

**FOIA APPEAL DECISION: ALL REDACTIONS FOIA EXEMPTIONS (6) & (7)(C)
(UNLESS OTHERWISE NOTED)**

BSIO Supplemental Summary Report (ESO-S0000328) of Supplemental Report, Findings and Recommendations of the Scientific Integrity Review Panel Convened to Evaluate Allegations of Scientific Misconduct at the Oklahoma Ecological Services Field Office of the U.S. Fish and Wildlife Service, April 10, 2013

Title: Publication of scientific paper while it was under review by the Scientific Integrity Review Panel. (supplement to ESO-S0000328)

Summary of supplemental misconduct (ESO-S0000328):

Based on the preponderance of evidence, the Scientific Integrity Review Panel (SIRP) finds that the actions of [REDACTED] co-authors of the paper entitled *Using Spatial Models to Target Conservation Efforts for the Endangered American Burying Beetle* by L. A. Bell, [REDACTED] D.L. Porter that was published on-line in *The Open Entomology Journal* (2013, volume 7, pages 1-8) constitute scientific misconduct. [REDACTED]

The SIRP finds that the Service-affiliated authors of the 2013 paper knowingly circumvented a directive from the Service's Assistant Director for Endangered Species to not rely upon a range map for the American Burying Beetle (ABB) in Oklahoma that was subsequently presented in and derived from a modeling analysis described in the 2013 paper.

The SIRP also finds that these Service staff knowingly impeded the efforts of the SIRP during the course of its review of allegations of scientific misconduct related, in large part, to the above referenced modeling effort and ABB range map for Oklahoma described in the 2013 paper.

Background:

On March 25, 2013, the SIRP completed a Final Report regarding allegations of scientific misconduct at the OKESFO related to the development of a new ABB range map for Oklahoma developed by OKESFO staff, based on the findings of Crawford and Hoagland (2010).

On March 29, 2013, the Service's Scientific Integrity Officer (SIO) notified the SIRP that the 2013 paper had been published. [REDACTED]

On March 29, 2013, the SIRP was asked by the SIO to prepare a supplemental report addressing whether publication of the 2013 paper and failure to disclose that effort by the above-referenced Service staff constitutes scientific misconduct or a loss of scientific integrity.

The supplemental report was prepared by the following SIRP members:

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1. A regional office branch chief, FWS Endangered Species, with expertise in the application of sections 7 and 10 of the Endangered Species Act (ESA), and 18 years of experience as a supervisor of fish and wildlife biologists conducting policy oversight of science-based applications under the FWS's section 7 and 10 programs.
2. A field office biologist, FWS Ecological Services, with expertise and 12 years of experience in applications of the ESA [REDACTED]
3. A research statistician, USGS [REDACTED] with expertise and 15 years of experience in mathematical modeling [REDACTED]

Please note that the fourth member of the original panel retired from the FWS [REDACTED] and, for that reason, did not participate in the preparation of their supplemental report.

In accordance with DOI policy, the SIRP evaluated the evidence collected in the course of its deliberations to determine if scientific misconduct and/or loss of scientific integrity occurred in the situation under consideration. The SIRP relied on the following definitions of "scientific misconduct" and "loss of scientific integrity" presented in the Department's February 1, 2011 Scientific Integrity Policy (as amended in November, 2012) in completing this supplemental report. For purposes of this supplemental report, the SIRP relied on the information used to prepare the Final Report and our review of the 2013 paper.

Definition of scientific misconduct/loss of scientific integrity:

Scientific misconduct:

- A. Fabrication--Making up data or results and recording or reporting them (Federal Policy on Research Misconduct, 65 FR 76260-76264, December 6, 2000). Fabrication does not include documented use of modeling or statistical techniques.
- B. Falsification--Manipulating research materials, equipment, or processes, or changing or omitting data or results such that the research is not accurately represented in the research record (Federal Policy on Research Misconduct, 65 FR 76260-76264, December 6, 2000).
- C. Plagiarism--The appropriation of another person's ideas, processes, results, or words without giving appropriate credit (Federal Policy on Research Misconduct, 65 FR 76260-76264, December 6, 2000). In a related way, authors are strongly cautioned not to repeat the reuse (word for word) of large portions of their previously published text and ideas without citation to the previously published work to avoid self-plagiarism.

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D. Misconduct also includes: (a) intentionally circumventing policy that ensures the integrity of science and scholarship, and (b) actions that compromise scientific and scholarly integrity. Scientific and scholarly misconduct does not include honest error or differences of opinion (305 DM 3.5.M.1).

Loss of scientific and scholarly integrity:

The original version of the Scientific Integrity policy published in the Departmental Manual did not explicitly define a “loss of scientific and scholarly integrity.” However, it defined “scientific and scholarly integrity” in part as “adherence to professional...practices, when conducting and applying the results of science and scholarship, that ensures objectivity, clarity, reproducibility, and utility and that provides insulation from bias, fabrication, falsification, plagiarism, outside interference, censorship, and inadequate procedural and information security.” Under the new draft policy, a finding of a loss of scientific or scholarly integrity is supported when a preponderance of evidence demonstrates that all of the following criteria are met: (1) the DOI Code of Scientific Conduct (Section 3.7) was not adhered to; (2) the action(s) significantly departed from accepted practices of the relevant scientific and scholarly community; and (3) such conduct was committed in an intentional, knowingly, or reckless manner. Loss of scientific and scholarly integrity may also include impeding the facilitation of the free flow of scientific and scholarly information, consistent with privacy and classification standards, and in keeping with the Department’s Open Government Plan. The new draft policy makes explicit that certain departures from professional practices (which are outlined in the original policy) constitute a loss of scientific and scholarly activity.

