1. Scope of the talk: Agency advocacy over terrestrial biodiversity conservation on U.S. federal lands. Summary:
    a. Three principle statutory/regulatory schemes affect federal biodiversity outcomes (apart from species-specific measures like the ESA, Migratory Bird Treaty Act, and Eagle statutes): NFMA; FLPMA; and NEPA.
    b. Major barriers to effective biodiversity advocacy with U.S. federal agencies: judicial deference to agencies; weak laws; and climate-related uncertainty.
    c. Strategies for dealing with these obstacles: develop strong, fact-based records with agencies; work jointly with other scientists/societies; petition for rule/plan changes.
2. NFMA: Unique diversity requirement.
    a. Governs management plans for national forests, that are intended to run for 10-15 years.
    b. Statute sets some minimum standards for plans/regulations, including – uniquely for domestic legislation – that the planning regs shall "provide for diversity of plant and animal communities;" other federal law mentions of biodiversity have almost exclusively international application, governing financial aid, for instance.
    c. Regulations have put meat on the bare statutory bones of NFMA, creating an obligation to maintain population viability that courts have interpreted as requiring community-level protections.
    d. In practice, the NFMA regs' viability requirements have up to now functioned as an anti-extirpation rule, reaching species before they get in serious trouble and requiring that their populations be "well-distributed" in the planning area, typically a national forest or two.
    e. New regulations, adopted last year, incorporate some more current conservation biology thinking, including a coarse filter/fine filter approach to biodiversity planning, and they helpfully require use of the best available science. They also reach more species than the old regs, whose viability requirement was limited to vertebrate species. However, the 2012 regs also drop the "well-distributed" requirement, meaning that local extirpations may now occur within the planning unit, so long as not all populations or parts of a population are eliminated. And they incorporate numerous loopholes that could be used to ignore developing biodiversity problems.
3. FLPMA: The weakest of the three.
    a. Governs BLM planning and other activities like land exchanges, special permits, and rights-of-way.
    b. Articulates an overarching, but almost quaint, policy of "provid[ing] food and habitat for fish and wildlife."
    c. The statute and the regs unfortunately do not create enforceable standards for how that is accomplished.

d. The principle functional mechanism for protecting biodiversity is creation of Areas of Critical Environmental Concern, something that must be done through the land management plan development process. If you want an important biodiversity resource or area conserved on BLM lands, focus on getting an ACEC in a plan amendment or revision.

4. NEPA: the broadest and strongest law.
    a. Seen as "merely procedural," it is always relevant when federal actions affect biodiversity.
    b. It applies to all actions undertaken, approved, or funded by federal agencies, with the partial exception of EPA.
    c. Most broadly, NEPA furnishes the basis for informed public engagement in federal decisionmaking.
    d. Of particular importance for scientists, it (i) guarantees the scientific integrity of federal decisions; (ii) requires that agencies disclose any scientific methodology on which they rely; and (iii) requires that agencies respond in writing to responsible scientific input.
    e. The courts have specifically found that it applies to biodiversity impacts, requiring consideration of the ecological importance of biological corridors, and identifying biodiversity effects as significant impacts needing study in an EIS.
    f. It helps to think of NEPA as our federal anti-BS law. When you suspect an agency of hiding things, ducking outside opinion, giving specious reasons for not considering less environmentally-harmful versions of their proposals, or in some other way no being frank about what it is up to and why, think first and foremost about NEPA. I rarely sue over a federal land management decision without including a NEPA claim, and enjoy great success.
5. Barriers to Effective Biodiversity Advocacy with Federal Agencies:
    a. Judicial Deference. For many years, the Supreme Court has told federal judges that they need extraordinary reasons to second guess the decisions agencies make in the discharge of duties Congress has assigned them. The judges know this, and more significantly, so do the agencies, who now count on this great courtroom advantage. This applies in spades to decisions based on agency expertise, which often means technical or scientific matters, and rises to an almost insurmountable hurdle when agencies are choosing what methodology or models to rely on.
    b. Wiggle room. The statutes discussed above furnish few hard and fast standards to measure agency compliance by. The new, 2012 NFMA regs in particular, include a half dozen ways for Forest Service officers to claim they are protecting biodiversity but allow harmful activities. A partial exception is the standard for preparing a full-blown EIS under NEPA, which in most federal jurisdictions is merely that a decision <u>may</u> cause significant environmental impacts.

c. Climate change. The competitor for science in agency decisionmaking is "professional judgment." Science is fact-based. Professional judgment is not. There are precious few empirical data about what effects climate change has on ecosystems. As a result, agencies are far better off when they decide to ignore scientific input about responding to climate change, in favor of professional judgment, then they are for many other issues.

6. Strategies for Dealing with Hurdles:
    a. Develop fact-based records for agency comment processes, that put in front of decisionmakers the relevant scientific evidence the agency has failed to collect for itself and tell them what it means. In her talk yesterday, many of you heard Francesca Grifo of UCS propose three "baskets" for science advocacy: (i) the facts; (ii) what the facts mean; and (iii) opinion about what the decisionmaker should do. The first two baskets are the sweet spot for scientific input, particularly from solo commenters. Failure to deal with facts, and to respond to assertions about what the facts mean about the most likely consequences of a course of action, violate the basic law about agency decisionmaking, the Adminstrative Procedure Act. In short, while agencies can often with impunity chose one opinion over another, never under-estimate their ability to trip over inconvenient facts.
    b. Produce reports that distill the relevant science. This is most effective undertaken jointly with other scientists, and can be extremely powerful when done under the auspices of several scientific societies. It's particularly important to act jointly with other societies when moving into Grifo's third basket, opinion about actual management standards. SCB did this together with several other groups, including the ESA, AFS, Wildlife Society, and Cooper Society in the 1990s, to make a compelling case for a 20" diameter limit on national forest logging that, raised incrementally to 21", has basically been the law of the land since.
    c. File petitions for agency action. The Administrative Procedure Act gives anyone the ability to petition an agency to change what it's doing. While there are legal pitfalls, and it takes a lawyer familiar with the process to guide you through it, where agencies are sitting pat and ignoring developing biodiversity crises, a well-executed APA petition can change the landscape, figuratively and literally.