

*U.S. Fish and Wildlife Service
Participation in Peer Review of the Draft Recovery Plan for the Mosquito
Range Mustard*

**BACKGROUND INFORMATION
AND
CONFLICT OF INTEREST DISCLOSURE**

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CURRENT EMPLOYER: none, retired

This form has two (2) parts:

- Part I – Background Information, and;
- Part II – Conflict of Interest Disclosure.

Please complete both parts, **sign** and **date** the form on the last page, and **return the form** to Joy Gober, U.S. Fish and Wildlife Service, by email to joy_gober@fws.gov. **Please retain a copy for your records.**

**PART I
BACKGROUND INFORMATION**

INSTRUCTIONS

Please provide the information requested below regarding **relevant** organizational affiliations, government service, public statements and positions, research support, and additional information (if any). Information is “relevant” if it is related to -- and might reasonably be of interest to others concerning -- your knowledge, experience, and personal perspectives regarding the subject matter for which this form is being completed. If some or all of the requested information is contained in your curriculum

vitae (CV), you may prefer to simply attach your CV to this form, supplemented by additional responses or comments below as necessary.

I. ORGANIZATIONAL AFFILIATIONS. Report your relevant business relationships (as an employee, owner, officer, director, consultant, etc.) and your relevant remunerated or volunteer non-business relationships (e.g., professional organizations, trade associations, public interest or civic groups, etc.).

2018 – present Professor Emeritus, Integrative Biology, University of Colorado
Denver

2017 – present Subject Matter Editor, Systematics, *Castanea*

2007 – present Adjunct Scientist, Research and Conservation, Denver Botanic
Gardens

PROFESSIONAL ORGANIZATIONS: American Society of Plant Taxonomists, Botanical Society of America, California Botanical Society, Council for Undergraduate Research, International Association for Plant Taxonomists, Southern Appalachian Botanical Society, Society for the Preservation of Natural History Collections, Society of Herbarium Curators, Torrey Botanical Society

Note: CV attached.

II. GOVERNMENT SERVICE. Report your relevant service (full-time or part-time) with federal, state, or local government in the United States (including elected or appointed positions, employment, advisory board memberships, military service, etc.).

Note: No governmental service; see attached CV.

III. RESEARCH SUPPORT. Report relevant information regarding both public and private sources of research support (other than your present employer), including sources of funding, equipment, facilities, etc.

- 2014-18 Westergaard, KB (PI), with HK Stenøien, A Widmer, R Holderegger, and LP **Bruederle** (Collaborators). Post-doctoral Research Fellowship. Towards conservation genomics: studying 'migration of adaptation' in a threatened non-model plant species. The Research Council of Norway. 4,969,000NOK, ~US\$800,000 (no direct or indirect costs).
- 2011-17 Kimbrough, DR, LP **Bruederle**, L Hartley, RM Talbot, and BS Wee. NSF Robert Noyce Teacher Scholarship Program. Promoting Undergraduate Licensure in Science Education (PULSE). National Science Foundation. \$1,199,996.
- 2010-15 **Bruederle, LP**. US Fish & Wildlife. Systematic investigations of the Federally Threatened *Eutrema penlandii* emphasizing the conservation of genetic and species diversity. \$29,387.

Note: I have listed all funding since the receipt of a contract with the USF&W in 2010; see attached CV.

IV. PUBLIC STATEMENTS AND POSITIONS. List your relevant articles, testimony, speeches, etc., by date, title, and publication (if any) in which they appeared, or provide relevant representative examples if numerous. Provide a brief description of relevant positions of any organizations or groups with which you are closely identified or associated.

- 2018 Mastin², JE, P Anthamatten, and LP **Bruederle**. Ecological niche modeling reveals divergence between tetraploid and hexaploid populations in *Eutrema edwardsii* R BR. (Brassicaceae). *Botany* 96: 813-823. <https://doi.org/10.1139/cjb-2018-0027>
- 2017 online Mastin^{1,2}, JE, N Luebke, P Anthamatten, and LP **Bruederle**. Evidence for genetic allopolyploidy in *Eutrema edwardsii* R. Br. (Brassicaceae)—implications for conservation. *Plant Systematics and Evolution* 9: 1-9.
- In revision Hardwick, RC², JE Mastin², and LP **Bruederle**. Conservation Genetics of *Eutrema penlandii* R. Rollins (Brassicaceae), a Colorado Endemic *Madrono*.
- In preparation Regier, K, E Pansing, and LP **Bruederle**. Complex patterns of morphological differentiation between *Eutrema penlandii* (Brassicaceae), a federally threatened Colorado endemic, and *Eutrema edwardsii*, its allopolyploid derivative. *Taxon*.

