

**Species Conservation Project-  
Addenda to Technical Conservation Updates**

**Challenge Cost Share Agreement with  
The Colorado Natural Heritage Program,  
In Partnership with the Wyoming Natural Diversity Database**

**October 4, 2006**

**Project Participants**

<b>USFS</b>	<b>CNHP</b>	<b>WYNDD</b>
Gary Patton	David G. Anderson (Principal Investigator)	Gary Beauvais
Andy Kratz	Susan Spackman Panjabi	Bonnie Heidel
Nancy Warren	John Sovell	Joy Handley
Richard Vacirca	Karin Decker	
Kimberly Nguyen	Brad Lambert	

**Project Background**

Technical Conservation Assessments produced by the Rocky Mountain Region's (R2) Species Conservation Project (SCP) are intended to serve a variety of purposes. Ultimately, they are a component of a broad science platform being developed to reshape planning for and management of national forests into one that is strategic in nature and founded on scientific knowledge of sound ecosystem principles. Species Conservation assessments are intended to stand alone as premier conservation resources on approximately 225 species and as input to a process that synthetically marries ecological processes and conditions with species needs to lay a foundation for ecologically based forest management.

Technical Conservation Assessments are also intended to serve as principle long-term resources for US Forest Service (USFS) biologists, line officers and managers. Traditionally, biologists across the USFS (not to mention other agencies) independently acquire their own resources on species and species conservation (to the extent they can find anything), and synthesize and interpret it in their own way. Not only does this result in a vast waste of time on repeatedly duplicative work, but it is extraordinarily inconsistent and results in varied interpretations. These assessments aim to: eliminate vast expenditures of time and effort spent over and over again by biologists throughout the agency, certainly in Region 2; make a comprehensive source of scientifically prepared and peer reviewed information readily available to all biologists; and provide a consistent synthetic and interpretive treatment of the knowledge base.

At the outset of the project, it was recognized that in order to meet USFS objectives for these assessments, they must be "living" resources. That is, if they are written and published, and that's it, they begin to grow out of date as soon as they are published; some faster than others, but all begin to head down the path to at least partial obsolescence. It would not be long before biologists, recognizing that new information is

always developing, are back on the old path of individually acquiring and interpreting information. Therefore, a mechanism is needed to keep the information in the existing assessments contemporaneous with current knowledge. It is crucial that Technical Conservation Assessments can be counted on to provide the best and most up-to-date knowledge on the biology, ecology, conservation, and management of these species. They also must continue to be available via the internet, and the website developed for this project must also remain up-to-date by providing the latest information for each taxon.

### **Pilot Project Overview**

To explore possible solutions to the challenge of keeping assessments up-to-date, the Colorado Natural Heritage Program and the Wyoming Natural Diversity Database met with USFS personnel (Gary Patton and Richard Vacirca) in July, 2005. At this meeting and in subsequent discussions we drafted an approach to updating the technical conservation assessments. This approach was then implemented as a pilot project to test these methods by updating 16 technical conservation assessments (Table 1). The 16 assessments that we selected for this pilot project were chosen from among those that were published at that time to try and capture a representative sample of existing assessments with respect to four variables:

1. Major group (plant, vertebrate, invertebrate)
2. Time since publication of the assessment
3. Amount of new information available since publication of the assessment
4. Assessments written by CNHP/ WYNDD versus assessments written by authors not affiliated with CNHP/WYNDD

The process for updating the technical conservation assessment sample was implemented in September 2005, and the 16 addenda were completed in October 2006.

Table 1. Species for which WYNDD and CNHP completed Addenda.

<b>Plants</b>		<b>CNHP/WYNDD</b>	<b>Addendum Author</b>
<i>Botrychium campestre</i>		WYNDD	Joy Handley/Bonnie Heidel
<i>Ipomopsis globularis</i>		CNHP	Susan Spackman Panjabi
<i>Ipomopsis polyantha</i>		CNHP	David G. Anderson
<i>Mimulus gemmiparus</i>		CNHP	Karin Decker
<i>Oenothera harringtonii</i>		CNHP	Karin Decker
<i>Penstemon absorkaensis</i>		WYNDD	Bonnie Heidel
<i>Descurainia torulosa</i>		WYNDD	Bonnie Heidel
<i>Telesonix jamesii</i>		CNHP	Susan Spackman Panjabi
<b>Invertebrates</b>			
<i>Acroloxus coloradensis</i>	Rocky Mountain Capshell	CNHP	John Sovell
<i>Oreohelix strigosa cooperi</i>	Cooper's Rocky Mountainsnail	CNHP	John Sovell

## **Vertebrates**

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<i>Bufo boreas</i>	Boreal Toad	CNHP	Brad Lambert
<i>Catostomus discobolus</i>	Bluehead Sucker	WYNDD	Gary Beauvais
<i>Charadrius montanus</i>	Mountain Plover	WYNDD	Gary Beauvais
<i>Melospiza lincolni</i>	Lincoln's Sparrow	WYNDD	Gary Beauvais
<i>Platygobio gracilis</i>	Flathead Chub	WYNDD	Gary Beauvais
<i>Vulpes velox</i>	Swift Fox	WYNDD	Gary Beauvais

## **Approach**

The “update team” (consisting of USFS, CNHP, and WYNDD cooperators) developed a method of updating technical conservation assessments with the following considerations in mind:

*Simplicity:* The methods must be easily applied to facilitate both their authorship and readability.

