specimen to Harvey Ballard. Ballard suggested that they just send him a scan, which they did, and within an hour Ballard replied that it was unquestionably *V. renifolia*. (Bonnie Isaac remarked that Harvey Ballard routinely identifies from photocopies and scans.)

Ann Rhoads said that the Philadelphia Academy of Natural Sciences has a record from Jim Bissell. Jim said that he would look at it. He has a case of specimens in the Cleveland Museum, confirmed as *V. renifolia* by someone, perhaps Ballard, but the confirmation was then retracted. It was not *V. renifolia* after all.

Steve Grund said that as for the Susquehanna County plants, he thinks that we can be confident of its identification if both David Werier and Harvey Ballard agree on *V. renifolia*. John Kunsman said that on this species, at least some leaves are reniform but not all, and some leaves can be more cordate.

Rick Mellon remarked that the species is probably undercollected. It occurs in the Cayuga Lake basin in calcareous regions and he would not be surprised if there are more of it anywhere in the northern tier of Pennsylvania. We should be looking for it. Nonetheless, with only one known extant population at this time, we reached consensus to recommend PE status. → PE

Utriculata inflata. Currently not on the state list, recommended by PABS (our committee) for UEF status, and now proposed by Tim Block and Ann Rhoads for delisting based on increasing population size. Ann Rhoads explained that 20 years ago we didn't even know it was in Pennsylvania. John Kunsman found it in Sullivan County and identified it as *Utriculata radiata*. Five or six years ago it was found in more lakes, and now they are finding it with increasing frequency, in various waterbodies ranging from natural glacial lakes to small artificial ponds. They have 15 extant populations and estimate that there are likely between 15 and 30, or possibly as many as 50 populations. The estimated number of individuals is at least 50,000, likely between 50,000 and 100,000 but conceivably as many as 250,000. It is a plant of the southeastern coastal plain that is clearly moving north. There are records in New York and Massachusetts from the 1980s and 1990s. It is not clear how it is coming in; perhaps on boats and waterfowl. It can be very aggressive. Ann noted that they have seen lakes full of this species, along with *Utriculata purpurea*, and *U. inflata* is holding its own, even besting the *U. purpurea* in places. It occurs in glacial lakes, farm ponds (in which it blooms in October), and in a shallow impoundment next to the Francis E. Walter Dam (in which it blooms in May). Although it is not easy to distinguish when it is not blooming, Ann and Tim believe that they can distinguish it in the vegetative state, and it has exploded in the northeast. They do not think that it needs protection. The oldest record is John Kunsman's. Originally it occurred in western Luzerne County and eastern Sullivan County, but many are now showing up in Pike County.

Steve Grund said that it sounds as if the species is not native to Pennsylvania and that we should delist it. Jack Holt said he wouldn't necessarily conclude that it wasn't native, but it could certainly go off the list based on other factors. All agreed. → N

Elodea schweinitzii. Ann Rhoads reported that this species of waterweed was collected three or four times in Northampton County in the 1800s, and it was also collected once in southeastern New York not too far from the Pennsylvania border. That is its global record. Recently, in *The Flora of North America*, the person working on its family concluded that this species was a transient hybrid. There is no evidence that it persists, and it is anomalous in a number of ways. For example, it has perfect flowers, whereas *Elodea* is normally dioecious.

Steve Grund asked if Ann's conclusion was that we should follow the *Flora of North America's* lead on this species and delist it. Ann indicated that it grows, or grew, where *E. canadensis* and *E. nuttallii* both occur, so it could indeed be a hybrid. She doesn't know if anyone's looked at the chromosomes, and the material is too old to do DNA analysis. Some people have tried to relocate it, including the *Flora of North America* author, and have concluded that it's not there. John Kunsman agreed that a couple of folks have looked for it. Bethlehem and Nazareth are the two historical locations, so they call it the "Jesus waterweed."

The question was whether to let it remain PX and watch the literature to see what opinions develop on its status as a species, or to change its status to UXT to reflect the fact that we are uncertain about whether or not it is a good species, a persistent hybrid, or a transient hybrid (transients do not merit listing). There was some discussion about the extent to which the author of the *Flora of North America* consulted with other experts before concluding that *E. schweinitzii* was a transient hybrid. As a practical matter, Jack Holt noted that the "Jesus sites" are too old to trigger environmental review. Steve Grund and Bonnie Isaac noted that if a live population ever does turn up, we can check the chromosomes.

We agreed that given the uncertainty, UXT status is appropriate. → UXT

Feedback on the new proposal form. Steve Grund reminded us that he is eager to get feedback on the new form for species status change proposals. Its focus on extrapolation of known population numbers to the number in the whole state and its focus on trends were inspired by the ongoing discussion in the Pennsylvania Biological Survey Steering Committee concerning possibly adopting the IUCN system of categorizing species. The Vascular Plant Technical Committee has had a subcommittee examine both the IUCN and the Explicit NatureServe systems for categorizing species, and the new proposal form is the immediate response to that examination. However, Steve said, we will be watching how the NatureServe and IUCN systems evolve and we may eventually adopt the IUCN system. Carol Loeffler asked if we expect the IUCN system to improve, since the

subcommittee was not overwhelmed by its applicability to the type of data we have available. Susan Munch also cautioned that extrapolation doesn't necessarily work well; she has learned the habitat of particular rare species so as to search similar habitat and has not found the rare species in that similar habitat, so one simply can't assume that rare species will turn up anywhere else. Steve said that there are issues of what *is* potential habitat, and there is the issue of dispersal.

Jack Holt proposed that we go through the entire form as a group and make suggestions. Steve Grund said that he thought that we should do that with the Vascular Plant Technical Committee, as a smaller group. He noted that he had gotten a comment that the new form asks for so much information that people may be reluctant to propose changes. This could be unfortunate if, for example, someone knew of three populations of a plant species that got destroyed by housing developments but did not know anything about how the species was faring in the rest of the state and therefore didn't feel qualified to make a proposal. In such situations, he urged, people should contact him or John Kunsman or others, and they could do a joint proposal. There was general agreement that this would be helpful.

Ann Rhoads noted that Steve Grund did a good job of including the various categories that should be included. She said that she finds the form "clunky," however.

Steve repeated his invitation for us to look through the form and e-mail suggestions to him or to others on the Vascular Plant Technical Committee.

Jim Bissell noted that he couldn't get the proposals by e-mail because of his e-mail's security system, and Steve Grund said that he meant to bring a CD for Jim and that he can mail CDs to anyone who needs the proposals sent that way.

The meeting adjourned at 2 PM.

Respectfully submitted,
Carol Loeffler