V. ADDITIONAL INFORMATION. If there are relevant aspects of your background or present circumstances not addressed above that might reasonably be construed by others as affecting your judgment in matters within the topics addressed in the proposed rule, and therefore might constitute an actual or potential source of bias, please describe them briefly.

There are other relevant aspects of my background that come to mind; see attached CV.

PART II CONFLICT OF INTEREST DISCLOSURE

INSTRUCTIONS

It is essential that a peer reviewer used by the U.S. Fish and Wildlife Service as part of its peer review process under the ESA not be compromised by conflict of interest. For this purpose, the term “conflict of interest” means any financial or other interest which conflicts with the service of the individual because it (1) could significantly impair the individual’s objectivity or (2) could create an unfair competitive advantage for any person or organization.¹ Except for those situations in which the Service determines that a conflict of interest is unavoidable and promptly and publicly discloses the conflict of interest, no individual can participate in a peer review process used by the Service if the individual has a conflict of interest that is relevant to the functions to be performed.

The term “conflict of interest” means something more than individual bias. There must be an *interest* that could be directly affected by your participation as a peer reviewer.

Conflict of interest requirements are *objective* and *prophylactic*. They are not an assessment of one’s actual behavior or character, one’s ability to act objectively despite the conflicting interest, or one’s relative insensitivity to particular dollar amounts of specific assets because of one’s personal wealth. Conflict of interest requirements are objective standards designed to eliminate certain specific, potentially compromising situations from arising, and thereby to protect the individual, the Service, and the public interest. The individual and the Service should not be placed in a situation where others could reasonably question, and perhaps discount or dismiss, the information produced through the peer review simply because of the existence of conflicting interests.

The term “conflict of interest” applies only to *current interests*. It does not apply to past interests that have expired, no longer exist, and cannot reasonably affect current behavior. Nor does it apply to possible interests that may arise in the future but do not currently exist, because such future interests are inherently speculative and uncertain. For example, a pending formal or informal application for a particular job is a current interest, but the mere possibility that one might apply for such a job in the future is not a current interest.

The term “conflict of interest” applies not only to the personal interests of the individual but also to the *interests of others* with whom the individual has substantial common financial or other interests if these interests are relevant to the functions to be performed. Thus, in assessing an individual’s potential conflicts of interest, consideration

¹ This definition and the other information in these instructions are drawn from the National Academy of Sciences Policy on Committee Composition and Balance and Conflicts of Interest for Committees Used in the Development of Reports (May 12, 2003).

must be given not only to the interests of the individual but also to the interests of the individual's spouse and minor children, the individual's employer, the individual's business partners, and others with whom the individual has substantial common financial or other interests. Consideration must also be given to the interests of those for whom one is acting in a fiduciary or similar capacity (e.g., being an officer or director of a corporation, whether profit or nonprofit, or serving as a trustee).

Such interests could include an individual's stock holdings in excess of \$10,000 in a potentially affected company or being an officer, director, or employee of the company. Serving as a consultant to the company could constitute such an interest if the consulting relationship with the company could be directly affected or is directly related to the subject matter of the regulatory process.

An individual's other possible interests might include, for example, relevant patents and other forms of intellectual property, serving as an expert witness in litigation directly related to the subject matter of the regulatory process, or receiving research funding from a party that would be directly affected by the regulatory process if the research funding could be directly affected or is directly related to the subject matter of the regulatory process and the right to independently conduct and publish the results of this research is limited by the sponsor. Consideration would also need to be given to the interests of others with whom the individual has substantial common financial interests -- particularly spouses, employers, clients, and business or research partners.

The following questions are designed to elicit information from you concerning possible conflicts of interest that are relevant to the functions to be performed by your peer review.

1. EMPLOYMENT. (a) If the information received by the Service through the peer review process were to provide the basis for government regulatory action or inaction with respect to the Mosquito Range mustard --

(i) If you are employed or self-employed, could your current employment or self-employment (or your spouse's current employment or self-employment) be directly affected?

(ii) To the best of your knowledge, could any financial interests of your (or your spouse's) employer or, if self-employed, your (or your spouse's) clients and/or business partners be directly affected?

(iii) If you are an officer, director or trustee of any corporation or other legal entity, could the financial interests of that corporation or legal entity be directly affected?

(iv) If you are a consultant (whether full-time or part-time), could there be a direct effect on any of your current consulting relationships?