*Flexibility:* The methods must be such that they can be broadly applied and used for any technical conservation assessment.

*Transparency:* The methods must be repeatable and clear to both the author and the user. The means by which the information was obtained must be clear to the user. The methods and format must be consistently applied to all updates to produce uniform reports so that they are easy to use and so that users can find what they need easily.

## **Methods**

The addenda consist of two parts- the checklist and the summary. The checklist is intended to provide an overview of the resources consulted and the means by which information was obtained. The checklist is a table that is flexible in its format but it includes categories that are considered mandatory for each update (See Appendix A). The references obtained from each source are cited in the “results” column of the checklist, and the numbers cited in the checklist are linked to the numbered references in the summary.

The summary is prefaced by a section that summarizes the implications of all of the new information. This is divided into sections (distribution, taxonomic status, agency status, other, and significance of change relative to original assessment). In the “significance of change relative to original assessment” section the authors include a statement about whether a full revision of the original assessment is needed.

The introductory portion of the summary is followed by a section that is similar to an annotated bibliography, in which each new reference is numbered. The full citation for each reference is provided here and the reference is summarized. Then the sections of the original assessment that are affected by this reference are listed.

## **Assessment of Pilot Project Methods**

The authors of the addenda in this pilot project felt that the process developed by the update team was very effective. The goals of simplicity, flexibility, and transparency were reached successfully in the 16 addenda. The methods were found to be applicable to all assessments. The information presented in the addenda is clearly presented for the user, and the methods were economical and easily applied. The authors and CNHP and WYNDD feel that this process, with only some minor modifications, is suitable for meeting the needs of the USFS in maintaining the relevance and utility of the portfolio of existing technical conservation assessments.

### **Suggested Improvements to the Existing Format**

Overall the update team was happy with the format for the addenda, but some refinements were made during their synthesis. Other minor changes are planned for future addenda, as follows.

- The introductory paragraph language used in the checklist will be improved to maintain consistent use of tense.
- New headings will be used in the first section of the summary to more clearly summarize the new information and implications of the addendum. These will provide a clearer overview of the new information by separating biology and ecology information (distribution, taxonomic status, or other issues) from conservation issues (agency status, threats, or other issues).
- The language used in the summary will be refined to provide clearer guidance on whether a full revision of an assessment is warranted, or whether another addendum will suffice for keeping the assessment current. This is often a difficult judgment call for the author to make, but the weight of all new information and the author's expertise will be brought to bear in making this decision.

### **Assessment of Pilot Project Budget**

Originally, the update team estimated that an average of six days would be needed to complete one addendum. The update team recognized that some assessments would require considerably more effort than others when a great deal of new information was available, but it was estimated that six days represented what would probably be an average length of time to complete one addendum. Overall, six days was an appropriate amount of time for completing addenda. Some species included in this pilot project (particularly vertebrates) required one or more additional days because there was a great deal of information available. While much of the new information found was not relevant, sorting through new information (particularly information from Internet sources) required considerable effort. For most species, six days was appropriate, and for a few five days was appropriate, where there was very little new information. In general, it was easier to update assessments that had been written by WYNDD or CNHP, because we were more familiar with these taxa, but the amount of new information was far more influential in terms of time required to complete the update.

The pilot project included 12 days of funding for project preparation, management, and for preparing the final deliverables. However, this amount of time was insufficient for these duties. Editing addenda, providing assistance to authors, and administering the cost-share agreement and subcontract were more time-consuming than originally assumed. Thus, additional time will be required for these duties for preparing future addenda.

### **Next Steps**

The need to continue to keep the technical conservation assessments up-to-date is urgent. In meetings with USFS partners, it was agreed that this is a high priority for maintaining the value of the investment the USFS has made in creating the portfolio of Technical Conservation Assessments, and that all assessments should be updated within five years.

A preliminary budget for updating Technical Conservation Assessments has been developed and will be refined in cooperation with USFS partners. This budget covers the cost of updating 40 Technical Conservation Assessments per year, with a goal of updating all assessments within five years. Under this budget scenario WYNDD and CNHP will each update 20 assessments per year, with WYNDD working under a subcontract with CNHP as was done in the pilot project.

A preliminary proposal was also submitted to cover the cost of housing the SCP website on CNHP servers. The cost of housing the website will be minimal but will ensure that the website remains up-to-date with new addenda and other information.