Findings:

Scientific Validity of the 2013 Paper

The SIRP completed a technical review of the 2013 paper and found the same substantive technical deficiencies with the modeling effort that was used to produce the ABB range map for Oklahoma as were previously identified by the SIRP in the Final Report, which is based, in part, on our review of the range map for the ABB in Oklahoma presented in Crawford and Hoagland (2010) and subsequently adopted for use by the OKESFO in 2012. The ABB range map for Oklahoma presented in the 2013 paper is identical to the map presented in Crawford and Hoagland (2010) and subsequently adopted for use by the OKESFO in 2012.

The above referenced deficiencies are related to the use of the MAXENT model by Crawford and Hoagland (2010), predictions involving the likelihood of ABB presence at localities in Oklahoma, whether ABB surveys were randomly distributed, the level of survey effort, reliance on positive ABB survey results only, and interpretation of the percent of ABB habitat present at

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a given site. For more details on the technical deficiencies identified by the SIRP, see the Final Report.

EX5(DPP)

Conflict of Interest

The SIRP finds that publication of the 2013 paper did result in a conflict of interest despite a statement in the paper by the authors to the contrary. [REDACTED] Dr. Porter, Mr. Bell, [REDACTED] are also the subject of allegations of scientific misconduct that triggered the initial SIRP review that was described in the Final Report. [REDACTED]

The primary issue in the complaint that triggered the SIO's decision to initially convene the SIRP in 2012 was the application of science associated with the development of a new ABB range map for Oklahoma based on the Crawford and Hoagland (2010) paper. As noted above, the 2013 paper at issue in this supplemental report includes the same map as the Crawford and Hoagland (2010) paper. At the time the Service co-authors of the 2013 paper were preparing to submit their paper for on-line publication in *The Open Entomology Journal*, they were not only aware of the allegations concerning the scientific validity of the new ABB range map adopted by the OKESFO based on the Crawford and Hoagland (2010) paper, they were also aware of a 2012 directive, which is still in effect, from the Service's Assistant Director for Endangered Species to discontinue any reliance on that map.

The SIRP finds that a conflict of interest exists in this situation because on the one hand the OKESFO is not relying on the same range map presented in the Crawford and Hoagland (2010) paper and in the 2013 paper in accordance with the directive from the Service's Assistant Director for Endangered Species, while at the same time the Service co-authors of the 2013 paper are promoting the scientific integrity of the map and, by association, its use.

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Regulatory Implications of the 2013 Paper

The SIRP finds that publication of the 2013 paper is likely to influence ESA section 7 and 10 compliance activities for the ABB in Oklahoma because Federal and non-Federal project proponents are likely to become aware of it and rely on its findings, including the ABB range map, as best available science unless and until the OKESFO advises them not to. In some cases, project proponents may determine that their projects will have no effect or are not likely to cause take of the ABB if their project areas fall outside the ABB range map published in the 2013 paper. Under such circumstances, project proponents may not contact the OKESFO.

Unless and until the 2013 paper is formally withdrawn, a large proportion of proposed Federal and non-Federal actions that may affect the ABB in Oklahoma are not likely to be properly regulated, as appropriate, in accordance with the requirements of sections 7 and 10 of the ESA, based on a workload analysis previously provided by the OKESFO in an ABB 5-year status review report (see p. 27 at http://ecos.fws.gov/docs/five_year_review/doc1968.pdf). The ABB range map for Oklahoma in the 2013 paper erroneously reduces the range of the ABB by 4.5 million acres. As noted above, Federal and non-Federal actions affecting the ABB may proceed with no coordination with the OKESFO that would or should otherwise trigger proper regulatory procedures, as appropriate. Such unregulated effects are likely to further degrade the endangered status of the ABB in Oklahoma. At the very least, the availability of the 2013 paper is likely to confuse the public and undermine credible ESA regulatory activities for the ABB in Oklahoma.

Lack of Proper Supervisory Notification

[REDACTED]

Non-Compliance with the Service's Manual

Section 117 FW 1 of the Service's Manual provides procedures for publication of scientific information. Service policy mandates that Service employees must include a disclaimer on the publication and provide a copy of the draft publication to their supervisor to ensure the supervisor is aware of it. [REDACTED] Dr. Porter did not notify and provide her supervisor with a copy of the draft 2013 paper.

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Lack of Appropriate Notification to the SIRP

Although occurring at the same time, at no time did the Service co-authors of the 2013 paper advise the SIRP of their intent to publish the 2013 paper, which includes modeling methods and the ABB range map that were central to the SIRP's review of allegations of scientific misconduct at the OKESFO.

SIRP Conclusions

The actions of Dr. Porter, Mr. Bell, [REDACTED] constitute scientific misconduct: (1) by intentionally and knowingly circumventing the Assistant Director of Endangered Species' directive to not rely on the methods and the ABB range map that was subsequently reported in the 2013 paper; and (2) by likely compromising, in part, proper regulatory compliance with the requirements of sections 7 and 10 of the ESA, as appropriate, for actions affecting the ABB in Oklahoma as a result of the on-line dissemination of the 2013 paper for use by the public.

These actions intentionally circumvented policy that ensures the integrity of science and scholarship, and compromised scientific and scholarly integrity.

BSIO Conclusion and Recommendations:

[REDACTED] EX5(DPP) Despite the ongoing review and concerns raised by the SIRP, Dr. Porter, Mr. Bell, EX5(DPP)/EX6/EX7C [REDACTED] quickly publish their flawed model application EX5(DPP) [REDACTED] circumventing policy to advise the supervisor and failing to disclose this intent to the SIRP during their interviews. Their action directly undermines the scientific application of endangered species policy throughout Oklahoma.

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EX5(DPP)