(v) Regardless of the potential effect on the consulting relationship, do you have any current or continuing consulting relationships (including, for example, commercial and professional consulting and service arrangements, scientific and technical advisory board memberships, serving as an expert witness in litigation, or providing services in exchange for honorariums and travel expense reimbursements) that are directly related to the subject matter of the possible government regulatory action or inaction?

(b) If you are or have ever been a U.S. Government employee (either civilian or military), to the best of your knowledge are there any federal conflict of interest restrictions that may be applicable to your service in connection with this peer review?

(c) If you are a U.S. Government employee, are you currently employed by the Service?

If the answer to all of the above questions under EMPLOYMENT is either “no” or “not applicable,” check here (NO).

If the answer to any of the above questions under EMPLOYMENT is “yes,” check here (YES), and briefly describe the circumstances on the last page of this form.

2. INVESTMENT INTERESTS. Taking into account stocks, bonds, and other financial instruments and investments including partnerships (but excluding broadly diversified mutual funds and any investment or financial interest valued at less than \$10,000), if the information received by the Service through the peer review process were to provide the basis for government regulatory action or inaction with respect to the Mosquito Range mustard --

(a) Do you or your spouse or minor children own directly or indirectly (e.g., through a trust or an individual account in a pension or profit-sharing plan) any stocks, bonds or other financial instruments or investments that could be affected, either directly or by a direct effect on the business enterprise or activities underlying the investments?

(b) Do you have any other significant financial investments or interests such as commercial business interests (e.g., sole proprietorships), investment interests (e.g., stock options), or personal investment relationships (e.g., involving parents or grandchildren) that could be affected, either directly or by a direct effect on the business enterprise or activities underlying the investments?

If the answer to all of the above questions under INVESTMENT INTERESTS is either “no” or “not applicable,” check here (NO).

If the answer to any of the above questions under INVESTMENT INTERESTS is "yes," check here ____ (YES), and briefly describe the circumstances on the last page of this form.

3. PROPERTY INTERESTS. Taking into account real estate and other tangible property interests, as well as intellectual property (patents, copyrights, etc.) interests, if the information received by the Service through the peer review process were to provide the basis for government regulatory action or inaction with respect to the Mosquito Range mustard --

(a) Do you or your spouse or minor children own directly or indirectly any such property interests that could be directly affected?

(b) To the best of your knowledge, do any others with whom you have substantial common financial interests (e.g., employer, business partners, etc.) own directly or indirectly any such property interests that could be directly affected?

If the answer to all of the above questions under PROPERTY INTERESTS is either "no" or "not applicable," check here x (NO).

If the answer to any of the above questions under PROPERTY INTERESTS is "yes," check here ____ (YES), and briefly describe the circumstances on the last page of this form.

4. RESEARCH FUNDING AND OTHER INTERESTS. (a) Taking into account your research funding and other research support (e.g., equipment, facilities, industry partnerships, research assistants and other research personnel, etc.), if the information received by the Service through the peer review process were to provide the basis for government regulatory action or inaction with respect to the Mosquito Range mustard --

(i) Could the research funding and support for you or your close research colleagues and collaborators be directly affected, or

(ii) If you have any research agreements for current or continuing research funding or support from any party whose financial interests could be directly affected, and such funding or support is directly related to the subject matter of the regulatory process, do such agreements significantly limit your ability to independently conduct and publish the results of your research?

(b) Is the central purpose of the proposed rule for which this disclosure form is being prepared a critical review and evaluation of your own work or that of your employer?

(c) Do you have any existing professional obligations (e.g., as an officer of a scientific or engineering society) that effectively require you to publicly defend a previously established position on an issue that is relevant to the proposed rule?

(d) To the best of your knowledge, will your participation in this peer review process enable you to obtain access to a competitor's or potential competitor's confidential proprietary information?

(e) Could your service as a peer reviewer create a specific financial or commercial competitive advantage for you or others with whom you have substantial common financial interests?

If the answer to all of the above questions under RESEARCH FUNDING OR OTHER INTERESTS is either "no" or "not applicable," check here x (NO).

If the answer to any of the above questions under RESEARCH FUNDING OR OTHER INTERESTS is "yes," check here (YES), and briefly describe the circumstances below.

EXPLANATION OF "YES" RESPONSES:

During your period of service in connection with the activity for which this form is being completed, any changes in the information reported, or any new information, which needs to be reported, should be reported promptly by written or electronic communication to the responsible staff officer.

Leo P Bruederle

YOUR SIGNATURE

2 December 2019

DATE

Received by:

Joy Gober

Joy Gober

U.S. Fish and Wildlife Service

Mountain Prairie Regional Office

Ecological Services

12/03/2019

Date