Robustness, Transparency and Fiscal Soundness: Three Requirements for USDA/NIFA's National Monitoring Plan for Native Bees

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I. Core Issue: All models and datasets used to estimate native bee populations must comply with the Data Quality Act

II. Data Collection and Modeling is the Basis for Understanding Native Bee Populations

A. Data Collection

- i. Robustness. The collected data needs to be robust.
- ii. <u>Inferences</u>. The sample size needs to be large enough to permit knowledgeable inferences.

B. Models

- i. <u>DQA Requirements</u>. The models need to comply with the transparency, reproducibility and other requirements of the Data Quality Act.
- ii. <u>Early Public Vetting of Models</u>. The models need to be put out for public comment *before* the models are used with real data—this is essential for avoiding the waste of federal resources.

III. NIFA Should Spend Federal Resources Only on Useable Data and Models

- A. Federal law prohibits agencies from relying on data which does not meet DQA standards.
- B. Thus, NIFA's first order of business in developing the Native Bee National Monitoring Plan is vetting studies, models and datasets to ensure that they are eligible for use.

IV. Why Native Bees Studies and Data Need to be DQA-Vetted: The Woodcock Example

- A. CRE is undertaking an independent reanalysis of a well-known study of non-Apis bees, "Impacts of neonicotinoid use on long-term population changes in wild bees in England" by Dr. Benjamin Woodcock, Nicholas Isaac, et al. to assess whether it complies with the requirements of the US Data Quality Act.
- B. CRE has contacted the lead study author and requested a copy of the data that was used. We received a prompt and gracious offer to provide us with the data but we have not yet received the data itself

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- C. One of the DQA's requirements for influential scientific information is that it provides "sufficient transparency about data and methods that an independent reanalysis could be undertaken by a qualified member of the public. . . ."
- D. CRE will be evaluating the Woodcock study's compliance with the DQA

V. Conclusion

■ USDA/NIFA's National Monitoring Plan for Native Bees can accept studies, datasets, and models only *after* the information demonstrates compliance with the Data Quality Act.